

# Oracle® Cloud

## Metric Reference for Oracle Infrastructure Monitoring



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# Preface

**Topics:**

- [Audience](#)
- [Related Resources](#)
- [Conventions](#)

## Audience

This document is intended for IT infrastructure administrators using the Oracle Infrastructure Monitoring. It describes the set of configuration and performance metrics supported by this service.

## Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

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## Related Resources

For more information, see these Oracle resources:

- Getting Started with Oracle Infrastructure Monitoring in *Using Oracle Infrastructure Monitoring*
- [Oracle Cloud](#)



# Conventions

**Table 1 Text Conventions**

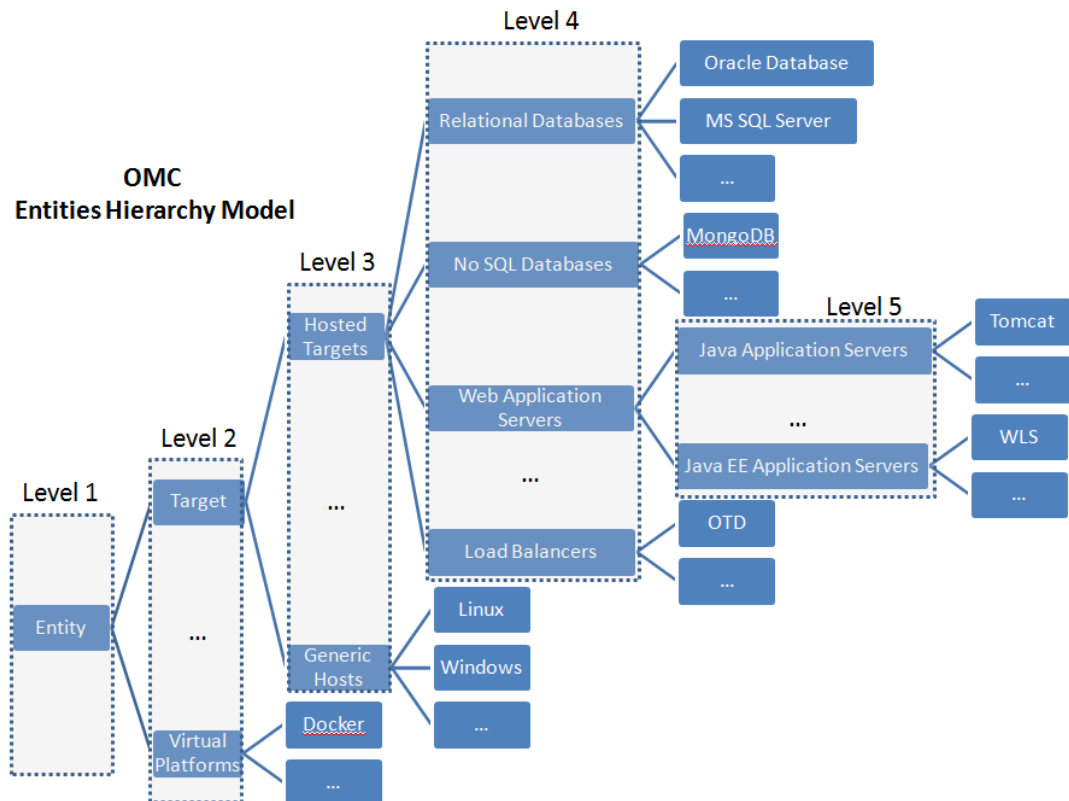
Convention	Meaning
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates the book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph. URLs, code in examples, text that appears on the screen, or text that you enter.

# 1

## List of Supported Entities

Oracle Infrastructure Monitoring collects various status, performance, and configuration metrics for all supported entities.

Each entity in Oracle Management Cloud is defined using a multi-level hierarchical model as pictured below.



Each entity or entity type is defined by a set of characteristics, it has a parent and may have other children. For example, a *Generic Host* is an operating system (OS) independent *Target* and it has children entities that are specific OS Hosts, like *Linux*, *Windows* and so on. . The metrics collection functionality takes advantage of this model so each monitored entity has entity-specific metrics as well as metrics inherited from each level it descended from. For example, OMC collects metrics at level 3 that are common to all *Generic Hosts*, independent of the vendor. A *Linux Host*, since its parent is a *Generic Host*, inherits all the metrics collected for *Generic Hosts* and its ancestors, as well as *Linux* specific ones, if any.

Following is a list of entities supported by Oracle Infrastructure Monitoring. Note each entity lists first the entity-specific metrics followed by the metrics inherited from a parent in the definition model.

- Hosts
  - Host (Linux)
  - Host (Solaris)

- Host (Windows)
- Host (AIX)
- Fujitsu
- Intel/SPARC
- Host (Generic)
- Virtual Servers
  - Docker Container
  - Docker Engine
  - Xen Virtual Platform
  - Xen Virtual Server
  - Microsoft Hyper-V Virtual Platform
  - Microsoft Hyper-V Virtual Server
  - Virtual Server (Generic)
  - Oracle JVM Runtime
- Relational Databases
  - Oracle Database
  - Autonomous Data Warehouse
  - Autonomous Transaction Processing
  - MySQL Database
  - Microsoft SQL Server Database
  - AWS RDS Instance
  - Relational Database (Generic)
- NoSQL Databases
  - MongoDB Database
  - Oracle NoSQL
  - CassandraDB
  - AWS DynamoDB
- Storage Management
  - Oracle Automation Storage Management
  - NetApp FAS
  - ZFS Storage Appliance
  - Oracle Flash Storage
  - EMC VMAX
  - EMC VNX
- Listeners
  - Oracle Database Listener
  - Oracle Database Listener Cluster

- 
- Listener (Generic)
  - Java Application Servers
    - Apache Tomcat
    - JBoss Server
    - Oracle JVM Runtime
  - Java EE Application Servers
    - Oracle WebLogic Cluster
    - Oracle WebLogic Server
    - SOA Infrastructure
    - Oracle Service Bus (OSB)
  - Web Application Servers
    - Apache HTTP Server
    - Oracle HTTP Server
    - Web Application Server (Generic)
    - NGINX
    - Microsoft Internet Information Services
  - Load Balancers
    - Oracle Traffic Director Instance
    - Oracle Traffic Director Cluster
    - F5 BIG-IP LTM
    - Load Balancer (Generic)
  - Physical Switches
    - Cisco Ethernet (Catalyst) Switch
    - Oracle Infiniband Switch
    - Juniper Physical Switch
    - Arista Ethernet Switch
    - Cisco Nexus Ethernet Switch
    - Brocade Fibre Channel Switch
    - Oracle ES2 Ethernet Switch
    - Physical Switch (Generic)
    - L2/L3 Generic Network Node
  - Cloud
    - Oracle Compute Cloud Service Instance
    - AWS EC2 Instance
    - AWS Elastic Block Store (EBS)
    - AWS Lambda Function
    - AWS Redshift Cluster

- 
- AWS ELB Instance
  - AWS ELB Application Instance
  - AWS SNS
  - AWS SQS
  - Microsoft Azure VM Instance (Compute)
  - Microsoft Azure Logic Application Service
  - Microsoft Azure VM Scale Set
  - Microsoft Azure API Application Service
  - Microsoft Azure Application Service Plan
  - Microsoft Azure Application Gateway
  - Microsoft Azure Event Hub Namespace
  - Microsoft Azure Functions Application
  - Microsoft Azure Mobile Application
  - Microsoft Azure Web Application
  - Applications
    - Microsoft SCOM
    - Docker Swarm
    - VMware vCenter
    - Oracle Access Manager Server
    - Oracle Access Manager Cluster
    - Kubernetes Cluster
    - Kubernetes Node
    - Kubernetes Pod
    - EBS
  - Firewalls
    - Juniper SRX
    - Arbor Networks TMS
    - Arbor Networks CP
    - Juniper Netscreen
  - Networking
    - Oracle Virtual Networking
    - Juniper MX
    - F5 BIG-IP DNS
    - Router (Generic)
  - Other
    - Power Distribution Unit (PDU)
    - Apache SOLR

- Hadoop DataNode
- Hadoop Journal Node
- Hadoop HDFS
- Hadoop NameNode
- Hadoop NodeManager
- Hadoop Resource Manager
- Hadoop YARN
- Microsoft Exchange
- Microsoft Active Directory
- Apache ZooKeeper
- Apache Kafka
- Apache Kafka Cluster
- Oracle Coherence
- Oracle Unified Directory Replication Gateway
- Oracle Unified Directory Server
- Oracle Unified Directory Proxy Server
- Oracle Internet Directory
- Oracle Identity Manager
- WebLogic Node Manager
- Oracle Clusterware (CRS)
- Oracle GoldenGate
- Oracle E-Business Suite (EBS)
- Oracle PeopleSoft
- Siebel

## Amazon Web Services (S3)

There are no Amazon Web Services (S3)-specific metrics supported. All metrics are inherited from a parent entity as listed below.

**Table 1-1 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

# Apache HTTP Server

**Table 1-2 Supported Configuration Metrics for Apache HTTP Server**

Metric Group	Name	Unit	Default Collection Frequency	Description
Virtual Hosts	IP Address	NA	1 Day	IP address of the Virtual Host
Virtual Hosts	Port	NA	1 Day	Port of the Virtual Host
Virtual Hosts	Server Name	NA	1 Day	Server Name of the Virtual Host
Virtual Hosts	Server Type	NA	1 Day	Server Type of the Virtual Host
Listen Addresses	IP Address	NA	1 Day	IP address of the Listening Server
Listen Addresses	Port	NA	1 Day	Port of the Listening Server
Listen Addresses	Protocol	NA	1 Day	Connection protocol for the Listening Server
Configuration Overview	Maximum Clients	NA	1 Day	Maximum number of server processes allowed to run at one time
Configuration Overview	Maximum Requests Per Child	NA	1 Day	Total number of requests each child server process serves before the child dies
Configuration Overview	Maximum Spare Servers	NA	1 Day	Maximum number of Spare Server Processes
Configuration Overview	Minimum Spare Servers	NA	1 Day	Minimum number of Spare Server Processes
Configuration Overview	Start Servers	NA	1 Day	Number of server processes created upon startup
Configuration Overview	Timeout	sec	1 Day	Amount of time the server waits for receipts and transmissions during communications
Configuration Overview	Listen Backlog	NA	1 Day	Maximum length of the queue of pending connection

**Table 1-2 (Cont.) Supported Configuration Metrics for Apache HTTP Server**

Metric Group	Name	Unit	Default Collection Frequency	Description
Configuration Overview	Keep Alive	NA	1 Day	Indicates if server allows more than one request per connection (ON) or not (OFF)
Configuration Overview	Maximum Keep Alive Requests	NA	1 Day	Maximum number of requests allowed per persistent connection
Configuration Overview	Keep Alive Timeout	sec	1 Day	Wait time for the server after serving a request
Configuration Overview	SSL Session Cache Timeout	sec	1 Day	Timeout for the information stored in the global/inter-process SSL Session Cache
Configuration Overview	Hostname Lookups	NA	1 Day	Indicates whether DNS Lookups are enabled on client IP address (ON) or not (OFF)
Configuration Overview	Log Level	NA	1 Day	Level Detail of the Error Logs ( emerg, alert, crit, error, warn, notice, info or debug )

**Table 1-3 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity



**Table 1-4 Supported Status and Performance Metrics for Apache HTTP Server**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Performance Overview	Load	Data Served Rate	KB/sec	5 Min	Size of data served per second
Performance Overview	Load	Busy Workers Utilization	%	5 Min	Percentage of busy workers
Performance Overview	Load	Idle Workers	NA	5 Min	Total number of Idle Workers
Performance Overview	Load	Busy Workers	NA	5 Min	Total number of Busy Workers
HTTP Connections	Load	HTTP Connection Rate	conns/sec	5 Min	Total number of HTTP Connections per second

**Table 1-5 Supported Status and Performance of Web Application Server**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Web Requests	Load	Web Request Processing Time	ms	5 Min	Average processing time per web request since the last collection
Web Requests	Load	Web Request Rate	ops/min	5 Min	Number of web requests per minute since the last collection
Web Application Component	Load	Open HTTP Sessions	NA	.	Current total number of open http sessions for all the web applications on this web application server.

**Table 1-6 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized

**Table 1-6 (Cont.) Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-7 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Apache Kafka

There are no Apache Kafka specific configuration metrics supported. All configuration metrics are inherited from parent entities as listed below.

**Table 1-8 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-9 Supported Status and Performance Metrics for Apache Kafka**

Metric Group	Category	Name	Unit	Description
Kafka Broker Performance	Load	Leader Election Rate	per sec	Rate of electing a leader from in-sync replicas pool
Kafka Broker Performance	Load	Unclean Leader Election Rate	per sec	Rate of leader election from out-of-sync replicas pool
Kafka Broker Performance	Load	Offline Partitions	NA	Number of partitions without any leader
Kafka Broker Performance	Load	Active Controllers	NA	Active Controllers in a cluster
Kafka Broker Performance	Load	Data In Rate	bytes/sec	Amount of data passed into Kafka

**Table 1-9 (Cont.) Supported Status and Performance Metrics for Apache Kafka**

Metric Group	Category	Name	Unit	Description
Kafka Broker Performance	Load	Data Out Rate	bytes/sec	Amount of data passed out of Kafka
Kafka Broker Performance	Load	Messages In Rate	msgs/sec	Amount of message data passed into Kafka
Kafka Broker Performance	Load	ISR Expands Rate	per sec	Rate of in-sync replicas going high
Kafka Broker Performance	Load	ISR Shrink Rate	per sec	Rate of in-sync replicas going low
Kafka Broker Performance	Load	Unreplicated Partitions	NA	Number of partitions without in-sync replicas
Kafka Broker Performance	Load	Fetch Follower Response Rate	per sec	Rate of serving the request by followers
Kafka Broker Performance	Load	Fetch Request Purgatory Size	NA	Number of fetch requests waiting to be satisfied
Kafka Broker Performance	Load	Produce Request Purgatory Size	NA	Number of produce requests waiting to be satisfied
Kafka Broker Performance	Load	Follower Delayed Fetch Request Rate	per sec	Rate of delay in fetching requests due to failure of followers
Kafka Producers Performance (Deprecated)	Load	Producers Response Rate	per sec	Rate of serving requests by producer
Kafka Producers Performance (Deprecated)	Load	Delayed Produce Request Rate	per sec	Rate of delay in producing requests due to failure of producers
Kafka Consumers Performance (Deprecated)	Load	Consumers Response Rate	per sec	Rate of fetching requests by consumers
Kafka Consumers Performance (Deprecated)	Load	Delayed Fetch Request Rate	per sec	Rate of delay in fetching requests due to failure of consumers

**Table 1-10 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized

**Table 1-10 (Cont.) Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

## Apache Kafka Cluster

There are no Apache Kafka Cluster specific configuration metrics supported. All configuration metrics are inherited from parent entities as listed below.

**Table 1-11 Supported Configuration Metrics for Target**

Metric Group	Name	Unit	Description
Product	Vendor	NA	Vendor of the product
Product	Product	NA	Name of the product
Product	Version	NA	Version of the product

**Table 1-12 Supported Status and Performance Metrics for Apache Kafka Cluster**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Kafka Cluster Performance	Load	Active Controllers (Deprecated)	NA	15 Min	Number of active controllers in a cluster
Kafka Cluster Performance	Load	Data In Rate	bytes/sec	15 Min	Amount of data passed into Kafka Cluster
Kafka Cluster Performance	Load	Data Out Rate	bytes/sec	15 Min	Amount of data passed out of Kafka Cluster
Kafka Cluster Performance	Load	Messages In Rate	msgs/sec	15 Min	Amount of message data passed into Kafka Cluster
Kafka Cluster Performance	Load	Kafka Consumer Lag (Deprecated)	NA	15 Min	Total number of messages consumer is behind producer

**Table 1-12 (Cont.) Supported Status and Performance Metrics for Apache Kafka Cluster**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Kafka Consumer Lag (Deprecated)	.	Topic	NA	N/A	Topic Name
Kafka Consumer Lag (Deprecated)	.	Group ID	NA	N/A	Consumer Group ID
Kafka Consumer Lag (Deprecated)	Load	Queue Size	NA	N/A	Log End Offset
Kafka Consumer Lag (Deprecated)	Load	Offset	NA	N/A	Current Offset
Kafka Consumer Lag (Deprecated)	Load	Lag	NA	N/A	Max lag
Kafka Consumer Lag	.	Topic	NA	15 Min	Topic Name
Kafka Consumer Lag	.	Group ID	NA	15 Min	Consumer Group ID
Kafka Consumer Lag	Load	Queue Size	NA	15 Min	Log End Offset
Kafka Consumer Lag	Load	Offset	NA	15 Min	Current Offset
Kafka Consumer Lag	Load	Lag	NA	15 Min	Backlog

## Apache SOLR

**Table 1-13 Supported Configuration Metrics for Search Engine Instance**

Group	Name	Unit	Default Collection Frequency	Description
General Configuration	Hostname	NA	24 Hr	Hostname of the instance
General Configuration	Port Number	NA	24 Hr	Port number of the instance
Role Statistics	Role	NA	24 Hr	Role assigned to the instance

**Table 1-14 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-15 Supported Status and Performance Metrics for Apache Solr Instance**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Solr Core Indexing Statistics	.	Core Name	NA	15 Min	Name of the solr core
Solr Core Indexing Statistics	Capacity	Store Size	GB	15 Min	Size of the lucene index store in gigabytes (GB)
Solr Core Indexing Statistics	Load	Documents Indexed	NA	15 Min	Number of documents indexed
Solr Core Indexing Statistics	Load	Total Documents	NA	15 Min	Total number of documents in the index including deleted documents
Solr Core Indexing Statistics	Load	Deleted Documents	NA	15 Min	Number of documents marked deleted in the index
Solr Core Indexing Statistics	Load	Total Segments	NA	15 Min	Number of segments in the index
Solr Core Indexing Statistics	Load	Indexing Rate	per sec	15 Min	Number of documents indexed per second
Solr Core Indexing Statistics	Load	Indexing Rate	MB/sec	15 Min	Rate of indexing in megabytes per second
Solr Core Search Statistics	.	Core Name	NA	15 Min	Name of the solr core
Solr Core Search Statistics	Load	Search Request Rate	reqs/sec	15 Min	Number of search requests per second

**Table 1-15 (Cont.) Supported Status and Performance Metrics for Apache Solr Instance**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Solr Core Search Statistics	Error	Search Error Rate	reqs/sec	15 Min	Number of search errors per second
Solr Core Search Statistics	Response	Search Median Request Time	ms	15 Min	Median of all search request processing time in milliseconds
Solr Core Search Statistics	Response	Search Average Request Time	ms	15 Min	Average of all search request processing time in milliseconds
Solr Core Search Statistics	Response	Search Percentile Request Time (75th Percentile)	ms	15 Min	75th percentile of all search request processing time in milliseconds
Solr Core Search Statistics	Response	Search Percentile Request Time (95th Percentile)	ms	15 Min	95th percentile of all search request processing time in milliseconds
Solr Core Search Statistics	Response	Percentile Request Time (99th Percentile)	ms	15 Min	99th percentile of all search request processing time in milliseconds
Solr Core Search Statistics	Response	Search Percentile Request Time (999th Percentile)	ms	15 Min	999th percentile of all search request processing in milliseconds
Solr Core Request Handler Statistics	.	Core Name	NA	15 Min	Name of the solr core
Solr Core Request Handler Statistics	.	Handler Name	NA	15 Min	Name of the solr request handler
Solr Core Request Handler Statistics	Load	Handler Request Rate	reqs/sec	15 Min	Number of requests per second
Solr Core Request Handler Statistics	Error	Handler Error Rate	reqs/sec	15 Min	Number of errors per second

**Table 1-15 (Cont.) Supported Status and Performance Metrics for Apache Solr Instance**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Solr Core Request Handler Statistics	Response	Handler Median Request Time	ms	15 Min	Median of all request processing time in milliseconds
Solr Core Request Handler Statistics	Response	Handler Average Request Time	ms	15 Min	Average of all request processing time in milliseconds
Solr Core Request Handler Statistics	Response	Handler Percentile Request Time (75th Percentile)	ms	15 Min	75th percentile of all request processing time in milliseconds
Solr Core Request Handler Statistics	Response	Handler Percentile Request Time (95th Percentile)	ms	15 Min	95th percentile of all request processing time in milliseconds
Solr Core Request Handler Statistics	Response	Handler Percentile Request Time (99th Percentile)	ms	15 Min	99th percentile of all request processing time in milliseconds
Solr Core Request Handler Statistics	Response	Handler Percentile Request Time (999th Percentile)	ms	15 Min	999th percentile of all request processing time in milliseconds
JVM Statistics	Load	Total Threads	NA	15 Min	Number of threads currently executing
JVM Statistics	Load	Peak Threads	NA	15 Min	Number of peak threads since the start of JVM
JVM Statistics	Load	Daemon Threads	NA	15 Min	Number of daemon threads
JVM Statistics	Capacity	Used Heap Size	GB	15 Min	Amount of heap used in gigabytes (GB)
JVM Statistics	Capacity	Free Heap Size	GB	15 Min	Amount of heap free in gigabytes (GB)
JVM Statistics	Capacity	Total Heap Size	GB	15 Min	Total size of the heap in gigabytes (GB)



**Table 1-15 (Cont.) Supported Status and Performance Metrics for Apache Solr Instance**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
JVM Statistics	Capacity	Max Heap Size	GB	15 Min	Maximum size of the heap in gigabytes (GB)
JVM Statistics	Utilization	Heap Utilization	%	15 Min	Percentage of heap used by the instance
Core Statistics	Load	Active Cores	NA	15 Min	Number of active cores in the solr instance
Solr Core Cache Statistics	.	Core Name	NA	15 Min	Name of the solr core
Solr Core Cache Statistics	.	Cache Name	NA	15 Min	Name of the cache
Solr Core Cache Statistics	Load	Hit Rate	ops/sec	15 Min	Number of cache hits per second
Solr Core Cache Statistics	Load	Miss Rate	ops/sec	15 Min	Number of cache misses per second
Solr Core Cache Statistics	Load	Lookup Rate	ops/sec	15 Min	Number of cache lookups per second
Solr Core Cache Statistics	Load	Eviction Rate	ops/sec	15 Min	Number of cache evictions per second
Solr Core Cache Statistics	Utilization	Hit Ratio	%	15 Min	The cache hit ratio is the ratio of the number of cache hits to the number of lookups expressed as percentage
Solr Core Cache Statistics	Capacity	Cache Size	MB	15 Min	Cache size in megabytes (MB)
Solr Core Update Handler Statistics	.	Core Name	NA	15 Min	Name of the solr core
Solr Core Update Handler Statistics	Load	Add Rate	ops/sec	15 Min	Number of adds per second
Solr Core Update Handler Statistics	Load	Deletes By Id Rate	ops/sec	15 Min	Number deletes by id operations per second

**Table 1-15 (Cont.) Supported Status and Performance Metrics for Apache Solr Instance**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Solr Core Update Handler Statistics	Load	Deletes By Query Rate	ops/sec	15 Min	Number of deletes by query per second
Solr Core Update Handler Statistics	Error	Update Error Rate	ops/sec	15 Min	Number of error messages received by Update Handler per second
Solr Core Update Handler Statistics	Load	Expunge Deletes Rate	ops/sec	15 Min	Number of commit commands issued with expunge deletes per second
Solr Core Update Handler Statistics	Load	Pending Documents	NA	15 Min	Number of documents which are pending commit
Solr Core Update Handler Statistics	Load	Optimizes Rate	ops/sec	15 Min	Number of explicit optimize commands issued per second
Solr Core Update Handler Statistics	Load	Rollbacks Rate	ops/sec	15 Min	Number of rollbacks executed per second
Solr Core Update Handler Statistics	Load	Auto Commits Rate	ops/sec	15 Min	Total number of auto-commits executed per second
Solr Core Update Handler Statistics	Load	Soft Auto Commits Rate	ops/sec	15 Min	Number of soft commits executed per second
Solr Core Update Handler Statistics	Response	Auto Commits Max Time	ms	15 Min	Maximum time between two autocommits execution in milliseconds
Solr Core Update Handler Statistics	Response	Soft Auto Commits Max Time	ms	15 Min	Maximum time between two soft autocommits execution in milliseconds

**Table 1-15 (Cont.) Supported Status and Performance Metrics for Apache Solr Instance**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Solr Core Update Handler Statistics	Load	Hard Commits Rate	ops/sec	15 Min	Number of hard commits executed per second
Solr Instance Update Handler Statistics	Load	Add Rate	ops/sec	15 Min	Number of adds per second
Solr Instance Update Handler Statistics	Load	Deletes By Id Rate	ops/sec	15 Min	Number deletes by id operations per second
Solr Instance Update Handler Statistics	Load	Deletes By Query Rate	ops/sec	15 Min	Number of deletes by query per second
Solr Instance Update Handler Statistics	Error	Update Error Rate	ops/sec	15 Min	Number of error messages received by Update Handler per second
Solr Instance Update Handler Statistics	Load	Expunge Deletes Rate	ops/sec	15 Min	Number of commit commands issued with expunge deletes per second
Solr Instance Update Handler Statistics	Load	Pending Documents	NA	15 Min	Number of documents which are pending commit
Solr Instance Update Handler Statistics	Load	Optimizes Rate	ops/sec	15 Min	Number of explicit optimize commands issued per second
Solr Instance Update Handler Statistics	Load	Rollbacks Rate	ops/sec	15 Min	Number of rollbacks executed per second
Solr Instance Update Handler Statistics	Load	Auto Commits Rate	ops/sec	15 Min	Total number of auto-commits executed per second
Solr Instance Update Handler Statistics	Load	Soft Auto Commits Rate	ops/sec	15 Min	Number of soft commits executed per second

**Table 1-15 (Cont.) Supported Status and Performance Metrics for Apache Solr Instance**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Solr Instance Update Handler Statistics	Load	Hard Commits Rate	ops/sec	15 Min	Number of hard commits executed per second
Solr Core Transaction Statistics	.	Core Name	NA	15 Min	Name of the solr core
Solr Core Transaction Statistics	Load	Log Rate	ops/sec	15 Min	Number of transaction log entries generated per second
Solr Core Transaction Statistics	Capacity	Log Size	MB	15 Min	Transaction log size in megabytes (MB)
Solr Instance Request Handler Statistics	.	Handler Name	NA	15 Min	Name of the solr request handler
Solr Instance Request Handler Statistics	Load	Handler Request Rate	reqs/sec	15 Min	Number of requests per second
Solr Instance Request Handler Statistics	Error	Handler Error Rate	reqs/sec	15 Min	Number of errors per second
Solr Instance Request Handler Statistics	Response	Handler Average Request Time	ms	15 Min	Average of all search request processing time in milliseconds

**Table 1-16 Supported Status and Performance Metrics for Search Engine Instance**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Instance Indexing Statistics	Capacity	Store Size	GB	15 Min	Size of the datastore in gigabytes (GB)
Instance Indexing Statistics	Load	Documents Indexed	NA	15 Min	Number of documents indexed

**Table 1-16 (Cont.) Supported Status and Performance Metrics for Search Engine Instance**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Instance Indexing Statistics	Load	Total Documents	NA	15 Min	Total number of documents indexed including the document marked deleted
Instance Indexing Statistics	Load	Deleted Documents	NA	15 Min	Number of documents marked deleted
Instance Indexing Statistics	Load	Total Segments	NA	15 Min	Number of segments in the datastore
Instance Indexing Statistics	Load	Indexing Rate	ops/sec	15 Min	Number of documents indexed per second
Instance Indexing Statistics	Load	Indexing Rate	MB/sec	15 Min	Rate of indexing in megabytes per second
Instance Search Statistics	Load	Search Request Rate	reqs/sec		Number of search requests per second
Instance Search Statistics	Error	Search Error Rate	reqs/sec	15 Min	Number of search request errors per second
Instance Search Statistics	Response	Search Average Request Time	ms	15 Min	Average of all search request processing time in milliseconds
Instance Cache Statistics		Cache Name	NA	15 Min	Name of the cache
Instance Cache Statistics	Load	Hit Rate	ops/sec	15 Min	Number of cache hits per second
Instance Cache Statistics	Load	Miss Rate	ops/sec	15 Min	Number of cache misses per second
Instance Cache Statistics	Load	Lookup Rate	ops/sec		Number of cache lookups per second
Instance Cache Statistics	Load	Eviction Rate	ops/sec	15 Min	Number of cache evictions per second

**Table 1-16 (Cont.) Supported Status and Performance Metrics for Search Engine Instance**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Instance Cache Statistics	Utilization	Hit Ratio	%	15 Min	The cache hit ratio is the ratio of the number of cache hits to the number of lookups expressed as percentage
Instance Cache Statistics	Capacity	Cache Size	MB	15 Min	Cache size in megabytes (MB)
Instance Transaction Statistics	Load	Log Rate	ops/sec	15 Min	Number of transaction log entries generated per second
Instance Transaction Statistics	Capacity	Log Size	MB	15 Min	Transaction log size in megabytes (MB)

**Table 1-17 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-18 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

# Apache Tomcat

There are no Apache Tomcat specific configuration metrics supported. All configuration metrics are inherited from parent entities as listed below.

**Table 1-19 Supported Configuration Metrics for Java Application Server**

Metric Group	Name	Unit	Description
Server	Listen Port	N/A	The value of the server listening port
SSL Server	SSL Listen Port	N/A	The value of the secure server listening port
Datasource Config Metrics	Datasource Name	N/A	Name of the Datasource
Datasource Config Metrics	Datasource Connection URL	N/A	URL of Datasource Connection
JDBC Connection Pool	Maximum JDBC Connections	N/A	The maximum pool size of JDBC connections
JDBC Connection Pool	Minimum JDBC Connections	N/A	The minimum pool size of JDBC connections
JVM Configuration	Maximum Heap Size	GB	Maximum heap size configured
JVM Configuration	Operating System Name	N/A	Name of the operating system
JVM Configuration	Operating System Version	N/A	Version of the operating system
JVM Configuration	Java Vendor	N/A	The company that created this Java implementation
JVM Configuration	Java Version	N/A	The version of this Java implementation

**Table 1-20 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-21 Status and Performance Metrics for Java Application Server**

Metric Group	Category	Name	Unit	Description
JVM Memory Usage	Load	Heap Usage	GB	Current size of the JVM memory heap in GB
JVM Memory Usage	N/A	Heap Utilization	%	Current size of the JVM memory heap in percent

**Table 1-21 (Cont.) Status and Performance Metrics for Java Application Server**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
JVM Memory Usage	N/A	Non-Heap Memory Usage	GB	Current size of the JVM non-heap memory in GB
Threads	Load	Active Threads	N/A	The number of active threads running in JVM
JVM Garbage Collection	N/A	Garbage Collector Name	N/A	Name of the Garbage Collector
JVM Garbage Collection	Load	Heap Usage After GC	GB	Heap memory after garbage collection
JVM Garbage Collection	Utilization	Heap Utilization After GC	%	Heap memory used as a percentage of maximum heap memory after garbage collection
JVM Garbage Collection	Load	Max Heap After GC	GB	Maximum heap memory after garbage collection in GB, that can be used by Java virtual machine for memory management
JVM Garbage Collection	N/A	Committed Heap After GC	GB	Committed heap memory after garbage collection in GB. Committed memory is guaranteed to be available for use by the Java virtual machine
JVM Garbage Collection	N/A	Non-Heap Usage After GC	GB	Non-heap memory usage after garbage collection
JVM Garbage Collection	Response	Garbage Collection Execution Time	ms	The average time in milliseconds per garbage collector invocation during the last collection interval
JVM Garbage Collection	Load	Garbage Collection Throughput	ops/min	The average rate at which garbage collection ran during the last collection interval
JVM Garbage Collection	Utilization	Garbage Collection Overhead	%	The percentage of time spent in garbage collection during the last collection interval
JVM Garbage Collection	N/A	Old HeapSize After GC	GB	Size in GB of the old generation heap after garbage collection



**Table 1-21 (Cont.) Status and Performance Metrics for Java Application Server**

Metric Group	Category	Name	Unit	Description
JVM Garbage Collection	N/A	Old Heap Utilization After GC	%	Percentage of the old generation heap that is free after garbage collection
JVM Garbage Collection Rollup	Response	Avg GC Execution Time	ms	The average time in milliseconds per garbage collector invocation across all garbage collectors
JVM Garbage Collection Rollup	N/A	GC Collection Overhead	%	The percentage of time spent in garbage collection during the last collection interval across all garbage collectors
JVM Garbage Collection Rollup	Load	Avg GC Throughput	ops/min	The average rate at which garbage collection ran during the last collection interval across all garbage collectors

**Table 1-22 Status and Performance Metrics for Database Connectable Web Application Server**

Metric Group	Category	Name	Unit	Description
Datasource Metrics	Load	JDBC Connection Pool Size	N/A	Size of the Datasource connection pool
Datasource Metrics	Load	JDBC Connections in Use	N/A	Datasource connections in use

**Table 1-23 Supported Status and Performance Metrics for Web Application Server**

Metric Group	Category	Name	Unit	Description
Web Requests	Load	Web Request Processing Time	ms	Average processing time per web request since the last collection
Web Requests	N/A	Web Request Rate	ops/min	Number of web requests per minute since the last collection
Web Application Component	Load	Open HTTP Sessions	N/A	Current total number of open HTTP sessions for all the web applications on this web application server

**Table 1-24 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-25 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Apache ZooKeeper

**Table 1-26 Supported Configuration Metrics for Apache ZooKeeper**

Metric Group	Name	Unit	Default Collection Frequency	Description
Zookeeper Server Configuration Data	Client Port	NA	24 Hr	Client port on the server
Zookeeper Server Configuration Data	Data Directory	NA	24 Hr	Data directory location on the server
Zookeeper Server Configuration Data	Data Log Directory	NA	24 Hr	Data log directory location on the server
Zookeeper Server Configuration Data	Tick Time	ms	24 Hr	Basic time unit used by zookeeper server in millisecond
Zookeeper Server Configuration Data	Maximum client connections	NA	24 Hr	Maximum number of client connections on the server
Zookeeper Server Configuration Data	Minimum Session Timeout	sec	24 Hr	Minimum Session timeout on the server in Seconds
Zookeeper Server Configuration Data	Maximum Session Timeout	sec	24 Hr	Maximum session timeout on the server in Seconds

**Table 1-26 (Cont.) Supported Configuration Metrics for Apache ZooKeeper**

Metric Group	Name	Unit	Default Collection Frequency	Description
Zookeeper Server Configuration Data	Server ID	NA	24 Hr	Server ID
Zookeeper Server Configuration Data	Init Limit	NA	24 Hr	Init Limit on the server
Zookeeper Server Configuration Data	Sync Limit	NA	24 Hr	Sync Limit on the server
Zookeeper Server Configuration Data	Election Algorithm	NA	24 Hr	Election Algorithm used on the server
Zookeeper Server Configuration Data	Election Port	NA	24 Hr	Election port used on the server
Zookeeper Server Configuration Data	Quorum Port	NA	24 Hr	Quorum port used on the server
Zookeeper Server Configuration Data	Peer Type	NA	24 Hr	Peer Type on the server

**Table 1-27 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-28 Supported Status and Performance Metrics for Apache ZooKeeper**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Zookeeper Server Data	Response	Average Latency	ms	5 Min	Average latency metric of ZooKeeper Server
Zookeeper Server Data	Response	Maximum Latency	ms	5 Min	Maximum latency metric of ZooKeeper Server
Zookeeper Server Data	Response	Minimum Latency	ms	5 Min	Minimum latency metric of ZooKeeper Server
Zookeeper Server Data	Load	Rate of Packets Received	per sec	5 Min	Number of packets received per second

**Table 1-28 (Cont.) Supported Status and Performance Metrics for Apache ZooKeeper**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Zookeeper Server Data	Load	Rate of Packets Sent	per sec	5 Min	Number of packets sent per second
Zookeeper Server Data	Load	Alive Connections	NA	5 Min	Number of alive connections in Zookeeper Server
Zookeeper Server Data	Load	Outstanding Requests	NA	5 Min	Number of outstanding requests in Zookeeper Server
Zookeeper Server Data		Server State	NA	5 Min	State of the server (leader or follower)
Zookeeper Server Data	Load	Zookeeper Nodes	NA	5 Min	Number of zookeeper Nodes
Zookeeper Server Data	Load	Zookeeper Watches	NA	5 Min	Number of Zookeeper Watches
Zookeeper Server Data	Load	Zookeeper Ephemerals	NA	5 Min	Number of Zookeeper Ephemerals
Zookeeper Server Data	Capacity	Approximate Data Size	bytes	5 Min	Approximates data size in Bytes
Zookeeper Server Data	Load	Open file descriptors	NA	5 Min	Number of open file descriptors
Zookeeper Server Data	Load	Maximum file descriptors	NA	5 Min	Maximum number of file descriptors
Zookeeper Server Data	Load	Followers	NA	5 Min	Number of followers for zookeeper leader
Zookeeper Server Data	Load	Synced followers	NA	5 Min	Number of synced followers for zookeeper leader
Zookeeper Server Data	Load	Pending syncs	NA	5 Min	Number of pending syncs for zookeeper leader

**Table 1-28 (Cont.) Supported Status and Performance Metrics for Apache ZooKeeper**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Zookeeper Connections		IP Address	NA	5 Min	IP Address of the server
Zookeeper Connections		Session ID	NA	5 Min	Session ID
Zookeeper Connections	Response	Session Timeout	sec	5 Min	Session timeout in Seconds
Zookeeper Connections	Response	Average Session Latency	ms	5 Min	Average latency per session in millisec
Zookeeper Connections	Response	Maximum Session Latency	ms	5 Min	Maximum latency per session in millisec
Zookeeper Connections	Response	Minimum Session Latency	ms	5 Min	Minimum latency per session in millisec
Zookeeper Connections	Load	Rate of Packets Received per Session	per sec	5 Min	In a session, number of packets received per second
Zookeeper Connections	Load	Rate of Packets Sent per Session	per sec	5 Min	In a session, number of packets sent per second
Zookeeper Connections		Last Response Time	NA	5 Min	Last Response time in a session
Zookeeper Connections	Response	Last Latency in session	ms	5 Min	Last Latency in a session

**Table 1-29 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB

**Table 1-29 (Cont.) Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

## Arbor Networks CP

**Table 1-30 Supported Configuration Metrics for Arbor Networks CP**

Group	Name	Unit	Default Collection Frequency	Description
System Information	System Name	NA	24 Hr	The system name.
System Information	System Contact	NA	24 Hr	The system contact.
System Information	System Location	NA	24 Hr	The system location.
System Information	OS Version	NA	24 Hr	The OS version.
Network Port Details	Port Name	NA	24 Hr	The port name.
Network Port Details	Port Alias	NA	24 Hr	The alias name if any for the port as specified by a network manager.
Network Port Details	Port Physical Address	NA	24 Hr	The physical address of the port.
Network Port Details	Port Type	NA	24 Hr	The port type.
Network Port Details	Port MTU	NA	24 Hr	The port MTU.
Network Port Details	Port Bandwidth	Mbps	24 Hr	An estimate of the interface's theoretical bandwidth.

**Table 1-31 Supported Status and Performance Metrics for Arbor Networks CP**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
CPU Usage	Load	CPU Load Average 1 Minute	NA	15 Min	CPU load average in the last minute.

**Table 1-31 (Cont.) Supported Status and Performance Metrics for Arbor Networks CP**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Default Collection Frequency</b>	<b>Description</b>
CPU Usage	Load	CPU Load Average 5 Minutes	NA	15 Min	CPU load average in the last 5 minutes.
CPU Usage	Load	CPU Load Average 15 Minutes	NA	15 Min	CPU load average in the last 15 minutes.
CPU Usage		Interval	sec	15 Min	Interval of metric collection in seconds.
Memory Usage	Load	Memory Allocated	MB	15 Min	The amount of physical memory allocated.
Memory Usage	Load	Memory Left	MB	15 Min	The amount of physical memory left.
Memory Usage	Load	Memory Total	MB	15 Min	The total amount of physical memory available.
Memory Usage	Utilization	Memory Utilization	%	15 Min	The percentage of physical memory used.
Memory Usage	Load	Swap Allocated	MB	15 Min	The amount of swap space allocated.
Memory Usage	Load	Swap Left	MB	15 Min	The amount of swap space left.
Memory Usage	Load	Swap Total	MB	15 Min	The total amount of swap space.
Memory Usage	Utilization	Swap Utilization	%	15 Min	This percentage of swap space used.
Memory Usage		Interval	sec	15 Min	Interval of metric collection in seconds.
Disk Stats	Utilization	Disk Usage	%	15 Min	The percentage of primary data partition used.

**Table 1-31 (Cont.) Supported Status and Performance Metrics for Arbor Networks CP**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Default Collection Frequency</b>	<b>Description</b>
Disk Stats		Interval	sec	15 Min	Interval of metric collection in seconds.
Flow Statistics		Flow Rate	per sec	15 Min	The number of flows per seconds.
Flow Statistics		Interval	sec	15 Min	Interval of metric collection in seconds.
Network Port Statistics		Port Name	NA	15 Min	The port name.
Network Port Statistics	Availability	Port Operational Status	NA	15 Min	The port operational status.
Network Port Statistics	Availability	Port Administrative Status	NA	15 Min	The port administrative status.
Network Port Statistics	Load	Inbound Octets Rate	bytes/sec	15 Min	The inbound octets rate.
Network Port Statistics	Utilization	Inbound Bandwidth Usage	%	15 Min	The percentage of bandwidth used by incoming traffic.
Network Port Statistics	Load	Outbound Octets Rate	bytes/sec	15 Min	The outbound octets rate.
Network Port Statistics	Utilization	Outbound Bandwidth Usage	%	15 Min	The percentage of bandwidth used by outgoing traffic.
Network Port Statistics	Load	Total Octets Rate	bytes/sec	15 Min	The total octets rate.
Network Port Statistics	Error	Inbound Discard Ratio	%	15 Min	The percentage of incoming packets discarded.
Network Port Statistics	Error	Outbound Discard Ratio	%	15 Min	The percentage of outgoing packets which are discarded.



**Table 1-31 (Cont.) Supported Status and Performance Metrics for Arbor Networks CP**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Network Port Statistics	Error	Inbound Error Ratio	%	15 Min	The percentage of invalid incoming packets (undersized, oversized, or have FCS errors).
Network Port Statistics	Error	Outbound Error Ratio	%	15 Min	The percentage of invalid outgoing packets (undersized, oversized, or have FCS errors).
Network Port Statistics		Interval	sec	15 Min	Interval of metric collection in seconds.

**Table 1-32 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Arbor Networks TMS

**Table 1-33 Supported Configuration Metrics for Arbor Networks TMS**

Group	Name	Unit	Default Collection Frequency	Description
System Information	System Name	NA	24 Hr	The system name.
System Information	System Contact	NA	24 Hr	The system contact.
System Information	System Location	NA	24 Hr	The system location.
System Information	OS Version	NA	24 Hr	The OS version.
Network Port Details	Port Name	NA	24 Hr	The port name.

**Table 1-33 (Cont.) Supported Configuration Metrics for Arbor Networks TMS**

Group	Name	Unit	Default Collection Frequency	Description
Network Port Details	Port Alias	NA	24 Hr	The alias name if any for the port as specified by a network manager.
Network Port Details	Port Physical Address	NA	24 Hr	The physical address of the port.
Network Port Details	Port Type	NA	24 Hr	The port type.
Network Port Details	Port MTU	NA	24 Hr	The port MTU.
Network Port Details	Port Bandwidth	Mbps	24 Hr	An estimate of the interface's theoretical bandwidth.

**Table 1-34 Supported Status and Performance Metrics for Arbor Networks TMS**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
CPU Usage	Load	CPU Load Average 1 Minute	NA	15 Min	CPU load average in the last minute.
CPU Usage	Load	CPU Load Average 5 Minutes	NA	15 Min	CPU load average in the last 5 minutes.
CPU Usage	Load	CPU Load Average 15 Minutes	NA	15 Min	CPU load average in the last 15 minutes.
CPU Usage	.	Interval	sec	15 Min	Interval of metric collection in seconds.
Memory Usage	Utilization	Memory Utilization	%	15 Min	The percentage of physical memory used.
Memory Usage	Utilization	Swap Utilization	%	15 Min	This percentage of swap space used.
Memory Usage	.	Interval	sec	15 Min	Interval of metric collection in seconds.

**Table 1-34 (Cont.) Supported Status and Performance Metrics for Arbor Networks TMS**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Default Collection Frequency</b>	<b>Description</b>
Disk Stats	Utilization	Disk Usage	%	15 Min	The percentage of primary data partition used.
Disk Stats	.	Interval	sec	15 Min	Interval of metric collection in seconds.
Network Port Statistics	.	Port Name	NA	15 Min	The port name.
Network Port Statistics	Availability	Port Operational Status	NA	15 Min	The port operational status.
Network Port Statistics	Availability	Port Administrative Status	NA	15 Min	The port administrative status.
Network Port Statistics	Load	Inbound Octets Rate	bytes/sec	15 Min	The inbound octets rate.
Network Port Statistics	Utilization	Inbound Bandwidth Usage	%	15 Min	The percentage of bandwidth used by incoming traffic.
Network Port Statistics	Load	Outbound Octets Rate	bytes/sec	15 Min	The outbound octets rate.
Network Port Statistics	Utilization	Outbound Bandwidth Usage	%	15 Min	The percentage of bandwidth used by outgoing traffic.
Network Port Statistics	Load	Total Octets Rate	bytes/sec	15 Min	The total octets rate.
Network Port Statistics	Error	Inbound Discard Ratio	%	15 Min	The percentage of incoming packets discarded.
Network Port Statistics	Error	Outbound Discard Ratio	%	15 Min	The percentage of outgoing packets which are discarded.
Network Port Statistics	Error	Inbound Error Ratio	%	15 Min	The percentage of invalid incoming packets (undersized, oversized, or have FCS errors).

**Table 1-34 (Cont.) Supported Status and Performance Metrics for Arbor Networks TMS**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Network Port Statistics	Error	Outbound Error Ratio	%	15 Min	The percentage of invalid outgoing packets (undersized, oversized, or have FCS errors).
Network Port Statistics		Interval	sec	15 Min	Interval of metric collection in seconds.

**Table 1-35 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Arista Ethernet Switch

**Table 1-36 Supported Configuration Metrics for Arista Ethernet Switch**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Storage Resources	N/A	Storage Name	NA	24 Hr	The name of the storage resource.
Storage Resources	N/A	Storage Type	NA	24 Hr	The type of the storage resource.
Storage Resources	Capacity	Storage Capacity	MB	24 Hr	The storage resource total capacity.

**Table 1-37 Supported Configuration Metrics for Generic Physical Switch**

Metric Group	Name	Unit	Description
Summary Details	Part Number	NA	The switch part number,
Summary Details	Serial Number	NA	The switch serial number,
Summary Details	Model	NA	The switch model,

**Table 1-37 (Cont.) Supported Configuration Metrics for Generic Physical Switch**

Metric Group	Name	Unit	Description
Summary Details	Architecture	NA	The switch architecture,
Network Management Interface	IP Address	NA	The switch IP address,
Network Management Interface	Physical Address	NA	The switch physical address,
Network Port Details	Port Name	NA	The port name
Network Port Details	Port Physical Address	NA	The port physical address
Network Port Details	Port Type	NA	The port type/
Network Port Details	Port MTU	NA	The port MTU.
Network Port Details	Port Bandwidth	Mbps	An estimate of the interface's current bandwidth.
Network Port Details	Peer Port Physical Address	NA	Peer port physical address,
Network Port Details	Peer Port Type	NA	Peer port type,
Network Port Details	Media Type	NA	Port media type,
Component Details	Name	NA	Component name,
Component Details	Manufacturer	NA	Component manufacturer,
Component Details	Model	NA	Component model,

**Table 1-38 Supported status and performance Metrics for Arista Ethernet Switch**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
CPU Usage	Utilization	CPU Utilization	%	15 Min	The percentage of time the CPU was not idle during the last minute.
Memory Usage	Load	Memory Used	MB	15 Min	The amount of used memory, it does not include buffers and cache memory.
Memory Usage	Load	Memory Free	MB	15 Min	The amount of memory not used by processes, it includes buffers and cache memory.

**Table 1-38 (Cont.) Supported status and performance Metrics for Arista Ethernet Switch**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Memory Usage	Utilization	Memory Utilization	%	15 Min	The percentage of memory used by processes, it does not include buffers and cache.
Storage Usage		Storage Name	NA	15 Min	The name of the storage resource.
Storage Usage	Load	Storage Used	MB	15 Min	The amount of space used on the storage resource.
Storage Usage	Load	Storage Free	MB	15 Min	The amount of free space on the storage resource.
Storage Usage	Utilization	Storage Utilization	%	15 Min	The percentage of used space on the storage resource.

**Table 1-39 Supported Status and Performance Metrics for Generic Physical Switch**

Metric Group	Category	Name	Unit	Description
Switch ports free vs used	Capacity	Ports Free	NA	The unused ports.
Switch ports free vs used	Capacity	Ports Used	NA	The ports in use.
Switch ports free vs used	Capacity	Ports Count	NA	The total number of physical network ports
Switch ports free vs used	Utilization	Ports Occupation Ratio	%	The percentage of network ports actually used.
Network Port Statistics		Port Name	NA	Port name
Network Port Statistics	Availability	Port Status	NA	Port status
Network Port Statistics	Availability	Port Administrative Status	NA	The port administrative status.
Network Port Statistics	Load	Inbound Octets Rate	bytes/sec	Inbound octets rate,

**Table 1-39 (Cont.) Supported Status and Performance Metrics for Generic Physical Switch**

Metric Group	Category	Name	Unit	Description
Network Port Statistics	Utilization	Inbound Bandwidth Usage	%	The percentage of bandwidth used by incoming traffic.
Network Port Statistics	Load	Outbound Octets Rate	bytes/sec	Outbound octets rate
Network Port Statistics	Utilization	Outbound Bandwidth Usage	%	The percentage of bandwidth used by outgoing traffic.
Network Port Statistics	Load	Total Octets Rate	bytes/sec	Total octets rate
Network Port Statistics	Error	Inbound Discard Ratio	%	The percentage of incoming packets discarded.
Network Port Statistics	Error	Outbound Discard Ratio	%	The percentage of outgoing packets which are discarded.
Network Port Statistics	Error	Inbound Error Ratio	%	The percentage of invalid incoming packets (undersized, oversized, or have FCS errors).
Network Port Statistics	Error	Outbound Error Ratio	%	The percentage of invalid outgoing packets (undersized, oversized, or have FCS errors).
Network Port Statistics		Interval	sec	Interval of metric collection in seconds.
Component State		Name	NA	Component name
Component State	Availability	State	NA	Component state

## Autonomous Data Warehouse

Metrics for Autonomous Data Warehouse

**Table 1-40 Supported Configuration Metrics for Relational Database**

Metric Group	Name	Unit	Description
Creation Date	Creation Date	NA	Date when the database was created

**Table 1-41 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	NA	Total number of CPUs allocated or available to the entity

**Table 1-42 Supported Configuration Metrics for Target**

Metric Group	Name	Unit	Description
Product	Vendor	NA	Vendor of the product
Product	Product	NA	Name of the product
Product	Version	NA	Version of the product

**Table 1-43 Supported Status and Performance Metrics for Oracle Database Server Interface**

Metric Group	Category	Name	Unit	Description
Latency	Response	SQL Service Response Time	centisec/request	Average Response Time across all SQL statements in centiseconds per call
Latency	Response	Avg Synchronous Single-Block Read Latency	ms	Average latency for single block synchronous reads in milliseconds
Database Activity	Load	DB Time	sec	Amount of elapsed time (in seconds) spent on performing database user-level calls
Database Activity	Load	Background CPU	sec	Amount of CPU time (in seconds) consumed by database background processes
Database Activity	Load	SQL Execution	sec	Amount of elapsed time (in seconds) SQL statements are executing
Instance Load	Load	User Calls	NA	User Calls
Instance Load	Load	Physical Read I/O Requests	NA	Physical Read I/O Requests
Instance Load	Load	Physical Read Bytes	bytes	Physical Read Bytes
Instance Load	Load	Physical Write I/O Requests	NA	Physical Write I/O Requests
Instance Load	Load	Physical Write Bytes	bytes	Physical Write Bytes



**Table 1-43 (Cont.) Supported Status and Performance Metrics for Oracle Database Server Interface**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Instance Load	Load	Redo Bytes	bytes	Redo Bytes
Instance Load	Load	Redo Writes	NA	Redo Writes
SQL Statistics	Load	Disk Reads	NA	Total number of disk reads
SQL Statistics	Load	Buffer Gets	NA	Total number of buffer gets
SQL Statistics	Response	CPU Time	ms	Total time (in milliseconds) spent on CPU
SQL Statistics	Response	User I/O Wait	ms	Total time (in milliseconds) spent waiting for events in the User I/O class
SQL Statistics	Response	Cluster Wait	ms	Total time (in milliseconds) spent waiting for events in the Cluster class
SQL Statistics	Response	Application Wait	ms	Total time (in milliseconds) spent waiting for events in the Application class
SQL Statistics	Response	Concurrency Wait	ms	Total time (in milliseconds) spent waiting for events in the Concurrency class
SQL Statistics	Load	Direct Writes	NA	Number of direct writes
SQL Statistics	Load	Physical Read Requests	NA	Number of physical read I/O requests issued by the SQL
SQL Statistics	Load	Physical Read Bytes	bytes	Number of bytes read from disks by the SQL
SQL Statistics	Load	Physical Write Requests	NA	Number of physical write I/O requests issued by the SQL
SQL Statistics	Load	Physical Write Bytes	bytes	Number of bytes written to disks by the SQL
SQL Statistics from ASH		SQL ID	NA	SQL ID
SQL Statistics from ASH		Plan Hash Value	NA	Numerical representation of the SQL plan for the cursor

**Table 1-43 (Cont.) Supported Status and Performance Metrics for Oracle Database Server Interface**

Metric Group	Category	Name	Unit	Description
SQL Statistics from ASH	.	Bucket Id	NA	SQL fall under the bucket (Possible Values : lessthan 3 secs, 4-10sec, 11-60sec, 1-5min, 5min or more)
SQL Statistics from ASH	Load	Executions	NA	Number of times the SQL statement was executed in last 30 minutes in the bucket pointed by Bucket ID
SQL Statistics from ASH	Response	Total Time	sec	Total time (in seconds) spent on CPU and all other waits in last 30 minutes in the bucket pointed by Bucket ID
SQL Statistics from ASH	Response	CPU Time	sec	Total time (in seconds) spent waiting for CPU in last 30 minutes in the bucket pointed by Bucket ID
SQL Statistics from ASH	Response	User I/O Wait	sec	Total time (in seconds) spent waiting for events in the User I/O class in last 30 minutes in the bucket pointed by Bucket ID
SQL Statistics from ASH	Response	Other Wait Time	sec	Total time (in seconds) spent on all other waits except I/O in last 30 minutes in the bucket pointed by Bucket ID
System Wait Classes	.	Instance ID	NA	Database Instance ID
System Wait Classes	.	Host Name	NA	Host Name for Instance
System Wait Classes	.	Wait Class	NA	Wait Class
System Wait Classes	Response	Time Waited	sec	Total time waited in seconds by both foreground and background sessions

**Table 1-43 (Cont.) Supported Status and Performance Metrics for Oracle Database Server Interface**

Metric Group	Category	Name	Unit	Description
System Wait Classes	Response	Time Waited Foreground	sec	Total time waited in seconds by foreground sessions only
System Wait Classes	.	Interval	sec	Interval of metric collection

**Table 1-44 Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Storage Space Usage	Utilization	Storage Space Allocated	GB	Storage space allocated in GB
Storage Space Usage	Utilization	Storage Space Utilization	%	Percent of storage space utilized
Storage Space Usage	Load	Space Used	GB	Storage space used in GB
Load	Load	Logons Rate	logons/sec	Number of logons per second during the last collection interval
Load	Load	Transactions Rate	txns/sec	Number of transactions per second during the last collection interval
Load	Load	Execution Rate	executions/sec	Number of executions per second during the last collection interval
Load	Load	Network I/O Rate	bytes/sec	Network I/O in bytes/second during the last collection interval
I/O Performance	Load	I/O Per Second	IOPS	I/O per second.
I/O Performance	Load	I/O Bandwidth Usage	MB/sec	I/O bandwidth usage during the last collection interval
Instance CPU	Utilization	Instance ID	NA	RDB instance
Instance CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval for this instance
Instance CPU	Utilization	CPU Utilization	%	Percentage of CPU that was utilized in this instance

**Table 1-44 (Cont.) Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Instance CPU	.	Interval	sec	Interval of metric collection
I/O Per Second Instance Level	Load	Instance ID	NA	RDB instance
I/O Per Second Instance Level	Load	I/O Per Second	IOPS	I/O per second for this instance
I/O Per Second Instance Level	Load	I/O Bandwidth Usage	MB/sec	I/O bandwidth usage during the last collection interval for this instance
I/O Per Second Instance Level	.	Interval	sec	Interval of metric collection
Database Activity	.	Instance ID	NA	RDB instance
Database Activity	.	Host Name	NA	Host name of the instance
Database Activity	Load	CPU Time	sec	CPU time (in seconds) of foreground sessions
Database Activity	Load	Wait Time	sec	Wait time (in seconds) of foreground sessions
Database Activity	Load	I/O Time	sec	I/O time (in seconds) of foreground sessions
Database Activity	.	Interval	sec	Interval of metric collection
Instance Load	.	Instance ID	NA	RDB instance
Instance Load	Load	Logons Rate	logons/sec	Number of logons per second during the last collection interval
Instance Load	Load	Transactions Rate	txns/sec	Number of transactions per second during the last collection interval
Instance Load	Load	Executions Rate	executions/sec	Number of executions per second during the last collection interval
Instance Load	Load	Network I/O Rate	bytes/sec	Network I/O in bytes/second during the last collection interval

**Table 1-44 (Cont.) Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Instance Load	.	Interval	sec	Interval of metric collection
SQL Statistics	.	SQL ID	NA	SQL ID
SQL Statistics	.	Plan Hash Value	NA	Numerical representation of the SQL plan for the cursor
SQL Statistics	Load	Executions	NA	Number of times the SQL statement was executed
SQL Statistics	Response	Elapsed Time	ms	Total time (in milliseconds) used by this SQL for parsing, executing and fetching
SQL Statistics	.	Interval	sec	Interval of metric collection

**Table 1-45 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	Utilization	CPU Utilization	%	Percentage of CPU that was utilized
CPU	.	Interval	sec	Interval of metric collection

**Table 1-46 Supported Status and Performance Metrics for Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	NA	Status of the target

## Autonomous Transaction Processing

Metrics for Autonomous Transaction Processing.

**Table 1-47 Supported Configuration Metrics for Relational Database**

Metric Group	Name	Unit	Description
Creation Date	Creation Date	NA	Date when the database was created

**Table 1-48 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	NA	Total number of CPUs allocated or available to the entity

**Table 1-49 Supported Configuration Metrics for Target**

Metric Group	Name	Unit	Description
Product	Vendor	NA	Vendor of the product
Product	Product	NA	Name of the product
Product	Version	NA	Version of the product

**Table 1-50 Supported Status and Performance Metrics for Oracle Database Server Interface**

Metric Group	Category	Name	Unit	Description
Latency	Response	SQL Service Response Time	centisec/request	Average Response Time across all SQL statements in centiseconds per call
Latency	Response	Avg Synchronous Single-Block Read Latency	ms	Average latency for single block synchronous reads in milliseconds
Latency	Response	Avg Wait Time for Sequential Read of Datafile	ms	Average wait time for 'db file sequential read' event in milliseconds
Database Activity	Load	DB Time	sec	Amount of elapsed time (in seconds) spent on performing database user-level calls
Database Activity	Load	Background CPU	sec	Amount of CPU time (in seconds) consumed by database background processes
Database Activity	Load	SQL Execution	sec	Amount of elapsed time (in seconds) SQL statements are executing
Instance Load	Load	Physical Read I/O Requests	NA	Physical Read I/O Requests
Instance Load	Load	Physical Read Bytes	bytes	Physical Read Bytes

**Table 1-50 (Cont.) Supported Status and Performance Metrics for Oracle Database Server Interface**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Instance Load	Load	Physical Write I/O Requests	NA	Physical Write I/O Requests
Instance Load	Load	Physical Write Bytes	bytes	Physical Write Bytes
Instance Load	Load	Redo Bytes	bytes	Redo Bytes
Instance Load	Load	Redo Writes	NA	Redo Writes
SQL Statistics	Load	Disk Reads	NA	Total number of disk reads
SQL Statistics	Load	Buffer Gets	NA	Total number of buffer gets
SQL Statistics	Response	CPU Time	ms	Total time (in milliseconds) spent on CPU
SQL Statistics	Response	User I/O Wait	ms	Total time (in milliseconds) spent waiting for events in the User I/O class
SQL Statistics	Response	Cluster Wait	ms	Total time (in milliseconds) spent waiting for events in the Cluster class
SQL Statistics	Response	Application Wait	ms	Total time (in milliseconds) spent waiting for events in the Application class
SQL Statistics	Response	Concurrency Wait	ms	Total time (in milliseconds) spent waiting for events in the Concurrency class
SQL Statistics	Load	Direct Writes	NA	Number of direct writes
SQL Statistics	Load	Physical Read Requests	NA	Number of physical read I/O requests issued by the SQL
SQL Statistics	Load	Physical Read Bytes	bytes	Number of bytes read from disks by the SQL
SQL Statistics	Load	Physical Write Requests	NA	Number of physical write I/O requests issued by the SQL
SQL Statistics	Load	Physical Write Bytes	bytes	Number of bytes written to disks by the SQL
SQL Statistics from ASH		SQL ID	NA	SQL ID

**Table 1-50 (Cont.) Supported Status and Performance Metrics for Oracle Database Server Interface**

Metric Group	Category	Name	Unit	Description
SQL Statistics from ASH	.	Plan Hash Value	NA	Numerical representation of the SQL plan for the cursor
SQL Statistics from ASH	.	Bucket Id	NA	SQL fall under the bucket (Possible Values : less than 3 secs, 4-10sec, 11-60sec, 1-5min, 5min or more)
SQL Statistics from ASH	Load	Executions	NA	Number of times the SQL statement was executed in last 30 minutes in the bucket pointed by Bucket ID
SQL Statistics from ASH	Response	Total Time	sec	Total time (in seconds) spent on CPU and all other waits in last 30 minutes in the bucket pointed by Bucket ID
SQL Statistics from ASH	Response	CPU Time	sec	Total time (in seconds) spent waiting for CPU in last 30 minutes in the bucket pointed by Bucket ID
SQL Statistics from ASH	Response	User I/O Wait	sec	Total time (in seconds) spent waiting for events in the User I/O class in last 30 minutes in the bucket pointed by Bucket ID
SQL Statistics from ASH	Response	Other Wait Time	sec	Total time (in seconds) spent on all other waits except I/O in last 30 minutes in the bucket pointed by Bucket ID
System Wait Classes	.	Instance ID	NA	Database Instance ID
System Wait Classes	.	Host Name	NA	Host Name for Instance
System Wait Classes	.	Wait Class	NA	Wait Class



**Table 1-50 (Cont.) Supported Status and Performance Metrics for Oracle Database Server Interface**

Metric Group	Category	Name	Unit	Description
System Wait Classes	Response	Time Waited	sec	Total time waited in seconds by both foreground and background sessions
System Wait Classes	Response	Time Waited Foreground	sec	Total time waited in seconds by foreground sessions only
System Wait Classes	.	Interval	sec	Interval of metric collection

**Table 1-51 Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Storage Space Usage	Utilization	Storage Space Allocated	GB	Storage space allocated in GB
Storage Space Usage	Utilization	Storage Space Utilization	%	Percent of storage space utilized
Storage Space Usage	Load	Space Used	GB	Storage space used in GB
Load	Load	Logons Rate	logons/sec	Number of logons per second during the last collection interval
Load	Load	Transactions Rate	txns/sec	Number of transactions per second during the last collection interval
Load	Load	Execution Rate	executions/sec	Number of executions per second during the last collection interval
Load	Load	Network I/O Rate	bytes/sec	Network I/O in bytes/second during the last collection interval
I/O Performance	Load	I/O Per Second	IOPS	I/O per second.
I/O Performance	Load	I/O Bandwidth Usage	MB/sec	I/O bandwidth usage during the last collection interval
Instance CPU	Utilization	Instance ID	NA	RDB instance
Instance CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval for this instance

**Table 1-51 (Cont.) Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Instance CPU	Utilization	CPU Utilization	%	Percentage of CPU that was utilized in this instance
Instance CPU	.	Interval	sec	Interval of metric collection
I/O Per Second Instance Level	Load	Instance ID	NA	RDB instance
I/O Per Second Instance Level	Load	I/O Per Second	IOPS	I/O per second for this instance
I/O Per Second Instance Level	Load	I/O Bandwidth Usage	MB/sec	I/O bandwidth usage during the last collection interval for this instance
I/O Per Second Instance Level	.	Interval	sec	Interval of metric collection
Database Activity	.	Instance ID	NA	RDB instance
Database Activity	.	Host Name	NA	Host name of the instance
Database Activity	Load	CPU Time	sec	CPU time (in seconds) of foreground sessions
Database Activity	Load	Wait Time	sec	Wait time (in seconds) of foreground sessions
Database Activity	Load	I/O Time	sec	I/O time (in seconds) of foreground sessions
Database Activity	.	Interval	sec	Interval of metric collection
Instance Load	.	Instance ID	NA	RDB instance
Instance Load	Load	Logons Rate	logons/sec	Number of logons per second during the last collection interval
Instance Load	Load	Transactions Rate	txns/sec	Number of transactions per second during the last collection interval
Instance Load	Load	Executions Rate	executions/sec	Number of executions per second during the last collection interval

**Table 1-51 (Cont.) Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Instance Load	Load	Network I/O Rate	bytes/sec	Network I/O in bytes/second during the last collection interval
Instance Load	.	Interval	sec	Interval of metric collection
SQL Statistics	.	SQL ID	NA	SQL ID
SQL Statistics	.	Plan Hash Value	NA	Numerical representation of the SQL plan for the cursor
SQL Statistics	Load	Executions	NA	Number of times the SQL statement was executed
SQL Statistics	Response	Elapsed Time	ms	Total time (in milliseconds) used by this SQL for parsing, executing and fetching
SQL Statistics	.	Interval	sec	Interval of metric collection

**Table 1-52 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	Utilization	CPU Utilization	%	Percentage of CPU that was utilized
CPU	.	Interval	sec	Interval of metric collection

**Table 1-53 Supported Status and Performance Metrics for Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	NA	Status of the target

**Table 1-54 AWS Cloud Service Resource Metrics**

Metric Group	Name	Unit	Description
N/A	N/A	N/A	N/A

## AWS DynamoDB

This is the start of your topic.

