

Avaya Solution & Interoperability Test Lab

Application Notes for Integrated Research Prognosis VoIP Monitor with Avaya Aura® Communication Manager -Issue 1.0

Abstract

These Application Notes describe the procedures for configuring Integrated Research Prognosis VoIP Monitor to interoperate with Avaya Aura® Communication Manager.

Prognosis VoIP Monitor is a purpose-built solution for the monitoring of voice quality in Avaya IP telephony environments. Prognosis VoIP Monitor provides best-in-class monitoring of voice quality from a telephony perspective as well as diagnostics for troubleshooting and service level analysis.

Prognosis VoIP Monitor integrates directly to Avaya Aura® Communication Manager using Secure Shell (SSH). At the same time, it processes Real-time Transport Control Protocol (RTCP) information from Avaya Aura® Communication Manager.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

1. Introduction

These Application Notes describe the compliance tested configuration used to validate Integrated Research Prognosis VoIP Monitor with Avaya Aura® Communication Manager.

Prognosis VoIP Monitor is designed to provide a comprehensive monitoring platform for Avaya IP telephony networks. It does this by collecting data, filtering it as required and then presenting it in a user-friendly format, all in real-time. An additional function allows for data to be used to generate email alerts when pre-defined conditions are exceeded.

In order to collect and present data, the Prognosis VoIP Monitor product must be installed on a dedicated server. The product has a web based configuration application and a PBX monitor application for users to configure the product and view the status of the monitored PBX using a web browser.

Prognosis VoIP Monitor uses the following methods to monitor Avaya Aura® Communication Manager.

- System Access Terminal (SAT) The Prognosis VoIP Monitor uses a pool of SSH connections to the SAT to query system components configuration and the component status. In the test configuration, the solution establishes two concurrent SAT connections to Avaya Aura® Communication Manager and uses the connections to execute SAT commands.
- **RTCP Collection** Prognosis VoIP Monitor collects RTCP information sent by the Avaya IP Media Processor (MEDPRO) boards, media gateways, IP Telephones and OneX[®] Communicator.
- **SNMP** Prognosis VoIP Monitor uses SNMP V2c interface to query Avaya Server related information.

2. General Test Approach and Test Results

The interoperability compliance test included feature and serviceability testing.

The feature testing evaluated the ability of the Prognosis VoIP Monitor to correctly retrieve the configuration and status information from Communication Manager. In addition, the ability of Prognosis VoIP Monitor to receive and process RTCP information from Communication Manager was also validated.

The serviceability testing introduced failure scenarios to see if Prognosis VoIP Monitor is able to resume service after failure recovery and an Avaya Server interchange.

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance

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Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

2.1. Interoperability Compliance Testing

The compliance test was performed in the following ways:

- PBX component information and status: Prognosis VoIP Monitor displays configuration and status information for major Communication Manager elements such as CLAN boards, Medpro boards, DS1 boards, main servers, survivable servers, network regions, phones, port networks, route patterns, and trunk groups. The displayed information on various Prognosis VoIP Monitor panels was compared with output from manually executed SAT commands and information accessible from Communication Manager web interface for accuracy.
- Quality of Service data for voice streams: Various types of calls including direct IP-to-IP, IP-to-digital, IP-analog, 3-party conference within a PBX, and 3-party conference across two PBXs were made with or without a network impairment device in the media path. For each call, the following from the Prognosis VoIP Monitor display was verified:
 - Two voice streams were generated for each IP call leg
 - Packet loss, latency, and jitter values were consistent with the values set on the network impairment device
- Serviceability testing focused on verifying the ability of Prognosis VoIP Monitor to recover from adverse conditions such as disconnecting and reconnecting the Communication Manager and Prognosis VoIP Monitor server from the network, rebooting Communication Manager and Prognosis VoIP Monitor server, and interchanging the Avaya Main Servers.

2.2. Test Results

The Prognosis VoIP Monitor successfully passed the compliance test. The following observations were made during testing:

- Trunk Group panel displayed incorrect medium information for SIP trunks groups.
- Signaling Group panel did not display Signaling Group number for SIP and H.323 trunk groups.
- OneX[®] Communicator Release 6.1 did not support RCTP functions.

