

VitalQIP® DNS/DHCP & IP Management Software

Appliance Management Software (AMS) | Release 1.6

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Refer to Appendix C, "Third party software license statements" in the *VitalQIP Release 7.2 Installation Guide* (190-409-043R7.2 PR2) for a complete description of all software licenses used to develop this product.





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Purpose

Welcome to VitalQIP Appliance Management Software (AMS) (AMS). The centralized AMS maintains an inventory of software packages and appliances. A secure token-based appliance authentication process keeps the network secure. Configuration of services can be done on the AMS GUI before deployment to the remote machines. Appliances can be logically grouped for ease of upgrades and maintenance. Remote services such as DNS and DHCP can be quickly upgraded to the latest software version across many appliances. A record of upgrades is maintained in the AMS for each appliance. At any time, an administrator can roll back to a previous version of the service. The monitoring section of AMS gives an administrator a centralized view of the health of the entire appliance network.

All log files and configuration files are centrally accessible to aid in quick and easy debugging. Services on the appliances can be remotely started and stopped. An appliance can be quickly taken offline if suspicious behavior is observed. In addition, any appliance can be rebooted from the centralized AMS.

This User's Guide describes how to use the features in the AMS GUI. Refer to this preface for the audience, organization, and typographical conventions used in the manual. The preface also describes the package contents, how to order additional manuals, and how to obtain technical support.

Reason for reissue

The following table lists the changes to the AMS User's Guide.

Issue	Feature name	Description	Feature impact
1	Package command support	New package command icon has been introduced.	• "Use qddns package commands" (p. 2-96)

Issue	Feature name	Description	Feature impact
1	Status dashboard	The Nagios dashboard displays the status of appliances and appliance packages.	"Status Dashboard" (p. 6-1)
1	User permissions	User permissions allow the administrator to control activities on appliances in AMS. Permissions ensure that AMS is more secure.	 "Appliance permission management" (p. 2-71) "Appliance pair permission management" (p. 2-143) "Appliance cluster permission management" (p. 2-164) "Appliance group permission management" (p. 2-224)

Intended audience

This manual is intended for Appliance Management Software (AMS) users who plan to manage and administer an IP network address infrastructure. The reader is expected to understand basic networking concepts and have a working knowledge of the operating system that Appliance Management Software (AMS) is running on. Two types of groups interact with Appliance Management Software (AMS):

- Appliance Management Software (AMS) administrators The Information Technology (IT) professionals who install, configure, and administer the Appliance Management Software (AMS) product.
- Appliance Management Software (AMS) users The IT professionals who use Appliance Management Software (AMS) as a service-level monitoring and capacity tool.

How to use this information product

This manual is organized as follows:

Chapter 1, "AMS overview"

This chapter provides an overview of the Appliance Management Software (AMS) and describes how the Appliance Management Software (AMS) works.

Chapter 2, "Appliances"

This chapter describes how to manage appliances, appliance groups, appliance pairs, and appliance clusters.

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Chapter 3, "Packages"

This chapter describes how to manage packages.

Chapter 4, "File groups"

This chapter describes how to manage file groups.

Chapter 5, "System"

This chapter describes how to manage users, user groups, system logs, and system parameters.

Chapter 6, "Status Dashboard"

This chapter describes how to view the status of appliances, appliance groups, packages, and package groups from the Status dashboard.

Conventions used

The following table lists the typographical conventions used throughout this manual.

Convention	Meaning	Example
Trebuchet bold	Names of items on screens.	Select the Client check box.
	Names of buttons you should click on the screen, or names of keys on the keyboard to be pressed.	Click OK.
Courier	Output from commands, code listings, and log files	# Name: Share shared-network _200_200_200_0
Courier bold	Input that you should enter from your keyboard.	Run the following command: c:\setup.exe
	Names of commands and routines	The qip_getappllst routine returns the entire list of existing applications.
Courier bold italic	Input variable for which you must substitute another value. The angle brackets also indicate the value is a variable.	isql -U sa -P <sa_password></sa_password>
Times bold	Uniform Resource Locators (URLs)	The VitalQIP product site can be found at http://www.alcatel-lucent.com/wps/portal/products/ .

Convention	Meaning	Example
Times italics	Manual and book titles.	Refer to the VitalQIP User's Guide.
	Directories, paths, file names, and e-mail addresses.	A symbolic link must be created from /etc/ named.conf that points to named.conf.
Times bold italic	Emphasis	Read-only . The name of the service element.

Related information

The following documents are referenced in this manual:

- *VitalQIP Administrator Reference Manual* (part number: 190-409-042R7.2 PR2)

 This guide describes planning and configuring your network, information about the VitalQIP interface, advanced DNS and DHCP configurations, and troubleshooting.
- VitalQIP User's Guide (part number: 190-409-068R7.2 PR2)
 This guide describes how to set up and use the VitalQIP user interface on Windows and UNIX platforms.
- VitalQIP AMM 1000 Quick Start Guide (part number: 190-409-088)
 This quick start guide describes how to set up an AMM 1000 appliance and connect it to the network.
- VitalQIP AMM 5000 Quick Start Guide (part number: 190-409-117)
 This quick start guide describes how to set up an AMM 5000 appliance and connect it to the network.
- VitalQIP ESM 1000 Quick Start Guide (part number: 190-409-118)
 This quick start guide describes how to set up an ESM 1000 appliance and connect it to the network.
- VitalQIP ESM 5000 Quick Start Guide (part number: 190-409-119)
 This quick start guide describes how to set up an ESM 5000 appliance and connect it to the network.
- *VitalQIP AMS 1000 Quick Start Guide* (part number: 190-409-093)

 This quick start guide describes how to configure an AMS 1000 appliance on which the appliance vendor has preinstalled AMS.
- VitalQIP Appliance Management Software (AMS) Installation & Configuration Guide (part number: 190-409-094)
 - This guide describes how to install and configure the VitalQIP Appliance Management Software.
- VitalQIP Appliance Packages Configuration Guide (part number: 190-409-116)
 This guide describes the package configurations for appliances maintained in AMS.

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Product Training Support

Alcatel-Lucent University offers cost-effective educational programs that support the VitalQIP product. Our offerings also include courses on the underlying technology for the VitalQIP products (for example, DNS and DHCP). Our classes blend presentation, discussion, and hands-on exercises to reinforce learning. Students acquire in-depth knowledge and gain expertise by practicing with our products in a controlled, instructor-facilitated setting. If you have any questions, please contact us at 1 888 LUCENT8, option 2, option 2.

Technical support

If you need assistance with (AMS), you can contact the Welcome Center for your region. Contact information is provided in the following table.

Region	Address	Contact information
North, Central, and South America	Alcatel-Lucent 400 Lapp Road Malvern, PA 19355 USA	Phone: 1-866-LUCENT8 (582-3688) Option 1, Option 2 Web: www.alcatel-lucent.com/support
Europe, Middle East, Africa, and China	Alcatel-Lucent Voyager Place Shoppenhangers Road Maidenhead Berkshire SL6 2PJ UK	Phone: 00 800 00 LUCENT or +353 1 692 4579 E-mail: emeacallcenter@alcatel-lucent.com Web: www.alcatel-lucent.com/support
Central and South America	Alcatel-Lucent Calle 10, No. 145 San Pedro de los Pinos, 01180 Ciudad de Mexico Mexico	Mexico 01 800 123 8705 or (52) 55 5278 7005 Brazil 0800 89 19325 or (55) 193707 7900 Argentina 0800 666 1687 Venezuela 0 800 1004136 Costa Rica 0800-012-2222 or 1800 58 58877 For other local CALA numbers, consult the web site www.alcatel-lucent.com/support or contact your local sales representative.
Asia Pacific	Alcatel-Lucent Australia 280 Botany Road Alexandria NSW 2015 Australia	Phone: 1800-458-236 (toll free from within Australia) (IDD) 800-5823-6888 (toll free from Asia Pacific - Hong Kong, Indonesia, South Korea, Malaysia, New Zealand, Philippines, Singapore, Taiwan, and Thailand) (613) 9614-8530 (toll call from any country) E-mail: apactss@alcatel-lucent.com

How to order

Customers can access additional VitalQIP manuals online at www.alcatellucent.com/support. Select Documentation from the Customer Support menu and click the Product index link. Click the V link to access VitalQIP and VitalQIP add-on products.

How to comment

To comment on this document, go to the Online Comment Form or e-mail your comments to the Comments Hotline (comments@alcatel-lucent.com).

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Overview

Purpose

This chapter provides an overview of AMS, information on how to access and quit the application, a brief summary of how it works, and ends with a description of the user interface.

Contents

This chapter covers these topics.

Getting started with Appliance Management Software (AMS)	
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Getting started with Appliance Management Software (AMS)

The VitalQIP Appliance Manager solution

Overview

The VitalQIP Appliance Manager (AM) solution helps service providers and enterprises efficiently configure, automate, integrate and administer IP services across an entire network, locally or globally. The Appliance solution enables a single point of software upgrade and monitoring management across geographically distributed appliances, including monitoring of remote server software. By default, the solution is delivered with VitalQIP and other services. The VitalQIP services include VitalQIP DNS and DHCP services.

The use of VitalQIP Appliances (AMM, ESM, and AMS) instead of general purpose servers reduces security vulnerabilities through a hardened appliance operating system (based on Red Hat Linux). It simplifies software upgrades and centralizes deployment and monitoring of DNS, DHCP, and other services. In addition, a secure "secret key" based handshake between the appliances and the management station protects against unauthorized activity.

In general, the VitalQIP Appliance Manager solution greatly reduces capital and operating costs associated with managing VitalQIP, and provides a complete solution, including support, through a single vendor.

Components

The VitalQIP Appliance Manager solution provides the following components:

- VitalQIP Appliance Management Module (AMM). The VitalQIP Appliance Management Module is an Alcatel-Lucent supplied Intel-based machine that is preloaded with the Red Hat Linux operating system. It is also loaded with basic system tools to configure, authenticate, reboot, and shut down the appliance.
- VitalQIP Enterprise Server Module (ESM). The VitalQIP Enterprise Server Module is an Alcatel-Lucent supplied Intel-based machine that is pre-loaded with the Red Hat Linux operating system, the Sybase database, and the VitalQIP Enterprise server software. It is also loaded with basic system tools to configure, authenticate, reboot, and shut down the appliance.

• Appliance Management Software (AMS) (AMS). AMS is accessed through a webbased UI and can be installed on any Intel-based hardware running the Red Hat Linux 5 operating system. AMS also uses the MySQL database that is included with Red Hat Linux. AMS may also be co-located with VitalQIP if VitalQIP Enterprise is running on a Red Hat 5 Linux server. AMS is also available as an appliance (AMS 1000).

- AMS 1000. AMS can also be purchased as an appliance. All required software for AMS operations is installed before shipment. Users only need to configure the system with network information to make AMS operational. To receive Redhat OS updates, customers need to procure a license from Redhat and configure it. For more information on the setup of an AMS 1000, refer to the AMS 1000 Quick Start Guide.
- Service Packages. Alcatel-Lucent provides the following service packages that permit same time delivery of service fixes/patches between VitalQIP and AMS. The packages include:
 - VitalQIP Enterprise Server
 - VitalQIP Sybase Server
 - VitalQIP DNS Server
 - VitalQIP DHCP Server
 - VitalQIP SNMP
 - VitalQIP Remote Services
 - Linux OS upgrades
 - Java Runtime Environment (JRE)
 - AutoDiscovery
 - TFTP Server
 - NTP Server
 - SNMP Server

Architecture

The VitalQIP Appliance Manager solution offers the following features, as shown in the following illustration:

- Centralized appliance management data store
- Secure communication model between AMS and AMMs/ESMs: token and Secure Shell (SSH)
- User-friendly, web-based AMS UI, with similar look and feel as VitalQIP web client
- Full appliance package and version history maintained in the AMS database
- Individual "secret key" generation for each appliance to authenticate with AMS
- DNS High Availability.

VitalQIP ESM

High Availability (HA) VitalQIP VitalQIP VitalQIP AMM AMM **AMM** Sample Packages Heartbeat **VitalQIP AMM** SSH SSH OS Upgrades DNS SSH Appliance Management Software (AMS) DHCP SNMP Packages Database TETP NTP SSH SSH SSH

Figure 1-1 VitalQIP Appliance Manager architecture

Appliance Management Software

The AMS component allows you to manage VitalQIP appliances from one central location. The AMS UI divides the management of appliances into discrete functional areas that are identified by tabs, as shown in the following illustration:

VitalQIP

AMM

- Appliances manage individual appliances, appliance groups, appliance pairs, and appliance clusters
- Packages manage packages
- File Groups manage VitalQIP file groups

VitalQIP

AMM

System – manage system logs and parameters, users, and user groups

Figure 1-2 Standalone AMS user interface

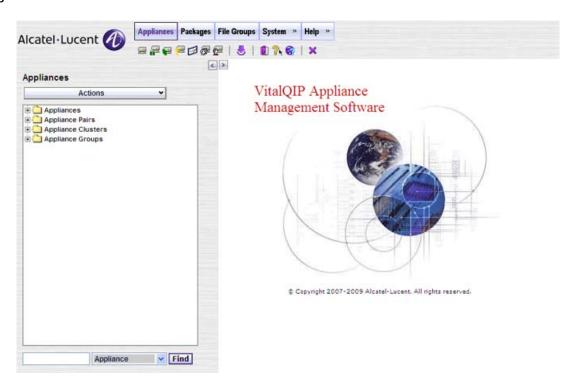
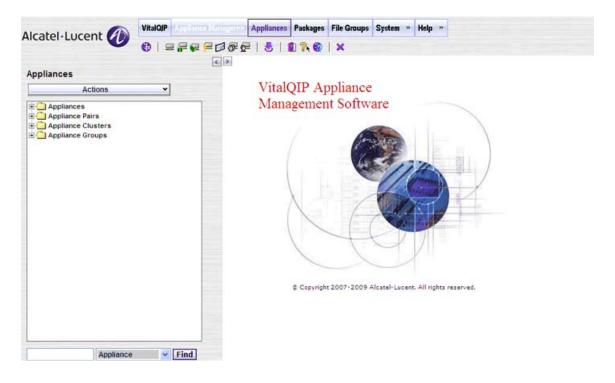


Figure 1-3 AMS user interface integrated with VitalQIP



Your work in AMS will likely follow a phased approach in which you add new appliances to the network, authenticate them in AMS, and then import and configure packages for deployment. Lastly, when appliances are set up and packages are deployed, you will monitor their status. These phases are staging, deployment, and monitoring status.

Staging

Your initial work with AMS typically involves the following setup tasks.

- 1. Set up AMS users and their passwords. Assign them to either the Administrators or Monitors user group. For more information on user groups, refer to "Users" (p. 5-24).
- 2. Access the **Appliances** tab and create appliance groups based on how you want your organization to separate the administration of remotes. For more information on creating Appliance Groups, refer to "Add an appliance group" (p. 2-174).
- 3. Download the desired service packages from the Alcatel-Lucent ALED site to your local PC. For more information accessing the site and downloading files, refer to "Download Appliance Manager files" (p. 3-4).
- 4. Access the **Packages** tab and import the available service packages into AMS. For more information on importing packages, refer to "Import a package" (p. 3-6).
- 5. Access the **Appliances** tab and create Appliances, assigning them to Appliance Groups, Appliance Pairs, and Appliance Clusters as necessary. For more information on creating Appliances, refer to "Add an appliance" (p. 2-8).
- 6. In the Appliance Properties page for each appliance, click **Setup Info** and either print and give to a field technician to configure manually, or save onto a USB flash drive so the field technician can configure the appliance automatically.
- 7. Have field technicians set up and configure appliances (using the information provided in step 6) at the appropriate locations. They should access the appliance console menu, enter privileged mode, enable the appliance, and then use the **verify** and **authenticate** commands to check the connection with AMS. For further information on configuring appliances, refer to the *VitalQIP AMM/ESM Quick Start Guides*.

Note: For maximum security, the appliance should be installed in a limited access closet or lab.

8. Access the Appliance Properties page for each appliance and click **Verify**Communication to validate that communication exists with that appliance from the management station. For further information, refer to "Verify communication with an appliance" (p. 2-16).

Deploying

Once appliances have been set up in AMS and authenticated, the next set of tasks involves package configuration and deployment:

1. Access the Appliance Properties page for each appliance (or appliance group if you choose to batch package deployments), expand the Package Associations section, and configure packages for that appliance or appliance group. Configuration of an appliance consists of two steps:

- a. Associate the package. For further information, refer to "Associate packages with an appliance" (p. 2-27). If you are working with appliance groups, refer to "Associate packages with an appliance group" (p. 2-194).
- b. Update the configuration files, as necessary. For further information, refer to "Configure packages for an appliance" (p. 2-30). If you are working with appliance groups, refer to "Configure packages for an appliance group" (p. 2-198).
- 2. Deploy packages to each appliance. For further information, refer to "Review pending deployments and deploy packages" (p. 2-40). If you are working with appliance groups, refer to "Deploy packages to an appliance group" (p. 2-203).

Monitoring

After packages have been deployed, you may need to monitor their status:

Review deployment history and check log files and system logs, as needed.

- For appliance monitoring, refer to "Appliance monitoring" (p. 2-47).
- For log files, refer to "Retrieve a log file" (p. 2-55).
- For system logs and notifications, refer to "Search status messages" (p. 5-5) and "Search notification messages" (p. 5-9).

Login message

You can define customized messages that will appear whenever you log into AMS. Open the file \$AMSHOME/web/dynamic_templates/login_message and add a message that will appear in the login screen, whenever you log into AMS.

Note: However, you cannot customize field names, template directives, script tags, and so on.

AMS overview Log in to AMS

Log in to AMS

Purpose

To log into the AMS UI. The (AMS) UI is web-based and launched by entering a URL for (AMS) into the web browser, which opens directly to the Appliance Management Software (AMS) Login page.

Note: Do not use this procedure to log in, if AMS is integrated with the VitalQIP web client. Follow the instructions in Chapter 1 of the *VitalQIP Web Client User's Guide* instead.

Before you begin

Ensure the following are true before you begin.

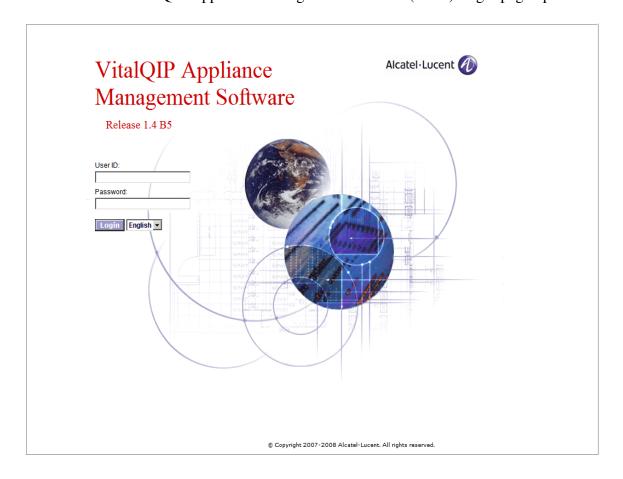
- If you use proxies, make sure your proxy configuration is correct for accessing the appliance web page. If your AMS is on a local network, you can exclude the AMS IP address from the proxy to speed up communication with the AMS server.
- Be sure that pop-ups are enabled for the (AMS) URL, because the application uses this function to provide messages to the user
- JavaScript is enabled
- Cookies are enabled
- Style sheets enabled
- User accepts certificate when presented by browser.
- The first time you log in after an AMS upgrade, you should clear your browser cache to ensure that no signs remain of the previous version of AMS. Refer to "Clear browser cache" in the AMS Installation & Configuration Guide.

Procedure

	To log into AMS, follow these steps:	
1	Open a web browser.	
2	In the web browser, enter the AMS URL in the following format:	

http://<IP address>:<tomcat web server port>/ams/manage
If the user selects default port 80 as the Tomcat web server port, the AMS URL is
http://<IP address>/ams/manage

Result: The VitalQIP Appliance Management Software (AMS) Login page opens.



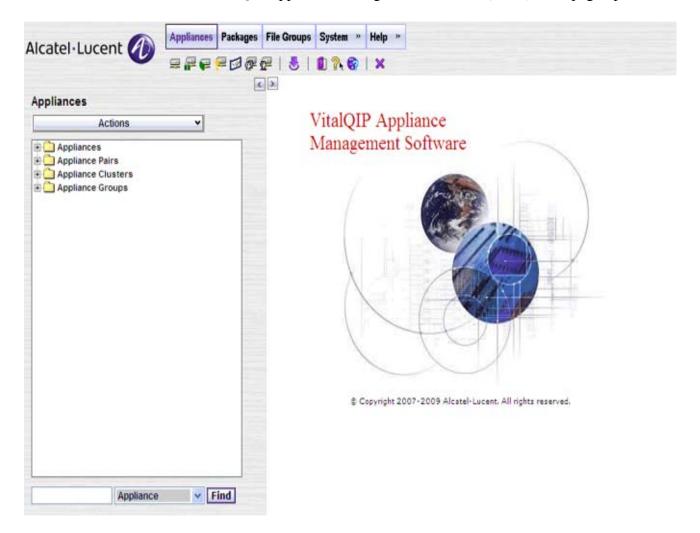
- 3 Enter your user ID in the **User ID** field and password in the **Password** field.
 - To access the full functionality of AMS, use the default administrator user ID, which is **amsadmin**. The default password is **amsadmin**. For information on changing the default password (which is recommended), refer to "Change a user password" (p. 5-32).
 - To access read-only operations on package staging/history and to search appliances, use the default monitor user ID, which is **amsuser**. The default password is **amsuser**. For information on changing the default password (which is recommended), refer to "Change a user password" (p. 5-32).

User IDs in AMS are set up with the Users function. Refer to "Add a new user" (p. 5-25) for information on adding a user.

4 Click Login.

AMS overview Log in to AMS

Result: The VitalQIP Appliance Management Software (AMS) main page opens.



For further information on the AMS UI, refer to "User interface" (p. 1-14).

END OF STEPS

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Access the AMS interface from VitalQIP

Purpose

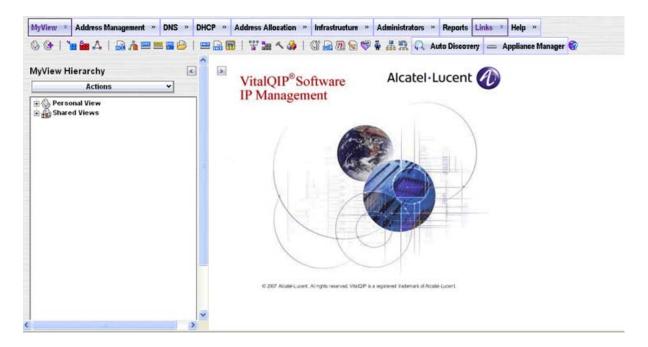
VitalQIP supports add-ons that have been pre-defined by Alcatel-Lucent, such as Appliance Manager. When a VitalQIP license key is enabled for the AMS application, AMS can be integrated with the VitalQIP web client (usually during AMS installation, as described in the AMS Installation & Configuration Guide), and can be accessed from the Links menu.

Procedure

After logging in to the VitalQIP web client (instructions are provided in Chapter 1 of the *VitalQIP Web Client User's Guide*), follow these steps.

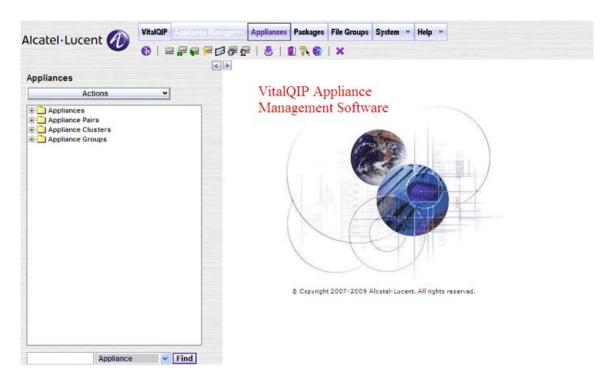
1 Mouse over the Links menu.

Result: The Links sub-menu opens.



2 Click on the Appliance Manager sub-menu.

Result: The VitalQIP Appliance Management Software main page opens with the focus on the Appliances menu.



END OF STEPS

AMS UI timeout

Whenever the AMS UI times out when it is integrated with the VitalQIP web client, you see the message Administrator is not logged in and taken back to the VitalQIP screen. To display the AMS login screen, follow these steps.

1 Mouse over Links and click on the Appliance Manager sub-menu.

Result: The VitalQIP Appliance Management Software main page opens.

END OF STEPS

Exit AMS

Purpose

Use this procedure to log out of AMS.

Procedure

To exit AMS, follow these steps.

1 Click the Logout icon (*) at the right end of the (AMS) toolbar.

Result: A confirmation dialog box opens with the message Are you sure you want to exit VitalQIP Appliance Management Software? Note that if AMS is integrated with the VitalQIP web client, this message reads:

Are you sure you want to exit VitalQIP Appliance Management Software? Note: You will be redirected to VitalQIP software.

2 Click **OK** at the confirmation prompt.

END OF STEPS

User interface

Overview

Purpose

This section provides a detailed description of the AMS user interface. It describes the different icons used, as well as how the hierarchy page works.

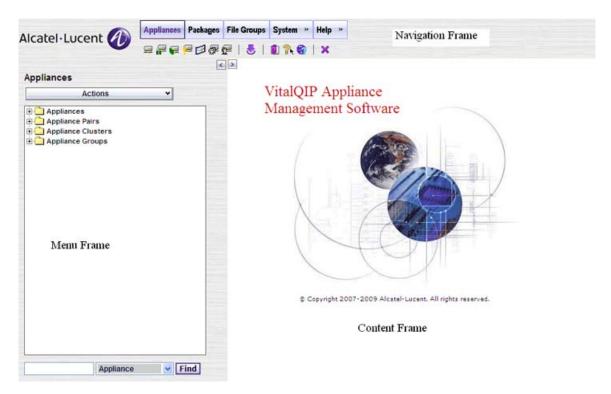
User interface components

This section describes the AMS interface components, as well as the buttons and icons that appear in the content frame.

AMS page frames

The AMS pages are comprised of a navigation frame at the top, a menu frame on the left, and a content frame on the right.

Figure 1-4 AMS page frames



Main menu



The main menu is shown at the top of the navigation frame and provides access to all the application's features. The selected menu item is shown in a light shade of blue. When you mouse over other menus, the sub-menus are displayed.

Sub-menus



Sub-menus appear beneath each expandable main menu item when it is selected. They represent the sub-sections of functionality for that main menu item. The selected sub-menu is shown in a lighter shade of blue.

Toolbar



The toolbar appears underneath the main menu bar and contains icons that duplicate the commands on the main menu and sub-menus, so you can invoke the same functions with a single mouse click. When icons that represent commands on the Help menu are invoked, separate browser windows open. In addition to shortcuts for menu items, the Logout icon enables you to exit the product, and the ALED site icon permits quick access to AMS software downloads.

Content frame tabs

Properties Packages File Groups Configuration History Services Recent Activity Permissions

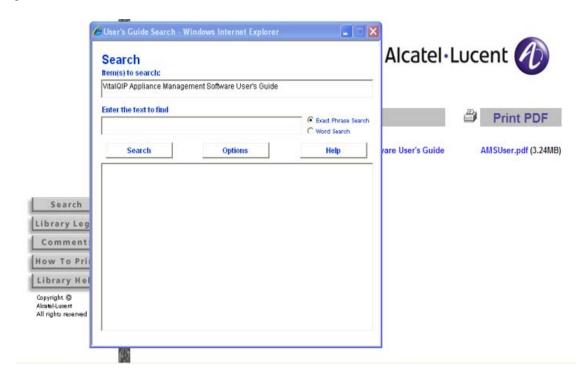
Content frame tabs are shown when more functions are available than can reasonably be displayed in a single screen. To change the content of a content frame, mouse over the desired function and click when an underscore appears.

Online Documentation



The Online Documentation icon launches the VitalQIP Products Library. The library contains both HTML and PDF versions of the Appliance Manager documentation. The Library also contains a useful Search function that allows you to locate matches for exact phrase or word instances across all or a user-specified set of HTML documents in the library.

Figure 1-5 Online Documentation screen



Online Help



The Online Help icon launches a list of help screens that are available for the function that is currently open in the web client UI. For example, if Users and User Groups screen is open, the Online Help icon launches a help screen containing a list of tasks related to using that feature.

Figure 1-6 Online Help screen

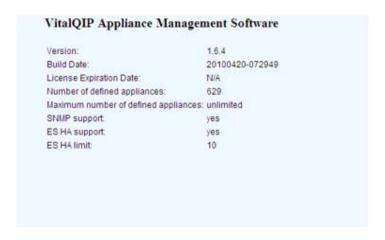


About AMS



The About icon launches the VitalQIP Appliance Management Software screen, where you can determine which version of the product you have installed, how many appliances exist in AMS, and whether SNMP is supported. This information may be useful whenever you need to contact Technical Support.

Figure 1-7 About screen



Content frame icons

The following table describes buttons and icons that commonly occur in the Appliance Management Software content frames.

Table 1-1 Content frame icons

Icon name	Description
Expand / contract buttons	Select expand/contract buttons to maximize or collapse a frame within the Appliance Management Software (AMS) web UI. To restore the prior configuration, select the icon again. Note: You can also drag the edge of a frame to resize it.
Hierarchy folders	The AMS hierarchy is organized into folders and subfolders that may contain the following icons: Appliance pair
Appliance status	Appliance status is indicated in the AMS hierarchy by the following: Offline Disabled New Up
Package status	Appliance package deployment status is indicated by the following: Not associated yet Associated in the AMS database but not deployed yet Currently deployed but no longer associated in the AMS database Running/Deployment in progress Deployment error Note: This is displayed only for appliances and not for appliance groups. Successful deployment

Icon name	Description			
File group	File group status is indicated by the following:			
status	Not associated yet			
	■ Associated in the AMS database but not deployed yet			
	• Deployment in progress			
	Successful deployment			
	• Deployment failed			
	Note: This is displayed only for appliances and not for appliance groups.			
	The appliance and AMS content are not synchronized.			
List scrolling arrows	The state of the s			
	If data is displayed in a paged list, the \gg and \ll arrows allow the user to view the next or previous page of data. The drop-down list allows you to jump directly to a different page of data without viewing the intervening ones.			
Paged list drop-down	Page Size: 20 v			
	If data is displayed in a paged list, this drop-down list allows you to specify how many items to display on a page.			
List refresh	5			
	Refreshes the status of a list from the AMS database, such as the services list in Configuration History and appliance status in Services.			
Appliance				
refresh	Refreshes the status of a service daemon on an appliance, such as in the Services tab.			

AMS overview Miscellaneous features

Miscellaneous features

Utility dialog boxes

Dialog boxes may be for user input as well as for displaying confirmation and error messages. User input is case-sensitive in dialog boxes.

There are three types of message dialog boxes. These are shown in the illustrations below:

Figure 1-8 Information dialog box



Figure 1-9 Confirmation dialog box

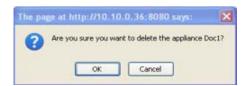


Figure 1-10 Error dialog box



Wildcard character in searches

The wildcard character is an asterisk (*). The wildcard can be used in place of zero or more characters when performing a search. It can be the first or only character in a search string.

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Required fields

An asterisk (*) preceding a field name indicates that data must be entered or a value must be selected for that field. Required fields are also boldfaced in the (AMS) UI.

Expand/Contract icon description

Expand and Contract icons appear to the left of a hierarchy or tree item. Click on the icons to toggle between displaying and hiding information.

Expand icon Displays information associated with a specific value on the page.

+

Contract icon Hides fields that have been previously displayed with the Expand icon.



Actions menu

The following functions are available from the **Actions** menu:

∃ Add Appliance	In the Appliances tab, opens the Add Appliance page where you can create a new appliance.	
11 Add Appliance Pair	In the Appliances tab, opens the Add Appliance Pair page where you can create a new appliance pair.	
👯 Add Appliance Cluster	In the Appliances tab, opens the Add Appliance Cluster page where you can create a new appliance cluster.	
In the Appliances tab, opens the Add Appliance Group where you can define a new appliance group.		
🔄 Refresh Hierarchy	The Refresh Hierarchy function retrieves the current data from the database and displays it in the hierarchy.	
The Refresh Selection function refreshes the selected with current data from the database and displays it in the hierarchy.		
Collapse All	The Collapse All function changes the hierarchy display so only the top-level items are visible in the hierarchy.	
🎁 Search Appliances	In the Appliances tab, opens the Search Appliances page where you can enter search criteria to locate an appliance record.	
🐧 Search IP Addresses	In the Appliances tab, opens the Search IP Addresses page where you can enter search criteria to locate an an IP address.	
In the Packages tab, opens the Import Package page where can locate the package you wish to download.		

