

**Oracle Communications IP Service Activator™
Version 5.2.4**

Alcatel 5620 SAM Cartridge Guide

Second Edition
December 2008

ORACLE®

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Preface

About this document

This document outlines the tasks involved in installing and configuring the Service Activator Alcatel 5620 SAM Cartridge.

This guide consists of the following chapters:

- [Engineering Considerations and Features](#)
- [Installation](#)
- [Configuration](#)

Before contacting Oracle Global Customer Support (GCS)

If you have an issue or question, Oracle recommends reviewing the product documentation and articles on MetaLink in the Top Technical Documents section to see if you can find a solution. MetaLink is located at <http://metalink.oracle.com>.

In addition to MetaLink, product documentation can also be found on the product CDs and in the product set on Oracle E-Delivery.

Within the product documentation, the following publications may contain problem resolutions, work-arounds and troubleshooting information:

- Release Notes
- Oracle Installation and User's Guide
- README files

Contacting Oracle Global Customer Support (GCS)

You can submit, update, and review service requests (SRs) of all severities on MetaLink, which is available 24 hours a day, 7 days a week. For technical issues of an urgent nature, you may call Oracle Global Customer Support (GCS) directly.

Oracle prefers that you use MetaLink to log your SR electronically, but if you need to contact GCS by telephone regarding a new SR, a support engineer will take down

the information about your technical issue and then assign the SR to a technical engineer. A technical support representative for the Oracle and/or former MetaSolv products will then contact you.

Note that logging a new SR in a language other than English is only supported during your local country business hours. Outside of your local country business hours, technical issues are supported in English only. All SRs not logged in English outside of your local country business hours will be received the next business day. In order to obtain the broadest access to skilled technical support, Oracle advises you to log new SRs in English.

Oracle GCS can be reached locally in each country. Refer to the Oracle website for the support contact information in your country. The Oracle support website is located at <http://www.oracle.com/support/contact.html>.

Downloading products and documentation

To download the Oracle and/or former MetaSolv products and documentation, go to the Oracle E-Delivery site, located at <http://edelivery.oracle.com>.

You can purchase a hard copy of Oracle product documentation on the Oracle store site, located at <http://oraclestore.oracle.com>.

For a complete selection of Oracle documentation, go to the Oracle documentation site, located at <http://www.oracle.com/technology/documentation>.

Downloading a media pack

To download a media pack from Oracle E-Delivery

1. Go to <http://edelivery.oracle.com>.
2. Select the appropriate language and click **Continue**.
3. Enter the appropriate **Export Validation** information, accept the license agreements and click **Continue**.
4. For **Product Pack**, select **Oracle Communications Applications**.
5. For **Platform**, select the appropriate platform for your installation.
6. Click **Go**.
7. Select the appropriate media pack and click **Continue**.
8. Click **Download** for the items you wish to download.
9. Follow the installation documentation for each component you wish to install.

Service Activator publications

The Service Activator documentation suite includes a full range of publications. Refer to the Service Activator *Release Notes* for more information.

Chapter 1

Engineering Considerations and Features

This chapter outlines the requirements, engineering guidelines and supported features for the Service Activator Alcatel 5620 SAM Cartridge.

Alcatel SAM and SAM-O

The Service Activator Alcatel 5620 SAM Cartridge supports the Alcatel-Lucent 5620 Service Aware Manager (SAM) Release 5.0. The SAM is a network and element management system used to manage devices by simplifying network and element management tasks. The SAM-O is an open interface on the SAM through which an OSS client application can perform tasks such as configuring network management information in the SAM database and modifying managed objects.

Requirements

The following requirements must be met for a successful installation of the Service Activator Alcatel 5620 SAM Cartridge:

- Each instance of the cartridge must be mapped to a dedicated instance of the Alcatel SAM.
- The Alcatel SAM has a limit of ten concurrent sessions open on a device — therefore, you must select one of the following network processor deployment options:
 - Deploy one network processor thread per CPU on the server running the network processor.
 - Deploy a separate network processor instance specifically for the Alcatel SAM. This option allows you to set the thread count on this network processor instance independently, without affecting the performance of any other cartridges you are running. This option is recommended if you are

running applications that are occupying many sessions on the SAM. To calculate the thread setting for your dedicated network processor instance, take the total SAM sessions available (10) and subtract the number of sessions used by other applications — use the remainder value to set your thread count to for your dedicated network processor instance.

- Deploy a reduced number of network processor threads that are shared across all CPUs. This option can decrease cartridge performance since all cartridges share the network processor threads.

To configure your network processor thread count, open the **default.properties** file located in the following directory:

**/opt/OracleCommunications/Service Activator/Config/
networkProcessor/com/metasolv/serviceactivator/
networkprocessor**

Edit the **minimum threads** and **maximum threads** values as required.

- For device sizing requirements, see *Deployment and installation considerations* in the Service Activator *Release Notes*.

Features

The following tables display the features and services supported by the Service Activator Alcatel 5620 SAM Cartridge.