2.3. Support

For technical support on Prognosis VoIP Monitor, contact the Integrated Research Support Team at:

• Phone: +61 (2) 9966 1066

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- Fax: +61 (2) 9921-1042
- Email: support@prognosis.com

3. Reference Configuration

Figure 1 illustrates the test configuration used to verify Prognosis VoIP Monitor interoperability with Communication Manager. It consists of a Communication Manager simplex system running on a S8800 server with two Avaya G650 Media Gateways in Site 1, a Communication Manager duplex system running on a pair of Dell R610 servers with one Avaya G450 Media Gateway in Site 2, and Communication Manager Survivable Core software running on a pair of HP DL360G7 servers in Site 3 supporting the Site 2 Communication Manager system. The two Communication Manager systems have Avaya IP, digital and analog telephones, and Avaya One-X[®] Communicator users configured for making and receiving calls. Prognosis VoIP Monitor was installed on a VMWare virtual machine running Microsoft Windows Server 2008 R2 with Service Pack 1. All the systems and telephones are connected using an Avaya Layer2 and Layer 3 data infrastructure.

SIP Telephones are not supported by Prognosis VoIP Monitor and therefore are outside the scope of the testing.

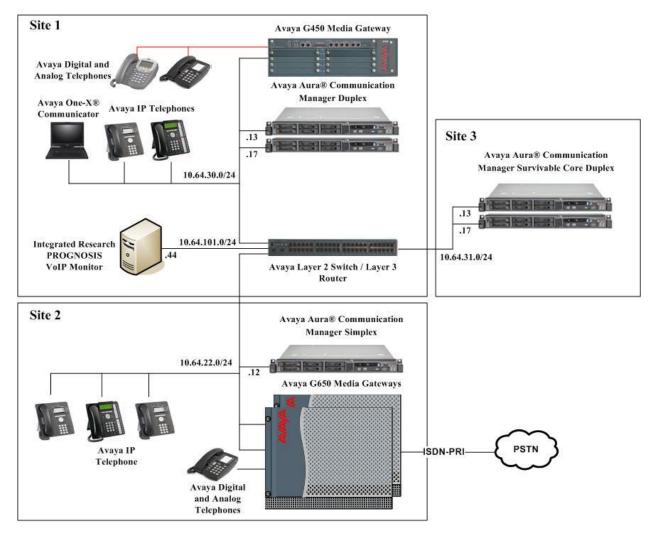


Figure 1: Test Configuration

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4. Equipment and Software Validated

The following equipment and software were used for the sample configuration provided:

Equipment/Software	Version
Avaya S8800 Server running	6.2 SP3
Avaya Aura® Communication Manager	(Patch 20001)
G650 Media Gateway	
- TN2312BP IP Server Interface (x 2)	HW28, FW040
- TN799DP C-LAN Interface (x 2)	HW01/13, FW038
- TN2602AP IP Media Processor (x 2)	HW02 FW057/063
- TN2302AP IP Media Processor (x 2)	HW20 FW120
- TN464HP DS1 Interface	HW02, FW018
- TN464F DS1 Interface (x 4)	000010/18/20
- TN793CP Analog Line	HW10, FW009
- TN2224CP Digital Line	HW03, FW008
Dell R610 Servers running	6.2 SP3
Avaya Aura® Communication Manager Duplex	(Patch 20001)
HP DL360G7 Servers running	6.2 SP3
Avaya Aura® Communication Manager Survivable Core	(Patch 20001)
G450 Media Gateway	31.20.0
- MM712AP DCP MM	HW07 FW011
- MM711AP Analog MM	HW31 FW095
- MM710AP DS1 MM	HW04 FW018
96x0 Series IP Telephones	3.1.5 (H.323)
	2.6.3 (SIP)
96x1 IP Telephone	6.0.2
2420 Digital Telephones	-
2500 analog phone	-
6211 analog phone	-
Desktop PC with Avaya one-X [®] Communicator	6.1
Integrated Research Prognosis VoIP Monitor running	4.0
under Windows 2008 R2 SP1 on a VMWare virtual	
machine	

5. Configure Avaya Aura® Communication Manager

This section describes the steps needed to configure Communication Manager to interoperate with Prognosis VoIP Monitor. This includes creating a SAT User Profile and a login account for Prognosis VoIP Monitor to access Communication Manager, enabling RTCP reporting, and enabling SNMP. The steps are repeated for each Communication Manager system in the test configuration.

5.1. Configure SAT User Profile

A SAT User Profile specifies which SAT screens may be accessed by the assigned user and the type of access to each screen. As Prognosis VoIP Monitor does not modify any system configuration, create a SAT User Profile with limited permissions for the Prognosis VoIP Monitor login account.