**Table 1-55 Supported Configuration Metrics for AWS DynamoDb Table**

Metric Group	Name	Unit	Description
Provisioned Units Summary	Provisioned Read Capacity Units	NA	Provisioned Read Capacity Units
Provisioned Units Summary	Provisioned Write Capacity Units	NA	Provisioned Write Capacity Units

**Table 1-56 Supported Status and Performance Metrics for AWS DynamoDb Table**

Metric Group	Category	Name	Unit	Description
Latency	Response	Successful Request Latency	ms	Successful Request Latency
Load	Load	Consumed Read Capacity Units	NA	Consumed Read Capacity Units
Load	Load	Consumed Write Capacity Units	NA	Consumed Write Capacity Units
Load	Load	Online Index Consumed Write Capacity	NA	Online Index Consumed Write Capacity
Load	Load	Online Index Percentage Progress	NA	Online Index Percentage Progress
Load	Load	Online Index Throttle Events	NA	Online Index Throttle Events
Errors	Error	System Errors	NA	System Errors
Errors	Error	Conditional Check Failed Requests	NA	Conditional Check Failed Requests
Throttled Requests	Load	Throttled Requests	NA	Throttled Requests
Throttled Requests	Load	Write Throttle Events	NA	writeThrottleEvents
Throttled Requests	Load	Read Throttle Events	NA	Read Throttle Events
Return Records	Load	Returned Bytes	bytes	Returned Bytes
Return Records	Load	Returned Item Count	NA	Returned Item Count
Return Records	Load	Returned Records Count	NA	Returned Records Count

**Table 1-57 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## AWS EC2 Instance

**Table 1-58 Supported Configuration Metrics for AWS EC2 Instance**

Metric Group	Name	Unit	Description
General Configuration	Image Id	NA	Image Id
General Configuration	Availability Zone	NA	Availability Zone
General Configuration	Instance Type	NA	Instance Type
General Configuration	IP Address	NA	IP Address
General Configuration	Launch Time	NA	Launch Time

**Table 1-59 Supported status and performance Metrics for AWS EC2 Instance**

Metric Group	Category	Name	Unit	Description
State	Response	Code	NA	Code
State	Response	Name	NA	Name
CPU credit	Load	CPU Credit Usage	NA	CPU Credit Usage
CPU credit	Capacity	CPU Credit Balance	NA	CPU Credit Balance
CPU Usage	Utilization	CPU Utilization	%	CPU Utilization
Disk Activity	Load	Disk Read Operations	ops/sec	Disk Read Operations
Disk Activity	Load	Disk Write Operations	ops/sec	Disk Write Operations
Disk Activity	Load	Disk Read Bytes	bytes	Disk Read Bytes
Disk Activity	Load	Disk Write Bytes	bytes	Disk Write Bytes
Network Activity	Load	Network Byte Received	bytes	The number of bytes received on all network interfaces
Network Activity	Load	Network Byte Sent	bytes	The number of bytes sent out on all network interfaces
Network Activity	Load	Network Packets Received	NA	The number of packets received on all network interfaces

**Table 1-59 (Cont.) Supported status and performance Metrics for AWS EC2 Instance**

Metric Group	Category	Name	Unit	Description
Network Activity	Load	Network Packets Sent	NA	The number of packets sent out on all network interfaces

**Table 1-60 AWS Cloud Service Resource Metrics**

Metric Group	Name	Unit	Description
N/A	N/A	N/A	N/A

**Table 1-61 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## AWS Elastic Block Store (EBS)

**Table 1-62 Supported Configuration Metrics for AWS Elastic Block Store**

Group	Name	Unit	Description
General Configuration	Volume Id	NA	Volume Id
General Configuration	Availability Zone	NA	Availability Zone
General Configuration	Volume Type	NA	Volume Type
General Configuration	Launch Time	NA	Launch Time
General Configuration	Size	NA	Size

**Table 1-63 Supported Status and Performance Metrics for AWS Elastic Block Store**

Metric Group	Category	Name	Unit	Description
Volume IOPS	Load	Volume Read Bytes	bytes	Volume Read Bytes
Volume IOPS	Load	Volume Write Bytes	bytes	Volume Write Bytes
Volume IOPS	Load	Volume Read Operations	NA	Number of Read I/O operations
Volume IOPS	Load	Volume Write Operations	NA	Number of Write I/O operations in Seconds
Volume IOPS	Response	Volume Total Read Time	sec	Volume Total Read Time in Seconds

**Table 1-63 (Cont.) Supported Status and Performance Metrics for AWS Elastic Block Store**

Metric Group	Category	Name	Unit	Description
Volume IOPS	Response	Volume Total Write Time	sec	Volume Total Write Time
Volume IOPS	Response	Volume Idle Time	sec	Volume Idle Time in Seconds
Volume IOPS	Load	Volume Queue Length	NA	Volume Queue Length
Volume IOPS	Utilization	Volume Throughput Percentage	%	Volume Throughput Percentage
Volume IOPS	Load	Volume Consumed Read Write Operations	NA	Volume Consumed Read Write Operations
Volume IOPS	Load	Burst Balance	%	Burst Balance
State	Availability	Status	NA	Status

**Table 1-64 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## AWS ELB Application Instance

**Table 1-65 Supported Configuration Metrics for AWS ELB Application Instance**

Group	Name	Unit	Description
General Configuration	Load Balancer Amazon Resource Name	NA	Load Balancer Amazon Resource Name
General Configuration	Type	NA	Type
General Configuration	Scheme	NA	Scheme
General Configuration	Launch Time	NA	Launch Time
Availability Zones	Zone	NA	Zone
Availability Zones	Subnet Id	NA	Subnet Id

**Table 1-66 Supported Status and Performance Metrics for AWS ELB Application Instance**

Metric Group	Category	Name	Unit	Description
Connection Errors	Error	Target Connection Errors	NA	Target Connection Errors

**Table 1-66 (Cont.) Supported Status and Performance Metrics for AWS ELB Application Instance**

Metric Group	Category	Name	Unit	Description
Connection Errors	Error	Rejected Connections	NA	Rejected Connections
Connection Errors	Error	Target TLS Negotiation Errors	NA	Target TLS Negotiation Errors
Connection Errors	Error	Client TLS Negotiation Errors	NA	Client TLS Negotiation Errors
Response Count By Instances	Load	HTTPCode Target 2XX Responses	NA	HTTPCode Target 2XX Responses
Response Count By Instances	Load	HTTPCode Target 3XX Responses	NA	HTTPCode Backend 3XX Responses
Response Count By Instances	Error	HTTPCode Backend 4XX Responses	NA	HTTPCode Backend 4XX Responses
Response Count By Instances	Error	HTTPCode Backend 5XX Responses	NA	HTTPCode Backend 5XX Responses
Response Count By LoadBalancer	Error	HTTPCode ELB 4XX Responses	NA	HTTPCode ELB 4XX Responses
Response Count By LoadBalancer	Error	HTTPCode ELB 5XX Responses	NA	HTTPCode ELB 5XX Responses
Latency	Response	Target Response Time	sec	Latency in Seconds
Network Summary	Load	Received Requests	NA	Received Requests
Network Summary	Load	New Connections	NA	New Connections
Network Summary	Load	Active Connections	NA	Active Connections
Network Summary	Load	Processed Bytes	bytes	Processed Bytes
Load Balancer Instances Health	Load	UnHealthy Hosts	NA	UnHealthy Hosts
Load Balancer Instances Health	Load	Healthy Hosts	NA	Healthy Hosts
State	Response	State	NA	State

**Table 1-67 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target



# AWS ELB Instance

**Table 1-68 Supported Configuration Metrics for AWS ELB Instance**

Metric Group	Name	Unit	Description
General Configuration	Load Balancer Amazon Resource Name	NA	Load Balancer Amazon Resource Name
General Configuration	Type	NA	Type
General Configuration	Scheme	NA	Scheme
General Configuration	Launch Time	NA	Launch Time
Availability Zones	Zone	NA	Zone
Availability Zones	Subnet Id	NA	Subnet Id

**Table 1-69 Supported Status and Performance Metrics for AWS ELB Instance**

Metric Group	Category	Name	Unit	Description
Connection Errors	Error	Backend Connection Errors	NA	Backend Connection Errors
Response Count By Instances	Load	HTTPCode Backend 2XX	NA	HTTPCode Backend 2XX
Response Count By Instances	Load	HTTPCode Backend 3XX	NA	HTTPCode Backend 3XX
Response Count By Instances	Error	HTTPCode Backend 4XX	NA	HTTPCode Backend 4XX
Response Count By Instances	Error	HTTPCode Backend 5XX	NA	HTTPCode Backend 5XX
Response Count By LoadBalancer	Error	HTTPCode_ELB_4XX	NA	HTTPCode_ELB_4XX
Response Count By LoadBalancer	Error	HTTPCode_ELB_5XX	NA	HTTPCode_ELB_5XX
Latency	Response	Latency	sec	Latency in Seconds
Network Summary	Load	Request Count	NA	Request Count
Network Summary	Load	Spillover Count	NA	Spillover Count
Network Summary	Load	Surge Queue Length	NA	Surge Queue Length
Load Balancer Instances Health	Load	UnHealthy Host Count	NA	UnHealthy Host Count
Load Balancer Instances Health	Load	Healthy Host Count	NA	Healthy Host Count
State	Response	State	NA	State

**Table 1-70 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## AWS Lambda Function

**Table 1-71 Supported Configuration Metrics for AWS Lambda Function**

Group	Name	Unit	Description
General Configuration	Memory Size	bytes	Memory Size in Bytes
General Configuration	Handler	NA	Handler
General Configuration	Last Modified	NA	Last Modified
General Configuration	Runtime	NA	Runtime
General Configuration	Role	NA	Role

**Table 1-72 Supported Status and Performance Metrics for AWS Lambda Function**

Metric Group	Category	Name	Unit	Description
Functions	Load	Invocations	NA	Invocations
Functions	Error	Errors	NA	Errors
Functions	Error	Dead Letter Error	NA	Dead Letter Error
Functions	Response	Duration	ms	Duration in Milliseconds
Functions	Load	Throttles	NA	Throttles
Functions	Response	Iterator Age Duration	ms	Iterator Age in Milliseconds

**Table 1-73 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## AWS RDS Instance

**Table 1-74 Supported Configuration Metrics for AWS RDS Instance**

Metric Group	Name	Unit	Description
General Configuration	DB Instance Identifier	NA	DB Instance Identifier
General Configuration	Availability Zone	NA	Availability Zone
General Configuration	Engine	NA	Engine
General Configuration	Engine Version	NA	Engine Version

**Table 1-74 (Cont.) Supported Configuration Metrics for AWS RDS Instance**

Metric Group	Name	Unit	Description
General Configuration	Instance Create Time	NA	Instance Create Time

**Table 1-75 Supported Status and Performance Metrics for AWS RDS Instance**

Metric Group	Category	Name	Unit	Description
State	Response	State	NA	State
CPU	Load	CPU Credit Usage	NA	CPU Credit Usage
CPU	Capacity	CPU Credit Balance	NA	CPU Credit Balance
CPU	Utilization	CPU Utilization	%	CPU Utilization
Load	Load	Read Throughput	per sec	Read Throughput
Load	Load	Write Throughput	per sec	Write Throughput
Load	Load	Network Receive Throughput	bytes/sec	Network Receive Throughput
Load	Load	Network Transmit Throughput	bytes/sec	Network Transmit Throughput
Load	Load	Database Connections	NA	Database Connections
Disk IOPS	Load	Read IOPS	IOPS	Read IOPS
Disk IOPS	Load	Write IOPS	IOPS	Write IOPS
Disk IOPS	Load	Disk Queue Depth	NA	Disk Queue Depth
Latency	Response	Write Latency	sec	Write Latency
Latency	Response	Read Latency	sec	Read Latency
Latency	Response	Replica Lag	sec	Replica Lag
Storage	Capacity	Bin Log Disk Usage	bytes	Bin Log Disk Usage
Storage	Capacity	Free Storage Space	bytes	Free Storage Space
Memory	Capacity	Freeable Memory	bytes	Freeable Memory
Memory	Capacity	Swap Usage	bytes	Swap Usage

**Table 1-76 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## AWS Redshift Cluster

**Table 1-77 Supported Configuration Metrics for AWS Redshift Cluster**

Group	Name	Unit	Description
General Configuration	Cluster Id	NA	Cluster Id
General Configuration	Availability Zone	NA	Availability Zone
General Configuration	Node Type	NA	Node Type
General Configuration	Cluster Version	NA	Cluster Version
General Configuration	Number of Nodes	NA	Number of Nodes

**Table 1-78 Supported Status and Performance Metrics for AWS Redshift Cluster**

Metric Group	Category	Name	Unit	Description
CPU Usage	Utilization	CPU Utilization	%	CPU Utilization
Disk Activity	Utilization	Disk Space Used	%	Percentage Disk Space Used
Network Activity	Load	Network Throughput Received	bytes/sec	Network Throughput Received
Network Activity	Load	Network Throughput Transmitted	bytes/sec	Network Throughput Transmitted
Network Activity	Load	Database Connections	NA	Database Connections
Health	Availability	Health Status	NA	Health Status
Health	Response	Maintenance Mode	NA	Maintenance Mode
State	Availability	Cluster Status	NA	Cluster Status

**Table 1-79 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## AWS SNS

**Table 1-80 Supported Configuration Metrics for AWS SNS**

Group	Name	Unit	Description
General Configuration	Topic ARN	NA	Topic ARN

**Table 1-81 Supported Status and Performance Metrics for AWS SNS**

Metric Group	Category	Name	Unit	Description
Message Notification Summary	Load	Notifications Delivered	NA	The number of messages successfully delivered.
Message Notification Summary	Load	Notifications Failed	NA	The number of messages failed to deliver.
Message Publication Summary	Load	Publish Size	bytes	The size of messages published.
Message Publication Summary	Load	Messages Published	NA	The number of messages published.

**Table 1-82 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## AWS SQS

**Table 1-83 Supported Configuration Metrics for AWS SQS**

Group	Name	Unit	Description
General Configuration	Queue URL	NA	Queue URL

**Table 1-84 Supported Status and Performance Metrics for AWS SQS**

Metric Group	Category	Name	Unit	Description
Queue Message Status Summary	Load	Age Of Oldest Message	sec	The approximate age of the oldest non-deleted message in the queue.
Queue Message Status Summary	Load	Messages Delayed	NA	The number of messages in the queue that are delayed and not available for reading immediately.
Queue Message Status Summary	Load	Messages Not Visible	NA	The number of messages that are not visible (in flight).

**Table 1-84 (Cont.) Supported Status and Performance Metrics for AWS SQS**

Metric Group	Category	Name	Unit	Description
Queue Message Status Summary	Load	Messages Visible	NA	The number of messages available for retrieval from the queue.
Message Throughput	Load	Empty Receives	NA	The number of ReceiveMessage API calls that did not return a message.
Message Throughput	Load	Messages Deleted	NA	The number of messages deleted from the queue.
Message Throughput	Load	Messages Received	NA	The number of messages returned by calls to the ReceiveMessage API action.
Message Throughput	Load	Messages Sent	NA	The number of messages added to a queue.
Message Throughput	Load	Sent Message Size	bytes	The size of messages added to a queue.

**Table 1-85 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Brocade Fibre Channel Switch

There are no specific metrics for a Brocade Fibre Channel Switch. All performance and configuration metrics are inherited from a parent entity as listed below.

**Table 1-86 Supported Configuration Metrics for Generic Physical Switch**

Metric Group	Name	Unit	Description
Summary Details	Part Number	NA	The switch part number,
Summary Details	Serial Number	NA	The switch serial number,
Summary Details	Model	NA	The switch model,
Summary Details	Architecture	NA	The switch architecture,

**Table 1-86 (Cont.) Supported Configuration Metrics for Generic Physical Switch**

Metric Group	Name	Unit	Description
Network Management Interface	IP Address	NA	The switch IP address,
Network Management Interface	Physical Address	NA	The switch physical address,
Network Port Details	Port Name	NA	The port name
Network Port Details	Port Physical Address	NA	The port physical address
Network Port Details	Port Type	NA	The port type/
Network Port Details	Port MTU	NA	The port MTU.
Network Port Details	Port Bandwidth	Mbps	An estimate of the interface's current bandwidth.
Network Port Details	Peer Port Physical Address	NA	Peer port physical address,
Network Port Details	Peer Port Type	NA	Peer port type,
Network Port Details	Media Type	NA	Port media type,
Component Details	Name	NA	Component name,
Component Details	Manufacturer	NA	Component manufacturer,
Component Details	Model	NA	Component model,

**Table 1-87 Supported Status and Performance Metrics for Generic Physical Switch**

Metric Group	Category	Name	Unit	Description
Switch ports free vs used	Capacity	Ports Free	NA	The unused ports.
Switch ports free vs used	Capacity	Ports Used	NA	The ports in use.
Switch ports free vs used	Capacity	Ports Count	NA	The total number of physical network ports
Switch ports free vs used	Utilization	Ports Occupation Ratio	%	The percentage of network ports actually used.
Network Port Statistics		Port Name	NA	Port name
Network Port Statistics	Availability	Port Status	NA	Port status
Network Port Statistics	Availability	Port Administrative Status	NA	The port administrative status.
Network Port Statistics	Load	Inbound Octets Rate	bytes/sec	Inbound octets rate,
Network Port Statistics	Utilization	Inbound Bandwidth Usage	%	The percentage of bandwidth used by incoming traffic.

**Table 1-87 (Cont.) Supported Status and Performance Metrics for Generic Physical Switch**

Metric Group	Category	Name	Unit	Description
Network Port Statistics	Load	Outbound Octets Rate	bytes/sec	Outbound octets rate
Network Port Statistics	Utilization	Outbound Bandwidth Usage	%	The percentage of bandwidth used by outgoing traffic.
Network Port Statistics	Load	Total Octets Rate	bytes/sec	Total octets rate
Network Port Statistics	Error	Inbound Discard Ratio	%	The percentage of incoming packets discarded.
Network Port Statistics	Error	Outbound Discard Ratio	%	The percentage of outgoing packets which are discarded.
Network Port Statistics	Error	Inbound Error Ratio	%	The percentage of invalid incoming packets (undersized, oversized, or have FCS errors).
Network Port Statistics	Error	Outbound Error Ratio	%	The percentage of invalid outgoing packets (undersized, oversized, or have FCS errors).
Network Port Statistics		Interval	sec	Interval of metric collection in seconds.
Component State		Name	NA	Component name
Component State	Availability	State	NA	Component state

## CassandraDB

**Table 1-88 Supported Configuration Metrics for CassandraDB**

Metric Group	Name	Unit	Default Collection Frequency	Description
ReadStageThread Pool	Active Tasks	NA	1 Min	Approximate number of tasks thread pool is actively executing
ReadStageThread Pool	Currently Blocked Tasks	NA	1 Min	Number of currently blocked tasks
ReadStageThread Pool	Pending Tasks	NA	1 Min	Approximate number of pending tasks thread pool has



**Table 1-89 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-90 Supported Status and Performance Metrics for CassandraDB**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Storage	Error	Exceptions	per min	1 Min	Number of internal exceptions caught
Storage	Load	Disk Data Size	bytes	1 Min	On disk data size the node manages
Buffer Pool	Utilization	Size	bytes	1 Min	Size of the managed buffer pool
Buffer Pool	Utilization	Misses	per min	1 Min	The rate of misses in the pool.
Row Cache	Capacity	Capacity	bytes	1 Min	Cache capacity
Row Cache	Utilization	Requests	per min	1 Min	Total number of cache requests
Row Cache	Utilization	Size	bytes	1 Min	Total size of occupied cache
Physical Memory	Load	Memory Usage	GB	1 Min	Physical Memory used in GB
Physical Memory	Utilization	Memory Utilization	%	1 Min	Percentage of physical memory that is utilized
Physical Memory	Utilization	Max	bytes	1 Min	Maximum amount of memory in bytes that can be used for memory management

**Table 1-90 (Cont.) Supported Status and Performance Metrics for CassandraDB**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
TableMetrics	Load	ReadLatency	reqs/sec	1 Min	Read requests per second
TableMetrics	Load	WriteLatency	reqs/sec	1 Min	Write requests per second
CommitLogMetrics	Load	TotalCommitLogSize	bytes	1 Min	Current size, in bytes, used by all the commit log segments
CommitLogMetrics	Load	CompletedTasks	msgs/sec	1 Min	Total number of commit log messages written.
CommitLogMetrics	Load	PendingTasks	NA	1 Min	Number of commit log messages written but yet to be fsync'd
CompactionMetrics	Load	BytesCompacted	bytes	1 Min	Total number of bytes compacted
CompactionMetrics	Load	CompletedTasks	ops/sec	1 Min	Number of completed compactions
CompactionMetrics	Load	PendingTasks	NA	1 Min	Total compaction tasks in queue

**Table 1-91 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

## Cisco Ethernet (Catalyst) Switch

There are no Cisco Ethernet (Catalyst) Switch specific metrics supported. All metrics are inherited from a parent entity as listed below.

**Table 1-92 Supported Configuration Metrics for Generic Physical Switch**

Metric Group	Name	Unit	Description
Summary Details	Part Number	NA	The switch part number,
Summary Details	Serial Number	NA	The switch serial number,
Summary Details	Model	NA	The switch model,
Summary Details	Architecture	NA	The switch architecture,
Network Management Interface	IP Address	NA	The switch IP address,
Network Management Interface	Physical Address	NA	The switch physical address,
Network Port Details	Port Name	NA	The port name
Network Port Details	Port Physical Address	NA	The port physical address
Network Port Details	Port Type	NA	The port type/
Network Port Details	Port MTU	NA	The port MTU.
Network Port Details	Port Bandwidth	Mbps	An estimate of the interface's current bandwidth.
Network Port Details	Peer Port Physical Address	NA	Peer port physical address,
Network Port Details	Peer Port Type	NA	Peer port type,
Network Port Details	Media Type	NA	Port media type,
Component Details	Name	NA	Component name,
Component Details	Manufacturer	NA	Component manufacturer,
Component Details	Model	NA	Component model,

**Table 1-93 Supported Status and Performance Metrics for Generic Physical Switch**

Metric Group	Category	Name	Unit	Description
Switch ports free vs used	Capacity	Ports Free	NA	The unused ports.
Switch ports free vs used	Capacity	Ports Used	NA	The ports in use.
Switch ports free vs used	Capacity	Ports Count	NA	The total number of physical network ports
Switch ports free vs used	Utilization	Ports Occupation Ratio	%	The percentage of network ports actually used.
Network Port Statistics		Port Name	NA	Port name

**Table 1-93 (Cont.) Supported Status and Performance Metrics for Generic Physical Switch**

Metric Group	Category	Name	Unit	Description
Network Port Statistics	Availability	Port Status	NA	Port status
Network Port Statistics	Availability	Port Administrative Status	NA	The port administrative status.
Network Port Statistics	Load	Inbound Octets Rate	bytes/sec	Inbound octets rate,
Network Port Statistics	Utilization	Inbound Bandwidth Usage	%	The percentage of bandwidth used by incoming traffic.
Network Port Statistics	Load	Outbound Octets Rate	bytes/sec	Outbound octets rate
Network Port Statistics	Utilization	Outbound Bandwidth Usage	%	The percentage of bandwidth used by outgoing traffic.
Network Port Statistics	Load	Total Octets Rate	bytes/sec	Total octets rate
Network Port Statistics	Error	Inbound Discard Ratio	%	The percentage of incoming packets discarded.
Network Port Statistics	Error	Outbound Discard Ratio	%	The percentage of outgoing packets which are discarded.
Network Port Statistics	Error	Inbound Error Ratio	%	The percentage of invalid incoming packets (undersized, oversized, or have FCS errors).
Network Port Statistics	Error	Outbound Error Ratio	%	The percentage of invalid outgoing packets (undersized, oversized, or have FCS errors).
Network Port Statistics		Interval	sec	Interval of metric collection in seconds.
Component State		Name	NA	Component name
Component State	Availability	State	NA	Component state

## Cisco Nexus Ethernet Switch

**Table 1-94 Supported Configuration Metrics for Generic Physical Switch**

Metric Group	Name	Unit	Description
Summary Details	Part Number	NA	The switch part number,
Summary Details	Serial Number	NA	The switch serial number,

**Table 1-94 (Cont.) Supported Configuration Metrics for Generic Physical Switch**

Metric Group	Name	Unit	Description
Summary Details	Model	NA	The switch model,
Summary Details	Architecture	NA	The switch architecture,
Network Management Interface	IP Address	NA	The switch IP address,
Network Management Interface	Physical Address	NA	The switch physical address,
Network Port Details	Port Name	NA	The port name
Network Port Details	Port Physical Address	NA	The port physical address
Network Port Details	Port Type	NA	The port type/
Network Port Details	Port MTU	NA	The port MTU.
Network Port Details	Port Bandwidth	Mbps	An estimate of the interface's current bandwidth.
Network Port Details	Peer Port Physical Address	NA	Peer port physical address,
Network Port Details	Peer Port Type	NA	Peer port type,
Network Port Details	Media Type	NA	Port media type,
Component Details	Name	NA	Component name,
Component Details	Manufacturer	NA	Component manufacturer,
Component Details	Model	NA	Component model,

**Table 1-95 Supported status and performance Metrics for Cisco Nexus Ethernet Switch**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
CPU Usage	Utilization	Overall CPU busy percentage last 5 mins	%	15 Min	This metric measures the overall CPU busy percentage in the last 5 minute period.
Memory Usage	Utilization	Memory Utilization	%	15 Min	This metric measures the average utilization of memory on the active supervisor.

**Table 1-96 Supported Status and Performance Metrics for Generic Physical Switch**

Metric Group	Category	Name	Unit	Description
Switch ports free vs used	Capacity	Ports Free	NA	The unused ports.
Switch ports free vs used	Capacity	Ports Used	NA	The ports in use.
Switch ports free vs used	Capacity	Ports Count	NA	The total number of physical network ports
Switch ports free vs used	Utilization	Ports Occupation Ratio	%	The percentage of network ports actually used.
Network Port Statistics		Port Name	NA	Port name
Network Port Statistics	Availability	Port Status	NA	Port status
Network Port Statistics	Availability	Port Administrative Status	NA	The port administrative status.
Network Port Statistics	Load	Inbound Octets Rate	bytes/sec	Inbound octets rate,
Network Port Statistics	Utilization	Inbound Bandwidth Usage	%	The percentage of bandwidth used by incoming traffic.
Network Port Statistics	Load	Outbound Octets Rate	bytes/sec	Outbound octets rate
Network Port Statistics	Utilization	Outbound Bandwidth Usage	%	The percentage of bandwidth used by outgoing traffic.
Network Port Statistics	Load	Total Octets Rate	bytes/sec	Total octets rate
Network Port Statistics	Error	Inbound Discard Ratio	%	The percentage of incoming packets discarded.
Network Port Statistics	Error	Outbound Discard Ratio	%	The percentage of outgoing packets which are discarded.
Network Port Statistics	Error	Inbound Error Ratio	%	The percentage of invalid incoming packets (undersized, oversized, or have FCS errors).
Network Port Statistics	Error	Outbound Error Ratio	%	The percentage of invalid outgoing packets (undersized, oversized, or have FCS errors).
Network Port Statistics		Interval	sec	Interval of metric collection in seconds.
Component State		Name	NA	Component name

**Table 1-96 (Cont.) Supported Status and Performance Metrics for Generic Physical Switch**

Metric Group	Category	Name	Unit	Description
Component State	Availability	State	NA	Component state

## Datacenter

**Table 1-97 Supported Configuration Metrics for Datacenter**

Group	Name	Unit	Description
Datacenter Configuration	Name	NA	The datacenter name.

**Table 1-98 Supported Status and Performance Metrics for Datacenter**

Metric Group	Category	Name	Unit	Description
Datacenter State	Availability	State	NA	Overall state of a datacenter.

**Table 1-99 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Datastore

**Table 1-100 Supported Configuration Metrics for Datastore**

Group	Name	Unit	Description
Datastore Configuration	Name	NA	The datastore name.
Datastore Configuration	Type	NA	The type of datastore.
Datastore Configuration	Max File Size	MB	The maximum size of a file in MB that can reside on this file system volume.

**Table 1-101 Supported Configuration Metrics for Generic Storage Manager**

Metric Group	Name	Unit	Description
Storage Capacity	Total Size	GB	Total size of the managed storage

**Table 1-101 (Cont.) Supported Configuration Metrics for Generic Storage Manager**

Metric Group	Name	Unit	Description
Storage Capacity	Physical Size	GB	Physical size of the managed storage

**Table 1-102 Supported Status and Performance Metrics for Datastore**

Metric Group	Category	Name	Unit	Description
Datastore Usage	Availability	State	NA	Overall state of a datastore.
Datastore Usage	Capacity	Free Space	GB	Free space on this datastore in GB.
Datastore Usage		Maintenance Mode	NA	Datastore maintenance mode.
Datastore Usage	Load	Number Read Averaged	IOPS	Average number of read commands issued per second to the datastore during the collection interval.
Datastore Usage	Load	Number Write Averaged	IOPS	Average number of write commands issued per second to the datastore during the collection interval.
Datastore Usage	Load	Read	MB/sec	Rate of reading data from the datastore in MBPS.
Datastore Usage	Load	Write	MB/sec	Rate of writing data to the datastore in MBPS.
Datastore Usage		Interval	sec	Interval of metric collection in seconds.

**Table 1-103 Supported Status and Performance Metrics for Generic Storage Manager**

Metric Group	Category	Name	Unit	Description
StorageUtilization	Utilization	Used Size	GB	Used size of the managed storage
StorageUtilization	Utilization	Physical Used Size	GB	Physical used size of the managed storage
StorageUtilization	Utilization	Storage Used	%	Percentage of space used in the storage
StorageUtilization	Utilization	Physical Storage Used	%	Percentage of physical space used in the storage



**Table 1-104 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Docker Container

**Table 1-105 Supported Configuration Metrics for Docker Containers**

Metric Group	Name	Unit	Default Collection Frequency	Description
Resource Allocation	CPU Shares	N/A	24 Hr	A relative weight among containers for CPU
Resource Allocation	CPU Period	N/A	24 Hr	The length of a CPU period in microseconds
Resource Allocation	CPU Quota	N/A	24 Hr	Microseconds of CPU time that the container can get in a CPU period
Volumes	Name	N/A	24 Hr	The name of the volume
Volumes	Volume Source	N/A	24 Hr	Directory of the volume on the Docker Engine
Volumes	Volume Destination	N/A	24 Hr	Directory of the volume inside the Docker Container
Volumes	Mode	N/A	24 Hr	the mode, read-write (rw) or read-only (ro), in which the volume is available to the Docker Container
Port Mapping	Port	N/A	24 Hr	Network port on which the Docker Container is listening
Port Mapping	Protocol	N/A	24 Hr	Network protocol on which the Docker Container is listening
Port Mapping	Host IP Address	N/A	24 Hr	IP address of the host used to access the Docker Container
Port Mapping	Host Port	N/A	24 Hr	Network port of the host used to access the Docker Container
General Configuration	Privileged	N/A	24 Hr	Indicates whether the Docker Container is privileged (true) or not (false)

**Table 1-105 (Cont.) Supported Configuration Metrics for Docker Containers**

Metric Group	Name	Unit	Default Collection Frequency	Description
General Configuration	Log Path	N/A	24 Hr	Location on the Docker Engine where the Docker Container logs will be stored
General Configuration	Domain Name	N/A	24 Hr	Domain name of the Docker Container
General Configuration	Image ID	N/A	24 Hr	The ID of the Docker Image that was used to create the Docker Container
General Configuration	Image Name	N/A	24 Hr	The name of the Docker Image that was used to create the Docker Container

**Table 1-106 Supported Configuration Metrics for Virtual Servers**

Metric Group	Name	Unit	Description
Network Interfaces Configuration	Interface Name	N/A	The interface name of the network interface card
Network Interfaces Configuration	IP Address	N/A	The IP address of the network card
Network Interfaces Configuration	MAC Address	N/A	The MAC address of the network interface card
General Configuration	Server ID	N/A	ID of the virtual server, which can be a container or virtual machine
General Configuration	Server Name	N/A	Name of the virtual server, which can be a container or virtual machine
General Configuration	Host Name	N/A	Host name of the virtual server, which can be a container or virtual machine
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-107 Supported Status and Performance Metrics for Virtual Servers**

Metric Group	Category	Name	Unit	Description
CPU	Load	CPU Usage	sec	Total CPU time spent across all CPUs allocated or available to the entity
CPU	Utilization	CPU Utilization	%	Percentage of total CPU time spent across all CPUs allocated or available to the entity
CPU	N/A	Interval	sec	Interval of metric collection in seconds
Memory	Load	Memory Used	GB	Memory used by the entity in GB
Memory	Utilization	Memory Utilization	%	Percentage of the allocated or available memory that is utilized by the entity
Network Activity Summary	Load	Network Read rate	MB/sec	Rate at which bytes are received across all network interfaces
Network Activity Summary	N/A	Network Write Rate	MB/sec	Rate at which bytes are sent across all network interfaces
Network Activity Summary	N/A	Network I/O Rate	MB/sec	Rate at which bytes are sent and received on across all network interfaces
Network Activity Summary	N/A	Interval	sec	Interval of metric collection in seconds
State	Availability	State	N/A	The state of this container

**Table 1-108 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Docker Engine

**Table 1-109 Supported Configuration Metrics for Docker Engine Entity**

Metric Group	Name	Unit	Default Collection Frequency	Description
Docker Network	Network ID	N/A	24 Hr	ID of the Docker network

**Table 1-109 (Cont.) Supported Configuration Metrics for Docker Engine Entity**

Metric Group	Name	Unit	Default Collection Frequency	Description
Docker Network	Network Name	N/A	24 Hr	Name of the Docker network
Docker Network	Driver	N/A	24 Hr	Driver that manages the Docker network
Docker Container Network	Network ID	N/A	24 Hr	ID of the Docker network
Docker Container Network	Container ID	N/A	24 Hr	ID of the Docker container
Docker Volumes	Volume Name	N/A	24 Hr	The name of the volume
Docker Volumes	Driver	N/A	24 Hr	The storage driver of the volume
Docker Volumes	Mount Point	N/A	24 Hr	The mount point of the volumes

**Table 1-110 Supported Configuration Metrics for Virtual platform**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs on the system
Resource Allocation	Total Memory	GB	Total number of usable Physical RAM on the system
Virtual Servers	Virtual Server ID	N/A	The ID of the virtual server, which can be a container or virtual machine
Virtual Servers	Virtual Server Name	N/A	The name of the virtual server, which can be a container or virtual machine

**Table 1-111 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Docker Swarm

**Table 1-112 Supported Configuration Metrics for Docker Swarm**

Group	Name	Unit	Default Collection Frequency	Description
Swarm General Configuration	Swarm Id	NA	24 Hr	Swarm Id

**Table 1-112 (Cont.) Supported Configuration Metrics for Docker Swarm**

Group	Name	Unit	Default Collection Frequency	Description
Swarm General Configuration	Swarm Name	NA	24 Hr	Swarm name

**Table 1-113 Supported Status and Performance Metrics for Docker Swarm**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Swarm Nodes		Node Id	NA	15 Min	Unique id of the node
Swarm Nodes		Hostname	NA	15 Min	Hostname of the manager/worker node
Swarm Nodes		Role	NA		Role of the node (worker/manager)
Swarm Nodes	Availability	Availability	NA	15 Min	Availability of the node (active/pause/drain) determines whether or not the scheduler can assign tasks to the node
Swarm Nodes	Availability	Status	NA	15 Min	Status of the node as a worker that accepts tasks
Swarm Nodes	Availability	Reachability	NA	15 Min	Reachability of the node as a manager
Swarm Nodes		Leader	NA	15 Min	Flag to indicate if the node is a leader

**Table 1-114 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## EMC VMAX

**Table 1-115 Supported Configuration Metrics for EMC VMAX**

Metric Group	Name	Unit	Default Collection Frequency	Description
Storage Information	HyperMax OS Version	NA	24 Hr	HyperMax OS Version
Storage Information	Device Count	NA	24 Hr	Number of devices defined in storage

**Table 1-116 Supported Configuration Metrics for Storage Server**

Metric Group	Name	Unit	Default Collection Frequency	Description
Storage Information	Name	NA	24 Hr	Name of the managed storage
Storage Information	Description	NA	24 Hr	Description of the managed storage
Storage Information	Model	NA	24 Hr	Model of the managed storage
Storage Information	Location	NA	24 Hr	Location of the managed storage
Storage Information	Firmware Version	NA	24 Hr	Firmware version of the managed storage
Storage Information	Serial Number	NA	24 Hr	Serial number of the managed storage
Storage Information	Contact	NA	24 Hr	Contact of the managed storage
Storage Capacity	Total Size	GB	.	Total size of the managed storage
Storage Capacity	Physical Size	GB	.	Physical size of the managed storage

**Table 1-117 Supported Status and Performance Metrics for EMC VMAX**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Storage Vmax Statistics	Utilization	Read Operations	%	15 Min	Percent of time spend on read operations
Storage Vmax Statistics	Utilization	Write Operations	%	15 Min	Percent of time spend on write operations

**Table 1-117 (Cont.) Supported Status and Performance Metrics for EMC VMAX**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Storage Vmax Statistics	Utilization	Cache Utilization	%	15 Min	Total cache utilization in percentage
Storage Vmax Statistics	Response	Read Response Time	ms	15 Min	Response time for read operations in milliseconds
Storage Vmax Statistics	Response	Write Response Time	ms	15 Min	Response time for write operations in milliseconds
Storage Vmax Statistics	Capacity	Allocated Capacity	GB	15 Min	Allocated Capacity
Storage Vmax Statistics	Load	IO Rate	IOPS	15 Min	Number of input / output operations per second

**Table 1-118 Supported Status and Performance Metrics for Storage Server**

Metric Group	Category	Name	Unit	Description
Storage Utilization	Utilization	Used Size	GB	Used size of the managed storage
Storage Utilization	Utilization	Physical Used Size	GB	Physical used size of the managed storage
Storage Utilization	Utilization	Storage Used	%	Percentage of space used in the storage
Storage Utilization	Utilization	Physical Storage Used	%	Percentage of physical space used in the storage

## EMC VNX

**Table 1-119 Supported Configuration Metrics for EMC VNX**

Metric Group	Name	Unit	Default Collection Frequency	Description
Storage Information	Block Storage Software Version	NA	24 Hr	Version of software for block storage monitoring

**Table 1-119 (Cont.) Supported Configuration Metrics for EMC VNX**

<b>Metric Group</b>	<b>Name</b>	<b>Unit</b>	<b>Default Collection Frequency</b>	<b>Description</b>
Storage Information	Model Type	NA	24 Hr	Type of the model for storage
Storage Information	Storage Array UID	NA	24 Hr	Arrays UID
Storage Information	Storage Array Base Uuid	NA	24 Hr	Arrays base UUID
Storage Pool Info	Name	NA	24 Hr	Storage pool name
Storage Pool Info	Raid Type	NA	24 Hr	Raid type of storage pool
Storage Pool Info	Storage Pool Description	NA	24 Hr	Storage pool description
Storage Pool Info	Disk Type	NA	24 Hr	Storage pool disk type
Disk Info	Name	NA	24 Hr	Storage pool name
Disk Info	Vendor Id	NA	24 Hr	Vendor of the disk
Disk Info	Product Id	NA	24 Hr	Id of the product for disk
Disk Info	State	NA	24 Hr	Disk state
Disk Info	Drive Type	NA	24 Hr	Type of the drive
Disk Info	Raid Group Id	NA	24 Hr	Raid group id to which disk belong
Disk Info	Serial Number	NA	24 Hr	Serial number of the disk
Storage Processor Info	Name	NA	24 Hr	Storage processor name
Storage Processor Info	Network Name	NA	24 Hr	Storage processor network name
Storage Processor Info	Ip Address	NA	24 Hr	Storage processor ip address
Storage Processor Info	Statistics Logging	NA	24 Hr	Storage processor logging for statistics configuration
Storage Processor Info	Serial Number	NA	24 Hr	Serial number of storage processor



**Table 1-120 Supported Configuration Metrics for Storage Server**

Metric Group	Name	Unit	Default Collection Frequency	Description
Storage Information	Name	NA	24 Hr	Name of the managed storage
Storage Information	Description	NA	24 Hr	Description of the managed storage
Storage Information	Model	NA	24 Hr	Model of the managed storage
Storage Information	Location	NA	24 Hr	Location of the managed storage
Storage Information	Firmware Version	NA	24 Hr	Firmware version of the managed storage
Storage Information	Serial Number	NA	24 Hr	Serial number of the managed storage
Storage Information	Contact	NA	24 Hr	Contact of the managed storage
Storage Capacity	Total Size	GB	.	Total size of the managed storage
Storage Capacity	Physical Size	GB	.	Physical size of the managed storage

**Table 1-121 Supported Status and Performance Metrics for EMC VNX**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Storage Pool Statistics	-	Name	NA	15 Min	Storage processor name
Storage Pool Statistics	Utilization	Capacity Utilization	%	15 Min	Percent of capacity used
Storage Pool Statistics	Capacity	User Capacity	GB	15 Min	Total usable capacity
Storage Pool Statistics	Capacity	Consumed Capacity	GB	15 Min	Used usable capacity
Raid Group Statistics	-	Name	NA	15 Min	Raid group id
Raid Group Statistics	-	Type	NA	15 Min	Raid group type
Raid Group Statistics	-	State	NA	15 Min	Raid group state

**Table 1-121 (Cont.) Supported Status and Performance Metrics for EMC VNX**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Default Collection Frequency</b>	<b>Description</b>
Raid Group Statistics	Utilization	Capacity Utilization	%	15 Min	Percent of capacity used in raid group
Storage Processor Statistics	-	Name	NA	15 Min	Storage processor name
Storage Processor Statistics	Utilization	Utilization	%	15 Min	Percent of storage processor being utilized
Storage Processor Statistics	Response	Response Time	ms	15 Min	Response time for storage processor
Storage Processor Statistics	Load	Total Throughput	IOPS	15 Min	Number of input / output operations per second for storage processor
Storage Processor Statistics	Load	Total Bandwidth	MB/sec	15 Min	Bandwidth use on storage server
Disk Statistics	-	Name	NA	15 Min	Disk name
Disk Statistics	Utilization	Utilization	%	15 Min	Disk utilization
Disk Statistics	Response	Response Time	ms	15 Min	Response time for disk
Disk Statistics	Load	Total Throughput	IOPS	15 Min	Number of input / output operations per second for disk
Disk Statistics	Load	Total Bandwidth	MB/sec	15 Min	Bandwidth use on disk

**Table 1-122 Supported Status and Performance Metrics for Storage Server**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Storage Utilization	Utilization	Used Size	GB	Used size of the managed storage
Storage Utilization	Utilization	Physical Used Size	GB	Physical used size of the managed storage
Storage Utilization	Utilization	Storage Used	%	Percentage of space used in the storage

**Table 1-122 (Cont.) Supported Status and Performance Metrics for Storage Server**

Metric Group	Category	Name	Unit	Description
Storage Utilization	Utilization	Physical Storage Used	%	Percentage of physical space used in the storage

## F5 BIG-IP DNS

**Table 1-123 Supported Configuration Metrics for F5 BIG-IP DNS**

Group	Name	Unit	Default Collection Frequency	Description
Network Port Details	Port Name	NA	24 Hr	The port name.
Network Port Details	Port Alias	NA	24 Hr	The alias name if any for the port as specified by a network manager.
Network Port Details	Port Physical Address	NA	24 Hr	The physical address of the port.
Network Port Details	Port Type	NA	24 Hr	The port type.
Network Port Details	Port MTU	NA	24 Hr	The port MTU.
Network Port Details	Port Bandwidth	Mbps	24 Hr	An estimate of the interface's current bandwidth.

**Table 1-124 Supported Status and Performance Metrics for F5 BIG-IP DNS**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Pool Members Statuses		Pool Name	NA	15 Min	The name of the pool.
Pool Members Statuses		Pool Virtual Server Name	NA	15 Min	The name of the virtual server member.
Pool Members Statuses		Pool Server Name	NA	15 Min	The name of the server member.

**Table 1-124 (Cont.) Supported Status and Performance Metrics for F5 BIG-IP DNS**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Pool Members Statuses	Availability	Pool Member Availability Status	NA	15 Min	The availability of the specified pool member.
Pool Members Statuses	Availability	Pool Member Administrative Status	NA	15 Min	The administrative status of the pool member as specified by the user.
Wide IPs Statuses		Wide IP Name	NA	15 Min	The name of the wide IP configuration.
Wide IPs Statuses	Availability	Wide IP Availability	NA	15 Min	The availability of the wide IP.
Wide IPs Statuses	Availability	Wide IP Admin Status	NA	15 Min	The administrative status of the wide IP as specified by the user.
Wide IPs Statuses	Availability	Wide IP Status Details	NA	15 Min	The detail description of the specified wide IP's status.
CPU Cores Utilization		CPU Core Name	NA	15 Min	The CPU name which is the concatenation of the CPU Host ID and the CPU Index on that host.
CPU Cores Utilization	Utilization	CPU Usage Percentage	%	15 Min	This is average usage ratio of CPU for the associated host in the last five minutes.
CPU Utilization	Utilization	CPU Usage Percentage	%	15 Min	The average usage ratio of all the system CPUs.
Memory Utilization	Load	Memory Used	MB	15 Min	The amount of used memory.

**Table 1-124 (Cont.) Supported Status and Performance Metrics for F5 BIG-IP DNS**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Memory Utilization	Load	Memory Free	MB	15 Min	The amount of free memory.
Memory Utilization	Utilization	Memory Usage Percentage	%	15 Min	The percentage of used memory.
Failover	Availability	Failover Status	NA	15 Min	Indicates whether the machine is active or standby.
Failover	Availability	Failover Changed	boolean	15 Min	Indicates whether the failover stause has changed since the last collection.
Network Ports Statistics		Port Name	NA	15 Min	The name of the network port.
Network Ports Statistics	Availability	Port Operational Status	NA	15 Min	The port operational status.
Network Ports Statistics	Availability	Port Administrative Status	NA	15 Min	The port administrative status.
Network Ports Statistics	Load	Inbound Octets Rate	bytes/sec	15 Min	The number of octets received per second.
Network Ports Statistics	Utilization	Inbound Bandwidth Usage	%	15 Min	The percentage of bandwidth used by incoming traffic.
Network Ports Statistics	Error	Inbound Discard Ratio	%	15 Min	The percentage of incoming packets discarded.

**Table 1-124 (Cont.) Supported Status and Performance Metrics for F5 BIG-IP DNS**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Network Ports Statistics	Error	Inbound Error Ratio	%	15 Min	The percentage of invalid incoming packets (undersized, oversized, or have FCS errors).
Network Ports Statistics	Load	Outbound Octets Rate	bytes/sec	15 Min	The number of octets sent per second.
Network Ports Statistics	Utilization	Outbound Bandwidth Usage	%	15 Min	The percentage of bandwidth used by outgoing traffic.
Network Ports Statistics	Error	Outbound Discard Ratio	%	15 Min	The percentage of outgoing packets which are discarded.
Network Ports Statistics	Error	Outbound Error Ratio	%	15 Min	The percentage of invalid outgoing packets (undersized, oversized, or have FCS errors).

**Table 1-125 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

# F5 BIG-IP LTM

**Table 1-126 Supported Configuration Metrics for F5 BIG-IP LTM**

Group	Name	Unit	Default Collection Frequency	Description
Network Port Details	Port Name	NA	24 Hr	The port name.
Network Port Details	Port Alias	NA	24 Hr	The alias name if any for the port as specified by a network manager.
Network Port Details	Port Physical Address	NA	24 Hr	The physical address of the port.
Network Port Details	Port Type	NA	24 Hr	The port type.
Network Port Details	Port MTU	NA	24 Hr	The port MTU.
Network Port Details	Port Bandwidth	Mbps	24 Hr	An estimate of the interface's current bandwidth.

**Table 1-127 Supported Status and Performance Metrics for F5 BIG-IP LTM**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
APM Lease Pool Stats		Lease Pool Name	NA	15 Min	The name of the APM lease pool.
APM Lease Pool Stats	Capacity	Assigned IP Addresses Count	NA	15 Min	The number of IP addresses currently assigned to user sessions.
APM Lease Pool Stats	Capacity	Total IP Addresses Count	NA	15 Min	The current number of IP addresses in the pool.
APM Profile Stats		Access Profile Name	NA	15 Min	The name of the access profile.
APM Profile Stats	Load	Allowed Sessions Rate	conns/sec	15 Min	The number of granted session creation requests per second.

**Table 1-127 (Cont.) Supported Status and Performance Metrics for F5 BIG-IP LTM**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
APM Profile Stats	Load	Denied Sessions Rate	conns/sec	15 Min	The number of rejected session creation requests per second.
APM Profile Stats	Load	Active Sessions Count	NA	15 Min	The current number of active sessions.
CPU Cores Utilization		CPU Core Name	NA	15 Min	The CPU name which is the concatenation of the CPU Host ID and the CPU Index on that host.
CPU Cores Utilization	Utilization	CPU Usage Percentage	%	15 Min	This is average usage ratio of CPU for the associated host in the last five minutes.
CPU Utilization	Utilization	CPU Usage Percentage	%	15 Min	The average usage ratio of all the system CPUs.
Memory Utilization	Load	Memory Used	MB	15 Min	The amount of used memory.
Memory Utilization	Load	Memory Free	MB	15 Min	The amount of free memory.
Memory Utilization	Utilization	Memory Usage Percentage	%	15 Min	The percentage of used memory.
Failover	Availability	Failover Status	NA	15 Min	Indicates whether the machine is active or standby.
Failover	Availability	Failover Changed	boolean	15 Min	Indicates whether the failover status has changed since the last collection.



**Table 1-127 (Cont.) Supported Status and Performance Metrics for F5 BIG-IP LTM**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Default Collection Frequency</b>	<b>Description</b>
Client Connections Statistics	Load	Current Connections	NA	15 Min	The number of current client connections.
Client Connections Statistics	Load	SSL Transactions Rate	per sec	15 Min	The number of SSL transactions per second.
Network Ports Statistics		Port Name	NA	15 Min	The name of the network port.
Network Ports Statistics	Availability	Port Operational Status	NA	15 Min	The port operational status.
Network Ports Statistics	Availability	Port Administrative Status	NA	15 Min	The port administrative status.
Network Ports Statistics	Load	Inbound Octets Rate	bytes/sec	15 Min	The number of octets received per second.
Network Ports Statistics	Utilization	Inbound Bandwidth Usage	%	15 Min	The percentage of bandwidth used by incoming traffic.
Network Ports Statistics	Error	Inbound Discard Ratio	%	15 Min	The percentage of incoming packets discarded.
Network Ports Statistics	Error	Inbound Error Ratio	%	15 Min	The percentage of invalid incoming packets (undersized, oversized, or have FCS errors).
Network Ports Statistics	Load	Outbound Octets Rate	bytes/sec	15 Min	The number of octets sent per second.

**Table 1-127 (Cont.) Supported Status and Performance Metrics for F5 BIG-IP LTM**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Default Collection Frequency</b>	<b>Description</b>
Network Ports Statistics	Utilization	Outbound Bandwidth Usage	%	15 Min	The percentage of bandwidth used by outgoing traffic.
Network Ports Statistics	Error	Outbound Discard Ratio	%	15 Min	The percentage of outgoing packets which are discarded.
Network Ports Statistics	Error	Outbound Error Ratio	%	15 Min	The percentage of invalid outgoing packets (undersized, oversized, or have FCS errors).
Network Throughput	Load	Client Inbound Octets Rate	bytes/sec	15 Min	The number of bytes per second received by the system from client-side.
Network Throughput	Load	Client Outbound Octets Rate	bytes/sec	15 Min	The number of bytes per second sent to client-side from the system.
Network Throughput	Load	Server Outbound Octets Rate	bytes/sec	15 Min	The number of bytes per second sent to server-side from the system.
Network Throughput	Load	Server Inbound Octets Rate	bytes/sec	15 Min	The number of bytes per second received by the system from server-side.

**Table 1-128 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

**Table 1-129 Supported Configuration Metrics for Fujitsu Server**

Metric Group	Name	Unit	Default Collection Frequency	Description
Processor Details	Name	NA	24 Hr	CPU name.
Processor Details	Model	NA	24 Hr	CPU model.
Processor Details	Frequency	NA	24 Hr	CPU speed.
Processor Details	Memory Mirror Mode	NA	24 Hr	CPU Memory Mirror Mode.
Memory Details	Name	NA	24 Hr	Memory name.
Memory Details	Size	GB	24 Hr	Memory size in GB.
Physical Domain Details	ID	NA	24 Hr	Domain ID.
Physical Domain Details	Name	NA	24 Hr	Domain Name.
Firmware Properties	Firmware XCP Version	NA	24 Hr	Firmware XCP version installed.
Firmware Properties	Firmware XSCF State	NA	24 Hr	Firmware XSCF state.

**Table 1-130 Supported Configuration Metrics for Physical Server**

Group	Name	Unit	Description
Summary Details	Part Number	UNDEFINED	The server part number
Summary Details	Serial Number	UNDEFINED	The server serial number
Summary Details	Model	UNDEFINED	The server model
Summary Details	Architecture	UNDEFINED	The server architecture
Network Management Interface	IP Address	UNDEFINED	The server IP address
Network Management Interface	Physical Address	UNDEFINED	The server physical address
CPU Details	Architecture	UNDEFINED	The server CPU architecture
CPU Details	Clock Speed	GHZ	The server CPU clock speed

**Table 1-130 (Cont.) Supported Configuration Metrics for Physical Server**

Group	Name	Unit	Description
CPU Details	Number of Cores	UNDEFINED	The server number of cores
Memory Details	Total Memory	MB	The server total memory
Network Port Details	Port Name	UNDEFINED	Port name
Network Port Details	Physical Address	UNDEFINED	Port physical address
Network Port Details	Media Type	UNDEFINED	Port media type
Component Details	Name	UNDEFINED	Component name
Component Details	Manufacturer	UNDEFINED	Component manufacturer
Component Details	Model	UNDEFINED	Component model

**Table 1-131 Supported Status and Performance Metrics for Fujitsu Server**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Power Consumption	Load	System Actual Power Consumption	W	15 Min	System actual power consumption in Watts.
Power Consumption	Utilization	System Power Utilization	%	15 Min	System actual power utilization in percentage.
Power Consumption	Load	Permitted Power Consumption	W	15 Min	Maximum power consumption in Watts.
Cooling System	Load	Cooling System Airflow	per min	15 Min	Airflow volume emitted at server running in Cubic Meter/Minute.
System Temperature	Load	System Temperature	°C	15 Min	Exhaust temperature in Celsius.

**Table 1-132 Supported Status and Performance Metrics for Physical Server**

Metric Group	Category	Name	Unit	Description
Network Port Statistics	configuration	Port Name	UNDEFINED	Port name
Network Port Statistics	availability	Port Status	UNDEFINED	Port status

**Table 1-132 (Cont.) Supported Status and Performance Metrics for Physical Server**

Metric Group	Category	Name	Unit	Description
Network Port Statistics	utilization	Inbound Octets Rate	bytes/sec	Inbound octets rate
Network Port Statistics	utilization	Outbound Octets Rate	bytes/sec	Outbound octets rate
Network Port Statistics	utilization	Total Octets Rate	bytes/sec	Total octets rate
Component State	configuration	Name	UNDEFINED	Component name
Component State	availability	State	UNDEFINED	Component state

**Table 1-133 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Generic LDAP Server

**Table 1-134 Supported Configuration Metrics for LDAP Server**

Metric Group	Name	Unit	Description
General Configurations	Server Mode	NA	
General Configurations	Maximum entries to be returned by a search	NA	
General Configurations	Maximum time allowed for a search to complete (second)	sec	
General Configurations	Anonymous Bind	NA	
General Configurations	Dump Flag	NA	
General Configurations	SSL Interoperability Mode	NA	
General Configurations	LDAP Host	NA	
General Configurations	LDAP SSL Port	NA	
General Configurations	LDAP Non-SSL Port	NA	

**Table 1-135 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-136 Supported Status and Performance Metrics for LDAP Server**

Metric Group	Category	Name	Unit	Description
LDAP Server Resource Usage		Memory Utilization	KB	
LDAP Server Resource Usage		CPU Utilization	%	
LDAP Server Resource Usage		Memory Utilization	%	
LDAP Operations Profile		Completed Bind Operations	ops/sec	
LDAP Operations Profile		Completed Add Operations	ops/sec	
LDAP Operations Profile		Completed Delete Operations	ops/sec	
LDAP Operations Profile		Completed Modify Operations	ops/sec	
LDAP Operations Profile		Completed Search Operations	ops/sec	
LDAP Operations Profile		Completed Compare Operations	ops/sec	
LDAP Operations Profile		Completed Abandon Operations	ops/sec	
LDAP Operations Profile		Completed Unbind Operations	ops/sec	
LDAP Operations Profile		Completed Modrdn Operations	ops/sec	
LDAP Operations Profile		Total Operations	ops/sec	
LDAP Operations Profile		Failed Bind Operations	ops/sec	
LDAP Operation Response Time		Bind Operation Response Time	ms	
LDAP Operation Response Time		Compare Operation Response Time	ms	

**Table 1-136 (Cont.) Supported Status and Performance Metrics for LDAP Server**

Metric Group	Category	Name	Unit	Description
LDAP Operation Response Time		Messaging Search Operation Response Time	ms	

**Table 1-137 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

## Hadoop DataNode

**Table 1-138 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-139 Supported Status and Performance Metrics for Hadoop DataNode**

Metric Group	Category	Name	Unit	Description
Read Write Activity	Load	Reads from Local Client	ops/sec	Rate of read operations from local client
Read Write Activity	Load	Writes from Local Client	ops/sec	Rate of write operations from local client
Read Write Activity	Load	Reads from Remote Client	ops/sec	Rate of read operations from remote client

**Table 1-139 (Cont.) Supported Status and Performance Metrics for Hadoop DataNode**

Metric Group	Category	Name	Unit	Description
Read Write Activity	Load	Writes from Remote Client	ops/sec	Rate of write operations from remote client
Read Write Activity	Response	Average Block Write Time	ms	Average time for block write operations in milliseconds
Read Write Activity	Response	Average Block Read Time	ms	Average time for block read operations in milliseconds
Read Write Activity	Response	Average Block Copy Time	ms	Average time for block copy operations in milliseconds
Read Write Activity	Response	Average Block Replace Time	ms	Average time for block replace operations in milliseconds
Resource Utilization	Capacity	HDFS Storage Capacity Used	GB	Storage capacity used by HDFS files in GB
Resource Utilization	Capacity	Non-HDFS Storage Capacity Used	GB	Storage capacity used by non-HDFS files in GB
Resource Utilization	Capacity	HDFS Storage Capacity	GB	Total configured HDFS storage capacity in GB
Resource Utilization	Capacity	Cache Used	MB	Cache used in MB
Resource Utilization	Capacity	Cache Capacity	MB	Capacity of HDFS cache in MB
Resource Utilization	Load	Blocks Cached	blocks/sec	Rate at which the DataNode cached blocks
Resource Utilization	Load	Blocks Failed to Cache	blocks/sec	Rate at which the DataNode failed to cache blocks
JVM Memory Usage	Load	Non-Heap Memory Usage	MB	Non-heap memory used by JVM in MB
JVM Memory Usage	Load	Heap Memory Usage	MB	Heap memory used by JVM in MB
JVM Memory Usage	Load	Maximum Memory	MB	Maximum memory in MB



**Table 1-139 (Cont.) Supported Status and Performance Metrics for Hadoop DataNode**

Metric Group	Category	Name	Unit	Description
JVM Threads	Load	Blocked Threads	NA	Number of blocked threads in JVM
JVM Threads	Load	New Threads	NA	Number of new threads in JVM
JVM Threads	Load	Runnable Threads	NA	Number of runnable threads in JVM
JVM Threads	Load	Terminated Threads	NA	Number of terminated threads in JVM
JVM Threads	Load	Timed Waiting Threads	NA	Number of timed waiting threads in JVM
JVM Threads	Load	Waiting Threads	NA	Number of waiting threads in JVM
Block Operations	Response	Average Block Checksum Time	ms	Average time of block checksum operations in milliseconds
Block Operations	Response	Average Block Reports Time	ms	Average time of block report operations in milliseconds
Block Operations	Response	Average Flush Time	ns	Average flush time in nanoseconds
Block Operations	Response	Average Filesync Time	ns	Average filesync time in nanoseconds
Block Operations	Response	Average Packet Acknowledge Round Trip Time	ns	Average time for packet acknowledgment round trip in nanoseconds
Block Operations	Response	Data Packet Network Blocked Time	ns	Average time of data packet blocked on network in nanoseconds
Block Operations	Response	Data Packet Transfer Time	ns	Average transfer time of data packets in nanoseconds
Block Operations	Capacity	Transceivers	NA	Number of transceivers

**Table 1-139 (Cont.) Supported Status and Performance Metrics for Hadoop DataNode**

Metric Group	Category	Name	Unit	Description
RPC Activity	Load	RPC Queue Length	NA	Length of the RPC queue
RPC Activity	Response	Average RPC Processing Time	ms	Average RPC processing time in milliseconds
RPC Activity	Response	Average RPC Queue Time	ms	Average RPC queue time in milliseconds

**Table 1-140 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-141 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Hadoop HDFS

**Table 1-142 Supported Status and Performance Metrics for Hadoop HDFS**

Metric Group	Category	Name	Unit	Description
Block Metrics	Capacity	Block Capacity	blocks	Block capacity of HDFS
Block Metrics	Capacity	Blocks With Corrupt Replicas	blocks	Number of blocks with corrupt replicas
Block Metrics	Capacity	Excess Blocks	blocks	Number of excess blocks

**Table 1-142 (Cont.) Supported Status and Performance Metrics for Hadoop HDFS**

Metric Group	Category	Name	Unit	Description
Block Metrics	Capacity	Missing Blocks	blocks	Number of missing blocks
Block Metrics	Capacity	Pending Deletion Blocks	blocks	Number of blocks pending deletion
Block Metrics	Capacity	Pending Replication Blocks	blocks	Number of blocks with replication pending
Block Metrics	Capacity	Scheduled Replication Blocks	blocks	Number of blocks with replication currently scheduled
Block Metrics	Capacity	Under-Replicated Blocks	blocks	Number of under-replicated blocks
Block Metrics	Capacity	Expired Heartbeats	NA	Number of expired heartbeats
Application Metrics	Load	Create Rate	ops/sec	Rate of create operations
Application Metrics	Load	Delete Rate	ops/sec	Rate of delete operations
Application Metrics	Load	Rename Rate	ops/sec	Rate of rename operations
Application Metrics	Load	Sync Rate	ops/sec	Rate of sync operations
Application Metrics	Load	File Information Rate	ops/sec	Rate of getFileInfo and getLinkFileInfo operations
Application Metrics	Load	Get Block Locations Rate	ops/sec	Rate of get block location operations

**Table 1-143 Supported Status and Performance Metrics for Generic Storage Manager**

Metric Group	Category	Name	Unit	Description
StorageUtilization	Utilization	Used Size	GB	Used size of the managed storage
StorageUtilization	Utilization	Physical Used Size	GB	Physical used size of the managed storage
StorageUtilization	Utilization	Storage Used	%	Percentage of space used in the storage
StorageUtilization	Utilization	Physical Storage Used	%	Percentage of physical space used in the storage

**Table 1-144 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Hadoop Journal Node

Metrics for Hadoop Journal Node

**Table 1-145 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-146 Supported Status and Performance Metrics for Hadoop Journal Node**

Metric Group	Category	Name	Unit	Description
Transactions	Load	Batches Written	ops/sec	Rate at which batches were written
Transactions	Load	Batches Written While Lagging	ops/sec	Rate at which batches are written while this node was lagging
Transactions	Load	Bytes Written	bytes/sec	Rate at which bytes are written
Transactions	Load	Transactions Written	txns/sec	Rate at which transactions are written
Transactions	Capacity	Current Lag Transactions	NA	The number of transactions that this JournalNode is lagging
Transactions	Capacity	Last Promised Epoch	NA	The last epoch number which this node has promised not to accept any lower epoch, or 0 if no promises have been made
Transactions	Capacity	Last Writer Epoch	NA	Current writer's epoch number
RPC Activity	Load	RPC Call Queue Length	NA	Current length of the call queue
RPC Activity	Load	Open RPC Connections	NA	Current number of open connections

**Table 1-146 (Cont.) Supported Status and Performance Metrics for Hadoop Journal Node**

Metric Group	Category	Name	Unit	Description
RPC Activity	Response	Average RPC Processing Time	ms	Average Processing time in milliseconds
RPC Activity	Response	Average RPC Queue Time	ms	Average queue time in milliseconds

**Table 1-147 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

## Hadoop NameNode

**Table 1-148 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-149 Supported Status and Performance Metrics for Hadoop NameNode**

Metric Group	Category	Name	Unit	Description
State	Availability	State	NA	Active or standby state of namenode
RPC Activity	Load	RPC Queue Length	NA	Length of the RPC queue

**Table 1-149 (Cont.) Supported Status and Performance Metrics for Hadoop NameNode**

Metric Group	Category	Name	Unit	Description
RPC Activity	Load	RPC Open Connections	NA	Number of RPC open connections
RPC Activity	Response	Average RPC Processing Time	ms	Average RPC Processing time in milliseconds
RPC Activity	Response	Average RPC Queue Time	ms	Average RPC queue time in milliseconds
Transactions	Load	Transactions since Last Checkpoint	NA	Number of transactions since last checkpoint
Transactions	Load	Transactions since Last Log Roll	NA	Number of transactions since last edit log roll

**Table 1-150 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-151 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

# Hadoop NodeManager

**Table 1-152 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-153 Supported Status and Performance Metrics for Hadoop NodeManager**

Metric Group	Category	Name	Unit	Description
Container Executions	Load	Allocated Containers	NA	Number of containers allocated
Container Executions	Load	Initiating Containers	NA	Number of containers initiating
Container Executions	Load	Launched Containers	txns/sec	Rate of containers launched
Container Executions	Load	Running Containers	NA	Number of containers running
Container Executions	Load	Completed Containers	txns/sec	Rate of containers completed
Container Executions	Load	Killed Containers	txns/sec	Rate of containers killed
Container Executions	Load	Failed Containers	txns/sec	Rate of containers failed
Resource Utilization	Capacity	Memory Available	GB	Memory available in GB
Resource Utilization	Capacity	Memory Allocated	GB	Memory allocated in GB

**Table 1-154 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized

**Table 1-154 (Cont.) Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-155 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Hadoop Resource Manager

**Table 1-156 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-157 Supported Status and Performance Metrics for Hadoop Resource Manager**

Metric Group	Category	Name	Unit	Description
Operation Execution Rate	Load	Finish Application Master	ops/sec	Rate of finish application operations
Operation Execution Rate	Load	Get New Application	ops/sec	Rate of get new application operations
Operation Execution Rate	Response	JVM Garbage Collection Time	ms	Total time spent in garbage collections in milliseconds
Operation Execution Rate	Load	Register Application Master	ops/sec	Rate of register application master operations
Operation Execution Rate	Load	Register Node Manager	ops/sec	Rate of register node manager operations



**Table 1-157 (Cont.) Supported Status and Performance Metrics for Hadoop Resource Manager**

Metric Group	Category	Name	Unit	Description
Operation Execution Rate	Load	Submit Application	ops/sec	Rate of submit application operations
Operation Execution Time	Response	Average Finish Application Master Time	ms	Average time for finish application master operations in milliseconds
Operation Execution Time	Response	Average Get New Application Time	ms	Average time for get new application operations in milliseconds
Operation Execution Time	Response	Average Register Application Master Time	ms	Average time for register application master operations in milliseconds
Operation Execution Time	Response	Average Submit Application Time	ms	Average time for submit application operations in milliseconds
Operation Execution Time	Response	Average Register Node Manager Time	ms	Average time for register node manager operations in milliseconds
JVM Threads	Load	JVM Blocked Threads	NA	Number of blocked threads in JVM
JVM Threads	Load	JVM Runnable Threads	NA	Number of runnable threads in JVM
JVM Threads	Load	JVM Terminated Threads	NA	Number of terminated threads in JVM
JVM Threads	Load	JVM Timed Waiting Threads	NA	Number of timed waiting threads in JVM
JVM Threads	Load	JVM Waiting Threads	NA	Number of waiting threads in JVM

**Table 1-158 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection

**Table 1-158 (Cont.) Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-159 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Hadoop YARN

**Table 1-160 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-161 Supported Status and Performance Metrics for Hadoop YARN**

Metric Group	Category	Name	Unit	Description
Application Counter Metrics	Load	Applications Running	NA	Applications running on the service target during the collection time interval
Application Counter Metrics	Load	Applications Accepted	NA	Applications accepted on the service target during the collection time interval
Application Counter Metrics	Load	Applications Succeeded	NA	Applications successfully completed on the service target during the collection time interval

**Table 1-161 (Cont.) Supported Status and Performance Metrics for Hadoop YARN**

Metric Group	Category	Name	Unit	Description
Application Counter Metrics	Load	Applications Failed	NA	Applications failed on the service target during the collection time interval
Alert Metrics	Load	Alerts Rate	per sec	Number of alert events generated per second

**Table 1-162 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-163 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Host

**Table 1-164 Supported Configuration Metrics for Host**

Metric Group	Name	Unit	Description
Hardware Configuration	CPU Architecture	NA	Processor architecture used by the platform.
Resource Allocation	Total Logical Processors	NA	Total number of logical processors available
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM available to the system in GB
CPU Hardware Configuration	Total Sockets	NA	Total number of CPU Sockets

**Table 1-164 (Cont.) Supported Configuration Metrics for Host**

Metric Group	Name	Unit	Description
CPU Hardware Configuration	Vendor Name	NA	Vendor who has manufactured the processors
CPU Hardware Configuration	Frequency	MHz	Clock frequency of the processor in MHz
CPU Hardware Configuration	Cache	MB	Size of cache memory in MB
CPU Hardware Configuration	CPU Implementation	NA	Model name of processor
CPU Hardware Configuration	Model	NA	CPU model
CPU Hardware Configuration	CPU Family	NA	Type of processor in the system
CPU Hardware Configuration	Cores Per Socket	NA	Number of cores per socket
CPU Hardware Configuration	Threads Per Socket	NA	Number of threads per socket
CPU Hardware Configuration	Hyper-Threading Enabled	NA	Flag to indicate if hyper-threading is enabled or not
File System	Mount Point	NA	Mount Point of the file system
File System	File System Name	NA	Name of the file system
File System	File System Size	GB	Size of the file system in GB
Network Configuration	Interface Name	NA	Name of the network interface card
Network Configuration	IP Address	NA	IP address of the network card
Network Configuration	IP Address	NA	IP address of the network card
Network Configuration	MAC Address	NA	MAC address of the network interface card
Process Set Configuration	Process Set Id	NA	Meld of the process set
Process Set Configuration	Entity Name	NA	Entity Name
Process Set Configuration	Process Set	NA	Name of the process set

**Table 1-165 Supported Status and Performance Metrics for Host**

Metric Group	Category	Name	Unit	Description
Inode Usage	.	Mount Point	NA	Mount Point of the file system

**Table 1-165 (Cont.) Supported Status and Performance Metrics for Host**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Inode Usage	Load	Total Inodes	NA	Total number of inodes of the file system
Inode Usage	Load	Used Inodes	NA	Total number of used inodes
Inode Usage	Load	Free Inodes	NA	Total number of free inodes
Inode Usage	Utilization	Inode Utilization	%	Inode Used Percent
Inode Usage	Utilization	Inode Available	%	Inode Free Percent
CPU	Utilization	CPU Utilization (User Mode)	%	Percentage of CPU time spent in User mode across all CPUs
CPU	Utilization	CPU Utilization (System Mode)	%	Percentage of CPU time spent in System mode across all CPUs
CPU	Load	CPU Usage	sec	Total CPU time spent across all CPUs
CPU	Utilization	CPU Utilization	%	Percentage of total CPU time spent across all CPUs
CPU	Utilization	CPU Stolen	%	Percentage of total stolen time across all CPUs. Stolen time is the time spent in other operating systems when running in a virtualized environment
CPU	Utilization	CPU Idle	%	Percentage of total CPU idle time across all CPUs
CPU	Load	CPU Load (1 minute)	NA	Average number of processes in memory and subject to be run in the last 1 minute
CPU	Load	CPU Load (5 minutes)	NA	Average number of processes in memory and subject to be run in the last 5 minutes
CPU	Load	CPU Load (15 minutes)	NA	Average number of processes in memory and subject to be run in the last 15 minutes

Table 1-165 (Cont.) Supported Status and Performance Metrics for Host

Metric Group	Category	Name	Unit	Description
CPU	.	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	The percentage of host memory that is being used by processes (both userspace and kernel space) including the OS overhead, such as buffers, caches. Depending on environmental load and host resources, OS overhead can inflate actual memory utilization metrics. In this situation, using <i>Logical Memory Utilization</i> will be more accurate.
Memory	Load	Memory Load	GB	Sum of memory used and page faults generated in GB
Memory	Load	Logical Memory Usage	GB	Memory used in GB excluding buffers and cache

Table 1-165 (Cont.) Supported Status and Performance Metrics for Host

Metric Group	Category	Name	Unit	Description
Memory	Utilization	Logical Memory Utilization	%	The percentage of host memory that is being used by processes (both userspace and kernel space) <b>excluding</b> OS overhead such as buffers and caches. As the memory used by OS overhead processes could be reallocated to userspace processes, if needed, its exclusion provides a reasonable estimate of how much memory is available for starting new applications without swapping.
Memory	.	Interval	sec	Interval of metric collection
File System Usage	.	Mount Point	NA	Mount Point of the file system
File System Usage	Load	File System Usage	GB	Space used in the file system in GB
File System Usage	Utilization	File System Space Available	%	Space available on the file system in %
File System Usage	.	Interval	sec	Interval of metric collection
Network Activity Summary	Load	Network Read Rate	MB/sec	Rate at which data is received across all network interfaces
Network Activity Summary	Load	Network Write Rate	MB/sec	Rate at which data is sent across all network interfaces
Network Activity Summary	Load	Network I/O Rate	MB/sec	Rate at which bytes are sent and received across all network interfaces
Network Activity Summary	.	Interval	sec	Interval of metric collection
Disk Activity Summary	Load	Disk I/O Request Rate	IOPS	Rate of read and write operations on all disks

**Table 1-165 (Cont.) Supported Status and Performance Metrics for Host**

Metric Group	Category	Name	Unit	Description
Disk Activity Summary	.	Interval	sec	Interval of metric collection
Paging Activity	Load	Pages Paged-in Rate	reqs/sec	Disk Read Rate to resolve major page faults
Paging Activity	Load	Pages Paged-out Rate	reqs/sec	Disk Write Rate to resolve major page faults
Paging Activity	.	Interval	sec	Interval of metric collection
Top Processes	.	Process ID	NA	Process ID
Top Processes	.	Process User	NA	Process User
Top Processes	Utilization	Memory Utilization	%	Percentage of memory consumed by the process
Top Processes	Utilization	CPU Utilization	%	Percentage of CPU consumed by the process
Top Processes	Load	CPU Usage	sec	Total CPU time consumed by the process in seconds
Top Processes	Load	Virtual Memory Usage	MB	Total size of the process in virtual memory in megabytes (MB)
Top Processes	Load	Physical Memory Usage	MB	Total size of the process in physical memory in megabytes (MB)
Top Processes	.	Command and Arguments	NA	Command and arguments of the process
Swap Usage	Load	Total Space	GB	Total Swap Space in GB
Swap Usage	Load	Used Space	GB	Used Swap Space in GB
Swap Usage	Load	Free Space	GB	Free Swap Space in GB
Swap Usage	Utilization	Used Space Percentage	%	Used Swap Space Percentage
Swap Usage	Utilization	Free Space Percentage	%	Free Swap Space Percentage

## Host (AIX)

There are no specific host metrics for AIX. All performance and configuration metrics are inherited from a parent entity as listed below.



