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Preface

Content

“Audience”
“Organization”
“Text Conventions”
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“Document Feedback”

Audience

This guide is intended for system administrators who want to configure and use SPECTRUM with CA Unicenter NSM agents.

Organization

This document is organized as follows:

- Chapter 1, “Introduction,” on page 7 provides an overview of NSM Agent management features and modeling considerations.
- Chapter 2, “OneClick Views,” on page 15 describes NSM Agent information views and how to access the views.
- Chapter 3, “Launching NSM Agent Dashboards and Performance Reports,” on page 19 describes how to configure a custom configuration file to enable launch points for Performance Reports or Agent Dashboards.
- Appendix B, “NSM System Agent Status in SPECTRUM,” on page 27 describes how the status of the NSM Agent is represented in SPECTRUM.
Text Conventions

The following text conventions are used where applicable in this document:

<table>
<thead>
<tr>
<th>Element</th>
<th>Convention used</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables (The user supplies a value for the variable.)</td>
<td>Courier and Italic in angle brackets (&lt;&gt;)</td>
<td>Type the following: DISPLAY=&lt;workstation name&gt;:0.0 export display</td>
</tr>
<tr>
<td>The directory where you installed SPECTRUM or OneClick (The user supplies a value for the variable.)</td>
<td>&lt;$SPECROOT&gt;</td>
<td>Navigate to: &lt;$SPECROOT&gt;/app-defaults</td>
</tr>
<tr>
<td>Linux, Solaris, and Windows directory paths</td>
<td>Unless otherwise noted, directory paths are common to all operating systems, with the exception that slashes (/) should be used in Linux and Solaris paths, and backslashes () should be used in Windows paths.</td>
<td>&lt;$SPECROOT&gt;/app-defaults on Linux and Solaris is equivalent to &lt;$SPECROOT&gt;/app-defaults on Windows.</td>
</tr>
<tr>
<td>On-screen text</td>
<td>Courier</td>
<td>The following line displays: path=&quot;/audit&quot;</td>
</tr>
<tr>
<td>User-typed text</td>
<td>Courier</td>
<td>Type the following path name: C:\ABC\lib\db</td>
</tr>
<tr>
<td>Cross-references</td>
<td>Underlined and hypertext-blue</td>
<td>See “Organization” on page 5.</td>
</tr>
<tr>
<td>References to SPECTRUM documents (title and number)</td>
<td>Italic</td>
<td>OneClick Console User Guide (5130)</td>
</tr>
</tbody>
</table>

SPECTRUM OneClick Documentation

The SPECTRUM documentation set is available online at:

http://support.concord.com/support/secure/products/Spectrum_Doc/

Use this site to download the latest documentation updates and additions. To log on to the documentation site, you must supply your contract number and license number.

Document Feedback

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spectrum-docs@aprisma.com

Thank you for helping us improve our documentation.
Chapter 1: Introduction

Overview

SPECTRUM management module SM-CAI1000 provides support in SPECTRUM for management of CA Unicenter NSM agents from the OneClick interface. This management module provides the following SPECTRUM features for CA Unicenter r11 and 3.1 versions of NSM agents:

- SPECTRUM provides unique device model types for NSM agent hosts. This enables the management of NSM agents as well as their host devices in SPECTRUM. (See “NSM Agent Support” on page 8.)

- The SPECTRUM OneClick interface displays system information gathered by NSM agents and lets you configure process monitoring on NSM agent hosts. (See “OneClick Views” on page 15.)

  Note: Process monitors are models in SPECTRUM, and thus you can set up alarm conditions for the monitor models, generate reports on monitor model events and alarms with the SPECTRUM Report Manager application, and incorporate monitor models into SPECTRUM service level agreement management configurations.

- SPECTRUM generates events and alarms upon receipt of NSM agent traps. (See “NSM Agent Trap Handling in SPECTRUM” on page 25.)

- SPECTRUM provides insight into the proprietary interfaces of NSM agent host devices. (See “NSM Agent Interface Support in SPECTRUM” on page 13.)

