SUN SEEBEYOND

SNMP AGENT USER'S GUIDE

Release 5.1.1

Version 20060620151552

Contents

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Chapter 1

Introduction

This chapter provides an overview of this document, including its contents and text conventions.

What's in This Chapter

1.1 About This Document

This section describes the contents of this document as well as its conventions and intended audience.

1.1.1 What's in This Document

This document describes how to configure and manage SNMP (Simple Network Management Protocol) Agent in the following chapters:

- **Chapter 1 "Introduction"** introduces this user's guide, including its purpose, scope, and contents.
- **Chapter 2 "Overview of SNMP Agent"** provides an overview of SNMP Agent.
- **Chapter 3 "Installing and Configuring SNMP Agent"** describes how to install and configure SNMP Agent.
- **Chapter 4 "Managing SNMP Agents"** describes management procedures for the SNMP Agent, such as starting and stopping the agent.
- **Chapter 5 "Configuring Java CAPS Projects for SNMP: Tutorial"** provides a tutorial for configuring Java CAPS Projects for SNMP.

1.1.2 Scope

This document describes how to install and use SNMP Agent. SNMP Agent is a component of the Sun Java™ Composite Application Platform Suite (Java CAPS).

This document refers to the *Sun SeeBeyond eGate™ Integrator User's Guide* for Enterprise Designer-specific procedures, and to the *Sun SeeBeyond eGate Integrator System Administration Guide* for Enterprise Manager-specific procedures.

1.1.3 Intended Audience

This document is intended for those who are using a third-party SNMP management system to manage run-time Java CAPS Projects.

1.1.4 Text Conventions

The following conventions are observed throughout this document.

Table 1 Text Conventions

Text Convention	Used For	Examples
Bold	Names of buttons, files, icons, parameters, variables, methods, menus, and objects	▪ Click **OK**. ▪ On the **File** menu, click **Exit**. ▪ Select the **eGate.sar** file.
`Monospaced`	Command line arguments, code samples; variables are shown in ***bold italic***	`java -jar ***filename***.jar`
Blue bold	Hypertext links within document	See **Text Conventions** on page 8
Blue underlined	Hypertext links for Web addresses (URLs) or email addresses	http://www.sun.com

1.1.5 Screenshots

Depending on what products you have installed, and how they are configured, the screenshots in this document may differ from what you see on your system.

1.2 Related Documents

The following documents provide additional information about the Java CAPS:

- *Sun Java Composite Application Platform Suite Primer*
- *Sun Java Composite Application Platform Suite Installation Guide*
- *Sun SeeBeyond eGate Integrator User's Guide*
- *Sun SeeBeyond eInsight™ Business Process Manager User's Guide*
- *Sun SeeBeyond eGate Integrator Tutorial*

1.3 Sun Microsystems, Inc. Web Site

The Sun Microsystems web site is your best source for up-to-the-minute product news and technical support information. The site's URL is:

http://www.sun.com

1.4 Documentation Feedback

We appreciate your feedback. Please send any comments or suggestions regarding this document to:

CAPS_docsfeedback@sun.com

Chapter 2

Overview of SNMP Agent

SNMP Agent enables you to monitor Java CAPS Project alerts using third-party SNMP management systems.

This chapter provides an architectural overview of the SNMP Agent and its MIB.

What's in This Chapter

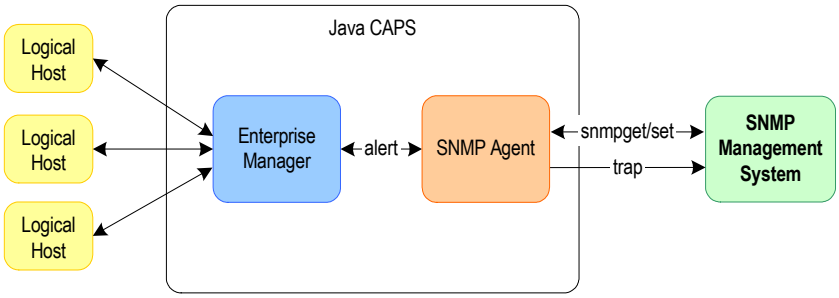
2.1 The SNMP Agent Model

SNMP Agent enables you to forward eGate alerts as SNMP version 2 traps to a third-party SNMP management system. The Enterprise Manager monitors the Logical Hosts running in Java CAPS, and the SNMP Agent in turn listens to the Enterprise Manager for alert information, and forwards the alerts as SNMP traps to the trap port. The SNMP Agent also sends its start/stop status to the Enterprise Manager.

eGate SNMP Agent also supports SNMP v3 (password authenticated) snmpget and snmpset protocols. You can use these protocols to get a list, and show properties and the status for Java CAPS application servers and Project components. You can also use them to manage (start/stop/restart) Project components.

The figure below provides an overview of the SNMP Agent model.

