RSA NETWITNESS® PLATFORM

Hosts and Services Getting Started Guide

for RSA NetWitness® Platform 11.4

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April 2020

Contents

Hosts and Services Basics

This guide gives administrators the standard procedures for adding and configuring hosts and services in NetWitness Platform. After introducing you to the basic purpose of hosts and services and how they function within the NetWitness Platform network, this guide covers:

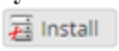
- Tasks you must complete to set up hosts and services in your network
- Additional procedures that you complete based on the long-term and daily, operational needs of your enterprise
- Reference topics that describe the user interface

Go to the Master Table of Contents to find all RSA NetWitness Platform 11.x documents.

What Is a Host?

A host is the machine on which a service runs and can be a physical or virtual machine. See the "NetWitness Platform Detailed Host Deployment Diagram" in the *NetWitness Platform Deployment Guide* for an illustration of how hosts are deployed.

What Is a Category?

A category assigns a service or services to a host when you install a host from the Hosts view. You choose a host **Category** in the **Install Services** dialog which is displayed when you select a host in the Hosts view and click 

. The following table lists each category and the services it installs. See the "NetWitness Platform Detailed Host Deployment Diagram" in the *NetWitness Platform Deployment Guide* for an illustration of how host are deployed.

Category	Services Installed
Analyst UI	Investigate Server, Broker NetWitness UI, Reporting Engine, Respond Server
Archiver	Workbench and Archiver
Broker	Broker
Cloud Gateway	Cloud Gateway
Concentrator	Concentrator
Endpoint Broker	Endpoint Broker
Endpoint Log Hybrid	Log Collector, Log Decoder, Endpoint Server, and Concentrator
ESA Primary	Entity Behavior Analytics, Contexthub, and ESA Correlation
ESA Secondary	Entity Behavior Analytics and ESA Correlation

Category	Services Installed
Health and Wellness Beta	Metrics
Log Collector	Log Collector
Log Decoder	Log Collector and Log Decoder
Log Hybrid	Log Collector, Log Decoder, and Concentrator
Log Hybrid - Retention	Log Collector and Log Decoder (deployed on RSA Series 6 Hybrid hardware with Log Hybrid-Retention Optimization)
Malware Analysis	Malware Analysis and Broker
Network Decoder	Decoder (Packets)
Network Hybrid	Concentrator and Network Decoder
UEBA	UEBA
Warehouse Connector	Warehouse Connector

What Is a Service?

A service performs a unique function, such as collecting logs or archiving data. Each service runs on a dedicated port and is modeled as a plug-in to enable or disable, according to the function of the host.

You must configure the following Core services first:

- Network Decoder
- Concentrator
- Broker
- Log Decoder

All the services are listed below and each service except the Log Collector has its own guide or shares a guide in the *Host and Services Configuration Guides*. The Log Collector has its own set of configuration guides to handle the configuration for all the supported event collection protocols. For Log Collector information, see *Log Collection Guides*.

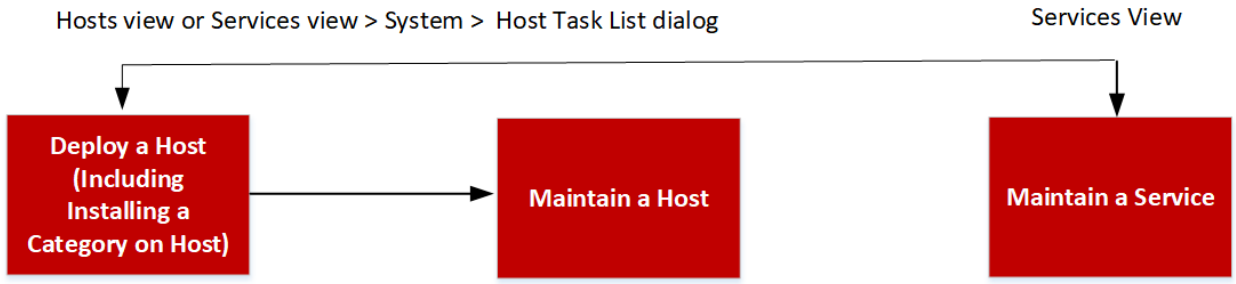
Services	Unencrypted Non-SSL Port	Encrypted SSL Port	Notes
Admin Server			