⊕ Add File Group	In the File Groups tab, opens the Add File Group page where you can add a new file group.	
Add User	In the Users sub-tab under Administration , opens the Add User page where you can create a new user record.	
🙇 Add User Group	In the Users sub-tab under Administration , opens the Add User Group page where you can create a new user group record.	

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Overview

Purpose

This chapter describes how to use the functions in the AMS Appliances tab.

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This chapter covers these topics.

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Appliances Appliances overview

Appliances overview

Purpose

The AMS Appliances tab allows you to manage the VitalQIP appliances that you are setting up as VitalQIP remotes on your network. It provides the following features:

Appliance management

- Add/modify/delete appliance records
- Add/modify/delete an appliance pair
- Add/modify/delete an appliance cluster
- Add/modify/delete appliance group records
- Remote login setup
- Remote appliance reboot
- Remote start/stop of VitalQIP services on appliances
- Verification of secure communication between AMS and appliance
- NIC interface definition
- · Log file retrieval
- · Configuration file management and retrieval
- Status monitoring
- Disable/enable appliances
- Redirect system log on appliance configuration

Package management

- Customization of configuration files
- Addition/removal from appliances
- Withhold package from and restore package to appliance
- Configuration history
- Version management and rollback

File group management

- Associate file groups to an appliance
- Deploy file groups

Permission management

Mentor permissions on appliances in AMS

Appliance hierarchy folders

AMS groups appliances into folders when the number of appliances in the hierarchy is greater than the setting for the foldersize property in the ams-manage.properties file. The default is 25. The folder name is determined by the first appliance in each folder.

Appliance status in hierarchy

You can configure the appliance status information that appears in the hierarchy in *ams-manage.properties*. The property **displayTreeNodeStatus** is used to control the appliance configuration. If this property is enabled, the latest status information is displayed on the appliance nodes in the hierarchy; else the latest status information is not displayed. By default, this property is enabled. If you disable **displayTreeNodeStatus**, the performance of the appliance hierarchy improves marginally. Ensure that you restart the AMS web server.

New appliance setup

Overview

Purpose

New appliance setup describes how to set up a new appliance in AMS. It describes how to create an appliance record in the database, provide information to a field technician so the actual VitalQIP appliance can be authenticated, and verify communication with that appliance.

Add an appliance

Purpose

To create a new appliance object in the AMS database.

Before you begin

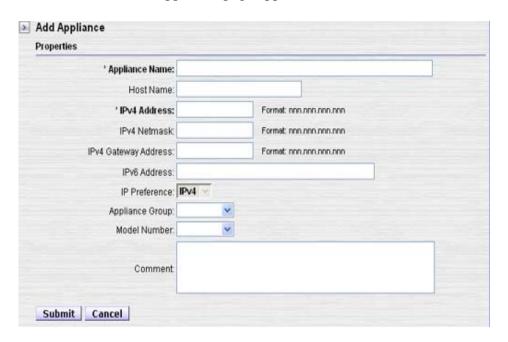
Packages can be assigned on an appliance by appliance basis and through the appliance group.

Procedure

To add a new appliance, follow these steps.

1 In the Appliances tab, mouse over the Actions menu and select Add Appliance.

Result: The Add Appliance page appears.



2 Enter values in the fields, as described in the following table.

Table 2-1 Appliance Properties fields

Field	Description	
Appliance Name	Required. Enter a name of up to 50 alphanumeric characters for the appliance.	

Field	Description			
Host Name	Enter a non-qualified hostname of up to 24 characters for the appliance. This field is required if you are entering an appliance pair.			
IPv4 Address	Required. Enter the IP address of the appliance in IPv4 format.			
IPv4 Netmask	Enter the network mask for the appliance in IPv4 format.			
IPv4 Gateway Address	Enter the gateway address in IPv4 format. This field is required if you are entering an appliance pair.			
IPv6 Address	Enter the IPv6 address of the appliance (if applicable)			
IP Preference	Defaults to IPv4. If an IPv6 Address is entered, select whether the IP preference should be IPv4 or IPv6 from the drop-down.			
Appliance Group	Select an existing appliance group from the list or leave blank if preferred (or if none have been defined). To create an appliance group, refer to "Add an appliance group" (p. 3-6).			
Model Number	Select the model number from the list (currently, AMM500, AMM1000, AMM5000, ESM1000, and ESM5000).			
Comment	Enter a comment of up to 255 alphanumeric characters if desired.			

3 To save the new appliance information, click Submit.

Result: A confirmation dialog box opens with the message Added the appliance successfully.

4 Click **OK** to continue.

Result: The new appliance appears in the Appliances hierarchy and the Properties page opens.

Find an appliance, appliance pair, appliance cluster, or appliance group

Purpose

To use the Find function to locate an appliance, appliance pair, appliance cluster, or appliance group in the Appliance hierarchy. This function only searches by the appliance, appliance pair, appliance cluster, or appliance group displayed in the hierarchy.

Before you begin

You can use the asterisk (*) as a wild card.

P	r	0	С	е	d	u	re
---	---	---	---	---	---	---	----

To use the Find function, follow these steps.

- In the Appliances tab, select Appliance, Appliance Pair, Appliance Cluster, or Appliance Group in the Appliance V Find field below the appliance hierarchy.
- 2 Type the name of the appliance/appliance pair/appliance cluster/appliance group or the appliance/appliance pair/appliance cluster/appliance group IP address.
- 3 Click Find or press Enter.

Result: If an appliance/appliance pair/appliance cluster/appliance group matches your search, the appliance name, appliance pair, appliance cluster, or appliance group is highlighted in the hierarchy, and the Appliance Properties, Appliance Pair Properties, Appliance Cluster Properties, or Appliance Group page opens. If you used a wild card that matches several names or addresses, click Find again until the appliance, appliance pair, appliance cluster, or appliance group you want to review or modify is highlighted.

Display appliance properties on a new appliance

Purpose

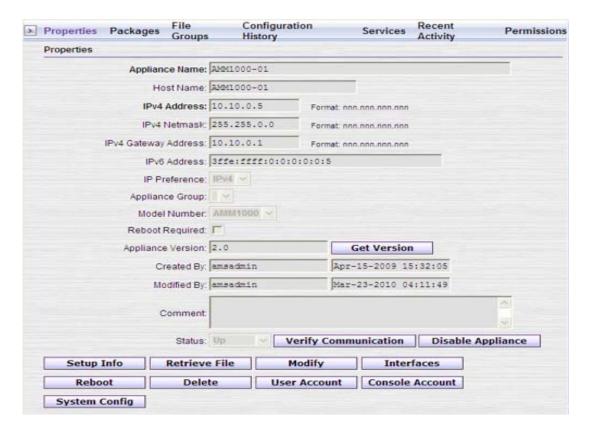
To query and display the properties of a newly added appliance.

Procedure

To display appliance properties, follow these steps.

In the Appliances tab, expand the Appliances folder and click on an appliance in the appliance hierarchy, or use the Find function to locate it. For information on the Find function, refer to "Find an appliance, appliance pair, appliance cluster, or appliance group" (p. 2-10).

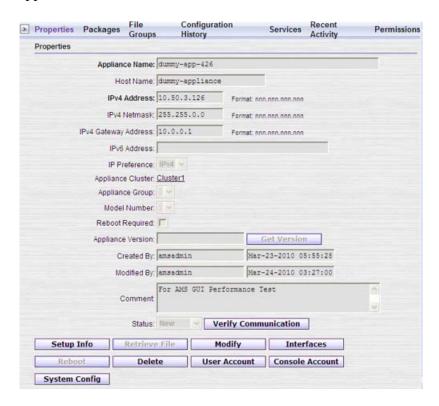
Result: The Appliance Properties for the selected appliance opens.



Note: Some of the buttons are displayed on this page only for authenticated appliances.

The Appliance Pair field is displayed only if the selected appliance is part of an appliance pair.

The Appliance Cluster field is displayed, only if the selected appliance is part of an appliance cluster.



Note that since the appliance was added, the following additional fields are now displayed in the Basic Properties section.

Table 2-2 Additional Basic Properties fields

Field	Description			
Reboot Required	Displays the indication to reboot the appliance.			
	Note : If any of the package that required reboot is deployed, this field is set automatically.			
Created By	Displays the user name of the administrator who created the appliance record, as well as the time at which the record was created.			
Modified By	Displays the user name of the administrator who modified the appliance record, as well as the time at which the record was modified.			
Status	Describes the current status of the appliance. The initial status is New . This indicates that an appliance record has been created but that no authentication has occurred yet.			

2 Choose from any of the following actions.

If you want to	Then		
Verify communication with the appliance	Click Verify Communication . For further information, refer to "Verify communication with an appliance" (p. 2-16).		
Configure packages for the appliance	Click the Packages tab. For further information, refer to "Configure packages for an appliance" (p. 2-30).		
Redirect system log on appliance configuration	Click System Config . For further information, refer to "Managing the system log configuration" (p. 2-120).		
View setup information	Click Setup Info . For further information, refer to "View appliance setup information" (p. 2-14).		
Modify the appliance	Click Modify . For further information, refer to "Modify appliance properties" (p. 2-25).		
Define NIC interfaces on the appliance	Click Interfaces. For further information, refer to "Define interfaces" (p. 2-114)		
Delete the appliance	Click Delete . For further information, refer to "Delete an appliance" (p. 2-131).		

View appliance setup information

Purpose

To view setup information for an appliance so that an administrator can authenticate it. For further information on appliance setup, refer to the *VitalQIP AMM/ESM Quick Start Guides*.

Procedure

To view setup information for an appliance, follow these steps.

In the Appliances tab, expand the Appliances folder and click on the appliance in the appliance hierarchy, or use the Find function to locate it. For information on the Find function, refer to "Find an appliance, appliance pair, appliance cluster, or appliance group" (p. 2-10).

Result: The Appliance Properties for the selected appliance opens.

2 Click Setup Info.

Result: The Appliance Details page opens.



3 Communicate the appliance details to the administrator who is responsible for configuring and authenticating the VitalQIP appliance.

4 Choose from the following actions.

If you want to	Then
Provide a printout that can be faxed	1. Click Print.
	Result: A Print dialog box opens.
	2. Select the printer and number of copies you wish to print and click OK .
Save the data in a USB flash drive to use in	1. Click Generate File.
the "Auto Config" setup of an Appliance Module. For further information on Auto Config setup, refer to the <i>Quick Start Guide</i> for your appliance.	Result: In Internet Explorer, a File Download dialog box opens with the message Do you want to open or save this file? In Firefox, Enter name of File to save to dialog box opens.
	2. Choose the Save option.
	Result: In Internet Explorer, a Save As dialog box opens where you can select the flash drive and save the file.
	In Firefox, the file is automatically saved to your default file download directory, where you can later copy it to the flash drive. If you wish to modify this behavior, choose Options from the Firefox Tools menu and choose the Always ask me where to save files option.
	Note: Only one set of appliance config data can be saved and used at a time. You cannot store data for multiple appliances and try to use them.
	Note: When you change the appliance authentication data and use a USB key to automatically configure an appliance module, other parameter values will be reset to their default. You need to set the other parameter values again.
Close the Appliance Details page	Click Back.
	Result: The Appliance Properties page reappears.

Verify communication with an appliance

Purpose

To verify that a new appliance has been authenticated successfully and is communicating with the AMS database. For further information on appliance authentication, refer to the *VitalQIP AMM/ESM Quick Start Guides*.

Before you begin

The Generate File function validates the following fields, in addition to the required Appliance Name and IPv4 Address fields (that are validated when the appliance is added). If one of these fields is not populated, a file cannot be generated.

- Host Name
- IPv4 NetMask
- IPv4 Gateway Address

Procedure

To verify that a new appliance has authenticated successfully, follow these steps.

In the Appliances tab, expand the Appliances folder and click on the appliance in the appliance hierarchy, or use the Find function to locate it. For information on the Find function, refer to "Find an appliance, appliance pair, appliance cluster, or appliance group" (p. 2-10).

Result: The Appliance Properties for the selected appliance opens.

2 Click Verify Communication.

Result: A dialog box opens with the message Communication with <appliance name> verified.

Note: If the appliance has not been authenticated, a dialog box opens with the message Unable to communicate to <appliance name>.

3 Click OK to close the dialog box.

Result: The dialog box closes and the Status field in the Appliance Properties page reads Up.

Appliance staging

Overview

Purpose

Appliance staging describes how to prepare an appliance in the AMS database for successful deployment of packages to the VitalQIP appliance itself out on the network. It describes how to modify an appliance record by making package associations and then configuring the files that comprise the various DHCP, DNS and VitalQIP remote packages.

Display appliance properties on an authenticated appliance

Purpose

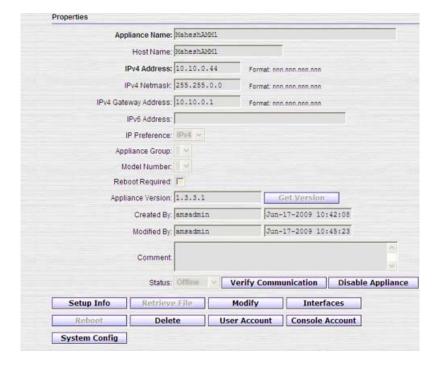
To display appliance properties on authenticated appliances.

Procedure

To display appliance properties on authenticated appliances, follow these steps.

In the Appliances tab, expand the Appliances folder and click on an appliance in the appliance hierarchy, or use the Find or Search Appliances functions to locate it. For information on the Find function, refer to "Find an appliance, appliance pair, appliance cluster, or appliance group" (p. 2-10). For information on the Search Appliances function, refer to "Search for appliances" (p. 2-48).

Result: The Appliance Properties for the selected appliance opens.



Note that since the appliance was authenticated, the page has changed as follows:

- A Disable Appliance function appears.
- The Retrieve File, User Account, Console Account, Reboot, and System Config functions are enabled.

- If the appliance has been added to an appliance pair and/or an appliance cluster, the Appliance Pair and/or Appliance Cluster fields appear. Click on the link to open the Properties page for the pair and/or cluster.
- The **Status** field describes the current status of the appliance. The status conditions are:

New

Indicates that an appliance record has been created but that no authentication has occurred yet.

Offline

Indicates that the last time the AMS server attempted to communicate with the appliance (using Verify Communication function), that communication could not be completed. This could be for any number of reasons, for example:

- A network interruption between the AMS server and the appliance
- The appliance is turned off
- The appliance is booting up
- The OS on the appliance is failing in some way that affects the communication.

Because communication with an appliance is initiated from the AMS server, the Offline status may remain in effect temporarily after the capability for communication with the appliance is restored (for example, the appliance is turned on, or rebooted, or the network is repaired, and so on). Alcatel-Lucent recommends that you search appliances with an Offline status and repeat the Verify Communication operation. Refer to "Verify communication with an appliance" (p. 2-16).

Disabled

Indicates appliances that are going to be decommissioned or are not going to be managed by the AMS for some time. It is a step short of actually deleting the appliance information from the AMS database since AMS does not shut down any services that may be running on the appliance. This status is activated by Disable Appliance in the Basic Properties section. Refer to "Disable an appliance" (p. 2-126).

Up

Indicates that the connectivity from the appliance to the AMS server is normal and both ends are suitably configured, and that the appliance is functioning at a basic level. This occurs when the following appliance initialization sequence has completed successfully.

- 1. Appliance record created in AMS UI (at this point, it has **New** status).
- 2. Appliance is physically installed and configured and the **authenticate** command is successful.

The Verify Communication operation is successful.

2 Choose from any of the following functions.

If you want to	Then	
Basic Properties		
Verify communication with the appliance	Click Verify Communication . For further information, refer to "Verify communication with an appliance" (p. 2-16).	
Disable the appliance	Click Disable Appliance . For further information, refer to "Disable an appliance" (p. 2-126).	
Enable the appliance	Available only if an appliance is disabled. Click Enable Appliance. For further information, refer to "Enable a disabled appliance" (p. 2-128).	
Appliance Pair Details		
Review an appliance pair	Click the Appliance Pair link. The Appliance Pair Properties page opens.	
Appliance Cluster Details		
Review an appliance cluster	Click the Appliance Cluster link. The Appliance Cluster Properties page opens.	
Package Associations		
Associate packages for an appliance	Click the Packages tab. For further information, refer to "Associate packages with an appliance" (p. 2-27).	
Configure packages for an appliance	Click the Packages tab and click Configure beside one of the packages in the Direct Packages list. For further information, refer to "Configure packages for an appliance" (p. 2-30).	
Review pending deployments	Click the Packages tab and click Deploy. For further information, refer to "Review pending deployments and deploy packages" (p. 2-40).	

If you want to ... Then ... Deploy packages 1. Click the Packages tab. 2. Click Deploy. Result: The Pending Deployments for Appliance page opens. 3. Click **Proceed**. For further information, refer to "Review pending deployments and deploy packages" (p. 2-40). File Groups Associate file groups for an appliance Click the **File Groups** tab. For further information, refer to "Associate file groups to an appliance" (p. 2-106). Deploy file groups 1. Click the File Groups tab. 2. Click Deploy. Result: The Pending Deployments for Appliance page opens. 3. Click **Proceed**. For further information, refer to "Deploy file groups" (p. 2-109). View file group properties For more information, see "View file group properties" (p. 2-111). **Configuration History** Click the Configuration History tab. Click the Review configuration history Refresh icon (as needed. For more information, refer to "Manage configuration history" (p. 2-103) and "Roll back to a previous configuration" (p. 2-100). Click the **Configuration History** tab and click Review package properties on the package you wish to review. For more information, refer to "Review package" properties" (p. 2-82). Note: You can also review package properties by expanding an appliance in the appliance hierarchy and clicking on a package. Roll back a package deployment Expand the Configuration History section. Select a previous deployment and click Roll **Back**. For information on rolling back a package deployment, refer to "Roll back to a previous configuration" (p. 2-100).

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If you want to	Then	
Services		
Check status of VitalQIP services	Click the Services tab. Click the Refresh icon () as needed. For information on managing VitalQIP services on an appliance, refer to "Manage services on an appliance" (p. 2-44).	
Appliance management functions		
View setup information	Click Setup Info . For further information, refer to "View appliance setup information" (p. 2-14).	
Modify the appliance	Click Modify . For further information, refer to "Modify appliance properties" (p. 2-25).	
Retrieve a configuration file or log file from the appliance	Click Retrieve File. For further information, refer to "Retrieve a file from an appliance" (p. 2-59). Additional procedures for retrieving log files and configuration files that do not involve data entry are described in "Retrieve a log file" (p. 2-55) and "Review or modify a configuration file" (p. 2-63).	
Define NIC interfaces on the appliance	Click Interfaces. For further information, refer to "Define interfaces" (p. 2-114).	
Set up an administrative login on the appliance or change the administrative login password	Click User Account . For further information, refer to "Enable a user account login" (p. 2-122).	
Set up a password for access to the appliance console	Click Console Account. For further information, refer to "Manage console account password" (p. 2-118).	
Redirect system log on appliance configuration	Click System Config . For further information, refer to "Managing the system log configuration" (p. 2-120).	
Reboot the appliance	Click Reboot . For further information, refer to "Reboot an appliance" (p. 2-130).	
Delete the appliance	Click Delete . For further information, refer to "Delete an appliance" (p. 2-131).	
Appliance Pair Details		
Review an appliance pair	Click the Appliance Pair link. The Appliance Pair Properties page opens.	

Appliance Cluster Details	
Review an appliance cluster	Click the Appliance Cluster link. The Appliance Cluster Properties page opens.
Permissions	
Review permissions on the appliance	Click the Permissions tab. The Permissions Properties page opens. For further information, refer to "Appliance permission management" (p. 2-71).

Modify appliance properties

Purpose

To modify appliance properties.

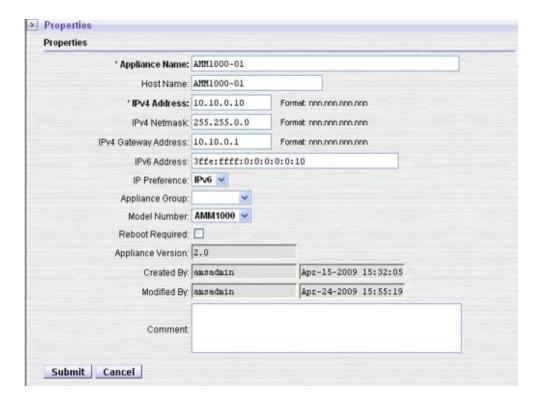
Procedure

In the Appliances tab, expand the Appliances folder and click on the appliance in the appliance hierarchy that you wish to modify, or use the Find function to locate it. For information on the Find function, refer to "Find an appliance, appliance pair, appliance cluster, or appliance group" (p. 2-10).

Result: The Appliance Properties for the selected appliance opens, with fields greyed out.

2 Click Modify.

Result: The Appliance Properties page refreshes, with fields activated.



3	Revise field entries in this section as needed. Refer to Table 2-1, "Appliance Properties fields" (p. 2-8) for information on the fields.
4	Select the Reboot Required option to indicate that the appliance needs to be rebooted.
5	To save the new appliance information, click Submit. Result: The confirmation dialog Modified the appliance properties appears.
6	Click OK to continue. Result: The Appliance Properties page reappears.
	END OF STEPS

Associate packages with an appliance

Purpose

To associate packages with a new or existing appliance.

Before you begin

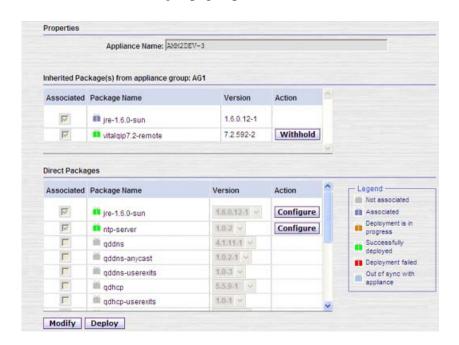
- Valid packages must exist in the AMS database before they can be associated with an appliance. For more information, refer to "Import a package" (p. 3-6).
- A package associated directly with an appliance has precedence over the same package (be it a higher or lower version or the same version number) inherited from the appliance group.
- Normally, all the appliances in an appliance group receive a copy of the same
 configuration file for a package when it is associated with that appliance group. If you
 need the configuration file of one appliance in the appliance group to be different (that
 is, specific to that appliance), you may associate that package directly with that
 appliance and then configure the package configuration file for just that appliance.

Procedure

To associate one or more packages with a new or existing appliance, follow these steps.

1 In the Appliance Properties page, click the Packages tab.

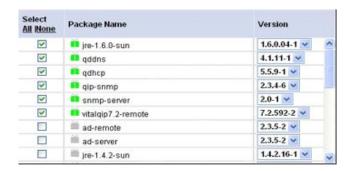
Result: The Packages page opens.



Packages that have been associated with the appliance within an appliance group are displayed in the Inherited Package(s) from group section. Packages that have been downloaded from the Alcatel-Lucent ALED site and imported into AMS with the Packages function [described in "Import a package" (p. 3-6)] are displayed in the Direct Packages section.

2 To associate packages with the appliance, click Modify.

Result: The Direct Packages list is activated.



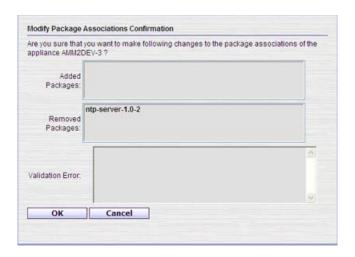
3 Choose one of the following actions in the Direct Packages list.

If you want to	Then
Select a specific package	Place a check mark in the Associated checkbox beside the Package Name you wish to associate with the appliance.
Change a package version	Select the specific Version from the drop-down list for each selected package.
Select all packages in the list	Click All.
Deselect all the packages in the list	Click None.
	Result: A dialog box opens with the message Are you sure that you want to remove all the package associations?
	Click OK to continue. Click Cancel to abort.

Note: Packages such as qip-enterprise and sybase cannot be downgraded. If you try to downgrade those packages, a message opens. For information on how to downgrade the enterprise and sybase packages, refer to the *Appliance Packages Configuration Guide*.

4 When you have finished making your package association selections, click Save.

Result: The Modify Package Associations Confirmation page opens.



5 Click **OK** to continue.

Result: The Direct Packages list is refreshed. The Associated package icon appears beside the package name in the Appliance Hierarchy. Additionally, a Configure button is displayed alongside each associated package.

Configure packages for an appliance

Purpose

To configure the files that comprise a package to be deployed on an appliance.

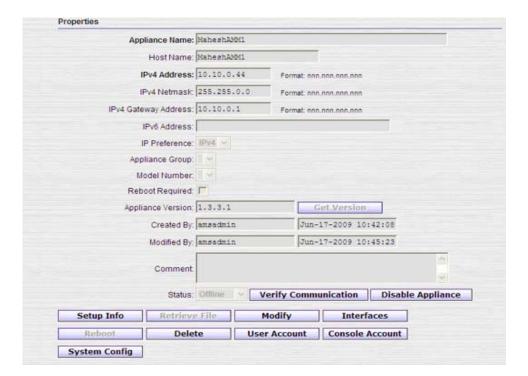
Before you begin

- The maximum size of a config file that can be uploaded/saved (binary or text) is 64K.
- Two types of config files are supported:
 - ASCII text: The content of the config file is displayed in the Config File Details
 page or the Config File Viewer/Editor page. You can use the Download button to
 save a copy of a particular version to your PC.
 - Binary: In this case, the content is not displayed, but the BINARY FILE message is displayed in the text area in the Config File Details or Config File Viewer page.
 Since you cannot view the binary config file, you can download and test or verify the file locally on your PC.
- For further information on DNS and DHCP user exits, refer to the "Network services" chapter in the *VitalQIP User's Guide*. For further information on the *qip.pcy* file, refer to the *VitalQIP Administrator Reference Manual*.

Procedure

To configure a file to be part of a package for deployment on an appliance, follow these steps:

In the appliance hierarchy, select the appliance you wish to configure. If you have just added an appliance, its properties are already displayed.

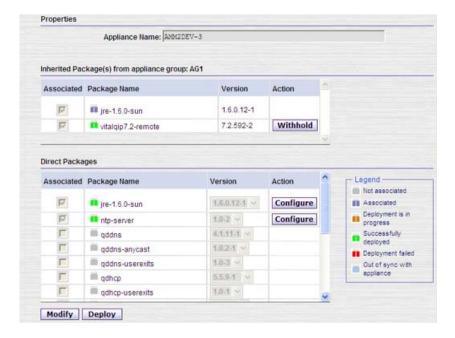


Result: The Appliance Properties page for the selected appliance opens.

Note: For a new appliance, the Get Version, Retrieve File, and Reboot functions are not allowed. The User Account, Console Account, and System Config functions are used only for viewing. You cannot modify these values, but can perform the Update Config and Get Status functions on interfaces.

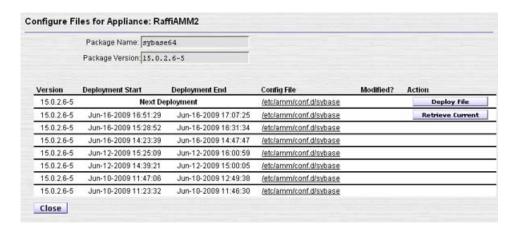
2 Click the Packages tab.

Result: The Packages page opens.



3 Locate the package you want to configure and click the Configure button that appears beside it in the Action column.

Result: The Configure Files for Appliance <appliancename> page opens.



Note: Packages such as *sybase* and *qdhcp* do not have configuration files despite the Configure button appearing in the Action column. If you try to configure them, a dialog box opens with the message The selected package contains no config files. Click Close to close the dialog box.

4 Choose one of the following actions.

If you want to	Then
Review or edit a file in the next deployment group	 Click on a file link in the Config File column. Result: The file opens in the Config File Editor (in another browser window). To work with one of the config editor options, refer to "Edit an appliance configuration file" (p. 2-35).
Review one of the current configuration files	Locate the configuration file you want to review and click Retrieve Current. Result: The file is read from the appliance and sent to your browser. The browser pops up a dialog typically allowing you to save the file on your PC and/or open the file using a helper application.
Copy a previously modified file to the next deployment group	1. Click on a file link in the Config File column that has a check mark (✓) in the Modified? column. Result: The file opens in review mode in the Config File Editor (in another browser window). Config File Editor: /opt/qip/snmp/config/snmpd.cnf Entry type: sysbesct
	2. Click Copy to "Next Deployment" Copy to "Nex
Deploy the modified file immediately	Click Deploy . Use the Deploy File Now function to bypass a queue of changes if there are new packages, package updates, or other configuration file changes pending to be deployed to the appliance. This function sends the indicated file only without sending any of the other pending changes.

5	Repeat steps 3 and 4 until all the configuration files are set up as you want them.
6	Click Close to continue.
	Result: The Appliance Packages page reappears.
	END OF STEPS

Edit an appliance configuration file

Purpose

To edit a configuration file for an appliance.

Procedure

To edit a config file, follow these steps.

In the appliance hierarchy, select the appliance you wish to configure. If you have just added an appliance, its properties are already displayed.

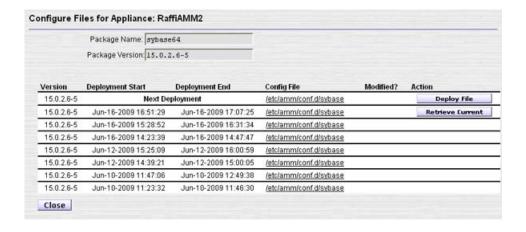
Result: The Appliance Properties page for the selected appliance opens.

2 Click the Packages tab.

Result: The Packages page opens.

3 Locate the package you want to configure and click the **Configure** button that appears beside it in the **Action** column.

Result: The Configure Files for Appliance *<appliancename>* page opens.



4 Click on the file in the Config File column that you wish to edit.

Result: The Config File Editor page opens in another browser window.



5 Choose one of the following options.

If you want to	Then	
Review the current configuration file only	Click the Use the package's default config file option.	
Search for text in a configuration file	Enter the phrase for which you are searching in the Find field. Click the Exact Match and Match Case options as needed.	
Replace text in a configuration file	Only available when a file is not read-only.	
configuration file	1. After you have entered text in the Find field, enter the text you wish to replace in the Replace field. Click the Exact Match and Match Case options as needed.	
	2. Choose one of the following:	
	 To replace one instance, click Find and when a matching instance is found, click Replace. 	
	 To replace one instance and find another match, click Find and when the matching instance is found, click Replace/Find. 	
	 To replace all matching instances, click Find and when a matching instance is found, click Replace All. 	
	3. To save your edits, click Save .	
	Result: A dialog box opens with the message Config file changes saved.	
	4. Click OK.	
	Result: The dialog closes and a check mark (✓) appears in the Modified? column.	
Edit the current file	Click the Edit this config file option.	
	2. Make your edits. Use the Find/Replace functions as needed.	
	3. If you wish to enter a comment, enter up 255 alphanumeric characters in the Comments field.	
	4. Choose one of the following options:	
	• Click Save to write your changes to the file.	
	Result: A dialog box opens with the message Config file changes saved. Click OK and the dialog closes. If the file was modified, a check mark () appears in the Modified? column.	
	Click Cancel to close the editor without saving any edits.	

If you want to	Then
Edit a copy of the most recent configuration file Note: Not available for a new appliance or when the previous configuration file is a binary file.	 Click the Edit a copy of the previous config file option. Make your edits. Use the Find/Replace functions as needed. If you wish to enter a comment, enter up 255 alphanumeric characters in the Comments field. Choose one of the following options: Click Save to write your changes to the file. Result: The Config File Editor window closes. If the file was modified, a check mark (✓) appears in the Modified? column.
	Click Cancel to close the editor without saving any edits.
Use a local configuration file	 Click the Upload option. Result: The text view and the Find/Replace functions close. Click Browse. Result: A dialog box opens in your browser where you can select a file. Locate the file you want to upload. If you wish to enter a comment, enter up 255 alphanumeric characters in the Comments field. Choose one of the following options: Click Save to save the uploaded file. Result: A dialog box opens with the message Selected config file is saved. Click OK to close the confirmation dialog box. Click Cancel to abort the upload of the file to the appliance.

END OF STEPS

Appliance Package deployment

Overview

Purpose

Package deployment describes how to send appliance configuration files that have been customized in the AMS database to the VitalQIP appliance out on the network. It describes how to review pending deployments, deploy the packages and then manage the VitalQIP services on each appliance to ensure that VitalQIP, DNS and DHCP are running.

Review pending deployments and deploy packages

Purpose

To review pending deployments and to permit controlled introduction of packages onto an appliance.

Before you begin

- One or more packages should be associated with the appliance. For information on associating packages, refer to "Associate packages with an appliance" (p. 2-27).
- The packages should be configured as necessary. For information on configuring packages, refer to "Configure packages for an appliance" (p. 2-30).

