



Application Services for IVR Product Documentation

Avaya IR SNMP Agent® Release 2.0

Feature List

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OVERVIEW

Summary Product Description

Avaya IR SNMP Agent is based on SNMP Agentx protocol which works with net-SNMP master agent 4.2.x. The net-SNMP master agent provides authentication and security features that support requests based on SNMP version v1 to v3. The IR subagent will connect to the master agent using Agentx protocol, and honors requests from master agents for an “object” that is being implemented by the sub agent. The sub-agent sends alerts to the destined management stations through the master agent. The master agent can be queried using any management station such as HP Openview, Tivoli, Tkinet, etc. The SNMP framework requires basic TCP/IP networking between the managed and management nodes such that they are able to access each other through the defined UDP ports.

Introduction

The Admin features of IR SNMP agent are to provide access to frequently used IR commands to perform administration through SNMP. The security of the IR is protected through the net-SNMP’s v2 to v3 security frame work. The administrator of IR has options to tighten the security from rigid to flexible based on the networking and operating environment of the IR. Using the admin features, IR commands can be set through a MIB variable and executed through the execution node remotely using command execute option. The status of the execution of a command (i.e. output) will be displayed to the user. However, this interface should not be used to execute any commands that require input during the execution process: meaning the interface only supports command that take command line arguments and runs without expecting any intermediate input from the user. The security configuration information is available in the SNMP administration guide.

The alarming agent of IR will provide SNMP alarms to the alarm destination specified in the SNMP configuration file. The IR agent sends traps to alarm destinations. The alarming agent generates eight different types of traps, such as Critical, Major, Minor, Information and Alarms type traps that are generated based on the IR alarm log. The Alarm type trap is a composite type, which funnels critical, major, minor and informational traps using a common trap

structure indicating the priority through a MIB variable. The behavior of alarm generation can be controlled through configuration files that will be explained in detail in the SNMP Administration document. The Heartbeat alert can be enabled through the configuration files which provides periodic traps to the management station to ensure the sanity of the sub-agent. The platform and ProMon related alarms will also be funneled through the Alarm or distinct trap types.

The ProMon sub-system helps monitor the IR proactively and raises alerts for conditions that are likely to occur in an IR environment. The ProMon sub-system has a set of components, called “spies”, that can be enabled or disabled individually through MIB variables. A spy monitors components of a system such as the CPU usage, file system capacity and availability, and various system performance metrics. The spy compares the actual performance with the preset threshold and raises alerts when a threshold is not met.

Product Platform

1. Customer premises employ a NMS (SNMP-based management station such as HP OpenView, Tkined, or Tivoli).
2. IVR and NMS reside in the same LAN/WAN.

The diagram below depicts the architectural overview of *Avaya IR SNMP Agent 2.0*. The net-SNMP agent receives requests from the user, and sends them to the *Avaya IR SNMP Agent*. The sub-agent sends alerts to the net-SNMP agent, which in turn forwards them to the NMS.

Figure 1 Schematic of *Avaya IR SNMP Agent 2.0*

FUNCTIONAL COMPONENTS

Admin Feature

The Admin feature enables an IVR administrator to perform all of the following functions through a NMS station or with set/get commands at the command line:

Backup & Restore

- Mounting NFS for a backup (NFS must be provisioned in Solaris in order to use this feature)
- Un-mount NFS file system.
- Perform full backup
- Perform partial backup
- Schedule full backup
- Schedule partial backup
- View backup files
- View backup schedules
- Restore backup
- View the backup status
- View the restore status
- View backup parameters

Alarm Administration

- View log message options
- View log messages for current or prior days
- Filter log messages through event priorities
- Display summary total of Critical, Major, Minor and Info alarms

Alarm Setup

- Set priority of alarm forwarded to NMS
- Change frequency of the log scanner
- Filter alarms reported to NMS in a designated interval
- View active alarm in the log
- View past active alarms that were cleared
- View explanations of error codes
- View platform alarm dial-out configuration information

Feature Licensing

View current licensing information on IR
Message Admin
View priority of and information about error codes
Change priority of error codes

Voice System Control

Stop and start the voice system
Re-number voice channels
View of Sysmon

Switch Interface

The switch interface branch offers the following options for administering NMS boards or VoIP Channels:

- View NMS cards in IR
- View NMS card parameters
- NMS admin command line interface
- VoIP admin command line interface
- View VoIP parameters listing

Feature Package Admin

Feature package admin provides administration on ProMon. ProMon enables proactive monitoring on Avaya IVR, including monitoring file-systems, CPU usage, host session problems, and checking vital processes. It can be extended on an as-needed basis.

Individual spies are available in ProMon to monitor specific aspects of Avaya IR (e.g. CPU_IDLE spy [CPU usage]). A spy can be dynamically enabled or disabled at a management station. It also may filter exceptions and create groups that will be paged at the occurrence of an event. It also can send messages for error events to Avaya's proactive-monitoring group under a service agreement.

Special features:

- File system space monitor
- CPU idle time monitor
- Host port monitor
- Database dip monitor

Process monitors
Exception filter option to filter known events reported to NMS or pager
Dynamically enable/disable monitoring spy
Send alert through pagers
VRA help-line compatibility
ProMon log view

ASAI--Admin

Command interface to ASAI domain and channel commands
ASAI domain/channel views

TTS--Command Interface

Interface allows users to assign, change, display and unassign values to the Proxy Text-to-Speech (PTTS) configuration files.

SRProxy--Command Interface

The `sproxyadm` command changes the state of a proxy-speech resource or set of resources of a given type. It also displays information about the state of resources.

Standard Avaya IR Reports Interfaces

This interface runs standard IVR reports through the NMS.

IVR Status

IVR status branch of the MIB tree offers a quick overview about the number of ports, the system name, and system ID.

Status of the voice system
Purchased voice channels
Used voice ports
Current busy ports
Voice system name

Voice system ID

IVR Software Installed

Shows a list of the packages loaded in the Avaya IR System.

IVR Hardware Installed

Shows the total amount of memory installed
Shows the file-system capacity and availability
Shows voice card status

OS Util

The OS Util branch of the MIB tree shows a quick view of the CPU usage and all vital system statistical information:

Output of top command
Output of vmstatus command