Legend

Feature support is indicated in each table, according to the following legend:

| Icon | Definition |
|------|---------------------|
| ● | Supported |
| ◐ | Partially supported |
| ○ | Not supported |

General Service Activator features

| Service Activator Feature | Alcatel 5620 SAM Cartridge |
|---|----------------------------|
| Service Activator Feature | |
| Configuration Protocol Support | |
| Telnet | ○ |
| SSH | ○ |
| SNMP | ○ |
| Vendor Proprietary | ● |
| Device Discovery | |
| SNMP | ○ |
| Discovery Module | ● |
| Device Configuration | |
| Configuration Audit | ○ |
| Command Re-issue | ○ |
| Auto ID Migration | ○ |
| Save Running Configuration | ○ |
| Configuration Version | ○ |
| Configuration Options | ● |
| Synonyms | ○ |
| Command Thresholding | ● |
| Threshold Activated Configuration Control | ○ |
| Supported Services | |
| Interface Configuration Management | ● |
| QoS | ● |
| Layer 3 MPLS VPN | ● |
| Point-to-Point CCC | ○ |
| Point-to-Point VLL Martini | ○ |
| VPLS | ○ |
| SAA | ○ |
| Netflow | ○ |
| Dynamic User VPN | ○ |
| IPSec | ○ |
| VRF-aware IPSec | ○ |
| LSP | ○ |
| VLAN | ○ |
| Base Configuration Policies | ○ |
| Layer 2 QoS | ● |
| Qos Attachment | ○ |
| VRF Route Maps | ● |
| VPN and IP Multicast Module | ○ |
| Configuration Template Manager | ○ |
| SDK | |
| Service Cartridge SDK | ● |
| Configuration Policy SDK | ● |

Layer 3 MPLS VPN

| Service Activator Feature | Alcatel 5620 SAM Cartridge |
|--------------------------------------|----------------------------|
| Layer 3 MPLS VPN Support | ● |
| Topology | |
| Mesh | ● |
| Hub and spoke | ● |
| Management | ● |
| Addressing | |
| Public IP | ○ |
| Private IP | ● |
| Unnumbered | ○ |
| Interface description | ○ |
| VRF Table | |
| VRF export map reference | ● |
| VRF import map reference | ● |
| VRF DHCP Helper | ● |
| VRF Description | ● |
| VRF Label | ○ |
| VRF Route Targets | ● |
| VRF Table Name | ● |
| VRF Route Distinguisher | ● |
| VRF route limit (max routes) | ● |
| EIBGP Multi-path load sharing | ○ |
| EBGP Multi-path load sharing | ● |
| EIGRP Multi-path load sharing | ○ |
| IBGP Multi-path load sharing | ○ |
| IBGP unequal-cost | ○ |
| VRF Import (max paths) | ○ |
| VRF Target | ○ |
| VRF Reduction | ● |
| Force install | ● |
| Shareable | ● |
| OSPF Router ID | ● |
| Interface-less VRF | ○ |
| Static routing | ● |
| Static Global routes | ○ |
| Static Local Routes (redistribution) | ○ |
| Static Permanent routes | ○ |
| Static Tag Value | ● |
| Static next hop IP address | ● |
| Static next hop interface | ● |
| Static next hop IP and interface | ● |
| Static Route to Null0 | ● |
| BGP | |
| BGP Network Statements | ○ |
| BGP Aggregate Statements | ○ |
| eBGP | ● |
| EBGP AS override | ● |
| EBGP Site of Origin | ● |
| Remove private AS | ● |
| EBGP Update source | ○ |
| EBGP Multihop | ● |
| EBGP Allow AS in | ● |
| EBGP PE-CE MD5 authentication | ● |
| EBGP Local AS | ● |
| EBGP Local AS No prepend | ● |
| EBGP Neighbor Description | ● |
| EBGP Soft Reconfiguration | ○ |
| EBGP Prefix Limit | ● |
| EBGP Prefix Limit Restart | ○ |
| EBGP Prefix filters | ● |
| EBGP Standard community attributes | ● |