Procedure

To review pending deployments, follow these steps.

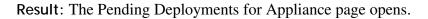
1 In the Appliances tab, expand the Appliances folder and click on an appliance in the appliance hierarchy, or use the Find or Search Appliances functions to locate it.

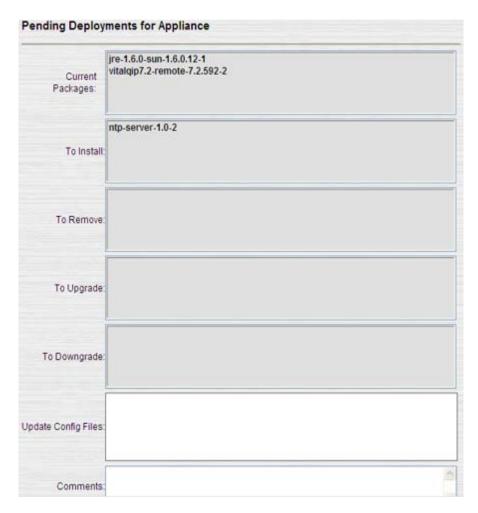
Result: The Appliance Properties for the selected appliance opens.

2 Click the Packages tab.

Result: A list of appliance packages opens.

3 Click Deploy.





4 The pending deployments are organized as described in the following table.

Table 2-3 Deployment categories

Category	Description
Current Packages	Displays packages that are currently deployed.
To Install	Displays packages that are associated with the appliance either directly or indirectly through an appliance group. These are the packages to be installed the next time the Deploy Packages function is performed.
To Remove	Displays packages that are deployed on the appliance but have been disassociated from the appliance directly or indirectly through an appliance group.

Category	Description	
To Upgrade	Displays packages in the next deployment group that are more recent versions than those currently deployed on the appliance.	
To Downgrade	Displays packages in the next deployment group that are older versions than those currently deployed on the appliance.	
Update Config Files	Lists the configuration files that are known to have changed since the last deployment.	
Comments	Optional. Enter up to 255 alphanumeric characters.	
Pending File Group Deployments	Lists the file groups that are pending deple down the Pending Deployments for Ap	
	Pending File Group Deployments	
	Pending rile Group Deployments	
	Name	Operation
		Operation A
	Name Details:	

5 Click Proceed to continue with the deployment. Click Cancel to abort.

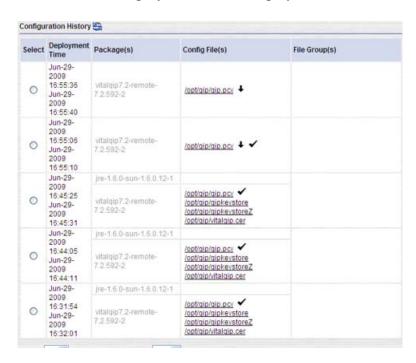
Result: The Pending Deployments for Appliance page closes and the Appliance Packages Properties page reopens as the packages are pushed. The status indicator changes to Running/In progress. You are notified when the deployment is complete.

6 Click OK.

Result: The confirmation dialog box closes.

7 To verify that the deployment completed successfully, click the Configuration History tab.

Result: The deployment time is displayed with a start and end time stamp.



Note: It might take some time for the packages to be deployed. While the deployment is in progress, only the start time stamp shows under Deployment Time. Use the Refresh icon () to redraw the table until the end time stamp is also shown, indicating that the deployment is completed.

Note: Associate packages to an appliance for customization of configuration files during operations on appliance groups.

Failed deployments display an end time in underlined red text. Click the link to determine the error. A transfer error could be caused by the appliance being down or a network problem. Use the Verify Communication function to confirm that the network connection is working and that the authentication information stored for the appliance is correct. A network problem could be transitory, in which case a subsequent redeploy should work.

END OF STEPS

Manage services on an appliance

Purpose

Use the appliance services to control the VitalQIP services on an appliance.

Before you begin

- When the Services screen is refreshed, status information for each service is pulled from the AMS database rather than the appliance. The Reported Time column indicates the time when the daemon status in the AMS database was most recently reported. Clicking the Appliance Refresh icon () for a specific service allows the appliance itself to be contacted. The Reported Time is updated as well.
- The Server Clock indicates the local time on the AMS server.

Procedure

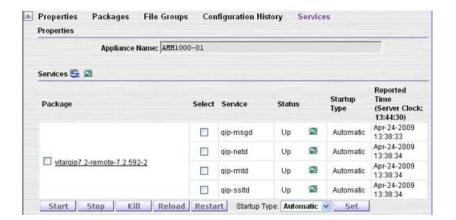
To manage the VitalQIP services on an appliance, follow these steps.

1 In the Appliances tab, expand the Appliances folder and click on an appliance in the appliance hierarchy, or use the Find or Search Appliances functions to locate it.

Result: The Appliance Properties for the selected appliance opens.

2 Click the Services tab.

Result: A list of services and their current status is displayed.



3 Place a check in the Select column of each service you wish to manage. To select all the services in a package, select the package in the Package column.

4 Choose one of the following actions.

If you want to	Action
Stop the service	Click Stop . Use this function to shut down a service gracefully.
Start the service	Click Start . Use this function to start a service after a new package deployment.
Kill the service	Click Kill. Use this function sparingly, in circumstances where the Stop function has no effect: for example when a service is hung. A dialog box opens with the message Kill operation should only be used when the stop function is not working. Do you want to continue? Click OK to continue if the Stop function has had no effect on the service. If you selected the Kill function in error, click Cancel.
Reload the service	Click Reload . Use this function to make a service, such as qddns and qdhcp, reread its configuration files.
Restart the service	Click Restart . Use this function to stop a service and then immediately start it again. This function requires the service to be running.
Set the startup type	From the Startup Type list, select one of the following: Automatic
	This is the default setting. Services are started automatically when the appliance is rebooted. • Disabled The services are disabled.
	The service will not be started on reboot and the user cannot start from the AMS GUI as well.
	 Manual You need to manually start the services from the AMS GUI. Click Start to start the service.
	The service will not be started on reboot, but the user can start it from the AMS GUI.

5	Click OK in response to each confirmation dialog box.
6	To gain an up-to-date status in the database, click the Refresh icon (). To refresh the status of a daemon on an appliance, click the Refresh appliance icon () for the selected service.
	END OF STEPS

Appliance monitoring

Overview

Purpose

Appliance monitoring describes how to gain up-to-date status information on appliances in the AMS database. It describes how to search for an appliance record in the database, retrieve log files, and review and/or modify the configuration files that comprise the various DHCP, DNS, and VitalQIP remote packages.

Appliances Search for appliances

Search for appliances

Purpose

To search for appliances that meet your specified criteria.

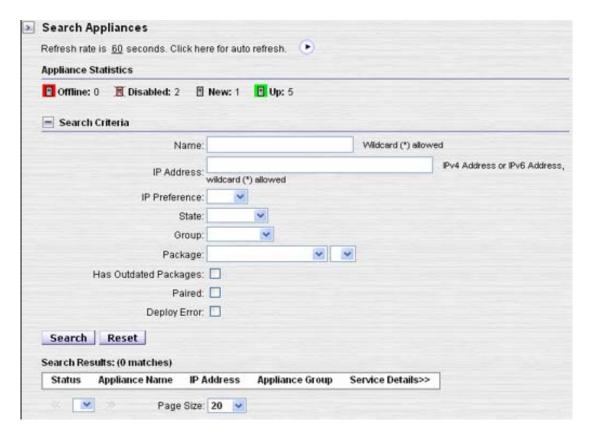
Procedure

To search for appliances, follow these steps.

Method 1

1 In the Appliances tab, mouse over the Actions menu and select Search Appliances.

Result: The Search Appliances page opens.



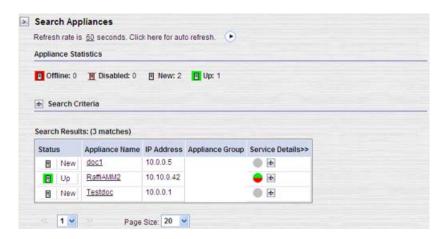
2 Enter search criteria as needed, as described in the following table.

Table 2-4 Appliances search criteria

Field	Description
Name	Enter an appliance name. The wildcard may be used to return a number of appliances that have part of the appliance name in common.
IP Address	Enter an IP address. The wildcard may be used to return a number of appliances that share similar octets in the address.
IP Preference	Select the required type of IP address. Possible values are IPv4 and IPv6.
State	 Select an appliance state from the drop-down list. Possible values are: New - The appliance has not been authenticated yet. Normal - The appliance is either up or offline. Disabled - The appliance has been authenticated, but now it is disabled.
Group	Select a group from the drop-down list to return appliances in that group.
Package	Select a package from the drop-down list to return appliances associated with that package. Additionally, you may specify a version number. Note: The list of appliances includes those whose association with the package is indirect (associated via an appliance group). The appliance is listed even if the package is in a "withheld" state. Refer to "Withhold a package from an appliance" (p. 2-92).
Has Outdated Packages	Place a checkmark to return appliances that have outdated packages.
Paired	Place a checkmark to return appliances that are paired with another appliance.
Deploy Error	Place a checkmark to return appliances that experienced errors during deployment.

3 When you have entered your search criteria, click Search.

Result: The Search Criteria section collapses and the Search Results section expands to show the appliances that met the search criteria.



Service status is displayed as follows.

- All services are up -
- All services are down -
- No services =

If there are no matches for your search criteria, a dialog box opens with the message The search returned no results. Click OK and expand the Search Criteria section. You may click Reset if you wish to clear all your search criteria and start afresh.

Note: Auto-refresh of searches is turned off by default . Click to refresh the search every minute. To turn off auto-refresh, click.

4 Choose one of the following actions.

If you want to	Then
Display the properties of a specific appliance	Click on the appliance name. Result: The Appliance Properties page opens. Refer to "Display appliance properties on an authenticated appliance" (p. 2-19).

If you want to ... Then ... Expand the **Details>>** column for the appliance you wish to Review packages on an appliance review. Result: The package details for that appliance are displayed. If the service is down, the service name appears in red. Packages Services Log Files Log Files ✓ Retrieve Retrieve sybase64-15.0.2.6-5 Retrieve a log file for a Expand the **Details>>** column for the appliance you wish to specific package review. For further information, refer to Method 1 in "Retrieve" a log file" (p. 2-55). Refresh the search results Auto refresh updates the appliance statistics and the search results. It refreshes the following items: Status of the appliance Status of the packages Status of the services (if the service is down, the service name appears in red). The minimum refresh rate is 60 seconds and maximum refresh rate is 3600 seconds (1 hour). To begin a refresh countdown, click To halt a refresh, click To set up a different refresh interval, follow these steps. 1. Click the interval numeric. Result: A user prompt opens. Enter the refresh rate in seconds 60 Enter a different interval at the user prompt. Click **OK** to set the new refresh interval.

5 Click Cancel to close the Search Appliances page.

Result: The Search Appliances page is replaced by the AMS splash screen.

Method 2

6 In the Appliances tab, click on the Appliances folder.

Result: The Search Appliances page opens, and in a few seconds displays all the appliances in the AMS database.



7 To refine the search criteria, expand the Search Criteria section and enter search criteria as needed, as described in Table 2-4, "Appliances search criteria" (p. 2-49).

END OF STEPS

Search for IP address

Purpose

To search for appliances that meet your specified IP address criteria.

Procedure

To search for appliances that match an IP address string, follow these steps.

1 In the Appliances tab, mouse over the Actions menu and select Search IP Addresses.

Result: The Search IP Addresses page opens.



- 2 Enter an IP address in the IP Address field. You can use the wildcard to return a number of appliances that share similar octets in the address.
- 3 To restrict the type of address, select IPv4 or IPv6 in the IP Version field.
- 4 Click Search.

Result: The **Search Results** section expands to show the results of the search.



Note: If no IP addresses match the search criteria, a dialog box opens with the message The search returned no results. Click OK to close.

5 Choose one of the following actions.

If you want to	Then
Display the properties of a	Click on the appliance name.
specific appliance	Result: The Appliance Properties page opens. Refer to "Display appliance properties on an authenticated appliance" (p. 2-19).
Clear the search results	Click Reset.
	Result: The Search Results list is reset to 0 matches.

END OF STEPS

Retrieve a log file

Purpose

To retrieve a log file from an appliance.

Procedure

To retrieve a log file from an appliance, follow these steps.

Method 1

1 In the Appliances tab, mouse over the Actions menu and select Search Appliances.

Result: The Search Appliances page opens.

2 Enter search criteria and click Search.

When the search results appear, expand the Service Details>> column for the appliance you wish to review.

Result: The package details for that appliance appear.

4 Select the log file from the Log Files drop-down list.

5 Click Retrieve.

Result: The Retrieve Log File window opens.



6 Choose one of the following actions.

If you want to	Then
Review other log file	Choose one of the following options.
information	By Associated Package
	Expand the By Associated Package section (if necessary) and select another package from the Package drop-down list.
	2. Select the file you want to review from either the Config File or the Log File drop-down list.
	3. Click Retrieve.
	Result: Log file statistics are displayed.
	By Directory
	1. Expand the By Directory section (if necessary) and select a log file directory from the Directory drop-down list.
	2. Select the file you want to review from the File drop-down list.
	3. Click Retrieve.
	Result: Log file statistics are displayed.
	By Name
	1. Expand the By Name section (if necessary) and enter the full path of the log file you wish to review in the File Name field.
	2. Click Show File Info.
	Result: Log file statistics are displayed.
View the log (or config) file	Click Retrieve . The file is read from the appliance and sent to your browser. The browser pops up a dialog typically allowing you to save the file on your PC and/or open the file using a helper application.

END OF STEPS

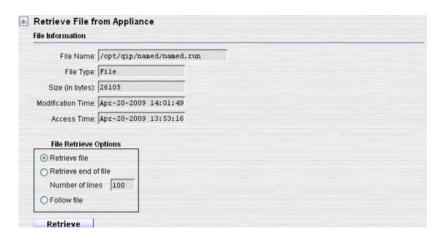
Method 2

In the Appliances tab, expand the appliance folder and select the package you want to review.

Result: The Appliance Config Files and Log Files folders are displayed.

2 Expand the Log File folder and click on the log file you want to review.

Result: The Retrieve File from Appliance page opens.



- 3 Select the required option to retrieve the file.
- 4 To view the log file, click Retrieve.

Result: The file is read from the appliance and sent to your browser. The browser pops up a dialog typically allowing you to save the file on your PC and/or open the file using a helper application.

END OF STEPS

Retrieve a file from an appliance

Purpose

To retrieve a file on an appliance for analysis in the case of some unexpected failure.

Procedure

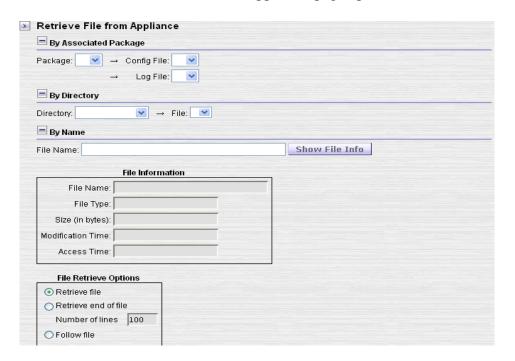
To retrieve a file from an appliance, follow these steps.

1 In the Appliances tab, expand the Appliances folder and click on an appliance in the appliance hierarchy, or use the Find function to locate it.

Result: The Appliance Properties for the selected appliance opens.

2 Click Retrieve File.

Result: The Retrieve File from Appliance page opens.



3 Choose one of the following actions.

If you want to	Then		
Review other log	Choose one of the following options.		
file information	By Associated Package		
	1. Expand the By Associated Package section (if necessary) and select another package from the Package drop-down list.		
	2. Select the file you want to review from either the Config File or the Log File drop-down list.		
	Result: Log file statistics are displayed.		
	By Directory		
	1. Expand the By Directory section (if necessary) and select a log file directory from the Directory drop-down list.		
	2. Select the file you want to review from the Log File drop-down list.		
	Result: Log file statistics are displayed.		
	By Name		
	1. Expand the By Name section (if necessary) and enter the full path of the log file you wish to review in the File Name field.		
	2. Click Show File Info.		
	Result: Log file statistics are displayed.		

If you want to	Then
Retrieve the file	1. Select the Retrieve File option to read the file from the appliance and send the output to the browser or save the file on your machine. By default, this option is selected.
	2. Select the Retrieve end of file option and specify the number of lines to be retrieved. E.g. A value "10" in this field would display the last 10 lines of the file in the browser. You can also use options such as "Find" in the browser. The number of lines should be in the range 1-10000.
	3. Select the Follow file option to display the file contents continuously in the browser. You can also use options such as "Find" in the browser.
	Result: The Following file page opens.
	CMD: /opt/qip/usr/bin/qip-util -t SYBASE -s QIFSYBASE -u sa -p XXXXXXXX -l /tmp/util.log -q /tmp/result.txt - i /opt/qip/usr/bin/qip-util -t SYBASE -s QIFSYBASE -u sa -p XXXXXXXXX -l /tmp/util.log -q /tmp/result.txt - i /opt/qip/usr/bin/qip-util -t SYBASE -s QIFSYBASE -u sa -p XXXXXXXXX -l /tmp/util.log -q /tmp/result.txt - i /opt/qip/script -b QIFSYBASE SetSybaseConfigure unchanged CMC: /opt/qip/usr/bin/qipinst -t SYBASE -s QIFSYBASE -u qipadmin -z XXXXXXXXXX -l /tmp/util.log -q /tmp/result.txt - i /opt/qip/script -b QIF -f /opt/qip/script/qipinst.config -c patch -k no
	Stop Close
	4. Do one of the following:
	 Click Stop to stop following the file. Click Close to close the page.
	Note: The Follow File times out after 10 minutes. The default polling interval between requests to the server that a Follow File window makes to fetch file contents, is set to 5 seconds. This value is controlled by the followFile.interval property in the <i>ams-manage.properties</i> file. To limit the usage of resources, the system limits the total number of running requests in AMS to 20.

4 Click Back to close the Retrieve File from Appliance page.

Result: The Appliance Properties page opens.

END OF STEPS

Review or modify a configuration file

Purpose

To review or modify an appliance configuration file.

Before you begin

If an appliance is part of a group but has a particular package associated directly with it, that package takes precedence over the group's package and you can modify its configuration files. On the other hand, you cannot modify any package that is inherited from the group.

Procedure

1

In the Appliances tab, expand the Appliances folder and then expand the appliance you want to review.

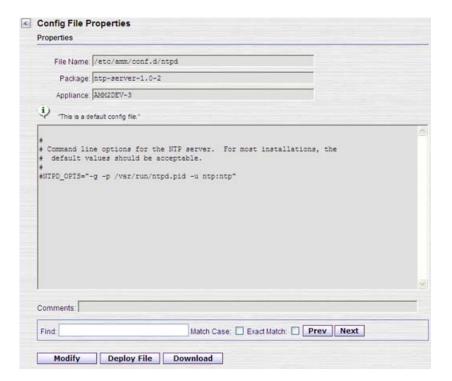
Result: A list of packages associated with or deployed on that appliance opens.

To view or modify a configuration file on an appliance, follow these steps.

Expand the package that contains the configuration file you want to review or modify.Result: The Appliance Config Files and Log Files folders are displayed.

3 Expand the Config Files folder and click on the configuration file you want to review.

Result: The Config File Properties page opens.



4 Choose from the following actions.

If you want to	Then	
Review the configuration file	Scroll through the file contents. To search for specific text in a configuration file, follow these steps.	
	1. Enter the phrase for which you are searching in the Find field.	
	2. Click the Exact Match and Match Case options as needed.	
	3. Click Next to search forward in the file. Click Prev to search backward in the file.	
Modify the current configuration file	1. Click Modify.	
	Result: The Config File Editor page opens. For more information on editing a configuration file, refer to "Edit an appliance configuration file" (p. 2-35).	
	2. In the Comments field, enter comments for the config file properties.	
	3. You have the following options.	
	• To save your changes, click Save .	
	To push the file you modified, click Push.	
	Result: The Config File Properties page opens.	
Deploy the configuration file	1. Click Deploy File.	
	Result: A confirmation dialog opens.	
	2. Click OK .	
	Result : The configuration file is deployed to the appliance immediately.	
Roll back the configuration file to a	Click the Select option button beside the timestamp that indicates the version you want and click Roll Back.	
previously deployed version	Result: The previous version is deployed to the appliance and the Config File Properties page opens. The rollback copies the previously deployed file, saves it to AMS, and deploys it to the appliance.	
	2. You have the following options.	
	• Click Modify to edit the file.	
	 Search for text. Enter the text string you wish to locate in the Find field and click Next. Check the Match Case and Exact Match check boxes as needed. 	
	 Download to file from the appliance to your local PC. Click Download and follow the prompts in your browser for saving the file. 	

If you want to	Then		
Use the default version of the file that was imported with the package	 Click Revert. Result: The message Are you sure you want to revert to the default config file? displays. Click OK. Result: The message Reverted to the default config displays. Click OK. Result: The message closes. 		
View a previously deployed version	1. Click on a file link in the Config File cold Result: The file opens in review mode in the Canother browser window). Config File Editor: Jopt/qip/snmp/config/snmpd.cnf Entry type: syzDesct Entry type: syzDesct Sump Research Inc. v17.1" Entry type: syzDesct Sump Research Inc. v17.1	Config File Editor (in Find: Replace: Exact Match: Find: Replace All To replace the file of ent group. Successfully copied inue. Du wish to locate in the Match Case and to your local PC. Click your browser for	

END OF STEPS

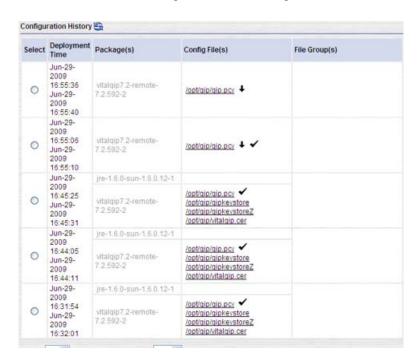
Method 2

1 In the Appliances tab, expand the Appliances folder and click on an appliance in the appliance hierarchy, or use the Find function to locate it.

Result: The Appliance Properties for the selected appliance opens.

2 Click the Configuration History tab.

Result: A history of package deployments opens, with configuration file links shown in the Custom Config Files and Config Files columns.



Note: The

icon indicates that the configuration file was deployed via the Deploy File function on the Configure Files for Appliance page. If the configuration file was modified, a check mark (

icon indicates that the configuration file was deployed via the Deploy File function on the Configure Files for Appliance page. If the configuration file was modified, a check mark (
icon indicates that the configuration file was deployed via the Deploy File function on the Configure Files for Appliance page. If the configuration file was deployed via the Deploy File function on the Configure Files for Appliance page. If the configuration file was modified, a check mark (
icon indicates that the configuration file was deployed via the Deploy Files for Appliance page. If the configuration file was modified, a check mark (
icon indicates that the configuration file was modified, a check mark (
icon indicates that the configuration file was modified, a check mark (
icon indicates that it is not indicates that the configuration file was modified.)

3 Click on the Config File link for the configuration file you wish to review (there is no edit mode in this method).

Result: The Config File Properties page opens.



Note: If you select a Custom Config file, the Copy to "Next Deployment" function is also available, which allows you to replace the file of the same name in the Next Deployment group.

4 Review the file as needed, and click Cancel to close the page.

Result: The Appliance Properties page opens.

END OF STEPS

Viewing recent appliance activity

Purpose

To view the latest appliance activities.

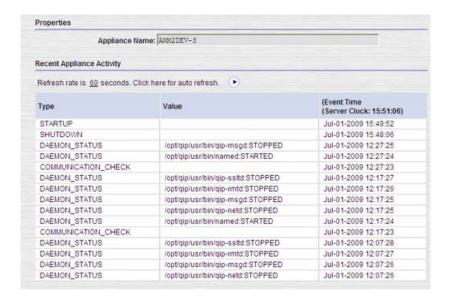
Procedure

To review the latest appliance activities, follow these steps.

1 In the Appliances tab, expand the Appliances folder.

Result: The appliances appear in the hierarchy.

2 Click the Recent Activity tab.



Result: The Recent Appliance Activity page opens. This page displays the activities that occurred in the last 12 hours. A maximum of 30 records are displayed. To view more activities, go to the Administration tab and check the system information.

3 Review the values in the fields, as described in the following table.

Table 2-5 Recent Appliance Activity page fields

Field	Description
Appliance Name	The name of the appliance is displayed in a read- only field.
Refresh the recent activity	Auto refresh updates the recent activities. The minimum refresh rate is 60 seconds and maximum refresh rate is 3600 seconds (1 hour).
	 To begin a refresh countdown, click To halt a refresh, click
	To set up a different refresh interval, follow these steps.
	1. Click the interval numeric.
	Result: A user prompt opens.
	The page at http://10.10.0.36:8080 says: Enter the refresh rate in seconds OK Cancel
	 Enter a different interval at the user prompt. Click OK to set the new refresh interval.
Туре	Indicates the message type. For more information, see "Status message search fields" (p. 5-6) and "Notification message search fields" (p. 5-10).
Value	For more information, see "Status message search fields" (p. 5-6) and "Notification message search fields" (p. 5-10).
Event Time	Indicates the date and time of occurrence of the event.

Appliance permission management

Overview

Purpose

User permissions in AMS support granular access control. This allows the administrator to monitor user activity on appliances in AMS. A user has the required privileges needed in AMS.

User permissions and roles

AMS user permissions are based on the access control list model and use the role-based access control mechanism. Access control is divided into two levels: the system level and the entity level. System level access control specifies user permissions across the application while entity level access control specifies user permissions on each entity in AMS.

System level permissions allow users to perform certain operations on all the resources in AMS or all the objects of a certain type in AMS, while entity level permissions allow users to perform certain operations on objects of a specific type in AMS. An access control list is a list of entity level permissions attached to an object of a specific type in AMS. Table 2-6 lists the valid permissions on objects of those types associated with a normal user group.

Table 2-6 AMS roles

Role name	User group	Built-in user group	Permissions
Readonly	Monitors	Yes	View all the data in AMS
Normal	Any user group	No	A normal user group has permissions for the following:
			• log on to AMS
			access to entities except appliances, appliance groups, appliance pairs, and appliance clusters that are not granted user group permissions at entity level.
			A normal user group does not have permissions for the following:
			add appliance, appliance group, appliance pair, and appliance cluster
			• grant permissions to itself or other user groups
			revoke permissions from itself or other user groupsadd user and user groups
Administrator	Administrators	Yes	Access to all data and actions in AMS with no restrictions

Permission rules

The following rules govern AMS user permissions:

1. A user may belong to none, one, or more user groups, but must belong to at least one group to have any permissions.

- 2. A permission on an appliance group is applied to all appliances in that group. If an appliance is in an appliance group and a user group has permissions on both the appliance and its group, the user's permissions on the appliance are always the same or less restricted than the permissions on the appliance group.
- 3. A permission on an appliance pair is applied to both the primary and secondary appliances.
- 4. A permission on an appliance cluster is applied to all its member appliances.
- 5. The permissions a user has on an appliance are the sum of permissions of user groups in which the user is present. The sum of permissions means the sum of appliances and the least restricted permissions on the same appliance.
- 6. A normal user can add an appliance to the group with permissions for which restriction is the same or less than the ones on the appliance group, if there are read, write or read, write, and delete permissions on an appliance group.
 - For example, if you have read, write permissions on an appliance group, you can add only those appliances for which you have the least of read or write permissions to the appliance group. You cannot add an appliance that has read-only permission, but you can add an appliance with read, write or read, write, and delete permissions.
- 7. A normal user can only add an appliance to the cluster with permissions for which restriction is the same or less than the ones on the cluster, if there are read, write or read, write, and delete permissions on an appliance cluster.
- 8. A normal user can set an appliance with permissions which either match or have less restricted permissions on the pair as the pair's primary or the secondary appliance, if there are read, write or read, write, and delete permissions on that appliance pair.

Adding permissions

Purpose

To add permissions to the appliance.

Procedure

To add permissions to the appliance, follow these steps:

1 In the Appliances tab, expand the Appliances folder.

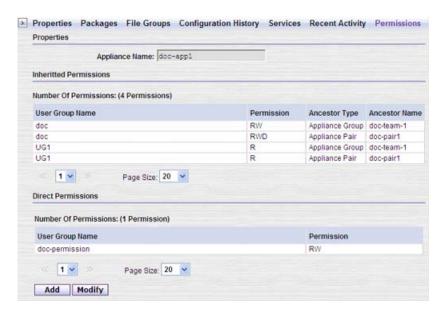
Result: The appliances appear in the hierarchy.

2 Select an appliance.

Result: The appliance properties for the selected appliance opens.

3 Click the Permissions tab.

Result: The Permissions page opens.



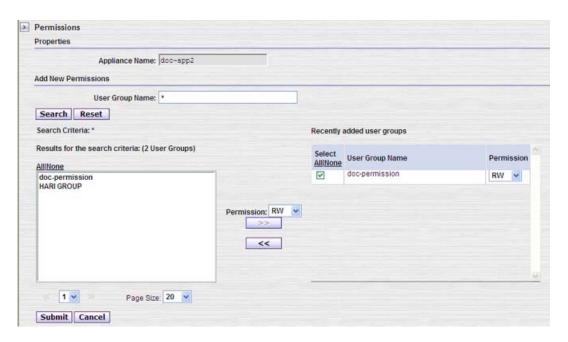
Permissions that are inherited from the appliance group, appliance pair, or appliance cluster are displayed in the Inherited Permissions area.

The following table describes information that is displayed in read-only fields in this page.

Permission properties	Description
Appliance Name	Displays the name of the appliance
User Group Name	Displays the names of user groups to which permissions on the appliance are granted
Permission	Displays the permissions assigned to the user groups in the appliance
Ancestor Type	Displays the type of the ancestor (appliance group or appliance cluster) from where the permissions are inherited
Ancestor Name	Displays the name of the ancestor from where the permissions are inherited

4 Click Add.

Result: The Permissions Properties page opens.



5 Click Search.

Result: A list of user groups is displayed in the Results area.

6 Select the required user group(s). Use the >> or << keys to move the selected user group(s) into or away from the Recently added user groups area. From the Permission: drop-down list, select one of R, RW, or RWD permissions to allocate 7 read, read/write, or read/write/delete permissions respectively for the selected user group. 8 In the Recently added user groups area, do one of the following: Select the required user group(s). Click All to select all the user groups. Click None to deselect the user groups in the list. From the Permission: drop-down list, select one of R, RW, or RWD permissions to allocate read, read/write, or read/write/delete permissions respectively for the selected user group. 9 Click Submit. Result: The message Added the permissions successfully appears. 10 Click OK. Result: The Permissions Properties page reappears and the newly added permissions are displayed.

Appliances Modifying permissions

Modifying permissions

Purpose

To modify existing permissions on the appliance.

Procedure

To modify permissions on the appliance, follow these steps:

1 In the Appliances tab, expand the Appliances folder.

Result: The appliances appear in the hierarchy.

2 Select an appliance.

Result: The appliance properties for the selected appliance opens.

3 Click the Permissions tab.

Result: The Permissions page opens.

4 Click Modify.

Result: The Modify Existing Permissions page opens.



- 5 Select the permission to be modified. Do one of the following:
 - Click All to select all the user groups.

	Click None to deselect the user groups in the list.
6	From the Permission: drop-down list, select one of R, RW, or RWD permissions to allocate read, read/write, or read/write/delete permissions respectively for the selected user group(s).
7	Click Remove if you wish to delete the selected user group.
8	 To view results on other pages: Click >>> to view the next page or select a page number from the drop-down list. You may also increase the list capacity to up to 200 lines in the Page Size field and scroll
	through a larger list after the page refreshes. Click to return to previous pages. END OF STEPS

Mapping of user permissions

Overview

The section describes how user permissions impact a user in AMS.

Administrator

An administrator is a user in the default Administrator user group. This user group has no restrictions in AMS. Only an administrator can add or modify permissions on appliances and appliance groups.

Monitor

A monitor is a user in the default Monitors user group. This user group has read-only permission in AMS. A monitor can only view permissions on appliances and appliance groups. The Modify and Delete buttons are removed from all pages in AMS.

Normal user

A normal user is a user in a user group with normal roles. A normal user group is created by the AMS administrator. The administrator grants permissions on appliances, appliance groups, and appliance pairs to normal user groups, so that its members can read/write/delete appliances, appliance groups, appliance pairs, or appliance clusters in AMS. Table 2-7 shows the status of buttons on an entity property page based on a user's permissions on the entity.

Table 2-7 Mapping of user permissions

Permissions	Modify button	Delete button
R (readonly)	disabled	disabled
RW (read and write only)	enabled	disabled
RWD (read, write, and delete)	enabled	enabled

Appliance

Table 2-8 shows what a user can view and perform, based on the permissions on an appliance. Note that the Recent Activity and Permissions tabs are enabled and hidden respectively for all these permissions.