- SPECTRUM provides launch points for CA Unicenter Web management interfaces such as Agent Dashboards from within OneClick. (See “Launching NSM Agent Dashboards and Performance Reports” on page 19.)
NSM Agent Support

SPECTRUM management module SM-CAI1000 currently supports the CA Unicenter NSM r11 and NSM 3.1 Systems agents listed in Table 1-1.

Table 1-1: Supported NSM Agents by Unicenter Release

<table>
<thead>
<tr>
<th>NSM r11 Systems Agents</th>
<th>NSM 3.1 Systems Agents</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIX System Agent (caiUxsA2)</td>
<td>UNIX System Agent (caiUxOs)</td>
</tr>
<tr>
<td>Windows System Agent (caiWinA3)</td>
<td>Windows System Agent (caiW2kOs)</td>
</tr>
<tr>
<td>Active Directory Services Agent (caiAdsA2)</td>
<td>Active Directory Services Agent (caiAdsA2)</td>
</tr>
<tr>
<td>Log Agent (caiLogA2)</td>
<td>Log Agent (caiLogA2)</td>
</tr>
<tr>
<td>Performance Agent (hpxAgent)</td>
<td>Performance Agent (hpxAgent)</td>
</tr>
</tbody>
</table>

Table 1-2 provides more detailed SPECTRUM information by supported NSM agent and Unicenter version and SPECTRUM model type.

Table 1-2: Supported Platforms and Model Types

<table>
<thead>
<tr>
<th>Supported Unicenter Version and Agent Platform</th>
<th>Description</th>
<th>SPECTRUM Model Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIX System Agent (caiUxsA2)</td>
<td>Provides Unix Agent support for NSM r11</td>
<td>Host_NSMSysUnix</td>
</tr>
<tr>
<td>Windows System Agent (caiWinA3)</td>
<td>Provides Windows Agent support for NSM r11</td>
<td>Host_NSMSysWin</td>
</tr>
<tr>
<td>UNIX System Agent (caiUxOs)</td>
<td>Provides Unix Agent support for NSM 3.1</td>
<td>Host_NSMinv3SysUnix</td>
</tr>
<tr>
<td>Windows System Agent (caiW2kOs)</td>
<td>Provides Windows Agent support for NSM 3.1</td>
<td>Host_NSMinv3SysWin</td>
</tr>
</tbody>
</table>

Figure 1-1 shows an example of an NSM agent host modeled in the OneClick Topology tab view.
SPECTRUM supports CA proprietary Unicenter NSM MIBs with the CA Unicenter NSM Agent management module. See the CA Unicenter Network and Systems Management MIB Reference document for detailed NSM agent MIB information.

NSM MIBs:
- caiUxsA2
- caiWinA3
- caiLogA2
- caiAdsA2
- hpxAgent
- caiUxOs
- caiW2kOs

Modeling NSM Agents in SPECTRUM

NSM agents can be discovered and modeled automatically using SPECTRUM discovery or they can be manually modeled. When modeling NSM agents in SPECTRUM, also consider the following information:

- “NSM Agent Hosts that Run Additional SNMP Agents” on page 10
- “Modeling Considerations for Accessing NSM Web Portals” on page 10

Note: See the Modeling Your IT Infrastructure Administrator Guide (5167) for more information.
NSM Agent Hosts that Run Additional SNMP Agents

When modeling and managing NSM agents in SPECTRUM, be aware that other agents running on the host device can also be discovered and modeled by SPECTRUM during a discovery. This is due to the fact that NSM agents use UDP port 6665 for SNMP communications by default rather than the standard SNMP port 161.

For example, if a Windows workstation is running an NSM agent bound to port 6665 as well as the Microsoft SNMP agent bound to port 161, SPECTRUM will create two models for the device; an NSM System Host device model and a Windows Host device model. This is shown in the example in Figure 1-2.