**Note:**

In this release, the *CPU Hardware Configuration* metrics are *not* supported on AIX.

**Table 1-166 Supported Configuration Metrics for Host**

Metric Group	Name	Unit	Description
Hardware Configuration	CPU Architecture	NA	Processor architecture used by the platform.
Resource Allocation	Total Logical Processors	NA	Total number of logical processors available
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM available to the system in GB
CPU Hardware Configuration	Total Sockets	NA	Total number of CPU Sockets
CPU Hardware Configuration	Vendor Name	NA	Vendor who has manufactured the processors
CPU Hardware Configuration	Frequency	MHz	Clock frequency of the processor in MHz
CPU Hardware Configuration	Cache	MB	Size of cache memory in MB
CPU Hardware Configuration	CPU Implementation	NA	Model name of processor
CPU Hardware Configuration	Model	NA	CPU model
CPU Hardware Configuration	CPU Family	NA	Type of processor in the system
CPU Hardware Configuration	Cores Per Socket	NA	Number of cores per socket
CPU Hardware Configuration	Threads Per Socket	NA	Number of threads per socket
CPU Hardware Configuration	Hyper-Threading Enabled	NA	Flag to indicate if hyper-threading is enabled or not
File System	Mount Point	NA	Mount Point of the file system
File System	File System Name	NA	Name of the file system
File System	File System Size	GB	Size of the file system in GB
Network Configuration	Interface Name	NA	Name of the network interface card
Network Configuration	IP Address	NA	IP address of the network card
Network Configuration	IP Address	NA	IP address of the network card
Network Configuration	MAC Address	NA	MAC address of the network interface card

**Table 1-166 (Cont.) Supported Configuration Metrics for Host**

Metric Group	Name	Unit	Description
Process Set Configuration	Process Set Id	NA	Meld of the process set
Process Set Configuration	Entity Name	NA	Entity Name
Process Set Configuration	Process Set	NA	Name of the process set

**Table 1-167 Supported Status and Performance Metrics for Host**

Metric Group	Category	Name	Unit	Description
Inode Usage	.	Mount Point	NA	Mount Point of the file system
Inode Usage	Load	Total Inodes	NA	Total number of inodes of the file system
Inode Usage	Load	Used Inodes	NA	Total number of used inodes
Inode Usage	Load	Free Inodes	NA	Total number of free inodes
Inode Usage	Utilization	Inode Utilization	%	Inode Used Percent
Inode Usage	Utilization	Inode Available	%	Inode Free Percent
CPU	Utilization	CPU Utilization (User Mode)	%	Percentage of CPU time spent in User mode across all CPUs
CPU	Utilization	CPU Utilization (System Mode)	%	Percentage of CPU time spent in System mode across all CPUs
CPU	Load	CPU Usage	sec	Total CPU time spent across all CPUs
CPU	Utilization	CPU Utilization	%	Percentage of total CPU time spent across all CPUs
CPU	Utilization	CPU Stolen	%	Percentage of total stolen time across all CPUs. Stolen time is the time spent in other operating systems when running in a virtualized environment
CPU	Utilization	CPU Idle	%	Percentage of total CPU idle time across all CPUs

Table 1-167 (Cont.) Supported Status and Performance Metrics for Host

Metric Group	Category	Name	Unit	Description
CPU	Load	CPU Load (1 minute)	NA	Average number of processes in memory and subject to be run in the last 1 minute
CPU	Load	CPU Load (5 minutes)	NA	Average number of processes in memory and subject to be run in the last 5 minutes
CPU	Load	CPU Load (15 minutes)	NA	Average number of processes in memory and subject to be run in the last 15 minutes
CPU	.	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	The percentage of host memory that is being used by processes (both userspace and kernel space) including the OS overhead, such as buffers, caches. Depending on environmental load and host resources, OS overhead can inflate actual memory utilization metrics. In this situation, using <i>Logical Memory Utilization</i> will be more accurate.
Memory	Load	Memory Load	GB	Sum of memory used and page faults generated in GB
Memory	Load	Logical Memory Usage	GB	Memory used in GB excluding buffers and cache

Table 1-167 (Cont.) Supported Status and Performance Metrics for Host

Metric Group	Category	Name	Unit	Description
Memory	Utilization	Logical Memory Utilization	%	The percentage of host memory that is being used by processes (both userspace and kernel space) <b>excluding</b> OS overhead such as buffers and caches. As the memory used by OS overhead processes could be reallocated to userspace processes, if needed, its exclusion provides a reasonable estimate of how much memory is available for starting new applications without swapping.
Memory	.	Interval	sec	Interval of metric collection
File System Usage	.	Mount Point	NA	Mount Point of the file system
File System Usage	Load	File System Usage	GB	Space used in the file system in GB
File System Usage	Utilization	File System Space Available	%	Space available on the file system in %
File System Usage	.	Interval	sec	Interval of metric collection
Network Activity Summary	Load	Network Read Rate	MB/sec	Rate at which data is received across all network interfaces
Network Activity Summary	Load	Network Write Rate	MB/sec	Rate at which data is sent across all network interfaces
Network Activity Summary	Load	Network I/O Rate	MB/sec	Rate at which bytes are sent and received across all network interfaces
Network Activity Summary	.	Interval	sec	Interval of metric collection
Disk Activity Summary	Load	Disk I/O Request Rate	IOPS	Rate of read and write operations on all disks

**Table 1-167 (Cont.) Supported Status and Performance Metrics for Host**

Metric Group	Category	Name	Unit	Description
Disk Activity Summary	.	Interval	sec	Interval of metric collection
Paging Activity	Load	Pages Paged-in Rate	reqs/sec	Disk Read Rate to resolve major page faults
Paging Activity	Load	Pages Paged-out Rate	reqs/sec	Disk Write Rate to resolve major page faults
Paging Activity	.	Interval	sec	Interval of metric collection
Top Processes	.	Process ID	NA	Process ID
Top Processes	.	Process User	NA	Process User
Top Processes	Utilization	Memory Utilization	%	Percentage of memory consumed by the process
Top Processes	Utilization	CPU Utilization	%	Percentage of CPU consumed by the process
Top Processes	Load	CPU Usage	sec	Total CPU time consumed by the process in seconds
Top Processes	Load	Virtual Memory Usage	MB	Total size of the process in virtual memory in megabytes (MB)
Top Processes	Load	Physical Memory Usage	MB	Total size of the process in physical memory in megabytes (MB)
Top Processes	.	Command and Arguments	NA	Command and arguments of the process
Swap Usage	Load	Total Space	GB	Total Swap Space in GB
Swap Usage	Load	Used Space	GB	Used Swap Space in GB
Swap Usage	Load	Free Space	GB	Free Swap Space in GB
Swap Usage	Utilization	Used Space Percentage	%	Used Swap Space Percentage
Swap Usage	Utilization	Free Space Percentage	%	Free Swap Space Percentage

## Host (Generic)

There are no specific host metrics for Host (Generic). All performance and configuration metrics are inherited from a parent entity as listed below.

**Table 1-168 Supported Configuration Metrics for Host**

Metric Group	Name	Unit	Description
Hardware Configuration	CPU Architecture	NA	Processor architecture used by the platform.
Resource Allocation	Total Logical Processors	NA	Total number of logical processors available
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM available to the system in GB
CPU Hardware Configuration	Total Sockets	NA	Total number of CPU Sockets
CPU Hardware Configuration	Vendor Name	NA	Vendor who has manufactured the processors
CPU Hardware Configuration	Frequency	MHz	Clock frequency of the processor in MHz
CPU Hardware Configuration	Cache	MB	Size of cache memory in MB
CPU Hardware Configuration	CPU Implementation	NA	Model name of processor
CPU Hardware Configuration	Model	NA	CPU model
CPU Hardware Configuration	CPU Family	NA	Type of processor in the system
CPU Hardware Configuration	Cores Per Socket	NA	Number of cores per socket
CPU Hardware Configuration	Threads Per Socket	NA	Number of threads per socket
CPU Hardware Configuration	Hyper-Threading Enabled	NA	Flag to indicate if hyper-threading is enabled or not
File System	Mount Point	NA	Mount Point of the file system
File System	File System Name	NA	Name of the file system
File System	File System Size	GB	Size of the file system in GB
Network Configuration	Interface Name	NA	Name of the network interface card
Network Configuration	IP Address	NA	IP address of the network card
Network Configuration	IP Address	NA	IP address of the network card
Network Configuration	MAC Address	NA	MAC address of the network interface card
Process Set Configuration	Process Set Id	NA	Meld of the process set
Process Set Configuration	Entity Name	NA	Entity Name
Process Set Configuration	Process Set	NA	Name of the process set

**Table 1-169 Supported Status and Performance Metrics for Host**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Inode Usage	.	Mount Point	NA	Mount Point of the file system
Inode Usage	Load	Total Inodes	NA	Total number of inodes of the file system
Inode Usage	Load	Used Inodes	NA	Total number of used inodes
Inode Usage	Load	Free Inodes	NA	Total number of free inodes
Inode Usage	Utilization	Inode Utilization	%	Inode Used Percent
Inode Usage	Utilization	Inode Available	%	Inode Free Percent
CPU	Utilization	CPU Utilization (User Mode)	%	Percentage of CPU time spent in User mode across all CPUs
CPU	Utilization	CPU Utilization (System Mode)	%	Percentage of CPU time spent in System mode across all CPUs
CPU	Load	CPU Usage	sec	Total CPU time spent across all CPUs
CPU	Utilization	CPU Utilization	%	Percentage of total CPU time spent across all CPUs
CPU	Utilization	CPU Stolen	%	Percentage of total stolen time across all CPUs. Stolen time is the time spent in other operating systems when running in a virtualized environment
CPU	Utilization	CPU Idle	%	Percentage of total CPU idle time across all CPUs
CPU	Load	CPU Load (1 minute)	NA	Average number of processes in memory and subject to be run in the last 1 minute

**Table 1-169 (Cont.) Supported Status and Performance Metrics for Host**

Metric Group	Category	Name	Unit	Description
CPU	Load	CPU Load (5 minutes)	NA	Average number of processes in memory and subject to be run in the last 5 minutes
CPU	Load	CPU Load (15 minutes)	NA	Average number of processes in memory and subject to be run in the last 15 minutes
CPU	.	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	Load	Memory Load	GB	Sum of memory used and page faults generated in GB
Memory	Load	Logical Memory Usage	GB	Memory used in GB excluding buffers and cache
Memory	Utilization	Logical Memory Utilization	%	Percentage of logical memory that is utilized
Memory	.	Interval	sec	Interval of metric collection
File System Usage	.	Mount Point	NA	Mount Point of the file system
File System Usage	Load	File System Usage	GB	Space used in the file system in GB
File System Usage	Utilization	File System Space Available	%	Space available on the file system in %
File System Usage	.	Interval	sec	Interval of metric collection
Network Activity Summary	Load	Network Read Rate	MB/sec	Rate at which data is received across all network interfaces
Network Activity Summary	Load	Network Write Rate	MB/sec	Rate at which data is sent across all network interfaces



**Table 1-169 (Cont.) Supported Status and Performance Metrics for Host**

Metric Group	Category	Name	Unit	Description
Network Activity Summary	Load	Network I/O Rate	MB/sec	Rate at which bytes are sent and received across all network interfaces
Network Activity Summary	.	Interval	sec	Interval of metric collection
Disk Activity Summary	Load	Disk I/O Request Rate	IOPS	Rate of read and write operations on all disks
Disk Activity Summary	.	Interval	sec	Interval of metric collection
Paging Activity	Load	Pages Paged-in Rate	reqs/sec	Disk Read Rate to resolve major page faults
Paging Activity	Load	Pages Paged-out Rate	reqs/sec	Disk Write Rate to resolve major page faults
Paging Activity	.	Interval	sec	Interval of metric collection
Top Processes	.	Process ID	NA	Process ID
Top Processes	.	Process User	NA	Process User
Top Processes	Utilization	Memory Utilization	%	Percentage of memory consumed by the process
Top Processes	Utilization	CPU Utilization	%	Percentage of CPU consumed by the process
Top Processes	Load	CPU Usage	sec	Total CPU time consumed by the process in seconds
Top Processes	Load	Virtual Memory Usage	MB	Total size of the process in virtual memory in megabytes (MB)
Top Processes	Load	Physical Memory Usage	MB	Total size of the process in physical memory in megabytes (MB)
Top Processes	.	Command and Arguments	NA	Command and arguments of the process
Swap Usage	Load	Total Space	GB	Total Swap Space in GB
Swap Usage	Load	Used Space	GB	Used Swap Space in GB

**Table 1-169 (Cont.) Supported Status and Performance Metrics for Host**

Metric Group	Category	Name	Unit	Description
Swap Usage	Load	Free Space	GB	Free Swap Space in GB
Swap Usage	Utilization	Used Space Percentage	%	Used Swap Space Percentage
Swap Usage	Utilization	Free Space Percentage	%	Free Swap Space Percentage

## Host (Linux)

There are no specific host metrics for Linux. All performance and configuration metrics are inherited from a parent entity as listed below.

**Table 1-170 Supported Configuration Metrics for Host**

Metric Group	Name	Unit	Description
Hardware Configuration	CPU Architecture	NA	Processor architecture used by the platform.
Resource Allocation	Total Logical Processors	NA	Total number of logical processors available
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM available to the system in GB
CPU Hardware Configuration	Total Sockets	NA	Total number of CPU Sockets
CPU Hardware Configuration	Vendor Name	NA	Vendor who has manufactured the processors
CPU Hardware Configuration	Frequency	MHz	Clock frequency of the processor in MHz
CPU Hardware Configuration	Cache	MB	Size of cache memory in MB
CPU Hardware Configuration	CPU Implementation	NA	Model name of processor
CPU Hardware Configuration	Model	NA	CPU model
CPU Hardware Configuration	CPU Family	NA	Type of processor in the system
CPU Hardware Configuration	Cores Per Socket	NA	Number of cores per socket
CPU Hardware Configuration	Threads Per Socket	NA	Number of threads per socket
CPU Hardware Configuration	Hyper-Threading Enabled	NA	Flag to indicate if hyper-threading is enabled or not
File System	Mount Point	NA	Mount Point of the file system
File System	File System Name	NA	Name of the file system

**Table 1-170 (Cont.) Supported Configuration Metrics for Host**

Metric Group	Name	Unit	Description
File System	File System Size	GB	Size of the file system in GB
Network Configuration	Interface Name	NA	Name of the network interface card
Network Configuration	IP Address	NA	IP address of the network card
Network Configuration	IP Address	NA	IP address of the network card
Network Configuration	MAC Address	NA	MAC address of the network interface card
Process Set Configuration	Process Set Id	NA	Meld of the process set
Process Set Configuration	Entity Name	NA	Entity Name
Process Set Configuration	Process Set	NA	Name of the process set

**Table 1-171 Supported Status and Performance Metrics for Host**

Metric Group	Category	Name	Unit	Description
Inode Usage	.	Mount Point	NA	Mount Point of the file system
Inode Usage	Load	Total Inodes	NA	Total number of inodes of the file system
Inode Usage	Load	Used Inodes	NA	Total number of used inodes
Inode Usage	Load	Free Inodes	NA	Total number of free inodes
Inode Usage	Utilization	Inode Utilization	%	Inode Used Percent
Inode Usage	Utilization	Inode Available	%	Inode Free Percent
CPU	Utilization	CPU Utilization (User Mode)	%	Percentage of CPU time spent in User mode across all CPUs
CPU	Utilization	CPU Utilization (System Mode)	%	Percentage of CPU time spent in System mode across all CPUs
CPU	Load	CPU Usage	sec	Total CPU time spent across all CPUs
CPU	Utilization	CPU Utilization	%	Percentage of total CPU time spent across all CPUs

**Table 1-171 (Cont.) Supported Status and Performance Metrics for Host**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Stolen	%	Percentage of total stolen time across all CPUs. Stolen time is the time spent in other operating systems when running in a virtualized environment
CPU	Utilization	CPU Idle	%	Percentage of total CPU idle time across all CPUs
CPU	Load	CPU Load (1 minute)	NA	Average number of processes in memory and subject to be run in the last 1 minute
CPU	Load	CPU Load (5 minutes)	NA	Average number of processes in memory and subject to be run in the last 5 minutes
CPU	Load	CPU Load (15 minutes)	NA	Average number of processes in memory and subject to be run in the last 15 minutes
CPU	.	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB

Table 1-171 (Cont.) Supported Status and Performance Metrics for Host

Metric Group	Category	Name	Unit	Description
Memory	Utilization	Memory Utilization	%	The percentage of host memory that is being used by processes (both userspace and kernel space) including the OS overhead, such as buffers, caches. Depending on environmental load and host resources, OS overhead can inflate actual memory utilization metrics. In this situation, using <i>Logical Memory Utilization</i> will be more accurate.
Memory	Load	Memory Load	GB	Sum of memory used and page faults generated in GB
Memory	Load	Logical Memory Usage	GB	Memory used in GB excluding buffers and cache

Table 1-171 (Cont.) Supported Status and Performance Metrics for Host

Metric Group	Category	Name	Unit	Description
Memory	Utilization	Logical Memory Utilization	%	The percentage of host memory that is being used by processes (both userspace and kernel space) <b>excluding</b> OS overhead such as buffers and caches. As the memory used by OS overhead processes could be reallocated to userspace processes, if needed, its exclusion provides a reasonable estimate of how much memory is available for starting new applications without swapping.
Memory	.	Interval	sec	Interval of metric collection
File System Usage	.	Mount Point	NA	Mount Point of the file system
File System Usage	Load	File System Usage	GB	Space used in the file system in GB
File System Usage	Utilization	File System Space Available	%	Space available on the file system in %
File System Usage	.	Interval	sec	Interval of metric collection
Network Activity Summary	Load	Network Read Rate	MB/sec	Rate at which data is received across all network interfaces
Network Activity Summary	Load	Network Write Rate	MB/sec	Rate at which data is sent across all network interfaces

**Table 1-171 (Cont.) Supported Status and Performance Metrics for Host**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Network Activity Summary	Load	Network I/O Rate	MB/sec	Rate at which bytes are sent and received across all network interfaces
Network Activity Summary	.	Interval	sec	Interval of metric collection
Disk Activity Summary	Load	Disk I/O Request Rate	IOPS	Rate of read and write operations on all disks
Disk Activity Summary	.	Interval	sec	Interval of metric collection
Paging Activity	Load	Pages Paged-in Rate	reqs/sec	Disk Read Rate to resolve major page faults
Paging Activity	Load	Pages Paged-out Rate	reqs/sec	Disk Write Rate to resolve major page faults
Paging Activity	.	Interval	sec	Interval of metric collection
Top Processes	.	Process ID	NA	Process ID
Top Processes	.	Process User	NA	Process User
Top Processes	Utilization	Memory Utilization	%	Percentage of memory consumed by the process
Top Processes	Utilization	CPU Utilization	%	Percentage of CPU consumed by the process
Top Processes	Load	CPU Usage	sec	Total CPU time consumed by the process in seconds
Top Processes	Load	Virtual Memory Usage	MB	Total size of the process in virtual memory in megabytes (MB)
Top Processes	Load	Physical Memory Usage	MB	Total size of the process in physical memory in megabytes (MB)
Top Processes	.	Command and Arguments	NA	Command and arguments of the process
Swap Usage	Load	Total Space	GB	Total Swap Space in GB
Swap Usage	Load	Used Space	GB	Used Swap Space in GB

**Table 1-171 (Cont.) Supported Status and Performance Metrics for Host**

Metric Group	Category	Name	Unit	Description
Swap Usage	Load	Free Space	GB	Free Swap Space in GB
Swap Usage	Utilization	Used Space Percentage	%	Used Swap Space Percentage
Swap Usage	Utilization	Free Space Percentage	%	Free Swap Space Percentage

## Host (Solaris)

There are no specific host metrics for Solaris. All status, performance and configuration metrics are inherited from a parent entity as listed below.

**Table 1-172 Supported Configuration Metrics for Host**

Metric Group	Name	Unit	Description
Hardware Configuration	CPU Architecture	NA	Processor architecture used by the platform.
Resource Allocation	Total Logical Processors	NA	Total number of logical processors available
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM available to the system in GB
CPU Hardware Configuration	Total Sockets	NA	Total number of CPU Sockets
CPU Hardware Configuration	Vendor Name	NA	Vendor who has manufactured the processors
CPU Hardware Configuration	Frequency	MHz	Clock frequency of the processor in MHz
CPU Hardware Configuration	Cache	MB	Size of cache memory in MB
CPU Hardware Configuration	CPU Implementation	NA	Model name of processor
CPU Hardware Configuration	Model	NA	CPU model
CPU Hardware Configuration	CPU Family	NA	Type of processor in the system
CPU Hardware Configuration	Cores Per Socket	NA	Number of cores per socket
CPU Hardware Configuration	Threads Per Socket	NA	Number of threads per socket
CPU Hardware Configuration	Hyper-Threading Enabled	NA	Flag to indicate if hyper-threading is enabled or not
File System	Mount Point	NA	Mount Point of the file system
File System	File System Name	NA	Name of the file system



**Table 1-172 (Cont.) Supported Configuration Metrics for Host**

Metric Group	Name	Unit	Description
File System	File System Size	GB	Size of the file system in GB
Network Configuration	Interface Name	NA	Name of the network interface card
Network Configuration	IP Address	NA	IP address of the network card
Network Configuration	IP Address	NA	IP address of the network card
Network Configuration	MAC Address	NA	MAC address of the network interface card
Process Set Configuration	Process Set Id	NA	Meld of the process set
Process Set Configuration	Entity Name	NA	Entity Name
Process Set Configuration	Process Set	NA	Name of the process set

**Table 1-173 Supported Status and Performance Metrics for Host**

Metric Group	Category	Name	Unit	Description
Inode Usage	.	Mount Point	NA	Mount Point of the file system
Inode Usage	Load	Total Inodes	NA	Total number of inodes of the file system
Inode Usage	Load	Used Inodes	NA	Total number of used inodes
Inode Usage	Load	Free Inodes	NA	Total number of free inodes
Inode Usage	Utilization	Inode Utilization	%	Inode Used Percent
Inode Usage	Utilization	Inode Available	%	Inode Free Percent
CPU	Utilization	CPU Utilization (User Mode)	%	Percentage of CPU time spent in User mode across all CPUs
CPU	Utilization	CPU Utilization (System Mode)	%	Percentage of CPU time spent in System mode across all CPUs
CPU	Load	CPU Usage	sec	Total CPU time spent across all CPUs
CPU	Utilization	CPU Utilization	%	Percentage of total CPU time spent across all CPUs

**Table 1-173 (Cont.) Supported Status and Performance Metrics for Host**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
CPU	Utilization	CPU Stolen	%	Percentage of total stolen time across all CPUs. Stolen time is the time spent in other operating systems when running in a virtualized environment
CPU	Utilization	CPU Idle	%	Percentage of total CPU idle time across all CPUs
CPU	Load	CPU Load (1 minute)	NA	Average number of processes in memory and subject to be run in the last 1 minute
CPU	Load	CPU Load (5 minutes)	NA	Average number of processes in memory and subject to be run in the last 5 minutes
CPU	Load	CPU Load (15 minutes)	NA	Average number of processes in memory and subject to be run in the last 15 minutes
CPU	.	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB

Table 1-173 (Cont.) Supported Status and Performance Metrics for Host

Metric Group	Category	Name	Unit	Description
Memory	Utilization	Memory Utilization	%	The percentage of host memory that is being used by processes (both userspace and kernel space) including the OS overhead, such as buffers, caches. Depending on environmental load and host resources, OS overhead can inflate actual memory utilization metrics. In this situation, using <i>Logical Memory Utilization</i> will be more accurate.
Memory	Load	Memory Load	GB	Sum of memory used and page faults generated in GB
Memory	Load	Logical Memory Usage	GB	Memory used in GB excluding buffers and cache

Table 1-173 (Cont.) Supported Status and Performance Metrics for Host

Metric Group	Category	Name	Unit	Description
Memory	Utilization	Logical Memory Utilization	%	The percentage of host memory that is being used by processes (both userspace and kernel space) <b>excluding</b> OS overhead such as buffers and caches. As the memory used by OS overhead processes could be reallocated to userspace processes, if needed, its exclusion provides a reasonable estimate of how much memory is available for starting new applications without swapping.
Memory	.	Interval	sec	Interval of metric collection
File System Usage	.	Mount Point	NA	Mount Point of the file system
File System Usage	Load	File System Usage	GB	Space used in the file system in GB
File System Usage	Utilization	File System Space Available	%	Space available on the file system in %
File System Usage	.	Interval	sec	Interval of metric collection
Network Activity Summary	Load	Network Read Rate	MB/sec	Rate at which data is received across all network interfaces
Network Activity Summary	Load	Network Write Rate	MB/sec	Rate at which data is sent across all network interfaces

**Table 1-173 (Cont.) Supported Status and Performance Metrics for Host**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Network Activity Summary	Load	Network I/O Rate	MB/sec	Rate at which bytes are sent and received across all network interfaces
Network Activity Summary	.	Interval	sec	Interval of metric collection
Disk Activity Summary	Load	Disk I/O Request Rate	IOPS	Rate of read and write operations on all disks
Disk Activity Summary	.	Interval	sec	Interval of metric collection
Paging Activity	Load	Pages Paged-in Rate	reqs/sec	Disk Read Rate to resolve major page faults
Paging Activity	Load	Pages Paged-out Rate	reqs/sec	Disk Write Rate to resolve major page faults
Paging Activity	.	Interval	sec	Interval of metric collection
Top Processes	.	Process ID	NA	Process ID
Top Processes	.	Process User	NA	Process User
Top Processes	Utilization	Memory Utilization	%	Percentage of memory consumed by the process
Top Processes	Utilization	CPU Utilization	%	Percentage of CPU consumed by the process
Top Processes	Load	CPU Usage	sec	Total CPU time consumed by the process in seconds
Top Processes	Load	Virtual Memory Usage	MB	Total size of the process in virtual memory in megabytes (MB)
Top Processes	Load	Physical Memory Usage	MB	Total size of the process in physical memory in megabytes (MB)
Top Processes	.	Command and Arguments	NA	Command and arguments of the process
Swap Usage	Load	Total Space	GB	Total Swap Space in GB
Swap Usage	Load	Used Space	GB	Used Swap Space in GB

**Table 1-173 (Cont.) Supported Status and Performance Metrics for Host**

Metric Group	Category	Name	Unit	Description
Swap Usage	Load	Free Space	GB	Free Swap Space in GB
Swap Usage	Utilization	Used Space Percentage	%	Used Swap Space Percentage
Swap Usage	Utilization	Free Space Percentage	%	Free Swap Space Percentage

## Host (Windows)

There are no specific host metrics for Windows. All performance and configuration metrics are inherited from a parent entity as listed below.

**Table 1-174 Supported Configuration Metrics for Host**

Metric Group	Name	Unit	Description
Hardware Configuration	CPU Architecture	NA	Processor architecture used by the platform.
Resource Allocation	Total Logical Processors	NA	Total number of logical processors available
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM available to the system in GB
CPU Hardware Configuration	Total Sockets	NA	Total number of CPU Sockets
CPU Hardware Configuration	Vendor Name	NA	Vendor who has manufactured the processors
CPU Hardware Configuration	Frequency	MHz	Clock frequency of the processor in MHz
CPU Hardware Configuration	Cache	MB	Size of cache memory in MB
CPU Hardware Configuration	CPU Implementation	NA	Model name of processor
CPU Hardware Configuration	Model	NA	CPU model
CPU Hardware Configuration	CPU Family	NA	Type of processor in the system
CPU Hardware Configuration	Cores Per Socket	NA	Number of cores per socket
CPU Hardware Configuration	Threads Per Socket	NA	Number of threads per socket
CPU Hardware Configuration	Hyper-Threading Enabled	NA	Flag to indicate if hyper-threading is enabled or not
File System	Mount Point	NA	Mount Point of the file system

**Table 1-174 (Cont.) Supported Configuration Metrics for Host**

Metric Group	Name	Unit	Description
File System	File System Name	NA	Name of the file system
File System	File System Size	GB	Size of the file system in GB
Network Configuration	Interface Name	NA	Name of the network interface card
Network Configuration	IP Address	NA	IP address of the network card
Network Configuration	IP Address	NA	IP address of the network card
Network Configuration	MAC Address	NA	MAC address of the network interface card
Process Set Configuration	Process Set Id	NA	Meld of the process set
Process Set Configuration	Entity Name	NA	Entity Name
Process Set Configuration	Process Set	NA	Name of the process set

**Table 1-175 Supported Status and Performance Metrics for Host**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Utilization (User Mode)	%	Percentage of CPU time spent in User mode across all CPUs
CPU	Utilization	CPU Utilization (System Mode)	%	Percentage of CPU time spent in System mode across all CPUs
CPU	Load	CPU Usage	sec	Total CPU time spent across all CPUs
CPU	Utilization	CPU Utilization	%	Percentage of total CPU time spent across all CPUs
CPU	Utilization	CPU Stolen	%	Percentage of total stolen time across all CPUs. Stolen time is the time spent in other operating systems when running in a virtualized environment

**Table 1-175 (Cont.) Supported Status and Performance Metrics for Host**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
CPU	Utilization	CPU Idle	%	Percentage of total CPU idle time across all CPUs
CPU	-	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	Load	Memory Load	GB	Sum of memory used and page faults generated in GB
Memory	Load	Logical Memory Usage	GB	Memory used in GB excluding buffers and cache
Memory	Utilization	Logical Memory Utilization	%	Percentage of logical memory that is utilized
Memory	-	Interval	sec	Interval of metric collection
File System Usage	-	Mount Point	NA	Mount Point of the file system
File System Usage	Load	File System Usage	GB	Space used in the file system in GB
File System Usage	Utilization	File System Space Available	%	Space available on the file system in %
File System Usage	-	Interval	sec	Interval of metric collection
Network Activity Summary	Load	Network Read Rate	MB/sec	Rate at which bytes are received across all network interfaces
Network Activity Summary	Load	Network Write Rate	MB/sec	Rate at which bytes are sent across all network interfaces
Network Activity Summary	Load	Network I/O Rate	MB/sec	Rate at which bytes are sent and received across all network interfaces



**Table 1-175 (Cont.) Supported Status and Performance Metrics for Host**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Network Activity Summary	-	Interval	sec	Interval of metric collection
Disk Activity Summary	Load	Disk I/O Request Rate	IOPS	Rate of read and write operations on all disks
Disk Activity Summary		Interval	sec	Interval of metric collection
Paging Activity	Load	Pages Paged-in Rate	reqs/sec	Disk Read Rate to resolve major page faults
Paging Activity	Load	Pages Paged-out Rate	reqs/sec	Disk Write Rate to resolve major page faults
Paging Activity	-	Interval	sec	Interval of metric collection
Top Processes	-	Process ID	NA	Process ID
Top Processes	-	Process User	NA	Process User
Top Processes	Utilization	Memory Utilization	%	Percentage of memory consumed by the process
Top Processes	Utilization	CPU Utilization	%	Percentage of CPU consumed by the process
Top Processes	Load	CPU Usage	sec	Total CPU time consumed by the process in seconds
Top Processes	Load	Virtual Memory Usage	MB	Total size of the process in virtual memory in megabytes (MB)
Top Processes	Load	Physical Memory Usage	MB	Total size of the process in physical memory in megabytes (MB)
Top Processes	-	Command and Arguments	NA	Command and arguments of the process

## Intel/SPARC

There are no Intel/SPARC specific metrics supported. All metrics are inherited from a parent entity as listed below.

**Table 1-176 Supported Configuration Metrics for Physical Server**

Group	Name	Unit	Description
Summary Details	Part Number	UNDEFINED	The server part number
Summary Details	Serial Number	UNDEFINED	The server serial number
Summary Details	Model	UNDEFINED	The server model
Summary Details	Architecture	UNDEFINED	The server architecture
Network Management Interface	IP Address	UNDEFINED	The server IP address
Network Management Interface	Physical Address	UNDEFINED	The server physical address
CPU Details	Architecture	UNDEFINED	The server CPU architecture
CPU Details	Clock Speed	GHz	The server CPU clock speed
CPU Details	Number of Cores	UNDEFINED	The server number of cores
Memory Details	Total Memory	MB	The server total memory
Network Port Details	Port Name	UNDEFINED	Port name
Network Port Details	Physical Address	UNDEFINED	Port physical address
Network Port Details	Media Type	UNDEFINED	Port media type
Component Details	Name	UNDEFINED	Component name
Component Details	Manufacturer	UNDEFINED	Component manufacturer
Component Details	Model	UNDEFINED	Component model

**Table 1-177 Supported Status and Performance Metrics for Physical Server**

Metric Group	Category	Name	Unit	Description
Network Port Statistics	configuration	Port Name	UNDEFINED	Port name
Network Port Statistics	availability	Port Status	UNDEFINED	Port status
Network Port Statistics	utilization	Inbound Octets Rate	bytes/sec	Inbound octets rate
Network Port Statistics	utilization	Outbound Octets Rate	bytes/sec	Outbound octets rate
Network Port Statistics	utilization	Total Octets Rate	bytes/sec	Total octets rate
Component State	configuration	Name	UNDEFINED	Component name
Component State	availability	State	UNDEFINED	Component state

**Table 1-178 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## JBoss Server

No metrics are defined for this entity type. All metrics are inherited from parent entities.

**Table 1-179 Supported Configuration Metrics for Java Application Server**

Metric Group	Name	Unit	Description
Server	Listen Port	NA	The value of the server listening port.
SSL Server	SSL Listen Port	NA	The value of the secure server listening port.
Datasource Config Metrics	Datasource Name	NA	Name of the Datasource
Datasource Config Metrics	Datasource Connection URL	NA	URL of Datasource Connection
JDBC Connection Pool	Maximum JDBC Connections	NA	The maximum pool size of jdbc connections.
JDBC Connection Pool	Minimum JDBC Connections	NA	The minimum pool size of jdbc connections.
JVM Configuration	Maximum Heap Size	GB	Maximum heap size configured
JVM Configuration	Operating System Name	NA	Name of the operating system
JVM Configuration	Operating System Version	NA	Version of the operating system
JVM Configuration	Java Vendor	NA	The company that created this java implementation.
JVM Configuration	Java Version	NA	The version of this java implementation.

**Table 1-180 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-181 Supported Status and Performance Metrics for Java EE Application Server**

Metric Group	Category	Name	Unit	Description
EJB Pool	Load	EJBs in Use	NA	Beans currently in use.
EJB Pool	Load	EJB Access Rate	ops/min	Bean access throughput.
JMS Server	Load	JMS Messages Stored	NA	The number of JMS messages stored on the server.
JMS Server	Load	JMS Message Receive Rate	msgs/min	The rate that JMS messages are received.
Deployment Summary Metrics	Load	EJBs in Use	NA	Beans currently in use.
Deployment Summary Metrics	Load	EJB Access Rate	ops/min	Bean access throughput.

**Table 1-182 Supported Status and Performance Metrics for Java Application Server**

Metric Group	Category	Name	Unit	Description
Thread Pool (Deprecated)	Load	Active Threads (Deprecated)	NA	The number of active threads running in JVM
Thread Pool (Deprecated)	Load	Total Threads (Deprecated)	NA	The total number of threads started in JVM
Threads	Load	Active Threads	NA	The number of active threads running in JVM
JVM Garbage Collection		Garbage Collector Name	NA	Name of the Garbage Collector
JVM Garbage Collection	Load	Heap Usage After GC	GB	Heap memory after garbage collection
JVM Garbage Collection	Utilization	Heap Utilization After GC	%	Heap memory used as a percentage of maximum heap memory after garbage collection
JVM Garbage Collection	Load	Heap Memory Reclaimed After GC	GB	Heap memory reclaimed after garbage collection

**Table 1-182 (Cont.) Supported Status and Performance Metrics for Java Application Server**

Metric Group	Category	Name	Unit	Description
JVM Garbage Collection	Load	Max Heap After GC	GB	Maximum heap memory after garbage collection in GB, that can be used by Java virtual machine for memory management
JVM Garbage Collection	Load	Committed Heap After GC	GB	Committed heap memory after garbage collection in GB. Committed memory is guaranteed to be available for use by the Java virtual machine.
JVM Garbage Collection	Load	Non-Heap Usage After GC	GB	Non-heap memory usage after garbage collection
JVM Garbage Collection	Load	Non-Heap Memory Reclaimed After GC	GB	Non-Heap memory reclaimed after garbage collection
JVM Garbage Collection	Load	Old Heap Memory Reclaimed After GC	GB	Old Heap memory reclaimed after garbage collection
JVM Garbage Collection	Response	Garbage Collection Execution Time	ms	The average time in milliseconds per garbage collector invocation during the last collection interval.
JVM Garbage Collection	Load	Garbage Collection Throughput	ops/min	The average rate at which garbage collection ran during the last collection interval.
JVM Garbage Collection	Utilization	Garbage Collection Overhead	%	The percentage of time spent in garbage collection during the last collection interval.
JVM Garbage Collection Rollup	Response	Avg GC Execution Time	ms	The average time in milliseconds per garbage collector invocation across all garbage collectors.

**Table 1-182 (Cont.) Supported Status and Performance Metrics for Java Application Server**

Metric Group	Category	Name	Unit	Description
JVM Garbage Collection Rollup	Response	GC Collection Overhead	%	The percentage of time spent in garbage collection during the last collection interval across all garbage collectors.
JVM Garbage Collection Rollup	Load	Avg GC Throughput	ops/min	The average rate at which garbage collection ran during the last collection interval across all garbage collectors
Deployment Summary Metrics	.	Name	NA	Name of the Deployment
Deployment Summary Metrics	Load	Open HTTP Sessions	NA	Current total number of open http sessions for all the web applications on this web application server.
Deployment Summary Metrics	Response	Web Request Processing Time	ms	Average processing time per web request since the last collection.
Deployment Summary Metrics	Load	Web Request Rate	ops/min	Number of web requests per minute since the last collection.

**Table 1-183 Supported Status and Performance Metrics for Database Connectable Web Application Server**

Metric Group	Category	Name	Unit	Description
Datasource Metrics	Load	JDBC Connection Pool Size	NA	Size of the datasource connection pool.
Datasource Metrics	Load	JDBC Connections in Use	NA	Datasource connections in use.

**Table 1-184 Supported Status and Performance Metrics for Web Application Server**

Metric Group	Category	Name	Unit	Description
Web Requests	Response	Web Request Processing Time	ms	Average processing time per web request since the last collection.
Web Requests	Load	Web Request Rate	ops/min	Number of web requests per minute since the last collection.
Web Application Component	Load	Open HTTP Sessions	NA	Current total number of open http sessions for all the web applications on this web application server.

**Table 1-185 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

## Juniper Ethernet Switch

There are no specific host metrics for Juniper Physical Switch. All performance and configuration metrics are inherited from a parent entity as listed below.

**Table 1-186 Supported Configuration Metrics for Generic Physical Switch**

Metric Group	Name	Unit	Description
Summary Details	Part Number	NA	The switch part number,
Summary Details	Serial Number	NA	The switch serial number,
Summary Details	Model	NA	The switch model,

**Table 1-186 (Cont.) Supported Configuration Metrics for Generic Physical Switch**

Metric Group	Name	Unit	Description
Summary Details	Architecture	NA	The switch architecture,
Network Management Interface	IP Address	NA	The switch IP address,
Network Management Interface	Physical Address	NA	The switch physical address,
Network Port Details	Port Name	NA	The port name
Network Port Details	Port Physical Address	NA	The port physical address
Network Port Details	Port Type	NA	The port type/
Network Port Details	Port MTU	NA	The port MTU.
Network Port Details	Port Bandwidth	Mbps	An estimate of the interface's current bandwidth.
Network Port Details	Peer Port Physical Address	NA	Peer port physical address,
Network Port Details	Peer Port Type	NA	Peer port type,
Network Port Details	Media Type	NA	Port media type,
Component Details	Name	NA	Component name,
Component Details	Manufacturer	NA	Component manufacturer,
Component Details	Model	NA	Component model,

**Table 1-187 Supported Status and Performance Metrics for Generic Physical Switch**

Metric Group	Category	Name	Unit	Description
Switch ports free vs used	Capacity	Ports Free	NA	The unused ports.
Switch ports free vs used	Capacity	Ports Used	NA	The ports in use.
Switch ports free vs used	Capacity	Ports Count	NA	The total number of physical network ports
Switch ports free vs used	Utilization	Ports Occupation Ratio	%	The percentage of network ports actually used.
Network Port Statistics		Port Name	NA	Port name
Network Port Statistics	Availability	Port Status	NA	Port status
Network Port Statistics	Availability	Port Administrative Status	NA	The port administrative status.
Network Port Statistics	Load	Inbound Octets Rate	bytes/sec	Inbound octets rate,



**Table 1-187 (Cont.) Supported Status and Performance Metrics for Generic Physical Switch**

Metric Group	Category	Name	Unit	Description
Network Port Statistics	Utilization	Inbound Bandwidth Usage	%	The percentage of bandwidth used by incoming traffic.
Network Port Statistics	Load	Outbound Octets Rate	bytes/sec	Outbound octets rate
Network Port Statistics	Utilization	Outbound Bandwidth Usage	%	The percentage of bandwidth used by outgoing traffic.
Network Port Statistics	Load	Total Octets Rate	bytes/sec	Total octets rate
Network Port Statistics	Error	Inbound Discard Ratio	%	The percentage of incoming packets discarded.
Network Port Statistics	Error	Outbound Discard Ratio	%	The percentage of outgoing packets which are discarded.
Network Port Statistics	Error	Inbound Error Ratio	%	The percentage of invalid incoming packets (undersized, oversized, or have FCS errors).
Network Port Statistics	Error	Outbound Error Ratio	%	The percentage of invalid outgoing packets (undersized, oversized, or have FCS errors).
Network Port Statistics		Interval	sec	Interval of metric collection in seconds.
Component State		Name	NA	Component name
Component State	Availability	State	NA	Component state

## Juniper MX

**Table 1-188 Supported Configuration Metrics for Juniper MX**

Metric Group	Name	Unit	Description
System Information	System Name	NA	The system name.
System Information	System Contact	NA	The system contact.
System Information	System Location	NA	The system location.
System Information	OS Version	NA	The OS version.

**Table 1-189 Supported Configuration Metrics for any Generic Router**

Group	Name	Unit	Description
Network Port Details	Port Name	NA	The port name.
Network Port Details	Port Alias	NA	The alias name if any for the port as specified by a network manager.
Network Port Details	Port Physical Address	NA	The physical address of the port.
Network Port Details	Port Type	NA	The port type.
Network Port Details	Port MTU	NA	The port MTU.
Network Port Details	Port Bandwidth	Mbps	An estimate of the interface's current bandwidth.

**Table 1-190 Supported Status and Performance Metrics for Juniper MX**

Metric Group	Category	Name	Unit	Description
Routing Engine Stats		Routing Engine Name	NA	The Routing Engine name which identifies the RE in a cluster.
Routing Engine Stats	Utilization	Routing Engine CPU Usage	%	The CPU utilization of the routing engine.
Routing Engine Stats	Utilization	Routing Engine Memory Usage	%	The memory utilization of the routing engine.
Storage Stats		File System Name	NA	The description of the type and instance of the storage.
Storage Stats	Utilization	File System Used Space	%	The amount of the storage that is allocated, as a percentage of the total amount available.
FCP Stats		FCP Name	NA	The description of the Flexible PIC Concentrator.
FCP Stats	Utilization	FCP CPU Usage	%	The CPU utilization of the Flexible PIC Concentrator.

**Table 1-191 Supported Status and Performance Metrics for any Generic Router**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Network Port Statistics		Port Name	NA	The port name.
Network Port Statistics	Availability	Port Operational Status	NA	The port operational status.
Network Port Statistics	Availability	Port Administrative Status	NA	The port administrative status.
Network Port Statistics	Load	Inbound Octets Rate	bytes/sec	The inbound octets rate.
Network Port Statistics	Utilization	Inbound Bandwidth Usage	%	The percentage of bandwidth used by incoming traffic.
Network Port Statistics	Load	Outbound Octets Rate	bytes/sec	The outbound octets rate.
Network Port Statistics	Utilization	Outbound Bandwidth Usage	%	The percentage of bandwidth used by outgoing traffic.
Network Port Statistics	Load	Total Octets Rate	bytes/sec	The total octets rate.
Network Port Statistics	Error	Inbound Discard Ratio	%	The percentage of incoming packets discarded.
Network Port Statistics	Error	Outbound Discard Ratio	%	The percentage of outgoing packets which are discarded.
Network Port Statistics	Error	Inbound Error Ratio	%	The percentage of invalid incoming packets (undersized, oversized, or have FCS errors).
Network Port Statistics	Error	Outbound Error Ratio	%	The percentage of invalid outgoing packets (undersized, oversized, or have FCS errors).
Network Port Statistics		Interval	sec	Interval of metric collection in seconds.

# Juniper Netscreen

**Table 1-192 Supported Configuration Metrics for Juniper Netscreen**

Group	Name	Unit	Description
System Information	System Name	NA	The system name.
System Information	System Contact	NA	The system contact.
System Information	System Location	NA	The system location.
System Information	OS Version	NA	The OS version.
Network Port Details	Port Name	NA	The port name.
Network Port Details	Port Alias	NA	The alias name if any for the port as specified by a network manager.
Network Port Details	Port Physical Address	NA	The physical address of the port.
Network Port Details	Port Type	NA	The port type.
Network Port Details	Port MTU	NA	The port MTU.
Network Port Details	Port Bandwidth	Mbps	An estimate of the interface's current bandwidth.

**Table 1-193 Supported Status and Performance Metrics for Juniper Netscreen**

Metric Group	Category	Name	Unit	Description
Session Information	Load	Allocated Sessions	NA	The current count of allocated sessions.
Session Information	Error	Failed Session Rate	per sec	The rate of failed sessions.
Session Information	Utilization	Allocated Session Ratio	%	The allocated sessions count as compared to the supported max.
Network Port Statistics		Port Name	NA	The port name.
Network Port Statistics	Availability	Port Operational Status	NA	The port operational status.
Network Port Statistics	Availability	Port Administrative Status	NA	The port administrative status.
Network Port Statistics	Load	Inbound Octets Rate	bytes/sec	The inbound octets rate.
Network Port Statistics	Utilization	Inbound Bandwidth Usage	%	The percentage of bandwidth used by incoming traffic.
Network Port Statistics	Load	Outbound Octets Rate	bytes/sec	The outbound octets rate.

**Table 1-193 (Cont.) Supported Status and Performance Metrics for Juniper Netscreen**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Network Port Statistics	Utilization	Outbound Bandwidth Usage	%	The percentage of bandwidth used by outgoing traffic.
Network Port Statistics	Load	Total Octets Rate	bytes/sec	The total octets rate.
Network Port Statistics	Error	Inbound Discard Ratio	%	The percentage of incoming packets discarded.
Network Port Statistics	Error	Outbound Discard Ratio	%	The percentage of outgoing packets which are discarded.
Network Port Statistics	Error	Inbound Error Ratio	%	The percentage of invalid incoming packets (undersized, oversized, or have FCS errors).
Network Port Statistics	Error	Outbound Error Ratio	%	The percentage of invalid outgoing packets (undersized, oversized, or have FCS errors).
Network Port Statistics		Interval	sec	Interval of metric collection in seconds.
CPU Usage	Utilization	Overall CPU Busy Percentage Last 5 Mins	%	This metric measures the overall CPU busy percentage in the last 5 minute period.
Memory Usage	Load	Memory Allocated	KB	The memory allocated.
Memory Usage	Load	Memory Left	KB	The memory left.
Memory Usage	Load	Memory Fragment	KB	The memory fragment.
Memory Usage	Load	Overall Memory	KB	The overall memory, physical plus swap.
Memory Usage	Utilization	Memory Usage	%	This memory usage.
VPN Statistics		Interface Name	NA	The VPN interface name.
VPN Statistics	Availability	Interface Administrative Status	NA	The interface administrative status.

**Table 1-193 (Cont.) Supported Status and Performance Metrics for Juniper Netscreen**

Metric Group	Category	Name	Unit	Description
VPN Statistics	Load	Latency in Last Sample	ms	The latency in last sample.
VPN Statistics	Load	Inbound Octets Rate	bytes/sec	The inbound octet rate.
VPN Statistics	Load	Outbound Octets Rate	bytes/sec	The outbound octet rate.

**Table 1-194 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Juniper SRX

**Table 1-195 Supported Configuration Metrics for Juniper SRX**

Metric Group	Name	Unit	Description
System Information	System Name	NA	The system name.
System Information	System Contact	NA	The system contact.
System Information	System Location	NA	The system location.
System Information	OS Version	NA	The OS version.

**Table 1-196 Supported Status and Performance Metrics for Juniper SRX**

Metric Group	Category	Name	Unit	Description
Network Port Statistics		Port Name	NA	The port name.
Network Port Statistics		Port Status	NA	The port status.
Network Port Statistics	Load	Inbound Octets Rate	bytes/sec	The inbound octet rate.
Network Port Statistics	Load	Outbound Octets Rate	bytes/sec	The outbound octet rate.
Network Port Statistics	Load	Total Octets Rate	bytes/sec	The total octet rate.
Node Session Stats		Node Index	NA	The attribute identifying the chassis or the cluster node.
Node Session Stats		Node Name	NA	The chassis or cluster node information

**Table 1-196 (Cont.) Supported Status and Performance Metrics for Juniper SRX**

Metric Group	Category	Name	Unit	Description
Node Session Stats	Load	Sessions Created Per Seconds	ops/sec	The node average session created in last 96 seconds.
Services Processing Units Stats		SPU Name	NA	The SPU name which is the concatenation of the node index plus the FPC slot plus the SPU own index.
Services Processing Units Stats		Chassis or Cluster Name	NA	The chassis or cluster node information.
Services Processing Units Stats	Utilization	SPU CPU Utilization	%	The current CPU Utilization in percentage
Services Processing Units Stats	Utilization	SPU Memory Utilization	%	The current memory usage in percentage.
Services Processing Units Stats	Load	SPU Current CP Sessions	NA	The current count of Central Point sessions.
Services Processing Units Stats	Load	SPU Max CP Sessions	NA	The current max of Central Point sessions.
Services Processing Units Stats	Load	SPU Current Flow Sessions	NA	The current count of flow sessions.
Services Processing Units Stats	Load	SPU Max Flow Sessions	NA	The current max of flow sessions.
Routing Engine Stats		Routing Engine Name	NA	The Routing Engine name which identifies the RE in a cluster.
Routing Engine Stats	Utilization	Routing Engine CPU Usage	%	The routing engine CPU utilization.
Routing Engine Stats	Utilization	Routing Engine Memory Usage	%	The routing engine memory utilisation.
Storage Stats		File System Name	NA	The description of the type and instance of the storage
Storage Stats	Utilization	File System Used Space	%	The amount of the storage that is allocated, as a percentage of the total amount available.

**Table 1-197 Firewall**

Metric Group	Name	Unit	Description
N/A	N/A	N/A	N/A

**Table 1-198 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Kubernetes Cluster

**Table 1-199 Supported Configuration Metrics for Kubernetes Cluster**

Metric Group	Name	Unit	Description
Kubernetes Nodes	Node ID	NA	Unique id of the node
Kubernetes Nodes	Node Name	NA	Name of the node
Namespaces	Namespace ID	NA	Namespace ID
Namespaces	Namespace Name	NA	Namespace name
Namespaces	Creation Time	NA	Time when this namespace was created
System Services	Service ID	NA	Service ID
System Services	Service Name	NA	Service name
System Services	Namespace	NA	Namespace
Resource Configuration	CPU Limit	millicores	CPU hard limit of Kubernetes cluster in millicores
Resource Configuration	CPU Request	millicores	Amount of guaranteed CPU resources in millicores
Resource Configuration	Memory Limit	GB	Memory hard limit of Kubernetes cluster in GB
Resource Configuration	Memory Request	GB	Amount of guaranteed memory resources in GB

**Table 1-200 Supported Status and Performance Metrics for Kubernetes Cluster**

Metric Group	Category	Name	Unit	Description
CPU Usage	Load	CPU Usage	millicores	CPU usage on all cores in millicores
Memory Usage	Load	Memory Usage	GB	Total memory usage in GB



**Table 1-201 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Kubernetes Node

**Table 1-202 Supported Configuration Metrics for Kubernetes Node**

Metric Group	Name	Unit	Description
General Configuration	Node ID	NA	Node ID
General Configuration	Node Name	NA	Node name
General Configuration	Hostname	NA	Hostname
General Configuration	IP Address	NA	IP Address
General Configuration	Machine ID	NA	Machine ID
General Configuration	System UUID	NA	System UUID
General Configuration	Boot ID	NA	Boot ID
General Configuration	Kernel Version	NA	Kernel Version
General Configuration	OS Image	NA	OS Image
General Configuration	Kubelet Version	NA	Kubelet Version
General Configuration	Kube Proxy Version	NA	Kube Proxy Version
General Configuration	Operating System	NA	Operating System
General Configuration	Architecture	NA	Architecture
General Configuration	Creation Time	NA	Time when the node was created
Capacity	CPU Capacity	NA	Total CPU in milli-cores
Capacity	Memory Capacity	MB	Total memory in MB
Capacity	Pods Capacity	NA	Number of total pods resources
Allocatable	CPU Allocatable	NA	Allocatable CPU in milli-cores
Allocatable	Memory Allocatable	MB	Allocatable memory in MB
Allocatable	Pods Allocatable	NA	Number of allocatable pods
Resource Configuration	CPU Limit	millicores	CPU hard limit of the node in millicores
Resource Configuration	Memory Limit	GB	Memory hard limit of the node in GB
Resource Configuration	Memory Request	GB	Amount of guaranteed memory resources of the node in GB

**Table 1-202 (Cont.) Supported Configuration Metrics for Kubernetes Node**

Metric Group	Name	Unit	Description
Resource Configuration	CPU Request	millicores	Amount of guaranteed CPU resources in millicores

**Table 1-203 Supported Status and Performance Metrics for Kubernetes Node**

Metric Group	Category	Name	Unit	Description
CPU Usage	Load	CPU Usage	millicores	CPU usage on all cores in millicores
CPU Usage	Utilization	CPU Utilization	%	Percentage of CPU used on all cores
CPU Usage	Load	CPU Time	sec	Total CPU time spent across all cores in seconds
Memory Usage	Load	Memory Usage	GB	Total memory usage of the node in GB
Memory Usage	Load	Resident Set Size	GB	Resident set size of the node in GB
Memory Usage	Load	Cache Usage	MB	Cache usage of the node in MB
Memory Usage	Load	Working Set Usage	GB	Working set usage of the node in GB. Working set is the memory being used and not easily dropped by the kernel
Memory Usage	Load	Page Faults Rate	reqs/sec	Total number of page faults per second
Memory Usage	Load	Major Page Faults Rate	reqs/sec	Total number of major page faults per second
Memory Usage	Utilization	Memory Utilization	%	Percentage of memory utilized
Network Usage	Load	Network Write Rate	MB/sec	Number of bytes sent over the network per second
Network Usage	Load	Network Read Rate	MB/sec	Number of bytes received over the network per second
Network Usage	Error	Network Write Error Rate	ops/sec	Number of errors while sending over the network per second

**Table 1-203 (Cont.) Supported Status and Performance Metrics for Kubernetes Node**

Metric Group	Category	Name	Unit	Description
Network Usage	Error	Network Read Error Rate	ops/sec	Number of errors while receiving over the network per second

**Table 1-204 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Kubernetes Pod

**Table 1-205 Supported Configuration Metrics for Kubernetes Pod**

Metric Group	Name	Unit	Description
General Configuration	Pod ID	NA	Pod ID
General Configuration	Pod Name	NA	Pod name
General Configuration	Namespace	NA	Namespace
General Configuration	IP Address	NA	IP Address
General Configuration	Host IP Address	NA	Host IP Address
General Configuration	Node Name	NA	Node name
General Configuration	Creation Time	NA	Time when this pod was created
Containers	Container ID	NA	Container ID
Containers	Container Type	NA	Container Type
Containers	Image ID	NA	Image ID
Containers	Image Name	NA	Image Name
Labels	Label Key	NA	Key of the label
Labels	Label Value	NA	Value of the label
Annotations	Annotation Key	NA	Key of the annotation
Annotations	Annotation Value	NA	Value of the annotation
Resource Configuration	CPU Limit	millicores	CPU hard limit of the pod in millicores
Resource Configuration	CPU Request	millicores	Amount of guaranteed CPU resources in millicores
Resource Configuration	Memory Limit	GB	Memory hard limit of the pod in GB
Resource Configuration	Memory Request	GB	Amount of guaranteed memory resources of the pod in GB

**Table 1-206 Supported Status and Performance Metrics for Kubernetes Pod**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
CPU Usage	Load	CPU Usage	millicores	CPU usage on all cores in millicores
CPU Usage	Load	CPU Time	sec	Total CPU time spent across all cores
CPU Usage	Utilization	CPU Utilization	%	Percentage of CPU used on all cores
Memory Usage	Load	Memory Usage	GB	Total memory usage of the pod in GB
Memory Usage	Load	Resident Set Size	GB	Resident Set Size of the pod in GB
Memory Usage	Load	Cache Usage	MB	Cache usage of the pod in MB
Memory Usage	Load	Working Set Usage	GB	Working set usage of the pod in GB. Working set is the memory being used and not easily dropped by the kernel
Memory Usage	Load	Page Faults Rate	reqs/sec	Total number of page faults per second
Memory Usage	Load	Major Page Faults Rate	reqs/sec	Total number of major page faults per second
Memory Usage	Utilization	Memory Utilization	%	Percentage of memory utilized
Network Usage	Load	Network Write Rate	MB/sec	Number of bytes sent over the network per second
Network Usage	Load	Network Read Rate	MB/sec	Number of bytes received over the network per second
Network Usage	Error	Network Write Error Rate	ops/sec	Number of errors while sending over the network per second
Network Usage	Error	Network Read Error Rate	ops/sec	Number of errors while receiving over the network per second

**Table 1-207 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## L2/L3 Generic Network Node

**Table 1-208 Supported Configuration Metrics for Network Node**

Metric Group	Name	Unit	Description
System Information	System Description	NA	A textual description of the system.
System Information	System Contact	NA	The textual identification of the contact person for this system.
System Information	System Name	NA	An administratively-assigned name for this system.
System Information	System Location	NA	The physical location of this system.
Interfaces Details	Interface Index	NA	A unique value for each interface ranging from 1 to the number of interfaces.
Interfaces Details	Interface Description	NA	A textual string containing information about the interface.
Interfaces Details	Type	NA	The type of interface at the physical / link layer below the network layer.
Interfaces Details	MTU	NA	The size of the largest datagram which can be sent/received on the interface.
Interfaces Details	Speed	Mbps	An estimate of the interface's current bandwidth in Mbits per second.
Interfaces Details	Physical Address	NA	The interface's address at the protocol layer immediately below the network layer.
IP Details	IP Forwarding	NA	The indication of whether this entity is acting as an IP gateway.

**Table 1-208 (Cont.) Supported Configuration Metrics for Network Node**

Metric Group	Name	Unit	Description
IP Details	IP Default TTL	NA	The default Time-To-Live value inserted in the datagrams originated at this entity.
IP Details	IP Reassembly Timeout	sec	The maximum number of seconds which received fragments are held while they are awaiting reassembly at this entity.
IP Addresses	IP Address	NA	The IP address.
IP Addresses	IP Subnet Mask	NA	The subnet mask associated with the IP address.
IP Addresses	IP Reassembly Max Size	NA	The size of the largest IP datagram which can be reassembled when received on this interface.
IP Addresses	IP Data Link	NA	The description of the data link at the protocol layer immediately below the IP layer.

**Table 1-209 Supported Status and Performance Metrics for Network Node**

Metric Group	Category	Name	Unit	Description
Interface Stats		Interface Index	NA	A unique value for each interface ranging from 1 to the number of interfaces.
Interface Stats		Interface Description	NA	A textual string containing information about the interface.
Interface Stats	Availability	Administrative Status	NA	The desired state of the interface.
Interface Stats	Availability	Operational Status	NA	The current operational state of the interface.
Interface Stats	Load	Inbound Octets Rate	bytes/sec	The rate at which octets are received on the interface, including framing characters.

**Table 1-209 (Cont.) Supported Status and Performance Metrics for Network Node**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Interface Stats	Load	Inbound Unicast Packets Rate	per sec	The rate at which unicast packets are delivered to a higher-layer protocol.
Interface Stats	Load	Inbound Non-Unicast Packets Rate	per sec	The rate at which non-unicast packets are delivered to a higher-layer protocol.
Interface Stats	Load	Inbound Discard Rate	per sec	The number of inbound packets discarded per second.
Interface Stats	Error	Inbound Error Rate	per sec	The number of inbound packets per second that contained errors preventing them to be delivered to a higher-level protocol.
Interface Stats	Error	Inbound Unknown Protocol Packets Rate	per sec	The number of inbound packets per second that were discarded because of an unknown or unsupported protocol.
Interface Stats	Load	Outbound Octets Rate	bytes/sec	The rate at which octets are transmitted out of the interface, including framing characters.
Interface Stats	Load	Outbound Unicast Packets Rate	per sec	The rate at which packets are requested to be transmitted to a subnet-unicast address.
Interface Stats	Load	Outbound Non-Unicast Packets Rate	per sec	The rate at which packets are requested to be transmitted to a non-unicast address.

**Table 1-209 (Cont.) Supported Status and Performance Metrics for Network Node**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Interface Stats	Error	Outbound Discard Rate	per sec	The number of outbound packets per second chosen to be discarded.
Interface Stats	Error	Outbound Error Rate	per sec	The number of packets per second that could not be transmitted because of errors.
Interface Stats	Load	Outbound Queue Length	NA	The length of the output packet queue.
IP Statistics	Error	IP Input Header Errors Rate	per sec	The number of input datagrams per second discarded due to errors in their IP headers.
IP Statistics	Error	IP Input Address Errors Rate	per sec	The number of input datagrams per second discarded because their destination IP address was valid to be received at this entity.
IP Statistics	Load	IP Forward Rate	per sec	The number of input datagrams per second for which this entity was not their final IP destination.
IP Statistics	Error	IP Input Unknown Protocol Rate	per sec	The number of locally-addressed datagrams received per second that were discarded because of an unknown or unsupported protocol.
IP Statistics	Error	IP Input Discard Rate	per sec	The number of input datagrams received per second that were chosen to be discarded.



**Table 1-209 (Cont.) Supported Status and Performance Metrics for Network Node**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
IP Statistics	Load	IP Input Deliver Rate	per sec	The number of input datagrams per second successfully delivered to IP user-protocols.
IP Statistics	Load	IP Output Request Rate	per sec	The number of datagrams per seconds which higher-layer protocol supplied to IP in requests for transmission.
IP Statistics	Error	IP Output Discard Rate	per sec	The number of output datagrams per seconds which were chosen to be discarded.
IP Statistics	Error	IP Output No Routes Rate	per sec	The number of datagrams per seconds discarded because no route could be found to transmit to their destination.
ICMP Statistics	Load	ICMP Inbound Messages Rate	per sec	The number of ICMP messages received per second.
ICMP Statistics	Error	ICMP Inbound Errors Rate	per sec	The number of ICMP messages received per second that had some errors.
ICMP Statistics	Load	ICMP Outbound Messages Rate	per sec	The number of ICMP messages requested to be sent per second.
ICMP Statistics	Error	ICMP Outbound Errors Rate	per sec	The number of ICMP messages per second that could not be sent due to some ICMP layer errors.