Table 2-8 Appliance permissions

Permission	Hierarchy	Properties	Package	File Groups	Configuration History	Service
R	Visible	All buttons in the Property page except Secondary Interfaces are disabled.	All buttons in the Package page are disabled.	All buttons in the File Groups page are disabled.	All buttons in the Configuration History page except Details are disabled.	All buttons are disabled.
RW	Visible	All buttons except Delete are enabled.	All buttons are enabled.	All buttons are enabled.	All buttons are enabled.	All buttons are enabled.
RWD	Visible	All buttons are enabled.	All buttons are enabled.	All buttons are enabled.	All buttons are enabled.	All buttons are enabled.

Appliance package management

Overview

Purpose

Package management describes how to work with packages after they are imported into the AMS database and deployed to appliances. It describes how to review package properties, disassociate a package from an appliance, withhold and restore a package from an appliance in an appliance group, use package commands icon, and roll back to a previous version of a package.

Review package properties

Purpose

To review package properties.

Procedure

To review package properties, follow these steps.

Method 1

1 In the Appliances tab, expand the Appliances folder.

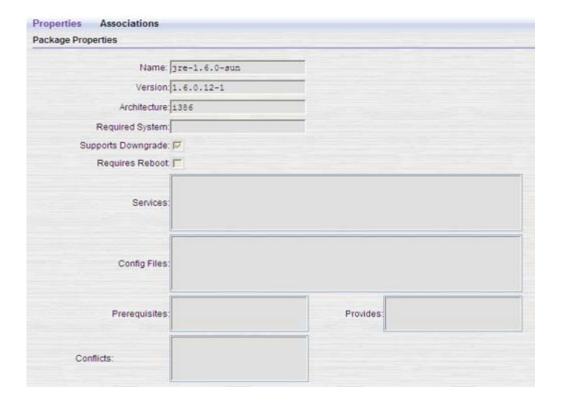
Result: The appliances appear in the hierarchy.

2 Expand the appliance you want to work with.

Result: The list of packages associated with or deployed on that appliance is displayed. A colon and an appliance group name is appended to the package name if the package is indirectly associated via an appliance group. The package name is colored red if the package is being withheld from the appliance.

3 Click on the package with the properties you want to review.

Result: The Package Properties page opens.



4 Review the values in the fields, as described in the following table.

Table 2-9 Package Properties fields

Field	Description
Name	Displays the name of the package.
Version	Displays the package version.
Architecture	Displays the platform type on which the package runs.
Required System	Indicates the supported appliance platform. If this value is empty, it indicates that the package can be deployed on all appliance platforms.
Supports downgrade	Indicates whether the package can be downgraded or not. The Sybase and VitalQIP Enterprise Server packages cannot be downgraded, for example.
Requires Reboot	Indicates whether the appliance needs rebooting.
Services	Displays the services contained in the package.
Config Files	Displays the configuration files contained in the package.
Prerequisites	Lists any other packages that must be deployed with this package in order for it to work properly. A prerequisite may be satisfied by either a package name or a name from a package's Provides field.
	Note: If a prerequisite package has not been imported into AMS, the name appears in red.
Associated Appliance Groups	Displays Appliance Groups to which the current package is associated.
Provides	Displays any supplementary names that the package has declared. These names are equivalent to the package's primary name for validating that another package's prerequisites are satisfied.
Conflicts	Displays other available packages with which the current package is incompatible.

END OF STEPS

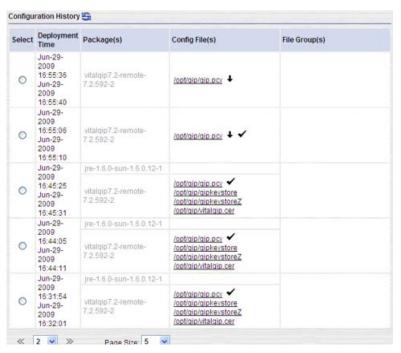
Method 2

In the Appliances tab, expand the Appliances folder and click on an appliance in the 1 appliance hierarchy, or use the Find function to locate it.

Result: The Appliance Properties for the selected appliance opens.

2 Click the Configuration History tab.

Result: A history of package deployments opens, with package links shown in the **Packages** column.



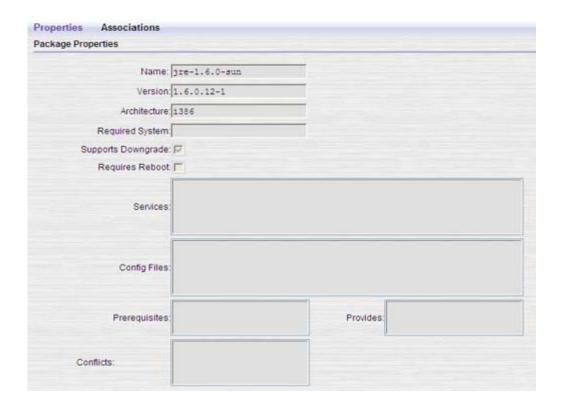
Packages listed in the Configuration History page have color status indicators, as described in the following table.

Table 2-10 Package status indicators

Color	Status
Blue	Indicates that the package/version was actually downloaded and installed on that deployment.
Grey	Indicates that the package/version was already deployed to the appliance and is being listed for completeness.
Black	Indicates that the package has been deleted and is no longer deployed anywhere. It is listed for historical completeness in case it needs to be reimported for a package rollback.

3 Click on the Package link you want to review.

Result: The Package Properties page opens.



Review the fields, as described in Table 2-9, "Package Properties fields" (p. 2-84).

Disassociate a package from an appliance

Purpose

To disassociate a package from an appliance. This section also describes how to upgrade/downgrade package versions.

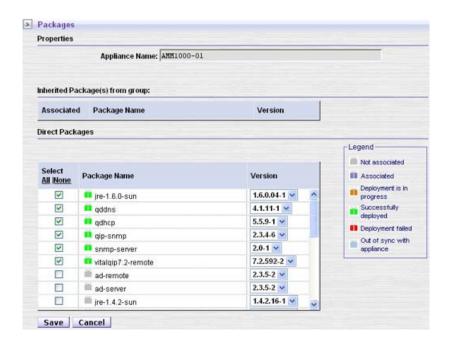
Before you begin

After you disassociate a package from an appliance that is indirectly associated via an appliance group, any package of the same type that is associated with that appliance group is automatically associated with the currently selected appliance and appears in the appliance hierarchy. A colon and an appliance group name is appended to the package name. The package name is colored red if the package is being withheld from the appliance.

Procedure

	To disassociate a package from an appliance, follow these steps.
1	In the Appliances tab, expand the Appliances folder and click on an appliance in the appliance hierarchy, or use the Find function to locate it.
	Result: The Appliance Properties for the selected appliance opens.
2	Click the Packages tab.
	Result: The Packages page opens.
3	Click Modify.

Result: The Direct Packages table is activated and the function buttons change.



4 Choose one of the following actions in the Direct Packages list.

If you want to	Then
Deselect a package	 Place a check mark in the Select checkbox beside the Package Name you wish to disassociate from the appliance. Click OK to continue (or Cancel to abort).
	Result: The Save button is enabled.

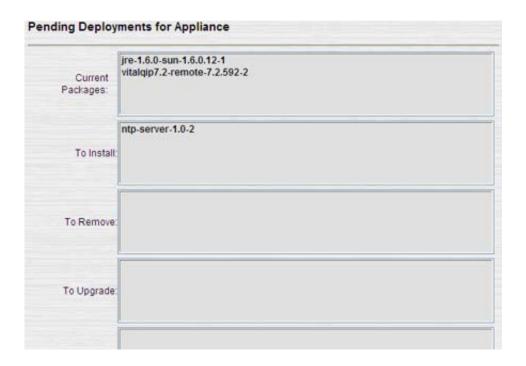
If you want to	Then
Select all the packages in the Direct Packages list	1. Click All in the Select column. 2. Click Save. The Modify Package Associations Confirmation dialog opens. Modify Package Associations Confirmation Are you sure that you want to make following changes to the package associations of the appliance AllILICEN-2? Added goldins-anycast-1.0.2-1 Packages. Validation Error. Validation Error. OK Cancel 3. Click OK.
Change a package version	Select a different version from the Version drop-down list for the package you wish to change.
Deselect all the packages in the Direct Packages list	 Click None in the Select column. Result: A confirmation dialog opens. Click OK to remove all the package associations.

5 When you have finished making your package changes, click Save.

Result: A dialog box opens with the message Modified the appliance associations.

- 6 Click OK.
- 7 If you wish to push the package(s) to the appliance, click **Deploy**.

Result: The Pending Deployments for Appliance page opens.



- 8 Scroll down to the Pending File Group Deployments area of the page.
- 9 Click Deploy pending file groups to deploy the pending file groups.
- 10 Click Proceed.

Result: A dialog box opens with the message Begin deploying the next set of packages and config files to the appliance now?

11 Click OK.

Result: The Pending Deployments for Appliance page closes and the Appliance Properties page reopens as the packages are pushed. The status indicator changes to Deployment is in progress.

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12 Click OK when the dialog box opens with the message Package deployment on <appliance name> has finished.

Withhold a package from an appliance

Purpose

To withhold a package that is indirectly associated via an appliance group. This allows you to prevent a specific package that was associated with an appliance group from being deployed to a specific appliance in that group.

Before you begin

- In the appliance hierarchy, a colon and an appliance group name is appended to the package name if the package is indirectly associated via an appliance group, for example: qddns-userexits-1.0-1:<appliancegroup>.
- Packages can only be withheld in a specific sequence based on their prerequisites. Only packages that do not actively satisfy a prerequisite of another package in an appliance group may be withheld. For example, if vitalqip-remote, qddns, and qddns-userexits are associated with a group, only qddns-userexits can be withheld from an appliance in that group because the other packages satisfy prerequisites of other packages. Once qddns-userexits is withheld, the qddns package no longer has that constraint (for that appliance), at which point it can then be withheld.

Procedure

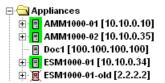
To withhold a package associated with an appliance group from a specific appliance, follow these steps.

1 In the Appliances tab, expand the Appliances folder.

Result: The appliances appear in the hierarchy.

2 Locate the appliance you want to work with and expand it to check that the packages are associated with an appliance group.

Result: The list of packages associated with or deployed on that appliance is displayed.



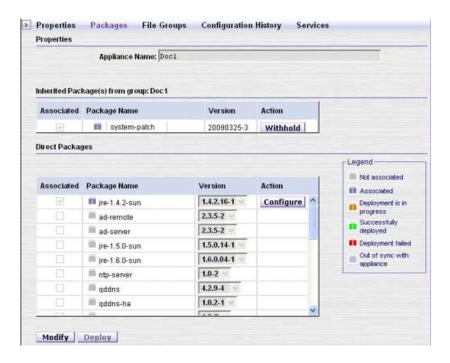
Note: The Withhold function is only available with packages associated from an appliance group.

3 Click on the appliance that contains the package you want to withhold.

Result: The Appliance Properties page opens.

4 Click the Packages tab.

Result: The Appliance Packages page opens with a list of inherited packages.



5 Click Withhold beside the package you wish to withhold.

Result: A dialog box opens with the message Package withheld from Appliance. Please perform Deploy Packages to reflect the changes in Appliance.

6 Click OK.

Result: The package appears in red in the appliance hierarchy and in the Inherited Packages list. An appliance also appears in red in the Appliances Properties tab in Appliance Groups. If all packages in an appliance are withheld, the appliance appears in red in the appliance group tree.

Restore a package to an appliance

Purpose

To restore an appliance that was previously withheld so that packages indirectly associated with it via an appliance group can be deployed to it.

Procedure

To restore a package to an appliance, follow these steps.

1 In the Appliances tab, expand the Appliances folder.

Result: The appliances appear in the hierarchy.

2 Expand the appliance you want to work with.

Result: The list of packages associated with or deployed on that appliance is displayed. Withheld packages appear in red.



3 Click on the appliance that contains the withheld package.

Result: The Appliance Properties page opens.

4 Click the Packages tab.

Result: The Appliance Packages page opens with a list of inherited packages.

5 Click **Restore** beside the package you wish to restore.

Result: A dialog box opens with the message Package restored to Appliance. Please perform Deploy Packages to reflect the changes in Appliance.

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6 Click OK.

Result: The name of the package in the appliance hierarchy changes to white.

Use qddns package commands

Purpose

Use the qddns package command icon to execute qddns package commands and view the output.

Procedure

To use the qddns package command icon, follow these steps.

1 In the Appliances tab, expand the Appliances folder.

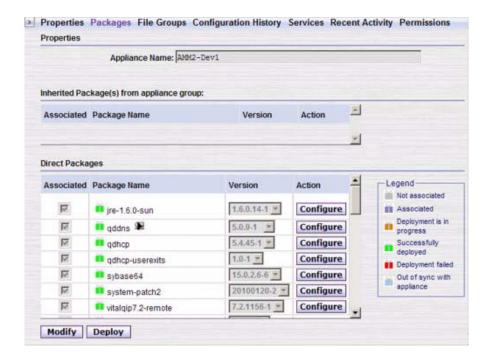
Result: The appliances appear in the hierarchy.

2 Expand the appliance you want to work with.

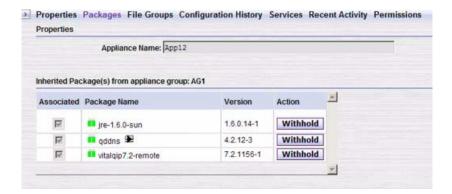
Result: The packages and file groups appear in the hierarchy.

3 Click Packages.

By default, the Properties page appears with the list of packages. The package commands icon appears for all the packages that have predetermined commands in the Package Name column.



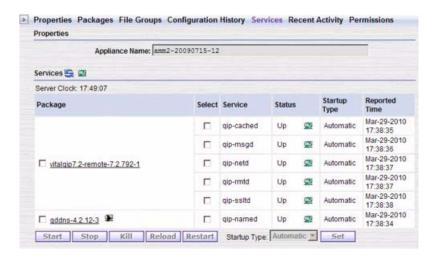
If the package commands are invoked from other appliance groups, the package command appears in the Inherited Package(s) from appliance group area.



You can also view package command icon from the Services page.

4 Click Services.

Result: The Services page opens. All the packages are listed in Package column.



5 Click the package command icon (♠) for qddns.

Properties

Appliance Name: armz-20090715-12
Package Name: qddna-4.2.12-3

Commands

Command: RNDC
Option: status Run

Command Output

Result: The Package Commands screen opens.

6 The qddns command RNDC has multiple options. Select an option you wish to execute. Refer to Table 2-11, "RNDC command options" (p. 2-98) for more information about options.

Table 2-11 RNDC command options

Options	Description
dumpdb	Dumps the server's caches to the <i>named_dump.db</i> dump file in the named working directory.
	Note: If there is a mismatch between the appliance startup setting and the appliance group startup setting, a warning icon is displayed in the startup type cell.
flush	Flushes the server's cache.
notrace	Sets the server's debugging level to 0.
querylog	Enables query logging.
recursing	Writes the list of clients, for which the DNS server is currently resolving queries through other DNS servers (recursion), to a file (named.recursing) in the named working directory. Clients requesting authoritative queries are not included in this list.

Options	Description
stats	Writes server statistics to the <i>named.stats</i> statistics file in the <i>named</i> working directory.
status	Displays the status of the server.
trace	Increment the servers debugging level to the level you specify (1 through 99).

7 Click Run.

Result: The output for the command appears in the command output box.

8 Click Back.

Result: The Package Properties page opens if you access the command icon screen from Properties page or the Services page opens if you access the command icon screen from Services page.

Roll back to a previous configuration

Purpose

To roll back to a previously installed package.

Before you begin

Downgrade for packages such as vitalqip-enterprise and sybase is not supported.

Note: You cannot rollback file groups that are deployed along with packages.

Procedure

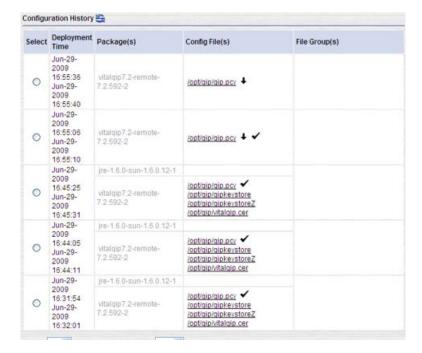
To roll back to a previously deployed configuration, follow these steps.

1 In the Appliances tab, expand the Appliances folder and click on an appliance in the appliance hierarchy, or use the Find function to locate it.

Result: The Appliance Properties for the selected appliance opens.

2 Click the Configuration History tab.

Result: A history of package deployments opens.

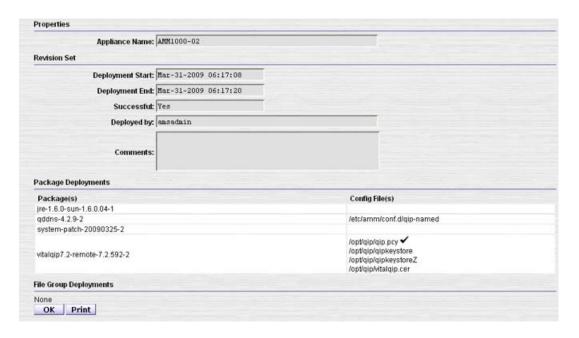


3 In the Select column, click the package to which you wish to roll back.

Result: The Roll Back and Details buttons are enabled.

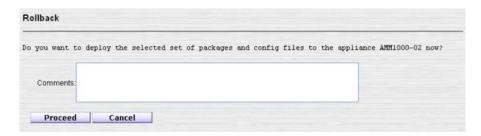
4 To see more information about the package, click **Details**.

Result: The Details window opens.



- 5 Review the revision set, and scroll down if necessary to see any appliance revision errors.
- 6 Click Print if you wish to obtain a printout. Click OK to close the Details window.
- 7 If you wish to continue with the roll back, click Roll Back.

Result: The Rollback dialog box opens.



Different warning messages are displayed in the Rollback dialog box, based on the following:

- If the appliance is part of a appliance group.
- If there are withheld packages.
- If there are file groups in the selected revision.
- 8 Enter a comment of up to 255 alphanumeric characters in the Comments field if you want to provide some explanation, and click **Proceed** to continue.

Result: When package deployment is complete, a dialog box opens with the message Package deployment on <appliance name> has finished.

9 Click OK.

Manage configuration history

Purpose

To manage the configuration history page.

Before you begin

- The most recent and the initial configuration history entry cannot be deleted.
- The query function is available to check packages on an appliance where the enterprise server has been pre-installed. The appliance may have been customized for a particular environment and used without initially being maintained by AMS. If AMS is later used to manage the appliance, the query function allows AMS to determine the state of the packages on that appliance.

Note: The

icon indicates that the configuration file was deployed via the Deploy File function on the Configure Files for Appliance page. If the configuration file was modified, a check mark (

) appears beside the config file name.

Delete a configuration

	To remove a specific configuration history entry from the list, follow these steps.
1	Click the Select option button for the entry you wish to delete.
2	Click Delete.
	Result: A confirmation dialog box opens with the message Are you sure you want to delete the selected configuration history?
3	Click OK.
	Result: A confirmation dialog box opens with the message Deleted the selected configuration history successfully.
4	Click OK.
	END OF STEPS

Delete a pa	ge of configuration history entries
	To remove multiple configuration history entries from the AMS database, follow these steps.
1	Click Delete Page.
	Result: A dialog box opens with the message Are you sure you want to delete the configuration history page?
2	Click OK.
	Result: A confirmation dialog box opens with the message Deleted the configuration history page successfully.
	Note: Initial and latest revisions cannot be deleted.
3	Click OK.
	END OF STEPS
Query a co	nfiguration entry
	The query function contacts an appliance and attempts to obtain status on the installed packages, as well as any custom configuration files. However, data file groups are not queried from the appliance.
	To query a configuration, follow these steps.
1	Select a configuration history entry and click Query.
	Result: A dialog box opens with the message Queried the revision details from the appliance <appliance name=""> successfully. Packages that are installed on the appliance will be associated with the appliance in the AMS database automatically. A query would fail if a package installed on an appliance had not yet been imported into</appliance>

AMS. A message opens with the details of the packages that must be imported before

2 Click OK.

END OF STEPS

the query can successfully complete.

Appliance file group management

Overview

Purpose

Appliance file group management describes how to associate and deploy a file group to an appliance.

Note: The content of the data file groups is dynamic in nature as it is created by the user and deployed on the appliance. Thus, data file groups do not support queries from the appliance.

Associate file groups to an appliance

Purpose

To associate file groups to an appliance.

Before you begin

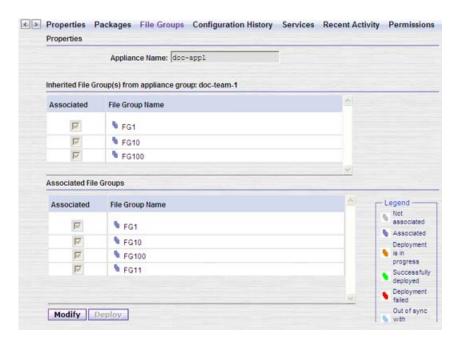
- File groups must exist in the AMS database before they can be associated with an appliance. For more information, refer to "File groups" (p. 4-1).
- A file group associated directly with an appliance has precedence over the same file group inherited from the appliance group.

Procedure

To associate one or more file groups with a new or existing appliance, follow these steps.

1 In the Appliance Properties page, click the File Groups tab.

Result: The File Groups page opens.



File groups that are associated with an appliance group are displayed in the Inherited File Group(s) from appliance group section. File groups that are associated to the appliance are displayed in the Associated File Groups section.

2 To associate file groups with the appliance, click Modify.



Result: The file groups are listed in the Available File Groups section.

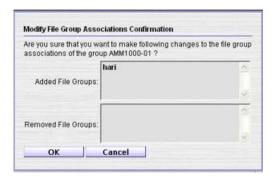
3 Choose one of the following actions in the Available File Groups list.

If you want to	Then
Select a specific file group	Place a check mark in the checkbox beside the File Group Name you wish to associate with the appliance.
Select all file groups in the list	Click All.
Deselect all the file groups in the list	Click None. Result: A dialog box opens with the message Are you sure that you want to remove all the file group associations? Click OK to continue. Click Cancel to abort.

Note: If you attempt to disassociate a file group after it has been deployed, a warning dialog box opens with the message Are you sure you want to remove the file group association? This is because disassociating a file group might mean that the functionality offered by that file group would be removed from the appliance (the next time the Deploy File Groups is invoked), and may therefore disrupt a running service. You may click OK to continue or Cancel to abort.

4 When you have finished making your file group association selections, click Save.

Result: The Modify File Group Associations Confirmation page opens.



5 Click **OK** to continue.

Result: The confirmation dialog Modified the file group associations appears.

Appliances Deploy file groups

Deploy file groups

Purpose

To deploy file groups to an appliance.

Procedure

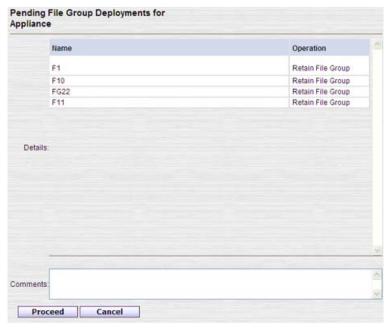
To deploy file groups on an appliance, follow these steps.

1 In the Appliance Properties page, click the File Groups tab.

Result: The File Groups Properties page opens.

2 Click Deploy.

The Pending File Group Deployments for Appliance page opens.



- File group names are populated automatically in the Name column. The Operation column can have one of the following values:
 - Retain File Group
 - Deploy File Group
 - Remove File

	Update File
4	Click Proceed. Result: A confirmation dialog is displayed.
5	Click OK.

View file group properties

Purpose

To view file group properties.

Procedure

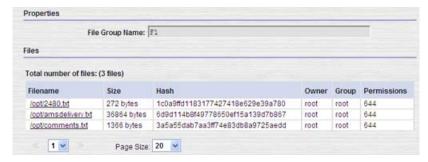
To view file group properties, follow these steps.

1 In the Appliance Properties page, click the File Groups tab.

Result: The File Groups Properties page opens.

- 2 Select an appliance for which a file group has been deployed.
- 3 Click the file group that is displayed in the File Group(s) column.
- 4 Click the Files tab.

The File Group Properties page opens.



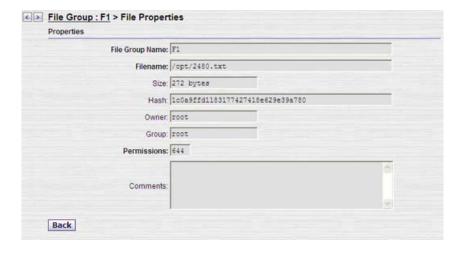
The following table describes information that is displayed in read-only fields in this page.

File Group Properties	Description
File Group Name	Name of the file group
Filename	Name of the file in the file group
Size	File size (in bytes)
Hash	Checksum to verify the integrity of the file
Owner	Specifies the owner of the file

File Group Properties	Description
Group	Specifies the group to which the file belongs
Permissions	Specifies the permissions on the file

5 Click the Filename link.

Result: The File Properties page opens.



6 Click Back to go back to the File Group Properties page.

Appliance management

Overview

Purpose

Appliance management describes how to manage passwords and work with appliances in AMS if they develop problems. It describes how to disable and enable an appliance, reboot an appliance, as well as how to delete an appliance record altogether.

Define interfaces

Purpose

To define the NIC interfaces on an appliance for use with appliance clusters using Anycast DNS.

Before you begin

- If an appliance has been set up as either the Primary or Secondary Appliance in an appliance pair, NIC interface 1 has been automatically set to a default internal address and the Comment field displays a value of Configured by the Appliance Pair.
- Take care when you configure the interfaces because an error may cause a loss of connectivity. AMS does not have knowledge of network topology and cannot verify the configuration that you enter absolutely.

Procedure

To define the interfaces on an appliance, follow these steps.

1 In the Appliances tab, expand the Appliances folder and click on the appliance for which you want to define interfaces, or use the Find function to locate it.

Result: The Appliance Properties page opens.

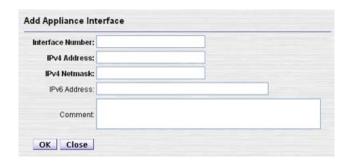
2 Click Interfaces.

Result: The Additional Interfaces page opens.



3 Click Add.

Result: The Add Appliance Interface page opens.



4 Enter values in the fields, as described in the following table.

Table 2-12 Add Appliance Interface fields

Field	Description
Interface Number	Required. Enter the number of the interface. The maximum number is the number of NIC interfaces on the appliance. For example, on the AMM5000, the interface numbers are 1, 2, and 3.
IPv4 Address	Required. Enter the IP address of the appliance in IPv4 format.
IPv4 Netmask	Enter the network mask for the appliance in IPv4 format.
IPv6 Address	Enter the IPv6 address of the appliance (if applicable)
Comment	Enter a comment of up to 255 alphanumeric characters if desired.

5 Click OK.

Result: A confirmation dialog box opens with the message Added the appliance interface successfully.

6 Click OK.

Result: The Interfaces page is refreshed with the newly defined interface.

7 Choose from the following actions.

If you want to	Then
Define additional interface	Click Add and repeat the steps above.
Modify an interface	 Click the Select option button beside the interface you want to modify. Click Modify. Result: The Modify Appliance Interface page opens.
	Interface Number: 1 IPv4 Address: 172.31.254.11 IPv4 Netmask: 255.255.255.0 IPv6 Address: Comment Comfigured by the Appliance Pair OK Close 3. Make changes as required. 4. Click OK. Result: The Interfaces page is refreshed with your changes.
Update the configuration	Click Update Config.
opular the configuration	Result: A confirmation dialog box opens with the message Secondary interface config updated successfully. 2. Click OK.
Get interface status	 Click the Select option button beside the interface you want to check. Click Get Status.
	Result: AMS retrieves the status of the interface from the appliance and the Status column is populated by one of the following:
	Up Down
Delete an interface	 Click the Select option button beside the interface you want to delete. Click Delete. Result: A confirmation dialog box opens with the message Appliance interface deleted successfully.
	3. Click OK.

Appliances		Define interfaces
	END OF STEPS	

Manage console account password

Purpose

To change or remove the console account password on an appliance.

Before you begin

When you use AMS to change the console password, it updates the database and the appliance at the same time: AMS sets the configuration change immediately. If you use the **password** command on the console configuration menu to change the password, however, the change is *not* reflected in the AMS database.

Procedure

To change or remove the console account password, follow these steps.

1 In the Appliances tab, expand the Appliances folder and click on the appliance on which you want to modify the console account password, or use the Find function to locate it.

Result: The Appliance Properties page opens.

2 Click Console Account.

Result: The Console Account page opens.



Note: The Remove Password function is not available if there is no record of a console password in the AMS database.

3 Choose one of the following actions.

If you want to	Then
Change a password	Click Modify. Appliance Console Account Appliance Console Account
	Appliance Name: ARM:000-01 Current Password: 'New Password: 'Confirm Password: Submit: Cancel
	Result: The New Password and Confirm Password fields are enabled.
	 Enter a new password in the New Password field. You should enter a minimum of 6 alphanumeric characters.
	Note: If a password is masked and you wish to view it, uncheck the Mask Password check box. Likewise, if you wish to mask a new password, check this box.
	3. Re-enter the password in the Confirm Password field.4. Click Submit.
	Result: A confirmation dialog box opens with the message Appliance console password was changed.
	5. Click OK .
	Result: The Appliance Properties page opens.
Remove an existing console password	Click Remove Password.
	Result: A confirmation dialog box opens with the message Appliance console password was removed.
	2. Click OK .
	Result: The Appliance Properties page opens.
Review a console password	 Uncheck and recheck the Mask Password check box if necessary. Click Back.
	Result: The Appliance Properties page opens.

Managing the system log configuration

Purpose

To manage the system log configuration on an appliance. You can modify the system log configuration from AMS on an appliance and redirect the system log entries to another host. Ensure that the host to which you are redirecting the system log entries is a valid IPv4 address.

Procedure

To manage the system log configuration on an appliance, follow these steps.

1 In the Appliances tab, expand the Appliances folder and click on the appliance for which you need to manage the system log configuration, or use the Find function to locate it.

Result: The Appliance Properties page opens.

2 Click System Config.

Result: The Appliance System Configuration page opens.



Note: The **System Config** button is enabled only if the user has sufficient privileges and the appliance is up.

3 Do one of the following:

If you want to	Then
Edit the appliance configuration.	a. Click Modify.
	b. In the Syslog Redirect Host field, enter a new value for the Syslog redirect host configuration.
	c. Click Submit.
	The syslog redirection on the appliance is updated and the Syslog Redirect Host configuration is updated with the new value in the AMS database. The Appliance System Configuration page is displayed with updated data.
Remove the syslog redirection on the	Click Remove Syslog Host.
appliance.	Note: This button is disabled, if syslog host redirection is not currently configured in the AMS database. Removing the syslog redirection will remove the entry from the AMS database and also from the appliance.
Navigate to the Appliance Properties page	Click Back.

Enable a user account login

Purpose

To enable (and maintain) the user account on an appliance.

Before you begin

Each VitalQIP appliance comes with a user account login called **ammuser**, although it is disabled when delivered to the site. With this login, you can use a remote login tool (such as **putty**) to perform low-level debugging on an appliance.

Procedure

To enable the user account (ammuser) on an appliance, follow these steps.

In the Appliances tab, expand the Appliances folder and click on the appliance you want to set up with a user account login, or use the Find function to locate it.

Result: The Appliance Properties page opens.

2 Click User Account.

Result: The User Account page opens.



3 Click Modify.

Result: The User Account fields are enabled.

4 Click the Set Password option button.

Result: The New Password and Confirm Password fields are enabled.

5 Enter a new password in the New Password field. You can enter any number of alphanumeric characters but the password cannot be null (empty).

6 To mask the password, click the Mask Password check box.

7 Re-enter the password in the Confirm Password field.

8 Click Submit.

Result: A confirmation dialog box opens with the message Appliance password was changed.

9 Click OK.

Result: The Appliance Properties page opens.

END. OF STEPS

Lock a user account

Purpose

To lock a user account and clear the user account password.

Procedure

To lock a user account that has been enabled, follow these steps.

1 In the Appliances tab, expand the Appliances folder and click on the appliance where you want to lock a user account, or use the Find function to locate it.

Result: The Appliance Properties page opens.

2 Click User Account.

Result: The User Account page opens.

3 Click Modify.



Result: The user account fields are enabled.

4 Click the Lock Account option button.

Result: The New Password and Confirm Password fields are disabled.

5 Click Submit.

Result: A confirmation dialog box opens with the message Appliance user account was locked.