This scenario can create poor performance for the following reasons:

- Creates unnecessary duplicate models in SPECTRUM
- Produces redundant SNMP traffic and polling which can reduce network and SPECTRUM performance
- Reduces performance of the agent host machine due to multiple management agents providing performance data

To avoid this scenario:

- Before discovery and modeling, stop and remove all management agents except the one you want to use to manage the system. By doing this you can avoid creating and managing multiple models in SPECTRUM for the same host.
- If you must run more than one agent on a given host system, consider manually modeling only the agent that you want to manage with SPECTRUM.

Modeling Considerations for Accessing NSM Web Portals

In order to have access to the NSM Web portal and Reporting launch points in OneClick you must first model the NSM agents in SPECTRUM using the name service rather than the IP address.
Note: For complete information about modeling devices in OneClick, see the Modeling Your IT Infrastructure (5167) guide.

In cases where an NSM agent host is already modeled in SPECTRUM by IP instead of by the name service, you can remove the model, configure SPECTRUM’s model naming, and then manually re-model the agent.

Procedure

To manually re-model the agent:

1. In the OneClick topology view, right-click the IP-named NSM agent device model and choose **Delete** from the menu. This deletes the model from SPECTRUM.

2. Right-click the VNM icon in the OneClick topology view and choose **Component Detail** from the menu. This opens a Component Detail view in the context of the SPECTRUM VNM.

3. Expand the **SpectroSERVER Control** section of the Information tab of the Component Detail view for the VNM.

4. Click **Set Order** to change the Model Naming Order on the VNM (see **Figure 1-3**).

Figure 1-3: Component Detail View - SPECTRUM VNM
Chapter 1: Introduction

The Set Order dialog box appears.

5. In the Set Order dialog box, select and move Name Service to the top of the list of options using the up arrow button and click OK (as shown in Figure 1-4).

![Set Order Dialog Box]

**Figure 1-4: Set Order**

6. In the OneClick topology view, re-model the NSM agent host using the Create New Model by IP button. The new NSM agent model will be named with the name service of the device.

Once you have completed the configuration according to “Configuring SPECTRUM OneClick to Launch NSM User Interfaces” on page 19, you can access NSM Web dashboard and Reporting launch points from OneClick.

Accessing NSM agent dashboards is described in “Accessing NSM Agent Dashboards and Performance Reports” on page 20.

SNMPv3 Support

SNMPv3 support for NSM agents in SPECTRUM requires that you obtain and install both Service Pack 1 for Unicenter r11 and the SPECTRUM SNMPv3 add-on module.

- NSM Agent Support for SNMPv3
  
  With the release of Service Pack 1 for Unicenter r11, NSM agent technology includes support for SNMPv3. For complete details, see the Unicenter Network and Systems Management Agent Technology Support for SNMPv3 document.

- SPECTRUM SNMPv3 Support
  
  In order to monitor SNMPv3 traffic in SPECTRUM, you must first purchase and install SPECTRUM’s SNMPv3 support. For more information about SPECTRUM’s SNMPv3 support, see the SPECTRUM SNMPv3 User Guide (5124).
NSM Agent Interface Support in SPECTRUM

NSM agents do not support the standard MIB-II interface table but instead use a proprietary interface table defined in the relevant CA MIB. Because of this, the NSM agent management module was designed to provide interface support based on the proprietary NSM interface table. Table 1-3 provides the correlation between the MIB-2 attributes and the corresponding proprietary NSM MIB objects.