# LDAP Server

**Table 1-210 Supported Configuration Metrics for LDAP Server**

Metric Group	Name	Unit	Description
General Configurations	Server Mode	NA	
General Configurations	Maximum entries to be returned by a search	NA	
General Configurations	Maximum time allowed for a search to complete (second)	sec	
General Configurations	Anonymous Bind	NA	
General Configurations	Dump Flag	NA	
General Configurations	SSL Interoperability Mode	NA	
General Configurations	LDAP Host	NA	
General Configurations	LDAP SSL Port	NA	
General Configurations	LDAP Non-SSL Port	NA	

**Table 1-211 Supported Status and Performance Metrics for LDAP Server**

Metric Group	Category	Name	Unit	Description
LDAP Server Resource Usage		Memory Utilization	KB	
LDAP Server Resource Usage		CPU Utilization	%	
LDAP Server Resource Usage		Memory Utilization	%	
LDAP Operations Profile		Completed Bind Operations	ops/sec	
LDAP Operations Profile		Completed Add Operations	ops/sec	
LDAP Operations Profile		Completed Delete Operations	ops/sec	
LDAP Operations Profile		Completed Modify Operations	ops/sec	
LDAP Operations Profile		Completed Search Operations	ops/sec	
LDAP Operations Profile		Completed Compare Operations	ops/sec	
LDAP Operations Profile		Completed Abandon Operations	ops/sec	
LDAP Operations Profile		Completed Unbind Operations	ops/sec	

**Table 1-211 (Cont.) Supported Status and Performance Metrics for LDAP Server**

Metric Group	Category	Name	Unit	Description
LDAP Operations Profile		Completed Modrdrn Operations	ops/sec	
LDAP Operations Profile		Total Operations	ops/sec	
LDAP Operations Profile		Failed Bind Operations	ops/sec	
LDAP Operation Response Time		Bind Operation Response Time	ms	
LDAP Operation Response Time		Compare Operation Response Time	ms	
LDAP Operation Response Time		Messaging Search Operation Response Time	ms	

## Listener (Generic)

**Table 1-212 Supported Configuration Metrics for Generic Listener**

Metric Group	Name	Unit	Description
Listener EndPoints	Server Name	N/A	Hosted server name
Listener EndPoints	Protocol	N/A	Protocol like TCP/TCPS/IPC
Listener EndPoints	Protocol Value	N/A	Port of TCP/TCPS , key for IPC

**Table 1-213 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-214 Supported Status and Performance Metrics for Generic Listener**

Metric Group	Category	Name	Unit	Description
Listener Load	Load	Connection Established (per minute)	N/A	Rate of established connections
Listener Load	Load	Connections refused (per minute)	N/A	Rate of refused connections

**Table 1-215 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

## Load Balancer (Generic)

**Table 1-216 Supported Configuration Metrics for Load Balancer**

Metric Group	Name	Unit	Description
Load Balancer Configuration	Virtual Server	N/A	Virtual Server name
Load Balancer Configuration	Route	N/A	Route condition
Load Balancer Configuration	Back-end Server Group	N/A	Name of the back-end server group or pool
Load Balancer Configuration	Back-end Server Host	N/A	Host name of the back-end server host
Load Balancer Configuration	Back-end Server Port	N/A	Port number of the back-end server
Load Balancer Configuration	Protocol	N/A	Protocol
Load Balancer Configuration	Route Algorithm	N/A	Algorithm used for routing requests among the back-end servers available in a server group

**Table 1-217 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-218 Status and Performance Metrics for Load Balancer**

Metric Group	Category	Name	Unit	Description
Load Balancer Performance	Load	Request Rate	reqs/sec	Rate of requests processed by the load balancer
Load Balancer Performance	Response	Request Processing Time	ms	Average response time for the requests
Load Balancer Performance	Error	Error Rate	errors/sec	Rate of errors returned by the load balancer
Load Balancer Performance	Load	Data Transmission Rate	KB/sec	Rate by which data is transmitted from the load balancer to clients
Load Balancer Performance	N/A	Data Receive Rate	KB/sec	Rate by which data is received by the load balancer from clients
Virtual Server	Load	Virtual Server	N/A	Virtual Server name
Virtual Server	Error	Request Rate	reqs/sec	Rate of requests processed by the virtual server
Virtual Server	Load	Error Rate	errors/sec	Rate of errors returned by the virtual server
Virtual Server	N/A	Data Receive Rate	KB/sec	Rate by which data is received by the virtual server
Virtual Server	N/A	Data Transmission Rate	KB/sec	Rate by which data is transmitted from the virtual server
Back-end Server	N/A	Back-end Server	N/A	Back-end Server (host:port)
Back-end Server	N/A	Server Group	N/A	Name of the back-end server group the back-end server belongs to
Back-end Server	Availability	Status	N/A	Indicates if the back-end server is online (1) or offline (2) or unreferenced (3)
Back-end Server	Capacity	Active Connections	N/A	Number of active connections available for the back-end server
Back-end Server	N/A	Idle Connections	N/A	Number of idle connections available for the back-end server
Back-end Server	Load	Request Rate	reqs/sec	Rate of requests processed by the back-end server

**Table 1-218 (Cont.) Status and Performance Metrics for Load Balancer**

Metric Group	Category	Name	Unit	Description
Back-end Server	N/A	Sticky Request Rate	reqs/sec	Rate of sticky requests processed by the back-end server
Back-end Server	Error	Error Rate	errors/sec	Rate of errors returned by the back-end server
Back-end Server	Load	Data Transmission Rate	KB/sec	Rate by which data is transmitted from the load balancer to the back-end server
Back-end Server	N/A	Data Receive Rate	KB/sec	Rate by which data is received by the load balancer from the back-end server

**Table 1-219 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-220 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Microsoft Active Directory

**Table 1-221 Supported Configuration Metrics for LDAP Server**

Metric Group	Name	Unit	Description
General Configurations	Server Mode	NA	
General Configurations	Maximum entries to be returned by a search	NA	

**Table 1-221 (Cont.) Supported Configuration Metrics for LDAP Server**

Metric Group	Name	Unit	Description
General Configurations	Maximum time allowed for a search to complete (second)	sec	
General Configurations	Anonymous Bind	NA	
General Configurations	Dump Flag	NA	
General Configurations	SSL Interoperability Mode	NA	
General Configurations	LDAP Host	NA	
General Configurations	LDAP SSL Port	NA	
General Configurations	LDAP Non-SSL Port	NA	

**Table 1-222 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-223 Supported Status and Performance Metrics for Microsoft Active Directory**

Metric Group	Category	Name	Unit	Description
DB and Log Size Information	Load	Database Free Space	bytes	Database drive free space
DB and Log Size Information	Load	Database Size	bytes	Database size
DB and Log Size Information	Load	Log File Free Space	bytes	Log file drive free space
DB and Log Size Information	Load	Log File Size	bytes	Log file size
Directory Services Overview	Load	DRA Inbound Bytes	bytes	DRA inbound bytes per second
Directory Services Overview	Load	DRA Outbound Bytes	bytes	DRA outbound bytes per second
Directory Services Overview	Load	DS Search Sub-operation Rate	ops/sec	Number of directory service search sub-operations per second

**Table 1-223 (Cont.) Supported Status and Performance Metrics for Microsoft Active Directory**

Metric Group	Category	Name	Unit	Description
Directory Services Overview	Load	LDAP Client Sessions	NA	Number of LDAP client sessions connected to the domain controller
Directory Services Overview	Load	LDAP Search Rate	ops/sec	Number of LDAP search operations per second
Directory Services Overview	Load	LDAP Write Rate	ops/sec	Number of LDAP write operations per second
Operations Masters		Operations Master Role	NA	Operations master role
Operations Masters	Response	Last Bind Latency	sec	Last bind latency
Operations Masters	Response	Last Ping Latency	sec	Last ping latency
Authentication Statistics	Load	Kerberos Authentications Rate	reqs/sec	Client authentication requests to a domain controller per second
Authentication Statistics	Load	NTLM Authentications Rate	reqs/sec	NT LAN Manager (NTLM) authentication requests serviced by a domain controller per second
Authentication Statistics	Load	KDC Authentications Rate	reqs/sec	Kerberos key distribution center (KDC) authentication service requests per second
Authentication Statistics	Load	KDC Ticket Granting Rate	reqs/sec	Kerberos key distribution center (KDC) ticket granting service requests per second

**Table 1-224 Supported Status and Performance Metrics for LDAP Server**

Metric Group	Category	Name	Unit	Description
LDAP Server Resource Usage		Memory Utilization	KB	



**Table 1-224 (Cont.) Supported Status and Performance Metrics for LDAP Server**

Metric Group	Category	Name	Unit	Description
LDAP Server Resource Usage		CPU Utilization	%	
LDAP Server Resource Usage		Memory Utilization	%	
LDAP Operations Profile		Completed Bind Operations	ops/sec	
LDAP Operations Profile		Completed Add Operations	ops/sec	
LDAP Operations Profile		Completed Delete Operations	ops/sec	
LDAP Operations Profile		Completed Modify Operations	ops/sec	
LDAP Operations Profile		Completed Search Operations	ops/sec	
LDAP Operations Profile		Completed Compare Operations	ops/sec	
LDAP Operations Profile		Completed Abandon Operations	ops/sec	
LDAP Operations Profile		Completed Unbind Operations	ops/sec	
LDAP Operations Profile		Completed Modrdn Operations	ops/sec	
LDAP Operations Profile		Total Operations	ops/sec	
LDAP Operations Profile		Failed Bind Operations	ops/sec	
LDAP Operation Response Time		Bind Operation Response Time	ms	
LDAP Operation Response Time		Compare Operation Response Time	ms	
LDAP Operation Response Time		Messaging Search Operation Response Time	ms	

**Table 1-225 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection

**Table 1-225 (Cont.) Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

## Microsoft Azure API Application Service

No metrics are defined for Microsoft Azure API Application. All metrics are inherited.

**Table 1-226 Supported Status and Performance Metrics for Microsoft Azure Application Service**

Metric Group	Category	Name	Unit	Description
App Service HTTP Responses	Load	HTTP 101 Responses	per min	HTTP 101 Responses
App Service HTTP Responses	Load	HTTP 2xx Responses	per min	HTTP 2xx Responses
App Service HTTP Responses	Load	HTTP 3xx Responses	per min	HTTP 3xx Responses
App Service HTTP Responses	Load	HTTP 401 Responses	per min	HTTP 401 Responses
App Service HTTP Responses	Load	HTTP 403 Responses	per min	HTTP 403 Responses
App Service HTTP Responses	Load	HTTP 404 Responses	per min	HTTP 404 Responses
App Service HTTP Responses	Load	HTTP 406 Responses	per min	HTTP 406 Responses
App Service HTTP Responses	Load	HTTP 4xx Responses	per min	HTTP 4xx Responses
App Service HTTP Responses	Load	HTTP 5xx Responses	per min	HTTP 5xx Responses
App Service Usage	Load	CPU Time	sec	Average CPU Time Used Per Minute
App Service Usage	Load	Requests	per min	Requests
App Service Usage	Load	Data In	MB/sec	Data In
App Service Usage	Load	Data Out	MB/sec	Data Out
App Service Usage	Load	Memory working set	MB	Memory working set
App Service Usage	Load	Average memory working set	MB	Average memory working set
App Service Usage	Load	Average Response Time	sec	Average Response Time

**Table 1-226 (Cont.) Supported Status and Performance Metrics for Microsoft Azure Application Service**

Metric Group	Category	Name	Unit	Description
App Service Functions Usage	Load	Function Execution Units	per min	Function Execution Units
App Service Functions Usage	Load	Function Executions	per min	Function Executions

**Table 1-227 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Microsoft Azure Application Gateway

**Table 1-228 Supported Configuration Metrics for Microsoft Azure Application Gateway**

Metric Group	Name	Unit	Description
SKU Configuration	SKU Name	NA	Microsoft Azure SKU Name
SKU Configuration	SKU Tier	NA	Microsoft Azure SKU Tier
SKU Configuration	SKU Capacity	NA	Microsoft Azure SKU Capacity

**Table 1-229 Supported Status and Performance Metrics for Microsoft Azure Application Gateway**

Metric Group	Category	Name	Unit	Description
Application Gateway Usage	Load	Throughput	bytes/sec	Application Gateway Throughput

**Table 1-230 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Microsoft Azure Application Service Plan

**Table 1-231 Supported Status and Performance Metrics for Microsoft Azure Application Service Plan**

Metric Group	Category	Name	Unit	Description
App Service Plan Usage	Utilization	CPU Utilization	%	CPU Utilization
App Service Plan Usage	Utilization	Memory Utilization	%	Memory Utilization
App Service Plan Usage	Load	Disk Queue Length	NA	Disk Queue Length
App Service Plan Usage	Load	Http Queue Length	NA	Http Queue Length
App Service Plan Usage	Load	Data In	MB/sec	Data In
App Service Plan Usage	Load	Data Out	MB/sec	Data Out

**Table 1-232 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Microsoft Azure Event Hub Namespace

**Table 1-233 Supported Configuration Metrics for Microsoft Azure Event Hub Namespace**

Metric Group	Name	Unit	Description
SKU Configuration	SKU Name	NA	Microsoft Azure SKU Name
SKU Configuration	SKU Tier	NA	Microsoft Azure SKU Tier

**Table 1-234 Supported Status and Performance Metrics for Microsoft Azure Event Hub Namespace**

Metric Group	Category	Name	Unit	Description
Event Hub Namespace Usage	Load	Incoming Send Requests	reqs/sec	Incoming send requests for a notification hub
Event Hub Namespace Usage	Load	Successful Requests	reqs/sec	Successful requests for a namespace

**Table 1-234 (Cont.) Supported Status and Performance Metrics for Microsoft Azure Event Hub Namespace**

Metric Group	Category	Name	Unit	Description
Event Hub Namespace Usage	Load	Failed Requests	errors/sec	Failed requests for a namespace
Event Hub Namespace Usage	Load	Server Busy Errors	errors/sec	Server busy errors for a namespace
Event Hub Namespace Usage	Load	Internal Server Errors	errors/sec	Internal server errors for a namespace
Event Hub Namespace Usage	Load	Other Errors	errors/sec	Failed requests for a namespace
Event Hub Namespace Usage	Load	Incoming Messages	msgs/sec	Incoming messages for a namespace
Event Hub Namespace Usage	Load	Outgoing Messages	msgs/sec	Outgoing messages for a namespace
Event Hub Namespace Usage	Load	Incoming Bytes	bytes/sec	Event Hub incoming message throughput for a namespace
Event Hub Namespace Usage	Load	Outgoing Bytes	bytes/sec	Event Hub outgoing message throughput for a namespace
Event Hub Namespace Usage	Load	Archive Backlog Messages	msgs/sec	Event Hub archive messages in backlog for a namespace
Event Hub Namespace Usage	Load	Archive Messages	msgs/sec	Event Hub archived messages in a namespace
Event Hub Namespace Usage	Load	Archive Message Throughput	bytes/sec	Event Hub archived message throughput in a namespace

**Table 1-235 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Microsoft Azure Functions Application

No metrics are defined for Microsoft Azure Functions Application. All metrics are inherited.

**Table 1-236 Supported Status and Performance Metrics for Microsoft Azure Application Service**

Metric Group	Category	Name	Unit	Description
App Service HTTP Responses	Load	HTTP 101 Responses	per min	HTTP 101 Responses
App Service HTTP Responses	Load	HTTP 2xx Responses	per min	HTTP 2xx Responses
App Service HTTP Responses	Load	HTTP 3xx Responses	per min	HTTP 3xx Responses
App Service HTTP Responses	Load	HTTP 401 Responses	per min	HTTP 401 Responses
App Service HTTP Responses	Load	HTTP 403 Responses	per min	HTTP 403 Responses
App Service HTTP Responses	Load	HTTP 404 Responses	per min	HTTP 404 Responses
App Service HTTP Responses	Load	HTTP 406 Responses	per min	HTTP 406 Responses
App Service HTTP Responses	Load	HTTP 4xx Responses	per min	HTTP 4xx Responses
App Service HTTP Responses	Load	HTTP 5xx Responses	per min	HTTP 5xx Responses
App Service Usage	Load	CPU Time	sec	Average CPU Time Used Per Minute
App Service Usage	Load	Requests	per min	Requests
App Service Usage	Load	Data In	MB/sec	Data In
App Service Usage	Load	Data Out	MB/sec	Data Out
App Service Usage	Load	Memory working set	MB	Memory working set
App Service Usage	Load	Average memory working set	MB	Average memory working set
App Service Usage	Load	Average Response Time	sec	Average Response Time
App Service Functions Usage	Load	Function Execution Units	per min	Function Execution Units
App Service Functions Usage	Load	Function Executions	per min	Function Executions

**Table 1-237 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Microsoft Azure Logic Application Service

**Table 1-238 Supported Status and Performance Metrics for Microsoft Azure Logic App**

Metric Group	Category	Name	Unit	Description
Logical App Statistics	Load	Runs Started	per min	Number of workflow runs started.
Logical App Statistics	Load	Runs Completed	per min	Number of workflow runs completed.
Logical App Statistics	Load	Runs Succeeded	per min	Number of workflow runs succeeded.
Logical App Statistics	Load	Runs Failed	per min	Number of workflow runs failed.
Logical App Statistics	Load	Runs Cancelled	per min	Number of workflow runs cancelled.
Logical App Statistics	Response	Run Latency	sec	Latency of completed workflow runs.
Logical App Statistics	Response	Run Success Latency	sec	Latency of succeeded workflow runs.
Logical App Statistics	Load	Run Throttled Events	per min	Number of workflow action or trigger throttled events.
Logical App Statistics	Utilization	Run Failure Percentage	%	Percentage of workflow runs failed.
Logical App Statistics	Load	Actions Started	per min	Number of workflow actions started.
Logical App Statistics	Load	Actions Completed	per min	Number of workflow actions completed.
Logical App Statistics	Load	Actions Succeeded	per min	Number of workflow actions succeeded.
Logical App Statistics	Load	Actions Failed	per min	Number of workflow actions failed.
Logical App Statistics	Load	Actions Skipped	per min	Number of workflow actions skipped.

**Table 1-238 (Cont.) Supported Status and Performance Metrics for Microsoft Azure Logic App**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Logical App Statistics	Response	Action Latency	sec	Latency of completed workflow actions.
Logical App Statistics	Response	Action Success Latency	sec	Latency of succeeded workflow actions.
Logical App Statistics	Load	Action Throttled Events	per min	Number of workflow action throttled events..
Logical App Statistics	Load	Triggers Started	per min	Number of workflow triggers started.
Logical App Statistics	Load	Triggers Completed	per min	Number of workflow triggers completed.
Logical App Statistics	Load	Triggers Succeeded	per min	Number of workflow triggers succeeded.
Logical App Statistics	Load	Triggers Failed	per min	Number of workflow triggers failed.
Logical App Statistics	Load	Triggers Skipped	per min	Number of workflow triggers skipped.
Logical App Statistics	Load	Triggers Fired	per min	Number of workflow triggers fired.
Logical App Statistics	Response	Trigger Latency	sec	Latency of completed workflow triggers.
Logical App Statistics	Response	Trigger Fire Latency	sec	Latency of fired workflow triggers.
Logical App Statistics	Response	Trigger Success Latency	sec	Latency of succeeded workflow triggers.
Logical App Statistics	Load	Trigger Throttled Events	per min	Number of workflow trigger throttled events.
Logical App Statistics	Load	Billable Action Executions	per min	Number of workflow action executions getting billed.
Logical App Statistics	Load	Billable Trigger Executions	per min	Number of workflow trigger executions getting billed.



**Table 1-238 (Cont.) Supported Status and Performance Metrics for Microsoft Azure Logic App**

Metric Group	Category	Name	Unit	Description
Logical App Statistics	Load	Total Billable Executions	per min	Number of workflow executions getting billed.

**Table 1-239 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Microsoft Azure Mobile Application

No metrics are defined for Microsoft Azure Mobile Application. All metrics are inherited.

**Table 1-240 Supported Status and Performance Metrics for Microsoft Azure Application Service**

Metric Group	Category	Name	Unit	Description
App Service HTTP Responses	Load	HTTP 101 Responses	per min	HTTP 101 Responses
App Service HTTP Responses	Load	HTTP 2xx Responses	per min	HTTP 2xx Responses
App Service HTTP Responses	Load	HTTP 3xx Responses	per min	HTTP 3xx Responses
App Service HTTP Responses	Load	HTTP 401 Responses	per min	HTTP 401 Responses
App Service HTTP Responses	Load	HTTP 403 Responses	per min	HTTP 403 Responses
App Service HTTP Responses	Load	HTTP 404 Responses	per min	HTTP 404 Responses
App Service HTTP Responses	Load	HTTP 406 Responses	per min	HTTP 406 Responses
App Service HTTP Responses	Load	HTTP 4xx Responses	per min	HTTP 4xx Responses
App Service HTTP Responses	Load	HTTP 5xx Responses	per min	HTTP 5xx Responses
App Service Usage	Load	CPU Time	sec	Average CPU Time Used Per Minute
App Service Usage	Load	Requests	per min	Requests
App Service Usage	Load	Data In	MB/sec	Data In

**Table 1-240 (Cont.) Supported Status and Performance Metrics for Microsoft Azure Application Service**

Metric Group	Category	Name	Unit	Description
App Service Usage	Load	Data Out	MB/sec	Data Out
App Service Usage	Load	Memory working set	MB	Memory working set
App Service Usage	Load	Average memory working set	MB	Average memory working set
App Service Usage	Load	Average Response Time	sec	Average Response Time
App Service Functions Usage	Load	Function Execution Units	per min	Function Execution Units
App Service Functions Usage	Load	Function Executions	per min	Function Executions

**Table 1-241 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Microsoft Azure VM Instance (Compute)

**Table 1-242 Supported Status and Performance Metrics for Microsoft Azure VM Instance**

Metric Group	Category	Name	Unit	Description
CPU Usage	Utilization	CPU Utilization	%	The percentage of allocated compute units that are currently in use by the Virtual Machine
Network Activity	Load	Network Read Rate	MB/sec	Incoming traffic on all network interfaces of the Virtual Machine
Network Activity	Load	Network Write Rate	MB/sec	Outgoing traffic on all network interfaces of the Virtual Machine
Disk Activity	Load	Disk Read Rate	MB/sec	Rate at which bytes are read from disk
Disk Activity	Load	Disk Write Rate	MB/sec	Rate at which bytes are written to disk

**Table 1-242 (Cont.) Supported Status and Performance Metrics for Microsoft Azure VM Instance**

Metric Group	Category	Name	Unit	Description
Disk Activity	Load	Disk Read Operations	IOPS	Disk Read Operations/Sec
Disk Activity	Load	Disk Write Operations	IOPS	Disk Write Operations/Sec

**Table 1-243 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Microsoft Azure VM Scale Set

**Table 1-244 Supported Configuration Metrics for Microsoft Azure VM Scale Set**

Metric Group	Name	Unit	Description
SKU Configuration	SKU Name	NA	Microsoft Azure SKU Name
SKU Configuration	SKU Tier	NA	Microsoft Azure SKU Tier
SKU Configuration	SKU Capacity	NA	Microsoft Azure SKU Capacity
VM Image Configuration	VM Image Publisher	NA	Microsoft Azure VM Image Publisher
VM Image Configuration	VM Image Offer	NA	Microsoft Azure VM Image Offer
VM Image Configuration	VM Image SKU	NA	Microsoft Azure VM Image SKU
VM Image Configuration	VM Image Version	NA	Microsoft Azure VM Image Version

**Table 1-245 Supported Status and Performance Metrics for Microsoft Azure VM Scale Set**

Metric Group	Category	Name	Unit	Description
CPU Usage	Utilization	CPU Utilization	%	The percentage of allocated compute units that are currently in use by the Virtual Machine

**Table 1-245 (Cont.) Supported Status and Performance Metrics for Microsoft Azure VM Scale Set**

Metric Group	Category	Name	Unit	Description
Network Activity	Load	Network Read Rate	MB/sec	Incoming traffic on all network interfaces of the Virtual Machine(s)
Network Activity	Load	Network Write Rate	MB/sec	Outgoing traffic on all network interfaces of the Virtual Machine(s)
Disk Activity	Load	Disk Read Rate	MB/sec	Rate at which bytes are read from disk
Disk Activity	Load	Disk Write Rate	MB/sec	Rate at which bytes are written to disk
Disk Activity	Load	Disk Read Operations	IOPS	Disk Read Operations/Sec
Disk Activity	Load	Disk Write Operations	IOPS	Disk Write Operations/Sec

**Table 1-246 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Microsoft Azure Web Application

No metrics are defined for Microsoft Azure Web Application. All metrics are inherited.

**Table 1-247 Supported Status and Performance Metrics for Microsoft Azure Application Service**

Metric Group	Category	Name	Unit	Description
App Service HTTP Responses	Load	HTTP 101 Responses	per min	HTTP 101 Responses
App Service HTTP Responses	Load	HTTP 2xx Responses	per min	HTTP 2xx Responses
App Service HTTP Responses	Load	HTTP 3xx Responses	per min	HTTP 3xx Responses
App Service HTTP Responses	Load	HTTP 401 Responses	per min	HTTP 401 Responses
App Service HTTP Responses	Load	HTTP 403 Responses	per min	HTTP 403 Responses

**Table 1-247 (Cont.) Supported Status and Performance Metrics for Microsoft Azure Application Service**

Metric Group	Category	Name	Unit	Description
App Service HTTP Responses	Load	HTTP 404 Responses	per min	HTTP 404 Responses
App Service HTTP Responses	Load	HTTP 406 Responses	per min	HTTP 406 Responses
App Service HTTP Responses	Load	HTTP 4xx Responses	per min	HTTP 4xx Responses
App Service HTTP Responses	Load	HTTP 5xx Responses	per min	HTTP 5xx Responses
App Service Usage	Load	CPU Time	sec	Average CPU Time Used Per Minute
App Service Usage	Load	Requests	per min	Requests
App Service Usage	Load	Data In	MB/sec	Data In
App Service Usage	Load	Data Out	MB/sec	Data Out
App Service Usage	Load	Memory working set	MB	Memory working set
App Service Usage	Load	Average memory working set	MB	Average memory working set
App Service Usage	Load	Average Response Time	sec	Average Response Time
App Service Functions Usage	Load	Function Execution Units	per min	Function Execution Units
App Service Functions Usage	Load	Function Executions	per min	Function Executions

**Table 1-248 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Microsoft Exchange

**Table 1-249 Supported Configuration Metrics for Microsoft Exchange**

Metric Group	Name	Unit	Description
Exchange Server Information	Server Role	NA	Exchange Server Roles installed.
Exchange Server Information	Active Directory Site	NA	Active Directory Site.

**Table 1-250 Supported Status and Performance Metrics for Microsoft Exchange**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
IIS Application Pools		IIS Application Pool Name	NA	IIS Application Pool Name.
IIS Application Pools	Load	Active Requests	NA	Number of Active Requests being processed by worker processes of the given Exchange IIS Application Pool.
IIS Application Pools	Utilization	CPU Utilization	%	Percentage of CPU resources used by the given Exchange IIS Application Pool.
IIS Application Pools	Load	Non Paged Memory Size	MB	Amount of non-paged memory (MB) used by the given Exchange IIS Application Pool.
IIS Application Pools	Load	Paged Memory Size	MB	Amount of paged memory (MB) used by the given Exchange IIS Application Pool.
IIS Application Pools	Load	Private Memory Size	MB	Amount of private memory (MB) used by the given Exchange IIS Application Pool.
Exchange Windows Services		Service Name	NA	Exchange Windows Service Name.
Exchange Windows Services	Utilization	CPU Utilization	%	Percentage of CPU resources used by the given Exchange Windows Service.
Exchange Windows Services	Load	Non Paged Memory Size	MB	Amount of non-paged memory (MB) used by the given Exchange Windows Service.
Exchange Windows Services	Load	Paged Memory Size	MB	Amount of paged memory (MB) used by the given Exchange Windows Service.

**Table 1-250 (Cont.) Supported Status and Performance Metrics for Microsoft Exchange**

Metric Group	Category	Name	Unit	Description
Exchange Windows Services	Load	Private Memory Size	MB	Amount of private memory (MB) used by the given Exchange Windows Service.
Exchange Windows Services	Utilization	Private Memory	%	Percentage of private memory used by the given Exchange Windows Service.
Exchange Request	Response	Exchange Web Service Response Time	ms	Exchange Web Service Response Time is the average time in milliseconds that has elapsed between the beginning and end of requests.
Exchange Request	Load	Requests Rate	msgs/sec	Number of requests processed each second which may not involve proxying to a Mailbox server.
Exchange Request	Load	Outstanding Proxy Requests	NA	Number of concurrent outstanding proxy requests.
Exchange Request	Load	HTTP Proxy Requests Rate	ops/sec	Number of proxy requests processed each second.

**Table 1-251 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Microsoft Hyper-V Virtual Platform

There are no Microsoft Hyper-V Virtual Platform specific metrics supported. All metrics are inherited from a parent entity as listed below.

**Table 1-252 Supported Configuration Metrics for Virtual Platform**

Group	Name	Unit	Default Collection Frequency	Description
Resource Allocation	Total CPUs	NA	24 Hr	Total number of CPUs on the system
Resource Allocation	Total CPU Mhz	NA	24 Hr	Total number of CPU megahertz on the virtual platform.
Resource Allocation	Total Memory	GB	24 Hr	Total amount of usable Physical RAM on the system
Virtual Servers	Virtual Server ID	NA	24 Hr	The ID of the virtual server, which can be a container or virtual machine
Virtual Servers	Virtual Server Name	NA	24 Hr	The name of the virtual server, which can be a container or virtual machine
Hardware Configuration	CPU Architecture	NA	.	CPU architecture of the virtual platform
Hardware Configuration	CPU Model	NA	.	CPU model of the virtual platform
Hardware Configuration	Total Cores	NA	.	Total number of CPU cores on the virtual platform

**Table 1-253 Supported Status and Performance Metrics for Virtual Platform**

Metric Group	Category	Name	Unit	Description
CPU	Load	CPU Usage	sec	Total CPU time used in seconds
CPU	Utilization	CPU Utilization	%	Percentage of total CPU time used
CPU	Load	CPU Mhz Allocated	NA	Number of CPU megahertz allocated to the virtual platform.
CPU		Interval	sec	Interval of metric collection in seconds
Memory	Load	Memory Used	GB	Memory used by the entity in GB



**Table 1-253 (Cont.) Supported Status and Performance Metrics for Virtual Platform**

Metric Group	Category	Name	Unit	Description
Memory	Utilization	Memory Utilization	%	Percentage of the allocated or available memory that is utilized by the entity
Memory		Interval	sec	Interval of metric collection in seconds

**Table 1-254 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Microsoft Hyper-V Virtual Server

There are no Microsoft Hyper-V Virtual Server specific metrics supported. All metrics are inherited from a parent entity as listed below.

**Table 1-255 Supported Configuration Metrics for Virtual Server**

Group	Name	Unit	Default Collection Frequency	Description
Network Interfaces Configuration	Interface Name	NA	24 Hr	The interface name of the network interface card
Network Interfaces Configuration	IP Address	NA	24 Hr	The ip address of the network card
Network Interfaces Configuration	MAC Address	NA	24 Hr	The mac address of the network interface card
General Configuration	Server ID	NA	24 Hr	ID of the virtual server, which can be a container or virtual machine
General Configuration	Server Name	NA	24 Hr	Name of the virtual server, which can be a container or virtual machine

**Table 1-255 (Cont.) Supported Configuration Metrics for Virtual Server**

Group	Name	Unit	Default Collection Frequency	Description
General Configuration	Host Name	NA	24 Hr	Host name of the virtual server, which can be a container or virtual machine
Resource Allocation	Total CPUs	NA	24 Hr	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	24 Hr	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-256 Supported Status and Performance Metrics for Virtual Server**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
CPU	Load	CPU Usage	sec	1 Min	Total CPU time spent across all CPUs allocated or available to the entity
CPU	Utilization	CPU Utilization	%	1 Min	Percentage of total CPU time spent across all CPUs allocated or available to the entity
CPU	Load	CPU Mhz Allocated	NA	1 Min	Number of CPU megahertz allocated to the virtual server.
CPU		Interval	sec	1 Min	Interval of metric collection in seconds
Memory	Load	Memory Used	GB	1 Min	Memory used by the entity in GB
Memory	Utilization	Memory Utilization	%	1 Min	Percentage of the allocated or available memory that is utilized by the entity

**Table 1-256 (Cont.) Supported Status and Performance Metrics for Virtual Server**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Network Activity Summary	Load	Network Read Rate	MB/sec	15 Min	Rate at which bytes are received across all network interfaces
Network Activity Summary	Load	Network Write Rate	MB/sec	15 Min	Rate at which bytes are sent across all network interfaces
Network Activity Summary	Load	Network I/O Rate	MB/sec	15 Min	Rate at which bytes are sent and received on across all network interfaces
Network Activity Summary		Interval	sec	15 Min	Interval of metric collection in seconds
State	Availability	State	NA	1 Min	The state of this container
State		Interval	sec	1 Min	Interval of metric collection in seconds

## Microsoft Internet Information Services

**Table 1-257 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-258 Supported Status and Performance Metrics for Microsoft Internet Information Services**

Metric Group	Category	Name	Unit	Description
WWW Service Overview		Name	NA	Name of the website

**Table 1-258 (Cont.) Supported Status and Performance Metrics for Microsoft Internet Information Services**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
WWW Service Overview	Load	Current Connections	NA	Number of active connections
WWW Service Overview	Load	Request Data Throughput	bytes/sec	The number of bytes received per second
WWW Service Overview	Load	Response Data Throughput	bytes/sec	The number of bytes sent per second
WWW Service Overview	Error	Not Found Error Rate	errors/sec	Number of Not Found Errors per second
WWW Service Overview	Load	Connections Attempts Rate	conns/sec	Number of connection attempts made per second
WWW Service Requests		Name	NA	Name of the website
WWW Service Requests	Load	Get Request Rate	reqs/sec	The number of GET requests per second
WWW Service Requests	Load	Post Request Rate	reqs/sec	The number of POST requests per second
WWW Service Requests	Load	Put Request Rate	reqs/sec	The number of PUT requests per second
WWW Service Requests	Load	Delete Request Rate	reqs/sec	The number of DELETE requests per second
WWW Service Requests	Load	Method Request Rate	reqs/sec	The number of Total Method requests per second
ASP Dot Net Overview	Load	ASP Dot Net Current Requests	NA	Total number of current requests in the server
ASP Dot Net Overview	Response	ASP Dot Net Requests Wait Time	ms	Wait time for requests
ASP Dot Net Overview	Load	ASP Dot Net Requests Queued	NA	Number of queued requests
ASP Dot Net Overview	Load	ASP Dot Net Worker Process Restarts	NA	Number of times a worker process restarted since the last collection

**Table 1-258 (Cont.) Supported Status and Performance Metrics for Microsoft Internet Information Services**

Metric Group	Category	Name	Unit	Description
Dot NET Application Details		Name	NA	.NET application name
Dot NET Application Details	Response	Request Time	ms/request	.NET application average request time
Dot NET Application Details	Load	Performance Event Rate	per sec	.NET application performance events per second
Dot NET Application Details	Load	Monitored Event Rate	per sec	.NET application monitored events per second
Dot NET Application Details	Error	Exception Event Rate	per sec	.NET application exception events per second
Dot NET Application Details	Utilization	Performance Events	%	.NET application performance event percentage
Dot NET Application Details	Error	Exception Events	%	.NET application exception event percentage
ASP Dot Net Applications Overview		Name	NA	Name of the Application
ASP Dot Net Applications Overview	Load	Request Rate	reqs/sec	Average number of requests made per second
ASP Dot Net Applications Overview	Error	Error Rate	errors/sec	Average number of errors occurred per second during execution of HTTP Requests
ASP Dot Net Applications Overview	Load	Requests in Application Queue	NA	Number of requests in Application Queue
FTP Service Overview		Name	NA	Name of the website
FTP Service Overview	Load	Current Connections	NA	Number of active connections
FTP Service Overview	Load	Request Data Throughput	bytes/sec	The number of bytes received per second
FTP Service Overview	Load	Response Data Throughput	bytes/sec	The number of bytes sent per second

**Table 1-259 Supported Status and Performance Metrics for Web Application Server**

Metric Group	Category	Name	Unit	Description
Web Requests	Response	Web Request Processing Time	ms	Average processing time per web request since the last collection.
Web Requests	Load	Web Request Rate	ops/min	Number of web requests per minute since the last collection.
Web Application Component	Load	Open HTTP Sessions	NA	Current total number of open http sessions for all the web applications on this web application server.

**Table 1-260 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

## Microsoft SCOM

There are no Microsoft SCOM specific metrics supported. Metrics are inherited from monitored entities.

Monitoring of the following entity types is supported:

- Windows Hosts
- SQL Server DB
- Exchange Server
- Hyper-V (via Virtual Platform and Virtual Server)
- Active Directory
- IIS

**Note:**

The generic target metrics apply to all supported entity types for Microsoft SCOM.

**Table 1-261 Supported Configuration Metrics for Generic Target**

Metric Group	Name	Unit	Description
Product	Vendor	NA	Vendor of the product
Product	Product	NA	Name of the product
Product	Version	NA	Version of the product

**Table 1-262 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

**Windows Host Metrics****Table 1-263 Supported Configuration Metrics for Windows Host**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	NA	Total number of CPUs available
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM available to the system in GB
CPU Hardware Configuration	Total Sockets	NA	Total number of CPU Sockets
CPU Hardware Configuration	Vendor Name	NA	Vendor who has manufactured the processors
CPU Hardware Configuration	Frequency	MHz	Clock frequency of the processor in MHz
CPU Hardware Configuration	Cache	MB	Size of cache memory in MB
CPU Hardware Configuration	CPU Implementation	NA	Model name of processor
CPU Hardware Configuration	Model	NA	CPU model
CPU Hardware Configuration	CPU Family	NA	Type of processor in the system
CPU Hardware Configuration	Cores Per Socket	NA	Number of cores per socket
CPU Hardware Configuration	Threads Per Socket	NA	Number of threads per socket

**Table 1-263 (Cont.) Supported Configuration Metrics for Windows Host**

Metric Group	Name	Unit	Description
CPU Hardware Configuration	Hyper-Threading Enabled	NA	Flag to indicate if hyper-threading is enabled or not
Network Configuration	Interface Name	NA	Name of the network interface card
Network Configuration	IP Address	NA	IP address of the network card
Network Configuration	MAC Address	NA	MAC address of the network interface card

**Table 1-264 Supported Status and Performance Metrics for Windows Host**

Metric Group	Category	Name	Unit	Description
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
CPU	Utilization	CPU Utilization (User Mode)	%	Percentage of CPU time spent in User mode across all CPUs
CPU	Utilization	CPU Utilization (System Mode)	%	Percentage of CPU time spent in System mode across all CPUs
CPU	Load	CPU Usage	sec	Total CPU time spent across all CPUs
CPU	Utilization	CPU Utilization	%	Percentage of total CPU time spent across all CPUs
File System Usage		Mount Point	NA	Mount Point of the file system
File System Usage	Load	File System Usage	GB	Space used in the file system in GB
File System Usage	Utilization	File System Space Available	%	Space available on the file system in %
Network Activity Summary	Load	Network Read Rate	MB/sec	Rate at which bytes are received across all network interfaces
Network Activity Summary	Load	Network Write Rate	MB/sec	Rate at which bytes are sent across all network interfaces



**Table 1-264 (Cont.) Supported Status and Performance Metrics for Windows Host**

Metric Group	Category	Name	Unit	Description
Network Activity Summary	Load	Network I/O Rate	MB/sec	Rate at which bytes are sent and received across all network interfaces
Disk Activity Summary	Load	Disk I/O Request Rate	IOPS	Rate of read and write operations on all disks
Paging Activity	Load	Pages Paged-in Rate	reqs/sec	Disk Read Rate to resolve major page faults
Paging Activity	Load	Pages Paged-out Rate	reqs/sec	Disk Write Rate to resolve major page faults

**SQL Server DB Metrics****Table 1-265 Supported Configuration Metrics for SQL Server DB**

Metric Group	Name	Unit	Description
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity.
Resource Allocation	Total CPUs	NA	Total number of CPUs allocated or available to the entity.
Total Memory Capacity	Host Memory	GB	Total host memory capacity in GB
Resource Allocation	Total CPUs	NA	Total number of CPUs allocated or available in this instance.
Correlation Associations Metrics	Association Name	NA	Name of entity association.
Correlation Associations Metrics	Destination Entity Correlation Type	NA	Scope or namespace for destination entity search.
Correlation Associations Metrics	Destination Entity Correlation Key	NA	A key name for search for matching destination entity.
Correlation Associations Metrics	Destination Entity Correlation Value	NA	A value string corresponding to the destination entity correlation key in the given search namespace.

**Table 1-266 Supported Status and Performance Metrics for SQL Server DB**

Metric Group	Category	Name	Unit	Description
I/O Per Second Instance Level	Load	I/O Per Second	IOPS	I/O per second for this instance
Load	Load	Logons	NA	The number of logons during the last collection interval
Load	Load	Logons Rate	logons/sec	Number of logons per second during the last collection interval
Load	Load	Transactions	NA	Number of transactions during the last collection interval
Load	Load	Transactions Rate	txns/sec	Number of transactions per second during the last collection interval
Throughput	Load	Transactions Per Second	txns/sec	Number of transactions per second
Throughput	Load	Logins Per Seconds	logons/sec	Number of logins per second
Throughput	Load	Current logons Count	NA	Count of current logons
Storage Space Usage	Utilization	Storage Space Allocated	GB	Storage space allocated in GB
Storage Space Usage	Utilization	Storage Space Utilization	%	Percent of storage space utilized
Storage Space Usage	Load	Space Used	GB	Storage space used in GB
CPU	Utilization	CPU Utilization	%	Percentage of CPU that was utilized.

**Hyper-V Virtual Platform Metrics****Table 1-267 Supported Configuration Metrics for Hyper-V Virtual Platform**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	NA	Total number of CPUs on the system
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM on the system

**Table 1-267 (Cont.) Supported Configuration Metrics for Hyper-V Virtual Platform**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPU Mhz	NA	Total number of CPU megahertz on the virtual platform.
Virtual Servers	Virtual Server ID	NA	The ID of the virtual server, which can be a container or virtual machine
Virtual Servers	Virtual Server Name	NA	The name of the virtual server, which can be a container or virtual machine
Hardware Configuration	CPU Architecture	NA	CPU architecture of the virtual platform
Hardware Configuration	CPU Model	NA	CPU model of the virtual platform
Hardware Configuration	Total Cores	NA	Total number of CPU cores on the virtual platform

**Table 1-268 Supported Status and Performance Metrics for Hyper-V Virtual Platform**

Metric Group	Category	Name	Unit	Description
CPU	Load	CPU Usage	sec	Total CPU time used in seconds
CPU	Utilization	CPU Utilization	%	Percentage of total CPU time used
Memory	Load	Memory Used	GB	Memory used by the entity in GB
Memory	Utilization	Memory Utilization	%	Percentage of the allocated or available memory that is utilized by the entity

**Hyper-V Virtual Server Metrics****Table 1-269 Supported Configuration Metrics for Hyper-V Virtual Server**

Metric Group	Name	Unit	Description
Network Interfaces Configuration	Interface Name	NA	The interface name of the network interface card
Network Interfaces Configuration	IP Address	NA	The ip address of the network card.

**Table 1-269 (Cont.) Supported Configuration Metrics for Hyper-V Virtual Server**

<b>Metric Group</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Network Interfaces Configuration	MAC Address	NA	The mac address of the network interface card.
General Configuration	Server ID	NA	ID of the virtual server, which can be a container or virtual machine
General Configuration	Server Name	NA	Name of the virtual server, which can be a container or virtual machine
General Configuration	Host Name	NA	Host name of the virtual server, which can be a container or virtual machine
Resource Allocation	Total CPUs	NA	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity
Correlation Identifiers Metrics	Correlation Type	NA	Scope or namespace for entity search
Correlation Identifiers Metrics	Correlation Key	NA	A key name used for searching/matching destination entity.
Correlation Identifiers Metrics	Correlation Value	NA	The value string corresponding to the entity correlation key in the given search namespace.

**Table 1-270 Supported Status and Performance Metrics for Hyper-V Virtual Server**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
CPU	Load	CPU Usage	sec	Total CPU time spent across all CPUs allocated or available to the entity
CPU	Utilization	CPU Utilization	%	Percentage of total CPU time spent across all CPUs allocated or available to the entity

**Table 1-270 (Cont.) Supported Status and Performance Metrics for Hyper-V Virtual Server**

Metric Group	Category	Name	Unit	Description
CPU	Load	CPU Mhz Allocated	NA	Number of CPU megahertz allocated to the virtual server.
Memory	Load	Memory Used	GB	Memory used by the entity in GB
Memory	Utilization	Memory Utilization	%	Percentage of the allocated or available memory that is utilized by the entity

**Microsoft Exchange Server Metrics****Table 1-271 Supported Configuration Metrics for Microsoft Exchange Server**

Metric Group	Category	Name	Unit	Description
IIS Application Pools		IIS Application Pool Name	NA	IIS Application Pool Name.
IIS Application Pools	Load	Active Requests	NA	Number of Active Requests being processed by worker processes of the given Exchange IIS Application Pool.
IIS Application Pools	Utilization	CPU Utilization	%	Percentage of CPU resources used by the given Exchange IIS Application Pool.
IIS Application Pools	Load	Non Paged Memory Size	MB	Amount of non-paged memory (MB) used by the given Exchange IIS Application Pool.
IIS Application Pools	Load	Paged Memory Size	MB	Amount of paged memory (MB) used by the given Exchange IIS Application Pool.
IIS Application Pools	Load	Private Memory Size	MB	Amount of private memory (MB) used by the given Exchange IIS Application Pool.

**Table 1-271 (Cont.) Supported Configuration Metrics for Microsoft Exchange Server**

Metric Group	Category	Name	Unit	Description
Exchange Windows Services		Service Name	NA	Exchange Windows Service Name.
Exchange Windows Services	Utilization	CPU Utilization	%	Percentage of CPU resources used by the given Exchange Windows Service.
Exchange Windows Services	Load	Non Paged Memory Size	MB	Amount of non-paged memory (MB) used by the given Exchange Windows Service.
Exchange Windows Services	Load	Paged Memory Size	MB	Amount of paged memory (MB) used by the given Exchange Windows Service.
Exchange Windows Services	Load	Private Memory Size	MB	Amount of private memory (MB) used by the given Exchange Windows Service.
Exchange Windows Services	Utilization	Private Memory	%	Percentage of private memory used by the given Exchange Windows Service.
Exchange Request	Response	Exchange Web Service Response Time	ms	Exchange Web Service Response Time is the average time in milliseconds that has elapsed between the beginning and end of requests.
Exchange Request	Load	Requests Rate	msgs/sec	Number of requests processed each second which may not involve proxying to a Mailbox server.
Exchange Request	Load	Outstanding Proxy Requests	NA	Number of concurrent outstanding proxy requests.

**Table 1-271 (Cont.) Supported Configuration Metrics for Microsoft Exchange Server**

Metric Group	Category	Name	Unit	Description
Exchange Request	Load	HTTP Proxy Requests Rate	ops/sec	Number of proxy requests processed each second.
Exchange Server Disk	Response	Average Disk Read Time	sec	Average time taken for disk reads.
Exchange Server Disk	Response	Average Disk Write Time	sec	Average time taken for disk writes.
Exchange Server Disk	Load	Disk Free Space	MB	Amount of free space left on disk.
Exchange Server Disk	Capacity	Disk Size	MB	Total size of disk.
Exchange Server Disk	Load	Disk Read Rate	IOPS	Total number of individual disk IO requests completed per second.
Exchange Server Disk	Load	Disk Write Rate	IOPS	Total number of individual disk IO requests completed per second.
Exchange Mailbox Database		Mailbox Database Name	NA	Mailbox Database Name.
Exchange Mailbox Database	Load	Available Space	MB	Amount of free space available for the mailbox database.
Exchange Mailbox Database	Load	Index Size	MB	Amount of space used by index information.
Exchange Mailbox Database	Response	DB Reads Average Latency	ms	Average length of time for mailbox database read operation.
Exchange Mailbox Database	Response	DB Writes Average Latency	ms	Average length of time for mailbox database write operation.
Exchange Mailbox Database	Response	Log Reads Average Latency	ms	IO Log Reads Average Latency.
Exchange Mailbox Database	Response	Log Writes Average Latency	ms	IO Log Writes Average Latency.

**Table 1-271 (Cont.) Supported Configuration Metrics for Microsoft Exchange Server**

Metric Group	Category	Name	Unit	Description
Exchange Mailbox Database	Load	Page Fault Stalls Rate	ops/sec	The rate of page faults that cannot be serviced because there are no pages available for allocation from the database cache.
Exchange Mailbox Database	Availability	Transaction Log Available Space	MB	Amount of free space available for the mailbox database log.
Exchange Mailbox Database	Load	Transaction Log Size	MB	Amount of space used by mailbox database transaction log.
Exchange Mailbox Database	Load	DB Size	MB	Amount of space used by mailbox database.
Exchange Database IO	Response	IO Database Read Latency	ms	IO Database Reads Average Latency.
Exchange Database IO	Response	IO Database Write Latency	ms	IO Database Writes Average Latency.
Exchange Database IO	Response	IO Log Reads Average Latency	ms	IO Log Reads Average Latency.
Exchange Database IO	Response	IO Log Writes Average Latency	ms	IO Log Writes Average Latency.
Exchange Database IO	Load	Database Page Fault Stalls Rate	ops/sec	Rate of page faults that cannot be serviced because there are no pages available for allocation from the database cache.
Exchange Server Details	Error	HTTP Proxy Failure	%	Percentage of connectivity related failures between Client access server and Mailbox servers over the last 200 samples.



**Table 1-271 (Cont.) Supported Configuration Metrics for Microsoft Exchange Server**

Metric Group	Category	Name	Unit	Description
Exchange Server Details	Capacity	Transport Queue Database Size	MB	Total size of Exchange transport queue database.
Exchange Server Details	Response	RPC Latency	ms	Average latency for the past 1024 packets.
Exchange Server Details	Response	Authentication Latency	ms	Average time spent authenticating Client access server requests for the last 200 samples.
Exchange Server Details	Utilization	CPU Utilization	%	Percentage of CPU resources used by Exchange Server.
Exchange Server Queue		Queue Name	NA	Queue Name.
Exchange Server Queue	Capacity	Queues	NA	Number of queues for the Exchange Server.
Exchange Server Queue	Capacity	Queue Length	NA	Queue length of the Exchange Server.
Exchange SMTP		SMTP Connector	NA	SMTP connector.
Exchange SMTP	Load	Bytes Received Rate	bytes/sec	Number of bytes Received per second by transport service.
Exchange SMTP	Load	Bytes Sent Rate	bytes/sec	Number of bytes sent per second by transport service.
Exchange SMTP	Load	Connections	NA	Number of connections for the transport service.

**Table 1-272 Supported Status and Performance Metrics for Microsoft Exchange Server**

Metric Group	Name	Unit	Description
Exchange Server Information	Total System Memory	MB	Total server memory.

**Table 1-272 (Cont.) Supported Status and Performance Metrics for Microsoft Exchange Server**

Metric Group	Name	Unit	Description
Exchange Server Information	Server Role	NA	Exchange Server Roles installed.
Exchange Server Information	Active Directory Site	NA	Active Directory Site.

**Microsoft Active Directory Metrics****Table 1-273 Supported Configuration Metrics for Microsoft Active Directory**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	NA	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-274 Supported Status and Performance Metrics for Microsoft Active Directory**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Utilization	%	Percentage of CPU that was utilized
Physical Memory	Load	Memory Usage	GB	Physical Memory used in GB
Physical Memory	Utilization	Memory Utilization	%	Percentage of physical memory that is utilized
DB and Log Size Information	Load	Database Free Space	bytes	Database drive free space
DB and Log Size Information	Load	Database Size	bytes	Database size
DB and Log Size Information	Load	Log File Free Space	bytes	Log file drive free space
DB and Log Size Information	Load	Log File Size	bytes	Log file size
Directory Services Overview	Load	DRA Inbound Bytes	bytes	DRA inbound bytes per second
Directory Services Overview	Load	DRA Outbound Bytes	bytes	DRA outbound bytes per second
Directory Services Overview	Load	DS Search Sub-operation Rate	ops/sec	Number of directory service search sub-operations per second

**Table 1-274 (Cont.) Supported Status and Performance Metrics for Microsoft Active Directory**

Metric Group	Category	Name	Unit	Description
Directory Services Overview	Load	LDAP Client Sessions	NA	Number of LDAP client sessions connected to the domain controller
Directory Services Overview	Load	LDAP Search Rate	ops/sec	Number of LDAP search operations per second
Directory Services Overview	Load	LDAP Write Rate	ops/sec	Number of LDAP write operations per second
Directory Services Overview	Load	UDP Operations Rate	ops/sec	Number of UDP operations the LDAP server processes per second
Operations Masters		Operations Master Role	NA	Operations master role
Operations Masters	Response	Last Bind Latency	sec	Last bind latency
Operations Masters	Response	Last Ping Latency	sec	Last ping latency
LSASS Process	Load	LSASS Handles	NA	Number of handles used by the lsass.exe process on a domain controller
LSASS Process	Load	LSASS Private Bytes	bytes	Number of private bytes used by the lsass.exe process on a domain controller
LSASS Process	Utilization	LSASS CPU Utilization	%	Percentage of CPU used by the lsass.exe process on a domain controller
TCP Connections	Load	TCP V4 Connections	NA	Total number of TCP v4 connections
TCP Connections	Load	TCP V6 Connections	NA	Total number of TCP v6 connections
Domain Controller	Load	Server Sessions	NA	Total number of server sessions connected to the domain controller

**Table 1-274 (Cont.) Supported Status and Performance Metrics for Microsoft Active Directory**

Metric Group	Category	Name	Unit	Description
Domain Controller	Load	Available Memory	bytes	Available memory for domain controller
Domain Controller	Load	Committed Bytes	bytes	Committed bytes on the disk paging files for domain controller
Domain Controller	Load	Memory Paging Rate	per sec	System memory paging to and/or from the disk on a domain controller per second
Authentication Statistics	Load	Kerberos Authentications Rate	reqs/sec	Client authentication requests to a domain controller per second
Authentication Statistics	Load	NTLM Authentications Rate	reqs/sec	NT LAN Manager (NTLM) authentication requests serviced by a domain controller per second
Authentication Statistics	Load	KDC Authentications Rate	reqs/sec	Kerberos key distribution center (KDC) authentication service requests per second
Authentication Statistics	Load	KDC Ticket Granting Rate	reqs/sec	Kerberos key distribution center (KDC) ticket granting service requests per second

**Microsoft Internet Information Services Server Metrics****Table 1-275 Supported Configuration Metrics for Microsoft Internet Information Services Server**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	NA	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-276 Supported Status and Performance Metrics for Microsoft Internet Information Services Server**

Metric Group	Category	Name	Unit	Description
Physical Memory	Load	Memory Usage	GB	Physical Memory used in GB
Physical Memory	Utilization	Memory Utilization	%	Percentage of physical memory that is utilized
WWW Service Overview		Name	NA	Name of the website
WWW Service Overview	Load	Current Connections	NA	Number of active connections
WWW Service Overview	Load	Request Data Throughput	bytes/sec	The number of bytes received per second
WWW Service Overview	Load	Response Data Throughput	bytes/sec	The number of bytes sent per second
WWW Service Overview	Error	Not Found Error Rate	errors/sec	Number of Not Found Errors per second
WWW Service Overview	Load	Connections Attempts Rate	conns/sec	Number of connection attempts made per second
ASP Dot Net Overview	Load	ASP Dot Net Current Requests	NA	Total number of current requests in the server
ASP Dot Net Overview	Response	ASP Dot Net Requests Wait Time	ms	Wait time for requests
ASP Dot Net Overview	Load	ASP Dot Net Requests Queued	NA	Number of queued requests
ASP Dot Net Overview	Load	ASP Dot Net Worker Process Restarts	NA	Number of times a worker process restarted since the last collection
Dot NET Application Details	.	Name	NA	.NET application name
Dot NET Application Details	Response	Request Time	ms/request	.NET application average request time
Dot NET Application Details	Load	Performance Event Rate	per sec	.NET application performance events per second

**Table 1-276 (Cont.) Supported Status and Performance Metrics for Microsoft Internet Information Services Server**

Metric Group	Category	Name	Unit	Description
Dot NET Application Details	Load	Monitored Event Rate	per sec	.NET application monitored events per second
Dot NET Application Details	Error	Exception Event Rate	per sec	.NET application exception events per second
Dot NET Application Details	Utilization	Performance Events	%	.NET application performance event percentage
Dot NET Application Details	Error	Exception Events	%	.NET application exception event percentage
ASP Dot Net Applications Overview	.	Name	NA	Name of the Application
ASP Dot Net Applications Overview	Load	Request Rate	reqs/sec	Average number of requests made per second
ASP Dot Net Applications Overview	Error	Error Rate	errors/sec	Average number of errors occurred per second during execution of HTTP Requests
ASP Dot Net Applications Overview	Load	Requests in Application Queue	NA	Number of requests in Application Queue
FTP Service Overview	.	Name	NA	Name of the website
FTP Service Overview	Load	Current Connections	NA	Number of active connections
FTP Service Overview	Load	Request Data Throughput	bytes/sec	The number of bytes received per second
FTP Service Overview	Load	Response Data Throughput	bytes/sec	The number of bytes sent per second

# Microsoft SQL Server Database

There are no Microsoft SQL Server specific configuration metrics supported. All configuration metrics are inherited from parent entities as listed below.

**Table 1-277 Supported Configuration Metrics for Relational Database**

Metric Group	Name	Unit	Description
Creation Date	Creation Date	N/A	Date when the database was created
Total Memory Capacity	Host Memory	GB	Total host memory capacity in GB
Resource Allocation	Instance Name	N/A	RDB Instance
Resource Allocation	Host Name	N/A	Host name of the instance
Resource Allocation	Total CPUs	N/A	total number of CPUs allocated or available in this instance
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to this instance.
Lookup Config Metrics	Value	NA	Value

**Table 1-278 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-279 Supported Status and Performance Metrics for Microsoft SQL Server Database**

Metric Group	Category	Name	Unit	Description
Throughput	Load	Transactions Per Second	txns/sec	Number of transactions per second
Throughput	Load	Logins Per Seconds	logons/sec	Number of logins per second
Throughput	Load	Current logons Count	NA	Count of current logons
Throughput	Load	Executions Per Seconds	executions/sec	Number of executions per second
Top Wait Events	Load	Wait Event Name	NA	Wait event name
Top Wait Events	Load	Total Wait Time	sec	Total wait time
Top Wait Events	Load	Total Waits	NA	Total wait count

**Table 1-279 (Cont.) Supported Status and Performance Metrics for Microsoft SQL Server Database**

Metric Group	Category	Name	Unit	Description
Top Wait Events	Load	Average Wait Time	sec	Average wait time
Database Status	.	Database Name	NA	SQLServer Database Name
Database Status	Availability	Database Status	NA	SQLServer Database Status
SQLServer Database Performance Counters	.	Database Name	NA	SQLServer Database Name
SQLServer Database Performance Counters	Load	Performance Counter Name	NA	Performance Counter Name
SQLServer Database Performance Counters	Load	Performance Counter Value	NA	Performance Counter Value
SQLServer Database Performance Rate	.	Database Name	NA	SQLServer Database Name
SQLServer Database Performance Rate	Load	Performance Counter Name	NA	Performance Counter Name
SQLServer Database Performance Rate	Load	Performance Rate	per sec	Performance Rate for the Counter
Cluster Nodes	Response	SQL Server Cluster Node Name	NA	Name of the cluster node
Cluster Nodes	Response	SQL Server Cluster Node Status	NA	Status of the cluster node

**Table 1-280 Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Database Resource Stats	.	Instance ID	NA	RDB instance
Database Resource Stats	.	Host Name	NA	Host name of the instance
Database Resource Stats	Response	RDB Instance CPU Time	sec	CPU time used by the instance
Database Resource Stats	.	RDB Instance CPU collection Interval	sec	collection interval



**Table 1-280 (Cont.) Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Database Resource Stats	Response	RDB Aggregated CPU Time	sec	Aggregated CPU time used by DB
Database Resource Stats	.	RDB Aggregated CPU interval	sec	collection interval time
Database Resource Stats	Load	RDB Instance Memory	GB	Memory consumed by instance in GB
Database Resource Stats	.	RDB Instance Memory interval	sec	Memory Collection interval
Database Resource Stats	Load	Aggregated RDB Memory	GB	Aggregated memory consumed by DB in GB
Database Resource Stats	.	Aggregated RDB Memory interval	sec	Aggregated memory usage collection interval
Database Resource Stats	Load	RDB Instance I/O Bandwidth Usage	MB/sec	I/O bandwidth usage for db instance
Database Resource Stats	Load	RDB Instance I/O Per Second	IOPS	I/O per second rate for instance.
Database Resource Stats	Load	RDB Instance I/O interval	sec	IO rate collection interval
Database Resource Stats	Load	Aggregated DB I/O Bandwidth Usage	MB/sec	Aggregated I/O bandwidth usage for DB
Database Resource Stats	Load	Aggregated DB I/O Per Second	IOPS	Aggregated IO per second rate for DB
Storage Usage By Tablespace	.	Storage Tablespace Name	NA	Tablespace Name
Storage Usage By Tablespace	Capacity	Total Space Allocated	GB	Total size of a tablespace's datafiles in GB
Storage Usage By Tablespace	Utilization	Space Utilization Percentage	%	Percent of storage space utilized
Storage Usage By Tablespace	Load	Space Used	GB	Tablespace used in GB
Storage Space Usage	Utilization	Storage Space Allocated	GB	Storage space allocated in GB
Storage Space Usage	Utilization	Storage Space Utilization	%	Percent of storage space utilized
Storage Space Usage	Load	Space Used	GB	Storage space used in GB
Load	Load	Logons	NA	The number of logons during the last collection interval
Load	Load	Logons Rate	logons/sec	Number of logons per second during the last collection interval

**Table 1-280 (Cont.) Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Load	Load	Transactions	NA	Number of transactions during the last collection interval
Load	Load	Transactions Rate	txns/sec	Number of transactions per second during the last collection interval
Load	Load	Executions	NA	Number of executions during the last collection interval
Load	Load	Execution Rate	executions/sec	Number of executions per second during the last collection interval
Load	Load	Network I/O	bytes	Number of bytes sent and received over the network during the last collection interval
Load	Load	Network I/O Rate	bytes/sec	Network I/O in bytes/second during the last collection interval
Top SQL Executions	Load	SQL ID	NA	Unique Identifier for the SQL statement
Top SQL Executions	.	Plan Hash Value	NA	Numerical representation of the SQL plan for the cursor
Top SQL Executions	Load	Top SQL Text	NA	SQL text of the top-ranked SQL
Top SQL Executions	Response	Execution Count	NA	Execution Count of the top-ranked SQL
Top SQL Executions	Response	Total Elapsed Time	ms	Total time used to execute the SQL statement. This includes CPU time and wait time
I/O Performance	Load	I/O Per Second	IOPS	I/O per second.
I/O Performance	Load	I/O Bandwidth Usage	MB/sec	I/O bandwidth usage during the last collection interval
Instance CPU	Utilization	Instance ID	NA	RDB instance

**Table 1-280 (Cont.) Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Instance CPU	Utilization	Host Name	NA	Host name of the instance
Instance CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval for this instance
Instance CPU	Utilization	CPU Utilization	%	Percentage of CPU that was utilized in this instance
Instance CPU	.	Interval	sec	Interval of metric collection
Instance CPU	Utilization	Instance Caging status	NA	Status of Resource Manager plan's Instance Caging
Instance Memory Usage	Utilization	Instance ID	NA	RDB instance
Instance Memory Usage	Utilization	Host Name	NA	Host name of the instance
Instance Memory Usage	Utilization	Instance Memory Usage	GB	Memory used in GB
Instance Memory Usage	Utilization	Memory Utilization	%	Percentage of memory that is utilized in this instance
Instance Memory Usage	.	Interval	sec	Interval of metric collection
I/O Per Second Instance Level	Load	Instance ID	NA	RDB instance
I/O Per Second Instance Level	Load	Host Name	NA	Host name of the instance
I/O Per Second Instance Level	Load	I/O Per Second	IOPS	I/O per second for this instance
I/O Per Second Instance Level	Load	I/O Bandwidth Usage	MB/sec	I/O bandwidth usage during the last collection interval for this instance
I/O Per Second Instance Level	.	Interval	sec	Interval of metric collection
Database Activity	.	Instance ID	NA	RDB instance
Database Activity	.	Host Name	NA	Host name of the instance
Database Activity	Load	CPU Time	sec	CPU time (in seconds) of foreground sessions
Database Activity	Load	Wait Time	sec	Wait time (in seconds) of foreground sessions

**Table 1-280 (Cont.) Supported Status and Performance Metrics for Relational Database**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Database Activity	Load	I/O Time	sec	I/O time (in seconds) of foreground sessions
Database Activity	.	Interval	sec	Interval of metric collection
Instance Load	.	Instance ID	NA	RDB instance
Instance Load	.	Host Name	NA	Host name of the instance
Instance Load	Load	Logons	NA	The number of logons during the last collection interval
Instance Load	Load	Logons Rate	logons/sec	Number of logons per second during the last collection interval
Instance Load	Load	Transactions	NA	Number of transactions during the last collection interval
Instance Load	Load	Transactions Rate	txns/sec	Number of transactions per second during the last collection interval
Instance Load	Load	Executions	NA	Number of executions during the last collection interval
Instance Load	Load	Executions Rate	executions/sec	Number of executions per second during the last collection interval
Instance Load	Load	Network I/O	bytes	Number of bytes sent and received over the network during the last collection interval
Instance Load	Load	Network I/O Rate	bytes/sec	Network I/O in bytes/second during the last collection interval
Instance Load	.	Interval	sec	Interval of metric collection
SQL Statistics	.	SQL ID	NA	SQL ID

**Table 1-280 (Cont.) Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
SQL Statistics	.	Plan Hash Value	NA	Numerical representation of the SQL plan for the cursor
SQL Statistics	Load	Executions	NA	Number of times the SQL statement was executed
SQL Statistics	Response	Elapsed Time	ms	Total time (in milliseconds) used by this SQL for parsing, executing and fetching
SQL Statistics	.	Interval	sec	Interval of metric collection

**Table 1-281 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-282 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## MongoDB Database

**Table 1-283 Supported Configuration Metrics for MongoDB Databases**

Metric Group	Name	Unit	Description
MongoDB Configuration	MongoDB Storage Engine	N/A	MongoDB Storage Engine
Total Memory Capacity	WiredTiger Internal Cache Size	GB	WiredTiger internal cache size

**Table 1-284 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-285 Supported Status and Performance Metrics for MongoDB Databases**

Metric Group	Category	Name	Unit	Description
Connections	Utilization	Connections Used	N/A	Number of connections currently being used
Connections	N/A	Connections Available	N/A	Number of connections currently available
Locks	Load	queuedReading	N/A	The number of operations that are currently queued and waiting for the read lock
Locks	N/A	queuedWriting	N/A	The number of operations that are currently queued and waiting for the write lock
Locks	N/A	activeReaders	N/A	The number of the active client connections performing read operations
Locks	N/A	activeWriters	ms	The number of the active client connections performing write operations
Locks	N/A	Average Active Sessions	N/A	Average number of sessions which are working or waiting
Network IO	Load	Bytes Received Rate	%	The amount of network traffic received by this database, bytes per second
Network IO	N/A	Bytes Sent Rate	%	The amount of network traffic sent by this database, bytes per second

**Table 1-285 (Cont.) Supported Status and Performance Metrics for MongoDB Databases**

Metric Group	Category	Name	Unit	Description
Operations	Load	Operation Name	N/A	Name of the operation
Operations	N/A	Operations Rate	ops/sec	Number of operations performed per second
Documents	Load	Document Operation Name	N/A	Name of the operation
Documents	N/A	Documents Operations Rate	per sec	Number of documents affected in this interval
MongoDB WiredTiger Cache	Load	WiredTiger cache utilization	%	WiredTiger cache utilization percent
MongoDB WiredTiger Cache	N/A	Dirty bytes percentage	%	Percentage of unflushed data in cached bytes
MongoDB WiredTiger Cache	N/A	Cache Eviction Rate	ops/sec	Number of page evictions performed per second
MongoDB WiredTiger Cache	N/A	Cache Read Rate	bytes/sec	Number of bytes read into cache per second
MongoDB WiredTiger Cache	N/A	Cache Write Rate	bytes/sec	Number of bytes written from cache per second

**Table 1-286 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-287 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

# MySQL Database

**Table 1-288 Supported Configuration Metrics for MySQL Database**

Metric Group	Name	Unit	Description
Character Set	Instance	N/A	MySQL Instance
Character Set	Character Set	GB	Character set
MySQL Cluster Memory Capacity	Data Node Identifier	N/A	Data node identifier
MySQL Cluster Memory Capacity	Data Memory Capacity	GB	Data memory capacity (for each Data Node Identifier)
MySQL Cluster Memory Capacity	Index Memory Capacity	GB	Index memory capacity (for each Data Node Identifier)
MySQL Cluster Memory Capacity	Long Buffer Capacity	GB	Long buffer capacity (for each Data Node Identifier)
MySQL Cluster Memory Capacity	Redo Log Buffer Capacity	GB	Redo log buffer capacity (for each Data Node Identifier)

**Table 1-289 Supported Configuration Metrics for Relational Database**

Metric Group	Name	Unit	Description
Creation Date	Creation Date	N/A	Date when the database was created
Total Memory Capacity	Host Memory	GB	Total host memory capacity in GB
Resource Allocation	Instance Name	N/A	RDB Instance
Resource Allocation	Host Name	N/A	Host name of the instance
Resource Allocation	Total CPUs	N/A	total number of CPUs allocated or available in this instance
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to this instance.
Lookup Config Metrics	Value	NA	Value

**Table 1-290 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity



**Table 1-291 Supported Status and Performance Metrics for MySQL Database**

Metric Group	Category	Name	Unit	Description
MySQL Instances Status	Response	Instance	N/A	MySQL Instance
MySQL Instances Status	N/A	Status	N/A	MySQL instance status
Throughput	Load	Instance	N/A	MySQL Instance
Throughput	N/A	Active Connections	N/A	Number of active connections
Throughput	N/A	Logons Per Sec	logons/sec	Number of logons per second
Throughput	N/A	Transactions Per Sec	txns/sec	Number of transactions per second
Throughput	N/A	Executions Per Sec	executions/sec	Number of executions per second
Throughput	N/A	Bytes Received	bytes	Number of bytes received
Throughput	N/A	Bytes Sent	bytes	Number of bytes sent
Top Wait Events	Load	Instance	N/A	MySQL Instance
Top Wait Events	N/A	Wait Event Name	N/A	Wait event name
Top Wait Events	N/A	Total Waits	N/A	Total number of waits
Top Wait Events	N/A	Average Wait Time	sec	Average wait time
Maximum Allowed Connections	Capacity	Instance	N/A	MySQL Instance
Maximum Allowed Connections	N/A	Maximum Allowed Connections	N/A	Maximum number of allowed connections
Maximum Used Connections	Utilization	Instance	N/A	MySQL Instance
Maximum Used Connections	N/A	Variable Name	N/A	Variable name
Maximum Used Connections	N/A	Maximum Used Connections	N/A	Maximum number of used connections
MySQL Data Nodes Status	Response	Data Node Identifier	N/A	Data node identifier
MySQL Data Nodes Status	N/A	Data Node Status	N/A	Data node status
MySQL Cluser Nodes Memory Usage	Utilization	Data Node Identifier	N/A	Data node identifier
MySQL Cluser Nodes Memory Usage	N/A	Data Memory Used	GB	Data memory used
MySQL Cluser Nodes Memory Usage	N/A	Index Memory Used	GB	Index memory used
MySQL Cluser Nodes Memory Usage	N/A	Long Buffer Used	GB	Long buffer used

**Table 1-291 (Cont.) Supported Status and Performance Metrics for MySQL Database**

Metric Group	Category	Name	Unit	Description
MySQL Cluster Nodes Memory Usage	N/A	Redo Log Buffer Used	GB	Redo log buffer used
MySQL Cluster Nodes Memory Usage	N/A	Data Memory Utilization	%	Data memory utilization
MySQL Cluster Nodes Memory Usage	N/A	Index Memory Utilization	%	Index memory utilization
MySQL Cluster Nodes Memory Usage	N/A	Long Buffer Utilization	%	Long buffer utilization
MySQL Cluster Nodes Memory Usage	N/A	Redo Log Buffer Utilization	%	Redo buffer utilization
MySQL Cluster Disk Page Buffer	Load	Data Node Identifier	N/A	Data node identifier
MySQL Cluster Disk Page Buffer	N/A	Hit	N/A	Number of requests for pages that were available in buffer
MySQL Cluster Disk Page Buffer	N/A	Miss	N/A	Number of requests that had to be read from pages on disk
MySQL Cluster Disk Page Buffer	N/A	Hit Rate	%	Disk data read performance
MySQL Cluster CPU Usage	Utilization	Data Node Identifier	N/A	Data node identifier
MySQL Cluster CPU Usage	N/A	CPU Used by Data Node	sec	CPU used by all threads in data node in the last collection interval
MySQL Cluster Tablespaces	Utilization	Data Node Identifier	N/A	Data node identifier
MySQL Cluster Tablespaces	N/A	Tablespace Name	N/A	Tablespace name
MySQL Cluster Tablespaces	N/A	Space used in tablespace	GB	Space used in tablespace
MySQL Cluster Tablespaces	Capacity	Total space available in tablespace	GB	Total space available in tablespace

 **Note:**

MySQL databases don't support Storage Space Allocated or Storage Space Utilization metrics.