Services	Unencrypted Non-SSL Port	Encrypted SSL Port	Notes
Admin	N/A	N/A	Implemented with the NW Server
Config	N/A	N/A	Implemented with the NW Server
Content	N/A	N/A	Implemented with the NW Server
Integration	N/A	N/A	Implemented with the NW Server
Investigate	N/A	N/A	Implemented with the NW Server
License	N/A	N/A	Implemented with the NW Server
Orchestration	N/A	N/A	Implemented with the NW Server
Reporting Engine	51113	N/A	
Respond	N/A	N/A	Implemented with the NW Server
Security	N/A	N/A	Implemented with the NW Server
Analyst UI			
Broker	50003	56003	Implemented with the Analyst UI
Investigate	N/A	N/A	Implemented with the Analyst UI
Reporting Engine	51113	N/A	Implemented with the Analyst UI
Respond	N/A	N/A	Implemented with the Analyst UI
Archiver			
Archiver	50008	56008	Core Service
Workbench	50007	56007	
Broker			
Broker	50003	56003	Core Service
Cloud Gateway			
Cloud Gateway	N/A	N/A	
Concentrator			
Concentrator	50005	56005	Core Service
Endpoint Broker			
Endpoint Broker	N/A	N/A	
Endpoint Log Hybrid			
Log Collector	50001	56001	
Log Decoder	50002	56002	
Endpoint Server	N/A	N/A	
Concentrator	50005	56005	
ESA Primary			

Services	Unencrypted Non-SSL Port	Encrypted SSL Port	Notes
Entity Behavior Analytics Contexthub ESA Correlation	N/A N/A N/A	N/A N/A 50030	
ESA Secondary			
Entity Behavior Analytics ESA Correlation	N/A N/A	N/A N/A	
Health and Wellness Beta			
Metrics	N/A	N/A	
Log Collector			
Log Collector	50001	56001	
Log Decoder			
Log Collector Log Decoder	50001 50002	56001 56002	Core Service
Log Hybrid			
Log Collector Log Decoder Concentrator	50001 50002 50005	56001 56002 56005	
Log Hybrid - Retention			
Log Collector Log Decoder	50001 50002	56001 56002	
Malware Analysis			
Malware Analysis Broker	N/A	60007	
Network Decoder			
Network Decoder	50004	56004	Core Service
Network Hybrid			
Concentrator Network Decoder	50005	56005	
UEBA			
UEBA	N/A	N/A	

Services	Unencrypted Non-SSL Port	Encrypted SSL Port	Notes
Warehouse Connector			
Warehouse Connector	50020	56020	Command line installation

You must configure hosts and services to communicate with the network and each other so they can perform their functions such as storing or capturing data.



Setting Up a Host

You use the Hosts view to add a host to NetWitness Platform. See Step 1. Deploy a Host for detailed instructions.

Maintaining Hosts

You use the main Hosts view (ADMIN > Hosts) to add, edit, delete, and perform other maintenance tasks for the hosts in your deployment. You use the Host Task List dialog to perform tasks relating to a host and its communications with the network. See Hosts and Services Maintenance Procedures for detailed instructions.

After initial implementation of NetWitness Platform, the major task you perform from the Hosts view is updating your NetWitness Platform deployment to a new version.