Table 1-3: Proprietary Interface MIB Details

<table>
<thead>
<tr>
<th>MIB-2 Attribute</th>
<th>NSM r11 Windows OS agent (caiWinA3) Attribute</th>
<th>NSM 3.1 Windows OS agent (caiW2kOs) Attribute</th>
<th>NSM r11 Unix OS agent (caiUxsA2) Attribute</th>
<th>NSM 3.1 Unix OS agent (caiUxOs) Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>ifIndex</td>
<td>winEHIfIndex</td>
<td>w2kEHIfIndex</td>
<td>uxsEHIfIndex</td>
<td>ux3EHIfIndex</td>
</tr>
<tr>
<td>ifType</td>
<td>winEHIfType</td>
<td>w2kEHIfType</td>
<td>uxsEHIfType</td>
<td>ux3EHIfType</td>
</tr>
<tr>
<td>ifSpeed</td>
<td>winEHIfSpeed</td>
<td>w2kEHIfSpeed</td>
<td>uxsEHIfSpeed</td>
<td>ux3EHIfSpeed</td>
</tr>
<tr>
<td>ifPhysAddress</td>
<td>winEHIfPhysAddress</td>
<td>w2kEHIfPhysAddress</td>
<td>uxsEHIfPhysAddress</td>
<td>ux3EHIfPhysAddress</td>
</tr>
<tr>
<td>ifDescr</td>
<td>winEHIfDescr</td>
<td>w2kEHIfDescr</td>
<td>uxsEHIfDescr</td>
<td>ux3EHIfDescr</td>
</tr>
<tr>
<td>IpAdEntAddr</td>
<td>winEHIfIpAdEntAddr</td>
<td>w2kEHIfIpAdEntAddr</td>
<td>uxsEHIfIpAdEntAddr</td>
<td>ux3EHIfIpAdEntAddr</td>
</tr>
<tr>
<td>ifAdminStatus</td>
<td>winEHIfAdminStatus</td>
<td>w2kEHIfAdminStatus</td>
<td>uxsEHIfAdminStatus</td>
<td>ux3EHIfAdminStatus</td>
</tr>
<tr>
<td>ifOperStatus</td>
<td>winEHIfOperStatus</td>
<td>w2kEHIfOperStatus</td>
<td>uxsEHIfOperStatus</td>
<td>ux3EHIfOperStatus</td>
</tr>
<tr>
<td>ifLastChange</td>
<td>winEHIfLastChange</td>
<td>w2kEHIfLastChange</td>
<td>uxsEHIfLastChange</td>
<td>ux3EHIfLastChange</td>
</tr>
</tbody>
</table>
Chapter 1: Introduction
Chapter 2: OneClick Views

Content

“OneClick NSM Agent Information Views”

“Accessing NSM Agent Information Views in OneClick”

OneClick NSM Agent Information Views

SPECTRUM OneClick provides visibility into information gathered by NSM System agents. It also lets you configure process monitoring in the Running and Monitored Processes view. See the Host System Resources Management User Guide (5179) for details. Other information views provide read-only information available from the proprietary MIB values. This section describes the available information and how to access the views.

Table 2-1 displays information available in the OneClick Component Detail panel for a selected NSM agent (grouped by NSM agent type).

<table>
<thead>
<tr>
<th>Windows r11 System Agent (caiWinA3) and Windows 3.1 System Agent (caiW2kOs)</th>
<th>UNIX r11 System Agent (caiUxsA2)</th>
<th>UNIX 3.1 System Agent (caiUxOs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>System</td>
<td>System</td>
<td>System</td>
</tr>
<tr>
<td>Processors</td>
<td>OS Resource Parameters</td>
<td>Processors</td>
</tr>
<tr>
<td>Memory</td>
<td>Processors</td>
<td>Load Averages</td>
</tr>
<tr>
<td>Monitored Logical Volumes</td>
<td>Load Averages</td>
<td>Real Memory</td>
</tr>
<tr>
<td>Monitored Directories</td>
<td>Real Memory</td>
<td>Swaps</td>
</tr>
<tr>
<td>Monitored Files</td>
<td>Swaps</td>
<td>Monitored File Systems</td>
</tr>
<tr>
<td>Running and Monitored Processes</td>
<td>Monitored Directories</td>
<td>Monitored Disks</td>
</tr>
<tr>
<td>Monitored Services</td>
<td>Monitored File Systems</td>
<td>Monitored Files</td>
</tr>
<tr>
<td>Network Interfaces</td>
<td>Monitored Files</td>
<td>Running and Monitored Processes</td>
</tr>
</tbody>
</table>
Chapter 2: OneClick Views