**Table 1-292 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-293 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## NetApp FAS

**Table 1-294 Supported Configuration Metrics for NetApp FAS**

Group	Name	Unit	Description
Storage Information	Product Category	NA	Product Category

**Table 1-295 Supported Configuration Metrics for Storage Server**

Metric Group	Name	Unit	Default Collection Frequency	Description
Storage Information	Name	NA	24 Hr	Name of the managed storage
Storage Information	Description	NA	24 Hr	Description of the managed storage
Storage Information	Model	NA	24 Hr	Model of the managed storage
Storage Information	Location	NA	24 Hr	Location of the managed storage
Storage Information	Firmware Version	NA	24 Hr	Firmware version of the managed storage
Storage Information	Serial Number	NA	24 Hr	Serial number of the managed storage

**Table 1-295 (Cont.) Supported Configuration Metrics for Storage Server**

Metric Group	Name	Unit	Default Collection Frequency	Description
Storage Information	Contact	NA	24 Hr	Contact of the managed storage
Storage Capacity	Total Size	GB	.	Total size of the managed storage
Storage Capacity	Physical Size	GB	.	Physical size of the managed storage

**Table 1-296 Supported Status and Performance Metrics for NetApp FAS**

Metric Group	Category	Name	Unit	Description
Appliance Health	Error	Temperature Exceeded	NA	Temperature Exceeded
Appliance Health	Error	Fans Failed	NA	Fans Failed
Appliance Health	Error	Fans Failed Message	NA	Fans Failed Message
Appliance Health	Error	Power Supplies Failed	NA	Power Supplies Failed
Appliance Health	Error	Power Supplies Failed Message	NA	Power Supplies Failed Message
Appliance Health	Error	NVRAM Battery Status	NA	NVRAM Battery Status
CPU	Capacity	Total CPUs	NA	Total number of CPUs available
CPU	Utilization	CPU Utilization	%	Percentage of CPU that was utilized
CPU	Load	CPU Up Time (Seconds)	sec	CPU Up Time (Seconds)
FileSystems		Volume	NA	Volume
FileSystems	Capacity	Total (GB)	GB	Total (GB)
FileSystems	Load	Used (GB)	GB	Used (GB)
FileSystems	Load	Available (GB)	GB	Available (GB)
FileSystems	Utilization	Volume Used	%	Percentage of space used in the volume
FileSystems	Capacity	Max Files	NA	Max Files
FileSystems	Load	Files Used	NA	Files Used
FileSystems	Capacity	Files Available	NA	Files Available
FileSystems	Utilization	Files Used	%	Percentage of files used
FileSystems		Volume Type	NA	Volume Type

**Table 1-296 (Cont.) Supported Status and Performance Metrics for NetApp FAS**

Metric Group	Category	Name	Unit	Description
System Load	Response	Cache Age (Minutes)	min	Cache Age (Minutes)
System Load	Load	Total Network Received Rate (KBytes/second)	KB/sec	Total Network Received Rate (KBytes/second)
System Load	Load	Total Network Sent Rate (KBytes/second)	KB/sec	Total Network Sent Rate (KBytes/second)
System Load	Load	Total Network I/O Rate (KBytes/second)	KB/sec	Total Network I/O Rate (KBytes/second)
System Load	Load	Total Disk Read Rate (KBytes/second)	KB/sec	Total Disk Read Rate (KBytes/second)
System Load	Load	Total Disk Written Rate (KBytes/second)	KB/sec	Total Disk Written Rate (KBytes/second)
System Load	Load	Total Disk I/O Rate (KBytes/second)	KB/sec	Total Disk I/O Rate (KBytes/second)
System Load	Load	Total Http Operations Received Rate (Ops/second)	KB/sec	Total Http Operations Received Rate (Ops/second)

**Table 1-297 Supported Status and Performance Metrics for Storage Server**

Metric Group	Category	Name	Unit	Description
Storage Utilization	Utilization	Used Size	GB	Used size of the managed storage
Storage Utilization	Utilization	Physical Used Size	GB	Physical used size of the managed storage
Storage Utilization	Utilization	Storage Used	%	Percentage of space used in the storage
Storage Utilization	Utilization	Physical Storage Used	%	Percentage of physical space used in the storage

## NGINX

There are no NGINX-specific metrics supported. All metrics are inherited from a parent entity as listed below.

**Table 1-298 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-299 Supported Status and Performance Metrics for Web Application Server**

Metric Group	Category	Name	Unit	Description
Web Requests	Load	Web Request Processing Time	ms	Average processing time per web request since the last collection
Web Requests	N/A	Web Request Rate	ops/min	Number of web requests per minute since the last collection
Web Application Component	Load	Open HTTP Sessions	N/A	Current total number of open HTTP sessions for all the web applications on this web application server

**Table 1-300 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-301 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Oracle Access Manager Cluster

**Table 1-302 Supported Status and Performance Metrics for Oracle Access Management Cluster**

Metric Group	Category	Name	Unit	Description
Authorizations Aggregates		Average Authorization Latency	ms	
Authorizations Aggregates		Authorization Success Rate	%	
Authorizations Aggregates		Authorization Requests	reqs/sec	
Authentication Aggregates		Average Authentication Latency	ms	
Authentication Aggregates		Authentication Success Rate	%	
Authentication Aggregates		Authentication Requests	reqs/sec	
LDAP Operation Aggregates		Operation Name	NA	
LDAP Operation Aggregates		Average Latency	ms	
LDAP Operation Aggregates		LDAP Operations Success Rate	%	
LDAP Operation Aggregates		LDAP Operations	ops/sec	

## Oracle Access Manager Server

**Table 1-303 Supported Status and Performance Metrics for Oracle Access Manager Server**

Metric Group	Category	Name	Unit	Description
Resource Utilization		Memory Utilization	KB	
Resource Utilization		Memory Utilization	%	
Resource Utilization		CPU Utilization	%	
Authorizations		Average Authorization Latency	ms	
Authorizations		Authorization Requests	reqs/sec	

**Table 1-303 (Cont.) Supported Status and Performance Metrics for Oracle Access Manager Server**

Metric Group	Category	Name	Unit	Description
Authorizations		Authorization Success Rate	%	
Authentications		Average Authentication Latency	ms	
Authentications		Authentication Requests	reqs/sec	
Authentications		Authentication Success Rate	%	
Authentication Requests		Total Number of User Login Attempts	reqs/sec	
Authentication Requests		Successful User Logins	reqs/sec	
Authentication Requests		Failed User Logins	reqs/sec	
LDAP Operations		Average LDAP Operation Latency	ms	
LDAP Operations		LDAP Success Rate	%	
LDAP Operations		LDAP Operations	reqs/sec	

## Oracle Automation Storage Management

**Table 1-304 Supported Configuration Metrics for Oracle Automation Storage Management**

Metric Group	Name	Unit	Description
Disk Groups	Disk Group Name	N/A	Name of the ASM disk group
Disk Groups	Redundancy	N/A	Redundancy type of the ASM disk group
Disk Groups	Disk Count	N/A	Number of member disks in the disk group
Disk Groups	Allocation Unit Size	MB	Size in MB of one contiguous block in the disk group
Disk Groups	Contains Voting Files	Boolean	Indicates whether the disk contains voting files (Y) or not (N)
Disk Groups	Total Size	GB	Total size of the disk group in GB
ASM_Disks	Disk Name	N/A	Name of the ASM disk



**Table 1-304 (Cont.) Supported Configuration Metrics for Oracle Automation Storage Management**

<b>Metric Group</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
ASM_Disks	Disk Group Name	N/A	Name of the ASM disk group to which the disk belongs
ASM_Disks	Failure Group Name	N/A	Name of the ASM failure group to which the disk belongs
ASM_Disks	Disk Path	N/A	Path of the disk device
ASM_Disks	Library	N/A	Software library that discovered the disk
ASM_Disks	Cell IP	N/A	IP address of the cell (in case of exadata)
ASM_Disks	Failure Group Type	N/A	Type of the failure group to indicate a regular or quorum disk
ASM_Disks	Redundancy of the disk	N/A	External redundancy of the disk
ASM_Disks	Total Size	GB	Total size of the disk in GB
ASM Spare Disks	Disk Name	N/A	Name of the ASM disk
ASM Spare Disks	Disk Group Name	N/A	Name of the ASM disk group to which the disk belongs
ASM Spare Disks	Physical Size	GB	Physical size of the disk in GB (applicable for sparse grid disks)
Volumes	Disk Group Name	N/A	Name of the ASM disk group
Volumes	Volume Device	N/A	OS Path of the volume device
Volumes	Volume Name	N/A	Name of the ASM Volume
Volumes	Usage	N/A	Usage of the volume
Volumes	Redundancy	N/A	Redundancy of the volume
Volumes	Total Size	GB	Allocated size of the volume in GB
Volumes	Disk Group Allocated Space	GB	Total size of the volume in GB
Volumes	Total Size	GB	Total size of the managed storage
Storage Capacity	Physical Size	GB	Physical size of the managed storage

**Table 1-305 Supported Configuration Metrics for Generic Storage Manager**

<b>Metric Group</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Storage Capacity	Total Size	GB	Total size of the managed storage

**Table 1-305 (Cont.) Supported Configuration Metrics for Generic Storage Manager**

Metric Group	Name	Unit	Description
Storage Capacity	Physical Size	GB	Physical size of the managed storage

**Table 1-306 Supported Status and Performance for Oracle Automation Storage Management**

Metric Group	Category	Name	Unit	Description
Database Disk Group Performance	N/A	Instance ID	N/A	ASM Instance ID
Database Disk Group Performance	N/A	Disk Group Name	N/A	Name of the ASM disk group
Database Disk Group Performance	N/A	Database Name	GB	Name of the database client
Database Disk Group Performance	Response	Response Time	ms/request	Time taken by the disk group to process an IO request
Database Disk Group Performance	Load	Throughput	MB/sec	Total IO throughput of the disk group for the database
Database Disk Group Performance	Load	IO Per Second	IOPS	Total IO processed per second by the disk group for the database
Database Disk Group Performance	Load	Size Per IO	MB	Total Size in MB processed per IO by the disk group for the database
Disk Group Usage	N/A	Disk Group Name	N/A	Name of the ASM disk group
Disk Group Usage	N/A	Free Size	GB	Free size of the disk group in GB
Disk Group Usage	N/A	Usable Free Size	GB	Usable free size of the disk group in GB
Disk Group Usage	Utilization	Disk Group Used Percent	%	Percentage of space used in a disk group
Disk Group Usage	Capacity	Usable Total Size	GB	Usable total size, subjected to redundancy, of the disk group in GB
Disk Group Usage	Utilization	Used Percent of Safely Usable	%	Percentage of safely usable space used in a disk group
Sparse Disk Group Usage	N/A	Disk Group Name	N/A	Name of the ASM disk group
Sparse Disk Group Usage	Capacity	Physical Total Size	GB	Total physical size of the disk group in GB
Sparse Disk Group Usage	Utilization	Physical Free Size	GB	Free physical size of the disk group in GB
Sparse Disk Group Usage	Utilization	Physical used Percent	%	Percentage of disk group physical space used

**Table 1-306 (Cont.) Supported Status and Performance for Oracle Automation Storage Management**

Metric Group	Category	Name	Unit	Description
Database Disk Group Usage	N/A	Disk Group Name	N/A	Name of the ASM disk group
Database Disk Group Usage	N/A	Database Name	N/A	Name of the database client
Database Disk Group Usage	Utilization	Allocated Size	MB	Allocated size of the database in the disk group in MB
Sparse Database Disk Group Usage	N/A	Disk Group Name	N/A	Name of the ASM disk group
Sparse Database Disk Group Usage	N/A	Database Name	N/A	Name of the database client
Sparse Database Disk Group Usage	Utilization	Physical Allocated Size	MB	Physical allocated size of the database in the disk group in MB
Storage Utilization	Utilization	Used Size	GB	Used size of the managed storage
Storage Utilization	Utilization	Physical Used Size	GB	Physical used size of the managed storage
Storage Utilization	Utilization	Storage Used	%	Percentage of space used in the storage
Storage Utilization	Utilization	Physical Storage Used	%	Percentage of physical space used in the storage

**Table 1-307 Supported Status and Performance Metrics for Generic Storage Manager**

Metric Group	Category	Name	Unit	Description
StorageUtilization	Utilization	Used Size	GB	Used size of the managed storage
StorageUtilization	Utilization	Physical Used Size	GB	Physical used size of the managed storage
StorageUtilization	Utilization	Storage Used	%	Percentage of space used in the storage
StorageUtilization	Utilization	Physical Storage Used	%	Percentage of physical space used in the storage

**Table 1-308 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Oracle Cloud Resource

**Table 1-309 Oracle Cloud Resource Metrics**

Metric Group	Name	Unit	Description
N/A	N/A	N/A	N/A

## Oracle Clusterware (CRS)

**Table 1-310 Supported Configuration Metrics for Oracle Clusterware**

Metric Group	Name	Unit	Description
Scan Configuration	Scan Name	NA	Scan Name Configured for the Cluster
Scan Configuration	Scan Port Configured	NA	Scan Port Configured
Scan Configuration	VIP Configured for Scan	NA	VIP Configured for Scan
Scan Configuration	Scan Listener Name	NA	Scan Listener Name
VIPs Configured	VIP Name	NA	VIP Name
VIPs Configured	VIP IP Address	NA	VIP IP Address
VIPs Configured	VIP Subnet	NA	VIP Subnet
Network Interfaces used by the Cluster	Network Interface Name	NA	Network Interface Name
Network Interfaces used by the Cluster	Network Interface Subnet	NA	Network Interface Subnet
Network Interfaces used by the Cluster	Network Interface Type	NA	Network Interface Type
Database, ASM, Listener, Services managed by the Cluster	Name of the Application	NA	Name of the Application
Database, ASM, Listener, Services managed by the Cluster	Type of Application	NA	Type of Application
Database, ASM, Listener, Services managed by the Cluster	Cardinality	NA	Cardinality
Database, ASM, Listener, Services managed by the Cluster	Degree	NA	Degree
Database, ASM, Listener, Services managed by the Cluster	Node name for a Node Application	NA	Node name for a Node Application
Database, ASM, Listener, Services managed by the Cluster	Oracle Home for the Resource	NA	Oracle Home for the Resource

**Table 1-310 (Cont.) Supported Configuration Metrics for Oracle Clusterware**

Metric Group	Name	Unit	Description
Database, ASM, Listener, Services managed by the Cluster	Unique Parameters for the Application	NA	Unique Parameters for the Application

**Table 1-311 Supported Configuration Metrics for Target**

Metric Group	Name	Unit	Description
Product	Vendor	NA	Vendor of the product
Product	Product	NA	Name of the product
Product	Version	NA	Version of the product

**Table 1-312 Supported Status and Performance Metrics for Oracle Clusterware**

Metric Group	Category	Name	Unit	Description
Detailed Status of the Cluster Stack	AVAILABILITY	Detailed Status of Cluster Stack	NA	Detailed Status of Cluster Stack

**Table 1-313 Supported Status and Performance Metrics for Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	NA	Status of the target

## Oracle Coherence

**Table 1-314 Supported Configuration Metrics for Oracle Coherence Cluster**

Metric Group	Name	Unit	Description
Coherence Cluster Configuration	Coherence Cluster Name	NA	Coherence Cluster Name
Coherence Cluster Configuration	Coherence Cluster Size	NA	Coherence Cluster Size
Coherence Cluster Configuration	Coherence License Mode	NA	Coherence License Mode
Coherence Cluster Configuration	Coherence Local Node (Member) ID	NA	Coherence Local Node (Member) ID
Coherence Cluster Configuration	Coherence Node Ids	NA	Coherence Node Ids
Coherence Cluster Configuration	Coherence Nodes	NA	Coherence Nodes
Coherence Cluster Configuration	Coherence Oldest Member ID	NA	Coherence Oldest Member ID

**Table 1-314 (Cont.) Supported Configuration Metrics for Oracle Coherence Cluster**

Metric Group	Name	Unit	Description
Coherence Cluster Configuration	Coherence Version	NA	Coherence Version

**Table 1-315 Supported Status and Performance Metrics for Oracle Coherence Cluster**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	NA	Status of the target
Aggregate Node Metrics	Utilization	Number of Nodes	NA	The total number of cluster member nodes
Aggregate Node Metrics	Load	Memory Consumed	MB	Aggregate Memory (MB) Used by Coherence Cluster
Aggregate Node Metrics	Load	Send Success Rate	%	Send Success Rate % computed per minute
Aggregate Node Metrics	Load	Receive Success Rate	%	Receive Success Rate % computed per minute
Aggregate Service Requests and Tasks		Service Name	NA	Name of Coherence service
Aggregate Service Requests and Tasks	Load	Tasks Backlog	NA	The aggregate size of backlog queue that holds tasks scheduled to be executed
Aggregate Service Requests and Tasks	Capacity	Number of Nodes	NA	The total number of cluster node members running this service
Aggregate Service Requests and Tasks	Capacity	Storage Enabled Nodes	NA	The total number of storage enabled cluster node members running this service
Domain Partition Aggregate Service Requests and Tasks		Service Name	NA	Name of Coherence service
Domain Partition Aggregate Service Requests and Tasks		Domain Partition Name	NA	Domain Partition to which partition cache belongs

**Table 1-315 (Cont.) Supported Status and Performance Metrics for Oracle Coherence Cluster**

Metric Group	Category	Name	Unit	Description
Domain Partition Aggregate Service Requests and Tasks	Load	Tasks Backlog	NA	The aggregate size of backlog queue that holds tasks scheduled to be executed
Domain Partition Aggregate Service Requests and Tasks	Capacity	Number of Nodes	NA	The total number of cluster node members running this service
Domain Partition Aggregate Service Requests and Tasks	Capacity	Storage Enabled Nodes	NA	The total number of storage enabled cluster node members running this service
Aggregate Service Partitions and Threads	.	Service Name	NA	Name of Coherence service
Aggregate Service Partitions and Threads	Error	Partitions Endangered	NA	The total number of partitions that are not currently backed up across all nodes
Aggregate Service Partitions and Threads	Load	Average Active Threads	NA	The average number of active threads in the service thread pool
Aggregate Service Partitions and Threads	Load	Idle Threads	NA	The aggregate number of currently idle threads in the service thread pool
Aggregate Service Partitions and Threads	Capacity	Threads	NA	The aggregated number of threads in the service thread pool
Domain Partition Aggregate Service Partitions and Threads	.	Service Name	NA	Name of Coherence service
Domain Partition Aggregate Service Partitions and Threads	.	Domain Partition Name	NA	Domain Partition to which partition cache belongs
Domain Partition Aggregate Service Partitions and Threads	Error	Partitions Endangered	NA	The total number of partitions that are not currently backed up across all nodes

**Table 1-315 (Cont.) Supported Status and Performance Metrics for Oracle Coherence Cluster**

Metric Group	Category	Name	Unit	Description
Domain Partition Aggregate Service Partitions and Threads	Load	Average Active Threads	NA	The average number of active threads in the service thread pool
Domain Partition Aggregate Service Partitions and Threads	Load	Idle Threads	NA	The aggregate number of currently idle threads in the service thread pool
Domain Partition Aggregate Service Partitions and Threads	Capacity	Threads	NA	The aggregated number of threads in the service thread pool

## Oracle Compute Cloud Service Instance

**Table 1-316 Supported Status and Performance Metrics for Oracle Compute Cloud Service Instances**

Metric Group	Category	Name	Unit	Description
CPU		CPU Utilization	%	Percentage of total CPU time spent across all CPUs allocated or available to the entity
Disk Activity	Load	Iostat Virtual Block Read	NA	Virtual block device read
Disk Activity	Load	Iostat Virtual Block Write	NA	Virtual block device write
Network Activity	Load	Network Read Rate	bytes/sec	Network bytes received per second
Network Activity	Load	Network Write Rate	bytes/sec	Network bytes sent per second.
Memory	Load	Memory Usage	KB	Memory Utilization
Memory	Utilization	Memory Utilization	%	Memory Utilization Percentage



# Oracle Database

**Table 1-317 Supported Configuration Metrics for Oracle Database**

Metric Group	Name	Unit	Description
Parameter	Instance ID	NA	Instance Identifier
Parameter	Container ID	NA	Pluggable Database Identifier or the Root Container Identifier
Parameter	Parameter Name	NA	Initialization Parameter Name
Parameter	Parameter Value	NA	Initialization Parameter Value
CharacterSet	Character Set	NA	Oracle Database character set
High Availability (General Information)	Database ID	NA	Database ID
High Availability (General Information)	High Availability Log Mode	NA	Log mode of the database.
High Availability (General Information)	Force Logging	NA	Whether force logging is enabled.
High Availability (General Information)	Database Role	NA	The role of the database (primary or standby).
High Availability (General Information)	High Availability Flashback On	NA	Whether flashback database is enabled.
High Availability (General Information)	Supplemental Logging	NA	Whether supplemental logging is enabled.
High Availability (General Information)	Recovery Appliance Destination Count	NA	The number of archived log destinations configured to a Recovery Appliance.
High Availability (RMAN Configuration)	Name	NA	Configuration name.
High Availability (RMAN Configuration)	Value	NA	Configuration value.
High Availability (RMAN Configuration)	Configuration Number	NA	The unique key to identify the configuration record.
High Availability Data Guard Summary	Source Type	NA	The role (Primary or Standby) of the database that was the source of the data row.
High Availability Data Guard Summary	Row Type	NA	The role (Primary or Standby) of the database to which the data in the row pertains.

**Table 1-317 (Cont.) Supported Configuration Metrics for Oracle Database**

<b>Metric Group</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
High Availability Data Guard Summary	Managed by Data Guard Broker	NA	Whether the Data Guard configuration for the database specified by the row is managed by Data Guard broker.
High Availability Data Guard Summary	Active Standby	NA	Whether the database specified by the row is an Active Data Guard standby database.
High Availability Data Guard Summary	Database Unique Name	NA	The value of the DB_UNIQUE_NAME initialization parameter for the database specified by the row.
High Availability Data Guard Summary	Database ID	NA	The value of DBID (as found in v\$database) of the database specified by the row.
High Availability Data Guard Summary	Primary Database Unique Name	NA	The Database Unique Name of the primary database associated with the database specified by the row (if the database is a standby database).
High Availability Data Guard Summary	Primary Database ID	NA	The Database ID of the primary database associated with the database specified by the row.
High Availability Data Guard Summary	Database Role	NA	The Data Guard role of the database specified by the row.
High Availability Data Guard Summary	Standby Database List	NA	The list of standby databases associated with the database specified by the row (if the database is a primary database).
High Availability Data Guard Summary	Protection Mode	NA	The protection mode for the database specified by the row.
High Availability Data Guard Summary	Fast-Start Failover Status	NA	The Fast-Start Failover status for the database specified by the row.
High Availability Data Guard Summary	Data Guard Status	NA	The Data Guard status for the database specified by the row.

**Table 1-317 (Cont.) Supported Configuration Metrics for Oracle Database**

<b>Metric Group</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
High Availability Data Guard Summary	Redo Source	NA	The Database Unique Name of the database that is shipping redo to the database specified by the row.
High Availability Data Guard Summary	Data Guard Connect Identifier	NA	Net connect identifier used to reach the database.
Remote Log Archive Destinations	Parameter Identifier	NA	Log archive destination parameter identifier.
Remote Log Archive Destinations	Remote Destination	NA	Log archive destination parameter name.
Remote Log Archive Destinations	Registered with Destination	NA	Indicates whether the archived redo log is registered in the remote destination control file or not.
Remote Log Archive Destinations	Destination Database Type	NA	Indicates whether the archived log destination definition is PUBLIC or PRIVATE.
OMC ITA Data Collection Configuration and Status	Metric Name	NA	Metric Name
OMC ITA Data Collection Configuration and Status	Metric Value	NA	Metric Value
Database Options	Option Name	NA	Database Option Name
Database Options	Selected	NA	Database Option Selection Status

**Table 1-318 Supported Configuration Metrics for Relational Database**

<b>Metric Group</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Creation Date	Creation Date	N/A	Date when the database was created
Total Memory Capacity	Host Memory	GB	Total host memory capacity in GB
Resource Allocation	Instance Name	N/A	RDB Instance
Resource Allocation	Host Name	N/A	Host name of the instance
Resource Allocation	Total CPUs	N/A	total number of CPUs allocated or available in this instance

**Table 1-318 (Cont.) Supported Configuration Metrics for Relational Database**

Metric Group	Name	Unit	Description
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to this instance.
Lookup Config Metrics	Value	NA	Value

**Table 1-319 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-320 Supported Status and Performance Metrics for Oracle Database**

Metric Group	Category	Name	Unit
Top SQL Executions	Load	SQL ID	NA
Top SQL Executions	.	Plan Hash Value	NA
Top SQL Executions	Response	CPU Time	ms
Top SQL Executions	Response	Elapsed Time	ms
Top Wait Events	Load	Wait Event Name	NA
Top Wait Events	Load	Wait Class Name	NA
Top Wait Events	Load	Total Waits	NA
Top Wait Events	Load	Total Wait Time	ms
Top Wait Events	Load	Average Wait Time	ms
Top Wait Events	Load	Total Foreground Waits	NA
Top Wait Events	Load	Total Foreground Wait Time	ms
Top Wait Events	Load	Average Foreground Wait Time	ms
Load	Load	Average Active Sessions	NA
Efficiency	Utilization	Sorts in Memory	%
Efficiency	Utilization	Soft Parses	%
Instance Efficiency	Utilization	InstanceID	NA
Instance Efficiency	Utilization	PGA Cache Hit Percent	%
Instance Efficiency	Utilization	Buffer Cache Hit Percent	%
Resource Limit Utilization	Utilization	Process Limit Utilization	%
Resource Limit Utilization	Utilization	Session Limit Utilization	%
Instance Response	Availability	InstanceID	NA

**Table 1-320 (Cont.) Supported Status and Performance Metrics for Oracle Database**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>
Instance Response	Availability	Status	NA
Memory Component Sizes	.	Instance ID	NA
Memory Component Sizes	.	Host Name	NA
Memory Component Sizes	.	Memory Type	NA
Memory Component Sizes	.	Memory Pool Name	NA
Memory Component Sizes	Load	Allocated Size	bytes
Interconnect Usage Statistics	.	Instance ID	NA
Interconnect Usage Statistics	.	Host Name	NA
Interconnect Usage Statistics	Load	Bytes Sent	bytes
Interconnect Usage Statistics	Load	Bytes Received	bytes
Interconnect Usage Statistics	.	Interval	sec
OS Statistics	.	Instance ID	NA
OS Statistics	.	Host Name	NA
OS Statistics	Capacity	Total CPUs	NA
OS Statistics	Capacity	Total Memory	GB
OS Statistics	Load	Current OS Load	NA
OS Statistics	Load	Host CPU Usage	per sec
OS Statistics	Capacity	Total CPU Cores	NA
OS Statistics	Capacity	CPU Limit	NA
OS Statistics	Capacity	Total CPU sockets	NA
OS Statistics	.	Interval	sec
High Availability Backup	Availability	Session Key	NA
High Availability Backup	Availability	Session RECID	NA
High Availability Backup	Availability	Session Stamp	NA
High Availability Backup	Availability	Command ID	NA
High Availability Backup	Availability	Backup Status	NA
High Availability Backup	Availability	Input Type	NA
High Availability Backup	Availability	Output Device Type	NA
High Availability Backup	Availability	Start Time	NA
High Availability Backup	Availability	End Time	NA
High Availability Backup	Availability	Elapsed Seconds	sec
High Availability Backup	Availability	Input Size	bytes
High Availability Backup	Availability	Output Size	bytes
High Availability Backup	Availability	Output Bytes	bytes/sec
High Availability Disk Backup	Availability	Last Successful Full Disk Backup Date	NA

**Table 1-320 (Cont.) Supported Status and Performance Metrics for Oracle Database**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>
High Availability Disk Backup	Availability	Time Since Last Successful Full Disk Backup	hrs
High Availability Disk Backup	Availability	Last Successful Full Disk Backup Size	bytes
High Availability Disk Backup	Availability	Last Executed Full Disk Backup Date	NA
High Availability Disk Backup	Availability	Last Executed Full Disk Backup Status	NA
High Availability Disk Backup	Availability	Last Successful Incremental Disk Backup Date	NA
High Availability Disk Backup	Availability	Time Since Last Successful Incremental Disk Backup	hrs
High Availability Disk Backup	Availability	Last Successful Incremental Disk Backup Size	bytes
High Availability Disk Backup	Availability	Last Executed Incremental Disk Backup Date	NA
High Availability Disk Backup	Availability	Last Executed Incremental Disk Backup Status	NA
High Availability Disk Backup	Availability	Last Successful Archived Log Disk Backup Date	NA
High Availability Disk Backup	Availability	Time Since Last Successful Archived Log Disk Backup	min
High Availability Disk Backup	Availability	Last Successful Archived Log Disk Backup Size	bytes
High Availability Disk Backup	Availability	Last Executed Archived Log Disk Backup Date	NA
High Availability Disk Backup	Availability	Last Executed Archived Log Disk Backup Status	NA
High Availability Media Backup	Availability	Last Successful Full Non-Disk Media Backup Date	NA
High Availability Media Backup	Availability	Time Since Last Successful Full Non-Disk Media Backup	hrs
High Availability Media Backup	Availability	Last Successful Full Non-Disk Media Backup Size	bytes
High Availability Media Backup	Availability	Last Successful Full Backup Media	NA
High Availability Media Backup	Availability	Last Executed Full Non-Disk Media Backup Date	NA

**Table 1-320 (Cont.) Supported Status and Performance Metrics for Oracle Database**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>
High Availability Media Backup	Availability	Last Executed Full Non-Disk Media Backup Status	NA
High Availability Media Backup	Availability	Last Successful Incremental Non-Disk Media Backup Date	NA
High Availability Media Backup	Availability	Time Since Last Successful Incremental Non-Disk Media Backup	hrs
High Availability Media Backup	Availability	Last Successful Incremental Non-Disk Media Backup Size	bytes
High Availability Media Backup	Availability	Last Successful Incremental Non-Disk Backup Media	NA
High Availability Media Backup	Availability	Last Executed Incremental Non-Disk Media Backup Date	NA
High Availability Media Backup	Availability	Last Executed Incremental Non-Disk Media Backup Status	NA
High Availability Media Backup	Availability	Last Successful Archived Log Non-Disk Media Backup Date	NA
High Availability Media Backup	Availability	Time Since Last Successful Archived Log Non-Disk Media Backup	min
High Availability Media Backup	Availability	Last Successful Archived Log Non-Disk Media Backup Size	bytes
High Availability Media Backup	Availability	Last Successful Archived Log Non-Disk Backup Media	NA
High Availability Media Backup	Availability	Last Executed Archived Log Non-Disk Media Backup Date	NA
High Availability Media Backup	Availability	Last Executed Archived Log Non-Disk Media Backup Status	NA
High Availability Client Recovery Window	Availability	Last Complete Disk Backup Date	NA
High Availability Client Recovery Window	Availability	Disk Recovery Window	sec
High Availability Client Recovery Window	Availability	Disk Unprotected Data Window	sec
High Availability Client Recovery Window	Availability	Last Complete Media Backup Date	NA
High Availability Client Recovery Window	Availability	Media Recovery Window	sec

**Table 1-320 (Cont.) Supported Status and Performance Metrics for Oracle Database**

Metric Group	Category	Name	Unit
High Availability Client Recovery Window	Availability	Media Unprotected Data Window	sec
High Availability Client Recovery Window	Availability	Recovery Window Goal	sec
HA AutoBackupSettings	Availability	Disk Recovery Window Goal	sec
HA AutoBackupSettings	Availability	Media Recovery Window Goal	sec
HA AutoBackupSettings	Availability	Disk Unprotected Data Threshold	sec
HA AutoBackupSettings	Availability	Media Unprotected Data Threshold	sec
High Availability Backup History	Availability	Session Key	NA
High Availability Backup History	Availability	Session RECID	NA
High Availability Backup History	Availability	Session Stamp	NA
High Availability Backup History	Availability	Tag	NA
High Availability Backup History	Availability	Command ID	NA
High Availability Backup History	Availability	Status	NA
High Availability Backup History	Availability	Input Type	NA
High Availability Backup History	Availability	Output Device Type	NA
High Availability Backup History	Availability	Start Time	NA
High Availability Backup History	Availability	End Time	NA
High Availability Backup History	Availability	Elapsed Seconds	sec
High Availability Backup History	Availability	Input Size	bytes
High Availability Backup History	Availability	Output Size	bytes
High Availability Backup History	Availability	Media	NA
High Availability Backup History	Availability	Keep Until Date	NA
High Availability Backup History	Availability	Keep	NA
High Availability Backup History	Availability	Keep Options	NA
High Availability Backup History	Availability	Compression Ratio	NA



**Table 1-320 (Cont.) Supported Status and Performance Metrics for Oracle Database**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>
High Availability Backup History	Availability	Incremental Level	NA
High Availability Backup History	Availability	Compressed	NA
High Availability Backup History	Availability	Encrypted	NA
High Availability Backup History	Availability	Output Bytes	bytes/sec
High Availability Backup History	Availability	Container ID	NA
Fast Recovery	Availability	Fast Recovery Log Mode	NA
Fast Recovery	Availability	Fast Recovery Area	NA
Fast Recovery	Capacity	Usable Fast Recovery Area	%
Fast Recovery	Utilization	Reclaimable Fast Recovery Area	%
Fast Recovery	Utilization	Non-reclaimable Fast Recovery Area	%
Fast Recovery	Availability	Fast Recovery Flashback On	NA
Fast Recovery	Availability	Oldest Flashback Time	NA
Fast Recovery	Capacity	Fast Recovery Area Size	bytes
Primary Database Unique Name	Availability	Primary Database Unique Name	NA
Data Guard Performance	Availability	Redo Generated	KB
Data Guard Performance	Availability	Redo Generation Rate	KB/sec
Data Guard Fast-Start Failover Observer	Availability	Observer Status	NA
Data Guard Standby Performance	Response	Estimated Failover Time	sec
Data Guard Standby Performance	Response	Apply Lag	sec
Data Guard Standby Performance	Response	Transport Lag	sec
Data Guard Standby Performance	Load	Redo Applied	KB
Data Guard Standby Performance	Load	Redo Apply Rate	KB/sec
Data Guard Standby Performance	Response	Apply Lag Data Refresh Time	NA
Data Guard Standby Performance	Response	Transport Lag Data Refresh Time	NA
Data Guard Status	Availability	Database Name	NA
Data Guard Status	Availability	Data Guard Status	NA

**Table 1-320 (Cont.) Supported Status and Performance Metrics for Oracle Database**

Metric Group	Category	Name	Unit
Cluster Managed Database Services	Availability	Database Name	NA
Cluster Managed Database Services	Availability	Service Name	NA
Cluster Managed Database Services	Availability	Minimum Response Time (in last 5 min)	ms/request
Cluster Managed Database Services	Availability	Maximum Response Time (in last 5 min)	ms/request
Cluster Managed Database Services	Availability	Average Response Time (in last 5 min)	ms/request
Cluster Managed Database Services	Utilization	CPU Time Load (in last 5 min)	%
Cluster Managed Database Services	Availability	Instance with Minimum Response Time	NA
Cluster Managed Database Services	Availability	Instance with Maximum Response Time	NA
Cluster Managed Database Services	Availability	Service Status	NA
Cluster Managed Database Services	Availability	Running Instances	NA
Tablespace Status	.	Tablespace Name	NA
Tablespace Status	.	Tablespace Status	NA
Data Files Status	.	Data File Name	NA
Data Files Status	.	Data File Status	NA
Blocking Sessions	.	Blocking Session ID	NA
Blocking Sessions	.	Blocking Session Wait Class	NA
Blocking Sessions	.	Blocking Session Wait Time	NA
Blocking Sessions	.	Blocking Session ID	NA
Blocking Sessions	.	Blocking Session Wait Class	NA
Blocking Sessions	.	Blocking Session Seconds in Wait	NA
Storage Tablespace Full	.	Storage Tablespace Name	NA
Storage Tablespace Full	Capacity	Total Space Allocated	GB
Storage Tablespace Full	Utilization	Space Utilization Percentage	%
Storage Tablespace Full	Utilization	Space Used	GB
Storage Tablespace Full (Temp)	.	Storage Tablespace Name (Temp)	NA
Storage Tablespace Full (Temp)	Capacity	Total Space Allocated (Temp)	GB
Storage Tablespace Full (Temp)	Utilization	Space Utilization Percentage (Temp)	%
Storage Tablespace Full (Temp)	Utilization	Space Used (Temp)	GB

**Table 1-320 (Cont.) Supported Status and Performance Metrics for Oracle Database**

Metric Group	Category	Name	Unit
Job Status	.	Broken Job Count	NA
Job Status	.	Failed Job Count	NA
Storage Tablespace Full (Undo)	.	Storage Tablespace Name (Undo)	NA
Storage Tablespace Full (Undo)	Capacity	Total Space Allocated (Undo)	GB
Storage Tablespace Full (Undo)	Utilization	Space Utilization Percentage (Undo)	%
Storage Tablespace Full (Undo)	Utilization	Space Used (Undo)	GB
Invalid Objects by Schema	.	Invalid Object Owner	NA
Invalid Objects by Schema	Error	Invalid Objects	NA

**Table 1-321 Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Database Resource Stats	.	Instance ID	NA	RDB instance
Database Resource Stats	.	Host Name	NA	Host name of the instance
Database Resource Stats	Response	RDB Instance CPU Time	sec	CPU time used by the instance
Database Resource Stats	.	RDB Instance CPU collection Interval	sec	collection interval
Database Resource Stats	Response	RDB Aggregated CPU Time	sec	Aggregated CPU time used by DB
Database Resource Stats	.	RDB Aggregated CPU interval	sec	collection interval time
Database Resource Stats	Load	RDB Instance Memory	GB	Memory consumed by instance in GB
Database Resource Stats	.	RDB Instance Memory interval	sec	Memory Collection interval
Database Resource Stats	Load	Aggregated RDB Memory	GB	Aggregated memory consumed by DB in GB
Database Resource Stats	.	Aggregated RDB Memory interval	sec	Aggregated memory usage collection interval
Database Resource Stats	Load	RDB Instance I/O Bandwidth Usage	MB/sec	I/O bandwidth usage for db instance

**Table 1-321 (Cont.) Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Database Resource Stats	Load	RDB Instance I/O Per Second	IOPS	I/O per second rate for instance.
Database Resource Stats	Load	RDB Instance I/O interval	sec	IO rate collection interval
Database Resource Stats	Load	Aggregated DB I/O Bandwidth Usage	MB/sec	Aggregated I/O bandwidth usage for DB
Database Resource Stats	Load	Aggregated DB I/O Per Second	IOPS	Aggregated IO per second rate for DB
Storage Usage By Tablespace	.	Storage Tablespace Name	NA	Tablespace Name
Storage Usage By Tablespace	Capacity	Total Space Allocated	GB	Total size of a tablespace's datafiles in GB
Storage Usage By Tablespace	Utilization	Space Utilization Percentage	%	Percent of storage space utilized
Storage Usage By Tablespace	Load	Space Used	GB	Tablespace used in GB
Storage Space Usage	Utilization	Storage Space Allocated	GB	Storage space allocated in GB
Storage Space Usage	Utilization	Storage Space Utilization	%	Percent of storage space utilized
Storage Space Usage	Load	Space Used	GB	Storage space used in GB
Load	Load	Logons	NA	The number of logons during the last collection interval
Load	Load	Logons Rate	logons/sec	Number of logons per second during the last collection interval
Load	Load	Transactions	NA	Number of transactions during the last collection interval
Load	Load	Transactions Rate	txns/sec	Number of transactions per second during the last collection interval
Load	Load	Executions	NA	Number of executions during the last collection interval

**Table 1-321 (Cont.) Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Load	Load	Execution Rate	executions/sec	Number of executions per second during the last collection interval
Load	Load	Network I/O	bytes	Number of bytes sent and received over the network during the last collection interval
Load	Load	Network I/O Rate	bytes/sec	Network I/O in bytes/second during the last collection interval
Top SQL Executions	Load	SQL ID	NA	Unique Identifier for the SQL statement
Top SQL Executions	.	Plan Hash Value	NA	Numerical representation of the SQL plan for the cursor
Top SQL Executions	Load	Top SQL Text	NA	SQL text of the top-ranked SQL
Top SQL Executions	Response	Execution Count	NA	Execution Count of the top-ranked SQL
Top SQL Executions	Response	Total Elapsed Time	ms	Total time used to execute the SQL statement. This includes CPU time and wait time
I/O Performance	Load	I/O Per Second	IOPS	I/O per second.
I/O Performance	Load	I/O Bandwidth Usage	MB/sec	I/O bandwidth usage during the last collection interval
Instance CPU	Utilization	Instance ID	NA	RDB instance
Instance CPU	Utilization	Host Name	NA	Host name of the instance
Instance CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval for this instance
Instance CPU	Utilization	CPU Utilization	%	Percentage of CPU that was utilized in this instance
Instance CPU	.	Interval	sec	Interval of metric collection

**Table 1-321 (Cont.) Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Instance Memory Usage	Utilization	Instance ID	NA	RDB instance
Instance Memory Usage	Utilization	Host Name	NA	Host name of the instance
Instance Memory Usage	Utilization	Instance Memory Usage	GB	Memory used in GB
Instance Memory Usage	Utilization	Memory Utilization	%	Percentage of memory that is utilized in this instance
Instance Memory Usage	.	Interval	sec	Interval of metric collection
I/O Per Second Instance Level	Load	Instance ID	NA	RDB instance
I/O Per Second Instance Level	Load	Host Name	NA	Host name of the instance
I/O Per Second Instance Level	Load	I/O Per Second	IOPS	I/O per second for this instance
I/O Per Second Instance Level	Load	I/O Bandwidth Usage	MB/sec	I/O bandwidth usage during the last collection interval for this instance
I/O Per Second Instance Level	.	Interval	sec	Interval of metric collection
Database Activity	.	Instance ID	NA	RDB instance
Database Activity	.	Host Name	NA	Host name of the instance
Database Activity	Load	CPU Time	sec	CPU time (in seconds) of foreground sessions
Database Activity	Load	Wait Time	sec	Wait time (in seconds) of foreground sessions
Database Activity	Load	I/O Time	sec	I/O time (in seconds) of foreground sessions
Database Activity	.	Interval	sec	Interval of metric collection
Instance Load	.	Instance ID	NA	RDB instance
Instance Load	.	Host Name	NA	Host name of the instance
Instance Load	Load	Logons	NA	The number of logons during the last collection interval

**Table 1-321 (Cont.) Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Instance Load	Load	Logons Rate	logons/sec	Number of logons per second during the last collection interval
Instance Load	Load	Transactions	NA	Number of transactions during the last collection interval
Instance Load	Load	Transactions Rate	txns/sec	Number of transactions per second during the last collection interval
Instance Load	Load	Executions	NA	Number of executions during the last collection interval
Instance Load	Load	Executions Rate	executions/sec	Number of executions per second during the last collection interval
Instance Load	Load	Network I/O	bytes	Number of bytes sent and received over the network during the last collection interval
Instance Load	Load	Network I/O Rate	bytes/sec	Network I/O in bytes/second during the last collection interval
Instance Load	.	Interval	sec	Interval of metric collection
SQL Statistics	.	SQL ID	NA	SQL ID
SQL Statistics	.	Plan Hash Value	NA	Numerical representation of the SQL plan for the cursor
SQL Statistics	Load	Executions	NA	Number of times the SQL statement was executed
SQL Statistics	Response	Elapsed Time	ms	Total time (in milliseconds) used by this SQL for parsing, executing and fetching
SQL Statistics	.	Interval	sec	Interval of metric collection

**Table 1-322 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-323 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Oracle Database Listener

**Table 1-324 Supported Configuration Metrics for Oracle Database Listener**

Metric Group	Name	Unit	Description
Listener Services	Listener Service	N/A	Service name registered to listener
Listener Services	Server Name	N/A	Hosted server name
Listener Services	Is Sid	N/A	Is service or SID

**Table 1-325 Supported Configuration Metrics for Generic Listener**

Metric Group	Name	Unit	Description
Listener EndPoints	Server Name	N/A	Hosted server name
Listener EndPoints	Protocol	N/A	Protocol like TCP/TCPS/IPC
Listener EndPoints	Protocol Value	N/A	Port of TCP/TCPS , key for IPC

**Table 1-326 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity



**Table 1-326 (Cont.) Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-327 Supported Status and Performance Metrics for Oracle Database Listener**

Metric Group	Category	Name	Unit	Description
Listener General Information	N/A	TNS Address	N/A	Listener exposed endpoints
Listener General Information	N/A	Version	N/A	Listener version
Listener General Information	N/A	Alias	N/A	Listener alias name
Listener General Information	N/A	Start Date	N/A	Listener Start timestamp
Listener General Information	N/A	Trace Level	N/A	Listener trace level
Listener General Information	N/A	Security	N/A	Configured security option
Listener General Information	N/A	SNMP Status	N/A	whether listener can accept SNMP requests
Listener General Information	N/A	SID List	N/A	List of serviced SIDs
Listener General Information	N/A	UP Since	N/A	Up Time
Listener General Information	N/A	Log File	N/A	Log File location
Listener General Information	N/A	Trace File	N/A	Trace File location
TNS ping response time	Response	TNS Ping Response Time	ms	TNS Ping Response Time
Listener Service Handler Load	N/A	Service Name	N/A	Service Name
Listener Service Handler Load	N/A	Instance Name	N/A	Service Instance Name
Listener Service Handler Load	N/A	Handler Name	N/A	Identifies the name of the service handler. Dispatchers are named D000 through D999. Dedicated servers have a name of DEDICATED
Listener Service Handler Load	N/A	Handler State	N/A	State of Handler .READY/ BLOCKED/ UNKNOWN

**Table 1-327 (Cont.) Supported Status and Performance Metrics for Oracle Database Listener**

Metric Group	Category	Name	Unit	Description
Listener Service Handler Load	N/A	Current Connections	N/A	The number of client connections it is handling, that is, its current load
Listener Service Handler Load	N/A	Maximum Connections	N/A	The maximum number of connections
Listener Service Handler Load	N/A	Connection Established (per minute)	conns/sec	Rate of established connections
Listener Service Handler Load	N/A	Connections refused (per minute)	conns/sec	Rate of refused connections

**Table 1-328 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-329 Supported Status and Performance Metrics for Generic Listener**

Metric Group	Category	Name	Unit	Description
Listener Load	Load	Connection Established (per minute)	N/A	Rate of established connections
Listener Load	Load	Connections refused (per minute)	N/A	Rate of refused connections

## Oracle Database Listener Cluster

**Table 1-330 Supported Configuration Metrics for Oracle Database Cluster Listener**

Metric Group	Name	Unit	Description
Cluster Listener Instances Information	Instance Name	NA	Alias for the listener Instance

**Table 1-330 (Cont.) Supported Configuration Metrics for Oracle Database Cluster Listener**

Metric Group	Name	Unit	Description
Cluster Listener Instances Information	CRS Resource Name	NA	Cluster Resource Name
Cluster Listener Instances Information	Hosted VIP Name	NA	Hosted VIP Name
Cluster Listener Instances Information	Resolved VIP hostname	NA	Hostname to which VIP is currently resolved.

**Table 1-331 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Oracle E-Business Suite (EBS)

- [EBS](#)
- [EBS Concurrent Processing](#)
- [EBS Concurrent Processing Node](#)
- [EBS Forms System](#)
- [EBS Workflow Agent Listener](#)
- [EBS Workflow Background Engine](#)
- [EBS Workflow Group](#)
- [EBS Workflow Notification Mailer](#)

## EBS

**Table 1-332 Supported Status and Performance Metrics for EBS**

Metric Group	Category	Name	Unit	Description
Executions by Program	Load	Program Name	NA	Name of the concurrent program.
Executions by Program	Load	Program Short Name	NA	Short name of the concurrent program.
Executions by Program	Load	Completed Executions	NA	Number of executions completed including those completed with errors or warnings.

**Table 1-332 (Cont.) Supported Status and Performance Metrics for EBS**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Executions by Program	Load	Average Running Time	ms	Average running time of the programs.
Executions by Program	Load	Maximum Running Time	ms	Maximum running time of a program.
Requests By Application	Load	Application Short Name	NA	Short name of the application.
Requests By Application	Load	Application Name	NA	Full name of the application.
Requests By Application	Load	Submitted Requests	ops/hour	Rate of submitted requests per hour.
Requests By Application	Load	Non-Repeating Pending Requests	NA	Non-Repeating Pending Requests (Normal and Standby).
Requests By Application	Load	Repeating Pending Requests	NA	Repeating Pending Requests (Normal and Standby).
Requests By Application	Load	Non-Repeating Running Requests	NA	Non-Repeating Running Requests.
Requests By Application	Load	Repeating Running Requests	NA	Repeating Running Requests.
Requests By Application	Load	Completed Executions	ops/hour	Rate of executions completed per hour including those completed with errors or warnings.
Requests By Application	Load	Successful Executions	%	Percentage of executions that were successful.
Requests By Application	Error	Errored Executions	%	Percentage of executions that were errored.
Applications With Most Requests(Deprecated)	Load	Application Short Name	NA	Short name of the application.
Applications With Most Requests(Deprecated)	Load	Application Name	NA	Full name of the application.

**Table 1-332 (Cont.) Supported Status and Performance Metrics for EBS**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Applications With Most Requests(Deprecated)	Load	Total Requests	NA	Total number of requests.
Applications With Most Running Requests(Deprecated)	Load	Application Short Name	NA	Short name of the application.
Applications With Most Running Requests(Deprecated)	Load	Application Name	NA	Full name of the application.
Applications With Most Running Requests(Deprecated)	Load	Total Requests	NA	Total number of requests.
Applications With Most Executions(Deprecated)	Load	Application Name	NA	Full name of the application.
Applications With Most Executions(Deprecated)	Load	Application Short Name	NA	Short name of the application.
Applications With Most Executions(Deprecated)	Load	Completed Executions	NA	Number of executions completed including those completed with errors or warnings.
Applications With Most Executions(Deprecated)	Load	Successful Executions	%	Percentage of executions that were successful.
Applications With Most Executions(Deprecated)	Error	Errored Executions	%	Percentage of executions that were errored.
Active User Sessions	Load	Session ID	NA	Session ID
Active User Sessions	Load	Last Connection	NA	Last connection date.
Active User Sessions	Load	User Name	NA	User Name.
Active User Sessions	Load	Responsibility Key	NA	Responsibility key.
Active User Sessions By Responsibility	Load	Responsibility Key	NA	Responsibility key.

**Table 1-332 (Cont.) Supported Status and Performance Metrics for EBS**

Metric Group	Category	Name	Unit	Description
Active User Sessions By Responsibility	Load	Active User Sessions	NA	Current Active User Sessions.

## EBS Concurrent Processing

**Table 1-333 Supported Configuration Metrics for EBS Concurrent Processing**

Metric Group	Name	Unit	Description	Is Metric Column Visible In Simple API
Concurrent Processing HA Configuration	User Concurrent Queue Name	NA	Display name of the component.	
Concurrent Processing HA Configuration	Concurrent Queue Name	NA	Internal name of the component.	
Concurrent Processing HA Configuration	Description	NA	Description of the component.	
Concurrent Processing HA Configuration	Host Name	NA	Host name of host on which component is configured.	
Concurrent Processing HA Configuration	Primary Node	NA	Host name of primary node on which component is configured for HA.	
Concurrent Processing HA Configuration	Secondary Node	NA	Host name of secondary node on which component is configured for HA.	

**Table 1-334 Supported Status and Performance Metrics for EBS Concurrent Processing**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	NA	Status of the target
Internal Concurrent Manager Status	Availability	Status	NA	Status of the target
Concurrent Processing Component Status	Availability	User Concurrent Queue Name	NA	Display name of the component.
Concurrent Processing Component Status	Availability	Concurrent Queue Name	NA	Internal name of the component.
Concurrent Processing Component Status	Availability	Description	NA	Description of the component.

**Table 1-334 (Cont.) Supported Status and Performance Metrics for EBS Concurrent Processing**

Metric Group	Category	Name	Unit	Description
Concurrent Processing Component Status	Availability	Max Processes	NA	Maximum number of processes configured for the component.
Concurrent Processing Component Status	Availability	Running Processes	NA	Count of processes running for the component.
Concurrent Processing Component Status	Availability	Host Name	NA	Host name of host on which component is configured.
Concurrent Processing Component Status	Availability	Status	NA	Status of the component
Active Concurrent Requests By Application(Deprecated)	Load	Application Short Name	NA	Short name of the application.
Active Concurrent Requests By Application(Deprecated)	Load	Application Name	NA	Full name of the application.
Active Concurrent Requests By Application(Deprecated)	Load	Non-Repeating Pending Requests	NA	Non-Repeating Pending Requests (Normal and Standby).
Active Concurrent Requests By Application(Deprecated)	Load	Repeating Pending Requests	NA	Repeating Pending Requests (Normal and Standby).
Active Concurrent Requests By Application(Deprecated)	Load	Non-Repeating Running Requests	NA	Non-Repeating Running Requests.
Active Concurrent Requests By Application(Deprecated)	Load	Repeating Running Requests	NA	Repeating Running Requests.
Capacity Utilization of Concurrent Managers	Capacity	Manager Name	NA	Name of the Concurrent Manager.
Capacity Utilization of Concurrent Managers	Capacity	Utilized Capacity	%	Utilized capacity of the concurrent manager.
Concurrent Requests By Status	Load	Concurrent Requests Pending (Normal)	NA	Concurrent Requests Pending (Normal).
Concurrent Requests By Status	Load	Concurrent Requests Pending (Standby)	NA	Concurrent Requests Pending (Standby).

**Table 1-334 (Cont.) Supported Status and Performance Metrics for EBS Concurrent Processing**

Metric Group	Category	Name	Unit	Description
Concurrent Requests By Status	Load	Concurrent Requests Scheduled	NA	Concurrent Requests Scheduled.
Concurrent Requests By Status	Load	Concurrent Requests Inactive (No Manager)	NA	Concurrent Requests Inactive (No Manager).
Concurrent Requests By Status	Load	Concurrent Requests Inactive (On Hold)	NA	Concurrent Requests Inactive (On Hold).
Concurrent Requests By Status	Load	Concurrent Requests Running	NA	Concurrent Requests Running.
Hourly Completed Concurrent Requests	Load	Concurrent Requests Completed Successfully	ops/hour	Concurrent Requests Completed Successfully.
Hourly Completed Concurrent Requests	Load	Concurrent Requests Completed With Warning	ops/hour	Concurrent Requests Completed With Warning.
Hourly Completed Concurrent Requests	Error	Concurrent Requests Completed With Error	ops/hour	Concurrent Requests Completed With Error.
Hourly Completed Concurrent Requests	Load	Concurrent Requests Success Rate	%	Concurrent Requests Success Rate.
Hourly Completed Concurrent Requests	Load	Concurrent Requests Warning Rate	%	Concurrent Requests Warning Rate.
Hourly Completed Concurrent Requests	Error	Concurrent Requests Error Rate	%	Concurrent Requests Error Rate.
Long Active Concurrent Requests	Load	Request ID (Internal)	NA	Request ID.
Long Active Concurrent Requests	Load	Request ID	NA	Request ID.
Long Active Concurrent Requests	Load	Program Short Name	NA	Short name of the program.
Long Active Concurrent Requests	Load	Program Name	NA	Full name of the program.
Long Active Concurrent Requests	Load	Requested Start Date	NA	Requested Start Date.



**Table 1-334 (Cont.) Supported Status and Performance Metrics for EBS Concurrent Processing**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Long Active Concurrent Requests	Load	Actual Start Date	NA	Actual Start Date.
Long Active Concurrent Requests	Load	User Name	NA	User Name.
Long Active Concurrent Requests	Load	Phase	NA	Phase.
Long Active Concurrent Requests	Load	Status	NA	Status.
Long Active Concurrent Requests	Load	Elapsed Time	min	For pending requests, pending time. For running requests, running time.
Long Active Concurrent Requests	Load	Manager Name	NA	Manager Name.
Long Active Requests by Manager	.	Concurrent Manager Name	NA	Concurrent Manager Name
Long Active Requests by Manager	Load	Pending Requests	NA	Pending Requests
Long Active Requests by Manager	Load	Running Requests	NA	Running Requests
Users With Most Pending Requests	Load	User Name	NA	User Name.
Users With Most Pending Requests	Load	Pending Requests	NA	Number Of Pending Requests.
Users With Most Running Requests	Load	User Name	NA	User Name.
Users With Most Running Requests	Load	Running Requests	NA	Number Of Running Requests.

## EBS Concurrent Processing Node

No metrics are defined for this entity type. All metrics are inherited from parent entities.

## EBS Forms System

**Table 1-335 Supported Status and Performance Metrics for EBS Forms System**

Metric Group	Category	Name	Unit	Description
Forms Database Sessions Per User	Capacity	User ID	NA	User ID.
Forms Database Sessions Per User	Capacity	Forms Sessions	NA	Number Of Forms Sessions.
Forms Database Sessions Per Application	Capacity	Application Short Name	NA	Short name of the application.
Forms Database Sessions Per Application	Capacity	Application Name	NA	Full name of the application.
Forms Database Sessions Per Application	Capacity	Forms Sessions	NA	Number Of Forms Sessions.

## EBS Workflow Agent Listener

**Table 1-336 Supported Configuration Metrics for Target**

Metric Group	Name	Unit	Description
Product	Vendor	NA	Vendor of the product
Product	Product	NA	Name of the product
Product	Version	NA	Version of the product

**Table 1-337 Supported Status and Performance Metrics for Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	NA	Status of the target

## EBS Workflow Background Engine

**Table 1-338 Supported Configuration Metrics for Target**

Metric Group	Name	Unit	Description
Product	Vendor	NA	Vendor of the product
Product	Product	NA	Name of the product
Product	Version	NA	Version of the product

**Table 1-339 Supported Status and Performance Metrics for Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	NA	Status of the target

## EBS Workflow Group

**Table 1-340 Supported Status and Performance Metrics for EBS Workflow Group**

Metric Group	Category	Name	Unit	Description
Queue Details	Load	User Concurrent Queue Name	NA	User Concurrent Queue Name
Queue Details	Load	Max Processes	NA	Maximum number of processes
Queue Details	Load	Pending Stand-by	NA	Pending stand-by Requests.
Queue Details	Load	Pending Normal	NA	Pending normal requests
Queue Details	Load	Running Normal	NA	Running normal requests
Deferred Records	Load	Correlation ID	NA	Correlation ID
Deferred Records	Load	Ready	NA	Records with status Ready
Deferred Records	Load	Delayed	NA	Records with status Delayed
Deferred Records	Load	Retained	NA	Records with status Retained
Deferred Records	Load	Exception	NA	Records with status Exception
Inbound Notifications	Load	Correlation ID	NA	Correlation ID
Inbound Notifications	Load	Ready	NA	Records with status Ready
Inbound Notifications	Load	Delayed	NA	Records with status Delayed
Inbound Notifications	Load	Retained	NA	Records with status Retained
Inbound Notifications	Load	Exception	NA	Records with status Exception
Outbound Notifications	Load	Correlation ID	NA	Correlation ID
Outbound Notifications	Load	Ready	NA	Records with status Ready
Outbound Notifications	Load	Delayed	NA	Records with status Delayed
Outbound Notifications	Load	Retained	NA	Records with status Retained
Outbound Notifications	Load	Exception	NA	Records with status Exception

## EBS Workflow Notification Mailer

No metrics are defined for this entity type. All metrics are inherited from parent entities.

**Table 1-341 Supported Configuration Metrics for Target**

Metric Group	Name	Unit	Description
Product	Vendor	NA	Vendor of the product
Product	Product	NA	Name of the product
Product	Version	NA	Version of the product

**Table 1-342 Supported Status and Performance Metrics for Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	NA	Status of the target

## Oracle ES2 Ethernet Switch

**Table 1-343 Supported Configuration Metrics for Generic Physical Switch**

Metric Group	Name	Unit	Description
Summary Details	Part Number	NA	The switch part number,
Summary Details	Serial Number	NA	The switch serial number,
Summary Details	Model	NA	The switch model,
Summary Details	Architecture	NA	The switch architecture,
Network Management Interface	IP Address	NA	The switch IP address,
Network Management Interface	Physical Address	NA	The switch physical address,
Network Port Details	Port Name	NA	The port name
Network Port Details	Port Physical Address	NA	The port physical address
Network Port Details	Port Type	NA	The port type/
Network Port Details	Port MTU	NA	The port MTU.
Network Port Details	Port Bandwidth	Mbps	An estimate of the interface's current bandwidth.
Network Port Details	Peer Port Physical Address	NA	Peer port physical address,
Network Port Details	Peer Port Type	NA	Peer port type,
Network Port Details	Media Type	NA	Port media type,
Component Details	Name	NA	Component name,
Component Details	Manufacturer	NA	Component manufacturer,
Component Details	Model	NA	Component model,

**Table 1-344 Supported Status and Performance Metrics for Oracle ES2 Ethernet Switch**

Metric Group	Category	Name	Unit	Description
CPU Usage	Utilization	CPU Utilization	%	This metric measures the overall CPU busy percentage in the last 5 minute period.
CPU Usage		Interval	sec	Interval of metric collection in seconds.
Memory Usage	Utilization	Memory Utilization	%	This metric measures the device utilization of the physical memory.
Memory Usage		Interval	sec	Interval of metric collection in seconds.

**Table 1-345 Supported Status and Performance Metrics for Generic Physical Switch**

Metric Group	Category	Name	Unit	Description
Switch ports free vs used	Capacity	Ports Free	NA	The unused ports.
Switch ports free vs used	Capacity	Ports Used	NA	The ports in use.
Switch ports free vs used	Capacity	Ports Count	NA	The total number of physical network ports
Switch ports free vs used	Utilization	Ports Occupation Ratio	%	The percentage of network ports actually used.
Network Port Statistics		Port Name	NA	Port name
Network Port Statistics	Availability	Port Status	NA	Port status
Network Port Statistics	Availability	Port Administrative Status	NA	The port administrative status.
Network Port Statistics	Load	Inbound Octets Rate	bytes/sec	Inbound octets rate,
Network Port Statistics	Utilization	Inbound Bandwidth Usage	%	The percentage of bandwidth used by incoming traffic.
Network Port Statistics	Load	Outbound Octets Rate	bytes/sec	Outbound octets rate

**Table 1-345 (Cont.) Supported Status and Performance Metrics for Generic Physical Switch**

Metric Group	Category	Name	Unit	Description
Network Port Statistics	Utilization	Outbound Bandwidth Usage	%	The percentage of bandwidth used by outgoing traffic.
Network Port Statistics	Load	Total Octets Rate	bytes/sec	Total octets rate
Network Port Statistics	Error	Inbound Discard Ratio	%	The percentage of incoming packets discarded.
Network Port Statistics	Error	Outbound Discard Ratio	%	The percentage of outgoing packets which are discarded.
Network Port Statistics	Error	Inbound Error Ratio	%	The percentage of invalid incoming packets (undersized, oversized, or have FCS errors).
Network Port Statistics	Error	Outbound Error Ratio	%	The percentage of invalid outgoing packets (undersized, oversized, or have FCS errors).
Network Port Statistics		Interval	sec	Interval of metric collection in seconds.
Component State		Name	NA	Component name
Component State	Availability	State	NA	Component state

## Oracle Flash Storage

**Table 1-346 Supported Configuration Metrics for Oracle Flash Storage**

Metric Group	Name	Unit	Description
Storage Information	Contact Phone	NA	Oracle Flash Storage Contact Phone
Storage Config Info	Ntp Service	boolean	Defines whether Ntp service is enabled. 0 - disabled, 1 - enabled.
Storage Config Info	Session Timeout in Minutes	min	Session timeout in minutes
Storage Config Info	Maximum Failed Logins	NA	Maximum failed logins
Storage Config Info	SAN Support	boolean	Defines whether SAN is supported. 0 - unsupported, 1 - supported.