Update Version Naming Convention

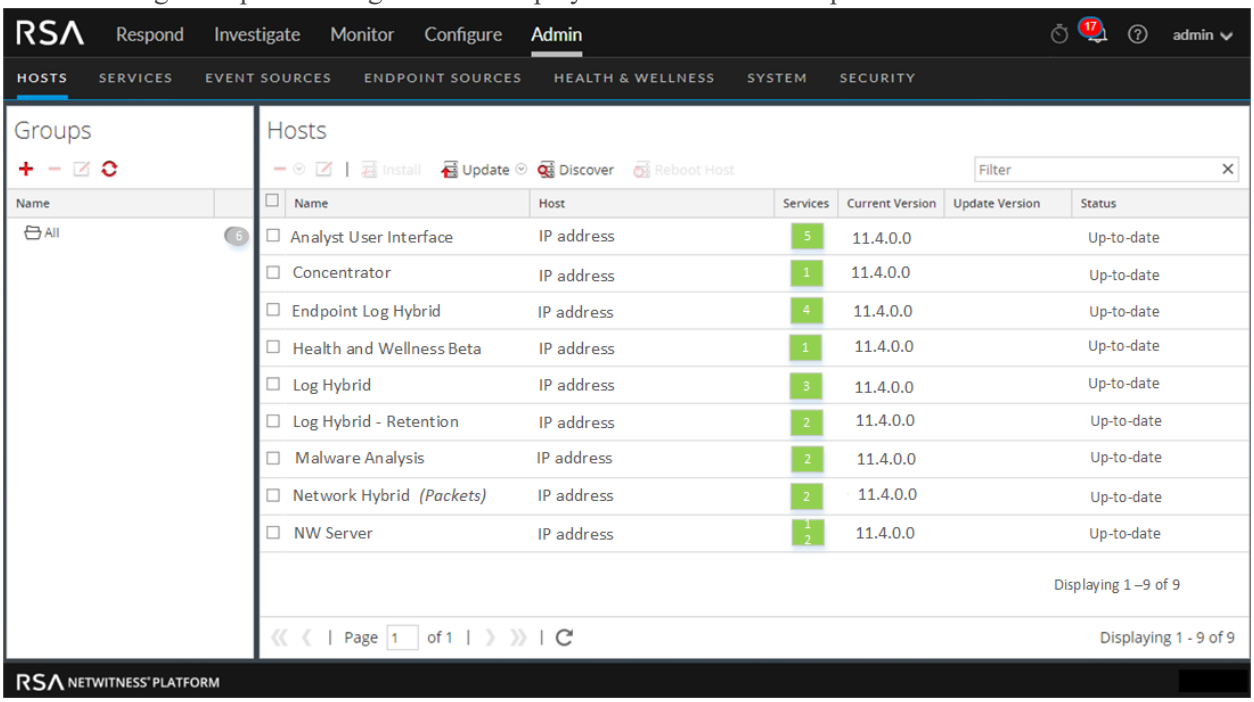
You use the Hosts view to apply the latest version updates from your Populate Local Update Repository. You must understand the update version naming convention to know which version you want to apply to the host. The naming convention is ***major-release.minor-release.service-pack.patch***. For example, if you choose 11.6.1.2, you apply the following version to the host.

- 11 = major release
- 6 = minor release

- 1 = service pack
- 2 = patch

NetWitness Platform supports multiple versions in your deployment. For more information, see Running in Mixed Mode. The NetWitness Server (NW Server Host) is updated first and all other hosts must have the same or earlier version as the NW Server Host.

The following example is a single version deployment with all hosts updated to 11.4.0.0.



Maintaining Services

You use the Services view (ADMIN > Services) to add, edit, delete, monitor, and perform other maintenance tasks for the services in your deployment. See Hosts and Services Procedures for detailed instructions.

Services Implemented with the NetWitness Server

The services in the following list are implemented when you deploy the NW Server to support:

- The expansion of physical and virtual deployment platforms and improvements to host and service maintenance.
- Content, Investigate, Respond, and Source functionality.

Caution: You do not need to configure these services to deploy NetWitness Platform. RSA recommends that you monitor the operating status of these services using Health-and-Wellness. Do not attempt to modify the parameters in the Explore view without contacting Customer Support (https://community.rsa.com/docs/DOC-1294).

Service	Purpose
Admin	The Administration (Admin) Server is the back-end service for administrative tasks in the NetWitness Platform User Interface (UI). It abstracts authentication, global preferences management, and authorization support for the UI. The Admin server requires the Config server and the Security server to be online to perform its role.
Config	The Configuration (Config) Server stores and manages configuration sets. A configuration set is any logical configuration group that is managed independently. The Config server facilitates the sharing of properties among services, provides configuration backup and restore facilities, and tracks changes to properties.
Content	The Content server manages the RSA provided and user-created parser rules. For more information on parser management, search for "parsers" in RSA Link.
Integration	The Integration Server manages interactions with external systems. The service handles the following outbound or inbound channels. • REST API Gateway - gateway to external REST clients that assigns calls to the NetWitness Application Programming Interface (API). • Notifications Dispatcher - centralized dispatcher for all outbound notifications originating in the NetWitness deployment.
Investigate	The Investigate server supports Investigate and Malware Analysis functionality. For more information see the *NetWitness Platform Investigate User Guide*.
Orchestration	The Orchestration server provisions, installs, and configures all services in your NetWitness Platform deployment.
Respond	The Respond server supports Respond functionality. For more information see the *NetWitness Platform Respond Configuration Guide*.