Figure 1 The SNMP Agent Model



By default, the SNMP Agent creates a trap for each eGate alert received. To filter for which alerts a trap is sent, you can use the SNMP channel in the Sun SeeBeyond Alert

Agent. For information, refer to the *Sun SeeBeyond eGate Integrator Alert Agent User's Guide*. For a brief tutorial of setting up SNMP channels in the Alert Agent, refer to **"Filtering Alerts" on page 27**.

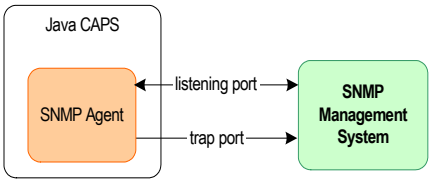
2.2 About Java CAPS SNMP Model Configurations

The components in the Java CAPS SNMP model communicate with each other via the following configurations:

- Listening port
- Trap host name
- Trap port number

The figure below shows where the configurations are set.

Figure 2 SNMP Agent Model Configurations



The figure above shows the two components that are used for the SNMP Agent to communicate with components in the eGate SNMP model:

- **Listening port**
  This is the port where SNMP Agent listens for SNMP version 3 get and set requests. The default is set to 16100.
- **Trap host name**
  This is the host name of the third-party management system.
- **Trap port**
  This is the port where the SNMP Agent forwards trap notifications. On the initial SNMP Agent Configuration dialog box, this port is set to 16300.

For more information about SNMP Agent configurations, refer to **"Configuring SNMP Agents" on page 14**.

Chapter 3

Installing and Configuring SNMP Agent

This chapter describes how to install SNMP Agent and its documentation, and how to configure the SNMP Agent. This chapter also includes the system requirements and supported operating systems for SNMP Agent.

What's in This Chapter

3.1 Supported Operating Systems

For information about supported operating systems, refer to the **SNMP_Alert_Agent_Readme.txt**.

3.2 System Requirements

The system requirements for the SNMP Agent are the same as for eGate Integrator. For information, refer to the *Sun Java Composite Application Platform Suite Installation Guide*.

3.3 Installing SNMP Agent

The procedure below describes an overview of how to install Sun SeeBeyond SNMP Agent. For detailed installation instructions, refer to the *Sun Java Composite Application Platform Suite Installation Guide.*

Before you install the Sun SeeBeyond SNMP Agent, install and download the following items using the Java CAPS Installer:

- Repository
- eGate Integrator

- Enterprise Designer
- Enterprise Manager
- Logical Host

The procedure below describes how to install the following items for Sun SeeBeyond SNMP Agent:

- The software
- The plug-in that enables you to monitor the alerts runtime Projects in the Enterprise Manager
- The documentation

To install Sun SeeBeyond SNMP Agent

1. In the **Administrator** page, click **Click to install additional products**.
2. In the **Administrator > Select** page, select the following items and click **Next**:
   - **Core Product > SNMPAgent** (to install the Sun SeeBeyond SNMP Agent software)
   - **Documentation > SNMPAgentDocs** (optional—to install the Sun SeeBeyond SNMP Agent documentation and sample Projects)
3. In the **Administrator > Upload** page, select the following items and click **Install Products**:
   - **SNMPAgent.sar**
   - **SNMPAgentDocs.sar**

   When the installation is finished, the "Installation Completed" message appears.
4. To view the SNMP Agent documentation and download the sample Projects, click **Documentation** > **Core Products** > **Sun SeeBeyond SNMP Agent**.

3.4 Installing the Enterprise Manager Plug-in

Sun SeeBeyond SNMP Agent comes with a plug-in to Enterprise Manager to enable you to monitor alerts for run-time Projects.

The procedure below describes how to install the Sun SeeBeyond SNMP Agent plug-in using Enterprise Manager.

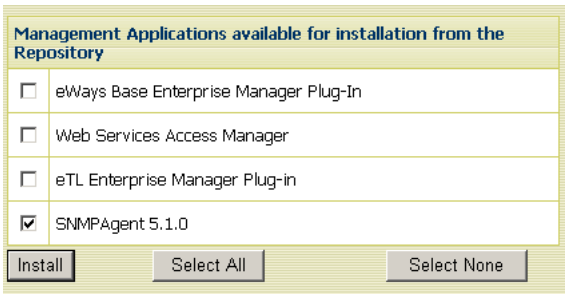
To install the Enterprise Manager plug-in

1. Log into Enterprise Manager as a user with a **Manager** role.
2. In the Explorer pane, click the **Configuration** icon and click **Web Applications Manager**.

3 Click **Auto-Install from Repository**, enter the connection properties for the Repository where you installed Sun SeeBeyond SNMP Agent, and click **Connect**.

The page displays the available plug-ins for the Repository you connected to.

Figure 3 Installing the Enterprise Manager Plug-in



4 Select **SNMPAgent** and click **Install**. The message "OK - Deployed application at context path /snmpagent" appears.

3.5 Configuring SNMP Agents

After installing SNMP Agent, configure the agent as described in the procedure below. You can specify one SNMP Agent per Repository.

By default, the SNMP Agent creates a trap for each Java CAPS Project alert received. To filter for which alerts a trap is sent, set up an SNMP channel in the Sun SeeBeyond Alert Agent.