Step	Description			
1.	From the SAT command prompt, enter the add user-profile <i>n</i> com	mand, whe	re n is	an
	unused profile number. Enter a descriptive name for User Profile Name and enable all			
	categories by setting the Enbl field to y. In this configuration, the user profile 20 was			
	created.			
	add user-profile 20	Page	1 of	41
l	USER PROFILE 20	rage	1 01	1 -
	User Profile Name: change user-profile 20			
	This Profile is Disabled? n Shell Acces	s? n		
	Facility Test Call Notification? n Acknowledgement Require	:d? n		
	Grant Un-owned Permissions? n Extended Profil	.e? n		
	Name Cat Enbl Name	Cat	Enbl	
	Adjuncts A y Routing and Di		У	
	-	Security K	-	
	Features C y	Servers L	-	
		Stations M	У	
	Hospitality E y System Par		У	
	-	lations O	У	
		runking P	У	
	Measurements and Performance H y Remote Access I y User	Usage Q Access R	У	
	Remote Access I y User	Access R	У	

Step	Description				
2.	On Pages 2 to 41 of the USER PROFILE form, set the permissions of all objects to rm				
	(read and maintenance). This can be accomplished by typing rm into the Set All				
	Permissions To field. Submit the form to create the user profile.				
	add user-profile 20 Page 2 of 41				
	USER PROFILE 20				
	Set Permissions For Category: To: Set All Permissions To:				
	'-'=no access 'r'=list,display,status 'w'=add,change,remove+r 'm'=maintenance				
	Name Cat Perm				
	aar analysis J rm aar digit-conversion J rm				
	aar digit-conversion J rm aar route-chosen J rm				
	abbreviated-dialing 7103-buttons C rm				
	abbreviated-dialing enhanced C rm				
	abbreviated-dialing group C rm				
	abbreviated-dialing personal C rm				
	abbreviated-dialing system C rm				
	aca-parameters P rm access-endpoint P rm				
	adjunct-names A rm				
	administered-connection C rm				
	aesvcs cti-link A rm				
	aesvcs interface A rm				

5.2. Configure Login Group

Use the Communication Manager web interface to create an Access-Profile Group to correspond to the SAT User Profile created in **Section 5.1**.

ep	Description
1.	Using a web browser, enter https:// <ip address="" avaya="" of="" server=""> to connect to the Ava</ip>
	Server being configured and log in using appropriate credentials. A messages page will
	displayed (not shown). Click Continue. A System Management Interface page will b
	displayed.
	displayed.
	Avaya Aura [®] Communication Manager (C
	System Management Interface (S Hele Log Off Administration Upgrade Duplicate Server: cm1b (10.64.30
	Help Log Off Administration Upgrade Duplicate Server: cm1b [10.54.30
	System Management Interface
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	Trademarks
	Avaya is a trademark of Avaya Inc.
	Avaya Aura is a registered trademark of Avaya Inc.
	MultiVantage is a trademark of Avaya Inc.