| | |
|--|---|
| EBGP Extended community attributes | ● |
| EBGP Timers | ○ |
| Keep alive | ● |
| Hold Timer | ● |
| EBGP Neighbor Advertisement Interval | ● |
| EBGP Inbound Route Map | ● |
| External Route Map | ● |
| Generated Route Map | ● |
| EBGP Local preference | ● |
| EBGP Site of Origin route-map | ● |
| Route Map Name | ● |
| EBGP Outbound Route Map | ● |
| External Route Map | ● |
| EBGP Route dampening | ● |
| Redistribution into BGP | ● |
| BGP Redistribution Metric and Policy from Connected | ● |
| BGP Redistribution Metric and Policy from Static | ● |
| BGP Redistribution Metric and Policy from RIP | ○ |
| BGP Redistribution Metric and Policy from OSPF | ○ |
| BGP Redistribution Metric and Policy from EIGRP | ○ |
| Default Route | ○ |
| OSPF | ○ |
| OSPF Area Type | ○ |
| OSPF NSSA Type 7 Redistribution | ○ |
| OSPF Maximum Paths | ○ |
| OSPF Cost | ○ |
| OSPF BGP Redistribution tag | ○ |
| OSPF Distribute in filter | ○ |
| OSPF Distribute out filter | ○ |
| OSPF SPF Throttling | ○ |
| OSPF MD5 authentication | ○ |
| OSPF Summary Addresses | ○ |
| Suppress Advertise | ○ |
| Tag Value | ○ |
| Redistribution into OSPF | ○ |
| OSPF Redistribution Metric and Policy from Connected | ○ |
| OSPF Redistribution Metric and Policy from Static | ○ |
| OSPF Redistribution Metric and Policy from RIP | ○ |
| OSPF Redistribution Metric and Policy from BGP | ○ |
| OSPF Redistribution Metric and Policy from EIGRP | ○ |
| Default Route | ○ |
| RIP | ○ |
| RIP Ignore Routes from Source | ○ |
| RIP Passive Interface | ○ |
| Redistribution into RIP | ○ |
| RIP Redistribution Metric and Policy from Connected | ○ |
| RIP Redistribution Metric and Policy from Static | ○ |
| RIP Redistribution Metric and Policy from OSPF | ○ |
| RIP Redistribution Metric and Policy from BGP | ○ |
| RIP Redistribution Metric and Policy from EIGRP | ○ |
| Default Route | ○ |
| EIGRP | ○ |
| EIGRP Device ASN | ○ |
| EIGRP Site ASN | ○ |
| EIGRP Site of Origin | ○ |
| EIGRP Route-map name for SOO | ○ |
| EIGRP MD5 Authentication | ○ |
| EIGRP Maximum Paths | ○ |
| EIGRP Redistribution | ○ |
| EIGRP Redistribution Metrics and Policy from Connected | ○ |
| EIGRP Redistribution Metrics and Policy from Static | ○ |
| EIGRP Redistribution Metrics and Policy from BGP | ○ |
| EIGRP Redistribution Metrics and Policy from OSPF | ○ |
| EIGRP Redistribution Metrics and Policy from RIP | ○ |

QoS

| Service Activator Feature | Alcatel 5620 SAM Cartridge |
|--|----------------------------|
| Layer 3 Qos Support | ● |
| Access Rule Support | ○ |
| Inbound Access Rule Support | ○ |
| Outbound Access Rule Support | ○ |
| Logging | ○ |
| Suppress Management Traffic terms | ○ |
| Named ACL support | ○ |
| Numbered ACL support | ○ |
| Guarantees Supported | ○ |
| Limits Supported | ○ |
| Access Rule Classification Criteria | ○ |
| Access Rule Classification based on Source IPv4 Address | ○ |
| Access Rule Classification based on Destination IPv4 Address | ○ |
| Access Rule Classification based on Source IP Port | ○ |
| Access Rule Classification based on Destination IP Port | ○ |
| Access Rule Classification based on IP Protocol | ○ |
| Access Rule Classification based on DiffServ Codepoints | ○ |
| Access Rule Classification based on IPv4 Precedence Codepoints | ○ |
| Access Rule Classification based on IPv4 TOS Codepoints | ○ |
| Access Rule Classification based on URL | ○ |
| Access Rule Classification based on MIME Type | ○ |
| Access Rule Classification based on Application protocol | ○ |
| Access Rule Classification based on Application Type | ○ |
| Access Rule Classification based on Domain Name | ○ |
| Access Rule Classification based on 802.1p User Priority | ○ |
| Access Rule Classification based on MPLS EXP value | ○ |
| Access Rule Classification based on TCP Flag values | ○ |
| Access Rule Classification based on ICMP Flag values | ○ |
| Access Rule Classification based on Fragments | ○ |
| Traffic Classification Rules | ○ |
| Inbound Traffic Classification Rule Support | ○ |
| Outbound Traffic Classification Rule Support | ○ |
| Named ACL support | ○ |
| Traffic Classification Rule Criteria | ○ |
| Traffic Classification based on Source MAC Address | ○ |
| Traffic Classification based on Destination MAC Address | ○ |
| Traffic Classification based on Source IPv4 Address | ○ |
| Traffic Classification based on Destination IPv4 Address | ○ |
| Traffic Classification based on Source IP Port | ○ |
| Traffic Classification based on Destination IP Port | ○ |
| Traffic Classification based on IP Protocol | ○ |
| Traffic Classification based on all DiffServ Code Points | ○ |
| Traffic Classification based on IPv4 Precedence Codepoints | ○ |
| Traffic Classification based on IPv4 TOS Codepoints | ○ |
| Traffic Classification based on URL | ○ |
| Traffic Classification based on MIME Type | ○ |
| Traffic Classification based on Application protocol | ○ |
| Traffic Classification based on Application Type | ○ |
| Traffic Classification based on Domain Name | ○ |
| Traffic Classification based on 802.1p User Priority | ○ |
| Traffic Classification based on MPLS EXP value | ○ |
| Traffic Classification based on TCP Flag bits | ○ |
| Traffic Classification based on ICMP Flag values | ○ |
| Traffic Classification based on fragments | ○ |
| Traffic Classification Marking | ○ |
| Marking DiffServ Code Points | ○ |
| Marking IPv4 IP Precedence | ○ |
| Marking IPv4 TOS | ○ |
| Marking 802.1p User Priority | ○ |
| Marking: MPLS Experimental Bit | ○ |