For more information, refer to the *Sun SeeBeyond eGate Integrator Alert Agent User's Guide*. For a brief tutorial on setting up SNMP channels in Alert Agent, refer to **Filtering Alerts** on page 27.

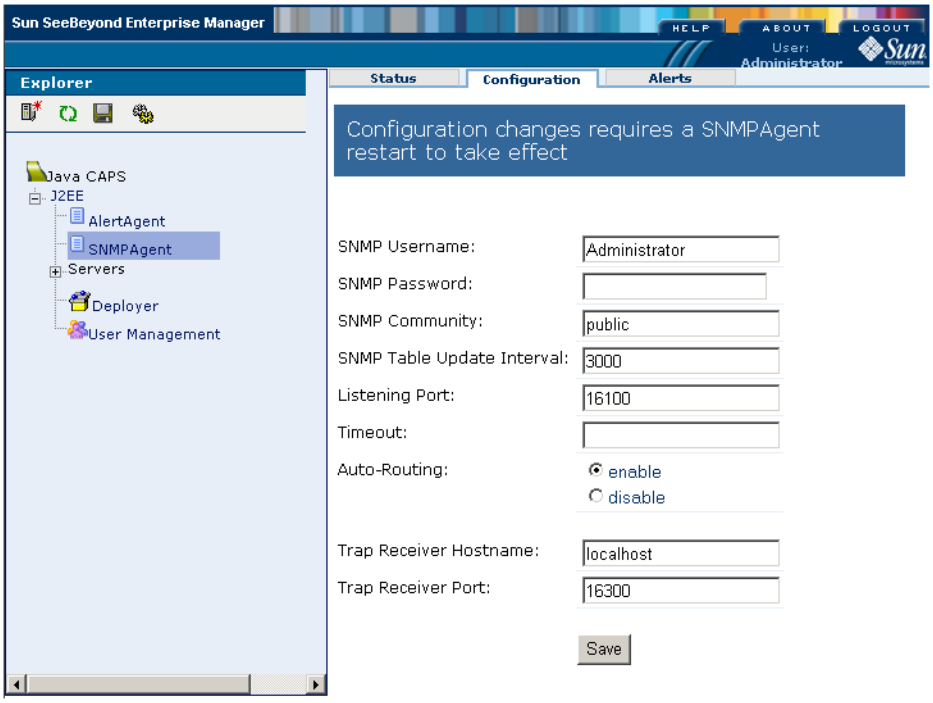
To configure SNMP Agents

1 Log into Enterprise Manager as a user with a **Manager** role.

2 In the Explorer pane, expand the Repository and click **SNMPAgent**.

3 In the right-hand pane, click **Configuration**. The following page appears.

Figure 4 Configuring the SNMP Agent



4 Enter the following configurations:

For This Setting	Enter
SNMP Username	The user name for the SNMP system.
SNMP Password	The password for the user name.
SNMP Community	The trap receiver's community name, for example, public.
SNMP Table Update Interval	The interval at which the SNMP table is updated.
Listener Port	This port that the SNMP Agent listens on.
Timeout	The number of seconds after which the SNMP Agent times out.
Auto-Routing	Enable to have SNMP alerts routed automatically; Disable to route SNMP alerts through Alert Agent via the SNMP channel. For more information, refer the *Sun SeeBeyond Alert Agent User's Guide*.
Trap Receiver Hostname	The host name or IP address of the third-party management system.
Trap Receiver Port	The number for the trap port where the SNMP Agent forwards trap notifications.

5 Click **Save**.

6 Restart the SNMP Agent as described in **Starting and Stopping SNMP Agents** on page 16.

Chapter 4

Managing SNMP Agents

This chapter describes SNMP Agent management procedures, such as starting and stopping the agent, monitoring alerts, and using the SNMP Agent MIB to manager Java CAPS Project components.

What's in This Chapter

4.1 Starting and Stopping SNMP Agents

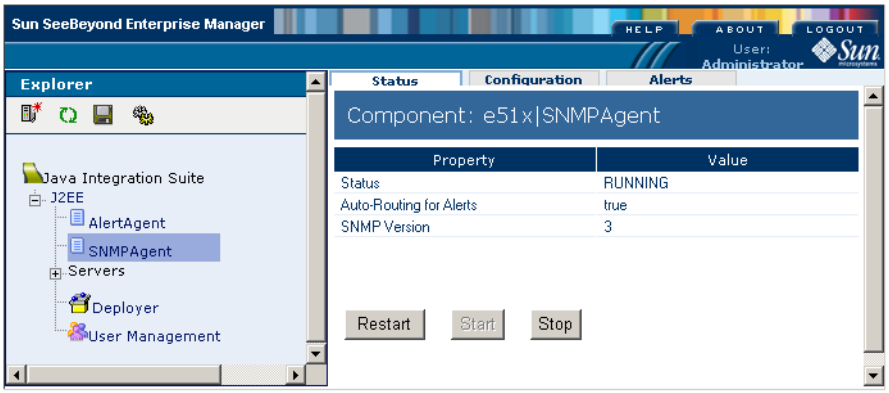
The procedure below describes how to start and stop the SNMP Agent.