**Table 1-346 (Cont.) Supported Configuration Metrics for Oracle Flash Storage**

<b>Metric Group</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Storage Config Info	NAS Support	boolean	Defines whether NAS is supported. 0 - unsupported, 1 - supported.
Storage Config Info	Encryption Enabled	boolean	Defines whether Encryption is enabled. 0 - disabled, 1 - enabled.
Storage Config Info	SSH Enabled	boolean	Defines whether SSH is enabled. 0 - disabled, 1 - enabled.
Storage Network Config Info	IP Address	NA	Flash Storage ip address
Storage Network Config Info	Netmask	NA	Flash Storage netmask
Storage Network Config Info	Gateway	NA	Flash Storage gateway
Storage Network Config Info	Mac Address	NA	Flash Storage mac address
Storage Network Config Info	Dhcp Enabled	boolean	Defines whether DHCP is enabled. 0 - disabled, 1 - enabled.
Storage Pilot Info	Pilot Name	NA	Pilot name
Storage Pilot Info	Pilot Serial Number	NA	Pilot serial number
Storage Pilot Info	Pilot Description	NA	Pilot description
Storage Pilot Info	Pilot IloM Version	NA	Pilot ilom version
Storage Pilot Info	Pilot Operation Mode	NA	Pilot operation mode
Storage Enclosure Info	Enclosure Name	NA	Enclosure name
Storage Enclosure Info	Enclosure Serial Number	NA	Enclosure serial number
Storage Enclosure Info	Enclosure Model	NA	Enclosure model
Storage Enclosure Info	Enclosure Firmware	NA	Enclosure firmware
Storage Domain Info	Storage Domain Name	NA	Storage Domain name
Storage Domain Info	Automatic Qos Rebalancing	NA	Automatic Qos rebalancing
Storage Domain Info	Performance Scan Cycles	NA	Performance scan cycles
Storage Domain Info	Hour Scan Cycles	NA	Hour scan cycles
Storage Controller Info	Storage Controller Name	NA	Storage Controller information
Storage Controller Info	Service Type	NA	Service type
Storage Controller Info	Model Type	NA	Model type
Storage Controller Info	IloM Version	NA	IloM version
Storage Controller Info	Bios Version	NA	Bios Version

**Table 1-346 (Cont.) Supported Configuration Metrics for Oracle Flash Storage**

Metric Group	Name	Unit	Description
Storage Controller Info	Buddy Controller	NA	Buddy controller
Storage Drive Group Info	Storage Drive Group Name	NA	Flash Storage drive group name
Storage Drive Group Info	Storage Class	NA	Flash Storage drive group storage class
Storage Drive Group Info	Storage Domain	NA	Flash Storage storage domain for drive group
Storage Drive Group Info	Storage Enclosure	NA	Flash Storage storage enclosure for drive group

**Table 1-347 Supported Configuration Metrics for Storage Server**

Metric Group	Name	Unit	Default Collection Frequency	Description
Storage Information	Name	NA	24 Hr	Name of the managed storage
Storage Information	Description	NA	24 Hr	Description of the managed storage
Storage Information	Model	NA	24 Hr	Model of the managed storage
Storage Information	Location	NA	24 Hr	Location of the managed storage
Storage Information	Firmware Version	NA	24 Hr	Firmware version of the managed storage
Storage Information	Serial Number	NA	24 Hr	Serial number of the managed storage
Storage Information	Contact	NA	24 Hr	Contact of the managed storage
Storage Capacity	Total Size	GB	.	Total size of the managed storage
Storage Capacity	Physical Size	GB	.	Physical size of the managed storage

**Table 1-348 Supported Status and Performance Metrics for Oracle Flash Storage**

Metric Group	Category	Name	Unit	Description
Storage Capacity Info	Capacity	Available Capacity	GB	Flash Storage available capacity
Storage Capacity Info	Capacity	Total Capacity	GB	Flash Storage total capacity
Storage Capacity Info	Capacity	Allocated Capacity	GB	Flash Storage allocated capacity



**Table 1-348 (Cont.) Supported Status and Performance Metrics for Oracle Flash Storage**

Metric Group	Category	Name	Unit	Description
Storage Capacity Info	Capacity	Preparing Capacity	bytes	Flash Storage preparing capacity
Storage Capacity Info	Capacity	Maximum Committed Capacity	GB	Flash Storage maximum committed capacity
Flash Storage Status Info		System Status	NA	Flash Storage status
Flash Storage Status Info		Boot State	NA	Flash Storage boot state
Flash Storage Status Info		Hardware Status	NA	Flash Storage hardware status
Storage Pilot Status		Pilot Name	NA	Pilot name
Storage Pilot Status		Pilot Hardware Status	NA	Pilot hardware status
Storage Enclosure Status		Enclosure Name	NA	Enclosure name
Storage Enclosure Status		Enclosure Hardware Status	NA	Enclosure hardware status
Storage Enclosure Status		Enclosure Temperature Status	NA	Enclosure temperature status
Storage Enclosure Status		Enclosure Management State	NA	Enclosure management state
Storage Enclosure Status		Enclosure Overall Status	NA	Enclosure overall status
Storage Domain Capacity		Storage Domain Name	NA	Storage Domain name
Storage Domain Capacity	Capacity	Total Capacity	GB	Total capacity
Storage Domain Capacity	Capacity	Allocated Capacity	GB	Allocated capacity
Storage Domain Capacity	Capacity	Preparing Capacity	bytes	Preparing capacity
Storage Domain Capacity	Capacity	Auto Tier Used Capacity	GB	Auto Tier used capacity
Storage Controller Status		Storage Controller Name	NA	Flash Storage controller status
Storage Controller Status		Controller Status	NA	Flash Storage controller overall status
Storage Controller Status		Controller Temperature Status	NA	Flash Storage controller temperature status

**Table 1-348 (Cont.) Supported Status and Performance Metrics for Oracle Flash Storage**

Metric Group	Category	Name	Unit	Description
Storage Controller Status		Controller Chassis Status	NA	Flash Storage controller chassis status
Storage Controller Status		Controller Motherboard Status	NA	Flash Storage controller motherboard status
Storage Controller Power Usage		Storage Controller Name	NA	Flash Storage controller name
Storage Controller Power Usage	Utilization	Total Power Consumed	W	Flash Storage controller total power consumption
Storage Controller Power Usage	Utilization	Maximum Power	W	Flash Storage controller maximum power usage
Storage Drive Group Status		Storage Drive Group Name	NA	Flash Storage drive group name
Storage Drive Group Status		Drive Group Status	NA	Flash Storage drive group status
Storage Drive Group Status	Load	Drive Group Background Operation	NA	Flash Storage drive group background operation
Storage Drive Group Capacity	Capacity	Storage Drive Group Name	NA	Flash Storage drive group name
Storage Drive Group Capacity	Capacity	Drive Group Total Capacity	GB	Flash Storage drive group total capacity
Storage Drive Group Capacity	Capacity	Drive Group Free Capacity	GB	Flash Storage drive group free capacity
Storage Drive Group Capacity	Capacity	Drive Group Allocated Capacity	GB	Flash Storage drive group allocated capacity
Storage Drive Group Capacity	Capacity	Drive Group Preparing Capacity	bytes	Flash Storage drive group preparing capacity

**Table 1-349 Supported Status and Performance Metrics for Storage Server**

Metric Group	Category	Name	Unit	Description
Storage Utilization	Utilization	Used Size	GB	Used size of the managed storage

**Table 1-349 (Cont.) Supported Status and Performance Metrics for Storage Server**

Metric Group	Category	Name	Unit	Description
Storage Utilization	Utilization	Physical Used Size	GB	Physical used size of the managed storage
Storage Utilization	Utilization	Storage Used	%	Percentage of space used in the storage
Storage Utilization	Utilization	Physical Storage Used	%	Percentage of physical space used in the storage

## Oracle GoldenGate

- [Oracle GoldenGate](#)
- [Oracle GoldenGate Admin Server](#)
- [Oracle GoldenGate Deployment](#)
- [Oracle GoldenGate \(Distribution Path\)](#)
- [Oracle GoldenGate Distribution Server](#)
- [Oracle GoldenGate \(Extract\)](#)
- [Oracle GoldenGate Manager](#)
- [Oracle GoldenGate Performance Metric Server](#)
- [Oracle GoldenGate Process](#)
- [Oracle GoldenGate Receiver Server](#)
- [Oracle GoldenGate Replicat](#)
- [Oracle GoldenGate Service Manager](#)

## Oracle GoldenGate

No metrics are defined for this entity type. All metrics are inherited from parent entities.

**Table 1-350 Supported Configuration Metrics for Target**

Metric Group	Name	Unit	Description
Product	Vendor	NA	Vendor of the product
Product	Product	NA	Name of the product
Product	Version	NA	Version of the product

**Table 1-351 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Oracle GoldenGate (Distribution Path)

**Table 1-352 Supported Configuration Metrics for GoldenGate Distribution Path**

Metric Group	Name	Unit	Description
Path Info	Source Extract	NA	Source extract process name
Path Info	Source URI	NA	Path source URI
Path Info	Target URI	NA	Path target URI
Path Info	Source DB Name	NA	Source database name
Path Info	Source DB Instance	NA	Source database instance

**Table 1-353 Supported Status and Performance Metrics for GoldenGate Distribution Path**

Metric Group	Category	Name	Unit	Description
Path Statistics	Response	Lag	sec	Lag in seconds between the time when extract wrote a transaction in the trail file and the time when distsrvr processes this transaction
Path Statistics	Load	Network Send Rate	MB/sec	The network send rate
Path Statistics	Load	Network Receive Rate	MB/sec	The network receive rate
Path Statistics	.	Interval	sec	Interval of metric collection

## Oracle GoldenGate (Extract)

**Table 1-354 Supported Status and Performance Metrics for GoldenGate Extract**

Metric Group	Category	Name	Unit	Description
Extract Position	Response	Lag	sec	The true lag between the Oracle GoldenGate Extract and its data source
Extract Position	Load	Operations Rate	ops/sec	The total of DML (insert, update, delete), DDL (table definition) and truncate changes per second

**Table 1-354 (Cont.) Supported Status and Performance Metrics for GoldenGate Extract**

Metric Group	Category	Name	Unit	Description
Extract Position	.	Last Operation Time	NA	The time when an operation was committed in the data source, as recorded in the transaction log
Extract Position	.	Last Checkpoint Time	NA	The time when the last checkpoint was written by the Oracle GoldenGate process
Extract Position	.	Checkpoint Position	NA	Composite representation of the checkpoints that were persisted to disk most recently
Extract Position	.	End Of File	boolean	Shows we reached the end of the input from its data source
Extract Position	.	Interval	sec	Interval of metric collection
Table Statistics	.	Table Name	NA	Table name
Table Statistics	Load	Insert Rate	per sec	Insert operations performed per second
Table Statistics	Load	Update Rate	per sec	Update operations performed per second
Table Statistics	Load	Delete Rate	per sec	Delete operations performed per second
Table Statistics	Load	Truncate Rate	per sec	Truncate operations performed per second
Table Statistics	Error	Ignore Rate	per sec	Number of errors ignored per second
Table Statistics	Error	Discard Rate	per sec	Number of operations discarded per second
Table Statistics	Interval	sec	Interval of metric collection	

**Table 1-355 Supported Status and Performance Metrics for GoldenGate Process**

Metric Group	Category	Name	Unit	Description
Process Performance	Load	Read I/O Rate	MB/sec	Average number of read I/O per second between last two collections
Process Performance	Load	Write I/O Rate	MB/sec	Average number of write I/O per second between last two collections
Process Performance	Utilization	CPU Utilization	%	Percentage of total CPU time used
Process Performance	Load	Private Memory Size	GB	Amount of private memory used by the process
Process Performance	.	Interval	sec	Interval of metric collection
Packet Statistics	Load	Dropped Packet Rate	per sec	Average amount of dropped packets per second by the process since the last collection interval
Packet Statistics	Load	Missing Packet Rate	per sec	Average amount of missing packets per second by the process since the last collection interval
Packet Statistics	Error	Error Packet Rate	per sec	Average amount of error packets per second by the process since the last collection interval
Packet Statistics	Load	Packet Receive Rate	per sec	Average amount of received packets per second by the process since the last collection interval
Packet Statistics	.	Interval	sec	Interval of metric collection

## Oracle GoldenGate Admin Server

No metrics are defined for this entity type. All metrics are inherited from parent entities.

**Table 1-356 Supported Configuration Metrics for Target**

Metric Group	Name	Unit	Description
Product	Vendor	NA	Vendor of the product

**Table 1-356 (Cont.) Supported Configuration Metrics for Target**

Metric Group	Name	Unit	Description
Product	Product	NA	Name of the product
Product	Version	NA	Version of the product

**Table 1-357 Supported Status and Performance Metrics for GoldenGate Process**

Metric Group	Category	Name	Unit	Description
Process Performance	Load	Read I/O Rate	MB/sec	Average number of read I/O per second between last two collections
Process Performance	Load	Write I/O Rate	MB/sec	Average number of write I/O per second between last two collections
Process Performance	Utilization	CPU Utilization	%	Percentage of total CPU time used
Process Performance	Load	Private Memory Size	GB	Amount of private memory used by the process
Process Performance	.	Interval	sec	Interval of metric collection
Packet Statistics	Load	Dropped Packet Rate	per sec	Average amount of dropped packets per second by the process since the last collection interval
Packet Statistics	Load	Missing Packet Rate	per sec	Average amount of missing packets per second by the process since the last collection interval
Packet Statistics	Error	Error Packet Rate	per sec	Average amount of error packets per second by the process since the last collection interval

**Table 1-357 (Cont.) Supported Status and Performance Metrics for GoldenGate Process**

Metric Group	Category	Name	Unit	Description
Packet Statistics	Load	Packet Receive Rate	per sec	Average amount of received packets per second by the process since the last collection interval
Packet Statistics		Interval	sec	Interval of metric collection

**Table 1-358 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Oracle GoldenGate Deployment

No metrics are defined for this entity type. All metrics are inherited from parent entities.

## Oracle GoldenGate Distribution Server

No metrics are defined for this entity type. All metrics are inherited from parent entities.

**Table 1-359 Supported Configuration Metrics for Target**

Metric Group	Name	Unit	Description
Product	Vendor	NA	Vendor of the product
Product	Product	NA	Name of the product
Product	Version	NA	Version of the product

**Table 1-360 Supported Status and Performance Metrics for GoldenGate Process**

Metric Group	Category	Name	Unit	Description
Process Performance	Load	Read I/O Rate	MB/sec	Average number of read I/O per second between last two collections
Process Performance	Load	Write I/O Rate	MB/sec	Average number of write I/O per second between last two collections
Process Performance	Utilization	CPU Utilization	%	Percentage of total CPU time used



**Table 1-360 (Cont.) Supported Status and Performance Metrics for GoldenGate Process**

Metric Group	Category	Name	Unit	Description
Process Performance	Load	Private Memory Size	GB	Amount of private memory used by the process
Process Performance	.	Interval	sec	Interval of metric collection
Packet Statistics	Load	Dropped Packet Rate	per sec	Average amount of dropped packets per second by the process since the last collection interval
Packet Statistics	Load	Missing Packet Rate	per sec	Average amount of missing packets per second by the process since the last collection interval
Packet Statistics	Error	Error Packet Rate	per sec	Average amount of error packets per second by the process since the last collection interval
Packet Statistics	Load	Packet Receive Rate	per sec	Average amount of received packets per second by the process since the last collection interval
Packet Statistics	.	Interval	sec	Interval of metric collection

**Table 1-361 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Oracle GoldenGate Manager

No metrics are defined for this entity type. All metrics are inherited from parent entities.

**Table 1-362 Supported Configuration Metrics for Target**

Metric Group	Name	Unit	Description
Product	Vendor	NA	Vendor of the product
Product	Product	NA	Name of the product
Product	Version	NA	Version of the product

**Table 1-363 Supported Status and Performance Metrics for GoldenGate Process**

Metric Group	Category	Name	Unit	Description
Process Performance	Load	Read I/O Rate	MB/sec	Average number of read I/O per second between last two collections
Process Performance	Load	Write I/O Rate	MB/sec	Average number of write I/O per second between last two collections
Process Performance	Utilization	CPU Utilization	%	Percentage of total CPU time used
Process Performance	Load	Private Memory Size	GB	Amount of private memory used by the process
Process Performance	.	Interval	sec	Interval of metric collection
Packet Statistics	Load	Dropped Packet Rate	per sec	Average amount of dropped packets per second by the process since the last collection interval
Packet Statistics	Load	Missing Packet Rate	per sec	Average amount of missing packets per second by the process since the last collection interval
Packet Statistics	Error	Error Packet Rate	per sec	Average amount of error packets per second by the process since the last collection interval
Packet Statistics	Load	Packet Receive Rate	per sec	Average amount of received packets per second by the process since the last collection interval
Packet Statistics	.	Interval	sec	Interval of metric collection

**Table 1-364 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Oracle GoldenGate Performance Metric Server

No metrics are defined for this entity type. All metrics are inherited from parent entities.

**Table 1-365 Supported Configuration Metrics for Target**

Metric Group	Name	Unit	Description
Product	Vendor	NA	Vendor of the product
Product	Product	NA	Name of the product
Product	Version	NA	Version of the product

**Table 1-366 Supported Status and Performance Metrics for GoldenGate Process**

Metric Group	Category	Name	Unit	Description
Process Performance	Load	Read I/O Rate	MB/sec	Average number of read I/O per second between last two collections
Process Performance	Load	Write I/O Rate	MB/sec	Average number of write I/O per second between last two collections
Process Performance	Utilization	CPU Utilization	%	Percentage of total CPU time used
Process Performance	Load	Private Memory Size	GB	Amount of private memory used by the process
Process Performance	.	Interval	sec	Interval of metric collection
Packet Statistics	Load	Dropped Packet Rate	per sec	Average amount of dropped packets per second by the process since the last collection interval
Packet Statistics	Load	Missing Packet Rate	per sec	Average amount of missing packets per second by the process since the last collection interval
Packet Statistics	Error	Error Packet Rate	per sec	Average amount of error packets per second by the process since the last collection interval

**Table 1-366 (Cont.) Supported Status and Performance Metrics for GoldenGate Process**

Metric Group	Category	Name	Unit	Description
Packet Statistics	Load	Packet Receive Rate	per sec	Average amount of received packets per second by the process since the last collection interval
Packet Statistics	.	Interval	sec	Interval of metric collection

**Table 1-367 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Oracle GoldenGate Process

### Note:

The following components do not have associated metrics, but instead inherit the process metrics: GoldenGate Admin Server, GoldenGate Distribution Server, GoldenGate Manager, GoldenGate Performance Metric Server, and GoldenGate Receiver Server.

**Table 1-368 Supported Status and Performance Metrics for GoldenGate Process**

Metric Group	Category	Name	Unit	Description
Process Performance	Load	Read I/O Rate	MB/sec	Average number of read I/O per second between last two collections
Process Performance	Load	Write I/O Rate	MB/sec	Average number of write I/O per second between last two collections
Process Performance	Utilization	CPU Utilization	%	Percentage of total CPU time used
Process Performance	Load	Private Memory Size	GB	Amount of private memory used by the process
Process Performance	.	Interval	sec	Interval of metric collection

**Table 1-368 (Cont.) Supported Status and Performance Metrics for GoldenGate Process**

Metric Group	Category	Name	Unit	Description
Packet Statistics	Load	Dropped Packet Rate	per sec	Average amount of dropped packets per second by the process since the last collection interval
Packet Statistics	Load	Missing Packet Rate	per sec	Average amount of missing packets per second by the process since the last collection interval
Packet Statistics	Error	Error Packet Rate	per sec	Average amount of error packets per second by the process since the last collection interval
Packet Statistics	Load	Packet Receive Rate	per sec	Average amount of received packets per second by the process since the last collection interval
Packet Statistics	.	Interval	sec	Interval of metric collection

## Oracle GoldenGate Receiver Server

No metrics are defined for this entity type. All metrics are inherited from parent entities.

**Table 1-369 Supported Configuration Metrics for Target**

Metric Group	Name	Unit	Description
Product	Vendor	NA	Vendor of the product
Product	Product	NA	Name of the product
Product	Version	NA	Version of the product

**Table 1-370 Supported Status and Performance Metrics for GoldenGate Process**

Metric Group	Category	Name	Unit	Description
Process Performance	Load	Read I/O Rate	MB/sec	Average number of read I/O per second between last two collections

**Table 1-370 (Cont.) Supported Status and Performance Metrics for GoldenGate Process**

Metric Group	Category	Name	Unit	Description
Process Performance	Load	Write I/O Rate	MB/sec	Average number of write I/O per second between last two collections
Process Performance	Utilization	CPU Utilization	%	Percentage of total CPU time used
Process Performance	Load	Private Memory Size	GB	Amount of private memory used by the process
Process Performance	.	Interval	sec	Interval of metric collection
Packet Statistics	Load	Dropped Packet Rate	per sec	Average amount of dropped packets per second by the process since the last collection interval
Packet Statistics	Load	Missing Packet Rate	per sec	Average amount of missing packets per second by the process since the last collection interval
Packet Statistics	Error	Error Packet Rate	per sec	Average amount of error packets per second by the process since the last collection interval
Packet Statistics	Load	Packet Receive Rate	per sec	Average amount of received packets per second by the process since the last collection interval
Packet Statistics	.	Interval	sec	Interval of metric collection

**Table 1-371 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

# Oracle GoldenGate Replicat

**Table 1-372 Supported Status and Performance Metrics for GoldenGate Replication**

Metric Group	Category	Name	Unit	Description
Replicat Position	Response	Lag	sec	The true lag between the Oracle GoldenGate Replicat and its data source
Replicat Position	Load	Operations Rate	ops/sec	The total of DML (insert, update, delete), DDL (table definition) and truncate changes per second
Replicat Position	.	Last Operation Time	NA	The time when an operation was committed in the data source, as recorded in the transaction log
Replicat Position	.	Last Checkpoint Time	NA	The time when the last checkpoint was written by the Oracle GoldenGate process
Replicat Position	.	Checkpoint Position	NA	Composite representation of the checkpoints that were persisted to disk most recently
Replicat Position	.	End Of File	boolean	Shows we reached the end of the input from its data source
Replicat Position	.	Interval	sec	Interval of metric collection
Table Statistics	.	Table Name	NA	Table name
Table Statistics	.	Target Table Name	NA	Target table name
Table Statistics	Load	Insert Rate	per sec	Insert operations performed per second
Table Statistics	Load	Update Rate	per sec	Update operations performed per second

**Table 1-372 (Cont.) Supported Status and Performance Metrics for GoldenGate Replication**

Metric Group	Category	Name	Unit	Description
Table Statistics	Load	Delete Rate	per sec	Delete operations performed per second
Table Statistics	Load	Truncate Rate	per sec	Truncate operations performed per second
Table Statistics	Error	Ignore Rate	per sec	Number of errors ignored per second
Table Statistics	Error	Discard Rate	per sec	Number of operations discarded per second
Table Statistics	Interval	sec	Interval of metric collection	

**Table 1-373 Supported Status and Performance Metrics for GoldenGate Process**

Metric Group	Category	Name	Unit	Description
Process Performance	Load	Read I/O Rate	MB/sec	Average number of read I/O per second between last two collections
Process Performance	Load	Write I/O Rate	MB/sec	Average number of write I/O per second between last two collections
Process Performance	Utilization	CPU Utilization	%	Percentage of total CPU time used
Process Performance	Load	Private Memory Size	GB	Amount of private memory used by the process
Process Performance	.	Interval	sec	Interval of metric collection
Packet Statistics	Load	Dropped Packet Rate	per sec	Average amount of dropped packets per second by the process since the last collection interval
Packet Statistics	Load	Missing Packet Rate	per sec	Average amount of missing packets per second by the process since the last collection interval



**Table 1-373 (Cont.) Supported Status and Performance Metrics for GoldenGate Process**

Metric Group	Category	Name	Unit	Description
Packet Statistics	Error	Error Packet Rate	per sec	Average amount of error packets per second by the process since the last collection interval
Packet Statistics	Load	Packet Receive Rate	per sec	Average amount of received packets per second by the process since the last collection interval
Packet Statistics	.	Interval	sec	Interval of metric collection

## Oracle GoldenGate Service Manager

No metrics are defined for this entity type. All metrics are inherited from parent entities.

**Table 1-374 Supported Configuration Metrics for Target**

Metric Group	Name	Unit	Description
Product	Vendor	NA	Vendor of the product
Product	Product	NA	Name of the product
Product	Version	NA	Version of the product

**Table 1-375 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Oracle HTTP Server

**Table 1-376 Supported Configuration Metrics for Oracle HTTP Server**

Metric Group	Name	Unit	Description
Virtual Hosts	IP Address	N/A	IP address of the Virtual Host
Virtual Hosts	Port	N/A	Port of the Virtual Host
Virtual Hosts	Server Name	N/A	Server Name of the Virtual Host
Virtual Hosts	Server Type	N/A	Server Type of the Virtual Host
Listen Addresses	IP Address	N/A	IP address of the Listening Server
Listen Addresses	Port	N/A	Port of the Listening Server
Listen Addresses	Protocol	N/A	Connection protocol for the Listening Server

**Table 1-376 (Cont.) Supported Configuration Metrics for Oracle HTTP Server**

Metric Group	Name	Unit	Description
Configuration Overview	Maximum Clients	N/A	Maximum number of server processes allowed to run at one time
Configuration Overview	Maximum Requests Per Child	N/A	Total number of requests each child server process serves before the child dies
Configuration Overview	Maximum Spare Servers	N/A	Maximum number of Spare Server Processes
Configuration Overview	Minimum Spare Servers	N/A	Minimum number of Spare Server Processes
Configuration Overview	Start Servers	N/A	Number of server processes created upon startup
Configuration Overview	Timeout	sec	Amount of time the server waits for receipts and transmissions during communications
Configuration Overview	Listen Backlog	N/A	Maximum length of the queue of pending connection
Configuration Overview	Keep Alive	N/A	Indicates if server allows more than one request per connection (ON) or not (OFF)
Configuration Overview	Maximum Keep Alive Requests	N/A	Maximum number of requests allowed per persistent connection
Configuration Overview	Keep Alive Timeout	sec	Wait time for the server after serving a request
Configuration Overview	SSL Session Cache Timeout	sec	Timeout for the information stored in the global/ inter-process SSL Session Cache
Configuration Overview	Hostname Lookups	N/A	Indicates whether DNS Lookups are enabled on client IP address (ON) or not (OFF)
Configuration Overview	Log Level	N/A	Level Detail of the Error Logs ( emerg, alert, crit, error, warn, notice, info or debug )

**Table 1-377 Supported Status and Performance Metrics for Oracle HTTP Server**

Metric Group	Category	Name	Unit	Description
Performance Overview	Load	Response Data Throughput	KB/sec	Size of data served per second since the last collection
Performance Overview	Load	Busy Processes	%	Percentage of busy processes
Performance Overview	Load	Busy Workers	%	Percentage of busy workers
Performance Overview	Load	Active HTTP Connections	N/A	Total number of active HTTP connections since the last collection
Performance Overview	Load	Active Requests	N/A	Total number of active requests since the last collection
Performance Overview	Load	Error Rate	errors/sec	Error Rate of the server since the last collection
Virtual Host Performance	N/A	Name	N/A	Name of the virtual server

**Table 1-377 (Cont.) Supported Status and Performance Metrics for Oracle HTTP Server**

Metric Group	Category	Name	Unit	Description
Virtual Host Performance	Load	Response Data Throughput	KB/sec	Size of data served per second since the last collection
Virtual Host Performance	Response	Request Processing Time	sec	Average time taken to process a request since the last collection
Virtual Host Performance	Load	Request Throughput	reqs/sec	Number of requests processed per second since the last collection.

**Table 1-378 Supported Status and Performance Metrics for Web Application Server**

Metric Group	Category	Name	Unit	Description
Web Requests	Load	Web Request Processing Time	ms	Average processing time per web request since the last collection
Web Requests	N/A	Web Request Rate	ops/min	Number of web requests per minute since the last collection
Web Application Component	Load	Open HTTP Sessions	N/A	Current total number of open HTTP sessions for all the web applications on this web application server

**Table 1-379 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-380 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

# Oracle Identity Manager

**Table 1-381 Supported Configuration Metrics for Oracle Identity Manager**

Metric Group	Name	Unit	Description
Oracle Identity Manager Association Configuration	OIM HostName	NA	OIM HostName
Oracle Identity Manager Association Configuration	OIM Port	NA	OIM Port
Oracle Identity Manager Association Configuration	Database HostName	NA	Database HostName
Oracle Identity Manager Association Configuration	Database Port	NA	Database Port
Oracle Identity Manager Association Configuration	Database Service Name	NA	Database Service Name
Oracle Identity Manager Association Configuration	SOA HostName	NA	SOA HostName
Oracle Identity Manager Association Configuration	SOA Port	NA	SOA Port
Oracle Identity Manager Association Configuration	Access server HostName	NA	Access server HostName
Oracle Identity Manager Association Configuration	Access server Port	NA	Access server Port

**Table 1-382 Supported Status and Performance Metrics for Oracle Identity Manager**

Metric Group	Category	Name	Unit	Description
Events Handler	.	Event Name	NA	Event Name
Events Handler	Response	Average Events Execution Time	ms	Average Events Execution Time
Adapters	.	Adapter Name	NA	Adapter Name
Adapters	Response	Average Adapter Execution Time	ms	Average Adapter Execution Time
OIM Self Registration	Load	Total Self Registration requests	NA	Total no. of Self Registration requests
OIM Self Registration	Load	Time taken to submit a self registration request (API time)	ms	Time taken to submit a self registration request (API time)

**Table 1-382 (Cont.) Supported Status and Performance Metrics for Oracle Identity Manager**

Metric Group	Category	Name	Unit	Description
OIM Self Registration	Load	Self Registration Requests Failed	per sec	No. of Self Registration Requests Failed per sec in Last Collection
OIM Self Registration	Load	Self Registration Requests Succeeded	per sec	No. of Self Registration Requests Succeeded per sec in Last Collection
OIM Orchestration	.	Name	NA	Name
OIM Orchestration	Response	Average Time Taken to Process	ms	Average Time Taken to Process (ms)
OIM Orchestration	Load	Completed Orchestration Operations	per sec	Completed Orchestration Operations per second
OIM Job Metric	.	Job Name	NA	Job Name
OIM Job Metric	Load	Active Jobs	NA	Number of Active Jobs
OIM Job Metric	Load	Average Time for Job Completion	ms	Average Time for Job Completion (ms)
OIM Job Metric	Load	Completed Jobs	per sec	Number of Completed Jobs per sec in Last Collection
OIM Job Metric	Load	Number of Failed Jobs per sec in Last Collection	per sec	Number of Failed Jobs per sec in Last Collection
JMS Queue	.	Message Name	NA	Message Name
JMS Queue	Response	Average Processing Time	ms	Average Processing Time (ms)
Executions and Messages	.	Adapter Executions	per sec	Adapter Executions per second in last collection
Executions and Messages	.	Events Handler Executions	per sec	Events Handler Executions per second in last collection
Executions and Messages	.	JMS Messages	per sec	JMS Messages per second in last collection
SPML Web Services	.	Web Service Name	NA	Web Service Name

**Table 1-382 (Cont.) Supported Status and Performance Metrics for Oracle Identity Manager**

Metric Group	Category	Name	Unit	Description
SPML Web Services	Response	Average Response Time	ms	Average Response Time (ms)
Resource Usage		Memory Utilization	KB	Memory Utilization in KB
Resource Usage	Utilization	Memory Utilization	%	Memory Utilization (%)
Resource Usage	Utilization	CPU Utilization	%	CPU Utilization (%)

## Oracle Infiniband Switch

**Table 1-383 Supported Configuration Metrics for Oracle Infiniband Switch**

Metric Group	Name	Unit	Description
Subnet Manager Details	Subnet Manager IP Address	N/A	Subnet Manager IP Address
Subnet Manager Details	Subnet Manager LID	N/A	Subnet Manager Hosting HCA LID
Subnet Manager Details	Subnet Manager GUID	N/A	Subnet Manager Hosting HCA GUID
Summary Details	Part Number	N/A	The switch part number
Summary Details	Serial Number	N/A	The switch serial number
Summary Details	Model	N/A	The switch model
Summary Details	Architecture	N/A	The switch architecture
Network Management Interface	IP Address	N/A	The switch IP address
Network Management Interface	Physical Address	N/A	The switch physical address
Network Port Details	Port Name	N/A	Port name
Network Port Details	Port Physical Address	N/A	Port physical address
Network Port Details	Port Type	N/A	Port type
Network Port Details	Peer Port Physical Address	N/A	Peer port physical address
Network Port Details	Peer Port Type	N/A	Peer port type
Network Port Details	Media Type	N/A	Port media type
Component Details	Name	N/A	Component name
Component Details	Manufacturer	N/A	Component manufacturer
Component Details	Model	N/A	Component model

**Table 1-384 Supported Configuration Metrics for Generic Physical Switch**

Metric Group	Name	Unit	Description
Summary Details	Part Number	NA	The switch part number,
Summary Details	Serial Number	NA	The switch serial number,

**Table 1-384 (Cont.) Supported Configuration Metrics for Generic Physical Switch**

Metric Group	Name	Unit	Description
Summary Details	Model	NA	The switch model,
Summary Details	Architecture	NA	The switch architecture,
Network Management Interface	IP Address	NA	The switch IP address,
Network Management Interface	Physical Address	NA	The switch physical address,
Network Port Details	Port Name	NA	The port name
Network Port Details	Port Physical Address	NA	The port physical address
Network Port Details	Port Type	NA	The port type/
Network Port Details	Port MTU	NA	The port MTU.
Network Port Details	Port Bandwidth	Mbps	An estimate of the interface's current bandwidth.
Network Port Details	Peer Port Physical Address	NA	Peer port physical address,
Network Port Details	Peer Port Type	NA	Peer port type,
Network Port Details	Media Type	NA	Port media type,
Component Details	Name	NA	Component name,
Component Details	Manufacturer	NA	Component manufacturer,
Component Details	Model	NA	Component model,

**Table 1-385 Supported status and performance Metrics for Oracle Infiniband Switch**

Metric Group	Category	Name	Unit	Description
Subnet Manager State	Availability	Subnet Manager State	N/A	Subnet Manager State
Subnet Manager State	Load	Subnet Manager Priority	N/A	Subnet Manager Priority
Subnet Manager State	Load	Subnet Manager Activity Count	N/A	Subnet Manager Activity Count
Switch ports free/used	Capacity	Ports Free	N/A	The unplugged ports
Switch ports free/used	Capacity	Ports Used	N/A	The plugged ports
Network Port Statistics	configuration	Port Name	N/A	Port name
Network Port Statistics	Availability	Port Status	N/A	Port status
Network Port Statistics	Utilization	Inbound Octets Rate	bytes/sec	Inbound octets rate
Network Port Statistics	Utilization	Outbound Octets Rate	bytes/sec	Outbound octets rate
Network Port Statistics	Utilization	Total Octets Rate	bytes/sec	Total octets rate

**Table 1-385 (Cont.) Supported status and performance Metrics for Oracle Infiniband Switch**

Metric Group	Category	Name	Unit	Description
Component State	Configuration	Name	N/A	Component name
Component State	Availability	State	N/A	Component state

**Table 1-386 Supported Status and Performance Metrics for Generic Physical Switch**

Metric Group	Category	Name	Unit	Description
Switch ports free vs used	Capacity	Ports Free	NA	The unused ports.
Switch ports free vs used	Capacity	Ports Used	NA	The ports in use.
Switch ports free vs used	Capacity	Ports Count	NA	The total number of physical network ports
Switch ports free vs used	Utilization	Ports Occupation Ratio	%	The percentage of network ports actually used.
Network Port Statistics		Port Name	NA	Port name
Network Port Statistics	Availability	Port Status	NA	Port status
Network Port Statistics	Availability	Port Administrative Status	NA	The port administrative status.
Network Port Statistics	Load	Inbound Octets Rate	bytes/sec	Inbound octets rate,
Network Port Statistics	Utilization	Inbound Bandwidth Usage	%	The percentage of bandwidth used by incoming traffic.
Network Port Statistics	Load	Outbound Octets Rate	bytes/sec	Outbound octets rate
Network Port Statistics	Utilization	Outbound Bandwidth Usage	%	The percentage of bandwidth used by outgoing traffic.
Network Port Statistics	Load	Total Octets Rate	bytes/sec	Total octets rate
Network Port Statistics	Error	Inbound Discard Ratio	%	The percentage of incoming packets discarded.
Network Port Statistics	Error	Outbound Discard Ratio	%	The percentage of outgoing packets which are discarded.
Network Port Statistics	Error	Inbound Error Ratio	%	The percentage of invalid incoming packets (undersized, oversized, or have FCS errors).



**Table 1-386 (Cont.) Supported Status and Performance Metrics for Generic Physical Switch**

Metric Group	Category	Name	Unit	Description
Network Port Statistics	Error	Outbound Error Ratio	%	The percentage of invalid outgoing packets (undersized, oversized, or have FCS errors).
Network Port Statistics		Interval	sec	Interval of metric collection in seconds.
Component State		Name	NA	Component name
Component State	Availability	State	NA	Component state

## Oracle Internet Directory

There are no specific metrics for Oracle Internet Directory. All status, performance and configuration metrics are inherited from a parent entity as listed below.

**Table 1-387 Supported Configuration Metrics for LDAP Server**

Metric Group	Name	Unit	Description
General Configurations	Server Mode	NA	
General Configurations	Maximum entries to be returned by a search	NA	
General Configurations	Maximum time allowed for a search to complete (second)	sec	
General Configurations	Anonymous Bind	NA	
General Configurations	Dump Flag	NA	
General Configurations	SSL Interoperability Mode	NA	
General Configurations	LDAP Host	NA	
General Configurations	LDAP SSL Port	NA	
General Configurations	LDAP Non-SSL Port	NA	

**Table 1-388 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity

**Table 1-388 (Cont.) Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-389 Supported Status and Performance Metrics for LDAP Server**

Metric Group	Category	Name	Unit	Description
LDAP Server Resource Usage		Memory Utilization	KB	
LDAP Server Resource Usage		CPU Utilization	%	
LDAP Server Resource Usage		Memory Utilization	%	
LDAP Operations Profile		Completed Bind Operations	ops/sec	
LDAP Operations Profile		Completed Add Operations	ops/sec	
LDAP Operations Profile		Completed Delete Operations	ops/sec	
LDAP Operations Profile		Completed Modify Operations	ops/sec	
LDAP Operations Profile		Completed Search Operations	ops/sec	
LDAP Operations Profile		Completed Compare Operations	ops/sec	
LDAP Operations Profile		Completed Abandon Operations	ops/sec	
LDAP Operations Profile		Completed Unbind Operations	ops/sec	
LDAP Operations Profile		Completed Modrdn Operations	ops/sec	
LDAP Operations Profile		Total Operations	ops/sec	
LDAP Operations Profile		Failed Bind Operations	ops/sec	
LDAP Operation Response Time		Bind Operation Response Time	ms	
LDAP Operation Response Time		Compare Operation Response Time	ms	
LDAP Operation Response Time		Messaging Search Operation Response Time	ms	

**Table 1-390 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

## Oracle JVM Runtime

Metrics for Oracle JVM Runtime

**Table 1-391 Supported Configuration Metrics for JVM Runtime**

Metric Group	Name	Unit	Description
JVM Configuration	JVM Application Class Name	NA	Name of the application running in the JVM
JVM Configuration	JVM Command Line Arguments	NA	Command line arguments for JVM application
JVM Configuration	Maximum Heap Size	GB	Maximum heap size configured
JVM Configuration	Operating System Name	NA	Name of the operating system
JVM Configuration	Operating System Version	NA	Version of the operating system
JVM Configuration	Java Vendor	NA	The company that created this java implementation.
JVM Configuration	Java Version	NA	The version of this java implementation.

**Table 1-392 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-393 Supported Status and Performance Metrics for JVM Runtime**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
JVM Memory Usage	Load	Heap Usage	GB	Current size of the JVM memory heap in GB
JVM Memory Usage	Utilization	Heap Utilization	%	Current size of the JVM memory heap in percent
JVM Memory Usage	Load	Non-Heap Memory Usage	GB	Current size of the JVM non-heap memory in GB
JVM Memory Usage	Utilization	Non-Heap Memory Utilization	%	Current size of the JVM non-heap memory in percent
JVM Memory Usage	Load	Old-Heap Memory Usage	GB	Current size of the JVM old-heap memory in GB
JVM Memory Usage	Utilization	Old-Heap Memory Utilization	%	Current size of the JVM old-heap memory in percent
JVM Memory Usage	Load	Young-Heap Memory Usage	GB	Current size of the JVM young-heap memory in GB
JVM Memory Usage	Utilization	Young-Heap Memory Utilization	%	Current size of the JVM young-heap memory in percent
Threads	Load	Active Threads	NA	The number of active threads running in JVM
JVM Garbage Collection	Garbage Collector Name	NA	Name of the Garbage Collector	
JVM Garbage Collection	Load	Heap Usage After GC	GB	Heap memory after garbage collection
JVM Garbage Collection	Utilization	Heap Utilization After GC	%	Heap memory used as a percentage of maximum heap memory after garbage collection
JVM Garbage Collection	Load	Heap Memory Reclaimed After GC	GB	Heap memory reclaimed after garbage collection
JVM Garbage Collection	Load	Max Heap After GC	GB	Maximum heap memory after garbage collection in GB, that can be used by Java virtual machine for memory management

**Table 1-393 (Cont.) Supported Status and Performance Metrics for JVM Runtime**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
JVM Garbage Collection	Load	Committed Heap After GC	GB	Committed heap memory after garbage collection in GB. Committed memory is guaranteed to be available for use by the Java virtual machine.
JVM Garbage Collection	Load	Non-Heap Usage After GC	GB	Non-heap memory usage after garbage collection
JVM Garbage Collection	Load	Non-Heap Memory Reclaimed After GC	GB	Non-Heap memory reclaimed after garbage collection
JVM Garbage Collection	Load	Old Heap Size After GC	GB	Size in GB of the old generation heap after garbage collection
JVM Garbage Collection	Utilization	Old Heap Utilization After GC	%	Percentage of the old generation heap that is free after garbage collection
JVM Garbage Collection	Load	Old Heap Memory Reclaimed After GC	GB	Old Heap memory reclaimed after garbage collection
JVM Garbage Collection	Response	Garbage Collection Execution Time	ms	The average time in milliseconds per garbage collector invocation during the last collection interval.
JVM Garbage Collection	Load	Garbage Collection Throughput	ops/min	The average rate at which garbage collection ran during the last collection interval.
JVM Garbage Collection	Utilization	Garbage Collection Overhead	%	The percentage of time spent in garbage collection during the last collection interval.
JVM Garbage Collection Rollup	Response	Avg GC Execution Time	ms	The average time in milliseconds per garbage collector invocation across all garbage collectors.

**Table 1-393 (Cont.) Supported Status and Performance Metrics for JVM Runtime**

Metric Group	Category	Name	Unit	Description
JVM Garbage Collection Rollup	Response	GC Collection Overhead	%	The percentage of time spent in garbage collection during the last collection interval across all garbage collectors.
JVM Garbage Collection Rollup	Load	Avg GC Throughput	ops/min	The average rate at which garbage collection ran during the last collection interval across all garbage collectors

**Table 1-394 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

## Oracle NoSQL

**Table 1-395 Supported Configuration Metrics for Oracle NoSQL Database**

Metric Group	Name	Unit	Description
Storage Node Configuration	Storage Node	N/A	Storage Node
Storage Node Configuration	Storage Node Identifier	N/A	Storage Node Identifier
Storage Node Configuration	Storage capacity	N/A	Capacity to run multiple replication nodes
Storage Node Configuration	Allocated CPUs	N/A	CPU allocated to the storage node
Store Configuration	Total Capacity	N/A	Total capacity of replication nodes in the store

**Table 1-395 (Cont.) Supported Configuration Metrics for Oracle NoSQL Database**

Metric Group	Name	Unit	Description
Store Configuration	Storage Nodes	N/A	Total number of storage nodes in the store
Store Configuration	Total Partitions	N/A	Total partitions of the store
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-396 Supported Status and Performance Metrics for Oracle NoSQL database**

Metric Group	Category	Name	Unit	Description
omc_nosqlNodeCPU	Load	Storage Node	N/A	Storage Node
omc_nosqlNodeCPU	Load	Storage Node Identifier	N/A	Storage Node Identifier
omc_nosqlNodeCPU	Load	CPU Load	N/A	CPU Load for the storage node
omc_nosqlNodeCPU	Utilization	CPU Usage	sec	All CPUs usage during the interval by the storage node
omc_nosqlNodeCPU	Utilization	CPU Utilization	%	Percentage of CPU that was utilized by the storage node
omc_nosqlNodeMemory	Utilization	Storage Node	N/A	Storage Node
omc_nosqlNodeMemory	Utilization	Storage Node Identifier	N/A	Storage Node Identifier
omc_nosqlNodeMemory	Capacity	Heap Memory Allocated	GB	Amount of heap memory allocated for the storage node
omc_nosqlNodeMemory	Capacity	Non-heap Memory Allocated	GB	Amount of non-heap memory allocated for the storage node
omc_nosqlNodeMemory	Utilization	Heap Memory Used	GB	Amount of heap memory used by the storage node
omc_nosqlNodeMemory	Utilization	Non-heap Memory Used	GB	Amount of non-heap memory used by the storage node
Storage Nodes Status	Availability	Storage Node	N/A	Storage Node
Storage Nodes Status	Availability	Storage Node Id	N/A	Storage Node Identifier
Storage Nodes Status	Availability	Storage Node Status	N/A	Storage Node status
Replication Nodes Performance	Response	Storage Node	N/A	Storage Node
Replication Nodes Performance	Response	Replication Node	N/A	Replication Node

**Table 1-396 (Cont.) Supported Status and Performance Metrics for Oracle NoSQL database**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Replication Nodes Performance	Response	Replication Node Latency	ms	Latency in replication node
Replication Nodes Performance	Response	Replication Node commit lag	ms	Average commit lag for update operations in the replication node
Replication Nodes Performance	Load	Singleton Throughput	ops/sec	Singleton operations per second in the replication node
Replication Nodes Performance	Load	Multi-operations Throughput	ops/sec	Multi-operations sequences per second in the replication node
Replication Nodes Performance	Load	Replication Node Requests	reqs/sec	Requests per second in the replication node
Store Performance	Response	Latency	ms	Average Latency of the store
Store Performance	Load	Requests Rate	reqs/sec	Number of requests per second in the store
Store Performance	Load	Operations Rate	ops/sec	Number of requests per second in the store
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	Utilization	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-397 Supported Status and Performance Metrics for Relational Database**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Storage Space Usage	Capacity	Storage Space Allocated	GB	Storage space allocated in GB
Storage Space Usage	Utilization	Storage Space Utilization	%	Percent of storage space utilized
Storage Space Usage	Load	Space Used	GB	Storage space used in GB



Table 1-397 (Cont.) Supported Status and Performance Metrics for Relational Database

Metric Group	Category	Name	Unit	Description
Load	Load	Logons	N/A	The number of logons during the last collection interval
Load	N/A	Logons Rate	logons/sec	Number of logons per second during the last collection interval
Load	N/A	Transactions	N/A	Number of transactions during the last collection interval
Load	N/A	Transaction Rate	txns/sec	Number of transactions per second during the last collection interval
Load	N/A	Executions	N/A	Number of executions during the last collection interval
Load	N/A	Executions Rate	executions/sec	Number of executions per second during the last collection interval
Load	N/A	Network I/O	bytes	Number of bytes sent and received over the network during the last collection interval
Load	N/A	Network I/O Rate	bytes/sec	Network I/O in bytes per second during the last collection interval
Top SQL Executions	Load	SQL ID	N/A	Unique identifier for the SQL statement
Top SQL Executions	N/A	Top SQL Text	N/A	SQL text of the top-ranked SQL queries
Top SQL Executions	Response	Executions Count	N/A	Execution Count of the top-ranked SQL queries
Top SQL Executions	N/A	Total Elapsed Time	ms	Total time used to execute the SQL statement. This includes CPU time and wait time
I/O Per Second	Load	I/O Per Second	IOPS	I/O per second
I/O Per Second	N/A	I/O Bandwidth Usage	MB/sec	I/O bandwidth usage during the last collection interval
Instance CPU	Configuration	Instance Name	N/A	RDB Instance
Instance CPU	N/A	Host Name	N/A	Host name of the instance

**Table 1-397 (Cont.) Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Instance CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval for this instance
Instance CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized in this instance
Instance CPU	N/A	Interval	sec	Interval of metric collection
Instance Memory Usage	Configuration	Instance Name	N/A	RDB instance
Instance Memory Usage	N/A	Host Name	N/A	Host name of the instance
Instance Memory Usage	Load	Instance Memory Usage	GB	Memory used in GB
Instance Memory Usage	Utilization	Memory Utilization	%	Percentage of memory that is utilized in this instance
Instance Memory Usage	N/A	Interval	sec	Interval of metric collection
I/O Per Second Instance Level	Configuration	Instance Name	N/A	RDB instance
I/O Per Second Instance Level	N/A	Host Name	N/A	Host name of the instance
I/O Per Second Instance Level	Load	I/O Per Second	IOPS	I/O per second for this instance
I/O Per Second Instance Level	N/A	I/O bandwidth usage during the last collection interval for this instance	MB/sec	I/O bandwidth usage during the last collection interval for this instance

**Table 1-398 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-399 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Oracle PeopleSoft

- [PeopleSoft Application Server Domain](#)
- [PeopleSoft PIA](#)
- [PeopleSoft Process Monitor](#)
- [PeopleSoft Process Scheduler Domain](#)
- [PeopleSoft System](#)

## PeopleSoft Application Server Domain

**Table 1-400 Supported Status and Performance Metrics for PeopleSoft Application Server Domain**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	NA	Status of the target
PeopleSoft Health and Load	Load	Health	NA	Overall health of the application server domain (OK, Warn, Critical)
PeopleSoft Health and Load	Load	Load	NA	Overall load of the application server domain (Idle, Light, Medium, Heavy)
PeopleTools State Files	Load	State Files	NA	PeopleTools state files generated in the domain logs directory
Memory Usage	Load	Memory Usage	GB	Memory used by the application server
Total Tuxedo Connections	Load	Tuxedo Connections	NA	Tuxedo connections
Queued Processes	Load	Queued Processes for Application Server	NA	Queued processes for application server
Queued Processes	Load	Queued Processes for BRK Dispatcher	NA	Queued processes for publication broker dispatcher

**Table 1-400 (Cont.) Supported Status and Performance Metrics for PeopleSoft Application Server Domain**

Metric Group	Category	Name	Unit	Description
Queued Processes	Load	Queued Processes for BRK Handler	NA	Queued processes for publication broker handler
Queued Processes	Load	Queued Processes for PUB Dispatcher	NA	Queued processes for publication contractor dispatcher
Queued Processes	Load	Queued Processes for PUB Handler	NA	Queued processes for publication contractor handler
Queued Processes	Load	Queued Processes for SUB Dispatcher	NA	Queued processes for subscription contractor dispatcher
Queued Processes	Load	Queued Processes for SUB Handler	NA	Queued processes for subscription contractor handler
Queue Status	Load	Program Name	NA	Application server program name
Queue Status	Load	Queue Name	NA	Queue name
Queue Status	Load	Servers	NA	Servers for the Program Name that are currently running
Queue Status	Load	Queued Processes	NA	Processes that are currently in queue
Queue Status	Load	Machine Name	NA	Machine name
Client Status	Load	Row ID	NA	Row identifier counter
Client Status	Load	Machine Name	NA	Machine name
Client Status	Load	User Name	NA	User name
Client Status	Load	Client Name	NA	Client name
Client Status	Load	Time	sec	Time in seconds that particular user has been active
Client Status	Load	Status	NA	Current status of the client
Client Status	Load	Transaction Creation Rate	txns/sec	Transactions created per second since last collection

**Table 1-400 (Cont.) Supported Status and Performance Metrics for PeopleSoft Application Server Domain**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Client Status	Load	Transaction Commit Rate	txns/sec	Transactions committed per second since last collection
Client Status	Load	Transaction Abort Rate	txns/sec	Transactions aborted per second since last collection
Server Status	Load	Program Name	NA	Application server program name
Server Status	Load	Queue Name	NA	Queue name
Server Status	Load	Group Name	NA	Group name
Server Status	Load	ID	NA	ID
Server Status	Load	Request Throughput	reqs/sec	Requests processed per second since last collection
Server Status	Load	Load Throughput	per sec	Load processed per second since last collection
Server Status	Load	Status	NA	Status
Failed Server Processes	Error	Failed Server Processes	NA	Server processes that have failed or are down within the domain
Service Request Executions	Response	Service Request Execution Throughput	reqs/sec	Service request execution throughput (requests per second) based on last 10 requests
Service Request Executions	Load	Average Service Request Execution Time	ms	Average service request execution time in milliseconds
JSH and WSH Performance	Load	JSH Load Rate	txns/sec	JSHs loaded per second since last collection
JSH and WSH Performance	Error	JSH Abort Rate	txns/sec	JSH aborts per second since last collection
JSH and WSH Performance	Load	WSH Load Rate	txns/sec	WSHs loaded per second since last collection
JSH and WSH Performance	Error	WSH Abort Rate	txns/sec	WSH aborts per second since last collection

## PeopleSoft PIA

There are no configuration metrics for PeopleSoft PIA.

**Table 1-401 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	NA	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-402 Supported Status and Performance Metrics for PeopleSoft PIA**

Metric Group	Category	Name	Unit	Description
PeopleSoft Health and Load	Load	Health	NA	Overall health of the PIA (OK, Warn, Critical)
PeopleSoft Health and Load	Load	Load	NA	Overall load of the PIA (Idle, Light, Medium, Heavy)
Wait State Sockets	Load	Wait State Sockets	NA	Web server sockets that are in WAIT state
Fatal Errors	Error	Fatal Errors	NA	Fatal errors in the JOLTService servlet logs

**Table 1-403 Supported Status and Performance Metrics for Web Application Server**

Metric Group	Category	Name	Unit	Description
Web Requests	Response	Web Request Processing Time	ms	Average processing time per web request since the last collection.
Web Requests	Load	Web Request Rate	ops/min	Number of web requests per minute since the last collection.
Web Application Component	Load	Open HTTP Sessions	NA	Current total number of open http sessions for all the web applications on this web application server.

**Table 1-404 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	Utilization	CPU Utilization	%	Percentage of CPU that was utilized
CPU	.	Interval	sec	Interval of metric collection
Physical Memory	Load	Memory Usage	GB	Physical Memory used in GB
Physical Memory	Utilization	Memory Utilization	%	Percentage of physical memory that is utilized
Physical Memory	.	Interval	sec	Interval of metric collection

## PeopleSoft Process Monitor

**Table 1-405 Supported Status and Performance Metrics for PeopleSoft Process Monitor**

Metric Group	Category	Name	Unit	Description
Active Distribution State	Load	Active Distribution State	NA	Active distribution state
Active Distribution State	Load	Processes	NA	Identifies the number of PSFT processes with an active distribution state value of Processing, Not Posted, Posting or Pending
Distribution Status	Load	Distribution Status	NA	Process distribution status
Distribution Status	Load	Process Distribution Rate	ops/min	Identifies the number of PSFT processes with a distribution status value of Generated or Posted per minute since the last collection
Active Run State	Load	Active Run State	NA	PS processes run state

**Table 1-405 (Cont.) Supported Status and Performance Metrics for PeopleSoft Process Monitor**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Active Run State	Load	Processes	NA	Identifies the number of PSFT processes with an active run state value of Cancel, Hold, Initiated, No Success, Pending, Processing, Queued, Restart or Warning
Run Status	Load	Run Status	NA	PSFT processes run status
Run Status	Load	Process Run Rate	ops/min	Identifies the number of PSFT processes with a run status value of Cancelled, Error or Success per minute since the last collection
Process Metrics Data	Error	Process Instance	NA	Process instance
Process Metrics Data	Error	Process Type	NA	Process type
Process Metrics Data	Error	Process Name	NA	Process name
Process Metrics Data	Error	User Name	NA	User name
Process Metrics Data	Error	Creation Date/Time	NA	Creation Date/Time
Process Metrics Data	Error	Scheduled Date/Time	NA	Scheduled Date/Time
Process Metrics Data	Error	Begin Date/Time	NA	Begin Date/Time
Process Metrics Data	Error	End Date/Time	NA	End Date/Time
Process Metrics Data	Error	Run Duration	sec	Run Duration
Process Metrics Data	Error	Run Status	NA	Run status
Process Metrics Data	Error	Distribution Status	NA	Distribution status
Process Metrics Data	Error	Run Control ID	NA	Run control identifier
Process Metrics Data	Error	Server Name	NA	Name of the server



## PeopleSoft Process Scheduler Domain

There are no configuration metrics for PeopleSoft Process Scheduler Domain.

**Table 1-406 Supported Status and Performance Metrics for PeopleSoft Process Scheduler Domain**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	NA	Status of the target
PeopleSoft Health and Load	Load	Health	NA	Overall health of the Process Scheduler Domain (OK, Warn, Critical)
PeopleSoft Health and Load	Load	Load	NA	Overall load of the Process Scheduler Domain (Idle, Light, Medium, Heavy)
Server Status	Load	Program Name	NA	Process scheduler program name
Server Status	Load	Queue Name	NA	Queue name
Server Status	Load	Group Name	NA	Group name
Server Status	Load	ID	NA	ID
Server Status	Load	Request Throughput	reqs/sec	Requests processed per second since last collection
Server Status	Load	Load Throughput	per sec	Load processed per second since last collection
Server Status	Load	Status	NA	Status
Queue Status	Load	Program Name	NA	Process scheduler program name
Queue Status	Load	Queue Name	NA	Queue name
Queue Status	Load	Servers	NA	Servers for the Program Name that are currently running
Queue Status	Load	Queued Processes	NA	Processes that are currently in queue
Queue Status	Load	Machine Name	NA	Machine name
Queued Processes	Load	Queued Processes for PSPRCSR	NA	Queued processes for process scheduler (PSPRCSR)

**Table 1-406 (Cont.) Supported Status and Performance Metrics for PeopleSoft Process Scheduler Domain**

Metric Group	Category	Name	Unit	Description
Queued Processes	Load	Queued Processes for PSDSTSRV	NA	Queued processes for distribution server (PSDSTSRV)
Failed Processes	Error	Failed Processes	NA	Server processes that are failed or down within the domain

## PeopleSoft System

No metrics are defined for Oracle PeopleSoft System.

## Oracle Pluggable Database

Metric availability differs depending on the Pluggable Database version. For database version 12.2, the full compliment of metrics is available. For database version 12.1, only a subset of metrics is available.