| | |
|---|-----------------------|
| Marking: Topmost MPLS Experimental Bit | <input type="radio"/> |
| Discard Class | <input type="radio"/> |
| Trust Type | <input type="radio"/> |
| Traffic Policing Rules | <input type="radio"/> |
| Inbound Traffic Policing Rule Support | <input type="radio"/> |
| Outbound Traffic Policing Rule Support | <input type="radio"/> |
| Policing Rule: Named ACL support | <input type="radio"/> |
| Policing Rule Classification Criteria | <input type="radio"/> |
| Policing Classification based on Source MAC Address | <input type="radio"/> |
| Policing Classification based on Destination MAC Address | <input type="radio"/> |
| Policing Classification based on Source IPv4 address | <input type="radio"/> |
| Policing Classification based on Destination IPv4 Address | <input type="radio"/> |
| Policing Classification based on Source IP Port | <input type="radio"/> |
| Policing Classification based on Destination IP Port | <input type="radio"/> |
| Policing Classification based on IP Protocol | <input type="radio"/> |
| Policing Classification based on all DiffServ Code Points | <input type="radio"/> |
| Policing Classification based on IPv4 Precedence Codepoints | <input type="radio"/> |
| Policing Classification based on IPv4 TOS Codepoints | <input type="radio"/> |
| Policing Classification based on URL | <input type="radio"/> |
| Policing Classification based on MIME Type | <input type="radio"/> |
| Policing Classification based on Application protocol | <input type="radio"/> |
| Policing Classification based on Application Type | <input type="radio"/> |
| Policing Classification based on Domain Name | <input type="radio"/> |
| Policing Classification based on 802.1p User Priority | <input type="radio"/> |
| Policing Classification based on MPLS EXP value | <input type="radio"/> |
| Policing Classification based on TCP flags | <input type="radio"/> |
| Policing Classification based on ICMP Flag values | <input type="radio"/> |
| Policing Classification based on fragments | <input type="radio"/> |
| Policing Rule Marking Actions | <input type="radio"/> |
| Policing: Marking DiffServ Code Points | <input type="radio"/> |
| Policing: Marking IPv4 IP Precedence | <input type="radio"/> |
| Policing: Marking IPv4 TOS | <input type="radio"/> |
| Policing: Marking 802.1p User Priority | <input type="radio"/> |
| Policing: Marking: MPLS Experimental Bit | <input type="radio"/> |
| Policing: Marking Topmost MPLS Experimental Bit | <input type="radio"/> |
| Standard PHB Group Support | <input type="radio"/> |
| PHB WRR | <input type="radio"/> |
| PHB WRR Inbound | <input type="radio"/> |
| PHB WRR Outbound | <input type="radio"/> |
| PHB Priority Queuing | <input type="radio"/> |
| PHB Priority Queuing Inbound | <input type="radio"/> |
| PHB Priority Queuing Outbound | <input type="radio"/> |
| PHB Weighted Fair Queuing | <input type="radio"/> |
| PHB WFQ Inbound | <input type="radio"/> |
| PHB WFQ Outbound | <input type="radio"/> |
| PHB-WFQ Class-based Queuing Support | <input type="radio"/> |
| PHB-WFQ Discard Eligibility Marking | <input type="radio"/> |
| PHB-WFQ PQ Percentage Bandwidth Support | <input type="radio"/> |
| PHB-WFQ Low Priority Queue Percentage Bandwidth Support | <input type="radio"/> |
| PHB-WFQ Per-queue WRED Support | <input type="radio"/> |
| PHB-WFQ Per-queue Tail Drop Limits | <input type="radio"/> |
| PHB Congestion Avoidance: WRED | <input type="radio"/> |
| PHB Inbound WRED | <input type="radio"/> |
| PHB Outbound WRED | <input type="radio"/> |
| PHB WRED: DSCP Support | <input type="radio"/> |
| PHB WRED: IPv4 Precedence | <input type="radio"/> |
| PHB WRED: Parameters | <input type="radio"/> |
| PHB WRED: Min Threshold | <input type="radio"/> |
| PHB WRED: Max Threshold | <input type="radio"/> |
| PHB WRED: Weight Factor | <input type="radio"/> |
| PHB WRED: Exponential Weight Constant | <input type="radio"/> |
| PHB: Explicit Congestion Notification | <input type="radio"/> |
| PHB Rate Limiting | <input type="radio"/> |
| PHB Inbound Rate Limiting | <input type="radio"/> |
| PHB Outbound Rate Limiting | <input type="radio"/> |