Note: *You must restart the SNMP Agent after you change its configuration.*

To start and stop SNMP Agents

1. Log into Enterprise Manager as a user with a **Manager** role.
2. In the Explorer pane, expand the Repository and click **SNMPAgent**.
3. In the right-hand pane, click **Status**. The following page appears.

Figure 5 Starting and Stopping SNMP Agents



4 Do one of the following:

- To start the SNMP Agent, click **Start**.
- To restart the SNMP Agent, click **Restart**.
- To stop the SNMP Agent, click **Stop**.

4.2 Viewing Alerts for the SNMP Agent

Follow the procedure below to view the alerts that SNMP Agent itself generates when it starts and stops.

To view SNMP alerts

1 Log into Enterprise Manager as a user with a **Manager** role.

2 In the Explorer pane, expand the Repository and click the component for which you want to display alerts.

3 In the right-hand pane, click **Alerts**.

4 Click the alert for which you want to see the details and click the **View Details** icon. A page similar to the following appears.

Figure 6 Viewing Alert Details

Name	Value
Date	Mon Jan 02 17:58:31 PST 2006
ID	4
Environment	SNMPAgent
Physical Host	SNMPAgent
Logical Host	SNMPAgent
Server	SNMPAgent
Project	SNMPAgent
Deployment	SNMPAgent
Component	SNMPAgent
Severity	INFO
Type	snmpagent51x
Status	Unobserved
State	Running
Message Code	SNMP-00003
Details	

Close

4.3 Working with the SNMP Agent MIB

To use SNMP Agent to monitor Java CAPS Projects via SNMP, you must first configure SNMP Agent as described in ?. To filter SNMP alerts, configure Alert Agent for an SNMP channel and define which alerts you want to be sent to SNMP management systems. For information, refer to ?.

Once you have configured the runtime Java CAPS Project for SNMP, import the SNMP Agent MIB, **CAPS51-MIB.txt**, into your SNMP management system.

The MIB is located in the following folder:

***JavaCAPS*\emanager\server\monitor\snmpagent\mibs**

where *JavaCAPS* is the directory where you installed eGate Integrator.

4.3.1 Importing the SNMP Agent MIB

The SNMP Agent MIB, **CAPS51-MIB.txt**, is located in the following folder:

***JavaCAPS*\emanager\server\monitor\snmpagent\mibs**

where *JavaCAPS* is the directory where you installed eGate Integrator.

Import this file into your SNMP management system.

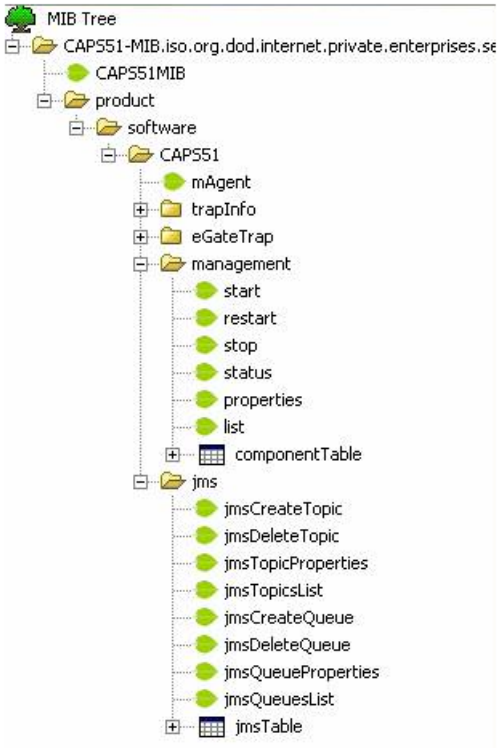
The SNMP Agent MIB objects can be found under the following node:

```
1.3.6.9.4.1.1351.1.1.1.1.2
```

You can manage Java CAPS Project components, such as eWays™ and Collaborations, via snmpget/set requests (SNMPv3). You can also stop and restart the Integration Server, and create JMS message destinations.

The following figure shows the **CAPS51-MIB.txt** file after its import into an SNMP management system.