### Supported Metrics: Pluggable Database Version 12.1

**Table 1-407 Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Storage Usage By Tablespace	.	.	.	<p>Metrics in the <i>Storage Usage By Tablespace</i> metric group shows utilization in all tablespaces including permanent, temp, undo. This metric groups shows utilization against currently allocated blocks.</p> <p>In a CDB context, it will show utilization only for the tablespaces belonging to the CDB. In a PDB context, it will show utilization only for the tablespaces belonging to that PDB.</p>

**Table 1-407 (Cont.) Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Storage Usage By Tablespace	.	Storage Tablespace Name	NA	Tablespace Name
Storage Usage By Tablespace	Capacity	Total Space Allocated	GB	Total size of a tablespace's datafiles in GB
Storage Usage By Tablespace	Utilization	Space Utilization Percentage	%	Percent of storage space utilized
Storage Usage By Tablespace	Load	Space Used	GB	Tablespace used in GB
Storage Space Usage	Utilization	Storage Space Allocated	GB	Storage space allocated in GB
Storage Space Usage	Utilization	Storage Space Utilization	%	Percent of storage space utilized
Storage Space Usage	Load	Space Used	GB	Storage space used in GB

**Supported Metrics: Pluggable Database Version 12.2**

**Table 1-408 Supported Configuration Metrics for Oracle Pluggable Database**

Metric Group	Name	Unit	Description
Tablespaces	Tablespace Name	NA	Tablespace name
Tablespaces	Status	NA	PDB tablespace status
Tablespaces	Contents	NA	Tablespace contents, valid attributes are: UNDO, PERMANENT AND TEMPORARY
Tablespaces	Extent Management	NA	Tablespace Extent Management
Tablespaces	Allocation Type	NA	Type of extent allocation in effect for the tablespace: SYSTEM, UNIFORM or USER
Tablespaces	Logging	NA	Tablespace logging attribute
Tablespaces	Tablespace Size	MB	Tablespace size
Tablespaces	Initial Extent Size	KB	Initial extent size
Tablespaces	Next Extent	KB	Default incremental extent size for tablespace growth
Tablespaces	Increment By	KB	Increment by

**Table 1-408 (Cont.) Supported Configuration Metrics for Oracle Pluggable Database**

Metric Group	Name	Unit	Description
Tablespaces	Maximum Extents	NA	Default maximum number of extents
Tablespaces	Tablespace Used Size	MB	Tablespace used size
Tablespaces	Minimum Extents	NA	Default minimum number of extents
Tablespaces	Minimum Extents Length	KB	Minimum extents length
Tablespaces	Segment Space Management	NA	Indicates whether the free and used segment space in the tablespace is managed using free lists (MANUAL) or bitmaps (AUTO)
Tablespaces	Block Size	bytes	Tablespace block size (in bytes)
Tablespaces	Encrypted	NA	Indicates whether the tablespace is encrypted (YES) or not (NO)
Tablespaces	Bigfile	NA	Indicates whether the tablespace is a bigfile tablespace (YES) or a smallfile tablespace (NO)

**Table 1-409 Supported Status and Performance Metrics for Oracle Pluggable Database**

Metric Group	Category	Name	Unit	Description
System Wait Classes	.	Instance ID	NA	Database Instance ID
System Wait Classes	.	Host Name	NA	Host Name for Instance
System Wait Classes	.	Wait Class	NA	Wait Class
System Wait Classes	Response	Time Waited	per min	Total time waited in seconds by both foreground and background sessions per minute
System Wait Classes	Response	Time Waited Foreground	per min	Total time waited in seconds by foreground sessions only per minute

**Table 1-409 (Cont.) Supported Status and Performance Metrics for Oracle Pluggable Database**

Metric Group	Category	Name	Unit	Description
System Wait Classes	.	Interval	sec	Interval of metric collection
Instance Latency	.	Instance Name	NA	Database Instance Name
Instance Latency	.	Host Name	NA	Host Name for Instance
Instance Latency	Response	SQL Service Response Time	centisec	Average Response Time across all SQL statements in centiseconds per call for an instance per minute
Instance Latency	Response	Avg Synchronous Single-Block Read Latency	ms	Average latency for single block synchronous reads in milliseconds for an instance per minute
Instance Latency	.	Interval	sec	Interval of metric collection
Instance Load	Load	User Calls	ops/min	User Calls per minute
Instance Load	Load	Physical Read I/O Requests	ops/min	Physical Read I/O Requests per minute
Instance Load	Load	Physical Read Bytes	per min	Physical Read Bytes per minute
Instance Load	Load	Physical Write I/O Requests	ops/min	Physical Write I/O Requests per minute
Instance Load	Load	Physical Write Bytes	per min	Physical Write Bytes per minute
Instance Load	Load	Redo Bytes	per min	Redo Bytes per minute
Instance Load	Load	Redo Writes	ops/min	Redo Writes per minute
Latency	Response	SQL Service Response Time	centisec/request	Average Response Time across all SQL statements in centiseconds per call per minute
Latency	Response	Avg Synchronous Single-Block Read Latency	ms	Average latency for single block synchronous reads in milliseconds per minute

**Table 1-409 (Cont.) Supported Status and Performance Metrics for Oracle Pluggable Database**

Metric Group	Category	Name	Unit	Description
Latency	Response	Avg Wait Time for Log File Synchronization	ms	Average wait time for 'log file sync' event in milliseconds per minute
Latency	Response	Avg Wait Time for Sequential Read of Datafile	ms	Average wait time for 'db file sequential read' event in milliseconds per minute
Instance Efficiency	Utilization	InstanceID	NA	Instance Identifier
Instance Efficiency	Utilization	Soft Parses	%	Percentage of total parse requests where the SQL Statement was already in the cursor cache per minute
SQL Statistics	Load	Disk Reads	per min	Total number of disk reads per minute
SQL Statistics	Load	Buffer Gets	per min	Total number of buffer gets per minute
SQL Statistics	Response	CPU Time	per min	Total time (in milliseconds) spent on CPU per minute
SQL Statistics	Response	User I/O Wait	per min	Total time (in milliseconds) spent waiting for events in the User I/O class per minute
SQL Statistics	Response	Cluster Wait	per min	Total time (in milliseconds) spent waiting for events in the Cluster class per minute
SQL Statistics	Response	Application Wait	per min	Total time (in milliseconds) spent waiting for events in the Application class per minute
SQL Statistics	Response	Concurrency Wait	per min	Total time (in milliseconds) spent waiting for events in the Concurrency class per minute
SQL Statistics	Load	Direct Writes	ops/min	Number of direct writes per minute

**Table 1-409 (Cont.) Supported Status and Performance Metrics for Oracle Pluggable Database**

Metric Group	Category	Name	Unit	Description
SQL Statistics	Load	Physical Read Requests	ops/min	Number of physical read I/O requests issued by the SQL per minute
SQL Statistics	Load	Physical Read Bytes	per min	Number of bytes read from disks by the SQL per minute
SQL Statistics	Load	Physical Write Requests	ops/min	Number of physical write I/O requests issued by the SQL per minute
SQL Statistics	Load	Physical Write Bytes	per min	Number of bytes written to disks by the SQL
Database Activity	Response	DB Time	per min	Amount of elapsed time (in seconds) spent on performing database user-level calls per minute
Database Activity	Response	Background CPU	per min	Amount of CPU time (in seconds) consumed by database background processes per minute
Database Activity	Response	SQL Execution	per min	Amount of elapsed time (in seconds) SQL statements are executing per minute
Job Status	.	Broken Job Count	NA	Broken Job Count
Job Status	.	Failed Job Count	NA	Failed Job Count
Invalid Objects by Schema	.	Invalid Object Owner	NA	Invalid Object Owner
Invalid Objects by Schema	Error	Invalid Objects	NA	Invalid Object Count
Invalid Objects by Schema(Deprecated)	.	Invalid Objects Owner(Deprecated)	NA	Invalid Objects Owner(Deprecated)
Invalid Objects by Schema(Deprecated)	.	Invalid Object Count(Deprecated)	NA	Invalid Object Count(Deprecated)

**Table 1-409 (Cont.) Supported Status and Performance Metrics for Oracle Pluggable Database**

Metric Group	Category	Name	Unit	Description
<b>Storage Tablespace Full</b>	.	.	.	The <i>Storage Tablespace Full</i> metric group shows utilization in permanent tablespaces only. Fullness is shown for all the tablespaces except Undo and Temp tablespaces taking the maximum data file size, auto extension as well as available disk space into account. In a CDB context, it will show utilization only for the tablespaces belonging to the CDB. In a PDB context, it will show utilization only for the tablespaces belonging to that PDB.
Storage Tablespace Full	.	Storage Tablespace Name	NA	Tablespace Name
Storage Tablespace Full	Capacity	Total Space Allocated	GB	Total size of a tablespace's datafiles in GB
Storage Tablespace Full	Utilization	Space Utilization Percentage	%	Percent of storage space utilized
Storage Tablespace Full	Utilization	Space Used	GB	Tablespace used in GB
Storage Tablespace Full (Temp)	.	Storage Tablespace Name (Temp)	NA	Tablespace Name



**Table 1-409 (Cont.) Supported Status and Performance Metrics for Oracle Pluggable Database**

Metric Group	Category	Name	Unit	Description
<b>Storage Tablespace Full (Temp)</b>				The <i>Storage Tablespace Full (Temp)</i> metric group shows utilization in <i>temp</i> tablespaces only. These metrics show utilization against maximum allowable size, considering an auto extension.  In a CDB context, it will show utilization only for the tablespaces belonging to the CDB. In a PDB context, it will show utilization only for the tablespaces belonging to that PDB.
Storage Tablespace Full (Temp)	Capacity	Total Space Allocated (Temp)	GB	Total size of a tablespace's datafiles in GB
Storage Tablespace Full (Temp)	Utilization	Space Utilization Percentage (Temp)	%	Percent of storage space utilized
Storage Tablespace Full (Temp)	Utilization	Space Used (Temp)	GB	Tablespace used in GB

**Table 1-409 (Cont.) Supported Status and Performance Metrics for Oracle Pluggable Database**

Metric Group	Category	Name	Unit	Description
<b>Storage Tablespace Full (Undo)</b>				The <i>Storage Tablespace Full (Undo)</i> metric group shows utilization in <i>undo</i> tablespaces only. These metrics show utilization against maximum allowable size, considering an auto extension. In a CDB context, it will show utilization only for the tablespaces belonging to the CDB. In a PDB context, it will show utilization only for the tablespaces belonging to that PDB.
Storage Tablespace Full (Undo)	Storage Tablespace Name (Undo)	NA		Tablespace Name
Storage Tablespace Full (Undo)	Capacity	Total Space Allocated (Undo)	GB	Total size of a tablespace's datafiles in GB
Storage Tablespace Full (Undo)	Utilization	Space Utilization Percentage (Undo)	%	Percent of storage space utilized
Storage Tablespace Full (Undo)	Utilization	Space Used (Undo)	GB	Tablespace used in GB

**Table 1-410 Supported Configuration Metrics for Relational Database**

Metric Group	Simple Metric Group Name	Name	Unit	Description
Creation Date	CreationDate	Creation Date	NA	Date when the database was created
Total Memory Capacity	TotalMemoryCapacity	Host Memory	GB	Total host memory capacity in GB
Resource Allocation	ResourceAllocation	Instance Name	NA	RDB instance
Resource Allocation	ResourceAllocation	Host Name	NA	Host name of the instance

**Table 1-410 (Cont.) Supported Configuration Metrics for Relational Database**

Metric Group	Simple Metric Group Name	Name	Unit	Description
Resource Allocation	ResourceAllocation	Total CPUs	NA	Total number of CPUs allocated or available in this instance
Resource Allocation	ResourceAllocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to this instance
Lookup Config Metrics	.	Value	NA	Value

**Table 1-411 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-412 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

## Oracle Service Bus

**Table 1-413 Supported Status and Performance Metrics for OSB**

Metric Group	Category	Name	Unit	Description
SB_RollupStatistics	Load	Throughput	msgs/min	Messages processed across all the deployed Proxy Services
SB_RollupStatistics	Error	Errors	msgs/min	Errors generated across all the deployed Proxy Services
SB_ServiceStatistics	N/A	Service Name	N/A	Name of the Service
SB_ServiceStatistics	N/A	Project	N/A	Name of the Service Bus Project
SB_ServiceStatistics	N/A	Service Type	N/A	Type of the service (i.e Proxy Service, Business Service, Pipeline or Split-Join)
SB_ServiceStatistics	Load	Throughput	msgs/min	Messages processed by the Service
SB_ServiceStatistics	Error	Errors	msgs/min	Errors generated by the Service
SB_ServiceStatistics	Error	WS Security Errors	msgs/min	Web service security errors generated by the Service
SB_ServiceStatistics	Response	Average Response Time	ms	Average time for processing the transaction by the Service
SB_ServiceStatistics	Error	Error Rate	%	Percentage of errors out of total messages processed by the Service

**Table 1-414 Supported Status and Performance Metrics for Java EE Application Server**

Metric Group	Category	Name	Unit	Description
EJB Pool	Load	EJBs in Use	N/A	Beans currently in use
EJB Pool	Load	EJB Access Rate	ops/min	Beans access throughput
JMS Server	Load	JMS Messages Stored	N/A	The number of JMS messages stored on the server
JMS Server	Load	JMS Message Receive Rate	msgs/min	The rate that JMS messages are received

**Table 1-415 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

# Oracle Traffic Director Cluster

**Table 1-416 Supported Configuration Metrics for Oracle Traffic Director Clusters**

Metric Group	Name	Unit	Description
Listeners	Listener	N/A	Listener
Listeners	Listener Enabled	Boolean	Indicates if the listener is enabled (true) or not enabled (false)
Listeners	Listener IP Address	N/A	Server listening IP address
Listeners	Listener Port	N/A	Server listening port
Listeners	Server Name	N/A	Server name used in server generated URLs
Listeners	Default Virtual Server / TCP Proxy	N/A	Default Virtual Server / TCP Proxy for the listener
Listeners	Acceptor Threads	N/A	Number of threads dedicated to accepting connections received by this listener
Listeners	Protocol Family (Default/ inet/inet6/inet-sdp)	N/A	The network address family for the listener. 'Default' implies that the family will be derived from the IP address
Listeners	Listen Queue Size	N/A	Maximum size of the operating system listen queue backlog
Listeners	Protocol Mismatch Handled	Boolean	Indicates if the server redirects clients that use wrong protocol (true) or not (false)
Listeners	Blocking IO Enabled	Boolean	Indicates if the server uses blocking IO (true) or not (false)
Origin Server Pools	Server Pool	N/A	Server Pool
Origin Server Pools	Origin Server Host	N/A	Origin Server Host
Origin Server Pools	Origin Server Port	N/A	Origin Server listening port
Origin Server Pools	Enabled	Boolean	Indicates if the origin server is enabled (true) or not (false)
Origin Server Pools	Backup Server	Boolean	Indicates if the origin server is backup server (true) or not (false)
Origin Server Pools	Received Requests Ratio	N/A	The ratio of requests (with respect to other origin servers) received by this origin server
Origin Server Pools	Maximum Connections	N/A	The maximum number of connections that the origin server can handle concurrently

**Table 1-416 (Cont.) Supported Configuration Metrics for Oracle Traffic Director Clusters**

Metric Group	Name	Unit	Description
Origin Server Pools	Ramp Up Time	sec	The time for Oracle Traffic Director to ramp up the request sending rate to the full capacity of this origin server
Failover Groups	Failover Virtual IP	N/A	The virtual IP address for the failover group
Failover Groups	Network Prefix	N/A	Name of the primary OTD instance
Failover Groups	Backup Instance	N/A	Name of the backup OTD instance
Failover Groups	Primary Instance NIC	N/A	Network Interface (NIC) for the primary OTD instance
Failover Groups	Backup Instance NIC	N/A	Network Interface (NIC) for the backup OTD instance
Failover Groups	Router ID	N/A	Router ID for the failover group

**Table 1-417 Supported Status and Performance Metrics for Oracle Traffic Director Clusters**

Metric Group	Category	Name	Unit	Description	Inherited From
Performance Statistics for all Instances	Load	Request Rate	reqs/sec	Number of requests processed per second across all OTD instances	Generic Load Balancer
Performance Statistics for all Instances	Response	Request Processing Time	ms	Average response time for the requests across all OTD instances	N/A
Performance Statistics for all Instances	Error	Error Rate	errors/sec	Number of errors returned per seconds across all OTD instances	N/A
Performance Statistics for all Instances	Load	Data Transmission Rate	KB/sec	Size of data transmitted per second across all OTD instances	N/A
Performance Statistics for all Instances	N/A	Data Receive Rate	KB/sec	Size of data received per second across all OTD instances	N/A
Origin Server	N/A	Origin Server	N/A	Origin server name	N/A
Origin Server	N/A	Server Pool	N/A	Origin server pool name	N/A

**Table 1-417 (Cont.) Supported Status and Performance Metrics for Oracle Traffic Director Clusters**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>	<b>Inherited From</b>
Origin Server	Availability	Status	N/A	Indicates if the back-end server is online (1), offline (2), or unreferenced (3)	N/A
Origin Server	Capacity	Active Connections	N/A	Number of active connections across all OTD instances	N/A
Origin Server	N/A	Idle Connections	N/A	Number of idle connections across all OTD instances	N/A
Origin Server	Load	Request Rate	reqs/sec	Number of requests processed per second across all OTD instances	N/A
Origin Server	N/A	Sticky Request Rate	reqs/sec	Number of sticky requests processed per second across all OTD instances	N/A
Origin Server	Error	Error Rate	errors/sec	Number of errors returned per second across all OTD instances	N/A
Origin Server	Load	Data Transmission Rate	KB/sec	Amount of data transmitted per second across all OTD instances	N/A
Origin Server	N/A	Data Receive Rate	KB/sec	Amount of data received per second across all OTD instances	N/A
Virtual Server	N/A	Virtual Server		Virtual server name	N/A
Virtual Server	Load	Request Rate	reqs/sec	Number of requests processed per second across all OTD instances	N/A
Virtual Server	Error	Error Rate	errors/sec	Number of errors returned per second across all OTD instances	N/A
Virtual Server	Load	Data Receive Rate	KB/sec	Amount of data received per second across all OTD instances	N/A

**Table 1-417 (Cont.) Supported Status and Performance Metrics for Oracle Traffic Director Clusters**

Metric Group	Category	Name	Unit	Description	Inherited From
Virtual Server	N/A	Data Transmission Rate	KB/sec	Amount of data transmitted per second across all OTD instances	N/A

**Table 1-418 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Oracle Traffic Director Instance

There are no Oracle Traffic Director specific configuration, status, or performance metrics supported. All metrics are inherited from parent entities as listed below.

**Table 1-419 Supported Configuration Metrics for Load Balancer**

Metric Group	Name	Unit	Description
Load Balancer Configuration	Virtual Server	N/A	Virtual Server name
Load Balancer Configuration	Route	N/A	Route condition
Load Balancer Configuration	Back-end Server Group	N/A	Name of the back-end server group or pool
Load Balancer Configuration	Back-end Server Host	N/A	Host name of the back-end server host
Load Balancer Configuration	Back-end Server Port	N/A	Port number of the back-end server
Load Balancer Configuration	Protocol	N/A	Protocol
Load Balancer Configuration	Route Algorithm	N/A	Algorithm used for routing requests among the back-end servers available in a server group

**Table 1-420 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity



**Table 1-421 Status and Performance Metrics for Load Balancer**

Metric Group	Category	Name	Unit	Description
Load Balancer Performance	Load	Request Rate	reqs/sec	Rate of requests processed by the load balancer
Load Balancer Performance	Response	Request Processing Time	ms	Average response time for the requests
Load Balancer Performance	Error	Error Rate	errors/sec	Rate of errors returned by the load balancer
Load Balancer Performance	Load	Data Transmission Rate	KB/sec	Rate by which data is transmitted from the load balancer to clients
Load Balancer Performance	N/A	Data Receive Rate	KB/sec	Rate by which data is received by the load balancer from clients
Virtual Server	Load	Virtual Server	N/A	Virtual Server name
Virtual Server	Error	Request Rate	reqs/sec	Rate of requests processed by the virtual server
Virtual Server	Load	Error Rate	errors/sec	Rate of errors returned by the virtual server
Virtual Server	N/A	Data Receive Rate	KB/sec	Rate by which data is received by the virtual server
Virtual Server	N/A	Data Transmission Rate	KB/sec	Rate by which data is transmitted from the virtual server
Back-end Server	N/A	Back-end Server	N/A	Back-end Server (host:port)
Back-end Server	N/A	Server Group	N/A	Name of the back-end server group the back-end server belongs to
Back-end Server	Availability	Status	N/A	Indicates if the back-end server is online (1) or offline (2) or unreferenced (3)
Back-end Server	Capacity	Active Connections	N/A	Number of active connections available for the back-end server
Back-end Server	N/A	Idle Connections	N/A	Number of idle connections available for the back-end server
Back-end Server	Load	Request Rate	reqs/sec	Rate of requests processed by the back-end server

**Table 1-421 (Cont.) Status and Performance Metrics for Load Balancer**

Metric Group	Category	Name	Unit	Description
Back-end Server	N/A	Sticky Request Rate	reqs/sec	Rate of sticky requests processed by the back-end server
Back-end Server	Error	Error Rate	errors/sec	Rate of errors returned by the back-end server
Back-end Server	Load	Data Transmission Rate	KB/sec	Rate by which data is transmitted from the load balancer to the back-end server
Back-end Server	N/A	Data Receive Rate	KB/sec	Rate by which data is received by the load balancer from the back-end server

**Table 1-422 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-423 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Oracle Unified Directory Proxy Server

**Table 1-424 Supported Configuration Metrics for OUD Proxy Server**

Metric Group	Name	Unit	Description
General Information	Full Version	NA	Full Version
General Information	Vendor Name	NA	Vendor Name
General Information	Instance Path	NA	

**Table 1-424 (Cont.) Supported Configuration Metrics for OUD Proxy Server**

Metric Group	Name	Unit	Description
General Information	Install Path	NA	Install Path
General Information	Java Version	NA	Java Version
General Information	Java Home	NA	Java Home
General Information	Java Architecture	NA	Java Architecture
Server Role	Directory Server	NA	Is Directory Server?
Server Role	Proxy	NA	Is Proxy?
Server Role	Distributor	NA	Distributor
Server Role	Load Balancer	NA	Load Balancer
Server Role	Replication Gateway	NA	Replication Gateway
Server Role	Role	NA	Role
Connection Handlers Configuration	Name	NA	Name
Connection Handlers Configuration	Type	NA	Type
Connection Handlers Configuration	Port	NA	Port
Connection Handlers Configuration	Is Enabled	NA	Is Enabled?
Connection Handlers Configuration	Is SSL	NA	Is SSL?

**Table 1-425 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-426 Supported Status and Performance Metrics for OUD Proxy Server**

Metric Group	Category	Name	Unit	Description
Naming Contexts		Base DN	NA	Base DN
Naming Contexts		Role	NA	Role
Naming Contexts		Network Groups	NA	Network Groups
Naming Contexts		Algorithm	NA	Algorithm
Backends information		Backend Name	NA	Backend Name
Backends information		JE Version	NA	JE Version

**Table 1-426 (Cont.) Supported Status and Performance Metrics for OUD Proxy Server**

Metric Group	Category	Name	Unit	Description
Backends information	Load	Database Entries	NA	Number of database Entries
Backends information	Capacity	Free Disk	MB	Free Disk size
Backends information	Availability	Disk State	NA	Disk State
Backends information	Availability	Disk Directory	NA	Disk Directory
Backends information	Load	Database cache size	MB	Current Size of the database cache
Backends information	Capacity	Max database cache size	MB	Configured Max Size of the database cache
Backends information	Load	Cache Misses	per sec	Cache Misses
Backends information	Load	Database Writes	per sec	Number of Writes in database
Backends information	Load	Database Reads	per sec	Number of Read in database
Backends information		Cleaner Backlog	NA	Cleaner Backlog
Backends information	Load	Metadata Misses	per sec	Number of Metadata Misses
Backends information		Current Size of the Metadata (Bottom Internal Nodes)	NA	Current Size of the Metadata (Bottom Internal Nodes)
Work Queue information	Capacity	Max Queued Requests	NA	Max Number of requests in the Queue
Work Queue information	Load	Queued Requests	NA	Current Number of requests in the Queue
Work Queue information	Load	Number of Rejected Requests due to Full Queue	NA	Number of Rejected Requests due to Full Queue
Work Queue information	Capacity	Maximum requests allowed in the Queue	NA	Maximum requests allowed in the Queue
Connections information	Load	Connections Peak	NA	Connections Peak
Connections information	Load	Connections	conns/sec	Connections per second

**Table 1-426 (Cont.) Supported Status and Performance Metrics for OUD Proxy Server**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Operations General Metrics	Load	Total Operations Initiated	ops/sec	Total Operations Initiated per second
Operations General Metrics	Load	Completed Operations	ops/sec	Completed Operations per second
Operations General Metrics	Error	Unsuccessful Operations	ops/sec	Unsuccessful Operations per second
Operations General Metrics	Response	Average Elapsed Time per Operation	ms	Average time in millisecond per Operation
Operations General Metrics	Load	Returned Search Result Entries	per sec	Returned Search Result Entries per second
Operations General Metrics	Load	KB Read	KB/sec	KB Reads per second
Operations General Metrics	Load	KB Written	KB/sec	KB Written per second
Operations Read Metrics	Load	Read Operations	ops/sec	Read Operations per second
Operations Read Metrics	Response	Average Elapsed Time per Operation	ms	Average time in millisecond per Operation
Operations Read Metrics	Load	Bind Operations	ops/sec	Bind Operations per second
Operations Read Metrics	Load	Search Operations	ops/sec	Search Operations per second
Operations Read Metrics	Load	One Level Search Operations	ops/sec	One Level Search Operations per second
Operations Read Metrics	Load	Subtree Search Operations	ops/sec	Subtree Search Operations per second
Operations Read Metrics	Load	Unbind Operations	ops/sec	Unbind Operations per second
Operations Read Metrics	Load	Abandon Operations	ops/sec	Abandon Operations per second
Operations Read Metrics	Load	Compare Operations	ops/sec	Compare Operations per second
Operations Read Metrics	Response	Average Elapsed Time per Bind Operation	ms	Average time in milliseconds per Bind Operation

**Table 1-426 (Cont.) Supported Status and Performance Metrics for OUD Proxy Server**

Metric Group	Category	Name	Unit	Description
Operations Read Metrics	Response	Average Elapsed Time per Search Operation	ms	Average time in milliseconds per Search Operation
Operations Read Metrics	Response	Average Elapsed Time per Unbind Operation	ms	Average time in milliseconds per Unbind Operation
Operations Read Metrics	Response	Average Elapsed Time per Abandon Operation	ms	Average time in milliseconds per Abandon Operation
Operations Read Metrics	Response	Average Elapsed Time per Compare Operation	ms	Average time in milliseconds per Compare Operation
Operations Write Metrics	Load	Write Operations	ops/sec	Write Operations per second
Operations Write Metrics	Response	Average Elapsed Time per Operation	ms	Average time in milliseconds per Operation
Operations Write Metrics	Load	Modify Operations	ops/sec	Modify Operations per second
Operations Write Metrics	Load	Add Operations	ops/sec	Add Operations per second
Operations Write Metrics	Load	Modify DN Operations	ops/sec	Modify DN Operations per second
Operations Write Metrics	Load	Delete Operations	ops/sec	Delete Operations per second
Operations Write Metrics	Response	Average Elapsed Time per Modify Operation	ms	Average time in milliseconds per Modify Operation
Operations Write Metrics	Response	Average Elapsed Time per Add Operation	ms	Average time in milliseconds per Add Operation
Operations Write Metrics	Response	Average Elapsed Time per DN Modification	ms	Average time in milliseconds per DN Modification
Operations Write Metrics	Response	Average Elapsed Time per Delete Operation	ms	Average time in milliseconds per Delete Operation
Operations Extended Metrics	Load	Extended Operations	ops/sec	Extended Operations per second

**Table 1-426 (Cont.) Supported Status and Performance Metrics for OUD Proxy Server**

Metric Group	Category	Name	Unit	Description
Operations Extended Metrics	Response	Average Elapsed Time per Extended Operation	ms	Average time in milliseconds per Extended Operation
Administration Connector Information	General	Administration Connector Port	NA	Administration Connector Port
Administration Connector General Information	Load	Operations Initiated	ops/sec	Operations Initiated per second
Administration Connector General Information	Load	Operations Completed	ops/sec	Operations Completed per second
Administration Connector General Information	Load	Operations Unsuccessful	ops/sec	Unsuccessful Operations per second
Administration Connector General Information	Response	Average Elapsed Time per Operation	ms	Average time in milliseconds per Operation
Administration Connector General Information	Load	Connections	conns/sec	Connections Per Sec
Administration Connector General Information	Load	Returned Search Result Entries	per sec	Returned Search Result Entries per second
Administration Connector General Information	Load	KB Read	KB/sec	KB Reads per second
Administration Connector General Information	Load	KB Written	KB/sec	KB Written per second
Administration Connector Operations	Read	Administration Connector Port	NA	Administration Connector Port
Administration Connector Operations	Load	Read Operations	ops/sec	Read Operations per second
Administration Connector Operations	Response	Average Elapsed Time per Operation	ms	Average time in milliseconds per Operation

**Table 1-426 (Cont.) Supported Status and Performance Metrics for OUD Proxy Server**

Metric Group	Category	Name	Unit	Description
Administration Connector Read Operations	Load	Bind Operations	ops/sec	Bind Operations per second
Administration Connector Read Operations	Load	Search Operations	ops/sec	Search Operations per second
Administration Connector Read Operations	Load	Unbind Operations	ops/sec	Unbind Operations per second
Administration Connector Read Operations	Load	Abandon Operations	ops/sec	Abandon Operations per second
Administration Connector Read Operations	Load	Compare Operations	ops/sec	Compare Operations per second
Administration Connector Read Operations	Response	Average Elapsed Time per Bind Operation	ms	Average time in milliseconds per Bind Operation
Administration Connector Read Operations	Response	Average Elapsed Time per Search Operation	ms	Average time in milliseconds per Search Operation
Administration Connector Read Operations	Response	Average Elapsed Time per Unbind Operation	ms	Average time in milliseconds per Unbind Operation
Administration Connector Read Operations	Response	Average Elapsed Time per Abandon Operation	ms	Average time in milliseconds per Abandon Operation
Administration Connector Read Operations	Response	Average Elapsed Time per Compare Operation	ms	Average time in milliseconds per Compare Operation
Administration Connector Write Operations		Administration Connector Port	NA	Administration Connector Port
Administration Connector Write Operations	Load	Write Operations	ops/sec	Write Operations per second
Administration Connector Write Operations	Response	Average Elapsed Time per Operation	ms	Average time in milliseconds per Operation
Administration Connector Write Operations	Load	Modify Operations	ops/sec	Modify Operations per second
Administration Connector Write Operations	Load	Add Operations	ops/sec	Add Operations per second



**Table 1-426 (Cont.) Supported Status and Performance Metrics for OUD Proxy Server**

Metric Group	Category	Name	Unit	Description
Administration Connector Write Operations	Load	Modify DN Operations	ops/sec	Modify DN Operations per second
Administration Connector Write Operations	Load	Delete Operations	ops/sec	Delete Operations per second
Administration Connector Write Operations	Response	Average Elapsed Time per Modify Operation	ms	Average time in milliseconds per Modify Operation
Administration Connector Write Operations	Response	Average Elapsed Time per Add Operation	ms	Average time in milliseconds per Add Operation
Administration Connector Write Operations	Response	Average Elapsed Time per DN Modification	ms	Average time in milliseconds per DN Modification
Administration Connector Write Operations	Response	Average Elapsed Time per Delete Operation	ms	Average time in milliseconds per Delete Operation
Administration Connector Extended Operations	Extended	Administration Connector Port	NA	Administration Connector Port
Administration Connector Extended Operations	Load	Extended Operations per second	ops/sec	Extended Operations
Administration Connector Extended Operations	Response	Average Elapsed Time per Extended Operation	ms	Average time in milliseconds per Extended Operation
Connection Handlers General Information	General	Connection Handler Name	NA	Connection Handler Name
Connection Handlers General Information	Load	Operations Initiated	ops/sec	Operations Initiated per second
Connection Handlers General Information	Load	Operations Completed	ops/sec	Completed Operations per second
Connection Handlers General Information	Load	Operations Unsuccessful	ops/sec	Unsuccessful Operations per second
Connection Handlers General Information	Response	Average Elapsed Time per Operation	ms	The Average time in milliseconds per Operation
Connection Handlers General Information	Load	Connections	conns/sec	Connections Per Sec

**Table 1-426 (Cont.) Supported Status and Performance Metrics for OUD Proxy Server**

Metric Group	Category	Name	Unit	Description
Connection Handlers General Information	Load	Returned Search Result Entries	per sec	Returned Search Result Entries per second
Connection Handlers General Information	Load	KB Read	KB/sec	KBs Read per second
Connection Handlers General Information	Load	KB Written	KB/sec	KBs Written per second
Connection Handlers Read Operations		Connection Handler Name	NA	Connection Handler Name
Connection Handlers Read Operations	Load	Read Operations	ops/sec	Read Operations per second
Connection Handlers Read Operations	Response	Average Elapsed Time per Operation	ms	Average Elapsed Time per Operation
Connection Handlers Read Operations	Load	Bind Operations	ops/sec	Bind Operations per second
Connection Handlers Read Operations	Load	Search Operations	ops/sec	Search Operations per second
Connection Handlers Read Operations	Load	Unbind Operations	ops/sec	Unbind Operations per second
Connection Handlers Read Operations	Load	Abandon Operations	ops/sec	Abandon Operations per sec
Connection Handlers Read Operations	Load	Compare Operations	ops/sec	Compare Operations per second
Connection Handlers Read Operations	Load	Average Elapsed Time per Bind Operation	ms	Average time in milliseconds per Bind Operation
Connection Handlers Read Operations	Response	Average Elapsed Time per Search Operation	ms	Average time in milliseconds per Search Operation
Connection Handlers Read Operations	Response	Average Elapsed Time per Unbind Operation	ms	Average time in milliseconds per Unbind Operation
Connection Handlers Read Operations	Response	Average Elapsed Time per Abandon Operation	ms	Average time in milliseconds per Abandon Operation

**Table 1-426 (Cont.) Supported Status and Performance Metrics for OUD Proxy Server**

Metric Group	Category	Name	Unit	Description
Connection Handlers Read Operations	Response	Average Elapsed Time per Compare Operation	ms	Average time in milliseconds per Operation
Connection Handlers Write Operations		Connection Handler Name	NA	Connection Handler Name
Connection Handlers Write Operations	Load	Write Operations	ops/sec	Write Operations per second
Connection Handlers Write Operations	Response	Average Elapsed Time per Operation	ms	Average time in milliseconds per Operation
Connection Handlers Write Operations	Load	Modify Operations	ops/sec	Modify Operations per second
Connection Handlers Write Operations	Load	Add Operations	ops/sec	Add Operations per second
Connection Handlers Write Operations	Load	Modify DN Operations	ops/sec	Modify DN Operations per second
Connection Handlers Write Operations	Load	Delete Operations	ops/sec	Delete Operations per second
Connection Handlers Write Operations	Response	Average Elapsed Time per Modify Operation	ms	Average time in milliseconds per Modify Operation
Connection Handlers Write Operations	Response	Average Elapsed Time per Add Operation	ms	Average time in milliseconds per Add Operation
Connection Handlers Write Operations	Response	Average Elapsed Time per DN Modification	ms	Average time in milliseconds per DN Modification
Connection Handlers Write Operations	Response	Average Elapsed Time per Delete Operation	ms	Average time in milliseconds per Delete Operation
Connection Handlers Extended Operations		Connection Handler Name	NA	Connection Handler Name
Connection Handlers Extended Operations	Load	Extended Operations	ops/sec	Extended Operations per second
Connection Handlers Extended Operations	Response	Average Elapsed Time per Extended Operation	ms	Average time in milliseconds per Extended Operation

**Table 1-426 (Cont.) Supported Status and Performance Metrics for OUD Proxy Server**

Metric Group	Category	Name	Unit	Description
Server Resource Usage	Capacity	Max Allowed Heap	MB	Max Allowed Heap
Server Resource Usage	Load	Used Memory Inside Heap	MB	Used Memory Inside Heap
Server Resource Usage	Load	Free Memory Inside Heap	MB	Free Memory Inside Heap
Server Resource Usage	Capacity	Heap Size	MB	Heap Size
Server Resource Usage	Capacity	Non-Heap Size	MB	Non-Heap Size
Server Resource Usage	Load	Memory Code Cache Used	MB	Memory Code Cache Used
Server Resource Usage	Load	Memory Perm Gen Bytes Used	MB	Memory Perm Gen Bytes Used
Server Resource Usage	Load	Memory Survivor Used	MB	Memory Survivor Used
Server Resource Usage	Load	Memory Eden Used	MB	Memory Eden Used
Server Resource Usage	Load	Memory Old Gen Used	MB	Memory Old Gen Used
Server Resource Usage	Load	PS Scavenge Garbage Collection Runs	NA	Number of scavenge Collector processing
Server Resource Usage	Response	PS Scavenge Garbage Collections Run Time	ms	Average Duration of the last scavenge Collector processing
Server Resource Usage	Load	PS MarkSweep Collector Runs	NA	Number of markSweep Collector processing
Server Resource Usage	Response	PS MarkSweep Collector Run Time	ms	Average Duration of the last markSweep Collector processing
General Remote LDAP Servers Information		Name	NA	Name
General Remote LDAP Servers Information		Host Name	NA	Host Name
General Remote LDAP Servers Information		LDAP Port	NA	LDAP Port
General Remote LDAP Servers Information		LDAPS Port	NA	LDAPS Port

**Table 1-426 (Cont.) Supported Status and Performance Metrics for OUD Proxy Server**

Metric Group	Category	Name	Unit	Description
General Remote LDAP Servers Information		Associated Suffixes and Workflow Elements	NA	Associated Suffixes and Workflow Elements
General Remote LDAP Servers Information	Availability	State	NA	State
General Remote LDAP Servers Information		Last Update Date	NA	Last Update Date
General Remote LDAP Servers Information		Last Down Date	NA	Last Down Date
General Remote LDAP Servers Information	Load	Total Operations Completed	ops/sec	Total Operations Completed per second
General Remote LDAP Servers Information	Response	Average Elapsed Time per Operation	ms	Average time in milliseconds per Operation
General Remote LDAP Servers Information	Load	Total Failed Operations	ops/sec	Total Failed Operations per second
General Remote LDAP Servers Information	Load	Total Aborted Operations	ops/sec	Total Aborted Operations per second
Remote LDAP Servers Connection Pool		Name	NA	Name
Remote LDAP Servers Connection Pool	Load	Pool Connections	NA	Pool Connections
Remote LDAP Servers Connection Pool	Load	Used Connections	NA	Used Connections
Remote LDAP Servers Connection Pool	Capacity	Free Connections	NA	Free Connections
Remote LDAP Servers Connection Pool	Capacity	Pool Max Size	NA	Pool Max Size
Remote LDAP Servers Connection Pool	Load	Connections in Client Bound Connection Cache	NA	Connections in Client Bound Connection Cache
Remote LDAP Servers Connection Pool	Load	Connections in Proxy Bound Connection Cache	NA	Connections in Proxy Bound Connection Cache

**Table 1-426 (Cont.) Supported Status and Performance Metrics for OUD Proxy Server**

Metric Group	Category	Name	Unit	Description
Remote LDAP Servers Connection Pool	Error	Released Invalid Connections	NA	Released Invalid Connections
Remote LDAP Servers Connection Pool		Client Connections Connected	NA	Client Connections Connected
Remote LDAP Servers Read Operations		Name	NA	Name
Remote LDAP Servers Read Operations	Load	Number of Read Operations	ops/sec	Number of Read Operations per second
Remote LDAP Servers Read Operations	Response	Average Elapsed Time per Read Operation	ms	Average time in milliseconds per Read Operation
Remote LDAP Servers Read Operations	Load	Bind Operations	ops/sec	Bind Operations per second
Remote LDAP Servers Read Operations	Load	Search Base Operations	ops/sec	Search Base Operations per second
Remote LDAP Servers Read Operations	Load	Search One Operations	ops/sec	Search One Operations per second
Remote LDAP Servers Read Operations	Load	Search Subtree Operations	ops/sec	Search Subtree Operations per second
Remote LDAP Servers Read Operations	Load	Abandon Operations	ops/sec	Abandon Operations per second
Remote LDAP Servers Read Operations	Load	Compare Operations	ops/sec	Compare Operations per second
Remote LDAP Servers Read Operations		Current Persistent Searches	NA	Current Persistent Searches
Remote LDAP Servers Read Operations	Response	Average Elapsed Time per Bind Operation	ms	Average time in milliseconds per Bind Operation
Remote LDAP Servers Read Operations	Response	Average Elapsed Time per Search Base	ms	Average time in milliseconds per Search Base
Remote LDAP Servers Read Operations	Response	Average Elapsed Time per Search One	ms	Average time in milliseconds per Search One
Remote LDAP Servers Read Operations	Response	Average Elapsed Time per Search Subtree	ms	Average time in milliseconds per Search Subtree

**Table 1-426 (Cont.) Supported Status and Performance Metrics for OUD Proxy Server**

Metric Group	Category	Name	Unit	Description
Remote LDAP Servers Read Operations	Response	Average Elapsed Time per Compare Operation	ms	Average time in milliseconds per Compare Operation
Remote LDAP Servers Write Operations		Name	NA	Name
Remote LDAP Servers Write Operations	Load	Write Operations	ops/sec	Write Operations per second
Remote LDAP Servers Write Operations	Response	Average Elapsed Time per Operation	ms	Average time in milliseconds per Operation
Remote LDAP Servers Write Operations	Load	Modify Operations	ops/sec	Modify Operations per second
Remote LDAP Servers Write Operations	Load	Add Operations	ops/sec	Add Operations per second
Remote LDAP Servers Write Operations	Load	Modify DN Operations	ops/sec	Modify DN Operations per second
Remote LDAP Servers Write Operations	Load	Delete Operations	ops/sec	Delete Operations per second
Remote LDAP Servers Write Operations	Response	Average Elapsed Time per Modify Operation	ms	Average time in milliseconds per Modify Operation
Remote LDAP Servers Write Operations	Response	Average Elapsed Time per Add Operation	ms	Average time in milliseconds per Add Operation
Remote LDAP Servers Write Operations	Response	Average Elapsed Time per DN Modification	ms	Average time in milliseconds per DN Modification
Remote LDAP Servers Write Operations	Response	Average Elapsed Time per Delete Operation	ms	Average time in milliseconds per Delete Operation
Remote LDAP Servers Extended Operations		Name	NA	Name
Remote LDAP Servers Extended Operations	Load	Extended Operations	ops/sec	Extended Operations per second
Remote LDAP Servers Extended Operations	Response	Average Elapsed Time per Extended Operation	ms	Average time in milliseconds per Extended Operation
Remote LDAP Servers Read Errors		Name	NA	Name

**Table 1-426 (Cont.) Supported Status and Performance Metrics for OUD Proxy Server**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Remote LDAP Servers Read Errors	Error	Failed Read Operations	ops/sec	Failed Read Operations per second
Remote LDAP Servers Read Errors	Load	Aborted Read Operations	ops/sec	Aborted Read Operations per second
Remote LDAP Servers Read Errors	Error	Failed Bind Operations	ops/sec	Failed Bind Operations per second
Remote LDAP Servers Read Errors	Error	Failed Search Base Operations	ops/sec	Failed Search Base Operations per second
Remote LDAP Servers Read Errors	Error	Failed Search One Operations	ops/sec	Failed Search One Operations per second
Remote LDAP Servers Read Errors	Error	Failed Search Subtree Operations	ops/sec	Failed Search Subtree Operations per second
Remote LDAP Servers Read Errors	Error	Failed Compare Operations	ops/sec	Failed Compare Operations per second
Remote LDAP Servers Read Errors	Load	Aborted Bind Operations	ops/sec	Aborted Bind Operations per second
Remote LDAP Servers Read Errors	Load	Aborted Search Base Operations	ops/sec	Aborted Search Base Operations per second
Remote LDAP Servers Read Errors	Load	Aborted Search One Operations	ops/sec	Aborted Search One Operations
Remote LDAP Servers Read Errors	Load	Aborted Search Subtree Operations	ops/sec	Aborted Search Subtree Operations per second
Remote LDAP Servers Read Errors	Load	Aborted Compare Operations	ops/sec	Aborted Compare Operations per second
Remote LDAP Servers Write Errors		Name	NA	Name
Remote LDAP Servers Write Errors	Error	Failed Write Operations	ops/sec	Failed Write Operations per second
Remote LDAP Servers Write Errors	Load	Aborted Write Operations	ops/sec	Aborted Write Operations per second



**Table 1-426 (Cont.) Supported Status and Performance Metrics for OUD Proxy Server**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Remote LDAP Servers Write Errors	Error	Failed Modify Operations	ops/sec	Failed Modify Operations per second
Remote LDAP Servers Write Errors	Error	Failed Add Operations	ops/sec	Failed Add Operations per second
Remote LDAP Servers Write Errors	Error	Failed Modify DN Operations	ops/sec	Failed Modify DN Operations per second
Remote LDAP Servers Write Errors	Error	Failed Delete Operations	ops/sec	Failed Delete Operations
Remote LDAP Servers Write Errors	Load	Aborted Modify Operations	ops/sec	Aborted Modify Operations per second
Remote LDAP Servers Write Errors	Load	Aborted Add Operations	ops/sec	Aborted Add Operations per second
Remote LDAP Servers Write Errors	Load	Aborted Modify DN Operations	ops/sec	Aborted Modify DN Operations per second
Remote LDAP Servers Write Errors	Load	Aborted Delete Operations	ops/sec	Aborted Delete Operations per second
Remote LDAP Servers Extended Errors		Name	NA	Name
Remote LDAP Servers Extended Errors	Error	Failed Extended Operations	ops/sec	Failed Extended Operations per second
Remote LDAP Servers Extended Errors	Load	Aborted Extended Operations	ops/sec	Aborted Extended Operations per second
Capacity Distribution Workflow Element Information		Workflow Element Name	NA	
Capacity Distribution Workflow Element Information	Load	Algorithm Operations	ops/sec	Algorithm Operations per second
Capacity Distribution Workflow Element Information	Load	Global Index Operations	ops/sec	Global Index Operations Per Sec

**Table 1-426 (Cont.) Supported Status and Performance Metrics for OUD Proxy Server**

Metric Group	Category	Name	Unit	Description
Capacity Distribution Workflow Element Information	Load	Broadcast Operations	ops/sec	Broadcast Operations per second
Capacity Distribution Partition Information		Partition Name	NA	Partition Name
Capacity Distribution Partition Information		Associated Suffixes and Workflow Elements	NA	Associated Suffixes and Workflow Elements
Capacity Distribution Partition Information	Utilization	Space Usage Ratio	%	Space Usage Ratio
Global Index Shared Cache Information		Cache Name	NA	Cache Name
Global Index Shared Cache Information		Associated Suffixes and Workflow Elements	NA	Associated Suffixes and Workflow Elements
Global Index Shared Cache Information	Load	Used Space	MB	Used Space
Global Index Operations		Index Name	NA	Index Name
Global Index Operations		Index Catalog Name	NA	Index Catalog Name
Global Index Operations		Attribute Name	NA	Attribute Name
Global Index Operations		Used In	NA	Used In
Global Index Operations	Availability	State	NA	State
Global Index Operations		Number of Entries	NA	Number of Entries
Global Index Operations		Last Access Date	NA	Last Access Date
Global Index Operations	Load	Lookup Operations	ops/sec	Lookup Operations per second
Global Index Operations	Load	Add Operations	ops/sec	Add Operations per second
Global Index Operations	Load	Delete Operations	ops/sec	Delete Operations per second

**Table 1-426 (Cont.) Supported Status and Performance Metrics for OUD Proxy Server**

Metric Group	Category	Name	Unit	Description
Global Index Operations	Response	Average Lookup Elapsed Time per Operation	ms	Average Lookup time in milliseconds per per Operation
Global Index Operations	Response	Average Add Elapsed Time per Operation	ms	Average time in milliseconds per Add Operation
Global Index Operations	Response	Average Delete Elapsed Time per Operation	ms	Average time in milliseconds per delete Operation
Global Index Errors		Index Name	NA	Index Name
Global Index Errors		Index Catalog Name	NA	Index Catalog Name
Global Index Errors	Load	Failed Lookup Operations	ops/sec	Failed Lookup Operations per second
Global Index Errors	Load	Failed Add Operations	ops/sec	Failed Add Operations per second
Global Index Errors	Load	Failed Delete Operations	ops/sec	Failed Delete Operations per second
Global Index Errors	Load	Aborted Lookup Operations	ops/sec	Aborted Lookup Operations per second
Global Index Errors	Load	Aborted Add Operations	ops/sec	Aborted Add Operations per second
Global Index Errors	Load	Aborted Delete Operations	ops/sec	Aborted Delete Operations per second

**Table 1-427 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized

**Table 1-427 (Cont.) Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
Memory	N/A	Interval	sec	Interval of metric collection

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**Table 1-428 Supported Configuration Metrics for OUD Replication Gateway**

Metric Group	Name	Unit	Description
General Information	Full Version	NA	Full Version
General Information	Vendor Name	NA	Vendor Name
General Information	Instance Path	NA	Instance Path
General Information	Install Path	NA	Install Path
General Information	Java Version	NA	Java Version
General Information	Java Home	NA	Java Home
General Information	Java Architecture	NA	Java Architecture
Server Role	Directory Server	NA	Is Directory Server?
Server Role	Proxy	NA	Is Proxy?
Server Role	Distributor	NA	Distributor
Server Role	Load Balancer	NA	Load Balancer
Server Role	Replication Gateway	NA	Replication Gateway
Server Role	Role	NA	roleDescription

**Table 1-429 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-430 Supported Status and Performance Metrics for OUD Replication Gateway**

Metric Group	Category	Name	Unit	Description
Replication Gateway		Base DN	NA	Base DN
Replication Gateway		Status	NA	Status
Replication Gateway	Load	Updates Sent to ODSEE	per sec	Updates Sent to ODSEE

**Table 1-430 (Cont.) Supported Status and Performance Metrics for OUD Replication Gateway**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Replication Gateway	Load	Updates Received from ODSEE	per sec	Updates Received from ODSEE
Replication Gateway	Load	Updates Sent to OUD	per sec	Updates Sent to OUD
Replication Gateway	Load	Updates Received from OUD	per sec	Updates Received from OUD
Replication Gateway (Total)	Load	Updates Sent to ODSEE	per sec	Updates Sent to ODSEE
Replication Gateway (Total)	Load	Updates Received from ODSEE	per sec	Updates Received from ODSEE
Replication Gateway (Total)	Load	Updates Sent to OUD	per sec	Updates Sent to OUD
Replication Gateway (Total)	Load	Updates Received from OUD	per sec	Updates Received from OUD
Server Resource Usage	Capacity	Max Allowed Heap	MB	Max Allowed Heap Size
Server Resource Usage	Load	Used Memory Inside Heap	MB	Used Memory Inside Heap
Server Resource Usage	Capacity	Free Memory Inside Heap	MB	Free Memory Inside Heap
Server Resource Usage	Capacity	Heap Size	MB	Heap Size
Server Resource Usage	Capacity	Non-Heap Size	MB	
Server Resource Usage	Load	Memory Code Cache Used	MB	Memory Code Cache Used
Server Resource Usage	Load	Memory Perm Gen Bytes Used	MB	Memory Perm Gen Bytes Used
Server Resource Usage	Load	Memory Survivor Used	MB	Memory Survivor Used
Server Resource Usage	Load	Memory Eden Used	MB	Memory Eden Used
Server Resource Usage	Load	Memory Old Gen Used	MB	Memory Old Gen Used
Server Resource Usage	Load	PS Scavenge Garbage Collection Runs	NA	PS Scavenge Garbage Collections Run
Server Resource Usage	Response	PS Scavenge Garbage Collections Run Time	ms	PS Scavenge Garbage Collections Run Time
Server Resource Usage	Load	PS Mark Sweep Collector Runs	NA	PS Mark Sweep Collector Run
Server Resource Usage	Response	PS Mark Sweep Collector Run Time	ms	PS Mark Sweep Collector Run Time

**Table 1-430 (Cont.) Supported Status and Performance Metrics for OUD Replication Gateway**

Metric Group	Category	Name	Unit	Description
Replication Servers (OUD)		Host Name	NA	Host Name
Replication Servers (OUD)		Replication Port	NA	Replication Port
Replication Servers (OUD)		Base DN	NA	Base DN
Replication Servers (OUD)		Administration Port	NA	Administration Port
Replication Servers (OUD)		Replication Group ID	NA	Replication Group ID
Replication Servers (OUD)	Error	Age of Oldest Missing Change	sec	Age of Oldest Missing Change
Replication Servers (OUD)	Error	Missing Changes	NA	Missing Changes
Replication Servers (OUD)		Generation ID	NA	Generation ID
Replication Domains (OUD)		Host Name	NA	Host Name
Replication Domains (OUD)		Administration Port	NA	Administration Port
Replication Domains (OUD)		Base DN	NA	Base DN
Replication Domains (OUD)		Replication Group ID	NA	Replication Group ID
Replication Domains (OUD)		Status	NA	Status
Replication Domains (OUD)	Capacity	Entries	NA	Entries
Replication Domains (OUD)	Error	Age of Oldest Missing Change	sec	Age of Oldest Missing Change
Replication Domains (OUD)	Error	Missing Changes	NA	Missing Changes
Replication Domains (OUD)	Error	Delay	sec	Delay in seconds
Replication Domains (OUD)		Generation ID	NA	Generation ID
Replication Domains (OUD)		Connected Replication Server	NA	Connected Replication Server
Replication Domains (OUD)	Load	Pending Updates	NA	Pending Updates
Replication Domains (OUD)	Load	Remote Pending Updates	NA	Remote Pending Updates
Replication Domains (OUD)	Error	Resolved Modify Conflicts	NA	Resolved Modify Conflicts

**Table 1-430 (Cont.) Supported Status and Performance Metrics for OUD Replication Gateway**

Metric Group	Category	Name	Unit	Description
Replication Domains (OUD)	Error	Naming Conflicts	NA	Naming Conflicts
Replication Domains (OUD)		Resolved Naming Conflicts	%	Resolved Naming Conflicts
Replication Domains (OUD)		Sent Updates	per sec	Sent Updates
Replication Domains (OUD)		Received Updates	per sec	Received Updates
Replication Domains (OUD)		Replayed Updates	per sec	Replayed Updates
Replication Domains (OUD)		Successful Replayed Updates	%	Successful Replayed Updates
Replication Domains (OUD)	Load	Untrusted Changes	per sec	Untrusted Changes
Replication Domains (OUD)	Error	Lost connections	per sec	Lost connections
Administration Connector General Information		Administration Connector Port	NA	Administration Connector Port
Administration Connector General Information	Load	Operations Initiated	ops/sec	Operations Initiated per second
Administration Connector General Information	Load	Operations Completed	ops/sec	Operations Completed per second
Administration Connector General Information	Response	Average Elapsed Time per Operation	ms	The average time in milliseconds per Operation
Administration Connector General Information	Load	Connections	conns/sec	Connections Per Sec
Administration Connector General Information	Load	Returned Search Result Entries	conns/sec	Returned Search Result Entries per second
Administration Connector General Information	Load	KB Read	KB/sec	Reads per second in kilobytes
Administration Connector General Information	Load	KB Written	KB/sec	Writes per second in kilobytes
Administration Connector Read Operations		Administration Connector Port	NA	Administration Connector Port
Administration Connector Read Operations	Load	Read Operations	ops/sec	Read Operations per second

**Table 1-430 (Cont.) Supported Status and Performance Metrics for OUD Replication Gateway**

Metric Group	Category	Name	Unit	Description
Administration Connector Read Operations	Response	Average Elapsed Time per Operation	ms	The average time in milliseconds per Operation
Administration Connector Read Operations	Load	Bind Operations	ops/sec	Bind Operations per second
Administration Connector Read Operations	Load	Search Operations	ops/sec	Search Operations per second
Administration Connector Read Operations	Load	Unbind Operations	ops/sec	Unbind Operations per second
Administration Connector Read Operations	Load	Abandon Operations	ops/sec	Abandon Operations per second
Administration Connector Read Operations	Load	Compare Operations	ops/sec	Compare Operations per second
Administration Connector Read Operations	Response	Average Elapsed Time per Bind Operation	ms	The average time in milliseconds per Bind Operation
Administration Connector Read Operations	Response	Average Elapsed Time per Search Operation	ms	The average time in milliseconds per Search Operation
Administration Connector Read Operations	Response	Average Elapsed Time per Unbind Operation	ms	The average time in milliseconds per Unbind Operation
Administration Connector Read Operations	Response	Average Elapsed Time per Abandon Operation	ms	The average time in milliseconds per Abandon Operation
Administration Connector Read Operations	Response	Average Elapsed Time per Compare Operation	ms	The average time in milliseconds per Compare Operation
Administration Connector Write Operations		Administration Connector Port	NA	Administration Connector Port
Administration Connector Write Operations	Load	Write Operations	ops/sec	Write Operations per second
Administration Connector Write Operations	Response	Average Elapsed Time per Operation	ms	The average time in milliseconds per Operation
Administration Connector Write Operations	Load	Modify Operations	ops/sec	Modify Operations per second



**Table 1-430 (Cont.) Supported Status and Performance Metrics for OUD Replication Gateway**

Metric Group	Category	Name	Unit	Description
Administration Connector Write Operations	Load	Add Operations	ops/sec	Add Operations per second
Administration Connector Write Operations	Load	Modify DN Operations	ops/sec	Modify DN Operations per second
Administration Connector Write Operations	Load	Delete Operations	ops/sec	Delete Operations per second
Administration Connector Write Operations	Response	Average Elapsed Time per Modify Operation	ms	The average time in milliseconds per Modify Operation
Administration Connector Write Operations	Response	Average Elapsed Time per Add Operation	ms	The average time in milliseconds per Add Operation
Administration Connector Write Operations	Response	Average Elapsed Time per Modify DN Operation	ms	The average time in milliseconds per Modify DN Operation
Administration Connector Write Operations	Response	Average Elapsed Time per Delete Operation	ms	The average time in milliseconds per Delete Operation
Administration Connector Extended Operations	Administration Connector Extended	Administration Connector Port	NA	Administration Connector Port
Administration Connector Extended Operations	Load	Extended Operations	ops/sec	Extended Operations per second
Administration Connector Extended Operations	Response	Average Elapsed Time per Extended Operation	ms	The average time in milliseconds per Extended Operation

**Table 1-431 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized

**Table 1-431 (Cont.) Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
Memory	N/A	Interval	sec	Interval of metric collection

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**Table 1-432 Supported Configuration Metrics for OUD Directory Server**

Metric Group	Name	Unit	Description
General Information	Full Version	NA	Full Version
General Information	Vendor Name	NA	Vendor Name
General Information	Instance Path	NA	OUD Instance Path
General Information	Install Path	NA	OUD Install Path
General Information	Java Version	NA	Java Version
General Information	Java Home	NA	Java Home
General Information	Java Architecture	NA	Java Architecture
Server Role	Directory Server	NA	Is Instance Directory Server?
Server Role	Proxy	NA	Is Instance Proxy Server ?
Server Role	Distributor	NA	Distributor
Server Role	Load Balancer	NA	Is Instance Load Balancer ?
Server Role	Replication Gateway	NA	Is Instance Replication Gateway ?
Server Role	Role	NA	Role
Replication Configuration	Is Replication Configured	NA	Is Replication Configured?
Replication Configuration	Is Replication Server Configured	NA	Is Replication Server Configured?
Replication Configuration	Is Replication Domain Configured	NA	Is Replication Domain Configured?
Replication Configuration	Is Server Trusted	NA	Is Server Trusted ?
Connection Handlers Configuration	Name	NA	Name
Connection Handlers Configuration	Type	NA	Type
Connection Handlers Configuration	Port	NA	Port
Connection Handlers Configuration	Is Enabled	NA	Is Enabled?

**Table 1-432 (Cont.) Supported Configuration Metrics for OUD Directory Server**

Metric Group	Name	Unit	Description
Connection Handlers Configuration	Is SSL	NA	Is SSL?

**Table 1-433 Supported Configuration Metrics for LDAP Server**

Metric Group	Name	Unit	Description
General Configurations	Server Mode	NA	
General Configurations	Maximum entries to be returned by a search	NA	
General Configurations	Maximum time allowed for a search to complete (second)	sec	
General Configurations	Anonymous Bind	NA	
General Configurations	Dump Flag	NA	
General Configurations	SSL Interoperability Mode	NA	
General Configurations	LDAP Host	NA	
General Configurations	LDAP SSL Port	NA	
General Configurations	LDAP Non-SSL Port	NA	

**Table 1-434 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-435 Supported Status and Performance Metrics for OUD Directory Server**

Metric Group	Category	Name	Unit	Description
Naming Contexts Configuration		Backend Name	NA	Backend Name
Naming Contexts Configuration		Base DN	NA	Base DN

**Table 1-435 (Cont.) Supported Status and Performance Metrics for OUD Directory Server**

Metric Group	Category	Name	Unit	Description
Naming Contexts Configuration		Base DN Entries	NA	Base DN Entries
Naming Contexts Configuration		Is Replicated	NA	Is Replicated
Naming Contexts Configuration		Oracle Integration	NA	Oracle Integration
Backends information		Backend Name	NA	Backend Name
Backends information		JE Version	NA	JE Version
Backends information		Database Entries	NA	Number of Database Entries
Backends information		Free Disk Space	MB	Free Disk Space
Backends information		Disk State	NA	Disk State
Backends information		Disk Directory	NA	Disk Directory
Backends information	Load	Current Size of the database cache	MB	Current Size of the database cache
Backends information	Capacity	Configured Max Size of the database cache	MB	Max Size of the database cache that is configured
Backends information	Load	Cache Misses	per sec	Number of Cache Misses per second
Backends information	Load	Database Writes	per sec	Number of Database Writes per second
Backends information	Load	Database Reads	per sec	Number of Database Reads per second
Backends information		Cleaner Backlog	NA	Cleaner Backlog
Backends information	Load	Metadata Misses	per sec	Number of Metadata Misses per second
Backends information	Capacity	Current Size of the Metadata (Bottom Internal Nodes)	NA	Current Size of the Metadata (Bottom Internal Nodes)
Entry Cache information	Load	Cache Hits	per sec	Number of Cache Hits per second
Entry Cache information	Load	Cache Tries	per sec	Number of Cache Tries per second

**Table 1-435 (Cont.) Supported Status and Performance Metrics for OUD Directory Server**

Metric Group	Category	Name	Unit	Description
Entry Cache information	Load	Entry Cache Size	NA	Entry Cache Size
Entry Cache information	Utilization	Entry Cache Hit Ratio	NA	Entry Cache Hit Ratio
Work Queue information	Capacity	Max Queued Requests	NA	Max Number of requests in the Queue
Work Queue information	Load	Queued Request	NA	Current Number of requests in the Queue
Work Queue information	Load	Rejected Requests due to Full Queue	NA	Number of Rejected Requests due to Full Queue
Work Queue information	Capacity	Maximum requests allowed in the Queue	NA	Maximum requests allowed in the Queue
Connections information		Connections Peak	NA	Connections Peak
Connections information	Load	Connections	conns/sec	Number of Connections per second
Operations Aggregation	Load	Operations Initiated	ops/sec	Operations Initiated
Operations Aggregation	Load	Completed Operations	ops/sec	Number of Completed Operations per sec
Operations Aggregation	Load	Unsuccessful Operations	ops/sec	Number of Unsuccessful Operations per sec
Operations Aggregation	Response	Average Elapsed Time per Operation	ms	The Average Time in milliseconds per Operation
Operations Aggregation	Load	Returned Search Result Entries	per sec	Returned Search Result Entries
Operations Aggregation	Load	KB Read	KB/sec	Reads per second in kilobytes
Operations Aggregation	Load	KB Written	KB/sec	Writes per second in kilobytes
Operations Read Information	Load	Read Operations	per sec	Read Operations per second

**Table 1-435 (Cont.) Supported Status and Performance Metrics for OUD Directory Server**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Operations Read Information	Response	Average Elapsed Time per Operation	ms	Average Time in milliseconds per Operation
Operations Read Information	Load	Bind Operations	ops/sec	Bind Operations per second
Operations Read Information	Load	Search Operations	ops/sec	Search Operations per second
Operations Read Information	Load	One Level Search Operations	ops/sec	One Level Search Operations per second
Operations Read Information	Load	Subtree Search Operations	ops/sec	Subtree Search Operations per second
Operations Read Information	Load	Unbind Operations	ops/sec	Unbind Operations per second
Operations Read Information	Load	Abandon Operations	ops/sec	Abandon Operations per second
Operations Read Information	Load	Compare Operations	ops/sec	Compare Operations per second
Operations Read Information	Response	Average Elapsed Time per Bind Operation	ms	The average time in milliseconds per Bind Operation
Operations Read Information	Response	Average Elapsed Time per Search Operation	ms	The average time in milliseconds per Search Operation
Operations Read Information	Response	Average Elapsed Time per Unbind Operation	ms	The average time in milliseconds per Unbind Operation
Operations Read Information	Response	Average Elapsed Time per Abandon Operation	ms	The average time in milliseconds per Abandon Operation
Operations Read Information	Response	Average Elapsed Time per Compare Operation	ms	The average time in milliseconds per Compare Operation
Operations Write Information	Load	Write Operations	ops/sec	Number of Write Operations per second

**Table 1-435 (Cont.) Supported Status and Performance Metrics for OUD Directory Server**

Metric Group	Category	Name	Unit	Description
Operations Write Information	Response	Average Elapsed Time per Operation	ms	The average time in milliseconds per Operation
Operations Write Information	Load	Modify Operations	ops/sec	Number of Modify Operations per second
Operations Write Information	Load	Add Operations	ops/sec	Number of Add Operations per second
Operations Write Information	Load	Modify DN Operations	ops/sec	Number of Modify DN Operations per second
Operations Write Information	Load	Delete Operations	ops/sec	Number of Delete Operations per second
Operations Write Information	Response	Average Elapsed Time per Modify Operation	ms	The average time in milliseconds per Modify Operation
Operations Write Information	Response	Average Elapsed Time per Add Operation	ms	The average time in milliseconds per Add Operation
Operations Write Information	Response	Average Elapsed Time per DN Modification	ms	The average time in milliseconds per DN Modification
Operations Write Information	Response	Average Elapsed Time per Delete Operation	ms	The average time in milliseconds per Delete Operation
Operations Extended Information	Load	Extended Operations	ops/sec	Number of Extended Operations per sec
Operations Extended Information	Response	Average Elapsed Time per Extended Operation	ms	The average time in milliseconds per Extended Operation
Replication Server Aggregation		Replication Port	NA	Replication Port
Replication Server Aggregation	Error	Age of Oldest Missing Change	sec	Age of Oldest Missing Change
Replication Server Aggregation	Error	Missing Changes	NA	Missing Changes

**Table 1-435 (Cont.) Supported Status and Performance Metrics for OUD Directory Server**

Metric Group	Category	Name	Unit	Description
Replication Server Information		Host Name	NA	Host Name
Replication Server Information		Replication Port	NA	Replication Port
Replication Server Information		Base DN	NA	Base DN
Replication Server Information		Administration Port	NA	Administration Port
Replication Server Information		Replication Group ID	NA	Replication Group ID
Replication Server Information	Error	Age of Oldest Missing Change	sec	Age of Oldest Missing Change
Replication Server Information	Error	Missing Changes	NA	Missing Changes
Replication Server Information		Generation ID	NA	Generation ID
Replication Domain Aggregation	Error	Age of Oldest Missing Change	sec	Age of Oldest Missing Change
Replication Domain Aggregation	Error	Missing Changes	NA	Missing Changes
Replication Domain Aggregation	Load	Delay	sec	Delay in seconds
Replication Domain Aggregation	Load	Pending Updates	NA	Pending Updates
Replication Domain Aggregation	Load	Remote Pending Updates	NA	Remote Pending Updates
Replication Domain Aggregation	Error	Resolved Modify Conflicts	NA	Resolved Modify Conflicts
Replication Domain Aggregation	Error	Naming Conflicts	NA	Naming Conflicts



**Table 1-435 (Cont.) Supported Status and Performance Metrics for OUD Directory Server**

Metric Group	Category	Name	Unit	Description
Replication Domain Aggregation	Error	Resolved Naming Conflicts	NA	Resolved Naming Conflicts
Replication Domain Aggregation		Resolved Naming Conflicts	%	Resolved Naming Conflicts
Replication Domain Aggregation	Load	Sent Updates	per sec	Sent Updates
Replication Domain Aggregation	Load	Received Updates	per sec	Average Received Updates
Replication Domain Aggregation	Load	Replayed Updates	per sec	Average Replayed Updates
Replication Domain Aggregation		Successful Replayed Updates	%	Successful Replayed Updates
Replication Domain Aggregation		Untrusted Changes	per sec	Untrusted Changes
Replication Domain Aggregation	Load	Lost connections	per sec	Lost connections
Replication Domain Information		Host Name	NA	omc_oud_directory
Replication Domain Information		Administration Port	NA	Administration Port
Replication Domain Information		Base DN	NA	Base DN
Replication Domain Information		Replication Group ID	NA	Replication Group ID
Replication Domain Information		Status	NA	Status
Replication Domain Information		Entries	NA	Entries
Replication Domain Information	Error	Age of Oldest Missing Change	sec	Age of Oldest Missing Change

**Table 1-435 (Cont.) Supported Status and Performance Metrics for OUD Directory Server**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Replication Domain Information	Error	Missing Changes	NA	Missing Changes
Replication Domain Information	Load	Delay	sec	Delay in seconds
Replication Domain Information		Generation ID	NA	Generation ID
Replication Domain Information		Connected Replication Server	NA	Connected Replication Server
Replication Domain Information	Load	Pending Updates	NA	Pending Updates
Replication Domain Information	Load	Remote Pending Updates	NA	Remote Pending Updates
Replication Domain Information	Error	Resolved Modify Conflicts	NA	Resolved Modify Conflicts
Replication Domain Information	Error	Naming Conflicts	NA	Naming Conflicts
Replication Domain Information	Error	Resolved Naming Conflicts	NA	Resolved Naming Conflicts
Replication Domain Information	Error	Resolved Naming Conflicts	%	Resolved Naming Conflicts
Replication Domain Information	Load	Sent Updates	per sec	Sent Updates
Replication Domain Information	Load	Received Updates	per sec	Received Updates
Replication Domain Information	Load	Replayed Updates	per sec	Replayed Updates
Replication Domain Information		Successful Replayed Updates	%	Successful Replayed Updates
Replication Domain Information	Load	Untrusted Changes	per sec	Untrusted Changes

**Table 1-435 (Cont.) Supported Status and Performance Metrics for OUD Directory Server**

Metric Group	Category	Name	Unit	Description
Replication Domain Information	Load	Lost connections	per sec	Lost connections
Replication Domain Assured Information		Host Name	NA	Host Name
Replication Domain Assured Information		Administration Port	NA	Administration Port
Replication Domain Assured Information		Base DN	NA	Base DN
Replication Domain Assured Information		Is Safe Data Configured	NA	IS Safe Data Configured?
Replication Domain Assured Information		Is Safe Read Configured	NA	Is Safe Read Configured?
Replication Domain Assured Information	Load	Safe Data Updates	per sec	Safe Data Updates
Replication Domain Assured Information		Acknowledged Safe Data Updates	%	Acknowledged Safe Data Updates
Replication Domain Assured Information	Load	Safe Read Sent Updates	per sec	Safe Read Sent Updates
Replication Domain Assured Information		Acknowledged Safe Read Sent Updates	%	Acknowledged Safe Read Sent Updates
Replication Domain Assured Information	Error	Failed (Timed Out) Safe Read Sent Updates	%	Failed (Timed Out) Safe Read Sent Updates
Replication Domain Assured Information	Error	Failed (Wrong Status) Safe Read Sent Updates	%	Failed (Wrong Status) Safe Read Sent Updates
Replication Domain Assured Information	Error	Failed (Replay Error) Safe Read Sent Updates	%	Failed (Replay Error) Safe Read Sent Updates
Replication Domain Assured Information		Safe Read Received Updates	per sec	Safe Read Received Updates
Replication Domain Assured Information		Acknowledged Safe Read Received Updates	%	Acknowledged Safe Read Received Updates
Administration Connector Information	General	Administration Connector Port	NA	Administration Connector Port

**Table 1-435 (Cont.) Supported Status and Performance Metrics for OUD Directory Server**

Metric Group	Category	Name	Unit	Description
Administration Connector General Information	Load	Operations Initiated	ops/sec	Operations Initiated per second
Administration Connector General Information	Load	Operations Completed	ops/sec	Completed Operations per second
Administration Connector General Information	Error	Operations Unsuccessful	ops/sec	Unsuccessful Operations per second
Administration Connector General Information	Response	Average Elapsed Time per Operation	ms	The average time in milliseconds per Operation
Administration Connector General Information	Load	Connections	conns/sec	Connections per second
Administration Connector General Information	Load	Returned Search Result Entries	per sec	Returned Search Result Entries
Administration Connector General Information	Load	KB Read	KB/sec	Reads per second in kilobytes
Administration Connector General Information	Load	KB Written	KB/sec	Writes per second in kilobytes
Administration Connector Read Operations		Administration Connector Port	NA	Administration Connector Port
Administration Connector Read Operations	Load	Read Operations	ops/sec	Read Operations per second
Administration Connector Read Operations	Response	Average Elapsed Time per Operation	ms	The average time in milliseconds per Operation
Administration Connector Read Operations	Load	Bind Operations	ops/sec	Bind Operations per second
Administration Connector Read Operations	Load	Search Operations	ops/sec	Search Operations per second

**Table 1-435 (Cont.) Supported Status and Performance Metrics for OUD Directory Server**

Metric Group	Category	Name	Unit	Description
Administration Connector Read Operations	Load	Unbind Operations	ops/sec	Unbind Operations per second
Administration Connector Read Operations	Load	Abandon Operations	ops/sec	Abandon Operations per second
Administration Connector Read Operations	Load	Compare Operations	ops/sec	Compare Operations per second
Administration Connector Read Operations	Response	Average Elapsed Time per Bind Operation	ms	The average time in milliseconds per Bind Operation
Administration Connector Read Operations	Response	Average Elapsed Time per Search Operation	ms	The average time in milliseconds per Search Operation
Administration Connector Read Operations	Response	Average Elapsed Time per Unbind Operation	ms	The average time in milliseconds per Unbind Operation
Administration Connector Read Operations	Response	Average Elapsed Time per Abandon Operation	ms	The average time in milliseconds per Abandon Operation
Administration Connector Read Operations	Response	Average Elapsed Time per Compare Operation	ms	The average time in milliseconds per Compare Operation
Administration Connector Write Operations		Administration Connector Port	NA	Administration Connector Port
Administration Connector Write Operations	Load	Write Operations	ops/sec	Write Operations per second
Administration Connector Write Operations	Response	Average Elapsed Time per Operation	ms	The average time in milliseconds per Operation
Administration Connector Write Operations	Load	Modify Operations	ops/sec	Modify Operations per second
Administration Connector Write Operations	Load	Add Operations	ops/sec	Add Operations per second
Administration Connector Write Operations	Load	Modify DN Operations	ops/sec	Modify DN Operations per second

**Table 1-435 (Cont.) Supported Status and Performance Metrics for OUD Directory Server**

Metric Group	Category	Name	Unit	Description
Administration Connector Write Operations	Load	Delete Operations	ops/sec	Delete Operations per second
Administration Connector Write Operations	Response	Average Elapsed Time per Modify Operation	ms	The average time in milliseconds per Modify Operation
Administration Connector Write Operations	Response	Average Elapsed Time per Add Operation	ms	The average time in milliseconds per Add Operation
Administration Connector Write Operations	Response	Average Elapsed Time per DN Modification	ms	The average time in milliseconds per DN Modification
Administration Connector Write Operations	Response	Average Elapsed Time per Delete Operation	ms	The average time in milliseconds per Delete Operation
Administration Connector Extended Operations		Administration Connector Port	NA	Administration Connector Port
Administration Connector Extended Operations	Load	Extended Operations	ops/sec	Extended Operations per second
Administration Connector Extended Operations	Response	Average Elapsed Time per Extended Operation	ms	The average time in milliseconds per Extended Operation
Connection Handlers General Information		Connection Handler Name	NA	Connection Handler Name
Connection Handlers General Information	Load	Operations Completed	ops/sec	Completed operations per second
Connection Handlers General Information	Error	Operations Unsuccessful	ops/sec	Unsuccessful operations per second
Connection Handlers General Information	Response	Average Elapsed Time per Operation	ms	The average time in milliseconds per Operation
Connection Handlers General Information		Connections	conns/sec	Connections Per Sec
Connection Handlers General Information	Load	Returned Search Result Entries	per sec	Returned Search Result Entries per second
Connection Handlers General Information	Load	KB Read	KB/sec	Reads per second in kilobytes

**Table 1-435 (Cont.) Supported Status and Performance Metrics for OUD Directory Server**

Metric Group	Category	Name	Unit	Description
Connection Handlers General Information	Load	KB Written	KB/sec	Writes per second in kilobytes
Connection Handlers Read Operations		Connection Handler Name	NA	Connection Handler Name
Connection Handlers Read Operations	Load	Read Operations	ops/sec	Read Operations per second
Connection Handlers Read Operations	Response	Average Elapsed Time per Operation	ms	The average time in milliseconds per Operation
Connection Handlers Read Operations	Load	Bind Operations	ops/sec	Bind Operations per second
Connection Handlers Read Operations	Load	Search Operations	ops/sec	Search Operations per second
Connection Handlers Read Operations	Load	Unbind Operations	ops/sec	Unbind Operations per second
Connection Handlers Read Operations	Load	Abandon Operations	ops/sec	Abandon Operations per second
Connection Handlers Read Operations	Load	Compare Operations	ops/sec	Compare Operations per second
Connection Handlers Read Operations	Response	Average Elapsed Time per Bind Operation	ms	The average time in milliseconds per Bind Operation
Connection Handlers Read Operations	Response	Average Elapsed Time per Search Operation	ms	The average time in milliseconds per Search Operation
Connection Handlers Read Operations	Response	Average Elapsed Time per Unbind Operation	ms	The average time in milliseconds per Unbind Operation
Connection Handlers Read Operations	Response	Average Elapsed Time per Abandon Operation	ms	The average time in milliseconds per Abandon Operation
Connection Handlers Read Operations	Response	Average Elapsed Time per Compare Operation	ms	The average time in milliseconds per Compare Operation
Connection Handlers Write Operations		Connection Handler Name	NA	Connection Handler Name

**Table 1-435 (Cont.) Supported Status and Performance Metrics for OUD Directory Server**

Metric Group	Category	Name	Unit	Description
Connection Handlers Write Operations	Load	Write Operations	ops/sec	Write Operations per second
Connection Handlers Write Operations	Response	Average Elapsed Time per Operation	ms	The average time in milliseconds per Operation
Connection Handlers Write Operations	Load	Modify Operations	ops/sec	Modify Operations per second
Connection Handlers Write Operations	Load	Add Operations	ops/sec	Add Operations per second
Connection Handlers Write Operations	Load	Modify DN Operations	ops/sec	Modify DN Operations per second
Connection Handlers Write Operations	Load	Delete Operations	ops/sec	Delete Operations per second
Connection Handlers Write Operations	Response	Average Elapsed Time per Modify Operation	ms	The average time in milliseconds per Modify Operation
Connection Handlers Write Operations	Response	Average Elapsed Time per Add Operation	ms	The average time in milliseconds per Add Operation
Connection Handlers Write Operations	Response	Average Elapsed Time per DN Modification	ms	The average time in milliseconds per DN Modification
Connection Handlers Write Operations	Response	Average Elapsed Time per Delete Operation	ms	The average time in milliseconds per Delete Operation
Connection Handlers Extended Operations		Connection Handler Name	NA	Connection Handler Name
Connection Handlers Extended Operations	Load	Extended Operations	ops/sec	Extended Operations per second
Connection Handlers Extended Operations	Response	Average Elapsed Time per Extended Operation	ms	The average time in milliseconds per Extended Operation
Server Resource Information	Capacity	Max Allowed Heap	MB	Max Allowed Heap Size
Server Resource Information	Load	Used Memory in Heap	MB	Used Memory in Heap



**Table 1-435 (Cont.) Supported Status and Performance Metrics for OUD Directory Server**

Metric Group	Category	Name	Unit	Description
Server Resource Information	Load	Free Memory in Heap	MB	Free Memory in Heap
Server Resource Information	Capacity	Heap Size	MB	Heap Size
Server Resource Information	Capacity	Non-Heap Size	MB	Non-Heap Size
Server Resource Information	Load	Memory Code Cache Used	MB	Memory Code Cache Used
Server Resource Information	Load	Memory PermGen Used	MB	Memory PermGen Used
Server Resource Information	Load	Memory Survivor Used	MB	Memory Survivor Used
Server Resource Information	Load	Memory Eden Used	MB	Memory Eden Used
Server Resource Information	Load	Memory OldGen Used	MB	Memory OldGen Used
Server Resource Information	Load	PS Scavenge Garbage Collection Runs	NA	Number of scavenge Collector processing
Server Resource Information	Response	PS Scavenge Garbage Collections Run Time	ms	Average Duration of the scavenge Collector processing
Server Resource Information	Load	PS MarkSweep Collector Runs	NA	Number of markSweep Collector processing
Server Resource Information	Response	PS MarkSweep Collector Run Time	ms	Average Duration of the markSweep Collector processing

**Table 1-436 Supported Status and Performance Metrics for LDAP Server**

Metric Group	Category	Name	Unit	Description
LDAP Server Resource Usage		Memory Utilization	KB	
LDAP Server Resource Usage		CPU Utilization	%	
LDAP Server Resource Usage		Memory Utilization	%	
LDAP Operations Profile		Completed Bind Operations	ops/sec	

**Table 1-436 (Cont.) Supported Status and Performance Metrics for LDAP Server**

Metric Group	Category	Name	Unit	Description
LDAP Operations Profile		Completed Add Operations	ops/sec	
LDAP Operations Profile		Completed Delete Operations	ops/sec	
LDAP Operations Profile		Completed Modify Operations	ops/sec	
LDAP Operations Profile		Completed Search Operations	ops/sec	
LDAP Operations Profile		Completed Compare Operations	ops/sec	
LDAP Operations Profile		Completed Abandon Operations	ops/sec	
LDAP Operations Profile		Completed Unbind Operations	ops/sec	
LDAP Operations Profile		Completed Modrtn Operations	ops/sec	
LDAP Operations Profile		Total Operations	ops/sec	
LDAP Operations Profile		Failed Bind Operations	ops/sec	
LDAP Operation Response Time		Bind Operation Response Time	ms	
LDAP Operation Response Time		Compare Operation Response Time	ms	
LDAP Operation Response Time		Messaging Search Operation Response Time	ms	

**Table 1-437 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB

**Table 1-437 (Cont.) Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

## Oracle Virtual Networking

**Table 1-438 Supported Configuration Metrics for Oracle Virtual Networking**

Metric Group	Category	Name	Unit	Description
Summary		OFM Key	NA	OFM key
Summary		OFM Version	NA	OFM version
Summary		HA Mode	NA	OFM HA mode active
Devices		DN	NA	Distinguished name
Devices		Host Name	NA	Host name
Devices		IP Address	NA	IP Address
Devices		Software Version	NA	Software Version
Devices		Model	NA	Model
Servers		DN	NA	Distinguished name
Servers		Name	NA	Name
Servers		Host OS	NA	Host OS
Servers		IO Profile Name	NA	IO Profile Name
Network Clouds		DN	NA	Distinguished name
Network Clouds		Name	NA	Name
Storage Cloud		DN	NA	Distinguished name
Storage Cloud		Name	NA	Name
IO Templates		DN	NA	Distinguished name
IO Templates		Name	NA	Name
IO Templates	Capacity	VNICs	NA	vNIC count
IO Templates	Capacity	VHBAs	NA	vHBA count
IO Templates		Description	NA	Description

**Table 1-439 Supported Status and Performance Metrics for Oracle Virtual Networking**

Metric Group	Category	Name	Unit	Description
Alarms		DN	NA	Distinguished name
Alarms		Severity	NA	Severity of alarm
Alarms		Chassis Name	NA	Name of chassis
Alarms	Error	Description	NA	Alarm description
Alarms	Error	Detailed	NA	Detailed description
Devices State		DN	NA	Distinguished name
Devices State		State	NA	State
Servers Counts		DN	NA	Distinguished name
Servers Counts	Capacity	VNICs Count	NA	vNIC count
Servers Counts	Capacity	VHBAs Count	NA	vHBA count
Network Clouds Stats		DN	NA	Distinguished name
Network Clouds Stats	Capacity	Ports	NA	Port count
Network Clouds Stats	Capacity	LAGs	NA	Link Aggregation count
Storage Cloud Ports		DN	NA	Distinguished name
Storage Cloud Ports	Capacity	Ports	NA	Port count
Stats	Load	VNIC Total	KB/sec	vNIC Total Traffic
Stats	Load	VHBA Total	KB/sec	vHBA Total Traffic

**Table 1-440 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Oracle WebLogic Cluster

There are no Oracle WebLogic Cluster specific metrics supported. All metrics are inherited from a parent entity as listed below.