Table 2-1: Available NSM Information (Continued)

<table>
<thead>
<tr>
<th>Windows r11 System Agent (caiWinA3) and Windows 3.1 System Agent (caiW2kOs)</th>
<th>UNIX r11 System Agent (caiUxsA2)</th>
<th>UNIX 3.1 System Agent (caiUxOs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Monitored Disks</td>
<td>Network Interfaces</td>
</tr>
<tr>
<td></td>
<td>Running and Monitored Processes</td>
<td>Network Interfaces</td>
</tr>
</tbody>
</table>

Accessing NSM Agent Information Views in OneClick

This procedure assumes you have already modeled the NSM agents in your network either using Discovery or by modeling them manually. See “Modeling NSM Agents in SPECTRUM” on page 9 for more information.

Procedure

To access NSM agent information in OneClick:

1. Select a modeled NSM agent device icon in the topology view of OneClick. Figure 2-1 shows an example of an NSM device icon.

2. In the Information tab of the Component Detail panel for the selected NSM agent model, click System Resources to view NSM agent-specific information.

Figure 2-1 shows an example of the OneClick Information tab for an NSM System host. Each available NSM information view category appears beneath the expanded System Resources category.
Figure 2-1: OneClick NSM System Agent Information View

**Component Detail:** Host of type NSM System Host

- **Name:** Host set
- **Type:** NSM System Host
- **Notes:**
  - **Description:** Intel/Pentium N75
  - **Host Name:** Host T1

**System Resources**

- Running and Monitored Processes
- Processors
- Memory
- System
- Network Interfaces
- Monitored Logical Volumes
- Monitored Directories
- Monitored Files
- Monitored Services
Chapter 3: Launching NSM Agent Dashboards and Performance Reports

Content

“Configuring SPECTRUM OneClick to Launch NSM User Interfaces”

“Accessing NSM Agent Dashboards and Performance Reports”

The CA Unicenter NSM Agent management module provides OneClick launch points for NSM agent dashboards and Performance reporting. You configure the launch points using the NSM configuration utility available from the OneClick Administration Pages.

Configuring SPECTRUM OneClick to Launch NSM User Interfaces

To enable context sensitive launching of Unicenter NSM dashboard and report server from SPECTRUM, you must configure values for your environment on the OneClick Web server. You configure values using the NSM Configuration option available from OneClick Administration Pages (Figure 3-1).

![Figure 3-1: NSM Configuration](image)
SPECTRUM saves the configuration values to a customized version of the default 
<Install Area>/tomcat/webapps/spectrum/WEB-INF/topo/config/nsm-system-config.xml 
file to the <Install Area>/custom/topo/config/ directory. This directory is not overwritten 
when you upgrade, and thus your NSM configuration values are retained.

**Procedure**

To configure custom values:

1. On the OneClick main web page, click Administration.
2. In Administration Pages, click NSM Configuration.

   The NSM Configuration panel appears.
3. Set values:

   - **NSM Dashboard Server Name** — Identifies the NSM dashboard server 
     (server.domain.extension)
   - **NSM Dashboard Server Port** — Default value is 9090
   - **NSM Report Server** — Identifies the NSM report server (server.domain.extension)
   - **NSM Report Port** — Default value is 9090
4. Restart any running OneClick clients for the changes to take effect.

**Accessing NSM Agent Dashboards and Performance Reports**

Launching NSM user interfaces from OneClick requires that you have already configured 
SPECTRUM to launch the NSM user interfaces for your environment as described in “Configuring 
SPECTRUM OneClick to Launch NSM User Interfaces” on page 19.

**Note:** Access to the launch points requires that you model the NSM agents in SPECTRUM by device 
name rather than IP address.

NSM launch points in OneClick include:

- NSM Agent Dashboards
- NSM Performance Report

**Launching Agent Dashboards**

**Procedure**

To launch Agent dashboards, right-click the NSM agent device model in the OneClick topology 
view, and then select the NSM agent dashboard you want to launch from the menu as shown in 
Figure 3-2.
The Unicenter Dashboard Web interface appears (Figure 3-3).