| | |
|--|---|
| PHB Rate Limit Average | ○ |
| PHB Rate Limit Burst Rate | ○ |
| PHB Rate Limit Burst Interval | ○ |
| PHB Frame Relay Fragmentation | ○ |
| PHB FRF.12 | ○ |
| PHB Frame Relay Traffic Shaping | ○ |
| PHB FRTS – CIR | ○ |
| PHB FRTS – MINCIR | ○ |
| PHB FRTS – BC | ○ |
| PHB FRTS – BE | ○ |
| PHB Inbound CIR | ○ |
| PHB Inbound MINCIR | ○ |
| PHB Inbound BC | ○ |
| PHB Inbound BE | ○ |
| PHB BECN | ○ |
| PHB FECN | ○ |
| PHB Frame Relay Hold-Queue depth | ○ |
| PHB ATM Traffic Shaping | ○ |
| PHB Outbound ATM Traffic Shaping | ○ |
| PHB Inbound ATM Traffic Shaping | ○ |
| PHB ATM Service Classes | ○ |
| PHB ATM Service Class – UBR | ○ |
| PHB ATM Service Class – CBR | ○ |
| PHB ATM Service Class – RT VBR | ○ |
| PHB ATM Service Class – NRT VBR | ○ |
| PHB ATM Service Class – ABR | ○ |
| PHB ATM Service Class – VC-Class Map Generation | ○ |
| PHB ATM Service Class – VC-Class Map Explicit Naming | ○ |
| PHB ATM Hold-Queue Depth | ○ |
| PHB ATM TX-Ring Limit Support | ○ |
| MQC-PHB Support | ○ |
| MQC-PHB Classification Criteria | ○ |
| Traffic Classification Explicit ACL Number Specification | ○ |
| Traffic Classification Explicit ACL Name Specification | ○ |
| Traffic Classification based on Source MAC Address | ○ |
| Traffic Classification based on Destination MAC Address | ○ |
| Traffic Classification based on Source IPv4 Address | ○ |
| Traffic Classification based on Destination IPv4 Address | ○ |
| Traffic Classification based on Source IP Port | ○ |
| Traffic Classification based on Destination IP Port | ○ |
| Traffic Classification based on IP Protocol | ○ |
| Traffic Classification based on all DiffServ Code Points | ○ |
| Traffic Classification based on URL | ○ |
| Traffic Classification based on MIME Type | ○ |
| Traffic Classification based on Application protocol | ○ |
| Traffic Classification based on MPLS EXP value | ○ |
| Traffic Classification based on ATM Cell Loss Priority | ○ |
| Traffic Classification – Nested Class Map | ○ |
| Traffic Classification Match Any Support | ○ |
| Traffic Classification Exclude Option | ○ |
| Traffic Classification based on TCP Flag Bits | ○ |
| Traffic Classification based on ICMP Flag values | ○ |
| Traffic Classification based on IPv4 IP Precedence | ○ |
| Traffic Classification based on fragments | ○ |
| Traffic Classification RTP Protocol Port | ○ |
| LLQ | ○ |
| LLQ Inbound | ○ |
| LLQ Outbound | ○ |
| LLQ Absolute Bandwidth Support | ○ |
| LLQ Percentage Bandwidth Support | ○ |
| LLQ Percentage Remaining Bandwidth Support | ○ |
| LLQ Device Default Bandwidth | ○ |
| LLQ Burst Support | ○ |
| Class Based Weighted Fair Queue CBWFQ | ○ |
| CBWFQ Inbound | ○ |

| | |
|---|---|
| CBWFQ Outbound | ○ |
| CBWFQ Absolute Bandwidth Support | ○ |
| CBWFQ Percentage Bandwidth Support | ○ |
| CBWFQ Remaining Percentage Bandwidth Support | ○ |
| CBWFQ Queue Limit Support | ○ |
| Fair-queue Flow queue-limit Default | ○ |
| Fair-queue Flow queue-limit Limit | ○ |
| CBWFQ Max Reserved Bandwidth | ○ |
| MQC-PHB Default WFQ | ○ |
| MQC-PHB Default WFQ Inbound | ○ |
| MQC-PHB Default WFQ Outbound | ○ |
| MQC-PHB Default Reserved Bandwidth Control | ○ |
| MQC-PHB Single Rate Policing | ○ |
| MQC-PHB Single Rate Policing Inbound | ○ |
| MQC-PHB Single Rate Policing Outbound | ○ |
| MQC-PHB Single Rate Policing Absolute Rate | ○ |
| MQC-PHB Single Rate Policing Percent Rate | ○ |
| Default CBS | ○ |
| Default EBS | ○ |
| MQC-PHB Two Rate Policing | ○ |
| MQC-PHB Two Rate Policing Inbound | ○ |
| MQC-PHB Two Rate Policing Outbound | ○ |
| MQC-PHB Two Rate Policing Absolute Rate | ○ |
| MQC-PHB Two Rate Policing Percent Rate | ○ |
| MQC-PHB Policing Actions | ○ |
| MQC-PHB Policing: Drop | ○ |
| MQC-PHB Policing: Set IPv4 IP Precedence | ○ |
| MQC-PHB Policing: Set DiffServ Code Points | ○ |
| MQC-PHB Policing: Set MPLS Exp | ○ |
| MQC-PHB Policing: Set FR DE | ○ |
| MQC-PHB Policing: Set ATM CLP | ○ |
| MQC-PHB Shaping Support | ○ |
| MQC-PHB Shaping: Inbound | ○ |
| MQC-PHB Shaping: Outbound | ○ |
| MQC-PHB Shaping: Default Shaping | ○ |
| MQC-PHB Shaping: Shape Average | ○ |
| MQC-PHB Shaping: Shape Peak | ○ |
| MQC-PHB Shaping: Default Bc | ○ |
| MQC-PHB Shaping: Default Be | ○ |
| MQC-PHB Maximum Number of Shaping Buffers | ○ |
| MQC-PHB: FRTS Support | ○ |
| MQC-PHB: FRTS Inbound | ○ |
| MQC-PHB: FRTS Outbound | ○ |
| MQC-PHB: FRTS MINCIR | ○ |
| MQC-PHB: FRTS BECN | ○ |
| MQC-PHB: FRTS FECN | ○ |
| MQC-PHB Marking Support | ○ |
| MQC-PHB Marking Inbound | ○ |
| MQC-PHB Marking Outbound | ○ |
| MQC-PHB Marking: DiffServ Code Point Support | ○ |
| MQC-PHB Marking: MPLS Experimental Bit Support | ○ |
| MQC-PHB Marking TopMost MPLS EXP Support | ○ |
| MQC-PHB Marking Frame Relay Discard Eligibility Bit | ○ |
| Support | ○ |
| MQC-PHB Marking ATM Cell Loss Priority Support | ○ |
| MQC-PHB Marking IPv4 IP Precedence | ○ |
| MQC-PHB Marking IPv4 TOS | ○ |
| MQC-PHB Marking IPv4 Discard Class | ○ |
| MQC-PHB Marking Trust Type | ○ |
| MQC-PHB Congestion Avoidance | ○ |
| MQC-PHB Inbound congestion avoidance | ○ |
| MQC-PHB Outbound congestion avoidance | ○ |
| Tail Drop Limit | ○ |
| Tail Drop Default | ○ |
| MQC-PHB WRED Device Default Parameters | ○ |