AVAYA	Avaya Aura [®] Communication Mar System Management Int
Help Log Off Administration / Server (Maintena	Administration Upgrade Duplicate Server: cm11
Alarms Current Alarms	Server Administration
Agent Status SNMP Agents SNMP Traps	Welcome to the "Server Administration Interface". This interface allows you to maintain, troubleshoot, and configure the server.
Filters SNMP Test	Please use the menu to the left for navigation.
Diagnostics Restarts	
System Logs Ping Traceroute	
Netstat Server	
Status Summary Process Status Interchange Servers	
Busy-Out/Release Server Shutdown Server	
Server Date/Time Software Version	
Server Configuration Server Role	
Network Configuration Duplication Parameters	
Static Routes Display Configuration Server Upgrades	
Pre Update/Upgrade Step Manage Updates	
PSI Firmware Upgrades IPSI Version	
Download IPSI Firmware Download Status Activate IPSI Upgrade	
Activate IPSI Opgrade Activation Status Data Backup/Restore	
Backup Now Backup History	
Schedule Backup Backup Logs	
View/Restore Data Restore History ecurity	
Administrator Accounts Login Account Policy Login Reports	
Administrator Accounts Login Account Policy Login Reports	
Administrator Accounts Legin Account Policy Login Reports	ation panel on the left side, click Administrator Accounts . Select
Administrator Accounts Legin Account Policy Login Reports	-
Administrator Accounts Login Account Policy Login Reports From the navig Group and clic	ek Submit. Avaya Aura® Communication Man
Administrator Accounts Login Accounts Policy Login Reports From the navig Group and click MANAYA Help Log Off	Avaya Aura® Communication Man System Management Intr Administration Upgrade Duplicate Server: cm1b
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Administrator Accounts Login Accounts Delicy Login Reports From the navig Group and click Administration / Server (Maintena Administration / Server (Maintena Administration / Server (Maintena Administration / Server (Maintena Sitta Status SIMP Tast Dispositios Restarts System Logs Ping Traceoute Netstat Status Status Status Status Status Server Status Status Status Server Status Server Status Server Busy-Out/Release Server Busy-Out/Release Server Shudown Server	Administration Upgrade Duplicate Server: cm18 Administration Upgrade Duplicate Server: cm18 nce Administrator Accounts The Administrator Accounts SMI pages allow you to add, delete, or change administrator logins and Linux groups. Select Action: Add Login Privileged Administrator SAT Access Only CDR Access Only Business Partner Login (dadmin)
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Administrator Accounts Login Accounts Policy Login Reports From the navig Group and click Administration / Server (Maintens Administration / Server (Maintens SINMP Traps Filters SINMP Trap	Administration Upgrade Administration Upgrade nov Ouplicate Server cettable The Administrator Accounts This Administrator Accounts SMI pages allow you to add, delete, or change administrator logins and Linux groups. Select Action: Add Login Privileged Administrator Add Login Ouprivileged Administrator Stat Access Only We be Access Only Other Account Login Business Partner Cofit Login Change Login Select Login Business Partner Cofit Login Select Login Business Datore Login Select Login Business Datore Login Select Login Business Datore Login Select Login
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Administrator Accounts Login Account Policy Login Reports From the navig Group and clic Administration / Server (Maintena Administration / Server (Maintena Isma Current Alarms Agent Status SMMP Agents SMMP Agents SMMP Agents SMMP Agents SMMP Traps Filters SMMP Traps Filters SMMP Traps Filters SMMP Agents SMMP Agent	Administration Upgrade Administration Upgrade nov Ouplicate Server cettable The Administrator Accounts This Administrator Accounts SMI pages allow you to add, delete, or change administrator logins and Linux groups. Select Action: Add Login Privileged Administrator Add Login Ouprivileged Administrator Stat Access Only We be Access Only Other Account Login Business Partner Cofit Login Change Login Select Login Business Partner Cofit Login Select Login Business Datore Login Select Login Business Datore Login Select Login Business Datore Login Select Login

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Step	Description	
4.	which correspon	w access-profile group and select "prof20" from the drop-down box ids to the user-profile created in Section 5.1 . Click Submit . This reation of the login group.
	AVAYA	Avaya Aura [®] Communication Manager (CM System Management Interface (SMI
	Help Log Off	Administration Upgrade Duplicate Server: cm1b (10.64.30.17
	Administration / Server (Maintenance	
	Alarms Agents Current Alarms Agent Status SIMM Props Filters SIMM Press Diagnostics Restarts System Logs Ping Traceroute Nestsat Servers Status Summary Process Status Interchange Servers Encourde Plaleses Encourd	Administrator Accounts Add Group This page allows you to add a new access-profile or non-access-profile Linux group. An access-profile group is used to control permissions within applications, s as the SAT and the web interface (Web Access Mask). Select Action: Add a new access-profile group: prof20 Add a new non-access-profile group: Group Name: Group Number: (500 to 60000) Submit Cancel

5.3. Configure Login

From the Communication Manager web interface, create a login account for Prognosis VoIP Monitor to access the Communication Manager SAT.

Step	Description	
1.	0	tion panel on the left side, click Administrator Accounts . Select Add Access Only to create a new login account with SAT access privileges nit .
	AVAYA	Avaya Aura [®] Communication Manager (CM) System Management Interface (SMI)
	Help Log Off	Administration Upgrade Duplicate Server: cm1b [10.64.30.17]
	Administration / Server (Maintenance	This Server: cm1a
	Alarms Current Alarms Agent Status SINNP Agents SINNP Traps Filters SINNP Traps Filters SINNP Test Diagnostics Restarts System Logs Ping Traceroute Netstat Server Status Summary Process Status Interchange Servers Busy-Out/Release Server Sundown Server Server Configuration Server Configuration Server Configuration Server Configuration Server Role Network Configuration Duplication Parameters Display Configuration Server Configuration Duplication Parameters Display Configuration Duplication Parameters Display Configuration Developates IPSI Version Download IPSI Firmware Download Status Authors IDSI Version Download Status	Addinistrator Accounts The Administrator Accounts SMI pages allow you to add, delete, or change administrator logins and Linux groups. Select Action: Add Login Add Login Add Join Custom Login C