Figure 7 Example 1: Imported CAPS51-MIB Text File



4.3.2 Viewing the Java CAPS Project Component List

To view which components in a Java CAPS Project are available for SNMP management, read the variable management.list. Below is an example of a variable management.list for a Project where a File eWay connects to two Collaborations.

```
eGate|Servers|ontario.sun.com:18000,is51x

eGate|Servers|ontario.sun.com:18000|Project1|Deployment1|CMap1|C
Map1_Service1,jce.JavaCollaborationDefinition

eGate|Servers|ontario.sun.com:18000|Project1|Deployment1|CMap1|Q
ueue1,messageService.Queue

eGate|Servers|ontario.sun.com:18000|Project1|Deployment1|CMap1|T
opic1,messageService.Topic

eGate|Servers|ontario.sun.com:18000|Project2|ProjectA|Deployment
1|CMap1|CMap1_Service1,jce.JavaCollaborationDefinition

eGate|Servers|ontario.sun.com:18000|Project2|ProjectA|Deployment
1|CMap1|Queue1,messageService.Queue
```

```
eGate|Servers|ontario.sun.com:18000|Project2|ProjectA|Deployment
1|CMap1|Topic1,messageService.Topic

eGate|Servers|ontario.sun.com:18000|Project3|Deployment1|CMap1|C
Map1_Service1,jce.JavaCollaborationDefinition

eGate|Servers|ontario.sun.com:18000|Project3|Deployment1|CMap1|F
ile1,FILEADAPTER.ExternalApplication

eGate|Servers|ontario.sun.com:18000|Project3|Deployment1|CMap1|F
ile1|File1_CMap1_Service1,FILEADAPTER.ExternalApplication.LINK

eGate|Servers|ontario.sun.com:18000|Project3|Deployment1|CMap1|Q
ueue1,messageService.Queue

eGate|Servers|ontario.sun.com:18000|SeeBeyond_JMS_IQ_Manager,jms
51x
```

FILEADAPTER.ExternalApplication controls all Collaborations connected to the File eWay; FILEADAPTER.ExternalApplication.LINK enables you to control a specific Collaboration.

4.3.3 Managing eWays, Collaborations, and Integration Servers

This section describes how to manage Java CAPS Project components via the SNMP Agent MIB "management" subtree. You can view the properties and status (up or down) for all components.

In addition, you can stop, start, and restart eWays and Collaborations, and you can stop and restart the Integration Server.

Note: *For File eWays, only inbound eWays can be started, stopped or restarted.*

For Projects with multiple Collaborations linked to an eWay, you can stop/restart/start all Collaborations at once, or one Collaboration at a time. To affect all inbound Collaborations, use the eWay node (for example, FILEADAPTER.ExternalApplication). To affect a specific Collaboration, use the eWay link (for example, FILEADAPTER.ExternalApplication.LINK).

The following actions are not supported:

- Starting the server remotely.
- Starting project components (without a preceding stop)
- Starting and stopping JMS IQ Managers

To start or stop Java CAPS Project components

- Write to management.start or management.stop, and send it a string with the following syntax:

`component=`*`name`*`|Servers|`*`hostname`*`:`*`port`*`&componentType=`*`type`*

where *name* is the component name and *type* is the component type as diesplayed in the variable list.

For example, if the variable management.list shows an Integration Server as follows:

e51x|Servers|ontario.sun.com:18000 is51x

To stop this server, you would use the following string:

component=e51x|Servers|ontario.sun.com:18000&componentType=is51x

4.3.4 Managing JMS Message Destinations

You can list, create, and delete message destinations for a JMS IQ Manager. In addition, you can view a message destination's properties by writing to the corresponding variables in the MIB JMS subtree.

The procedures below describe how to create message destinations.

To create JMS message topics

- Set the variable jms.createTopic to:

```
component=eGate|Servers|host:port|JMSIQMgrname|newtopic&componentType
=jms51x
```

where *host* is the logical host name, *port* is the port number for the logical host, *JMSIQMgrname* is the name of the JMS IQ Manager, and *newtopic* is the name of the new topic.

To create JMS message queues

- Set the variable jms.createQueue to:

```
component=eGate|Servers|host:port|JMSIQMgrname|newqueue&componentType
=jms51x
```

where *host* is the logical host name, *port* is the port number for the logical host, *JMSIQMgrname* is the name of the JMS IQ Manager, and *newqueue* is the name of the new queue.

4.3.5 About SNMP Agent Traps

The SNMP Agent provides an SNMPv2 MIB which defines the trap notifications as well as the Java CAPS Project components that can be managed through SNMP version 3 get/set requests. The SNMP Agent MIB uses Abstract Syntax Notation One (ANS.1), which is industry standard for MIB files.

The table below shows the information provided when an eGate trap occurs.

Table 2 SNMP Agent Traps

Notification	Description
(1) mPhycalHostName	Physical host name where the event occurred
(2) mEnvironmentName	Java CAPS Environment name where the event occurred
(3) mLogicalHostName	Logical Host name where the event occurred

Table 2 SNMP Agent Traps

Notification	Description
(4) mServerType	Type of server where the event occurred; Integration Server ("INTEGRATION") or JMS IQ Manager ("MESSAGE")
(5) mServerName	Name of the server where the event occurred
(6) mComponentType	Type of Project component where the event occurred
(7) mComponentProjectPathName	Full path name of the Project where the event occurred
(8) mComponenentName	Name of the Project component where the event occurred
(9) mTimeStamp	Date and time when the event occurred
(10) mType	Type of event that occurred; alert, TCA, Event
(11) mSeverity	Severity of the event that occurred; critical, major, minor, warning, information
(12) mOperationalState	State of the operation; unknown, started, suspending, suspended, stopping, stopped, running
(13) mObservationalState	State of the observation; unobserved, observed, resolved
(14) mMessageDetails	Details of the event, alerter.info of user-generated alert
(15) mMessageCode	Message code of the event (for information, refer to the Alert Agent User's Guide
(16) mMessageCodeArg1	Argument 1 of the message code
(17) mMessageCodeArg2	Argument 2 of the message code
(18) mMessageCodeArg3	Argument 3 of the message code
(19) mMessageCodeArg4	Argument 4 of the message code

4.3.6 SNMP Agent Trap Examples

This section provides examples of trap information. The first example shows the trap information provided by the SNMP Agent when the SeeBeyond JMS IQ Manager is started. The second example shows the trap information for a user-generated trap.