| | |
|--|---|
| MQC-PHB WRED IP Precedence Support | ○ |
| MQC-PHB WRED DSCP Support | ○ |
| MQC-PHB Nesting Support | ○ |
| MQC-PHB Inbound Nesting | ○ |
| MQC-PHB Outbound Nesting | ○ |
| MQC-PHB Header Compression | ○ |
| MQC-PHB RTP Header Compression Support | ○ |
| MQC-PHB TCP Header Compression Support | ○ |

Layer 2 QoS

| Service Activator Feature | Alcatel 5620 SAM Cartridge |
|---|----------------------------|
| catOS PolicingRule Configuration Policy | ○ |
| Policing Rule IP Classification Criteria | ○ |
| Classification based on Trust Type | ○ |
| Classification based on DiffServ Code Point | ○ |
| Classification based on Source IPv4 Address | ○ |
| Classification based on Destination IPv4 Address | ○ |
| Policing Rule MAC Classification Criteria | ○ |
| Classification based on Trust Type | ○ |
| Classification based on DiffServ Code Point | ○ |
| Classification based on Source MAC Address | ○ |
| Classification based on Destination MAC Address | ○ |
| Policing Rule IPX Classification Criteria | ○ |
| Classification based on Trust Type | ○ |
| Classification based on DiffServ Code Point | ○ |
| Classification based on Source MAC Address | ○ |
| Classification based on Destination MAC Address | ○ |
| Classification based on Protocol | ○ |
| Classification based on Source IPX Address | ○ |
| Classification based on Destination IPX Address | ○ |
| alcatelSamAggregatedScheduler Override Configuration Policy | ● |
| alcatelSamQosOverridePolicy Configuration Policy | ● |
| rate-limit Configuration Policy | ○ |
| juniperQosCosAttachment Configuration Policy | ○ |
| qosCosAttachment Configuration Policy | ○ |

VRF Route Maps

| Service Activator Feature | Alcatel 5620 SAM Cartridge |
|-------------------------------------|----------------------------|
| bgpRoutePolicy Configuration Policy | ○ |
| vrfRoutePolicy Configuration Policy | ● |

Unsupported features

The following features are not currently supported with the Service Activator Alcatel 5620 SAM Cartridge:

- Layer 2 VLL
- VLAN
- VPLS

- Service Assurance
- Netflow
- DU VPN
- LSP
- IPSec
- VRF-aware IPSec
- VRF and IP Multicast
- Interface Configuration Management
- Base Configuration Policies

Supported configuration policies

The following Service Activator configuration policies are supported by the Service Activator Alcatel 5620 SAM Cartridge:

- Prefix List
- VRF Export Maps
- VRF Route Policy
- L3 Access*
- QoS Override*
- Scheduler Override*
- Aggregation Scheduler Override*
- Slope Policies*

*specific to the Service Activator Alcatel 5620 SAM Cartridge

See the Service Activator *Online Help* for more information on configuration policies.

Chapter 2

Installation

This chapter outlines the requirements, prerequisites, and tasks involved in installing the Service Activator Alcatel 5620 SAM Cartridge.