6 Click OK.

Result: The Appliance Properties page opens.

END OF STEPS

Appliances Disable an appliance

Disable an appliance

Purpose

You can disable an appliance if it is going to be decommissioned or is not going to be managed by the AMS for some time. It is a step short of actually deleting the appliance information from the AMS database since AMS does not shut down any services that may be running on the appliance.

Procedure

To disable an appliance, follow these steps.

In the Appliances tab, expand the Appliances folder and click on the appliance you want 1 to disable, or use the Find function to locate it.

Result: The Appliance Properties page opens.



2 Click Disable Appliance.

> Result: The Status field changes to Disabled and the status icon in the appliance hierarchy also changes to disabled (**2**). For a disabled appliance, the **Get Version**, Verify Communication, Retrieve File, and Reboot functions are not allowed. The

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User Account, Console Account, and System Config functions are used only for viewing. You cannot modify these values, but can perform the Update Config and Get Status functions on interfaces.

Enable a disabled appliance

Purpose

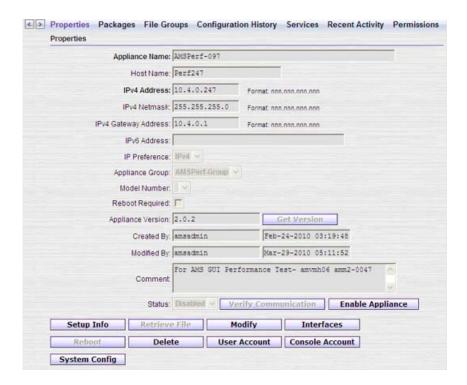
To enable an appliance that has previously been disabled.

Procedure

To enable an appliance, follow these steps.

In the Appliances tab, expand the Appliances folder and click on the disabled appliance (indicated by the 🗵 icon in the appliance hierarchy), or use the Find or Search Appliances functions to locate it. For information on the Find function, refer to "Find an appliance, appliance pair, appliance cluster, or appliance group" (p. 2-10). For information on the Search Appliances function, refer to "Search for appliances" (p. 2-48).

Result: The Appliance Properties for the disabled appliance opens.



2 Click Enable Appliance.

Result: The Appliance Properties page refreshes, the appliance appears in the appliance hierarchy with a different status icon, and the Enable Appliance button changes to read Disable Appliance.

Reboot an appliance

Purpose

To reboot an appliance remotely.

Procedure

To reboot an appliance, follow these steps.

1 In the Appliances tab, expand the Appliances folder and click on the appliance you want to set up with an administrative login, or use the Find function to locate it.

Result: The Appliance Properties page opens.

2 Click Reboot.

Result: After a few minutes, a dialog box opens with the message Are you sure you want to reboot the appliance <appliance name>? It may take a while.

3 Click OK to reboot.

Result: The **Status** field changes to **Offline**. Do *not* perform any operations on the appliance until it comes back online.

When the message The appliance <appliance name> is back online is displayed, click OK.

Result: The Status field changes to Up. You can begin operations on the appliance.

Delete an appliance

Purpose

To delete an appliance from the AMS database.

Procedure

To delete an appliance that is no longer in commission, follow these steps.

1 In the Appliances tab, expand the Appliances folder and click on the appliance you want to delete, or use the Find function to locate it.

Result: The Appliance Properties page opens.

2 Click Delete Appliance.

Result: A dialog box opens with the message Are you sure you want to delete the appliance <appliance name>? If the appliance is paired with another appliance, an additional warning is displayed.

3 Click **OK** to delete.

Result: A confirmation dialog box opens with the message Deleted the appliance successfully.

4 Click OK.

Result: The AMS splash screen opens.

Appliance pair management

Overview

Purpose

AMS allows you to configure two appliances to act as high-availability DNS servers with one acting as the primary and the other as the failover secondary. The appliances are defined in both the AMS and VitalQIP databases and then configured according to instructions provided in the AMS Installation & Configuration Guide (190-409-094).

Appliance pair hierarchy folders

AMS groups appliance pairs into folders when the number of appliance pairs in the hierarchy is greater than the setting for the *foldersize* property in the *ams-manage.properties* file. The default is 25. The folder name is determined by the first appliance pair in each folder.

For information on changing the foldersize property, refer to the AMS Installation & Configuration Guide.

Add a new appliance pair

Purpose

To add an appliance pair. An appliance pair is intended for use with the DNS High Availability feature.

Before you begin

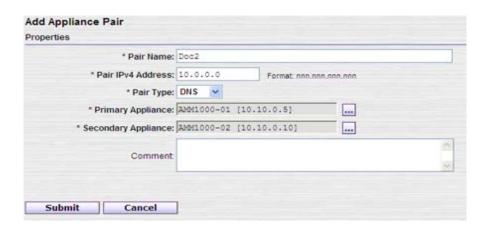
- Another appliance must exist in the AMS database before you can add an appliance pair.
- In both the appliance records, the Host Name and IPv4 Gateway Address must already be defined.
- Additional setup of DNS High Availability is required after appliance pairs have been defined. Refer to the *AMS Installation & Configuration Guide*.
- For DNS High Availability, the **qddns** and **qddns-ha** packages need to be deployed to each appliance in the appliance pair.
- Whenever the switch of the active appliance in a pair changes, some brief downtime may be experienced. The DNS client retry mechanism should recover normally.

Procedure

To add an appliance pair, follow these steps.

1 In the Appliances tab, mouse over the Actions menu and select Add Appliance Pair.

Result: The Add Appliance Pair page opens.



2 Enter values in the fields, as described in the following table.

Table 2-13 Appliance pair fields

Field	Description	
Pair Name	Enter a name of up to 255 alphanumeric characters for the appliance pair.	
Pair IPv4	Enter a high-availability IP address for the paired appliance in IPv4 format.	
Address	Note: This address is not the address of either paired appliance but a distinctive IP address that the paired appliances will share. All three IP addresses should be on the same network segment.	
Pair Type	Select the required pair type. By default, DNS is selected. If the AMS license has the Sybase replication support, the options ES-HA and ES-DR are displayed.	
Primary Appliance	Do the following: 1. Click The Appliance Filter dialog opens. Appliance Filter Select Primary Appliance AMM1000-01 [10.10.0.5] AMM500-01 [192.168.0.196] AMSPert-002 [10.4.0.150] Appliances: Appliance Filter dialog opens.	
	 From the Appliances area, select the required primary appliance. Click OK. Result: The selected appliance appears as the primary appliance. 	

Field Description Secondary Do the following: Appliance 1. Click The Appliance Filter dialog opens. Appliance Filter Select Secondary Appliance AMM1000-01 [10.10.0.5] AMM1000-02 [10.10.0.10] AMM500-01 [192.168.0.196] AMSPert-001 [10.4.0.150] AmsPert-007 [10.4.0.150]
AmsPert-002 [10.4.0.151]
AmsPert-003 [10.4.0.152]
AmsPert-004 [10.4.0.153]
AmsPert-005 [10.4.0.154]
AmsPert-006 [10.4.0.155]
AmsPert-007 [10.4.0.156] Note: Disabled items are either due to insufficient permissions or assigned to other appliance pairs 1 🕶 » Page Size: 10 🕶 OK Cancel 2. From the **Appliances** area, select the required primary appliance. 3. Click OK. Result: The selected appliance appears as the secondary appliance. Comment Enter a comment of up to 255 alphanumeric characters if desired.

3 Click Submit.

Result: A confirmation dialog box opens with the message Appliance pair saved.

4 Click **OK** to continue.

Modify an appliance pair

Purpose

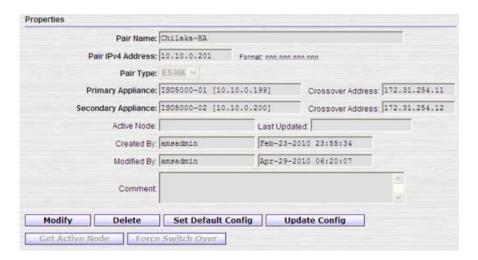
To modify the properties of an appliance pair.

Procedure

To modify the properties of an appliance pair, follow these steps:

1 In the Appliances tab, expand the Appliance Pairs folder and click on the appliance pair you want to modify.

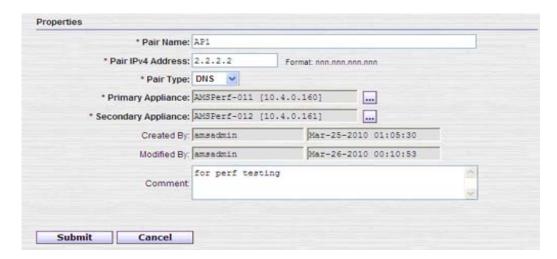
Result: The Appliance Pair Properties page opens.



Note: The internal crossover addresses are added automatically when the appliance pair is created and correspond to NIC interface 1 on the Interfaces page for the primary and secondary appliance. To modify the crossover address, refer to "Define interfaces" (p. 2-114).

2 Click Modify.

Result: The Appliance Pair Properties page opens.



- Revise field entries in this section as needed. Refer to Table 2-13, "Appliance pair fields" (p. 2-134) for information on the fields.
- 4 To save the modified appliance pair information, click Submit.

Result: The confirmation dialog Appliance Pair saved appears. If you modified either the Primary Appliance or Secondary Appliance values, the dialog also suggests you use the Set Default Config function.

5 Click **OK** to continue.

Result: The Appliance Pair Properties page reappears.

6 If you modified the Primary Appliance or Secondary Appliance values, click Set Default Config.

Result: The confirmation dialog Appliance pair configuration was updated successfully appears.

Updating additional interfaces in the appliance pair

•	
Purpose	You can update additional interfaces in the appliance pair as necessary.
Procedure	To update the additional interfaces in the appliance pair, follow these steps:
1	In the Appliances tab, expand the Appliance Pairs folder and click on an appliance pair. Result: The Appliance Pair Properties page opens.
2	Click Update Config. Result: A confirmation dialog box opens with the message Additional interfaces were updated in the appliance successfully.
3	Click OK.

Querying the currently active appliance in the appliance pair

Purpose

A user can request and display which appliance in the DNS high-availability (HA) pair is currently active. An appliance is in the "Currently Active" state if it is currently holding the appliance pair IPv4 address.

Procedure

To query the currently active appliance in an appliance pair, follow these steps:

1 In the Appliances tab, expand the Appliance Pairs folder and click on the appliance pair for which you need to query the currently active appliance in the appliance pair.

Result: The Appliance Pair Properties page opens.

2 Click Get Active Node.

Result: This initiates a query to determine which appliance currently holds the pair's IPv4 address. The Active Node status line is refreshed with new data.

Performing forced HA switch-over

Purpose

To force an immediate HA switchover from the AMS GUI. A user is required to first get the active node before requesting a switch-over. The user will know what this switch-over will accomplish and the switch-over request to AMS will specify which appliance needs to be active.

Procedure

2-140

To perform forced HA switch-over, follow these steps:

In the Appliances tab, expand the Appliance Pairs folder and click on the appliance pair 1 for which you need to perform the forced HA switch-over.

Result: The Appliance Pair Properties page opens.

2 Click Force Switch Over.

> Result: The GUI generates an AMS request to switch-over to the specified standby appliance. The Active HA Appliance field is refreshed with new data.

Delete an appliance pair

Purpose

To delete an appliance pair.

Procedure

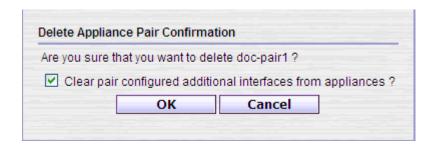
To delete an appliance pair, follow these steps.

1 In the Appliances tab, expand the Appliance Pairs folder and click on the appliance pair you want to delete, or use the Find function to locate it.

Result: The Appliance Pair Properties page opens.

2 Click Delete.

Result: A dialog box opens with the message Are you sure you want to delete <appliance pair name>?



The Clear pair configured additional interfaces from appliances? option is displayed. Uncheck this option if you wish to retain the additional interfaces configured in the appliance for the selected appliance pair.

3 Click **OK** to delete.

Result: A confirmation dialog box opens with the message Appliance Pair deleted.

4 Click OK.

Result: The AMS splash screen opens.

END OF STEPS

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Appliance pair permission management

Overview

Purpose

User permissions in AMS support granular access control. This allows the administrator to monitor user activity on an appliance pair in AMS. A user has the required privileges needed in AMS.

For information about user permissions and roles, see "User permissions and roles" (p. 2-72).

Adding permissions

Purpose

To add permissions to the appliance pair.

Procedure

To add permissions to the appliance pair, follow these steps:

1 In the Appliances tab, expand the Appliance Pairs folder.

Result: The appliance pairs appear in the hierarchy.

2 Select an appliance pair.

Result: The properties for the selected appliance pair opens.

3 Click the Permissions tab.

Result: The Permissions page opens.

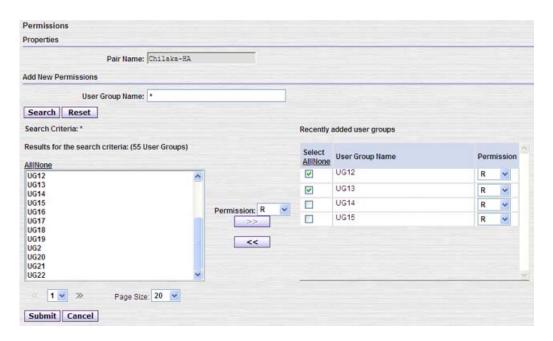


The following table describes information that is displayed in read-only fields in this page.

Permission properties	Description	
Pair Name	Displays the name of the appliance pair	
User Group Name	Displays the names of user groups to which permissions on the appliance are granted	
Permission	Displays the permissions assigned to the user groups in the appliance	

4 Click Add.

Result: The Permissions Properties page opens.



5 Click Search.

Result: A list of user groups is displayed in the Results area.

- 6 Select the required user group(s). Use the >> or << keys to move the selected user group(s) into or away from the Recently added user groups area.
- From the Permission: drop-down list, select one of R, RW, or RWD permissions to allocate read, read/write, or read/write/delete permissions respectively for the selected user group.
- 8 In the Recently added user groups area, do one of the following:
 - Select the required user group(s).
 - Click All to select all the user groups.
 - Click None to deselect the user groups in the list.

	• From the Permission: drop-down list, select one of R, RW, or RWD permissions to allocate read, read/write, or read/write/delete permissions respectively for the selected user group.
9	Click Submit. Result: The message Added the permissions successfully appears.
10	Click OK.
	Result : The Permissions Properties page reappears and the newly added permissions are displayed.

END OF STEPS

Appliances Modifying permissions

Modifying permissions

Purpose

To modify existing permissions on the appliance pair.

Procedure

To modify permissions on the appliance pair, follow these steps:

1 In the Appliances tab, expand the Appliance Pairs folder.

Result: The appliance pairs appear in the hierarchy.

2 Select an appliance pair.

Result: The properties for the selected appliance pair opens.

3 Click the Permissions tab.

Result: The Permissions page opens.

4 Click Modify.

Result: The Modify Existing Permissions page opens.



- 5 Select the permission to be modified. Do one of the following:
 - Click All to select all the user groups.

	Click None to deselect the user groups in the list.
6	From the Permission drop-down list, select one of R, RW, or RWD permissions to allocate read, read/write, or read/write/delete permissions respectively for the selected user group(s).
7	Click Remove if you wish to delete the selected user group.
8	To view results on other pages: • Click >> to view the next page or select a page number from the drop-down list. You
	may also increase the list capacity to up to 200 lines in the Page Size field and scroll through a larger list after the page refreshes. Click to return to previous pages.
	END OF STEPS

Mapping of user permissions

Overview

The section describes how user permissions impact a user in AMS. Table 2-8 shows what a user can view and perform, based on the permissions on an appliance pair. The user's permission on the appliance pair is the most restricted permission between the permission on the pair's primary appliance and the one on the secondary appliance.

Table 2-14 User group permissions

Appliance Pair Permission	Hierarchy	Properties	Permissions Tab
R	Visible	Enabled	Hidden
		All buttons are	
		disabled.	
RW		Enabled	
		Delete is	
		disabled.	
RWD		Enabled	
		All buttons are enabled.	

Appliance cluster management

Overview

Purpose

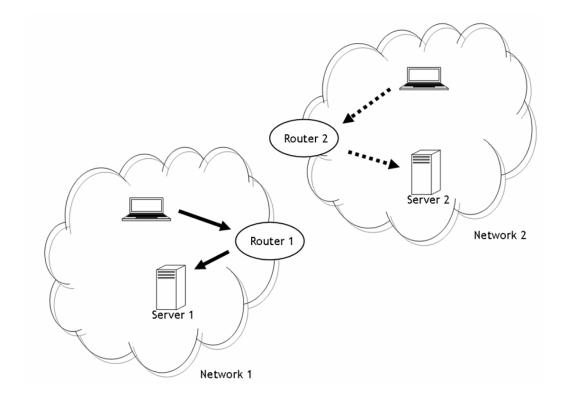
An appliance cluster joins multiple appliances for an anycast deployment. The cluster requires an IPv4 address, which is not validated for uniqueness. This permits multiple clusters to advertise the same end point.

Anycast addresses

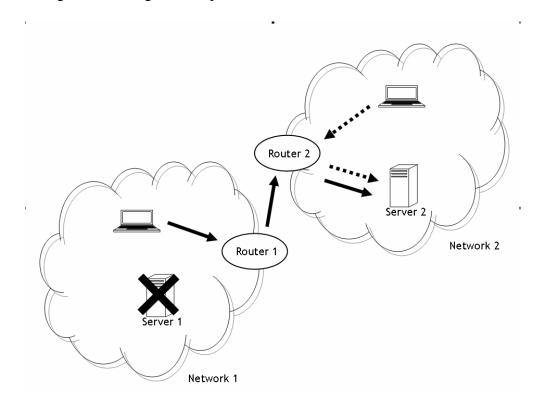
A DNS server is typically given a unicast address. A unicast address is unique and only one server will receive the message. By contrast, though an anycast address appears unique to a client, multiple DNS servers may be assigned the address. The anycast address is tied to a virtual interface, specifically *lo:1*. Only a single copy of a message will be received by a DNS server. The routing of the message to the appropriate server depends upon the environment, but typically messages are routed to the closest server.

Consider the following example where two DNS servers are configured at two different sites. It is assumed the DNS servers have the same anycast address and that all client machines are configured with that address for resolution.

In the first diagram, a client request for each network is routed to the local server.



In the second diagram, DNS Server 1 is no longer available. Client requests on Network 1 are therefore routed to DNS Server 2. This is done invisibly to the requestor so that no configuration changes are required on the client.



Anycast routing allows a DNS service to be more resilient to a single server failure and potentially tolerate higher loads. This works well for DNS because a single DNS transaction is usually encapsulated in two UDP messages: a request and response. Additionally, most DNS transactions require no state, so any subsequent query by a client may be safely directed to a different server.

Note: If a DNS environment currently provides many transactions over TCP, anycast may not be a viable deployment option. This is because any packet in a transaction stream may be routed to a different DNS server. If this happens during a multi-packet request, none of the servers involved will likely be able to respond to the request. In most environments, however, TCP is only used for zone transfers, but the DNS protocol does allow any transaction to run over TCP.

Appliances Add appliance cluster

Add appliance cluster

Purpose

To create an appliance cluster.

Procedure

To create an appliance cluster, follow these steps.

1 In the Appliances tab, mouse over the Actions menu and select Add Appliance Cluster.

Result: The Add Appliance Cluster page opens.



2 Enter values in the fields, as described in the following table.

Table 2-15 Appliance cluster fields

Field	Description
Cluster Name	Enter a name of up to 50 alphanumeric characters for the appliance pair.
Cluster IPv4 Address	Enter an IP address for the paired appliance in IPv4 format. Note: This address is not the address of an appliance in the cluster but a distinctive IP address that the associated appliances will share. All IP addresses in a cluster should be on the same network segment.
Comment	Enter a comment of up to 255 alphanumeric characters if desired.

3 Click Submit.

Result: A confirmation dialog box opens with the message Appliance Cluster saved.

4 Click **OK** to continue.

Result: The Appliance Cluster Properties page opens.



END OF STEPS

Add appliance to cluster

Purpose

To add an appliance to an appliance cluster.

Procedure

To add an appliance to an appliance cluster, follow these steps.

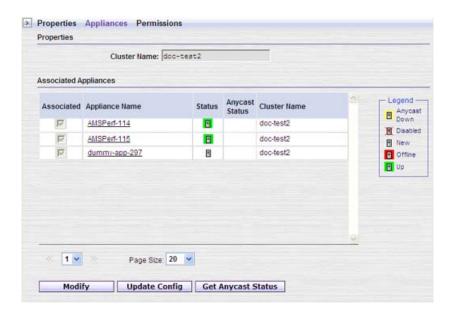
1 In the Appliances tab, expand the Appliance Clusters folder and click on the appliance cluster to which you want to add an appliance.

Result: The Appliance Cluster Properties page opens.



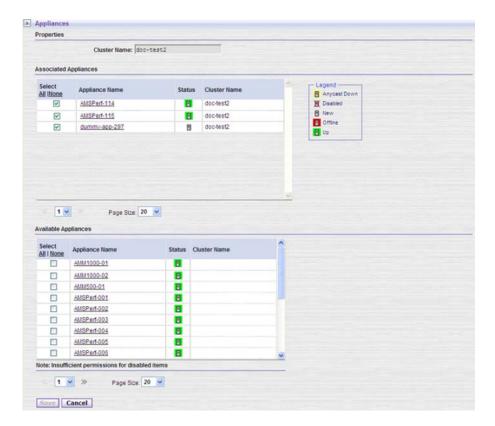
2 Click the Appliances tab.

Result: The Appliances Properties page opens.



3 Click Modify.

Result: The Appliances list is activated.

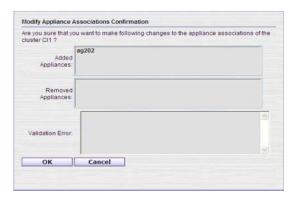


4 Choose one of the following actions in the Appliances list.

If you want to	Then
Select a specific appliance	In the Available Appliances area, place a check mark in the Associated checkbox beside the Appliance Name you wish to associate with the appliance cluster.
	Note: If you check an appliance that is already associated with a different appliance cluster, the association will be removed from that cluster and added to the cluster you are currently working on.
Select all appliances in the list	Click All.
Deselect all the appliances in the list	Click None. Result: A dialog box opens with the message Are you sure that you want to remove all the appliance associations? Click OK to continue. Click Cancel to abort.

When you have finished making your appliance association selections, click Save.

Result: The Modify Appliance Associations confirmation dialog appears.



Note: If you are removing appliance associations from a cluster, the Clear the anycast cluster configuration from the removed appliances? check box is displayed. Uncheck this if you want to retain the cluster configuration information on the removed appliance.

5

6 Click **OK** to continue.

Result: A confirmation dialog opens with the message Modified the appliance associations. Please perform update config to apply the changes on the appliances.

7 Click **OK** to continue.

Result: The **Appliances** list is refreshed. The appliance appears under the appliance cluster in the Appliance Hierarchy.

8 To update the configuration files on the appliance, click **Update Config.**

Result: A confirmation dialog box opens with the message Anycast cluster configuration was updated in appliances successfully.

Note: One of the following messages might be displayed, if updating the anycast address of an appliance fails:

- There was a communication error with the appliance at <IP Address>.
- The appliance has not been authenticated.
- Appliance is disabled.
- 9 Click OK.

END OF STEPS

Modify appliance cluster

Purpose

To modify the properties of an appliance cluster.

Procedure

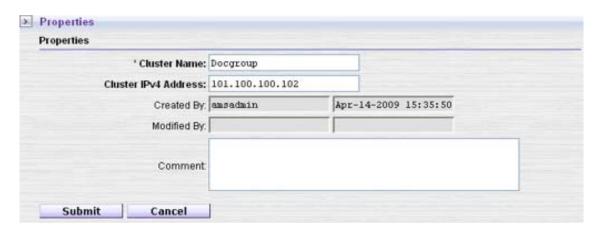
To modify the properties of an appliance cluster, follow these steps.

1 In the Appliances tab, expand the Appliance Clusters folder and click on the appliance cluster you want to modify.

Result: The Appliance Cluster Properties page opens.

Click Modify.

Result: The Modify Appliance Cluster Properties page opens.



- 3 Make changes as necessary. For information on the fields, refer to Table 2-15, "Appliance cluster fields" (p. 2-152).
- 4 Click Submit.

Result: A confirmation dialog opens with the message Appliance Cluster saved.

5 Click OK.

A	p	pi	lia	nc	es	

Result: The appliance cluster properties are refreshed.

END OF STEPS

Getting the anycast status

Purpose

To display the anycast status of an appliance cluster. For more information about anycast addresses, see "Anycast addresses" (p. 2-150).

Procedure

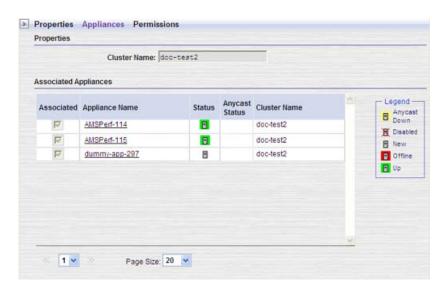
To display the anycast status of an appliance cluster, follow these steps.

1 In the **Appliances** tab, expand the Appliance Clusters folder and select an appliance cluster.

Result: The Appliance Cluster Properties page opens.

2 Click the Appliances tab.

Result: The Appliances Properties page opens.



3 Click Get Anycast Status.

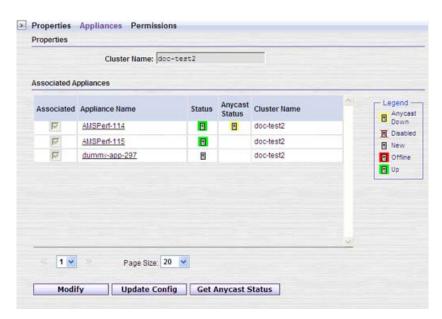
Result: The Appliance Filter page opens.



Note: The appliances that have anycast packages that are associated are selectable in this page.

4 Select the target appliances and click **OK**.

Result: The anycast status of the selected appliances of the appliance cluster is displayed in the Appliances Properties page.



END OF STEPS

Delete an appliance cluster

Purpose

To delete an appliance cluster.

Procedure

To delete an appliance cluster, follow these steps.

1 In the Appliances tab, expand the Appliance Clusters folder and click on the appliance cluster you want to delete.

Result: The Appliance Cluster Properties page opens.



2 Click Delete.

Result: The Delete Appliance Cluster confirmation dialog box opens.



The Clear the anycast cluster configuration from the appliances? check box is displayed. Uncheck this if you want to retain the cluster configuration information on the appliance.

3 Click OK.

Result: A confirmation dialog opens with the message Appliance Cluster deleted.

Appliances

4 Click OK.

Result: The AMS splash screen opens.

END OF STEPS

Appliance cluster permission management

Overview

Purpose

User permissions in AMS support granular access control. This allows the administrator to monitor user activity on an appliance cluster in AMS. A user has the required privileges needed in AMS.

For information about user permissions and roles, see "User permissions and roles" (p. 2-72).

Adding permissions

Purpose

To add permissions to the appliance cluster.

Procedure

To add permissions to the appliance cluster, follow these steps:

1 In the Appliances tab, expand the Appliance Clusters folder.

Result: The appliance clusters appear in the hierarchy.

2 Select an appliance cluster.

Result: The properties for the selected appliance cluster opens.

3 Click the Permissions tab.

Result: The Permissions page opens.

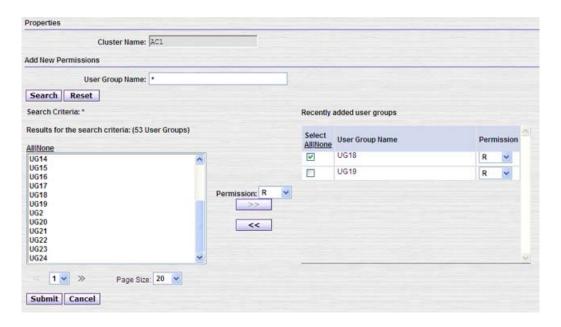


The following table describes information that is displayed in read-only fields in this page.

Permission properties	Description	
Cluster Name	Displays the name of the appliance cluster	
User Group Name	Displays the names of user groups to which permissions on the appliance are granted	
Permission	Displays the permissions assigned to the user groups in the appliance	

4 Click Add.

Result: The Permissions Properties page opens.



5 Click Search.

Result: A list of user groups is displayed in the **Results** area.

- 6 Select the required user group(s). Use the >> or << keys to move the selected user group(s) into or away from the Recently added user groups area.
- From the Permission: drop-down list, select one of R, RW, or RWD permissions to allocate read, read/write, or read/write/delete permissions respectively for the selected user group.
- 8 In the Recently added user groups area, do one of the following:
 - Select the required user group(s).
 - Click All to select all the user groups.
 - Click None to deselect the user groups in the list.

	• From the Permission drop-down list, select one of R, RW, or RWD permissions to allocate read, read/write, or read/write/delete permissions respectively for the selected user group.
9	Click Submit. Result: The message Added the permissions successfully appears.
10	Click OK. Result: The Permissions Properties page reappears and the newly added permissions
	are displayed.

Appliances Modifying permissions

Modifying permissions

Purpose

To modify existing permissions on the appliance cluster.

Procedure

To modify permissions on the appliance cluster, follow these steps:

1 In the Appliances tab, expand the Appliance Clusters folder.

Result: The appliance clusters appear in the hierarchy.

2 Select an appliance cluster.

Result: The properties for the selected appliance cluster opens.

3 Click the Permissions tab.

Result: The Permissions page opens.

4 Click Modify.

Result: The Modify Existing Permissions page opens.



- 5 Select the permission to be modified. Do one of the following:
 - Click All to select all the user groups.

	Click None to deselect the user groups in the list.
6	From the Permission drop-down list, select one of R, RW, or RWD permissions to allocate read, read/write, or read/write/delete permissions respectively for the selected user group(s).
7	Click Remove if you wish to delete the selected user group.
8	 To view results on other pages: Click >>> to view the next page or select a page number from the drop-down list. You may also increase the list capacity to up to 200 lines in the Page Size field and scroll through a larger list after the page refreshes. Click <

END OF STEPS

Mapping of user permissions

Overview

The section describes how user permissions impact a user in AMS. Table 2-8 shows what a user can view and perform, based on the permissions on an appliance cluster. The user's permission on an appliance cluster is the most restricted permission among the permissions of all the member appliances in the cluster.

Table 2-16 User group permissions

Appliance Cluster Permission	Hierarchy	Properties	Appliances	Permissions Tab
R	Visible	Enabled All buttons are disabled.	Enabled All the buttons are disabled.	Hidden
RW		Enabled Modify is disabled.	Enabled All the buttons are enabled.	
RWD		Enabled All buttons are enabled.	Enabled All the buttons are enabled.	

Appliance group management

Overview

Purpose

Appliance group management describes how to set up a new appliance group in AMS. It describes how to create/modify an appliance group record, make package and appliance associations, and display appliance group properties. Additionally, it describes how to delete appliance groups once they are no longer needed.

Appliance groups overview

The AMS Appliance Groups tab allows you to manage the VitalQIP appliances in groups as you deploy them on your network. When you assign appliances to groups, you have the option to manage sets of appliances by groupings such as location or function.

The AMS Appliance Groups tab provides the following features:

Appliance group management

Add/modify/delete appliance group records

Package management

- Customization of configuration files
- Deployment to appliance group
- Configuration history
- Version management and rollback
- Deletion of unused packages

Appliance management

- Modify/delete appliance records
- Disable/enable appliances
- Remote login support
- Remote appliance reboot
- Remote start/stop of VitalQIP services on appliances
- Verification of secure communication between AMS and appliance
- Log file retrieval
- Configuration file management and retrieval
- Status monitoring

File group management

- Associate file groups to an appliance group
- Deploy file groups

Appliance group hierarchy folders

AMS groups appliance groups into folders when the number of appliance groups in the hierarchy is greater than the setting for the <code>foldersize</code> property in the <code>ams-manage.properties</code> file. The default is 25. The folder name is determined by the first appliance group in each folder.

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For information on changing the *foldersize* property, refer to the *AMS Installation & Configuration Guide*.

Order of precedence for configuration files

The order of precedence of configuration files for an appliance that is part of an appliance group is as follows:

- 4. Appliance custom configuration file
- 5. Default configuration file from appliance with different version of appliance group
- 6. Group custom configuration file
- 7. Package default configuration file

Packages are assigned (associated) to appliances or appliance groups. Packages may include configuration files and these config files may be customized. Therefore, an assignment may include config files. An assignment at the group level is inherited by any appliance in the group. The above order of precedence exists because assignment can happen at either (or both) levels.