**Figure 3-3: Unicenter Dashboard Web Interface**
Chapter 3: Launching NSM Agent Dashboards and Performance Reports

Performance Reporting

OneClick provides a performance reporting menu selection for each of the NSM model types. The performance reporting menu selection is available by right-clicking on an NSM device model. This menu selection launches Unicenter WRS-based Systems Performance Reports.

**Note:** For NSM performance reporting to be launched from OneClick, each of the following must be true:

- The hpxAgent must be installed on the NSM agent host machine.
- The WRS being connected to must have Systems Performance Reporting installed as well as a connection defined that serves data for the given machine.
- OneClick must be configured as described in “Configuring SPECTRUM OneClick to Launch NSM User Interfaces” on page 19

Procedure

To launch the Reporting Web interface, right-click an NSM agent device model that represents the NSM host for which you want to launch the NSM Performance Report Web interface, and then select **NSM Performance Report** *(Figure 3-4).*

**Figure 3-4: Launching Unicenter Reporting Web Interface**

![Figure 3-4: Launching Unicenter Reporting Web Interface](image)

The Unicenter Web Reporting Server interface appears *(Figure 3-5).*
Figure 3-5: Unicenter Reporting Web Interface
Appendix A: NSM Agent Trap Handling in SPECTRUM

Content

“Trap-to-Alarm Mapping”
“Event Code and Probable Cause File ID Ranges”

Trap-to-Alarm Mapping

The CA Unicenter NSM agent management module integrates NSM agent traps into SPECTRUM event and alarm processing.

SPECTRUM processes traps sent by NSM agents including System and Performance agents. For each NSM System or Performance agent trap with a state of Warning or Critical received, SPECTRUM generates an alarm as shown in Table A-1. When SPECTRUM receives the related OK trap, SPECTRUM clears the corresponding alarm.

<table>
<thead>
<tr>
<th>NSM Trap received by SPECTRUM</th>
<th>SPECTRUM Alarm Generated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warning Trap</td>
<td>Minor alarm</td>
</tr>
<tr>
<td>Critical Trap</td>
<td>Major alarm</td>
</tr>
</tbody>
</table>

Trap processing is based on the NSM agent model types. Each model type processes traps for several agents as outlined in Table A-2.

<table>
<thead>
<tr>
<th>Model Type</th>
<th>Processes Traps on Behalf of these Agents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host_NSMSysUnix</td>
<td>caiUxsA2</td>
</tr>
<tr>
<td></td>
<td>caiLogA2</td>
</tr>
<tr>
<td></td>
<td>hpxAgent</td>
</tr>
</tbody>
</table>
### Table A-2: NSM Agent Trap Processing by Model Type (Continued)

<table>
<thead>
<tr>
<th>Model Type</th>
<th>Processes Traps on Behalf of these Agents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host_NSMSysWin</td>
<td>caiWinA3</td>
</tr>
<tr>
<td></td>
<td>caiLogA2</td>
</tr>
<tr>
<td></td>
<td>caiAdsA2</td>
</tr>
<tr>
<td></td>
<td>hpxAgent</td>
</tr>
<tr>
<td>Host_NSMv3SysUnix</td>
<td>caiUxOs</td>
</tr>
<tr>
<td></td>
<td>caiLogA2</td>
</tr>
<tr>
<td></td>
<td>hpxAgent</td>
</tr>
<tr>
<td>Host_NSMv3SysWin</td>
<td>caiW2kOs</td>
</tr>
<tr>
<td></td>
<td>caiLogA2</td>
</tr>
<tr>
<td></td>
<td>caiAdsA2</td>
</tr>
<tr>
<td></td>
<td>hpxAgent</td>
</tr>
</tbody>
</table>

### Event Code and Probable Cause File ID Ranges

Table A-3 lists event codes and probable cause file IDs for NSM Agent MIBs.