Step	Description			
2.	Enter a login in	the Login name	field. In this co	nfiguration, the login "Prognosis" was
	created. Configu	•		• • •
	cieateu. Comigi	ine the other para	inclers for the h	ogili as tollows.
	Primary	aroun: "usors"	[] imits the norr	nissions of the login]
	v		- 1	e i
	Addition	nal groups (proi	file): "prof20" [Select the login group created in Section
		8 - F (F		8 8 F
	5.2.]			
	Select ty	vpe of authentic	ation: "Passwor	d" [Uses a password for authentication.]
	•	-		
	 Enter pa 	assword or key	/ Re-enter pass	word or key [Define the password]
	_	-	-	
	Click Submit to	o continue. This o	completes the co	nfiguration of the login.
		•••••••••		
	A\/A\/A			Avaya Aura [®] Communication Manager (CM)
	AVAYA			System Management Interface (SMI)
	Help Log Off	Administration Upgrade		
	Administration / Server (Maintenance	A CONTRACTOR OF A CONTRACTOR O		This Server: FaxCM6
	Alarms Current Alarms	Administrator Accounts	Add Login: SAT Access	Only
	Agent Status	This page allows you to create a	onin that is intended to have access	only to the Communication Manager System Administration Terminal (SAT) interface.
	SNMP Agents SNMP Traps	ins page anons you to cheate a		
	Filters SNMP Test	Login name	Prognosis	
	Diagnostics	Primary group		
	Restarts System Logs		 susers users 	
	Ping	Additional groups		A
	Traceroute Netstat	(profile)	prof20	You must assign a
	Server	1		profile that has no web access if you want a login with SAT
	Status Summary Process Status			access only.
	Shutdown Server	Linux shell	/opt/ecs/bin/autosat	
	Server Date/Time Software Version			This shell setting does
	Server Configuration	1		NOT disable the "go she//" SAT command for this user.
	Server Role Network Configuration			SAT command of this user.
	Static Routes Display Configuration	Home directory	/var/home/Prognosis	
	Server Upgrades	Lock this account		
	Manage Updates IPSI Firmware Upgrades	Date after which account		
	IPSI Version	is disabled-blank to ignore (YYYY-MM-DD)		
	Download IPSI Firmware Download Status	Select type of	0 -	
	Activate IPSI Upgrade	authentication	 Password ASG: enter key 	
	Activation Status Data Backup/Restore		ASG: Auto-generate key	
	Backup Now Backup History	Enter password or key	••••••	
	Schedule Backup			
	Backup Logs View/Restore Data	Re-enter password or key		
	Restore History	Force password/key	◎ Yes	
	Security Administrator Accounts	change on next login	No	
	Login Account Policy			
	Login Reports Server Access	Submit Cancel Help	•	
	Syslog Server Authentication File			
	Authentication File			

5.4. Configure RTCP Monitoring

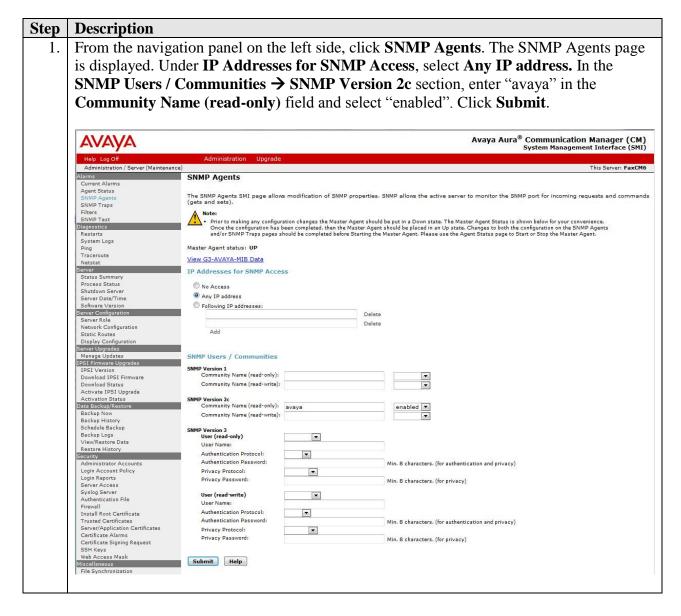
To allow Prognosis VoIP Monitor to monitor the quality of IP calls, configure Communication Manager to send RTCP reporting to the IP address of the Prognosis VoIP Monitor server.