**Table 1-441 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

# Oracle WebLogic Server

There are no Oracle WebLogic Server specific configuration metrics supported. All configuration metrics are inherited from parent entities as listed below.

**Table 1-442 Supported Configuration Metrics for Java Application Server**

Metric Group	Name	Unit	Description
Server	Listen Port	N/A	The value of the server listening port
SSL Server	SSL Listen Port	N/A	The value of the secure server listening port
Datasource Config Metrics	Datasource Name	N/A	Name of the Datasource
Datasource Config Metrics	Datasource Connection URL	N/A	URL of Datasource Connection
JDBC Connection Pool	Maximum JDBC Connections	N/A	The maximum pool size of JDBC connections
JDBC Connection Pool	Minimum JDBC Connections	N/A	The minimum pool size of JDBC connections
JVM Configuration	Maximum Heap Size	GB	Maximum heap size configured
JVM Configuration	Operating System Name	N/A	Name of the operating system
JVM Configuration	Operating System Version	N/A	Version of the operating system
JVM Configuration	Java Vendor	N/A	The company that created this Java implementation
JVM Configuration	Java Version	N/A	The version of this Java implementation

**Table 1-443 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-444 Supported Status and Performance Metrics for WebLogic Server**

Metric Group	Category	Name	Unit	Description
Work Manager Metrics	Error	Work Manager Stuck Threads	NA	Count of work manager stuck threads.

**Table 1-444 (Cont.) Supported Status and Performance Metrics for WebLogic Server**

Metric Group	Category	Name	Unit	Description
Datasource Metrics	Load	JDBC Connection Creation Rate	ops/min	Datasource connection create operation throughput.
Datasource Metrics	Load	JDBC Connection Leak Rate	ops/min	Rate of connection leaks.
Datasource Metrics	Response	JDBC Connection Create Delay	ms	Average latency creating a datasource connection.
Datasource Metrics	Load	JDBC Connection Request Rate	ops/min	The rate of incoming requests for JDBC connections.
Datasource Metrics	Load	JDBC Successful Connection Request Wait Rate	ops/min	The rate of requests that had to wait before getting a JDBC connection and eventually succeeded in getting a connection.
Datasource Metrics	Load	JDBC Connection Requests Waiting	NA	The number of JDBC connection requests waiting for a database connection.
Datasource Metrics	Load	JDBC Connection Request Wait Rate	ops/min	The rate of requests that had to wait before getting a JDBC connection including those that eventually got a connection and those that did not get a connection.
Thread Pool Metrics	Load	Active Thread Pool Threads	NA	The number of active threads in this Thread Pool
Thread Pool Metrics	Load	Idle Thread Pool Threads	NA	The number of idle threads in this Thread Pool
Thread Pool Metrics	Load	Hogging Thread Pool Threads	NA	The number of hogging threads in this Thread Pool

**Table 1-444 (Cont.) Supported Status and Performance Metrics for WebLogic Server**

Metric Group	Category	Name	Unit	Description
Deployment Summary Metrics(Deprecated)	Availability	Status	NA	Status of the Deployment.
Deployment Summary Metrics(Deprecated)	Availability	State	NA	State of the Deployment.
Deployment Summary Metrics(Deprecated)	Availability	Health	NA	Health of the Deployment.
Server Deployment Summary Metrics	Availability	Server Deployment Status	NA	Status of the Deployment.
Server Deployment Summary Metrics	Availability	State	NA	State of the Deployment.
Server Deployment Summary Metrics	Availability	Health	NA	Health of the Deployment.
Server Connection Pool Metrics	Load	Active Open Connections	NA	Number of Active Open Connections.
Server Connection Pool Metrics	Capacity	Active Free Connections	NA	Number of Free Connections
Server Connection Pool Metrics	Capacity	Active Unavailable Connections	NA	Number of Unavailable Connections
Server Connection Pool Metrics	Load	Active Connection Waiters	NA	Number of Connection Waiters
Server Connection Pool Metrics	Load	Connection Close Throughput	ops/min	Number of Connections Closed (per minute)
Server Connection Pool Metrics	Load	Connection Create Throughput	ops/min	Number of Connections Created (per minute)
Server Connection Pool Metrics	Error	Connection Destroy Error Throughput	ops/min	Number of Connections Destroyed due to Error (per minute)
Server Connection Pool Metrics	Load	Connection Destroy Shrink Throughput	ops/min	Number of Connections Destroyed due to Shrinking (per minute)

**Table 1-444 (Cont.) Supported Status and Performance Metrics for WebLogic Server**

Metric Group	Category	Name	Unit	Description
Server Connection Pool Metrics	Load	Connection Destroy Throughput	ops/min	Number of Connections Destroyed (per minute)
Server Connection Pool Metrics	Load	Connection Satisfied Throughput	ops/min	Number of Connection Requests Satisfied (per minute)
Server Connection Pool Metrics	Error	Connection Rejected Throughput	ops/min	Number of Connection Requests Rejected (per minute)
Server Connection Pool Metrics	Load	Connection Recycled Throughput	ops/min	Number of Connections Recycled (per minute)

**Table 1-445 Status and Performance Metrics for Java Application Server**

Metric Group	Category	Name	Unit	Description
JVM Memory Usage	Load	Heap Usage	GB	Current size of the JVM memory heap in GB
JVM Memory Usage	N/A	Heap Utilization	%	Current size of the JVM memory heap in percent
JVM Memory Usage	N/A	Non-Heap Memory Usage	GB	Current size of the JVM non-heap memory in GB
Threads	Load	Active Threads	N/A	The number of active threads running in JVM
JVM Garbage Collection	N/A	Garbage Collector Name	N/A	Name of the Garbage Collector
JVM Garbage Collection	Load	Heap Usage After GC	GB	Heap memory after garbage collection
JVM Garbage Collection	Utilization	Heap Utilization After GC	%	Heap memory used as a percentage of maximum heap memory after garbage collection



**Table 1-445 (Cont.) Status and Performance Metrics for Java Application Server**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
JVM Garbage Collection	Load	Max Heap After GC	GB	Maximum heap memory after garbage collection in GB, that can be used by Java virtual machine for memory management
JVM Garbage Collection	N/A	Committed Heap After GC	GB	Committed heap memory after garbage collection in GB. Committed memory is guaranteed to be available for use by the Java virtual machine
JVM Garbage Collection	N/A	Non-Heap Usage After GC	GB	Non-heap memory usage after garbage collection
JVM Garbage Collection	Response	Garbage Collection Execution Time	ms	The average time in milliseconds per garbage collector invocation during the last collection interval
JVM Garbage Collection	Load	Garbage Collection Throughput	ops/min	The average rate at which garbage collection ran during the last collection interval
JVM Garbage Collection	Utilization	Garbage Collection Overhead	%	The percentage of time spent in garbage collection during the last collection interval
JVM Garbage Collection	N/A	Old HeapSize After GC	GB	Size in GB of the old generation heap after garbage collection
JVM Garbage Collection	N/A	Old Heap Utilization After GC	%	Percentage of the old generation heap that is free after garbage collection
JVM Garbage Collection Rollup	Response	Avg GC Execution Time	ms	The average time in milliseconds per garbage collector invocation across all garbage collectors
JVM Garbage Collection Rollup	N/A	GC Collection Overhead	%	The percentage of time spent in garbage collection during the last collection interval across all garbage collectors

**Table 1-445 (Cont.) Status and Performance Metrics for Java Application Server**

Metric Group	Category	Name	Unit	Description
JVM Garbage Collection Rollup	Load	Avg GC Throughput	ops/min	The average rate at which garbage collection ran during the last collection interval across all garbage collectors

**Table 1-446 Supported Status and Performance Metrics for Java EE Application Server**

Metric Group	Category	Name	Unit	Description
EJB Pool	Load	EJBs in Use	NA	Beans currently in use.
EJB Pool	Load	EJB Access Rate	ops/min	Bean access throughput.
JMS Server	Load	JMS Messages Stored	NA	The number of JMS messages stored on the server.
JMS Server	Load	JMS Message Receive Rate	msgs/min	The rate that JMS messages are received.
JMS Destination	.	JMS Server Name	NA	Name of the JMS Server
JMS Destination	.	JMS JNDI Name	NA	JMS Resources JNDI Name
JMS Destination	.	JMS Destination Type	NA	JMS Destination Type.(Queue or Topic)
JMS Destination	Load	Bytes Stored	bytes	The current number of bytes stored in the destination. This does not include the pending bytes.
JMS Destination	Load	Pending Bytes Stored	bytes	The number of pending bytes stored in the destination.
JMS Destination	Load	Bytes Received Throughput	ops/min	The rate of bytes received per minute in this destination since the last reset.
JMS Destination	Load	Active Consumers	NA	The current number of consumers accessing this destination.

**Table 1-446 (Cont.) Supported Status and Performance Metrics for Java EE Application Server**

Metric Group	Category	Name	Unit	Description
JMS Destination	Load	Messages Stored	NA	The current number of messages stored in the destination. This does not include the pending messages.
JMS Destination	Load	Messages Deleted Throughput	msgs/min	The rate of messages that have been deleted per minute from the destination.
JMS Destination	Load	Messages Moved Throughput	msgs/min	The rate of messages that have been moved per minute from the destination.
JMS Destination	Load	Pending Messages	NA	The number of pending messages in the destination.
JMS Destination	Load	Messages Received Throughput	msgs/min	The rate of messages received per minute in the destination since the last reset.
Deployment Summary Metrics(Deprecated)	Load	Active EJB Pool Used	NA	Beans currently in use.
Deployment Summary Metrics(Deprecated)	Load	EJB Pool Access Throughput	ops/min	Bean access throughput.
Server Deployment Summary Metrics	Load	EJBs in Use	NA	Beans currently in use.
Server Deployment Summary Metrics	Load	EJB Access Rate	ops/min	Bean access throughput.

**Table 1-447 Status and Performance Metrics for Database Connectable Web Application Server**

Metric Group	Category	Name	Unit	Description
Datasource Metrics	Load	JDBC Connection Pool Size	N/A	Size of the Datasource connection pool
Datasource Metrics	Load	JDBC Connections in Use	N/A	Datasource connections in use

**Table 1-448 Supported Status and Performance Metrics for Web Application Server**

Metric Group	Category	Name	Unit	Description
Web Requests	Load	Web Request Processing Time	ms	Average processing time per web request since the last collection
Web Requests	N/A	Web Request Rate	ops/min	Number of web requests per minute since the last collection
Web Application Component	Load	Open HTTP Sessions	N/A	Current total number of open HTTP sessions for all the web applications on this web application server

**Table 1-449 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-450 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Physical Switch (Generic)

**Table 1-451 Supported Configuration Metrics for Generic Physical Switch**

Metric Group	Name	Unit	Description
Summary Details	Part Number	NA	The switch part number,
Summary Details	Serial Number	NA	The switch serial number,
Summary Details	Model	NA	The switch model,
Summary Details	Architecture	NA	The switch architecture,

**Table 1-451 (Cont.) Supported Configuration Metrics for Generic Physical Switch**

Metric Group	Name	Unit	Description
Network Management Interface	IP Address	NA	The switch IP address,
Network Management Interface	Physical Address	NA	The switch physical address,
Network Port Details	Port Name	NA	The port name
Network Port Details	Port Physical Address	NA	The port physical address
Network Port Details	Port Type	NA	The port type/
Network Port Details	Port MTU	NA	The port MTU.
Network Port Details	Port Bandwidth	Mbps	An estimate of the interface's current bandwidth.
Network Port Details	Peer Port Physical Address	NA	Peer port physical address,
Network Port Details	Peer Port Type	NA	Peer port type,
Network Port Details	Media Type	NA	Port media type,
Component Details	Name	NA	Component name,
Component Details	Manufacturer	NA	Component manufacturer,
Component Details	Model	NA	Component model,

**Table 1-452 Supported Status and Performance Metrics for Generic Physical Switch**

Metric Group	Category	Name	Unit	Description
Switch ports free vs used	Capacity	Ports Free	NA	The unused ports.
Switch ports free vs used	Capacity	Ports Used	NA	The ports in use.
Switch ports free vs used	Capacity	Ports Count	NA	The total number of physical network ports
Switch ports free vs used	Utilization	Ports Occupation Ratio	%	The percentage of network ports actually used.
Network Port Statistics		Port Name	NA	Port name
Network Port Statistics	Availability	Port Status	NA	Port status
Network Port Statistics	Availability	Port Administrative Status	NA	The port administrative status.
Network Port Statistics	Load	Inbound Octets Rate	bytes/sec	Inbound octets rate,
Network Port Statistics	Utilization	Inbound Bandwidth Usage	%	The percentage of bandwidth used by incoming traffic.

**Table 1-452 (Cont.) Supported Status and Performance Metrics for Generic Physical Switch**

Metric Group	Category	Name	Unit	Description
Network Port Statistics	Load	Outbound Octets Rate	bytes/sec	Outbound octets rate
Network Port Statistics	Utilization	Outbound Bandwidth Usage	%	The percentage of bandwidth used by outgoing traffic.
Network Port Statistics	Load	Total Octets Rate	bytes/sec	Total octets rate
Network Port Statistics	Error	Inbound Discard Ratio	%	The percentage of incoming packets discarded.
Network Port Statistics	Error	Outbound Discard Ratio	%	The percentage of outgoing packets which are discarded.
Network Port Statistics	Error	Inbound Error Ratio	%	The percentage of invalid incoming packets (undersized, oversized, or have FCS errors).
Network Port Statistics	Error	Outbound Error Ratio	%	The percentage of invalid outgoing packets (undersized, oversized, or have FCS errors).
Network Port Statistics		Interval	sec	Interval of metric collection in seconds.
Component State		Name	NA	Component name
Component State	Availability	State	NA	Component state

## Power Distribution Unit

**Table 1-453 Supported Configuration Metrics for Power Distribution Unit**

Metric Group	Name	Unit	Description
PDU Summary	Part Number	N/A	Part Number
PDU Summary	Serial Number	N/A	Serial Number
PDU Summary	Model	N/A	Model
PDU Summary	Number of Inputs	N/A	Number of Inputs
PDU Summary	Firmware Version	N/A	Firmware Version
PDU Summary	Number of Phases	N/A	Number of Phases
PDU Management Interface	IP Address	N/A	IP Address
PDU Management Interface	Physical Address	N/A	Physical Address

**Table 1-454 Supported Status and Performance Metrics for Power Distribution Unit**

Metric Group	Category	Name	Unit	Description
PDU Input Phase Status	N/A	Input ID	N/A	Input ID
PDU Input Phase Status	N/A	Input Phase ID	N/A	Input Phase ID
PDU Input Phase Status	Load	Input Phase Current	amps	Input Phase Current
PDU Input Phase Status	N/A	Input Phase Current Threshold Evaluation	N/A	Input Phase Current Threshold Evaluation

**Table 1-455 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Relational Database (Generic)

**Table 1-456 Supported Configuration Metrics for Relational Database**

Metric Group	Name	Unit	Description
Creation Date	Creation Date	N/A	Date when the database was created
Total Memory Capacity	Host Memory	GB	Total host memory capacity in GB
Resource Allocation	Instance Name	N/A	RDB Instance
Resource Allocation	Host Name	N/A	Host name of the instance
Resource Allocation	Total CPUs	N/A	total number of CPUs allocated or available in this instance
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to this instance.
Lookup Config Metrics	Value	NA	Value

**Table 1-457 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-458 Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Database Resource Stats	.	Instance ID	NA	RDB instance
Database Resource Stats	.	Host Name	NA	Host name of the instance
Database Resource Stats	Response	RDB Instance CPU Time	sec	CPU time used by the instance
Database Resource Stats	.	RDB Instance CPU collection Interval	sec	collection interval
Database Resource Stats	Response	RDB Aggregated CPU Time	sec	Aggregated CPU time used by DB
Database Resource Stats	.	RDB Aggregated CPU interval	sec	collection interval time
Database Resource Stats	Load	RDB Instance Memory	GB	Memory consumed by instance in GB
Database Resource Stats	.	RDB Instance Memory interval	sec	Memory Collection interval
Database Resource Stats	Load	Aggregated RDB Memory	GB	Aggregated memory consumed by DB in GB
Database Resource Stats	.	Aggregated RDB Memory interval	sec	Aggregated memory usage collection interval
Database Resource Stats	Load	RDB Instance I/O Bandwidth Usage	MB/sec	I/O bandwidth usage for db instance
Database Resource Stats	Load	RDB Instance I/O Per Second	IOPS	I/O per second rate for instance.
Database Resource Stats	Load	RDB Instance I/O interval	sec	IO rate collection interval
Database Resource Stats	Load	Aggregated DB I/O Bandwidth Usage	MB/sec	Aggregated I/O bandwidth usage for DB
Database Resource Stats	Load	Aggregated DB I/O Per Second	IOPS	Aggregated IO per second rate for DB
Storage Usage By Tablespace	.	Storage Tablespace Name	NA	Tablespace Name
Storage Usage By Tablespace	Capacity	Total Space Allocated	GB	Total size of a tablespace's datafiles in GB
Storage Usage By Tablespace	Utilization	Space Utilization Percentage	%	Percent of storage space utilized
Storage Usage By Tablespace	Load	Space Used	GB	Tablespace used in GB
Storage Space Usage	Utilization	Storage Space Allocated	GB	Storage space allocated in GB
Storage Space Usage	Utilization	Storage Space Utilization	%	Percent of storage space utilized
Storage Space Usage	Load	Space Used	GB	Storage space used in GB



**Table 1-458 (Cont.) Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Load	Load	Logons	NA	The number of logons during the last collection interval
Load	Load	Logons Rate	logons/sec	Number of logons per second during the last collection interval
Load	Load	Transactions	NA	Number of transactions during the last collection interval
Load	Load	Transactions Rate	txns/sec	Number of transactions per second during the last collection interval
Load	Load	Executions	NA	Number of executions during the last collection interval
Load	Load	Execution Rate	executions/sec	Number of executions per second during the last collection interval
Load	Load	Network I/O	bytes	Number of bytes sent and received over the network during the last collection interval
Load	Load	Network I/O Rate	bytes/sec	Network I/O in bytes/second during the last collection interval
Top SQL Executions	Load	SQL ID	NA	Unique Identifier for the SQL statement
Top SQL Executions	.	Plan Hash Value	NA	Numerical representation of the SQL plan for the cursor
Top SQL Executions	Load	Top SQL Text	NA	SQL text of the top-ranked SQL
Top SQL Executions	Response	Execution Count	NA	Execution Count of the top-ranked SQL

**Table 1-458 (Cont.) Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Top SQL Executions	Response	Total Elapsed Time	ms	Total time used to execute the SQL statement. This includes CPU time and wait time
I/O Performance	Load	I/O Per Second	IOPS	I/O per second.
I/O Performance	Load	I/O Bandwidth Usage	MB/sec	I/O bandwidth usage during the last collection interval
Instance CPU	Utilization	Instance ID	NA	RDB instance
Instance CPU	Utilization	Host Name	NA	Host name of the instance
Instance CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval for this instance
Instance CPU	Utilization	CPU Utilization	%	Percentage of CPU that was utilized in this instance
Instance CPU	.	Interval	sec	Interval of metric collection
Instance Memory Usage	Utilization	Instance ID	NA	RDB instance
Instance Memory Usage	Utilization	Host Name	NA	Host name of the instance
Instance Memory Usage	Utilization	Instance Memory Usage	GB	Memory used in GB
Instance Memory Usage	Utilization	Memory Utilization	%	Percentage of memory that is utilized in this instance
Instance Memory Usage	.	Interval	sec	Interval of metric collection
I/O Per Second Instance Level	Load	Instance ID	NA	RDB instance
I/O Per Second Instance Level	Load	Host Name	NA	Host name of the instance
I/O Per Second Instance Level	Load	I/O Per Second	IOPS	I/O per second for this instance
I/O Per Second Instance Level	Load	I/O Bandwidth Usage	MB/sec	I/O bandwidth usage during the last collection interval for this instance
I/O Per Second Instance Level	.	Interval	sec	Interval of metric collection
Database Activity	.	Instance ID	NA	RDB instance
Database Activity	.	Host Name	NA	Host name of the instance

**Table 1-458 (Cont.) Supported Status and Performance Metrics for Relational Database**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Database Activity	Load	CPU Time	sec	CPU time (in seconds) of foreground sessions
Database Activity	Load	Wait Time	sec	Wait time (in seconds) of foreground sessions
Database Activity	Load	I/O Time	sec	I/O time (in seconds) of foreground sessions
Database Activity	.	Interval	sec	Interval of metric collection
Instance Load	.	Instance ID	NA	RDB instance
Instance Load	.	Host Name	NA	Host name of the instance
Instance Load	Load	Logons	NA	The number of logons during the last collection interval
Instance Load	Load	Logons Rate	logons/sec	Number of logons per second during the last collection interval
Instance Load	Load	Transactions	NA	Number of transactions during the last collection interval
Instance Load	Load	Transactions Rate	txns/sec	Number of transactions per second during the last collection interval
Instance Load	Load	Executions	NA	Number of executions during the last collection interval
Instance Load	Load	Executions Rate	executions/sec	Number of executions per second during the last collection interval
Instance Load	Load	Network I/O	bytes	Number of bytes sent and received over the network during the last collection interval

**Table 1-458 (Cont.) Supported Status and Performance Metrics for Relational Database**

Metric Group	Category	Name	Unit	Description
Instance Load	Load	Network I/O Rate	bytes/sec	Network I/O in bytes/second during the last collection interval
Instance Load	.	Interval	sec	Interval of metric collection
SQL Statistics	.	SQL ID	NA	SQL ID
SQL Statistics	.	Plan Hash Value	NA	Numerical representation of the SQL plan for the cursor
SQL Statistics	Load	Executions	NA	Number of times the SQL statement was executed
SQL Statistics	Response	Elapsed Time	ms	Total time (in milliseconds) used by this SQL for parsing, executing and fetching
SQL Statistics	.	Interval	sec	Interval of metric collection

**Table 1-459 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-460 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Resource Pool

**Table 1-461 Supported Configuration Metrics for Resource Pool**

Group	Name	Unit	Description
Resource Pool Configuration	Name	NA	The resource pool name.
Resource Pool Configuration	Total CPU Cores	NA	Total number of CPU cores on the resource pool.
Resource Pool Configuration	Total CPU Threads	NA	Total number of CPU threads on the resource pool.
Resource Pool Configuration	Total CPU Mhz	NA	Total number of CPU megahertz on the resource pool.
Resource Pool Configuration	Total Memory	GB	Total amount of memory (GB) on the resource pool.

**Table 1-462 Supported Status and Performance Metrics for Resource Pool**

Metric Group	Category	Name	Unit	Description
Resource Pool Usage	Availability	State	NA	Overall state of a resource pool.
Resource Pool Usage	Load	CPU Core Allocated	NA	Number of CPU cores allocated to the resource pool.
Resource Pool Usage	Load	CPU Thread Allocated	NA	Number of CPU threads allocated to the resource pool.
Resource Pool Usage	Load	CPU Mhz Allocated	NA	Number of CPU megahertz allocated to the resource pool.
Resource Pool Usage	Load	Memory Consumed	GB	Memory used by the resource pool in GB.
Resource Pool Usage		Interval	sec	Interval of metric collection in seconds.

**Table 1-463 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Router (Generic)

**Table 1-464 Supported Configuration Metrics for any Generic Router**

Group	Name	Unit	Description
Network Port Details	Port Name	NA	The port name.
Network Port Details	Port Alias	NA	The alias name if any for the port as specified by a network manager.
Network Port Details	Port Physical Address	NA	The physical address of the port.
Network Port Details	Port Type	NA	The port type.
Network Port Details	Port MTU	NA	The port MTU.
Network Port Details	Port Bandwidth	Mbps	An estimate of the interface's current bandwidth.

**Table 1-465 Supported Status and Performance Metrics for any Generic Router**

Metric Group	Category	Name	Unit	Description
Network Port Statistics		Port Name	NA	The port name.
Network Port Statistics	Availability	Port Operational Status	NA	The port operational status.
Network Port Statistics	Availability	Port Administrative Status	NA	The port administrative status.
Network Port Statistics	Load	Inbound Octets Rate	bytes/sec	The inbound octets rate.
Network Port Statistics	Utilization	Inbound Bandwidth Usage	%	The percentage of bandwidth used by incoming traffic.
Network Port Statistics	Load	Outbound Octets Rate	bytes/sec	The outbound octets rate.
Network Port Statistics	Utilization	Outbound Bandwidth Usage	%	The percentage of bandwidth used by outgoing traffic.
Network Port Statistics	Load	Total Octets Rate	bytes/sec	The total octets rate.
Network Port Statistics	Error	Inbound Discard Ratio	%	The percentage of incoming packets discarded.
Network Port Statistics	Error	Outbound Discard Ratio	%	The percentage of outgoing packets which are discarded.

**Table 1-465 (Cont.) Supported Status and Performance Metrics for any Generic Router**

Metric Group	Category	Name	Unit	Description
Network Port Statistics	Error	Inbound Error Ratio	%	The percentage of invalid incoming packets (undersized, oversized, or have FCS errors).
Network Port Statistics	Error	Outbound Error Ratio	%	The percentage of invalid outgoing packets (undersized, oversized, or have FCS errors).
Network Port Statistics		Interval	sec	Interval of metric collection in seconds.

## Siebel

- [Siebel Component](#)
- [Siebel Enterprise](#)
- [Siebel Gateway Server](#)
- [Siebel Server](#)

## Siebel Component

There are no Siebel-specific configuration metrics supported.

**Table 1-466 Supported Status and Performance Metrics for Siebel Component**

Metric Group	Category	Name	Unit	Description
Siebel Component Overview	Response	Average Object Manager response time	ms	Average Object Manager response time in milliseconds
Siebel Component Overview	Load	Average number of requests per Object Manager session	NA	Average number of requests per Object Manager session
Siebel Component Overview	Capacity	Average size of request messages	bytes	Average size of request messages in bytes
Siebel Component Overview	Capacity	Average size of reply messages	bytes	Average size of reply messages in bytes

**Table 1-466 (Cont.) Supported Status and Performance Metrics for Siebel Component**

Metric Group	Category	Name	Unit	Description
Siebel Component Overview	Response	Average connect time for Object Manager Sessions	sec	Average connect time in seconds for Object Manager Sessions
Siebel Component Overview	Error	Component Process Failure Rate	per min	Number of component process failures per minute since last collection
Siebel Component Overview	Load	Running Multi Threaded Server Processes	NA	Running MTS Processes
Siebel Component Overview	Capacity	Max Tasks	NA	Max Tasks
Siebel Component Overview	Load	Running Tasks	NA	Running Tasks
Siebel Component Processes	.	Process ID	NA	Process ID

## Siebel Enterprise

There are no Siebel-specific performance metrics supported.

**Table 1-467 Supported Configuration Metrics for Siebel Enterprise**

Metric Group	Name	Unit	Description
Siebel Enterprise Database Configuration	Siebel Database DSN Information	NA	Siebel Enterprise Database Configuration
Siebel Enterprise Database Configuration	Host DSN Information	NA	Host DSN Information
Siebel Enterprise Database Configuration	Siebel Database Host Name	NA	Siebel Database Host Name
Siebel Enterprise Database Configuration	Siebel Database SID	NA	Siebel Database SID

## Siebel Gateway Server

No Siebel-specific configuration or performance metrics supported. Configuration and performance metrics are inherited from parent targets as shown below.



**Table 1-468 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-469 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

## Siebel Server

No Siebel-specific configuration metrics are defined. Configuration metrics are inherited from parent entities as shown below.

**Table 1-470 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-471 Supported Status and Performance Metrics for Siebel Server**

Metric Group	Category	Name	Unit	Description
Siebel Server Overview	Response	Average connect time for Object Manager sessions	sec	Average connect time in seconds for Object Manager sessions

**Table 1-471 (Cont.) Supported Status and Performance Metrics for Siebel Server**

Metric Group	Category	Name	Unit	Description
Siebel Server Overview	Response	Average Object Manager response time	ms	Average Object Manager response time in milliseconds
Siebel Server Overview	Capacity	Average Size of Request Messages	bytes	Average Size of Request Messages in bytes
Siebel Server Overview	Capacity	Average Size of Reply Messages	bytes	Average Size of Reply Messages in bytes
Siebel Server Overview	Load	Average Number of Requests Per Object Manager Session	per min	Average number of requests per object manager session
Siebel Server Overview	Load	Tasks Submission Rate	per min	Number of Tasks submitted per minute since last collection
Siebel Server Overview	Response	Average CPU time for component tasks	sec	Avg CPU time in seconds for component tasks
Siebel Server Overview	Error	Retry Rate due to Deadlock Rollbacks	per min	Number of Retries Per Minute due to Deadlock Rollbacks
Siebel Server Overview	Error	Component Process Failure Rate	per min	Number of component process failures per minute since last collection
Siebel Server Overview	Error	Level 0 and 1 Error Rate	per min	Number of level 0 and 1 errors per minute since last collection
Siebel Server Overview	Error	Component Process Restart Rate	per min	Number of component process restarts per minute since last collection
Database Operations Overview	Response	Average time for SQL execute Operations	sec	Average time for SQL execute operations(in seconds)
Database Operations Overview	Response	Average time for SQL fetch Operations	sec	Average time for SQL fetch operations(in seconds)

**Table 1-471 (Cont.) Supported Status and Performance Metrics for Siebel Server**

Metric Group	Category	Name	Unit	Description
Database Operations Overview	Response	Average time for SQL parse operations	sec	Average time for SQL parse operations(in seconds)
Database Operations Overview	Load	SQL Execute Operation Rate	ops/min	Number of SQL execute operations per minute since last collection
Database Operations Overview	Load	SQL Fetch Operation Rate	ops/min	Number of SQL fetch operations per minute since last collection
Database Operations Overview	Load	SQL Parse Operation Rate	ops/min	Number of SQL parse operations per Minute since last collection
Siebel Server Processes	.	Process ID	NA	Process ID

**Table 1-472 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

## SOA Infrastructure

**Table 1-473 Supported Status and Performance Metrics for SOA Infrastructure**

Metric Group	Category	Name	Unit	Description
SOA Infrastructure	Load	Throughput	msgs/min	Messages processed across all the SOA Composites
SOA Infrastructure	Error	Errors	msgs/min	Errors generated across all the SOA Composites

**Table 1-473 (Cont.) Supported Status and Performance Metrics for SOA Infrastructure**

Metric Group	Category	Name	Unit	Description
Service Engine	N/A	Engine Name	N/A	Name of SOA Service Engine
Service Engine	Load	Throughput	msgs/min	Messages processed by the Service Engine
Service Engine	Error	Errors	msgs/min	Errors generated by the Service Engine
Service Engine	Error	Error Rate	%	Percentage of errors out of total messages processed by the Service Engine
SOA Composite	N/A	Revision	N/A	Revision of the SOA Composite
SOA Composite	N/A	Name	N/A	Name of the SOA Composite
SOA Composite	N/A	SOA Partition	N/A	Name of the SOA Partition
SOA Composite	Error	System Faults	msgs/min	System faults generated by the SOA Composite
SOA Composite	Error	Business Faults	msgs/min	Business faults generated by the SOA Composite
SOA Composite	Error	Policy Violations	msgs/min	Policy violations generated by the SOA Composite
SOA Composite	Error	Error Rate	%	Percentage of errors out of total messages processed by the SOA Composite
SOA Composite	Response	Synchronous Response Time	ms	Average time for processing synchronous transactions
SOA Composite	Response	Asynchronous Response Time	ms	Average time for posting asynchronous transactions
SOA Composite	Error	Errors	msgs/min	Errors generated by the SOA Composite
SOA Composite	N/A	Throughput	msgs/min	Messages processed by the SOA Composite

**Table 1-474 Supported Status and Performance Metrics for Java EE Application Server**

Metric Group	Category	Name	Unit	Description
EJB Pool	Load	EJBs in Use	N/A	Beans currently in use
EJB Pool	Load	EJB Access Rate	ops/min	Beans access throughput
JMS Server	Load	JMS Messages Stored	N/A	The number of JMS messages stored on the server
JMS Server	Load	JMS Message Receive Rate	msgs/min	The rate that JMS messages are received

**Table 1-475 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Virtual Application

**Table 1-476 Supported Configuration Metrics for Virtual Application**

Group	Name	Unit	Description
Virtual App Configuration	Name	NA	The virtual app name.

**Table 1-477 Supported Status and Performance Metrics for Virtual Application**

Metric Group	Category	Name	Unit	Description
Virtual App Usage	Availability	State	NA	Overall state of a virtual app.

**Table 1-478 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Virtual Cluster

**Table 1-479 Supported Configuration Metrics for Virtual Cluster**

Group	Name	Unit	Description
Virtual Cluster Configuration	Name	NA	The virtual cluster name.
Virtual Cluster Configuration	Total CPU Cores	NA	Total number of CPU cores on the virtual cluster.
Virtual Cluster Configuration	Total CPU Threads	NA	Total number of CPU threads on the virtual cluster.
Virtual Cluster Configuration	Total CPU Mhz	NA	Total number of CPU megahertz on the virtual cluster.
Virtual Cluster Configuration	Total Memory	GB	Total amount of memory (GB) on the virtual cluster.

**Table 1-480 Supported Status and Performance Metrics for Virtual Cluster**

Metric Group	Category	Name	Unit	Description
Virtual Cluster Usage	Availability	State	NA	Overall state of a virtual cluster.
Virtual Cluster Usage	Utilization	CPU Utilization	%	Percentage of total CPU time spent across all CPUs allocated or available to the virtual cluster.
Virtual Cluster Usage	Load	CPU Core Allocated	NA	Number of CPU cores allocated to the virtual cluster.
Virtual Cluster Usage	Load	CPU Thread Allocated	NA	Number of CPU threads allocated to the virtual cluster.
Virtual Cluster Usage	Load	CPU Mhz Allocated	NA	Number of CPU megahertz allocated to the virtual cluster.
Virtual Cluster Usage	Utilization	Memory Utilization	%	Percentage of the allocated or available memory that is utilized by the virtual cluster.
Virtual Cluster Usage	Load	Memory Consumed	GB	Memory used by the virtual cluster in GB.
Virtual Cluster Usage		Interval	sec	Interval of metric collection in seconds.

**Table 1-481 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Virtual Management System

There are no Virtual Management System specific metrics supported. All metrics are inherited from a parent entity as listed below.

**Table 1-482 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

# Virtual Platform

**Table 1-483 Supported Configuration Metrics for Virtual Platform**

Group	Name	Unit	Default Collection Frequency	Description
Resource Allocation	Total CPUs	NA	24 Hr	Total number of CPUs on the system
Resource Allocation	Total CPU Mhz	NA	24 Hr	Total number of CPU megahertz on the virtual platform.
Resource Allocation	Total Memory	GB	24 Hr	Total amount of usable Physical RAM on the system
Virtual Servers	Virtual Server ID	NA	24 Hr	The ID of the virtual server, which can be a container or virtual machine
Virtual Servers	Virtual Server Name	NA	24 Hr	The name of the virtual server, which can be a container or virtual machine
Hardware Configuration	CPU Architecture	NA	.	CPU architecture of the virtual platform
Hardware Configuration	CPU Model	NA	.	CPU model of the virtual platform
Hardware Configuration	Total Cores	NA	.	Total number of CPU cores on the virtual platform

**Table 1-484 Supported Status and Performance Metrics for Virtual Platform**

Metric Group	Category	Name	Unit	Description
CPU	Load	CPU Usage	sec	Total CPU time used in seconds
CPU	Utilization	CPU Utilization	%	Percentage of total CPU time used
CPU	Load	CPU Mhz Allocated	NA	Number of CPU megahertz allocated to the virtual platform.

**Table 1-484 (Cont.) Supported Status and Performance Metrics for Virtual Platform**

Metric Group	Category	Name	Unit	Description
CPU		Interval	sec	Interval of metric collection in seconds
Memory	Load	Memory Used	GB	Memory used by the entity in GB
Memory	Utilization	Memory Utilization	%	Percentage of the allocated or available memory that is utilized by the entity
Memory		Interval	sec	Interval of metric collection in seconds

**Table 1-485 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Virtual Server

**Table 1-486 Supported Configuration Metrics for Virtual Server**

Group	Name	Unit	Default Collection Frequency	Description
Network Interfaces Configuration	Interface Name	NA	24 Hr	The interface name of the network interface card
Network Interfaces Configuration	IP Address	NA	24 Hr	The ip address of the network card
Network Interfaces Configuration	MAC Address	NA	24 Hr	The mac address of the network interface card
General Configuration	Server ID	NA	24 Hr	ID of the virtual server, which can be a container or virtual machine
General Configuration	Server Name	NA	24 Hr	Name of the virtual server, which can be a container or virtual machine



**Table 1-486 (Cont.) Supported Configuration Metrics for Virtual Server**

Group	Name	Unit	Default Collection Frequency	Description
General Configuration	Host Name	NA	24 Hr	Host name of the virtual server, which can be a container or virtual machine
Resource Allocation	Total CPUs	NA	24 Hr	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	24 Hr	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-487 Supported Status and Performance Metrics for Virtual Server**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
CPU	Load	CPU Usage	sec	1 Min	Total CPU time spent across all CPUs allocated or available to the entity
CPU	Utilization	CPU Utilization	%	1 Min	Percentage of total CPU time spent across all CPUs allocated or available to the entity
CPU	Load	CPU Mhz Allocated	NA	1 Min	Number of CPU megahertz allocated to the virtual server.
CPU		Interval	sec	1 Min	Interval of metric collection in seconds
Memory	Load	Memory Used	GB	1 Min	Memory used by the entity in GB

**Table 1-487 (Cont.) Supported Status and Performance Metrics for Virtual Server**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Memory	Utilization	Memory Utilization	%	1 Min	Percentage of the allocated or available memory that is utilized by the entity
Network Activity Summary	Load	Network Read Rate	MB/sec	15 Min	Rate at which bytes are received across all network interfaces
Network Activity Summary	Load	Network Write Rate	MB/sec	15 Min	Rate at which bytes are sent across all network interfaces
Network Activity Summary	Load	Network I/O Rate	MB/sec	15 Min	Rate at which bytes are sent and received on across all network interfaces
Network Activity Summary		Interval	sec	15 Min	Interval of metric collection in seconds
State	Availability	State	NA	1 Min	The state of this container
State		Interval	sec	1 Min	Interval of metric collection in seconds

**Table 1-488 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Virtual Server (Generic)

**Table 1-489 Supported Configuration Metrics for Virtual Servers**

Metric Group	Name	Unit	Description
Network Interfaces Configuration	Interface Name	N/A	The interface name of the network interface card
Network Interfaces Configuration	IP Address	N/A	The IP address of the network card
Network Interfaces Configuration	MAC Address	N/A	The MAC address of the network interface card
General Configuration	Server ID	N/A	ID of the virtual server, which can be a container or virtual machine
General Configuration	Server Name	N/A	Name of the virtual server, which can be a container or virtual machine
General Configuration	Host Name	N/A	Host name of the virtual server, which can be a container or virtual machine
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-490 Supported Status and Performance Metrics for Virtual Servers**

Metric Group	Category	Name	Unit	Description
CPU	Load	CPU Usage	sec	Total CPU time spent across all CPUs allocated or available to the entity
CPU	Utilization	CPU Utilization	%	Percentage of total CPU time spent across all CPUs allocated or available to the entity
CPU	N/A	Interval	sec	Interval of metric collection in seconds
Memory	Load	Memory Used	GB	Memory used by the entity in GB
Memory	Utilization	Memory Utilization	%	Percentage of the allocated or available memory that is utilized by the entity
Network Activity Summary	Load	Network Read rate	MB/sec	Rate at which bytes are received across all network interfaces

**Table 1-490 (Cont.) Supported Status and Performance Metrics for Virtual Servers**

Metric Group	Category	Name	Unit	Description
Network Activity Summary	N/A	Network Write Rate	MB/sec	Rate at which bytes are sent across all network interfaces
Network Activity Summary	N/A	Network I/O Rate	MB/sec	Rate at which bytes are sent and received on across all network interfaces
Network Activity Summary	N/A	Interval	sec	Interval of metric collection in seconds
State	Availability	State	N/A	The state of this container

**Table 1-491 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## VMware vCenter

vCenter is a composite entity consisting of the following entity types:

- [Virtual Management System](#)
- [Datacenter](#)
- [Datastore](#)
- [Resource Pool](#)
- [Virtual Cluster](#)
- [Virtual Application](#)
- [Virtual Platform](#)
- [Virtual Server](#)

## Virtual Management System

There are no Virtual Management System specific metrics supported. All metrics are inherited from a parent entity as listed below.

**Table 1-492 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Datacenter

**Table 1-493 Supported Configuration Metrics for Datacenter**

Group	Name	Unit	Description
Datacenter Configuration	Name	NA	The datacenter name.

**Table 1-494 Supported Status and Performance Metrics for Datacenter**

Metric Group	Category	Name	Unit	Description
Datacenter State	Availability	State	NA	Overall state of a datacenter.

**Table 1-495 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Datastore

**Table 1-496 Supported Configuration Metrics for Datastore**

Group	Name	Unit	Description
Datastore Configuration	Name	NA	The datastore name.
Datastore Configuration	Type	NA	The type of datastore.
Datastore Configuration	Max File Size	MB	The maximum size of a file in MB that can reside on this file system volume.

**Table 1-497 Supported Configuration Metrics for Generic Storage Manager**

Metric Group	Name	Unit	Description
Storage Capacity	Total Size	GB	Total size of the managed storage
Storage Capacity	Physical Size	GB	Physical size of the managed storage

**Table 1-498 Supported Status and Performance Metrics for Datastore**

Metric Group	Category	Name	Unit	Description
Datastore Usage	Availability	State	NA	Overall state of a datastore.
Datastore Usage	Capacity	Free Space	GB	Free space on this datastore in GB.
Datastore Usage		Maintenance Mode	NA	Datastore maintenance mode.
Datastore Usage	Load	Number Read Averaged	IOPS	Average number of read commands issued per second to the datastore during the collection interval.
Datastore Usage	Load	Number Write Averaged	IOPS	Average number of write commands issued per second to the datastore during the collection interval.
Datastore Usage	Load	Read	MB/sec	Rate of reading data from the datastore in MBPS.
Datastore Usage	Load	Write	MB/sec	Rate of writing data to the datastore in MBPS.
Datastore Usage		Interval	sec	Interval of metric collection in seconds.

**Table 1-499 Supported Status and Performance Metrics for Generic Storage Manager**

Metric Group	Category	Name	Unit	Description
StorageUtilization	Utilization	Used Size	GB	Used size of the managed storage
StorageUtilization	Utilization	Physical Used Size	GB	Physical used size of the managed storage
StorageUtilization	Utilization	Storage Used	%	Percentage of space used in the storage
StorageUtilization	Utilization	Physical Storage Used	%	Percentage of physical space used in the storage

**Table 1-500 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Resource Pool

**Table 1-501 Supported Configuration Metrics for Resource Pool**

Group	Name	Unit	Description
Resource Pool Configuration	Name	NA	The resource pool name.
Resource Pool Configuration	Total CPU Cores	NA	Total number of CPU cores on the resource pool.
Resource Pool Configuration	Total CPU Threads	NA	Total number of CPU threads on the resource pool.
Resource Pool Configuration	Total CPU Mhz	NA	Total number of CPU megahertz on the resource pool.
Resource Pool Configuration	Total Memory	GB	Total amount of memory (GB) on the resource pool.

**Table 1-502 Supported Status and Performance Metrics for Resource Pool**

Metric Group	Category	Name	Unit	Description
Resource Pool Usage	Availability	State	NA	Overall state of a resource pool.
Resource Pool Usage	Load	CPU Core Allocated	NA	Number of CPU cores allocated to the resource pool.
Resource Pool Usage	Load	CPU Thread Allocated	NA	Number of CPU threads allocated to the resource pool.
Resource Pool Usage	Load	CPU Mhz Allocated	NA	Number of CPU megahertz allocated to the resource pool.
Resource Pool Usage	Load	Memory Consumed	GB	Memory used by the resource pool in GB.
Resource Pool Usage		Interval	sec	Interval of metric collection in seconds.

**Table 1-503 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Virtual Cluster

**Table 1-504 Supported Configuration Metrics for Virtual Cluster**

Group	Name	Unit	Description
Virtual Cluster Configuration	Name	NA	The virtual cluster name.
Virtual Cluster Configuration	Total CPU Cores	NA	Total number of CPU cores on the virtual cluster.
Virtual Cluster Configuration	Total CPU Threads	NA	Total number of CPU threads on the virtual cluster.
Virtual Cluster Configuration	Total CPU Mhz	NA	Total number of CPU megahertz on the virtual cluster.
Virtual Cluster Configuration	Total Memory	GB	Total amount of memory (GB) on the virtual cluster.

**Table 1-505 Supported Status and Performance Metrics for Virtual Cluster**

Metric Group	Category	Name	Unit	Description
Virtual Cluster Usage	Availability	State	NA	Overall state of a virtual cluster.
Virtual Cluster Usage	Utilization	CPU Utilization	%	Percentage of total CPU time spent across all CPUs allocated or available to the virtual cluster.
Virtual Cluster Usage	Load	CPU Core Allocated	NA	Number of CPU cores allocated to the virtual cluster.
Virtual Cluster Usage	Load	CPU Thread Allocated	NA	Number of CPU threads allocated to the virtual cluster.
Virtual Cluster Usage	Load	CPU Mhz Allocated	NA	Number of CPU megahertz allocated to the virtual cluster.
Virtual Cluster Usage	Utilization	Memory Utilization	%	Percentage of the allocated or available memory that is utilized by the virtual cluster.
Virtual Cluster Usage	Load	Memory Consumed	GB	Memory used by the virtual cluster in GB.



**Table 1-505 (Cont.) Supported Status and Performance Metrics for Virtual Cluster**

Metric Group	Category	Name	Unit	Description
Virtual Cluster Usage		Interval	sec	Interval of metric collection in seconds.

**Table 1-506 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Virtual Application

**Table 1-507 Supported Configuration Metrics for Virtual Application**

Group	Name	Unit	Description
Virtual App Configuraton	Name	NA	The virtual app name.

**Table 1-508 Supported Status and Performance Metrics for Virtual Application**

Metric Group	Category	Name	Unit	Description
Virtual App Usage	Availability	State	NA	Overall state of a virtual app.

**Table 1-509 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Virtual Platform

**Table 1-510 Supported Configuration Metrics for Virtual Platform**

Group	Name	Unit	Default Collection Frequency	Description
Resource Allocation	Total CPUs	NA	24 Hr	Total number of CPUs on the system
Resource Allocation	Total CPU Mhz	NA	24 Hr	Total number of CPU megahertz on the virtual platform.

**Table 1-510 (Cont.) Supported Configuration Metrics for Virtual Platform**

Group	Name	Unit	Default Collection Frequency	Description
Resource Allocation	Total Memory	GB	24 Hr	Total amount of usable Physical RAM on the system
Virtual Servers	Virtual Server ID	NA	24 Hr	The ID of the virtual server, which can be a container or virtual machine
Virtual Servers	Virtual Server Name	NA	24 Hr	The name of the virtual server, which can be a container or virtual machine
Hardware Configuration	CPU Architecture	NA	.	CPU architecture of the virtual platform
Hardware Configuration	CPU Model	NA	.	CPU model of the virtual platform
Hardware Configuration	Total Cores	NA	.	Total number of CPU cores on the virtual platform

**Table 1-511 Supported Status and Performance Metrics for Virtual Platform**

Metric Group	Category	Name	Unit	Description
CPU	Load	CPU Usage	sec	Total CPU time used in seconds
CPU	Utilization	CPU Utilization	%	Percentage of total CPU time used
CPU	Load	CPU Mhz Allocated	NA	Number of CPU megahertz allocated to the virtual platform.
CPU		Interval	sec	Interval of metric collection in seconds
Memory	Load	Memory Used	GB	Memory used by the entity in GB
Memory	Utilization	Memory Utilization	%	Percentage of the allocated or available memory that is utilized by the entity

**Table 1-511 (Cont.) Supported Status and Performance Metrics for Virtual Platform**

Metric Group	Category	Name	Unit	Description
Memory		Interval	sec	Interval of metric collection in seconds

**Table 1-512 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Virtual Server

**Table 1-513 Supported Configuration Metrics for Virtual Server**

Group	Name	Unit	Default Collection Frequency	Description
Network Interfaces Configuration	Interface Name	NA	24 Hr	The interface name of the network interface card
Network Interfaces Configuration	IP Address	NA	24 Hr	The ip address of the network card
Network Interfaces Configuration	MAC Address	NA	24 Hr	The mac address of the network interface card
General Configuration	Server ID	NA	24 Hr	ID of the virtual server, which can be a container or virtual machine
General Configuration	Server Name	NA	24 Hr	Name of the virtual server, which can be a container or virtual machine
General Configuration	Host Name	NA	24 Hr	Host name of the virtual server, which can be a container or virtual machine
Resource Allocation	Total CPUs	NA	24 Hr	Total number of CPUs allocated or available to the entity

**Table 1-513 (Cont.) Supported Configuration Metrics for Virtual Server**

Group	Name	Unit	Default Collection Frequency	Description
Resource Allocation	Total Memory	GB	24 Hr	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-514 Supported Status and Performance Metrics for Virtual Server**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
CPU	Load	CPU Usage	sec	1 Min	Total CPU time spent across all CPUs allocated or available to the entity
CPU	Utilization	CPU Utilization	%	1 Min	Percentage of total CPU time spent across all CPUs allocated or available to the entity
CPU	Load	CPU Mhz Allocated	NA	1 Min	Number of CPU megahertz allocated to the virtual server.
CPU		Interval	sec	1 Min	Interval of metric collection in seconds
Memory	Load	Memory Used	GB	1 Min	Memory used by the entity in GB
Memory	Utilization	Memory Utilization	%	1 Min	Percentage of the allocated or available memory that is utilized by the entity
Network Activity Summary	Load	Network Read Rate	MB/sec	15 Min	Rate at which bytes are received across all network interfaces

**Table 1-514 (Cont.) Supported Status and Performance Metrics for Virtual Server**

Metric Group	Category	Name	Unit	Default Collection Frequency	Description
Network Activity Summary	Load	Network Write Rate	MB/sec	15 Min	Rate at which bytes are sent across all network interfaces
Network Activity Summary	Load	Network I/O Rate	MB/sec	15 Min	Rate at which bytes are sent and received on across all network interfaces
Network Activity Summary		Interval	sec	15 Min	Interval of metric collection in seconds
State	Availability	State	NA	1 Min	The state of this container
State		Interval	sec	1 Min	Interval of metric collection in seconds

**Table 1-515 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Web Application Server (Generic)

There are no generic Web Application Server specific **configuration** metrics supported. All configuration metrics are inherited from parent entities as listed below.

**Table 1-516 Supported Configuration Metrics for Hosted Target**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-517 Supported Status and Performance Metrics for Web Application Server**

Metric Group	Category	Name	Unit	Description
Web Requests	Load	Web Request Processing Time	ms	Average processing time per web request since the last collection
Web Requests	N/A	Web Request Rate	ops/min	Number of web requests per minute since the last collection
Web Application Component	Load	Open HTTP Sessions	N/A	Current total number of open HTTP sessions for all the web applications on this web application server

**Table 1-518 Supported Status and Performance Metrics for Hosted Target**

Metric Group	Category	Name	Unit	Description
CPU	Utilization	CPU Usage	sec	All CPUs usage during the interval
CPU	N/A	CPU Utilization	%	Percentage of CPU that was utilized
CPU	N/A	Interval	sec	Interval of metric collection
Memory	Load	Memory Usage	GB	Memory used in GB
Memory	Utilization	Memory Utilization	%	Percentage of memory that is utilized
Memory	N/A	Interval	sec	Interval of metric collection

**Table 1-519 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## WebLogic Node Manager

There are no Oracle WebLogic Node Manager specific configuration metrics supported. All configuration metrics are inherited from parent entities as listed below.

**Table 1-520 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Xen Virtual Platform

There are no Xen Virtual Platform specific configuration metrics supported. All configuration metrics are inherited from parent entities as listed below.

**Table 1-521 Supported Configuration Metrics for Virtual platform**

Metric Group	Name	Unit	Description
Resource Allocation	Total CPUs	N/A	Total number of CPUs on the system
Resource Allocation	Total Memory	GB	Total number of usable Physical RAM on the system
Virtual Servers	Virtual Server ID	N/A	The ID of the virtual server, which can be a container or virtual machine
Virtual Servers	Virtual Server Name	N/A	The name of the virtual server, which can be a container or virtual machine

**Table 1-522 Status and Performance Metrics for Generic Target**

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## Xen Virtual Server

There are no Xen Virtual Server specific configuration metrics supported. All configuration metrics are inherited from parent entities as listed below.

**Table 1-523 Supported Configuration Metrics for Virtual Servers**

Metric Group	Name	Unit	Description
Network Interfaces Configuration	Interface Name	N/A	The interface name of the network interface card
Network Interfaces Configuration	IP Address	N/A	The IP address of the network card
Network Interfaces Configuration	MAC Address	N/A	The MAC address of the network interface card
General Configuration	Server ID	N/A	ID of the virtual server, which can be a container or virtual machine
General Configuration	Server Name	N/A	Name of the virtual server, which can be a container or virtual machine

**Table 1-523 (Cont.) Supported Configuration Metrics for Virtual Servers**

Metric Group	Name	Unit	Description
General Configuration	Host Name	N/A	Host name of the virtual server, which can be a container or virtual machine
Resource Allocation	Total CPUs	N/A	Total number of CPUs allocated or available to the entity
Resource Allocation	Total Memory	GB	Total amount of usable Physical RAM allocated or available to the entity

**Table 1-524 Supported Status and Performance Metrics for Virtual Servers**

Metric Group	Category	Name	Unit	Description
CPU	Load	CPU Usage	sec	Total CPU time spent across all CPUs allocated or available to the entity
CPU	Utilization	CPU Utilization	%	Percentage of total CPU time spent across all CPUs allocated or available to the entity
CPU	N/A	Interval	sec	Interval of metric collection in seconds
Memory	Load	Memory Used	GB	Memory used by the entity in GB
Memory	Utilization	Memory Utilization	%	Percentage of the allocated or available memory that is utilized by the entity
Network Activity Summary	Load	Network Read rate	MB/sec	Rate at which bytes are received across all network interfaces
Network Activity Summary	N/A	Network Write Rate	MB/sec	Rate at which bytes are sent across all network interfaces
Network Activity Summary	N/A	Network I/O Rate	MB/sec	Rate at which bytes are sent and received on across all network interfaces
Network Activity Summary	N/A	Interval	sec	Interval of metric collection in seconds
State	Availability	State	N/A	The state of this container



Table 1-525 Status and Performance Metrics for Generic Target

Metric Group	Category	Name	Unit	Description
Response	Availability	Status	N/A	Status of the target

## ZFS Storage Appliance

Table 1-526 Supported Configuration Metrics for ZFS Storage Appliance

Group	Name	Unit	Description
Storage Information	Part Number	NA	Product part number
Storage Information	URN	NA	URN
Storage Information	Appliance Serial Number	NA	Appliance serial number
Chassis	Name	NA	Name
Chassis	Manufacturer	NA	Manufacturer
Chassis	Model	NA	Model
Chassis	Serial	NA	Serial
Chassis	Type	NA	Type
Chassis	REST HREF	NA	REST HREF
Chassis	Chassis ID	NA	Chassis ID
System Chassis	Name	NA	Name
System Chassis	Manufacturer	NA	Manufacturer
System Chassis	Model	NA	Model
System Chassis	Serial	NA	Serial
System Chassis	Type	NA	Type
System Chassis	Chassis ID	NA	Chassis ID
Storage Chassis	Name	NA	Name
Storage Chassis	Manufacturer	NA	Manufacturer
Storage Chassis	Model	NA	Model
Storage Chassis	Serial	NA	Serial
Storage Chassis	Type	NA	Type
Storage Chassis	Chassis ID	NA	Chassis ID
Chassis Disks	Chassis ID	NA	Chassis ID
Chassis Disks	Disk Label	NA	Disk label
Chassis Disks	Disk Manufacturer	NA	Disk manufacturer
Chassis Disks	Disk Model	NA	Disk model
Chassis Disks	Disk Serial	NA	Disk serial
Chassis Disks	Disk Size	MB	Disk size
Chassis Disks	Disk Type	NA	Disk size
Chassis Disks	Disk Use	NA	Disk use

**Table 1-526 (Cont.) Supported Configuration Metrics for ZFS Storage Appliance**

Group	Name	Unit	Description
Chassis Disks	Disk Device	NA	Disk device
Chassis Disks	Disk Offline	boolean	Disk offline
Chassis Disks	Disk Status	boolean	Disk status
Chassis Disks	Rest HREF	NA	Rest HREF
Pools	Pool Name	NA	Pool name
Pools	Pool REST href	NA	Pool REST href
Pools	Pool ASN	NA	Pool ASN
Pools	Pool Peer	NA	Pool peer
Pools	Pool Owner	NA	Pool owner
Pools	Pool ID	NA	Pool ID
Cluster	Cluster State	NA	Cluster state
Cluster	Cluster State Description	NA	Cluster state description
Cluster	Peer ASN	NA	Peer ASN
Cluster	Peer Hostname	NA	Peer hostname
Cluster	Peer State	NA	Peer state
Cluster	Peer State Description	NA	Peer state description
Cluster Resources	Cluster Resource Owner	NA	Cluster resource owner
Cluster Resources	Cluster Resource Type	NA	Cluster resource type
Cluster Resources	Cluster Resource User Label	NA	Cluster resource user label
Cluster Resources	Cluster Resource Details	NA	Cluster resource details
Cluster Resources	Cluster Resource Href	NA	Cluster resource href

**Table 1-527 Supported Configuration Metrics for Storage Server**

Metric Group	Name	Unit	Default Collection Frequency	Description
Storage Information	Name	NA	24 Hr	Name of the managed storage
Storage Information	Description	NA	24 Hr	Description of the managed storage
Storage Information	Model	NA	24 Hr	Model of the managed storage
Storage Information	Location	NA	24 Hr	Location of the managed storage
Storage Information	Firmware Version	NA	24 Hr	Firmware version of the managed storage

**Table 1-527 (Cont.) Supported Configuration Metrics for Storage Server**

Metric Group	Name	Unit	Default Collection Frequency	Description
Storage Information	Serial Number	NA	24 Hr	Serial number of the managed storage
Storage Information	Contact	NA	24 Hr	Contact of the managed storage
Storage Capacity	Total Size	GB	.	Total size of the managed storage
Storage Capacity	Physical Size	GB	.	Physical size of the managed storage

**Table 1-528 Supported Status and Performance Metrics for ZFS Storage Appliance**

Metric Group	Category	Name	Unit	Description
Memory	Load	Cache Memory	MB	Cache memory
Memory	Load	Kernel Memory	MB	Kernel memory
Memory	Load	Management Memory	MB	Management memory
Memory	Load	Other Memory	MB	Other memory
Memory	Load	Unused Memory	MB	Unused memory
CPU	Utilization	CPU Utilization	%	CPU Utilization
I/O	Load	Total I/O Operations	IOPS	Total I/O operations
I/O SCSI	Load	ISCSI I/O Operations	IOPS	ISCSI I/O operations
I/O FC	Load	FC I/O Operations	IOPS	FC I/O operations
I/O NFSv2	Load	NFSv2 I/O Operations	IOPS	NFSv2 I/O operations
I/O NFSv3	Load	NFSv3 I/O Operations	IOPS	NFSv3 I/O operations
I/O NFSv4	Load	NFSv4 I/O Operations	IOPS	NFSv4 I/O operations
I/O SMB	Load	SMB I/O Operations	IOPS	SMB I/O operations
Pool Status		Pool status temporary	NA	Pool status temporary
Pool Status		Pool Name	NA	Pool Name
Pool Status		Pool Status	boolean	Pool status
Pool Utilization		Pool ID	NA	Pool ID
Pool Utilization	Load	Pool Usage Available	MB	Pool Usage Available

**Table 1-528 (Cont.) Supported Status and Performance Metrics for ZFS Storage Appliance**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Pool Utilization	Load	Pool Usage Total	MB	Pool Usage Total
Pool Utilization	Load	Pool Usage Used	MB	Pool usage used

**Table 1-529 Supported Status and Performance Metrics for Storage Server**

<b>Metric Group</b>	<b>Category</b>	<b>Name</b>	<b>Unit</b>	<b>Description</b>
Storage Utilization	Utilization	Used Size	GB	Used size of the managed storage
Storage Utilization	Utilization	Physical Used Size	GB	Physical used size of the managed storage
Storage Utilization	Utilization	Storage Used	%	Percentage of space used in the storage
Storage Utilization	Utilization	Physical Storage Used	%	Percentage of physical space used in the storage