Prerequisites

Before installing the Service Activator Alcatel 5620 SAM Cartridge, ensure:

- You have installed the Alcatel-Lucent 5620 Service Aware Manager Release 5.0 on a dedicated server. For more information, see the Alcatel-Lucent 5620 Service Aware Manager Release 5.0 documentation.
- You have downloaded the following Service Activator files from the Oracle E-Delivery Web site:
 - IPSA 5.2.4 client exe
 - IPSA 5.2.4 tar.Z

For information on accessing the Oracle E-Delivery Web site, see [Downloading products and documentation on page 2](#).

- As a minimum, you have installed the Service Activator 5.2.4 policy server, network processor, and naming server. For instructions, see the Service Activator 5.2.4 *Setup Guide*.
- You have installed the supplemental software components. For instructions, see the Service Activator 5.2.4 *Setup Guide*.
- When installing the Service Activator server, ensure you select the **AL5620SAM Discovery Server** check box when selecting the features you would like to install.

Installing the Service Activator GUI

To install the Service Activator GUI, see the Service Activator *Setup Guide*.

Note: The Alcatel 5620 SAM configuration policies are installed as part of installation of Service Activator using Oracle Universal Installer.

Installing the Polices from SAM

The Service Activator retrieves the policies from the SAM which are configured manually. The AlcatelPolicyFinder.sh script is run to retrieve policies for qos, accounting, slope and scheduler from the SAM into the Service Activator. Once the script is run, the following files are generated:

- AlcatelPolicyFinder.sh qos script generates the html file alcatelSamQosOverridePolicy.html
- AlcatelPolicyFinder.sh accounting generates the html file alcatelSRL3Interface.html
- AlcatelPolicyFinder.sh scheduler generates the html file schedulerOverridePolicy.html
- AlcatelPolicyFinder.sh slope generates the html file alcatelSamQosPool.html

The generated html files need to be copied to following location in the Service Activator client PC:

```
C:\Program Files\Oraclecommunications\Service  
Activator\SamplePolicy
```

Once the files are copied, you must reload the AlcatelSamPolicyTypes.policy file in order to execute the policies retrieved from SAM.

Verifying the installation

To verify the Service Activator server installation

1. To start the naming service, enter the command:
ipsans start
2. To start the server, enter the command:
ipsacm start
3. To ensure the network processor and discovery server are running, enter the command:
ipsaps

Chapter 3

Configuration

This chapter outlines the configuration tasks for the Service Activator Alcatel 5620 SAM Cartridge.

Configuring the Alcatel SAM hosts properties file

The **AlcatelSAMHosts.properties** file contains command execution properties and describes how Service Activator communicates with the Alcatel SAM.

If you installed the Service Activator policy server on Solaris, the file is located in the following directory:

**/opt/OracleCommunications/IPServiceActivator/Config/
networkProcessor/com/metasolv/serviceactivator/cartridges/
alcatelSam/commandExecutor**

If you installed the Service Activator policy server on Windows, the file is in the following directory:

**C:\Program Files\Oracle Communications\IP Service Activator\Config\
networkProcessor\com\metasolv\serviceactivator\cartridges\alcatelSam
\commandExecutor**

To modify the file, open it in a text editor, make changes, and then save the file.

The following table describes each parameter in the **AlcatelSAMHosts.properties** file.

| Parameter | Description |
|---|---|
| alcatelSam.Host | The IP address of the primary SAM server |
| alcatelSam.Port | The port on the primary SAM server that communicates with Service Activator |
| alcatelSam.FailoverHost | The IP address of the secondary SAM server (used in redundant SAM deployments) |
| alcatelSam.FailoverPort | The port on the secondary SAM server that communicates with Service Activator (used in redundant SAM deployments) |
| alcatelSam.ConnectionTimeout | The amount of time, in milliseconds, that Service Activator waits before attempting to reconnect to the SAM server, after a failed connection attempt |
| alcatelSam.ConnectionRetriesBefore Failover | The number of times Service Activator attempts to connect to the primary SAM server, after a failed connection attempt, before attempting to connect to the secondary SAM server |
| alcatelSam.HostUserId | The user ID Service Activator uses to log in to the primary SAM server |
| alcatelSam.HostPassword | <p>The password Service Activator uses to log in to the primary SAM server</p> <p>Note: The alcatelSam.HostPassword parameter value is an encrypted password that is installed as part of the Alcatel SAM installation. To change this password, you must log in to the SAM and run a password change utility, then copy-paste the resulting password into the AlcatelSAMHosts.properties file in Service Activator.</p> |

| Parameter | Description |
|------------------------------|---|
| alcatelSam.FailoverUserId | The user ID Service Activator uses to log in to the secondary SAM server (used in redundant SAM deployments) |
| alcatelSam.FailoverPassword | The password Service Activator uses to log in to the secondary SAM server (used in redundant SAM deployments) |
| alcatelSam.XmlInvocationType | The API method Service Activator uses when communicating with the SAM (Oracle recommends that you not modify this value) |
| alcatelSam.cacheSize | The runtime cache of object IDs that SAM produces: Service Activator first looks in this cache for a value and, if it is not present, queries SAM for the value. |
| alcatelSam.deployerState | <p>Determines whether SAM sends commands to a device:</p> <ul style="list-style-type: none"> ■ ignored: SAM accepts commands but does not send them to the device (used mainly for testing purposes) ■ immediate: SAM accepts commands and sends them to the device |