Step	Description		
1.	From the SAT command prompt, enter the change system-parameters ip-options		
	command. In the RTCP MONITOR SERVER section, set Server IPV4 Address to the		
	IP address of the Prognosis VoIP Monitor server. Use the default values for the IPV4		
	Server Port field and the RTCP Report Period (secs) field.		

Step	Description
	change system-parameters ip-options Page 1 of 4
	IP-OPTIONS SYSTEM PARAMETERS
	IP MEDIA PACKET PERFORMANCE THRESHOLDS
	Roundtrip Propagation Delay (ms) High: 800 Low: 400
	Packet Loss (%) High: 40 Low: 15
	Ping Test Interval (sec): 20
	Number of Pings Per Measurement Interval: 10
	Enable Voice/Network Stats? n RTCP MONITOR SERVER
	Server IPV4 Address: 10.64.101.44 RTCP Report Period(secs): 5
	IPV4 Server Port: 5005
	Server IPV6 Address:
	IPV6 Server Port: 5005
	AUTOMATIC TRACE ROUTE ON
	Link Failure? y
	H.323 IP ENDPOINT
	H.248 MEDIA GATEWAY Link Loss Delay Timer (min): 5
	Link Loss Delay Timer (min): 5 Primary Search Time (sec): 75
	Periodic Registration Timer (min): 20
	Short/Prefixed Registration Allowed? Y
2.	Enter the change ip-network-region <i>n</i> command, where <i>n</i> is IP network region number to be monitored. Set RTCP Reporting Enabled to "y" and Use Default Server
	Parameters to "y".
	change ip-network-region 1 Page 2 of 20
	IP NETWORK REGION
	RTCP Reporting Enabled? y
	RTCP MONITOR SERVER PARAMETERS Use Default Server Parameters? y
	Use belauit beivel falametels: y
3.	Repeat Step 2 for all the IP network regions that are required to be monitored.
L	1

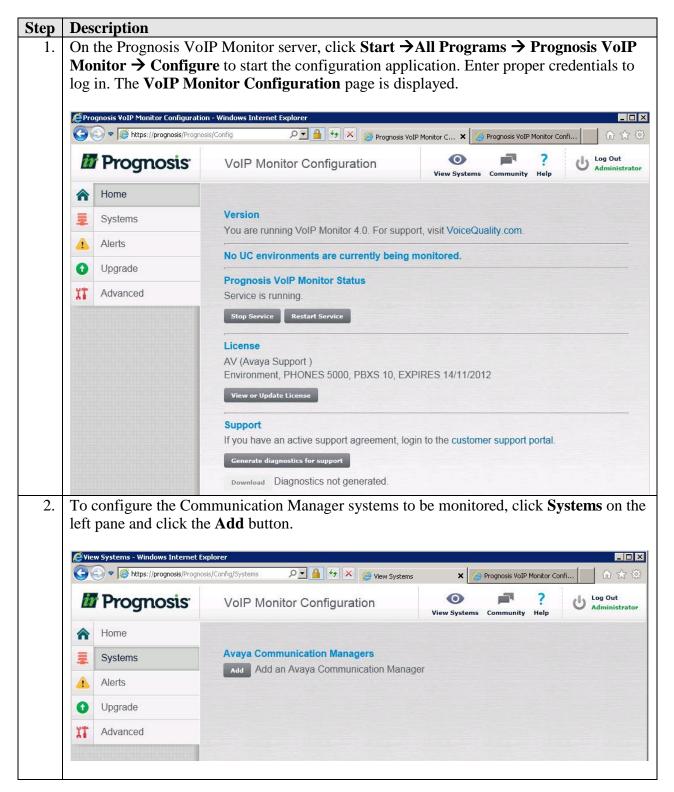
5.5. Configure SNMP

Enable SNMP for Prognosis VoIP Monitor to access.



6. Configure Integrated Research Prognosis VoIP Monitor

This section describes the configuration of Prognosis VoIP Monitor required to interoperate with Communication Manager.