- A configuration file has a default version that is included with the package. This will be delivered to an appliance in the default case. This is item 4 above.
- A configuration file may be customized at the assignment level which includes the appliance or appliance group. If the customization is done for an assignment to an appliance, this is the ultimate version. This is item 1 above.
- Assignments performed at the group level are logical since deployment to a group is only tangible at the appliance level. The group serves as a template for multiple appliances. This is item 3 above.
- An appliance may have a different version of a package assigned to it than the version assigned to the encompassing group. This different package version hides the version assigned at the group level. If the assignment at the appliance level does not include modified configuration files, the default configuration file version of the appliance assignment is deployed. This is item 2. Note that if this configuration file were modified, then item 1 would take precedence.

Inherited and direct package associations

Conflicts between different releases of inherited and direct package associations can be resolved by withholding the inherited package and associating the direct package with the appliance.

Add an appliance group

Purpose

To add a new appliance group.

Before you begin

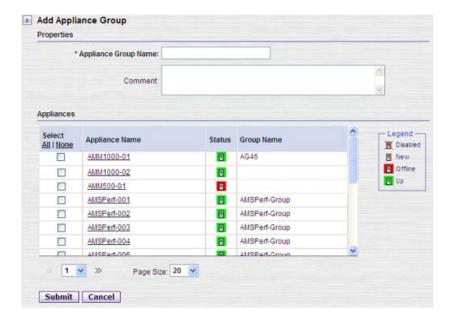
- A package associated directly with an appliance has precedence over the same kind of package (be it a higher or lower version, or the same version number) inherited from the appliance group.
- Normally, all the appliances in an appliance group receive a copy of the same
 configuration file for a package when it is associated with that appliance group. If you
 need the configuration file of one appliance in the appliance group to be different (that
 is, specific to that appliance), you may associate that package directly with that
 appliance and then configure the package configuration file for just that appliance.

Procedure

To create a new appliance group, follow these steps.

1 In the Appliances tab, mouse over the Actions menu and select Add Appliance Group.

Result: The Add Appliance Group page appears.



Note: If an appliance appears in red in the Appliance Name column, it indicates that all its packages have been withheld. For further information, refer to "Withhold a package from an appliance" (p. 2-92).

2 Enter values in the fields, as described in the following table.

Table 2-17 Appliance Group Basic Properties fields

Field	Description	
Appliance Group Name	Required. Enter a name of up to 50 alphanumeric characters for the appliance group.	
Comment	Enter a comment of up to 255 alphanumeric characters if desired.	

3 In the Appliances list, choose one of the following actions.

If you want to	Then
Select an appliance	Place a check mark in the Select checkbox beside the Appliance Name you wish to associate with the appliance group.
Select all the appliances in the Appliances list	Click All in the Select column.
Deselect an appliance	Uncheck a Select checkbox beside the Appliance Name you wish to disassociate with the appliance group.
Deselect all the appliances in the Appliances list	Click None in the Select column.
Check properties of an appliance	Click the appliance name and review the properties. To return to the Add Appliance Group page, click the Back button in your browser.

4 When you have finished making your appliance selections, click **Submit**.

Result: A confirmation dialog box opens with the message Appliance Group saved.

5 Click **OK** to continue.

Result: The Appliance Groups Properties page opens. Refer to "Display appliance group properties" (p. 2-182) for more information.

END OF STEPS

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Display appliance properties

Purpose

To display appliance properties in an appliance group.

Procedure

To display appliance properties in an appliance group, follow these steps.

1 In the Appliances tab, expand the Appliance Groups folder.

Result: The appliance groups appear in the tree.

2 Expand the appliance group you want to work with.

Result: An Appliances and a Packages folder appear in the tree.

3 Expand the Appliances folder.

Result: A list of appliances associated with or deployed throughout that appliance group is displayed.

4 Click on the appliance whose properties you wish to review.

.....



Comment:

Setup Info

Status: New

Retrieve File

Delete

Result: The Appliance Properties for the selected appliance opens.

For information on the fields in the appliance properties page, refer to Table 2-1, "Appliance Properties fields" (p. 2-8) and Table 2-2, "Additional Basic Properties fields" (p. 2-12).

Modify

User Account

Verify Communication

Interfaces

Console Account

5 Choose from any of the following functions.

If you want to	Then
Basic Properties	
Verify communication with the appliance	Click Verify Communication . For further information, refer to "Verify communication with an appliance" (p. 2-16).
Disable the appliance	Click Disable Appliance . For further information, refer to "Disable an appliance" (p. 2-126).
Enable the appliance	Available only if an appliance is disabled. Click Enable Appliance. For further information, refer to "Enable a disabled appliance" (p. 2-128).
Appliance Pair Details	
Review an appliance pair	Click the Appliance Pair link. The Appliance Pair Properties page opens.
Appliance Cluster Details	
Review an appliance cluster	Click the Appliance Cluster link. The Appliance Cluster Properties page opens.
Package Associations	
Configure packages for an appliance and override the package association in the appliance group	Click Packages. For further information, refer to "Configure packages for an appliance" (p. 2-30).
Review pending deployments and deploy packages on the appliance	Click Packages and click Deploy. For further information, refer to "Review pending deployments and deploy packages" (p. 2-40).
File Groups	
Associate file groups for an appliance group	Click the File Groups tab. For further information, refer to .
Deploy file groups	 Click the File Groups tab. Click Deploy.
	Result: The Pending Deployments for Appliance Group page opens. 3. Click Proceed. For further information,
	refer to Chapter 4, "File groups".

If you want to	Then
Configuration History	
Review configuration history	Expand the Configuration History section. Click the Refresh icon () as needed.
Review package properties	Expand the Configuration History section and click on the package you wish to review. For more information, refer to "Review package properties" (p. 2-82).
	Note: You can also review package properties by expanding an appliance in the appliance hierarchy and clicking on a package.
Roll back a package deployment	Expand the Configuration History section. Select a previous deployment and click Roll Back. For information on rolling back a package deployment, refer to "Roll back to a previous configuration" (p. 2-100).
Appliance Services	
Check status of VitalQIP services	Click the Services tab. Click the Refresh icon (5) as needed. For information on managing VitalQIP services on an appliance, refer to "Manage services on an appliance" (p. 2-44).
Appliance management functions	
View setup information	Click Setup Info . For further information, refer to "View appliance setup information" (p. 2-14).
Modify the appliance	Click Modify . For further information, refer to "Modify appliance properties" (p. 2-25).
Retrieve a configuration file or log file from the appliance	Click Retrieve File. For further information, refer to "Retrieve a file from an appliance" (p. 2-59). Additional procedures for retrieving log files and configuration files that do not involve data entry are described in "Retrieve a log file" (p. 2-55) and "Review or modify a configuration file" (p. 2-63).
Set up an administrative login on the appliance or change the administrative login password	Click User Account . For further information, refer to "Enable a user account login" (p. 2-122).
Reboot the appliance	Click Reboot . For further information, refer to "Reboot an appliance" (p. 2-130).

If you want to	Then
Delete the appliance	Click Delete . For further information, refer to "Delete an appliance" (p. 2-131).

Display appliance group properties

Purpose

To display the appliance group properties.

Procedure

To display appliance group properties, follow these steps.

- 1 In the Appliances tab, expand the Appliance Groups folder.
- 2 Click on an appliance group in the Appliance Groups tree.

Result: The Appliance Group Properties for the selected appliance group opens.



Note that since the appliance group was added, a **Modified By** field is now displayed. This displays the user name of the administrator who modified the appliance record, as well as the time at which the record was modified.

3 Choose from any of the following actions.

If you want to	Then
Appliance group management function	s
Modify the appliance group	Click Modify . For further information, refer to "Modify an appliance group" (p. 2-190).
Delete the appliance group	Click Delete . For further information, refer to "Delete an appliance group" (p. 2-192).
Appliance management functions	
Modify the appliance	Click the Appliances tab and click Modify . For further information, refer to "Manage appliances in an appliance group" (p. 2-186).
Package management functions	
Configure packages for an appliance group	Click the Packages tab and click Modify. For further information, refer to "Configure packages for an appliance group" (p. 2-198).
Review pending deployments for an appliance group	Click the Packages tab and click Deploy. For further information, refer to "Review pending deployments and deploy packages" (p. 2-40).
Deploy packages for an appliance group	Click the Packages tab and click Deploy. For further information, refer to "Deploy packages to an appliance group" (p. 2-203).
Associate file groups for an appliance group	Click the File Groups tab. For further information, refer to "Associate file groups to an appliance" (p. 2-106).
Deploy file groups	 Click the File Groups tab. Click Deploy.
	Result: The Pending Deployments for Appliance Group page opens.
	3. Click Proceed . For further information, refer to "Deploy file groups" (p. 2-109).
Review configuration history	Click the Configuration History tab.

If you want to	Then
Review package properties	Click the Configuration History tab and click on the package you wish to review. For more information, refer to "Review package properties" (p. 2-207).
	Note: You can also review package properties by expanding an appliance in the appliance hierarchy and clicking on a package.
Roll back a package deployment	Click the Configuration History tab. Select a previous deployment and click Roll Back. For information on rolling back a package deployment, refer to "Roll back to a previous configuration" (p. 2-213).
Set the startup type	Click the Service Configuration tab. From the Startup Type list, select one of the following:
	 Automatic This is the default setting. Services are started automatically when the appliance is rebooted. Disabled The services are disabled. The service will not be started on reboot and the user cannot start it from the AMS GUI as well. Manual The service will not be started on reboot, but the user can manually start it from the AMS GUI. Note: Setting the startup type for an appliance group overrides the settings for all the appliances of the group.
	Note: If the appliance's startup type is changed later, a warning icon is displayed next to the service name. When you mouse over the icon, the message "Appliance startup configuration is different from the Appliance group's startup configuration" is displayed.
Permissions	Click the Permissions tab. For more information about appliance group permissions, refer to "Appliance group permission management" (p. 2-224).

Ann	liances	

Manage appliances in an appliance group

Purpose

To manage the appliances in an appliance group.

Procedure

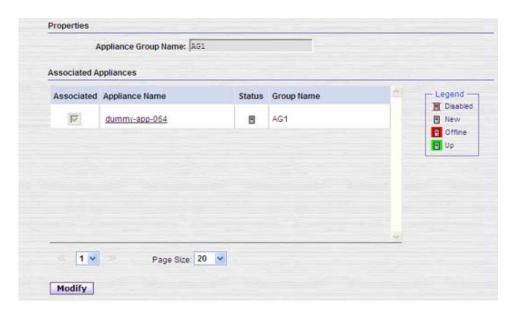
To manage the appliances in an appliance group, follow these steps.

1 In the Appliances tab, expand the Appliance Groups folder and click on an appliance group in the appliance group tree.

Result: The Appliance Group Properties page for the selected appliance group opens.

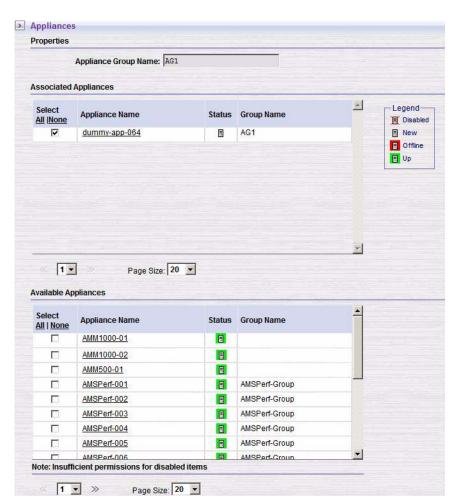
2 Click the Appliances tab.

Result: The Appliances Properties page opens.



Note: When an appliance name appears in red, it indicates that one or more packages on that appliance are in a withheld state.

3 Click Modify.



Result: The Appliances list opens in Edit mode.

The associated appliances and the available appliances are listed in the Associated Appliances and Available Appliances areas respectively.

4 Choose one of the following actions.

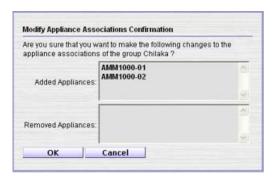
Save Cancel

If you want to	Then
Select an appliance	In the Available Appliances area, place a check mark in the Select checkbox beside the Appliance Name you wish to associate with the appliance group.
Select all the appliances in the Appliances list	Click All in the Select column.

If you want to	Then
Deselect an appliance	Uncheck a Select checkbox beside the Appliance Name you wish to disassociate with the appliance group.
Deselect all the appliances in the Appliances list	 Click None in the Select column. A dialog box opens with the message Are you sure you want to remove all the package associations? Click OK.
Check properties of an appliance	Click the appliance name and review the properties. To return to the Add Appliance Group page, click the Back button in your browser.

5 To save your changes, click Save.

Result: The Modify Appliance Associations Confirmation dialog box opens.



6 Click OK.

Result: A confirmation dialog box opens with the message Modified the appliance associations, Please perform Deploy Packages to reflect the changes in Appliance.

Note: If appliances you have selected have packages that conflict, a Package Validation Error window opens. Click OK to close. Remove the association or update

Appliance Name
Package Validation Error
The following packages conflict vitalqip7.2-remote-7.2.592-2, vitalqip7.2-enterprise-7.2.592-4
The following packages conflict vitalqip7.2-remote-7.2.592-2, vitalqip7.2-enterprise-7.2.592-4

OK Print

the package on the appliance so that there is no package conflict.

7 Click OK.

Result: The Appliances Properties page opens.

END OF STEPS

190-409-089R1.6 Issue 1 June 2010

Modify an appliance group

Purpose

To modify an appliance group.

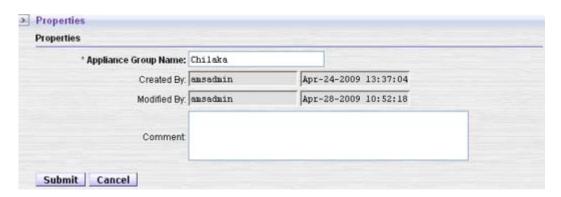
Procedure

1 In the Appliances tab, expand the Appliance Groups folder and click on an appliance group in the appliance group tree.

Result: The Appliance Group Properties page for the selected appliance group opens.

2 Click Modify.

Result: The Modify Appliance Group page opens.



- 3 Revise field entries in this section as needed. Refer to Table 2-17, "Appliance Group Basic Properties fields" (p. 2-175) for information on the fields.
- 4 To save the revised appliance group information, click Submit.

Result: The confirmation dialog Modified the appliance group appears.

5 Click **OK** to continue.

Result: The full Appliance Group Properties page reappears.

Delete an appliance group

Purpose

To delete an appliance group.

Before you begin

All appliances in an appliance group must be disassociated before an appliance group can be deleted. For information on disassociating appliances, refer to Step 3 in "Add an appliance group" (p. 2-174).

Procedure

To delete an appliance group, follow these steps.

1 In the Appliances tab, expand the Appliance Groups folder and click on an appliance group in the appliance group tree.

Result: The **Appliance Group Properties** page for the selected appliance group opens.

2 Click Delete.

Result: A dialog box opens with the message Are you sure you want to delete <appliance group>?

3 Click **OK** to delete.

Result: A confirmation dialog box opens with the message Appliance Group deleted.

4 Click OK.

Result: The AMS splash screen opens.

Appliance group package management

Overview

Purpose

Appliance group package management describes how to prepare an appliance group in the AMS database for successful deployment of packages to VitalQIP appliances out on the network. It describes how to configure the files that comprise the various DHCP, DNS and VitalQIP remote packages, review package properties, and deploy those packages to appliances in an appliance group. It also describes how to disassociate a package from an appliance group, roll back to a previous version of a package, and delete a package once there are no more appliances using it.

Associate packages with an appliance group

Purpose

To associate packages with a new or existing appliance group.

Before you begin

Valid packages must exist in the AMS database before they can be associated with an appliance group. For more information, refer to "Import a package" (p. 3-6).

Procedure

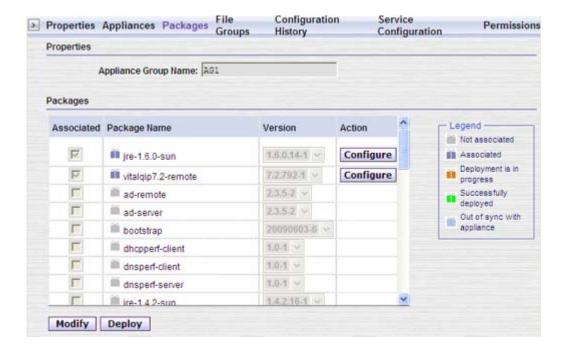
To associate packages with an appliance group, follow these steps.

1 In the appliance group tree, select the appliance group to which you wish to add packages. If you have just added an appliance group, its properties are already displayed.

Result: The Appliance Group Properties page for the selected appliance group opens.

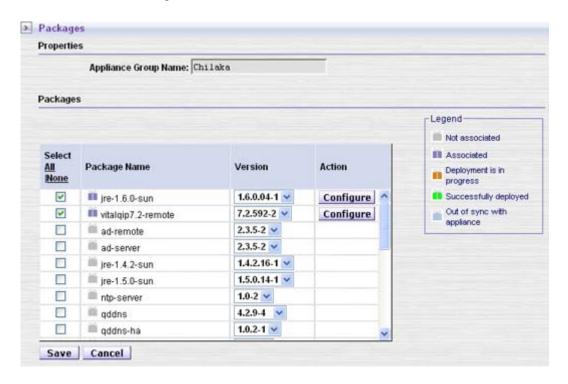
2 Click the Packages tab.

Result: The Packages page opens.



3 To associate packages with the appliance group, click Modify.

Result: The Packages list is activated.



4 Choose one of the following actions in the Packages list.

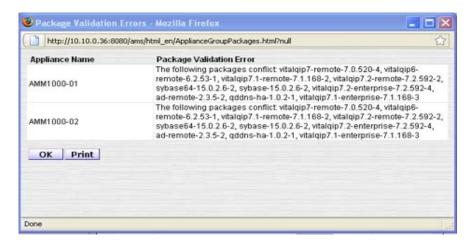
If you want to	Then
Select a specific package	Place a check mark in the checkbox beside the Package Name you wish to associate with the appliance group. The Modify Package Associations confirmation dialog opens. Click OK to continue or Cancel to abort.

If you want to	Then
Change a package version	Select the specific Version from the drop-down list for each selected package.
	Packages such as qip-enterprise and sybase cannot be easily downgraded. If you try to downgrade those packages, a dialog box opens with the message Could not downgrade the package. For information on how to downgrade the enterprise and sybase packages, refer to the Appliance Packages Configuration Guide.
Select all packages in the list	Click All.
Deselect all the packages in the list	Click None.
	Result: A dialog box opens with the message Are you sure that you want to remove all the package associations?
	Disassociating a package might mean that the functionality offered by that package would be removed from the appliance (the next time the Deploy Packages is invoked), and may therefore disrupt a running service.
	Click OK to continue or Cancel to abort.
Configure a package in the list	Click the Configure button alongside the package you want to configure. To configure a package, refer to "Configure packages for an appliance group" (p. 2-198)

5 When you have finished making your package association selections, click Save.

Result: The confirmation dialog Modified the package associations appears.

Note: If you select a package that has dependencies on another package that is *not* selected, a package validation error dialog box opens.



Click **OK** to close or **Print** to retain a record of the error.

Click **OK** to continue.

Result: The Packages list is refreshed. The Associated package icon appears beside the package name in the Appliance Group Hierarchy.

Configure packages for an appliance group

Purpose

To configure packages for an appliance group.

Procedure

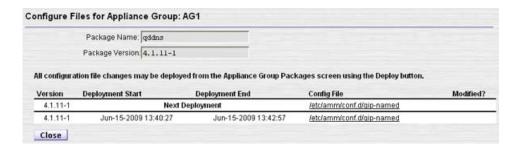
To configure packages for an appliance group, follow these steps.

- In the appliance group hierarchy, select the appliance group you wish to configure. If you have just added an appliance group, its properties are already displayed.
- 2 Click the Packages tab.

Result: The Packages page opens.

3 Locate the package you want to configure and click the **Configure** button that appears beside it in the **Action** column.

Result: The Configure Files for Appliance Group: <appliance group name> page opens.

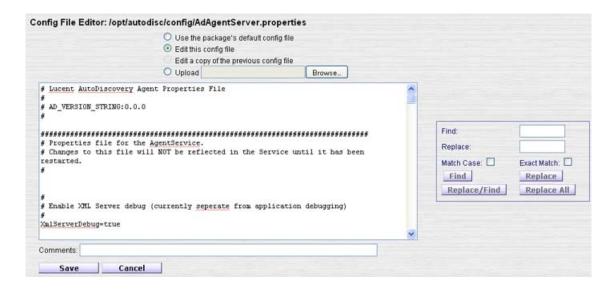


4 Select the configuration file in the Config File list that you wish to configure.

For further information on the *qip.pcy* file, refer to Appendix A, "VitalQIP policy files" in the *Appliance Packages Configuration Guide*. For further information on DNS and DHCP user exits, refer to the "Network services" chapter in the *VitalQIP User's Guide*.

Note: Some packages do not have configuration files. If you select them, a dialog box opens with the message The selected package contains no config files.

Result: The Config File Editor opens in another browser window.



5 Choose one of the following options.

If you want to	Then
Use the default configuration file	 Click the Use the package's default config file option. Click OK to use this file without changes.
	Result: A dialog box opens with the message Config file changes saved.
	3. Click OK.
	Result: The Config File Editor closes and the Configure Files for Appliance Group: <i><appliance group="" name=""></appliance></i> page opens.
Search for text in a configuration file	Enter the phrase for which you are searching in the Find field. Click the Exact Match and Match Case options as needed.

If you want to	Then
Replace text in a	Only available when a file is not read-only.
configuration file	1. After you have entered text in the Find field, enter the text you wish to replace in the Replace field. Click the Exact Match and Match Case options as needed.
	2. Choose one of the following:
	 To replace one instance, click Find and when a matching instance is found, click Replace.
	 To replace one instance and find another match, click Find and when the matching instance is found, click Replace/Find.
	 To replace all matching instances, click Find and when a matching instance is found, click Replace All.
	3. To save your edits, click Save .
	Result: A dialog box opens with the message Config file changes saved.
	4. Click OK .
	Result: The Config File Editor window closes and a check mark (✓) appears in the Modified? column.
Edit the current file	1. Click the Edit this config file option.
	2. Make your edits. Use the Find/Replace functions as needed.
	3. If you wish to enter a comment, enter up 255 alphanumeric characters in the Comments field.
	4. Choose one of the following options:
	• Click Save to write your changes to the file.
	Result: A dialog box opens with the message Config file changes saved.
	5. Click OK .
	Result: The Config File Editor window closes. If the file was modified, a check mark () appears in the Modified? column.
	Click Cancel to close the editor without saving any edits.

If you want to	Then
Edit a copy of the most recent configuration file. Note: Not available for a new appliance group or if the previous version is a binary file.	 Click the Edit a copy of the previous config file option. Make your edits. Use the Find/Replace functions as needed. If you wish to enter a comment, enter up 255 alphanumeric characters in the Comments field. Choose one of the following options: Click Save to write your changes to the file. Result: A dialog box opens with the message Config file changes saved. Click OK. Result: The Config File Editor window closes. If the file was modified, a check mark (
Use a local configuration file	 Click the Upload option. Result: The text view and the Find/Replace functions close. Click Browse. Result: A dialog box opens in your browser where you can select a file. Locate the file you want to upload. If you wish to enter a comment, enter up 255 alphanumeric characters in the Comments field. Choose one of the following options: Click Save to save the uploaded file. Result: A dialog box opens with the message Config file changes saved. Click OK. Result: The Config File Editor window closes. Click OK to close the confirmation dialog box. Click Cancel to abort the upload of the file to the appliance.

6 Repeat steps 3 to 5 until all the configuration files are set up as you want them.

7 Click Close.

Result: The Config File Editor window closes and the Packages tab opens.

- 8 Choose from the following options.
 - To deploy the packages you just configured, click **Deploy**. For further information on deploying packages, refer to "Deploy packages to an appliance group" (p. 2-203).
 - To modify the packages, click **Modify**. For further information on modifying packages, refer to "Associate packages with an appliance" (p. 2-27).

Deploy packages to an appliance group

Purpose

To permit controlled introduction of packages throughout an appliance group.

Before you begin

- One or more packages should be associated with the appliance group. For information on associating packages, refer to "Add an appliance group" (p. 2-174).
- The packages should be configured as necessary. For information on configuring packages, refer to "Configure packages for an appliance group" (p. 2-198).

Procedure

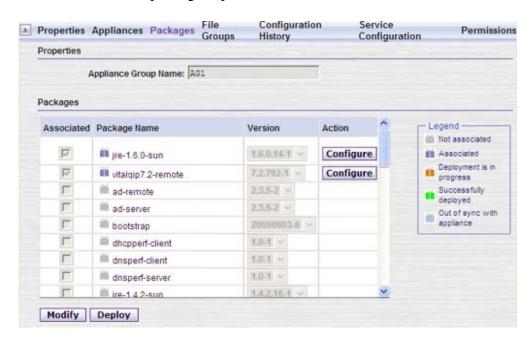
To deploy packages to an appliance group, follow these steps.

1 In the Appliances tab, expand the Appliance Groups folder and click on an appliance group in the appliance group tree.

Result: The Appliance Group Properties for the selected appliance group opens.

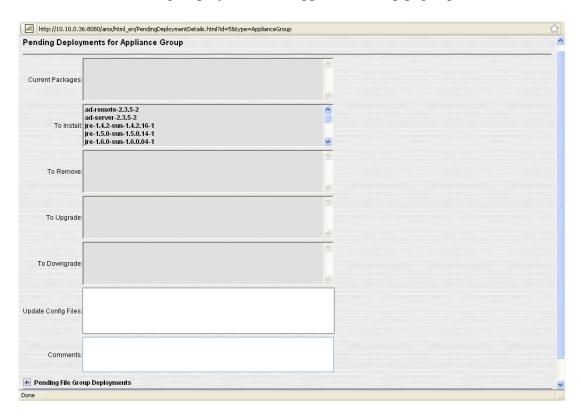
2 Click the Packages tab.

Result: A list of packages opens.



3 Click Deploy.

Result: The Pending Deployments for Appliance Group page opens.



4 The pending deployments are organized as described in the following table.

Table 2-18 Deployment categories

Category	Description	
Current Packages	Displays packages that are currently deployed.	
To Install	Displays packages that are associated indirectly through an appliance group. These are the packages to be deployed the next time the Deploy Packages function is performed.	
To Remove	Displays packages that are deployed on the appliance but have been disassociated from the appliance directly or indirectly through an appliance group.	
To Upgrade	Displays packages in the next deployment group that are more recent versions than those currently deployed on the appliance.	

Description		
Displays packages in the next deployment group that are older versions than those currently deployed on the appliance.		
Lists the configuration files that are known to have changed since the last deployment.		
Optional. Enter up to 255 alphanumeric characters.		
Lists the file groups that are pending deplo down the Pending Deployments for App	- 11	
Name	Operation	
Details: Doc	Retain File Group	
Option: Deploy pending file groups		
Proceed Cancel		
	than those currently deployed on the application files that are known deployment. **Optional**. Enter up to 255 alphanumeric characteristics* Lists the file groups that are pending deployments for Application file Group Deployments Pending File Group Deployments Name Details: Doc Deploy pending file groups Deploy pendi	

5 Click Proceed to continue with the deployment. Click Cancel to abort.

Result: The dialog box closes and the Packages page opens. The icons in the Package Name list change to orange status while the deployment is in progress.

- When the deployment is completed, a dialog box opens with the message Package deployment on <appliance group name> has finished.
- 7 Click **OK** to continue.
- 8 To verify that the deployment completed successfully, click the Configuration History tab.

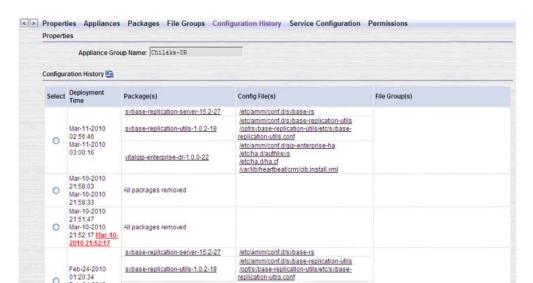
01:24:04

1 🕶 🚿

vitalgip-enterprise-dr-1.0.0-22

Delete Page

Page Size: 5



Result: The deployment time is displayed with a start and end time stamp.

Note: It can take several minutes for the package(s) to be deployed. While the deployment is in progress, only the start time stamp shows under Deployment Time.

/etc/amm/conf.d/gip-enterprise-ha

/var/lib/heartbeat/crm/cib.install.xml

/etc/ha.d/authkeys

Failed transfers display an end time in underlined red text. Click the link to determine what the error was. A transfer error could be caused by an appliance being down or a network problem. Use the Verify Communication function on an appliance's property page to confirm that the network connection is working and that the authentication information stored for that appliance is correct. A network problem could be transitory, in which a case a subsequent redeploy should work.

Review package properties

Purpose

To review an appliance group's package properties.

Procedure

To review package properties in an appliance group, follow these steps.

Method 1

1 In the Appliances tab, expand the Appliance Groups folder.

Result: The appliance groups appear in the tree.

2 Expand the appliance group you want to work with.

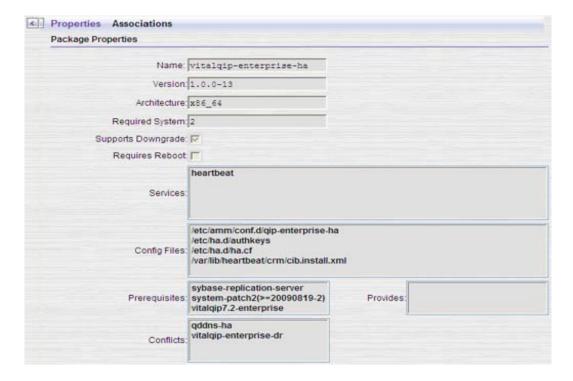
Result: An Appliances and a Packages folder appear in the tree.

3 Expand the Packages folder.

Result: A list of packages associated with or deployed throughout that appliance group is displayed.

4 Click on the package with the properties you want to review.

Result: The Package Properties page opens.



5 Review the values in the fields, as described in the following table.

Table 2-19 Package Properties fields

Field	Description	
Name	Displays the name of the package.	
Version	Displays the package version.	
Architecture	Displays the platform type on which the package runs.	
Required System	Indicates the supported appliance platform. If this value is empty, it indicates that the package can be deployed on all appliance platforms.	
Supports downgrade	Indicates whether the package can be downgraded or not. The Sybase and VitalQIP Enterprise Server packages cannot be downgraded, for example.	
Requires Reboot	Indicates whether the appliance needs rebooting.	
Services	Displays the services contained in the package.	
Config Files	Displays the configuration files contained in the package.	
Prerequisites	Lists any other packages that must be deployed with this package in order for it to work properly. A prerequisite may be satisfied by either a package name or a name from a package's Provides field. If a prerequisite package has not been imported into AMS, the name appears in red.	
Provides	Displays any supplementary names that the package has declared. These names are equivalent to the package's primary name for validating that another package's prerequisites are satisfied.	
Conflicts	Displays other available packages with which the current package is incompatible.	

END OF STEPS

Method 2

1 In the Appliances tab, expand the Appliance Groups folder.

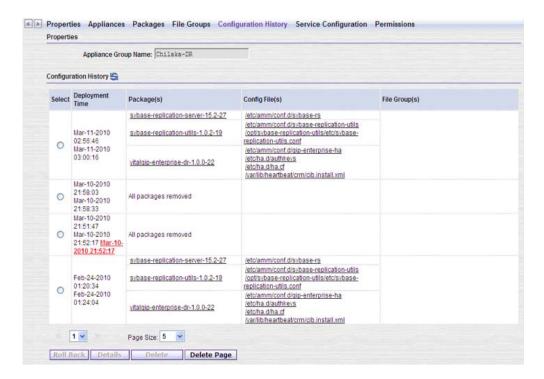
Result: The appliance groups appear in the tree.

2 Click the appliance group with which you need to work.

Result: The Appliance Group Properties for the selected appliance group opens.

3 Click the Configuration History tab.

Result: A history of package deployments opens, with package links shown in the **Packages** column.



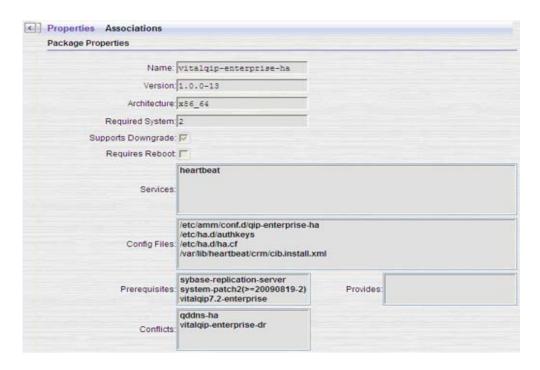
Packages listed in the Configuration History page have color status indicators, as described in the following table.