Example 1: Starting the SeeBeyond JMS IQ Manager

```
Trap
V2 Trap
Community: public
sysUpTime.0: 1 minute 44 seconds
snmpTrapOID.0: .1.3.6.1.4.1.1351.1.1.1.3.6
.1.3.6.1.4.1.1351.1.1.1.2.1.0: jsmith-d600xp
.1.3.6.1.4.1.1351.1.1.1.2.2.0: FiletoFileEnv
.1.3.6.1.4.1.1351.1.1.1.2.3.0: LogicalHost1
```

```
.1.3.6.1.4.1.1351.1.1.1.2.4.0: MESSAGE
.1.3.6.1.4.1.1351.1.1.1.2.5.0: SBJmsIQMgr1
.1.3.6.1.4.1.1351.1.1.1.2.9.0: 2006-01-15 13:23:40.278
.1.3.6.1.4.1.1351.1.1.1.2.10.0: Alert
.1.3.6.1.4.1.1351.1.1.1.2.11.0: Warning
.1.3.6.1.4.1.1351.1.1.1.2.12.0: Started
.1.3.6.1.4.1.1351.1.1.1.2.13.0: Unobserved
.1.3.6.1.4.1.1351.1.1.1.2.14.0: SBJmsIQMgr1 process started
.1.3.6.1.4.1.1351.1.1.1.2.15.0: MS-00003
.1.3.6.1.4.1.1351.1.1.1.2.16.0: jsmith-d600xp
.1.3.6.1.4.1.1351.1.1.1.2.17.0: FiletoFileEnv
.1.3.6.1.4.1.1351.1.1.1.2.18.0: LogicalHost1
```

Example 2: User-generated Trap

The example below shows the trap information for a user-generated trap by the following statement in a Java Collaboration: alerter.info("hello!")

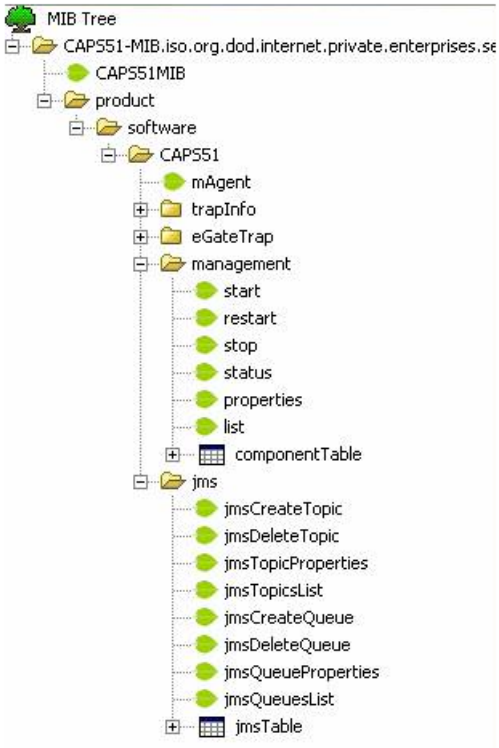
```
Trap
V2 Trap
Community: public
sysUpTime.0: 6 minutes 22 seconds
snmpTrapOID.0: .1.3.6.1.4.1.1351.1.1.1.3.6
.1.3.6.1.4.1.1351.1.1.1.2.1.0: jsmith-d600xp
.1.3.6.1.4.1.1351.1.1.1.2.2.0: FiletoFileEnv
.1.3.6.1.4.1.1351.1.1.1.2.3.0: LogicalHost1
.1.3.6.1.4.1.1351.1.1.1.2.4.0: INTEGRATION
.1.3.6.1.4.1.1351.1.1.1.2.5.0: IntegrationSvr1
.1.3.6.1.4.1.1351.1.1.1.2.6.0: COLLABORATION
.1.3.6.1.4.1.1351.1.1.1.2.7.0: File2File
.1.3.6.1.4.1.1351.1.1.1.2.8.0: Service1
.1.3.6.1.4.1.1351.1.1.1.2.9.0: 2006-02-18 13:28:18.315
.1.3.6.1.4.1.1351.1.1.1.2.10.0: Alert
.1.3.6.1.4.1.1351.1.1.1.2.11.0: Information
.1.3.6.1.4.1.1351.1.1.1.2.12.0: Running
.1.3.6.1.4.1.1351.1.1.1.2.13.0: Unobserved
.1.3.6.1.4.1.1351.1.1.1.2.14.0: hello!
.1.3.6.1.4.1.1351.1.1.1.2.15.0: COL-00003
.1.3.6.1.4.1.1351.1.1.1.2.16.0: jsmith-d600xp
.1.3.6.1.4.1.1351.1.1.1.2.17.0: FiletoFileEnv
.1.3.6.1.4.1.1351.1.1.1.2.18.0: LogicalHost1
.1.3.6.1.4.1.1351.1.1.1.2.19.0: IntegrationSvr1
```