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Step	Description							
3.	The Add Avaya Communication Manager page is displayed. Under Basic Details, enter							
	the IP address of the Site 1 Communication Manager in the IP Address field and a							
	descriptive name for the Communication Manager in the Display Name field. Specify a Customer Name for the PBX. Under SAT Connection Details , enter the login and							
		in Section 5.3 in the User Name a	6					
	SNMP Connection Details , enter the Community Name configured in Section 5.5 in the							
	• 8	ïeld. The remaining fields may be	left at their defaults. Click Add to					
	effect the addition.							
	🥰 Add Avaya PBX - Windows Internet	Explorer						
	COO 🗢 🎑 https://prognosis/Progno	sis/Config/AddAvayaPbx?Lei 🔎 🔄 😝 🔀 🎯 Add Avaya PBX	🗙 🎯 Prognosis VoIP Monitor Confi 🛛 🛱 🛣 😫					
	Prognosis	VoIP Monitor Configuration	View Systems Community Help					
	A Home	Add Avaya Communication Manager						
	Systems							
	Alerts	Basic Details						
	Upgrade	IP Address: * 10.64.22.12						
	Advanced	Display Name: * AVAYA-CM1 Customer Name: CUSTOMER1						
	Al Auvanceu	Site Name:						
		CAT Composition Details						
		SAT Connection Details User Name: * Prognosis						
		Password: *						
		Mode: SSH						
		Port: * 5022						
		Port. pozz						
		SNMP Connection Details						
		Community String: avaya						
		Add Cancel						

Step	Des	scription									
4.	Rep	Repeat Step 1 to 3 to add the Site 2 CM. The screenshot below shows the two CMs in the									
	test configuration.										
	View Systems - Windows Internet Explorer										
	9	→ ▼	is/Config/Systems	ا 💾 🗹	🕂 🗙 🎯 View Sys	tems	×				6 🛣 🛱
	Prognosis					og Out dministrator					
		.		5			View Systems Co	mmunity	Help		tummstrator
	A	Home									
	≣	Systems	Avaya Communication Managers								
		Alerts	Name	IP Address	Customer	Site	User	Mode	Port		
			AVAYA-CM1	10.64.22.12	CUSTOMER1		Prognosis	SSH	5022	Edit	Remove
	0	Upgrade	AVAYA-CM2	10.64.30.10	CUSTOMER1		Prognosis	SSH	5022	Edit	Remove
	XT.	Advanced	Add an Avaya Communication Manager								
			Add Add a	n Avaya Com	numeation mana	gei					

7. Verification Steps

This section provides the steps that can be performed to verify proper configuration of Communication Manager and Prognosis VoIP Monitor.

7.1. Verify Communication Manager

Verify that Prognosis VoIP Monitor has established two concurrent SSH connections to the SAT by using the **status logins** command.

status logins						
		COMMUNICATION MANAGE	CR LOGIN INFORMATION			
Login	Profile	User's Address	Active Command	Session		
Prognosi	20	10 64 101 44		1		
Prognosi	. 20	10.64.101.44		3		
		10.64.101.44				

7.2. Verify Integrated Research Prognosis VoIP Monitor

Step	Description					
1.	On the Prognosis VoIP Monitor server, click Start → All Programs → Prognosis VoIP Monitor → View Systems to start the Prognosis VoIP Monitor application. Enter proper credentials to log in. The Prognosis VoIP Monitor page is displayed.					
	🚱 🕟 🗢 🧔 https://prognosis/Dashboard/PVM%20-%20Wr 🔎 📲 😚 🗶 🎯 PVM - Welcome 🗙 🚺 🏠 🔅					
	Trognosis reports Alerts Alerts Alerts Community Help					
	Licensed To Unknown Prognosis VoIP Monitor					
	PBX Summary Name Vendor Customer - Site Cont Alrts/Alrms CPU Endpoints Destinations VAVAYA-CM2 Avaya CM PBX CUSTOMER1 Yes 0 (Crit) 0 (Err) 1 VAVAYA-CM1 Avaya CM PBX CUSTOMER1 Yes 2 (Mai) 8 (Min) 7 6 of 15 17 of 25					
	Prognosis Alerts Prognosis Licenses					
	Error Alerts: 17					