Table 2-20 Package status indicators

Color	Status
Blue	Indicates that the package/version was actually downloaded and installed on that deployment.
Grey	Indicates that the package/version was already deployed to the appliance and is being listed for completeness.
Black	Indicates that the package has been deleted and is no longer deployed anywhere. It is listed for historical completeness in case it needs to be reimported for a package rollback.

4 Click on the Package link you want to review.

Result: The Package Properties page opens.



5 Review the fields, as described in Table 2-19, "Package Properties fields" (p. 2-209).

View deployed file group details

Purpose

To view the deployed file group details.

Procedure

To view the deployed file group details, follow these steps.

- 1 In the Appliance Groups Properties page, click the Configuration History tab.
- 2 Select an appliance group for which a file group has been deployed.
- 3 Click the file group that is displayed in the File Group(s) column.

The File Group Properties page opens.



The following table describes information that is displayed in read-only fields in this page.

File Group Properties	Description
File Group Name	Name of the file group
Filename	Name of the file in the file group
Size	File size (in bytes)
Hash	Checksum to verify the integrity of the file
Owner	Specifies the owner of the file
Group	Specifies the group to which the file belongs
Permissions	Specifies the permissions on the file

4 Click Close.

Roll back to a previous configuration

Purpose

To roll back to a previously deployed package or set of packages and their configuration files.

Before you begin

Some packages, such as vitalqip-enterprise and sybase, cannot be downgraded.

Procedure

To roll back an appliance group to a previously deployed package or set of packages, follow these steps.

In the Appliances tab, expand the Appliance Groups folder and click on an appliance group in the appliance group tree.

Result: The Appliance Group Properties for the selected appliance group opens.

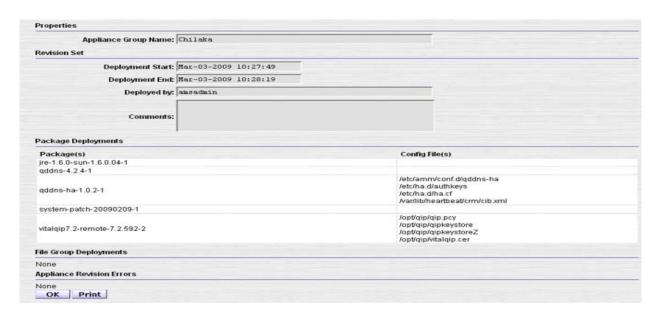
2 Click the Configuration History tab.

Result: A history of package deployments opens.



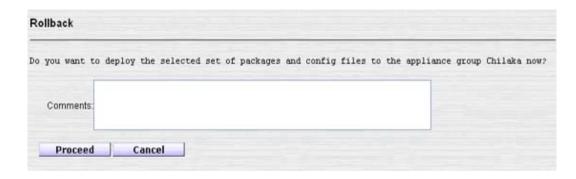
- 3 Click the Select option beside the deployment to which you wish to roll back.
- 4 To see more information about the package, click **Details**.

Result: The Details window opens.



- Review the revision set. Scroll down as needed to see any errors in the **Appliance** Revision Errors area.
- 6 Click Print if you wish to obtain a printout. Click OK to close the Details window.
- 7 If you wish to continue with the roll back, click Roll Back.

Result: The Rollback dialog box opens.



8 Enter a comment of up to 255 alphanumeric characters and click **Proceed** to continue.

Result: The packages in the Appliance Group hierarchy change to an orange status (In progress).

- 9 When the deployment is completed, a dialog box opens with the message Package deployment on <appliance group name> has finished. The packages in the appliance group hierarchy are no longer in an orange state.
- 10 Click **OK** to continue.

Appliance group file group management

Overview

Purpose

Appliance group file group management describes how to associate and deploy a file group to an appliance group.

Associate file groups to an appliance group

Purpose

To associate file groups to an appliance group.

Before you begin

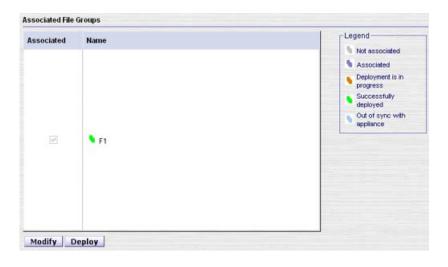
• File groups must exist in the AMS database before they can be associated with an appliance group. For more information, refer to "File groups" (p. 4-1).

Procedure

To associate one or more file groups with a new or existing appliance group, follow these steps.

1 In the Appliance Group Properties page, click the File Groups tab.

Result: The Associated File Groups page opens.



2 To associate file groups with the appliance group, click Modify.

File Groups Properties Appliance Group Name: Chilaka-HA Associated File Groups Select All None associated ♠ FG22 Deployment V **■** FG62 progress Successfully deployed Out of sync with appliance Available File Groups Select All | None FG1 ● FG10 FG100 FG11 ● FG12

Result: The file groups are listed in the Available File Groups section.

3 Choose one of the following actions in the Available File Groups list.

Page Size: 20 💌

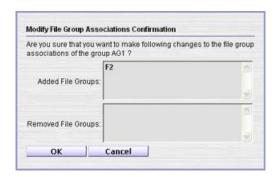
1 × »

Save Cancel

If you want to	Then
Select a specific file group	Place a check mark in the checkbox beside the File Group Name you wish to associate with the appliance.
Select all file groups in the list	Click All.
Deselect all the file groups in the list	Click None. Result: A dialog box opens with the message Are you sure that you want to remove all the file group associations? Click OK to continue or Cancel to abort.

4 When you have finished making your file group association selections, click Save.

Result: The Modify File Group Associations Confirmation page opens.



5 Click **OK** to continue.

 $\textbf{Result: The confirmation dialog } \textbf{Modified the file group associations} \ appears.$

6 Click OK.

Deploy file groups

Deploy file groups

Purpose

Appliances

To deploy file groups to an appliance group.

Procedure

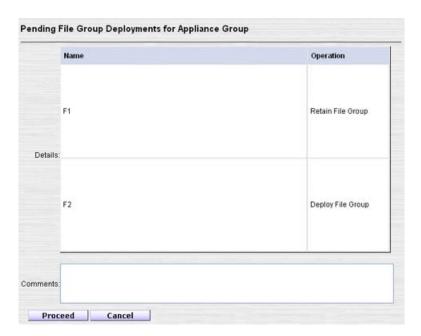
To deploy file groups on an appliance group, follow these steps.

1 In the Appliance Groups Properties page, click the File Groups tab.

Result: The File Groups Properties page opens.

2 Click Deploy.

Result: The Pending File Group Deployments for Appliance Group page opens.



- 3 File group names are populated automatically in the Name column. The Operation column can have one of the following values:
 - Retain File Group
 - Deploy File Group
 - Remove File

	• Update File
4	Click Proceed. Result: A confirmation dialog is displayed.
5	Click OK.
	END OF STEPS

View file group properties

Purpose

To view file group properties.

Procedure

To view file group properties, follow these steps.

1 In the Appliance Group Properties page, click the File Groups tab.

Result: The File Groups Properties page opens.

- 2 Select an appliance for which a file group has been deployed.
- 3 Click the file group that is displayed in the File Group(s) column.
- 4 Click the Files tab.

The File Group Properties page opens.



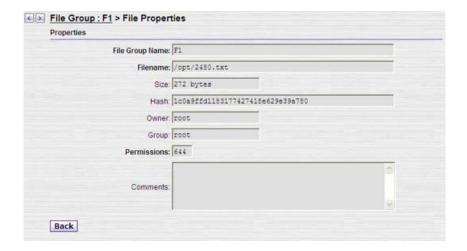
The following table describes information that is displayed in read-only fields in this page.

File Group Properties	Description
File Group Name	Name of the file group
Filename	Name of the file in the file group
Size	File size (in bytes)
Hash	Checksum to verify the integrity of the file
Owner	Specifies the owner of the file

File Group Properties Description	
Group	Specifies the group to which the file belongs
Permissions	Specifies the permissions on the file

5 Click the Filename link.

Result: The File Properties page opens.



6 Click Back to go back to the File Group Properties page.

Appliance group permission management

Overview

Purpose

User permissions in AMS support granular access control. This allows the administrator to monitor user activity on appliance groups in AMS. A user has the required privileges needed in AMS.

For information about user permissions and roles, see "User permissions and roles" (p. 2-72).

Adding permissions

Purpose

To add permissions to the appliance group.

Procedure

To add permissions to the appliance group, follow these steps:

1 In the Appliances tab, expand the Appliance Groups folder.

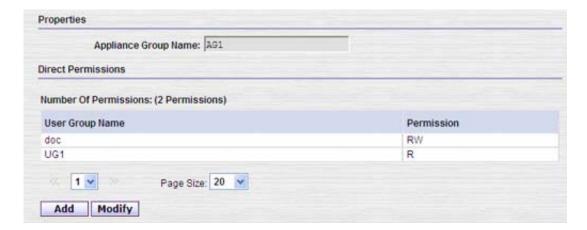
Result: The appliance groups appear in the hierarchy.

2 Select an appliance group.

Result: The properties for the selected appliance group opens.

3 Click the Permissions tab.

Result: The Permissions page opens.



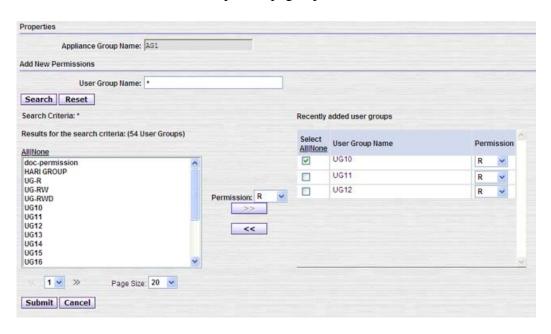
The following table describes information that is displayed in read-only fields in this page.

Permission properties	Description
Appliance Group Name	Displays the name of the appliance group
User Group Name	Displays the names of user groups to which permissions on the appliance group are granted

Permission properties	Description
Permission	Displays the permissions assigned to the user groups in the appliance group

4 Click Add.

Result: The Permissions Properties page opens.



5 Click Search.

Result: A list of user groups is displayed in the Results area.

- 6 Select the required user group(s). Use the >> or << keys to move the selected user group(s) into or away from the Recently added user groups area.
- From the Permission: drop-down list, select one of R, RW, or RWD permissions to allocate read, read/write, or read/write/delete permissions respectively for the selected user group.
- 8 In the Recently added user groups area, do one of the following:
 - Select the required user group(s).

- - Click All to select all the user groups.
 - Click None to deselect the user groups in the list.
 - From the Permission drop-down list, select one of R, RW, or RWD permissions to allocate read, read/write, or read/write/delete permissions respectively for the selected user group.

9 Click Submit.

Result: The message Added the permissions successfully appears.

10 Click OK.

Result: The Permissions Properties page reappears and the newly added permissions are displayed.

Appliances Modifying permissions

Modifying permissions

Purpose

To modify existing permissions on the appliance group.

Procedure

To modify permissions on the appliance group, follow these steps:

1 In the Appliances tab, expand the Appliance Groups folder.

Result: The appliance groups appear in the hierarchy.

2 Select an appliance group.

Result: The properties for the selected appliance group opens.

3 Click the Permissions tab.

Result: The Permissions page opens.

4 Click Modify.

Result: The Properties page opens.



5 Select the permission to be modified. Do one of the following:

- Click All to select all the user groups.
- Click None to deselect the user groups in the list.
- From the Permission: drop-down list, select one of R, RW, or RWD permissions to allocate read, read/write, or read/write/delete permissions respectively for the selected user group(s).
- 7 Click Remove if you wish to delete the selected user group.
- 8 Click Modify if you wish to modify the selected user group.
- 9 To view results on other pages:
 - Click >> to view the next page or select a page number from the drop-down list. You may also increase the list capacity to up to 200 lines in the Page Size field and scroll through a larger list after the page refreshes. Click << to return to previous pages.

Mapping of user permissions

Overview

The section describes how user permissions impact a user in AMS. Table 2-8 shows what a user can view and perform, based on the permissions on an appliance group.

Table 2-21 User group permissions

Permission	Properties	Appliances	Package	File Groups	Configuration History	Service Configu ration
R	Enabled All buttons are disabled.	Enabled All the buttons are disabled.	Enabled All the buttons are disabled.	Enabled All the buttons are dis abled.	Enabled All buttons except Detail are disabled.	Enabled All the buttons are disabled.
RW	Enabled Delete is disabled.	Enabled Modify is enabled.	Enabled All the buttons are enabled.	Enabled All the buttons are en abled.	Enabled All the buttons are enabled.	Enabled All the buttons are enabled.
RWD	Enabled All buttons are enabled.	Enabled Modify is enabled.	Enabled All the buttons are enabled.	Enabled All the buttons are en abled.	Enabled All the buttons are enabled.	Enabled All the buttons are enabled.

The **Modify** and **Delete** buttons are disabled on an appliance group on which the user has only read permission.





Overview

Purpose

This chapter describes how to work with VitalQIP appliance packages after you import them into AMS.

Contents

This chapter covers these topics.

Packages overview	3-2
Download Appliance Manager files	3-4
Import a package	3-6
Display package properties	3-9
Delete a package	3-13

Packages Packages overview

Packages overview

Purpose

The AMS Packages tab allows you to import VitalQIP services packages that you have downloaded from the Alcatel-Lucent electronic delivery site (ALED). It provides the following features:

- Import packages
- Review package properties
- Delete packages that are no longer in use

Service Packages

Alcatel-Lucent provides the following service packages that permit delivery of service fixes/patches between VitalQIP and AMS. Examples of the packages include:

- VitalQIP DNS Remotes
- VitalQIP DHCP Remotes
- VitalQIP Remote Services
- Linux OS upgrades
- VitalQIP Enterprise Server
- Sybase
- JRE

Service Packages are packaged in LPF files that are posted on the Alcatel-Lucent Electronic Delivery (ALED) site. The LPF file includes a default set of configuration files for the service (if applicable), which can be further configured for the customer's network by the Administrator. VitalQIP AMM understands the LPF file format, which allows for the remote package administration feature.

LPF directory structure

LPF files are posted in a directory structure in which each major revision of AMS has a top-level directory that contains both a server directory and a packages directory. The *server* directory contains InstallShield executables, whereas the *packages* directory contains LPF packages that are placed in directories based upon the package name. This directory may contain multiple versions of a package. For example:

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```
- qddns
- qddns-4.0.17-1.i386.lpf
- qddns-4.0.19-1.i386.lpf
...
- vitalqip6-remote
...
am-1.1/ams
- amsSetupLinux-1.1B5.bin
- amsSetupLinux-1.1B6.bin
...
am-2.0/amm/packages
...
am-2.0/ams
...
```

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Download Appliance Manager files

Purpose

To access the Alcatel-Lucent ALED site and download files related to Appliance Manager.

Procedure

To download Appliance Manager files, follow these steps.

1 Click the ALED site icon (**8**) in the AMS toolbar.

Result: The ALED site login window opens.



2 Enter your user name and password, and click Login.

Result: The Customer Center page for VitalQIP Appliance Manager (AM) opens.



3 Under Documentation and downloads, click **Downloads: Electronic Delivery**.

Result: The Network Operations Software Products: VitalQIP® Appliance Manager (AM) page opens.

- 4 Select **AMS**-<release number> and click Next.
- 5 Select the file to download and click Next.
- 6 Enter the download directory on your local machine and click Download.

Import a package

Purpose

To import a VitalQIP services package. Importing a package makes it known to the AMS system. The package must be imported before the service can be deployed to appliances.

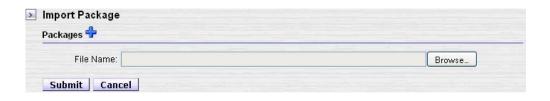
Before you begin

- You need to download the VitalQIP service package files from the ALED site. For instructions on downloading from the ALED site, refer to the *Appliance Management Software (AMS) Release Notes*.
- Make sure you use package files intended specifically for AMS, which use the .lpf extension. The ALED site also contains VitalQIP services software in other file formats, but these are not compatible with AMS.

Procedure

To import a package into the AMS database, follow these steps.

In the Packages tab, mouse over the Actions menu and select Import Package.
 The Import Packages page replaces the AMS splash screen.



2 Choose one of the following actions.

If you want to	Then
Enter a package file name	 Click in the File Name field. Enter the full path of the file downloaded from the ALED site.
	3. Click the add package icon () to enter another file to download (if required).



3 Click Submit.

Result: The import process begins. A progress indicator displays as the file is imported. When the import is completed, the message Package(s) Imported appears.

4 Click OK.

Result: The Import Package page reappears and the Packages hierarchy refreshes with the new imports.

5 Click Cancel to close the Import Package page.

Display package properties

Purpose

To display imported package properties.

Procedure

1 In the Packages tab, expand the Packages folder.

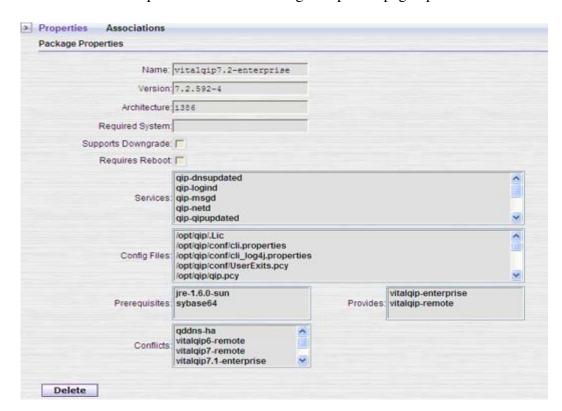
Result: The VitalQIP services folders open.

2 Expand the VitalQIP services folder that contains the package you want to review.

Result: A list of imported packages for the selected service opens.

3 Select the package you want to review.

Result: The Properties tab of the Package Properties page opens.



4 Review the values in the fields, as described in the following table.

Table 3-1 Package Properties fields

Field	Description
Name	Displays the name of the package.
Version	Displays the package version.
Architecture	Displays the platform type on which the package runs.
Required System	Indicates the supported appliance platform. If this value is empty, it indicates that the package can be deployed on all appliance platforms.
Supports downgrade	Indicates whether the package can be downgraded or not. The Sybase and VitalQIP Enterprise Server packages cannot be downgraded, for example.
Requires Reboot	Indicates whether the appliance needs rebooting.
Services	Displays the services contained in the package.
Config Files	Displays the configuration files contained in the package.
Prerequisites	Lists any other packages that must be deployed with this package in order for it to work properly. A prerequisite may be satisfied by either a package name or a name from a package's Provides field. If a prerequisite package has not been imported into AMS, the name appears in red.
Provides	Displays any supplementary names that the package has declared. These names are equivalent to the package's primary name for validating that another package's prerequisites are satisfied.
Conflicts	Displays other available packages with which the current package is incompatible.

5 Click the Associations tab.



6 Review the values in the fields, as described in the following table.

Table 3-2 Package Properties fields

Field	Description
Name	Displays the name of the package.
Version	Displays the package version.
Appliance Name	Displays the name of the appliance.
IP Address	Displays the IP address of the associated appliance.
Appliance Status	Displays the status of the associated appliance.
Review results on other pages	Click >>> to view the next page or select a page number from the drop-down list. You may also increase the list capacity to up to 200 lines in the Page Size field and scroll through a larger list after the page refreshes. Click << to return to previous pages.
All Service Status	
Appliance Group Name	Displays the name of the appliance group.

7 If you wish to delete the package because it is no longer associated with any appliances, use the Delete function. For further information, refer to "Delete a package" (p. 3-13).

Delete a package

Purpose

To delete a package that is no longer associated with any appliances.

Before you begin

- You cannot delete a package as long as there is an appliance or appliance group still
 associated with it. Use the Search Appliances function to determine if any appliances
 are still associated with the package you intend to delete. Refer to "Search for
 appliances" (p. 2-48).
- After a package is deleted, it remains in the packages list in the Appliance and Appliance Group Properties Configuration History although it is not selectable. Should you need to roll back to a deployment that used a deleted package, you need to import it again using the Import Packages function. Refer to "Import a package" (p. 3-6).

1 In the Packages tab, expand the Packages folder. Result: The VitalQIP services folders open. 2 Expand the VitalQIP services folder that contains the package you want to review. Result: A list of imported packages for the selected service opens. 3 Select the package in the Packages column that is no longer in use. Result: The Package Properties page opens. 4 Click Delete. Result: A dialog box opens with the message Are you sure you want to delete <package name>?

5

Click OK.

Result: The Package deleted confirmation message opens.





Overview

Purpose

This chapter describes how to work with VitalQIP file groups.

Contents

This chapter covers these topics.

File groups overview	4-2
Add a file group	4-3
Modify file group properties	4-4
Adding files to a file group	4-6
Removing files from a file group	4-8
Modify a file group	4-9
Delete a file group	4-10
Modify file properties	4-11
Delete a file from the file properties page	4-13
Viewing file group associations	4-14

File groups overview

A file group contains numerous individual files. The AMS File Groups tab helps you do the following:

- Define a file group
- Add files to a file group
- Delete files from a file group
- Update the file content and properties
- Update the file group properties
- Delete the file group
- Associate and deploy file groups to the appliance and appliance group
- Set the permissions and location for the files in the file group

An example usage of the data files feature is the IP phone deployment. Many IP phones download a firmware image from a TFTP server. The appliance supports a TFTP server, but placing the firmware images on the appliance is currently a manual process. With the file groups feature, IP phone firmware images can be placed on the appliance very easily from the AMS GUI. Each required firmware image can be uploaded to the AMS and added as a data file to a data file group, which can be deployed on the appliance.

Each data file should be given the appropriate filename with a path of /opt/tftp/tftpboot. This data file group should then be assigned to the appropriate appliances along with the tftp server package. A deployment will place the package and data files on the appliance. The appliance should then be capable of handling the phone requests.

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Add a file group

Purpose

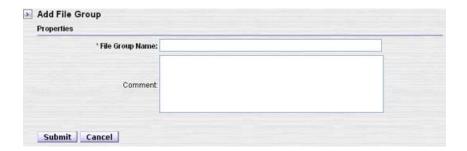
To add a new file group.

Procedure

To create a new file group, follow these steps.

1 In the File Groups tab, mouse over the Actions menu and select Add File Group.

Result: The Add File Group page opens.



2 In the File Group Name field, enter the name of the file group.

Note: File group names can contain alphanumeric characters, underscores, blank space, and hyphen characters; however they are not allowed as the first character of the file group name.

- 3 In the Comment field, enter a comment of up to 255 alphanumeric characters if desired.
- 4 Click Submit.

Result: The File Group saved dialog is displayed.

5 Click OK.

Modify file group properties

Purpose

To modify file group properties.

Procedure

To display file group properties, follow these steps.

1 In the File Groups tab, expand the File Groups folder.

2 Click on a file group in the File Groups tree.

The File Group Properties for the selected file group opens.



3 Choose from the following actions.

If you want to	Then
Add files to a file group	Click the Add Files tab. Click Add Files. For further information, refer to "Adding files to a file group" (p. 4-6).
Remove files from a file group	Click Remove Files . For further information, refer to "Removing files from a file group" (p. 4-8).
View file group associations	For further information, refer to "Viewing file group associations" (p. 4-14).
Modify the file group properties	Click Modify . For further information, refer to "Modify a file group" (p. 4-9).
Delete the file group	Click Delete . For further information, refer to "Delete a file group" (p. 4-10).
Modify file properties	For further information, refer to "Modify file properties" (p. 4-11).
Delete a file from the File Properties page	For further information, refer to "Delete a file from the file properties page" (p. 4-13).

END OF STEPS

Adding files to a file group

Purpose

To add files to a file group. You can add a maximum of ten files at a time. Each file can be a maximum of 1Mb in size.

Procedure

To add files to a file group, follow these steps.

1 Select the Files tab.



2 Click Add Files.

Result: The Add Files dialog opens.



3 Click Browse....

Result: The File Upload dialog opens.

4 Browse to the directory in which the file resides, select the required file, and click Open.

In the File Name field, the file you selected in the previous step is displayed with a prefix /opt/.

Note: You cannot edit the value /opt/.

Click to add file rows to the file group.

To add more files to a file group, follow steps 4 through 6.

Note: You can upload a maximum of 10 files at a time. The file size of each file can be a maximum of 1Mb.
Click to remove a file row from the file group.
Click Submit.

Result: The files added are displayed in the File Group Properties window.

Removing files from a file group

Purpose

To remove files from a file group.

Procedure

To remove files from a file group, follow these steps.

- 1 In the Files tab of the File Group Properties window, select the files to be removed from the file group.
 - To select all files in the file group, click All.
 - To remove the selection of all files in the file group, click None.
- 2 Click Delete Files.

Result: You are prompted for confirmation.

3 Click OK.

Result: The selected files are removed from the file group.

Modify a file group

To modify a file group.

Procedure

To modify files in a file group, follow these steps.

- 1 In the File Groups Properties window, click Modify.
- 2 In the File Group Name field, modify the name of the file group as required.
- 3 In the Comment field, modify the comments (if any).
- 4 Click Submit.

Result: The file group is modified.

5 Click OK.

Delete a file group

Purpose

To delete a file group.

Procedure

To delete a file group, follow these steps.

1 In the File Group Properties window, click Delete.

Result: You are prompted for confirmation.

2 Click OK.

Result: The file group is deleted.

Modify file properties

Purpose

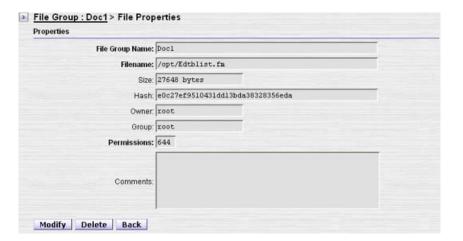
To modify file properties.

Procedure

To modify file properties, follow these steps.

1 In the Files tab of the File Group Properties window, click the FileName link.

Result: The File Properties window opens.



- 2 Click Modify.
- 3 In the Filename field, modify the file name as required.
- 4 In the New File Content field, click Browse... to replace the contents of the existing file.
- 5 In the Permissions field, modify the file permissions as required.
 - By default, the file permission is set to 644. You can set any value in the range 000 to 777 as required.

File groups		Modify file propertie
6	Click Submit.	

Delete a file from the file properties page

To delete a file from the File Properties page.

Procedure

To delete a file from the File Properties page, follow these steps.

1 In the File Group Properties window, click the FileName link.

Result: The File Properties page opens.

2 Click Delete.

Result: You are prompted for confirmation.

3 Click OK.

Viewing file group associations

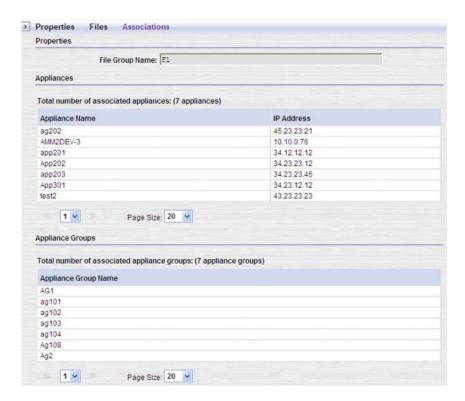
Purpose

To view file group associations.

Procedure

To view file group associations, follow these steps.

1 In the File Groups Properties window, select the Associations tab.



2 This page lists the appliances and appliance groups as follows:

Field	Description
File Group Name	Displays the name of the file group.
Appliance Name	Displays the name of the appliance.
IP Address	Displays the IP address of the appliance.
Appliance Group Name	Displays the appliance group name.

Field	Description
Review results on other pages	Click >>> to view the next page or select a page number from the drop-down list. You may also increase the list capacity to up to 200 lines in the Page Size field and scroll through a larger list after the page refreshes. Click << to return to previous pages.





Overview

Purpose

This chapter describes how to use the functions in the System tab. It discusses how to review system information, system logs, system parameters, manage users and user groups.

Contents

This chapter covers these topics.

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System overview

Purpose

The AMS System tab allows you to review system logs and control system parameters, as well as manage users and groups. It provides the following features:

Systems Logs Information

- Search status messages and notification messages
- Probe results

System Parameters Information

- Set or review appliance polling intervals
- Set or review event retention periods
- · Set or review AMS IP Address override

Users

- Manage users
- Manage user groups

Current User Options

Modify password and view permissions for the current user

System Logs Information

Overview

Purpose

System Logs Information describes how to check status messages, notifications, and probe results in AMS.

Search status messages

Purpose

To search status messages.

Procedure

To search system logs for status messages, follow these steps.

1 In the System tab, select the Logs sub-tab.

Result: The System Logs page opens.

- 2 Expand the System Logs folder.
- 3 Select Status Messages.

Result: The Status Messages page opens.



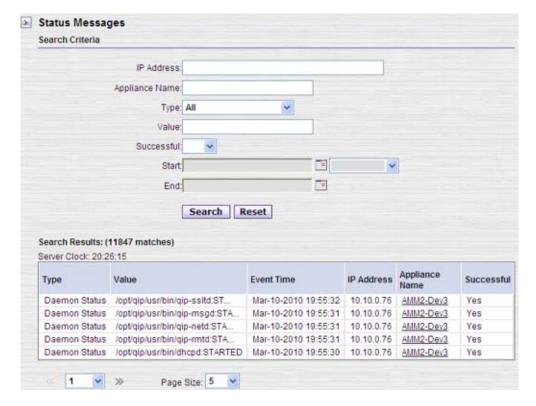
4 Enter values in the fields as required. The fields are described in the following table.

Table 5-1 Status message search fields

Field	Description
IP Address	Enter the IP address of the appliance for which you are searching.
Appliance Name	Enter the appliance name for which you are searching. The wildcard character (*) may be used.
Туре	Select the message types for which you wish to search. • All (default) • Communication Check • Daemon Status
Value	Enter a string for which you wish to search. The wildcard character (*) may be used. For example, *stop* returns all messages containing the word STOPPED.
Successful	Select Yes to view messages that established a connection with an appliance. Select No to view messages that failed to communicate with an appliance.
Start	To search for messages starting from a specific date, click the calendar icon and select a date in the calendar. Click the forward and back arrows to move to different months, as required. You may also specify a time in hh:mm:ss format. The calendar control uses a 24-hour clock, so you would enter 5:00 PM as 17:00:00.
End	To search for messages ending on a specific date, click the calendar icon and select a date in the calendar. Click the forward and back arrows to move to different months, as required. You may also specify a time in hh:mm:ss format. The calendar control uses a 24-hour clock, so you would enter 5:00 PM as 17:00:00.

5 Click Search.

Result: The Status Messages page expands to display the results of the search.



If the search parameters produce no results, a dialog box opens with the message The search returned no results opens.

Result: The dialog box closes.

6 Choose from the following actions.

If you want to	Then
Access the properties page of an appliance in the Search Results list	Locate the appliance that you want to access in the Appliance Name column and click on the link. Result: The Appliance Properties page opens.
Review search results on other pages	Click >> to view the next page or select a page number from the drop-down list. You may also increase the result list capacity to up to 200 lines in the Page Size field and scroll through a larger list after the page refreshes. Click << to return to previous pages.
Conduct another search with different parameters	Click Reset. Result: The search parameters used in the previous search are cleared.

Search notification messages

Purpose

To search notification messages.

Procedure

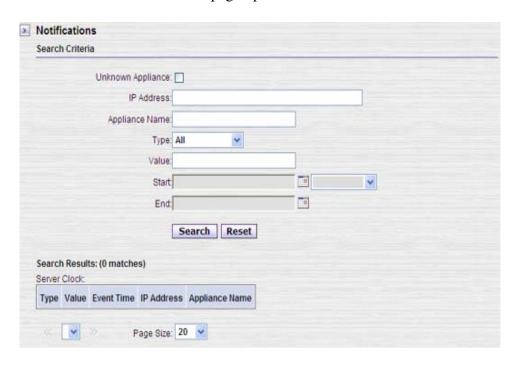
To search system logs for notification messages, follow these steps.

1 In the System tab, select the Parameters sub-tab.

Result: The System Logs page opens.

- 2 Expand the System Logs folder.
- 3 Select Notifications.

Result: The Notifications page opens.



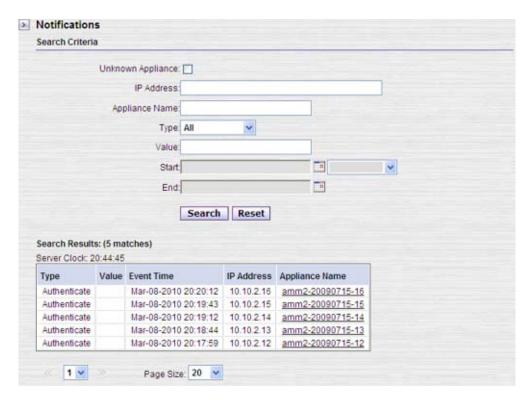
4 Enter values in the fields as required. The fields are described in the following table.

Table 5-2 Notification message search fields

Field	Description
Unknown Appliance	Check this field to search for unknown appliances. An appliance sends a notification to AMS with a key and some data. The notification is regarded as from an unknown source if:
	The request's IP address is unknown
	The key for an appliance at the request's IP address is incorrect
	An appliance sends notifications at startup, authentication, and so on. Any of these notifications may be marked as unknown. A rogue appliance that is sending notifies should have all requests marked as unknown.
	Notification information may be most useful when an appliance is first authenticated. The system log allows an AMS administrator (who may not have physical access to the appliance) to determine that appliance requests came in successfully or otherwise.
IP Address	Enter the IP address of the appliance for which you are searching.
Appliance Name	Enter the appliance name for which you are searching. The wildcard character (*) may be used.
Type	Select the message types for which you wish to search.
	All (default)
	Authenticate
	Startup
	Shutdown
	Daemon Start
	Daemon Stop
	Node Active
Value	Enter a string for which you wish to search. The wildcard character (*) may be used.
Start	To search for messages starting from a specific date, click the calendar icon and select a date in the calendar. Click the forward and back arrows to move to different months, as required. You may also specify a time in hh:mm:ss format. The calendar control uses a 24-hour clock, so you would enter 5:00 PM as 17:00:00.
End	To search for messages ending on a specific date, click the calendar icon and select a date in the calendar. Click the forward and back arrows to move to different months, as required. You may also specify a time in hh:mm:ss format. The calendar control uses a 24-hour clock, so you would enter 5:00 PM as 17:00:00.

5 Click Search.

Result: The Notifications page expands to display the results of the search.



If the search parameters produce no results, a dialog box opens with the message The search returned no results. Click OK.

Result: The dialog box closes.

6 Choose from the following actions.

If you want to	Then
Access the properties page of an appliance in the Search Results list	Locate the appliance that you want to access in the Appliance Name column and click on the link. Result: The Appliance Properties page opens.
Review search results on other pages	Click >> to view the next page or select a page number from the drop-down list. You may also increase the result list capacity to up to 200 lines in the Page Size field and scroll through a larger list after the page refreshes. Click << to return to previous pages.
Conduct another search with different parameters	Click Reset. Result: The search parameters used in the previous search are cleared.

Search probe results

Purpose

To search probe results.

Procedure

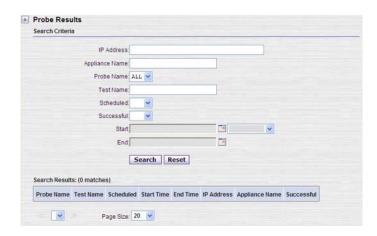
To search system logs for probe results, follow these steps.

1 In the System tab, select the Logs sub-tab.

Result: The System Logs page opens.

- 2 Expand the System Logs folder.
- 3 Select Probe Results.

Result: The Probe Results page opens.



4 Enter values in the fields as required. The fields are described in the following table.

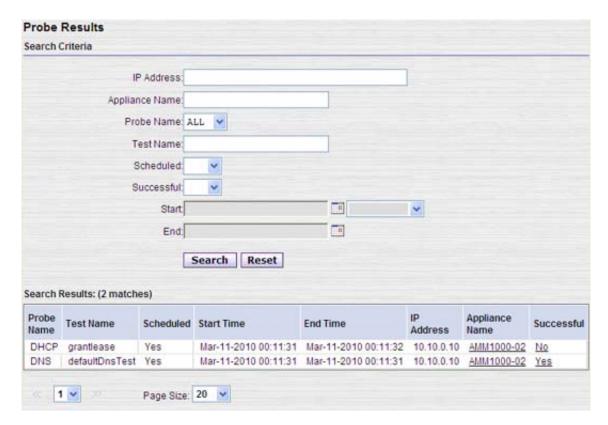
Table 5-3 Probe results search fields

Field	Description
IP Address	Enter the IP address of the appliance for which you are searching.
Appliance Name	Enter the appliance name for which you are searching. The wildcard character (*) may be used.

Field	Description
Probe Name	Select the probe names for which you wish to search: • All • DHCP • DNS
Test Name	Enter the name of the test for which you are searching. The wildcard character (*) may be used.
Scheduled	Select the tests that are scheduled to run. The valid values are: • Yes • No
Successful	Select the tests that are successful. The valid values are: • Yes • No
Start	To search for probes starting from a specific date, click the calendar icon and select a date in the calendar. Click the forward and back arrows to move to different months, as required. You may also specify a time in hh:mm:ss format. The calendar control uses a 24-hour clock, so you would enter 5:00 PM as 17:00:00.
End	To search for probes ending on a specific date, click the calendar icon and select a date in the calendar. Click the forward and back arrows to move to different months, as required. You may also specify a time in hh:mm:ss format. The calendar control uses a 24-hour clock, so you would enter 5:00 PM as 17:00:00.

5 Click Search.

Result: The Probe Results page expands to display the results of the search.



If the search parameters produce no results, a dialog box opens with the message The search returned no results. Click OK.

Result: The dialog box closes.

6 Choose from the following actions.

If you want to	Then
Access the Probe Results Details page of an appliance in the Search Results list	Locate the appliance that you want to access in the Successful column and click on the link. Result: The Probe Results Details page opens. Probe Result Details Probe Results Details page opens. Scholabet Solicite Results Details Freb-17-2009 10107154 End Tase: Freb-17-2009 10107154 End Tase: Successful: No. Replies received before taseout (2000 ke) Details:
Review search results on other pages	Click >> to view the next page or select a page number from the drop-down list. You may also increase the result list capacity to up to 200 lines in the Page Size field and scroll through a larger list after the page refreshes. Click << to return to previous pages.
Conduct another search with different parameters	Click Reset. Result: The search parameters used in the previous search are cleared.

END OF STEPS

System Parameters Information

Overview

Purpose

System Parameters Information describes how to set (or review) the appliance polling intervals used to check communication status and the amount of time system log records are stored.

Modify the appliance polling interval

Purpose

To modify (or review) the appliance polling interval, which establishes the frequency of Communication Check status checks.

Before you begin

- The Reset to Default function changes the parameter value to the default value shown (600 seconds). It is immediately saved after you click Reset to Default.
- A parameter update is noticed by default within two minutes. At that time, the appliance monitor jobs are rescheduled as specified by the new parameter value.

Procedure

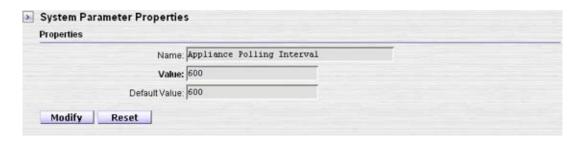
To modify (or review) the appliance polling interval, follow these steps.

1 In the System tab, select the Parameters sub-tab.

Result: The System Parameters page opens.

- 2 Expand the System Parameters folder.
- 3 Select Appliance Polling Interval.

Result: The System Parameter Properties page opens.



4 To modify the appliance polling interval, click Modify.

Result: The button label changes to Submit.

5	Enter a value in seconds. Alcalde-Lucent does not recommend a small value, especially there is a substantial number of appliances, since each appliance is checked during each period.
6	Click Submit.
	Result: A dialog box opens with the message System Parameter saved.
7	Click OK.
	Result: The dialog box closes.
8	To reset the appliance polling interval to the default, click Reset.
	Result: The polling interval changes to the default value and a dialog box opens with the message System Parameter set to default.
9	Click OK.
	Result: The dialog box closes.
	END OF STEPS

Modify the event retention period

Purpose

To modify (or review) the amount of time system log records are retained before they are cleared.

Before you begin

• The Reset to Default function changes the parameter value to the default value shown (3 days).

Procedure

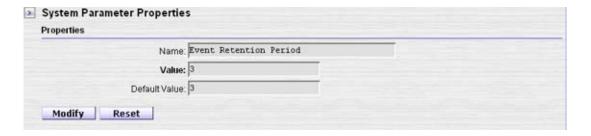
To modify (or review) the event retention period, follow these steps.

1 In the System tab, select the Parameters sub-tab.

Result: The System Parameters page opens.

- 2 Expand the System Parameters folder.
- 3 Select Event Retention Period.

Result: The System Parameter Properties page opens.



4 To modify the event retention period, click Modify.

Result: The button label changes to Submit.

5	Enter a value in days. Any number of days greater than 1 may be set. The limit depends on available disk space. A retention parameter update is acted upon at the next clearing time. The default time is daily at 6AM.
6	Click Submit.
	Result: A dialog box opens with the message System Parameter saved.
7	Click OK.
	Result: The dialog box closes.
8	To reset the appliance polling interval to the default, click Reset.
	Result: The polling interval changes to the default value and a dialog box opens with the message System Parameter set to default.
9	Click OK.
	Result: The dialog box closes.
	END OF STEPS

Override the AMS IP address

Purpose

The AMS IP address is used when configuring appliances. The appliance uses the information to contact the AMS for authentication and notification.

AMS uses the primary IP address of the machine on which the application resides. This may not always be optimal. As an example, a machine may have multiple interfaces and the default address may not be correct. The override allows the address to be configured explicitly.

Procedure

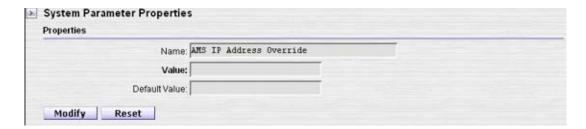
To set an explicit address for the AMS IP address, follow these steps.

1 In the System tab, select the Parameters sub-tab.

Result: The System Parameters page opens.

- 2 Expand the System Parameters folder.
- 3 Select AMS IP Address Override.

Result: The System Parameter Properties page opens.



4 To modify the AMS IP address, click Modify.

Result: The button label changes to Submit.

5 Enter the AMS IP address you wish to use in the Value field.

The **Default Value** field is displayed with a null value.

6	Click Submit.
	Result: A dialog box opens with the message System Parameter saved.
7	Click OK.
	Result: The dialog box closes.
8	To reset the AMS IP address to the default, click Reset.
	Result : The IP address changes to the default value and a dialog box opens with the message System Parameter set to default .
9	Click OK.
	Result: The dialog box closes.
	END OF STEPS

Users

Overview

Purpose

Users describes how to set up and manage users and user groups in AMS. It describes how to add, modify, and delete user and user group records in the database, as well as how to change user passwords.

The following user IDs are supplied with AMS by default:

- **amsuser** provides access to read-only operations on package staging/history and the ability to search appliances. For information on using this account to log in, refer to "Log in to AMS" (p. 1-8).
- **amsadmin** provides full access to all the features and functions of AMS. For information on using this account to log in, refer to "Log in to AMS" (p. 1-8).
- system a built-in account that is used for internal processing, such as **rpc** calls and scheduling. The account cannot be used to log into the AMS UI, nor can it be deleted. The password, however can be changed.

The following user group IDs are supplied with AMS by default:

- **Administrators** a built-in group that is used to group administrator user IDs by default. The record may be modified but not deleted.
- **Monitors** a built-in group that is used to group regular user IDs by default. The record may be modified but not deleted.

Add a new user

Purpose

To add a new user record.

Before you begin

You may define two types of users: an Administrator type who can use the full functionality of AMS, or a Monitor user type who can use AMS to monitor the following:

- Read-only operation on package staging/history
- Search Appliances to check the status of appliances and their services

Procedure

To add a new user, follow these steps.

- 1 In the System tab, select the Users sub-tab.
- 2 Mouse over the Actions menu and select Add User.

Result: The Add User page opens.



3 Enter values in the fields, as described in the following table.

Table 5-4 Add user fields

Field	Description
Login ID	Required. Enter the user's login ID.
Name	Enter the user's name.
Password	Required. Enter the user's password. It can be comprised of any alphanumeric characters but cannot be empty.
Confirm Password	Required. Re-enter the user's password.

User Groups

The following user groups are already defined in AMS (and may not be deleted):

- Administrators
- Monitors

Regular users may be assigned to Monitors although you may disassociate that user group and add regular users only to your own user groups as you wish. Administrator users must be assigned to the Administrators user group, however, if they are to have access to the full functionality of AMS.

4 Choose one of the following actions in the User Group Association list.

If you want to	Then
Assign user to one or more user groups	Place a check mark in the Select checkbox beside the Group Name you wish to associate with the user.
Select all the user groups in the User Group Association list	Click All. Result: A check mark appears beside every group name in the list.
Deselect all the user groups in the User Group Association list	 Click None. Result: A dialog box opens with the message Are you sure that you want to remove all the user group associations? Click OK.

5	Click OK.
6	To save the user record, click Submit.
	Result: A dialog box opens with the message User saved.
7	Click OK.
1	
	Result: The Users and User Groups trees are refreshed with the new login ID.
	END OF STEPS

Display user properties

Purpose

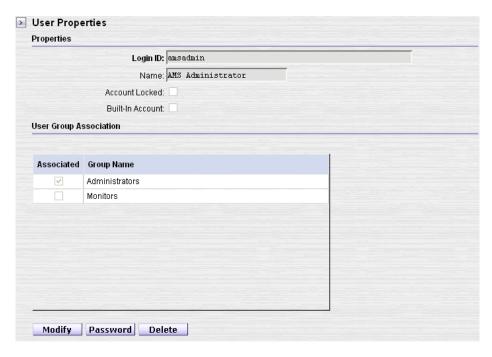
To display user properties.

Procedure

To display user properties, follow these steps.

- 1 In the System tab, select the Users sub-tab.
- 2 Expand the Users tree.
- 3 Click on the login ID of a user.

Result: The User Properties page opens.



Note that since the user record was added, the page has changed as follows:

- The Account Locked option allows you to prevent a login ID from being used to access AMS.
- The Built-in Account option indicates that a record is supplied by AMS. For example, system.

4 Choose from any of the following functions.

If you want to	Then
Basic Properties	
Lock a user record	Place a check in the Account Locked check box.
Modify a user record	Click Modify . For further information, refer to "Modify a user" (p. 5-30).
Delete a user record	Click Delete . For further information, refer to "Delete a user" (p. 5-34).
Change a user password	Click Password . For further information, refer to "Change a user password" (p. 5-32).

Modify a user

Purpose

To modify a selected user.

Procedure

To modify a user record, follow these steps.

1 In the System tab, select the Users sub-tab.

2 Expand the Users tree.

3 Click on the login ID of a user.

Result: The User Properties page opens.

4 Click Modify.

Result: The Modify User page opens.



5	Make changes as required.
	If you change the user group association, a dialog box with the message Are you sure you want to remove the user group association? Click OK to continue.
6	Click Submit.
	Result: A dialog box opens with the message User saved.
7	Click OK.
	Result: The User Properties page opens.
	END OF STEPS
	6

Change a user password

Purpose

To change a user's password. This method is used by an administrator to change the password of any user, except users imported from VitalQIP in an integrated environment.

Procedure

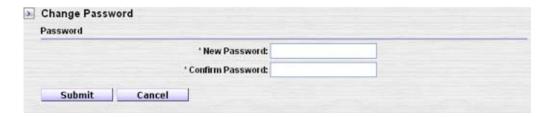
To change a user's password, follow these steps.

- 1 In the System tab, select the Users sub-tab.
- 2 Expand the Users tree.
- 3 Click on the login ID of a user.

Result: The User Properties page opens.

4 Click Password.

Result: The Change Password page opens.



- 5 Enter a new password in the **New Password** field. You may enter any number of alphanumeric characters but the password may not be null (empty).
- 6 Re-enter the password you just created in the Confirm Password field.
- 7 Click Submit.

Result: A dialog box opens with the message User password changed.

8 Click OK.

Result: The AMS splash screen opens.

Delete a user

Purpose

To delete a user record.

Before you begin

You may delete any user record except those with a Built-In Account check mark.

Procedure

To delete a user record, follow these steps.

- 1 In the System tab, select the Users sub-tab.
- 2 Expand the Users tree.
- 3 Click on the login ID of the user record you wish to delete.

Result: The User Properties page opens.

- 4 Click Delete.
- 5 A dialog box opens with the message Are you sure you want to delete <user name>?

6 Click **OK** to continue.

Result: The Users tree is refreshed as the record is deleted and a dialog box opens with the message **User deleted**.

7 Click OK.

Result: The AMS splash screen opens.

Add a new user group

Purpose

To add a new user group.

Before you begin

The following user groups are built into AMS (and may be modified but not be deleted):

- Administrators
- Monitors

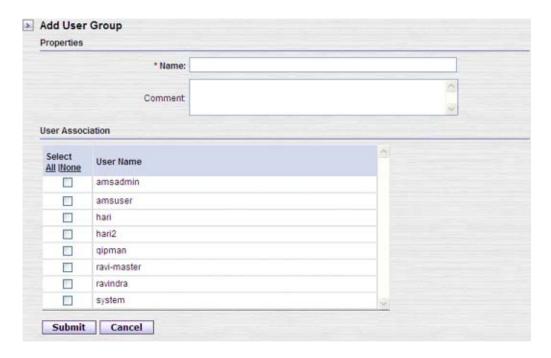
Regular users may be assigned to Monitors although you may disassociate that user group and add regular users only to your own user groups as you wish. Administrator users must be assigned to the Administrators user group, however, if they are to have access to the full functionality of AMS.

Procedure

To add a new user group, follow these steps.

- In the Administration tab, select the Users sub-tab.
- 2 Mouse over the Actions menu and select Add User Group.

Result: The Add User Group page opens.



- 3 Enter a user group name in the Name field.
- 4 Choose any of the following actions in the User Association list.

If you want to	Then
Assign one or more users to the group	Place a check mark in the Select checkbox beside the User Name (login ID) you wish to associate with the user.
Select all the users in the User Association list to the group	Click All. Result: A check mark appears beside every user in the list.
Deselect all the users in the User Association list	 Click None. Result: A dialog box opens with the message Are you sure you want to remove all the user associations? Click OK.

5 Click OK.

6 When you are ready to save the user group, click Submit.

Result: A dialog box opens with the message User Group saved.

7 Click OK.

Result: The user group appears in the User Groups tree and the User Group Properties page opens.

END OF STEPS

Display user group properties

Purpose

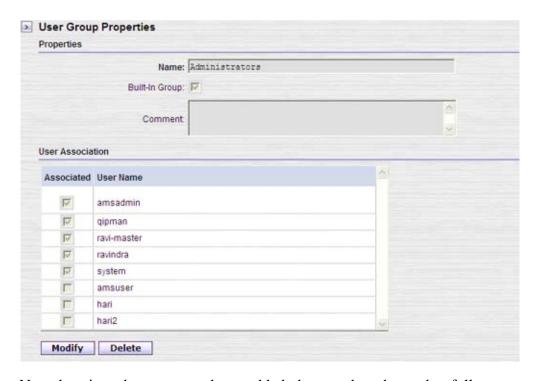
To display User Group properties.

Procedure

To display user properties, follow these steps.

- 1 In the Administration tab, select the Users sub-tab.
- 2 Expand the User Groups tree.
- 3 Click on a user group name.

Result: The User Group Properties page opens.



Note that since the user record was added, the page has changed as follows:

 A Built-in Group check box that is used to indicate that a record is supplied by AMS, for example, Administrators.

4 Choose from any of the following functions.

If you want to	Then
Basic Properties	
Modify a user group record	Click Modify . For further information, refer to "Modify a user group" (p. 5-40).
Delete a user group record	Click Delete . For further information, refer to "Delete a user group" (p. 5-42).

Modify a user group

Purpose

To modify a user group.

Procedure

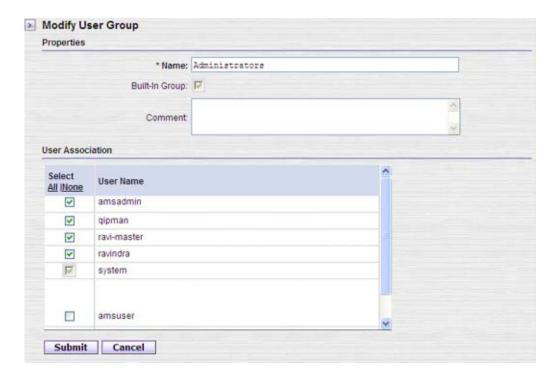
To modify a user record, follow these steps.

- 1 In the Administration tab, select the Users sub-tab.
- 2 Expand the User Groups tree.
- 3 Click on a user group name.

Result: The User Group Properties page opens.

4 Click Modify.

Result: The Modify User Group page opens.



Result: The User Group Properties page opens.

Delete a user group

Purpose

To delete a user group

Before you begin

- A user group cannot be deleted until all users have been disassociated from it and it is empty.
- You may delete any user group record except those with a Built-In Group check mark.

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rocedure	To delete a user group record, follow these steps.
1	In the Administration tab, select the Users sub-tab.
2	Expand the User Groups tree.
3	Click on the user group record you wish to delete. Result: The User Group Properties page opens.
4	Click Delete. Result: A dialog box opens with the message Are you sure you want to delete <user group="" name="">?</user>
5	Click OK to continue. Result: The User Groups tree is refreshed as the record is deleted and a dialog box opens with the message User Group deleted.

6 Click OK.

Result: The AMS splash screen opens.

Current user

Overview

Purpose

In the Current User screen, you can change the password and check the consolidated user permissions only for the logged in user.

Changing the password of the logged in user

Purpose

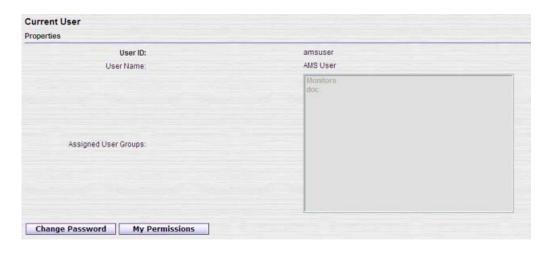
To change the password of the logged in user.

Procedure

Follow these steps.

1 In the System tab, select the Current User sub-tab.

Result: The Current User Properties page opens.



2 Click Change Password.

Result: The Change Password page opens.



3 Do the following:

a.	Enter the existing password in the Old Password field.
b.	Enter a new password in the New Password field. You may enter any number of alphanumeric characters but the password may not be null (empty).
c.	Re-enter the password you just entered in the Confirm Password field.
4 Click	Submit.
Re	esult: A dialog box opens with the message User Password changed.

5 Click OK.

Viewing permissions of the logged in user

Purpose

To view the permissions of the logged in user.

Procedure

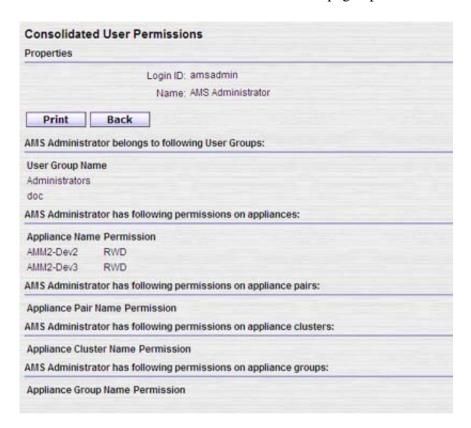
Follow these steps.

1 In the System tab, select the Current User sub-tab.

Result: The Current User Properties page opens.

2 Click My Permissions.

Result: The Consolidated User Permissions page opens.



The consolidated permissions of the selected user are displayed in this page.

3 Click Print.

	Result: A Print dialog box opens.
4	Select the printer and number of copies you wish to print and click Print .
5	Click Back to navigate to the Current User Properties page.





Overview

Purpose

This chapter describes how to view the status of appliances, appliance groups, packages, and package groups.

Contents

This chapter covers these topics.

Status dashboard	6-2
Getting started with Nagios	6-3
Installing and Configuring Nagios with dashboard	6-4
Viewing the map of all hosts	6-6
Viewing the status of hosts	6-7
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Viewing the status of service groups	6-10

Status dashboard

Overview

The status dashboard monitors and displays the status of appliances with the support of a third-party Network Monitoring Software (NMS). The supported Network Monitoring Software is called Nagios. This is an open source product and supports SNMP based monitoring.

Note: Nagios 3.2.1 is the version supported for AMS 1.6.

Getting started with Nagios

Introduction

Install Nagios on the same box where AMS is installed. For more information about installation of Nagios, refer to "Installing and Configuring Nagios with dashboard" (p. 6-4). Nagios is not integrated with AMS and is delivered "as is" without any customization or custom support. Nagios and AMS use different terminology to refer to hosts and services. The following table explains how the Nagios terminology maps to AMS.

Table 6-1 Nagios dashboard terminology

Nagios dashboard terminology	AMS scenario
Hosts	Appliances, appliance pairs and appliance clusters
	Note: Appliance pair and appliance clusters are modeled as "virtual" hosts with the pair/cluster IP address associated to it.
Hostgroups	Appliance groups
Services	Appliance hardware (disk, memory, and so on) and package services
Servicegroups	Package-wise grouping of services

Requirements of Nagios

The following external softwares and libraries are required to run Nagios dashboard:

- Nagios Core
- Nagios plugins
- Apache web server
- Net-snmp (net-snmp, net-snmp-libs and net-snmp-utils rpms)
- Mysql-Python library
- Perl
- Python
- Net::SNMP library for Perl

Note: The dashboard tools require Python, Mysql-Python library, and Net::SNMP library for Perl. All other softwares are required by Nagios.

All dependencies are automatically installed during dashboard installation.

Installing and Configuring Nagios with dashboard

You need to run the dashboard rpm installer to install the dashboard and other dependencies including Nagios.

To install dashboard, do the following:

1. Install the dashboard rpm:

yum install dashboard-1.6.0-5.noarch.rpm --nogpgcheck

Note: Nagios can also be installed directly by following Nagios 3.x documentation.

After the installation of dashboard and Nagios, you need to configure Nagios with dashboard.

To configure Nagios with dashboard, do the following:

1. Run the following command:

/opt/dashboard/bin/configure-nagios

2. Run the utility command to generate Nagios configuration:

/opt/dashboard/bin/nmsconfgen.py -u amsadmin -p
<AMSADMIN_PASSWORD> -n /etc/nagios -v >/opt/dashboard/log.txt 2>&1

Note: Replace the **<amsadmin_password>** with your AMS password.

The nmsconfgen CLI is used to pull data from the AMS database. For more information about CLI, refer to Table 6-2.

Table 6-2 The nmsconfgen CLI options

CLIs	Description
-h/help	Print help message
-u/user= <dbuser></dbuser>	AMS database admin username
-p/password= <dbpassword></dbpassword>	AMS database admin password
-d/dbname= <dbname></dbname>	AMS database name
-n/configdir= <config dir=""></config>	NMS configuration directory
-v/verbose	Print lots of log messages
-c/clean	Remove AMS specific configuration

You can schedule hourly Nagios file generation by updating /etc/cron.hourly/dashboard file.

1. Uncomment the following command line:

/opt/dashboard/bin/nmsconfgen -u amsadmin -p <AMSADMIN_PASSWORD> n /etc/nagios -v >/opt/dashboard/log.txt 2>&1

2. Replace the **<amsadmin_password>** with your AMS password.

Nagios configuration files are automatically updated every hour with AMS changes.

Note: The AMS GUI is not integrated with Nagios and AMS specific configurations are separate from existing Nagios configuration.

Accessing the Nagios web interface

After Nagios is installed and configured, you can access Nagios web interface using a web browser (For example, http://<server ipaddress>/nagios). For login credentials, refer to Nagios 3.x documentation.

You can change the Nagios web interface password.

To change the Nagios web interface password, do the following:

1. Run the following command.

htpasswd -c /etc/nagios/htpasswd.users nagiosadmin

- 2. Enter the new password.
- 3. Restart Apache to make the new settings to take effect, run the following command.

service httpd restart

Changing the community string

Nagios uses SNMP commands to retrieve information from appliances, appliance pairs and appliance clusters. By default, the community string for the SNMP commands is public. You can change the community string by running the following commands on the console.

To change the community string, do the following:

- 1. Change the directory to /opt/dashboard/bin.
- 2. Run the following command:

change-communitystring

3. Enter the new community string.

If required, the tool will prompt for additional steps to be followed for the new settings to take effect.

Viewing the map of all hosts

Purpose

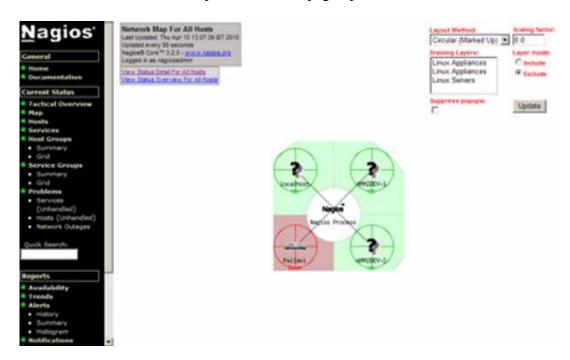
Use the Map page to view the map of all the monitored hosts. Appliances with known model information have icons of the appliance model.

Procedure

To view the Map page, perform the following steps:

1 Select Map from the left navigation pane.

Result: The Network Map For All Hosts page opens.



For more information about the Map page, refer to Nagios 3.x documentation.

Viewing the status of hosts

Purpose

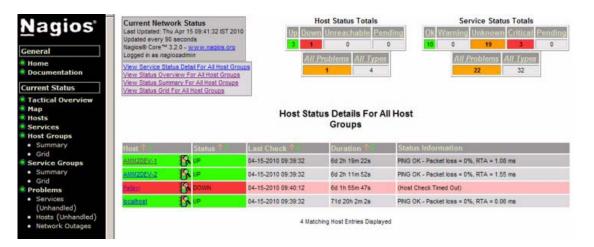
Use the Host page to view the status of all the monitored hosts, including appliances.

Procedure

To view the Host page, perform the following steps:

1 Select Host from the left navigation pane.

Result: The Host Status Details For All Host Groups page opens.



Note: The dashboard tool does not modify any non-AMS Nagios configuration. For more information about the Host page, refer to Nagios 3.x documentation.

Viewing the status of services

Purpose

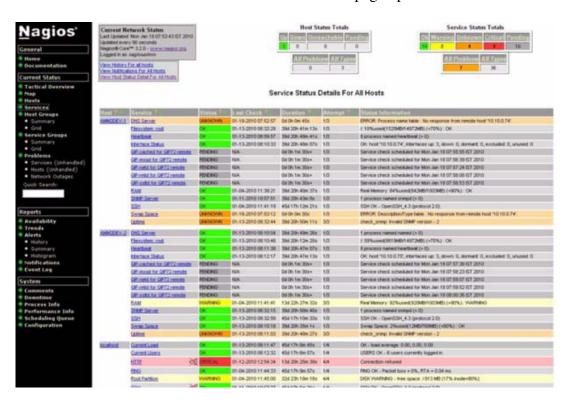
Use the Services page to view the status of all monitored services of the hosts.

Procedure

To view the Services page, perform the following steps:

1 Select **Services** from the left navigation pane.

Result: The Service Status Details For All Hosts page opens.



For more information about the services page, refer to Nagios 3.x documentation.

Viewing the status of hosts groups

Purpose

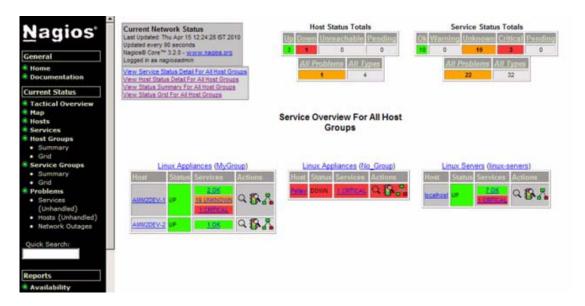
Use the Host Groups page to view the status of all the monitored hosts, including appliances arranged in groups.

Procedure

To view the Host Groups page, perform the following steps:

1 Select Host Groups from the left navigation pane.

Result: The Service Overview For All Host Groups page opens.



For more information about Host Groups page, refer to Nagios 3.x documentation.

Viewing the status of service groups

Purpose

Use the Service Groups page to view the status of all the monitored services arranged in groups.

Procedure

To view the Service Groups page, perform the following steps:

1 Select Service Groups from the left navigation pane.

Result: The Service Overview For All Service Groups page opens.



For more information about the Service Groups page, refer to Nagios 3.x documentation.

Glossary



Α

ALED

Alcatel-Lucent Electronic Delivery

AM

Appliance Manager

AMM

Appliance Management Module

AMS

Appliance Management Software

D

DHCP

Dynamic Host Configuration Protocol

DNS

Domain Name System

Ε

ESM

Enterprise Server Module,

Н

HA

High Availability

J

JRE

Java Runtime Environment

S

SNMP

Simple Network Management Protocol

SSH

Secure Shell

SSL

Secure Socket Layer

Т

TFTP

Trivial File Transfer Protocol

U

URL

Uniform Resource Locator

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