4.4 Managing Java CAPS Project Components

You can manage Java CAPS Project components, such as eWays and Collaborations, via snmpget/set requests (SNMPv3). You can also stop and restart the Integration Server, and create JMS message destinations.

The following figure shows the **CAPS51-MIB.txt** file after its import into an SNMP management system.

Figure 8 Example 2: Imported CAPS51-MIB Text File



4.4.1 Viewing the Java CAPS Project Component List

To view which components in a Java CAPS Project are available for SNMP management, read the variable management.list. Below is an example of a variable management.list for a Project where a File eWay connects to two Collaborations.

```
eGate|Servers|ontario.sun.com:18000,is51x

eGate|Servers|ontario.sun.com:18000|Project1|Deployment1|CMap1|C
Map1_Service1,jce.JavaCollaborationDefinition

eGate|Servers|ontario.sun.com:18000|Project1|Deployment1|CMap1|Q
ueue1,messageService.Queue

eGate|Servers|ontario.sun.com:18000|Project1|Deployment1|CMap1|T
opic1,messageService.Topic

eGate|Servers|ontario.sun.com:18000|Project2|ProjectA|Deployment
1|CMap1|CMap1_Service1,jce.JavaCollaborationDefinition

eGate|Servers|ontario.sun.com:18000|Project2|ProjectA|Deployment
1|CMap1|Queue1,messageService.Queue
```

```
eGate|Servers|ontario.sun.com:18000|Project2|ProjectA|Deployment
1|CMap1|Topic1,messageService.Topic

eGate|Servers|ontario.sun.com:18000|Project3|Deployment1|CMap1|C
Map1_Service1,jce.JavaCollaborationDefinition

eGate|Servers|ontario.sun.com:18000|Project3|Deployment1|CMap1|F
ile1,FILEADAPTER.ExternalApplication

eGate|Servers|ontario.sun.com:18000|Project3|Deployment1|CMap1|F
ile1|File1_CMap1_Service1,FILEADAPTER.ExternalApplication.LINK

eGate|Servers|ontario.sun.com:18000|Project3|Deployment1|CMap1|Q
ueue1,messageService.Queue

eGate|Servers|ontario.sun.com:18000|SeeBeyond_JMS_IQ_Manager,jms
51x
```

FILEADAPTER.ExternalApplication controls all Collaborations connected to the File eWay; FILEADAPTER.ExternalApplication.LINK enables you to control a specific Collaboration.

4.4.2 Managing eWays, Collaborations, and Integration Servers

This section describes how to manage Java CAPS Project components via the SNMP Agent MIB "management" subtree. You can view the properties and status (up or down) for all components.

In addition, you can stop, start, and restart eWays and Collaborations, and you can stop and restart the Integration Server.

Note: *For File eWays, only inbound eWays can be started, stopped or restarted.*

For Projects with multiple Collaborations linked to an eWay, you can stop/restart/start all Collaborations at once, or one Collaboration at a time. To affect all inbound Collaborations, use the eWay node (for example, FILEADAPTER.ExternalApplication). To affect a specific Collaboration, use the eWay link (for example, FILEADAPTER.ExternalApplication.LINK).

The following actions are not supported:

- Starting the server remotely.
- Starting project components (without a preceding stop)
- Starting and stopping JMS IQ Managers

To start or stop Java CAPS Project components

- Write to management.start or management.stop, and send it a string with the following syntax:

component=*name*|Servers|*hostname*:*port*&componentType=*type*

Where *name* is the component name and *type* is the component type as diesplayed in the variable list.

For example, if the variable management.list shows an Integration Server as follows:

e51x|Servers|ontario.sun.com:18000 is51x

To stop this server, you would use the following string:

component=e51x|Servers|ontario.sun.com:18000&componentType=is51x

4.4.3 Managing JMS Message Destinations

You can list, create, and delete message destinations for a JMS IQ Manager. In addition, you can view a message destination's properties by writing to the corresponding variables in the MIB JMS subtree.

The procedures below describe how to create message destinations.

To create JMS message topics

- Set the variable jms.createTopic to:

```
component=eGate|Servers|host:port|JMSIQMgrname|newtopic&componentType
=jms51x
```

where *host* is the logical host name, *port* is the port number for the logical host, *JMSIQMgrname* is the name of the JMS IQ Manager, and *newtopic* is the name of the new topic.