### Table A-3: SPECTRUM Event Codes and Probable Cause Files

<table>
<thead>
<tr>
<th>NSM Agent MIB</th>
<th>Range of Associated SPECTRUM Event Codes and Probable Cause Files</th>
</tr>
</thead>
<tbody>
<tr>
<td>caiUxsA2</td>
<td>Event04ef0000 - Event04ef00e9</td>
</tr>
<tr>
<td></td>
<td>Prob04ef0002 - Prob04ef00e3</td>
</tr>
<tr>
<td>caiWinA3</td>
<td>Event04ef1000 - Event04ef10c7</td>
</tr>
<tr>
<td></td>
<td>Prob04ef1002 - Event04ef10c1</td>
</tr>
<tr>
<td>caiLogA2</td>
<td>Event04ef2000 - Event04ef2010</td>
</tr>
<tr>
<td></td>
<td>Prob04ef2002 - Event04ef2006</td>
</tr>
<tr>
<td>caiAdsA2</td>
<td>Event04ef3000 - Event04ef3042</td>
</tr>
<tr>
<td></td>
<td>Prob04ef3002 - Event04ef303e</td>
</tr>
<tr>
<td>hpxAgent</td>
<td>Event04ef4000 - Event04ef4008</td>
</tr>
<tr>
<td></td>
<td>Prob04ef4002 - Event04ef4006</td>
</tr>
<tr>
<td>caiUxOs</td>
<td>Event04ef5000 - Event04ef5069</td>
</tr>
<tr>
<td></td>
<td>Prob04ef5002 - Event04ef5067</td>
</tr>
<tr>
<td>caiW2kOs</td>
<td>Event04ef6000 - Event04ef6099</td>
</tr>
<tr>
<td></td>
<td>Prob04ef6002 - Event04ef6095</td>
</tr>
</tbody>
</table>
Appendix B: NSM System Agent Status in SPECTRUM

To keep the status of NSM agent models up to date, SPECTRUM regularly polls two NSM system agent MIB attributes according to the device polling interval. By default, the interval is five minutes (300 seconds). See the *How to Manage Your Network with SPECTRUM (1909)* guide as required for information on changing the polling interval.

The polled attributes indicate the number of warning and/or critical resources on a given NSM system agent host. One attribute represents the total number of resource warnings for the NSM system agent and the other represents the total number of resources in critical condition. If the number of warning or critical resources for a given NSM system agent is greater than zero, SPECTRUM creates an appropriate alarm. This alarm is cleared when the value for the attribute is zero. *Table B-1* shows the polled attributes for each supported model type as well as the alarms generated.

<table>
<thead>
<tr>
<th>Model Type</th>
<th>Polled Attributes</th>
<th>Event/Minor Alarm ID Generated when total resource warnings is greater than zero</th>
<th>Event/Major Alarm ID Generated when total critical resources value greater than zero</th>
<th>Alarm Cleared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host_NSMSysUnix</td>
<td>uxsA2StatusGeneralTotalWarn</td>
<td>0x04ef00ea</td>
<td>0x04ef00ec</td>
<td>These alarms are cleared when the number of total resource warnings or total critical resources respectively is zero when polled.</td>
</tr>
<tr>
<td></td>
<td>uxsA2StatusGeneralTotalCrit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Host_NSMSysWin</td>
<td>winA3StatusGeneralTotalWarn</td>
<td>0x04ef10c8</td>
<td>0x04ef10ca</td>
<td></td>
</tr>
<tr>
<td></td>
<td>winA3StatusGeneralTotalCrit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Host_NSMv3SysUnix</td>
<td>uxsStatusGeneral TotalWarning</td>
<td>0x04ef506a</td>
<td>0x04ef506c</td>
<td></td>
</tr>
<tr>
<td></td>
<td>uxsStatusGeneral TotalCritical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Host_NSMv3SysWin</td>
<td>w2kStatusGeneral TotalWarn</td>
<td>0x04ef609a</td>
<td>0x04ef609c</td>
<td></td>
</tr>
<tr>
<td></td>
<td>w2kStatusGeneral TotalCrit</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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