Discovering devices

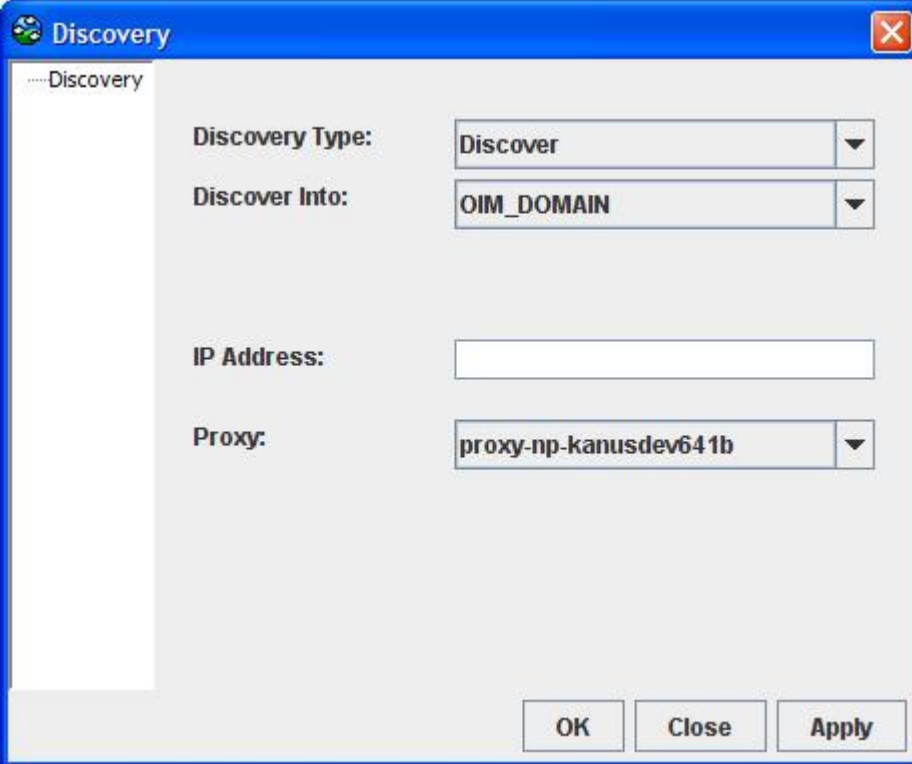
To allow concurrent logins

1. Select the **System** tab and then **System User Groups > Super Users > <username>**.
2. Right-click on <username> and select **Properties** to bring up the **Super User** dialog box.
3. Select the **Allow concurrent logins** check box.
4. Click **Apply** and then **OK**.

To discover devices

1. Go to **/opt/OracleCommunications/Service Activator/modules/bin**.

2. Run the following script:
./alsam5620_discoveryserver.sh
3. Right-click on the domain of the Service Activator GUI and select **Modules** > **AlcatelSAM Discovery** > **Discover Device** from the pop-up menu. This parameter allows you to discover Alcatel devices. See the Service Activator *Online Help* for information on discovering devices.



The screenshot shows a 'Discovery' dialog box. It contains the following fields and controls:

- Discovery Type:** A dropdown menu with 'Discover' selected.
- Discover Into:** A dropdown menu with 'OIM_DOMAIN' selected.
- IP Address:** An empty text input field.
- Proxy:** A dropdown menu with 'proxy-np-kanusdev641b' selected.
- Buttons:** 'OK', 'Close', and 'Apply' buttons at the bottom right.

4. Enter the IP address of the Alcatel device.
5. Select the Proxy Agent related to Network Processor.
6. Click **Apply** and then **OK**.

Oracle communications Service Activator supports discovering `rtr.NetworkInterface` objects into IPSA as core interfaces from Alcatel Discovery module. An IPSA Segment object will be created if the discovered core interface has an IP address/Mask; the Segment object enables the map view of the core network topology.

Configuration thresholding

Configuration thresholding provides a safety mechanism that blocks any device configuration action by Service Activator that exceeds certain user-specified parameters. The threshold is configured by means of two values — a regular expression (regex) against which to match commands, and the threshold value itself. For more information, see “Managing Configuration Thresholding” and “Setting up Configuration Thresholding” in the Service Activator *Online Help*.

Migrating from Alcatel SAM to Service Activator

The namedIdmigrator.sh script is run to migrate the changed policies from Alcatel SAM to Service Activator. This script is located in the following directory:

/opt/OracleCommunications/Service Activator/bin

To migrate from Alcatel SAM to Service Activator

1. To run the namedIdmigrator.sh script, enter the command:
./nameIdMigrator.sh <IP address of Alcatel device> -test
2. The generated files are copied in **/opt/OracleCommunications/Service Activator/AlcatelMigration**. The generated files are:
 - **alcatel_autoNameMigration.log** - shows success criteria of the migration
 - **dm_<IP address of Alcatel device>_<date stamp>_<time stamp>.xml** - shows the policies/changes that are migrated

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