To create JMS message queues

- Set the variable jms.createQueue to:

```
component=eGate|Servers|host:port|JMSIQMgrname|newqueue&componentType
=jms51x
```

where *host* is the logical host name, *port* is the port number for the logical host, *JMSIQMgrname* is the name of the JMS IQ Manager, and *newqueue* is the name of the new queue.

Chapter 5

Configuring Java CAPS Projects for SNMP: Tutorial

This chapter provides a tutorial to help you quickly configure a Java CAPS Project for SNMP monitoring.

What's in This Chapter

5.1 Filtering Alerts

By default, SNMP Agent receives all alerts produces by runtime Java CAPS Project. To filter which alerts the SNMP Agent receives, you configure the Alert Agent as described below.

If you do not intend to filter the alerts, continue with **Configuring SNMP Agent** on page 29.

For details about filtering alerts for SNMP using the Sun SeeBeyond Alert Agent, refer to the *Sun SeeBeyond Alert Agent User's Guide*.

To filter alerts

1. In the **Explorer** pane of the Enterprise Manager, expand **J2EE**.
2. Click **Alert Agent**. The **Notification Configurations** window appears.
3. Click **Channels** and click **New**. The **Define New Channel** dialog box appears.
4. Enter a name for the channel, click **SNMP**, and click **OK**.
5. In the **Notification Configurations** window, click **Recipients**, and click **New**.
6. In the **Define New Recipient** dialog box,
7. Create the SNMP recipient by entering the following information:
   - In the **Recipient Name** box, enter a descriptive name for the SNMP management system or SNMP Agent receiving the notification.
   - In the **Channel** list, select the SNMP channel created in step 3.
   - In the **Recipient Address** box, enter the text **SNMP**.

When you are finished, click **OK**

8 In the **Notification Configurations** window, click **Destinations**, click **New**, and enter the following information:

- In the **Destination Name** box, enter a name for the destination.
- In the **Destination Description** box, enter a description for the destination.
- Select recipients to be part of this destination group by clicking the recipient and the right arrow. This moves recipients from the **Available Recipients** box to the **Selected Recipients** box.

When you are finished, click **OK**

To filter alerts for SNMP Agent, create only one destination.

9 For each specific alert, you must configure a notification and select the SNMP destination for that notification, by component and alert type (which you want to route to SNMP). Perform these operations as follows:

A In the **Notification Configurations** window, click **Notifications**, and click **New**.

B In the **Notification** dialog box, click **Select Type**. The **Select Notification Type** dialog box appears.

C Select the desired notification type and click **Save**. You cannot select more than one type.

D In the **Severity** list, select **Fatal**, **Critical**, **Major**, **Minor**, **Warning**, or **Info**. The severity levels are cumulative.

E The severity level must be lower than the severity level assigned to the notification type for alerts to be captured.

F Verify that **Active** is selected. To disable a notification, clear the check box.

G Under **Components**, click **Add/Remove**. The **Add/Remove Components** dialog box appears.

H Click the components for which to create notifications by clicking the component and clicking the right arrow to move them under **Selected Components**. Selecting a component selects the subcomponents for that component.

I Click **Save**.

J Under **Destinations**, click **Add/Remove**. The **Add/Remove Destinations** dialog box appears.

K Click the destinations to which notifications are to be sent by clicking the location and clicking the right arrow to move them under **Selected Destinations**.

L Click **Save**.

M In the **Comment** field, enter a comment to be included in the notification. For the e-mail channel, double-byte characters are not supported.

N Click **OK**.

After configuring the Java CAPS Project with an SNMP channel for routing alerts via SNMP, you must disable automatic routing of alerts to SNMP in the SNMP Agent configuration. To do this, you disable the Auto-Routing property for SNMP Agent in Enterprise Manager as described in **Configuring SNMP Agent** on page 29.

5.2 Configuring SNMP Agent

With the Java CAPS Project running on a Logical Host, use Enterprise Manager as described below to configure SNMP Agent.

To configure SNMP Agent

1. Log into Enterprise Manager as a user with a **Manager** role.
2. In the Explorer pane, expand the Repository and click **SNMPAgent**.
3. In the right-hand pane, click **Configuration**, enter the following configurations, and click **Save**:

For This Setting	Enter
SNMP Username	The user name for the SNMP system.
SNMP Password	The password for the user name.
SNMP Community	The trap receiver's community name, for example, public.
SNMP Table Update Interval	The interval at which the SNMP table is updated.
Listener Port	This port that the SNMP Agent listens on.
Timeout	The number of seconds after which the SNMP Agent times out.
Auto-Routing	Enable to have SNMP alerts routed automatically; Disable to route SNMP alerts through Alert Agent via the SNMP channel. For more information, refer the *Sun SeeBeyond Alert Agent User's Guide*.
Trap Receiver Hostname	The host name or IP address of the third-party management system.
Trap Receiver Port	The number for the trap port where the SNMP Agent forwards trap notifications.

4. In the Explorer pane, expand the Repository and click **SNMPAgent**.
5. In the right-hand pane, click **Status**, and click **Restart**.

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