Step	Description							
2.	Click \AVAYA-CM1. The Avaya PBX page for Avaya-CM1 is displayed. Verify that							
	the SAT Connections field shows 2 . Make IP calls between various Avaya telephones							
	that trigger RTCP information to be sent to the Prognosis VoIP Monitor server. Verify							
	that the Voice Quality (Streams) section shows correct number of voice streams and the							
		quality of the voice streams.						
	Repeat the step for A	VAYA-CM2.						
	AV-PBX - Windows Internet Explorer							
	C C C C C C C C C C C C C C C C C C C	🚱 😒 🗢 🎯 https://prognosis/Dashboard/AV-PBX?DefaultN 🔎 🔄 🚱 🎸 🗶 🧭 AV-PBX 🗶 🚺 🏠 🔅						
	Trognosis 4	Y 🖄 🔺 🖌 🖌	🖕 🔽 📮 ? 🖞 Log Out Administrator					
	Hor		Microsoft Community Help					
	Licensed To Avaya Support Avaya PBX							
	SAT Connections 2	VAVAYA-CM1	PBX Busy Hour Configuration Worksheets					
	Avaya PBXs	SAT Availability	Voice Streams					
	PBX VAVAYA-CM1	Now . This Hr . Today 100.00 100.00 100.00	Streams Good Fair Poor Unacceptable					
	VAVAYA-CM2							
		PROGNOSIS Raised Alerts Severity Alerts	80					
		Error 17 Warning 1	60					
		Warning 1	20					
			0 ⁴ 15:28:30 15:25:50 15:27:50					
			Gd (58.00) 🗌 Fr (0.00) 🛑 Pr (0.00) 📕 Un (0.00)					
	PBX	Status	Processor					
	Type Up Down	Degr Unkn Total	100					
	Boards 7 5 Media Servers 1	12 1	80					
	Network Regions 2 Phones 6 4	248 250 5 15	60					
	Port Networks 1 1 2 Route Patterns 2 2 1 14 19		40					
	Trunk Groups 17 8	25	20					
			0 15:28:30 15:25:50 15:27:50					
			Call Processing (0 %) Static (1 %)					
	Major 2 Minor 8 CPU 3		System Management (2 %)					

Step	Description							
3.	On the Avaya PBX page for Avaya-CM2, click Media Servers in the PBX Status box.							
	The Avaya Media Servers page is displayed. Verify that the Cluster Status fields and							
	Server fields are populated and the values are correct.							
	* *							
	AV-Media Servers - Windows Internet Explorer							
	🚱 😔 💌 🍯 https://prognosis/Prognosis/Dashboard/AV-Media%20Ser 🔎 🖬 😚 🗶 🎯 AV-Media Servers 🗙 🚺 🏠 🔅							
	Prognosis A	e Reports Alerts Avaya Cisco Microsoft	Community Help					
	Licensed To Avaya Support Avaya Media Servers							
		VAVAYA-CM2						
	Avaya PBXs PBX VAVAYA-CM2 VAVAYA-CM1	Cluster Status Current Checked Previous Changed Id Type Registration/State ESS Up 04/11/2012 16:40:32 1 Duplex Registered - Enabled no						
		Active Server Id IP Address Active Server Changed 1 10.64.30.13	Updates Software Vers Translations Updated R016x.02.0.823.0 22:00 11/3/2012					
		Id IP Address Name 1 10.64.30.13 cm1a	Server B Id IP Address Name 2 10.64.30.17 cm1b					
	PBX Status	Recent Interchanges						
	TypeDnTotBoards12LSPs1Media Gateways1Media Servers1Network Regions250Phones2Phones2Trunk Groups3Trunk Groups3	Time	ext					
	Major 0 Minor 0 CPU% 2	ĵ						

8. Conclusion

These Application Notes describe the procedures for configuring the Integrated Research Prognosis VoIP Monitor to interoperate with Avaya Aura® Communication Manager. In the configuration described in these Application Notes, the Prognosis VoIP Monitor established SSH and SNMP connections to the SAT to view the configurations of Communication Manager and to monitor for status. Prognosis VoIP Monitor also processed the RTCP information to monitor the quality of IP calls.

9. Additional References

The following document can be found at <u>http://support.avaya.com</u>:

[1] Avaya Aura® Communication Manager Feature Description and Implementation, Release 6.2, Issue 9.0, July 2012, Document Number 555-245-205.

[2] *Administering Avaya Aura*® *Communication Manager*, Release 6.2, Issue 7.0, July 2012, Document Number 03-300509.

The following documentation is provided by Integrated Research.

[3] Prognosis VoIP Monitor 4.0 Installation and Configuration Guide, August 29, 2012

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