Service	Purpose
Security	The NetWitness Platform Security Server (**Security server**) manages the security infrastructure of a NetWitness Platform deployment. It handles the following security-related concerns. • Users and the authentication accounts • Role Based Access Control (RBAC) • Deployment PKI infrastructure A NetWitness Platform deployment has users with authentication accounts. Independent of how you verify the identity of the analyst (for example, Active Directory), NetWitness Platform must maintain the user state, which is not provided by all authentication providers (for example, last login time, failed login attempts, and roles). The concept of a user is separate from the identify associated with the user and the **Security server** maintains these as separate User and Account entities. In addition to the out-of-the-box local NetWitness accounts available to all NetWitness deployments, the server supports external authentication providers. The **Security server** also implements RBAC by managing Role and Permission entities. Permissions can be assigned to roles and roles to users. Together these enable a flexible authorization policy for the deployment. The server also manages generation of cryptographically secure tokens that encode the applicable authorization for a user. These tokens form the basis for deployment-wide authorization.
Source	The Source server is reserved for future use and will provide a centralized location to configure sources (for example, Endpoints and Log Sources).

Running in Mixed Mode

Mixed mode occurs when some services are updated to the latest version and some are still on older versions. This happens when you update the hosts in your deployment to the latest version in phases (or stagger the update).

Functionality Gaps Encountered During in Staggered Updates

If you stagger the update, you:

- May not have all the features operational until you update your entire deployment.
- Will not have service administrative features available until you update all the hosts in your deployment.
- May be without data capture for a period of time.

Examples of Staggered Updates

In the following examples, all the hosts are on 11.4.0.0 and you want to stagger the host updates to version 11.4.1.0.

Example 1. Multiple Network Decoders and Concentrators, Alternative 1

In this example, the 11.4.0.0 deployment includes one NW Server host, two Network Decoder hosts, two Concentrator hosts, one Archiver host, one Broker host, one Event Stream Analysis host, one Endpoint Log Hybrid host, and one Malware Analysis host.

You must complete Session 1 first and update the hosts in the order listed.

RSA recommends that you update the Sessions 2 and 3 hosts in the order listed.

Session 1: Update Essential Hosts

1. Update the NetWitness Server host.
2. Update the Event Stream Analysis host.
3. Update the Endpoint Log Hybrid host.
4. Update the Malware Analysis host.
5. Update the Broker host.

Session 2: Update Other Hosts

1. Update the two Network Decoder hosts.
2. Update the two Concentrator hosts and the Archiver host.

Session 3: Update Other Hosts

1. Update all other hosts.

Example 2. Multiple Network Decoders and Concentrators, Alternative 2

In this example, the 11.4.0.0 deployment includes one NW Server host, two Network Decoder hosts, two Concentrator hosts, one Broker host, one Event Stream Analysis host, one Endpoint Log Hybrid host and one Malware Analysis host.

You must complete Session 1 first and update the hosts in the order listed.

RSA recommends that you update the Sessions 2 and 3 hosts in the order listed.

Session 1: Update Essential Hosts

1. Update the NetWitness Server host.
2. Update the Event Stream Analysis host.
3. Update the Endpoint Log Hybrid host.
4. Update the Malware Analysis host.
5. Update the Broker host.

Session 2: Update Other Hosts

1. Update one Network Decoder host and one Concentrator host.

Note: It does not matter which of the Network Decoder hosts or which of the Concentrator hosts you update first.

Time elapses during which NetWitness Platform processes a significant amount of data.

Session 3: Update Other Hosts

1. Update the second Network Decoder host and the second Concentrator host.
2. Update all Log Decoder hosts before you update Virtual Log Collectors.
3. Update all other hosts.

Example 3. Multiple Regions

In this example, the 11.4.0.0 deployment includes one NW Server host, one Event Stream Analysis host, one Endpoint Log Hybrid host, one Malware Analysis host. Additionally, there are two sites, each with two Network Decoders, two Concentrators, and one Broker, for a total of four Network Decoder hosts, four Concentrator hosts, and two Broker hosts.

Session 1: Update Essential Hosts and Site 1

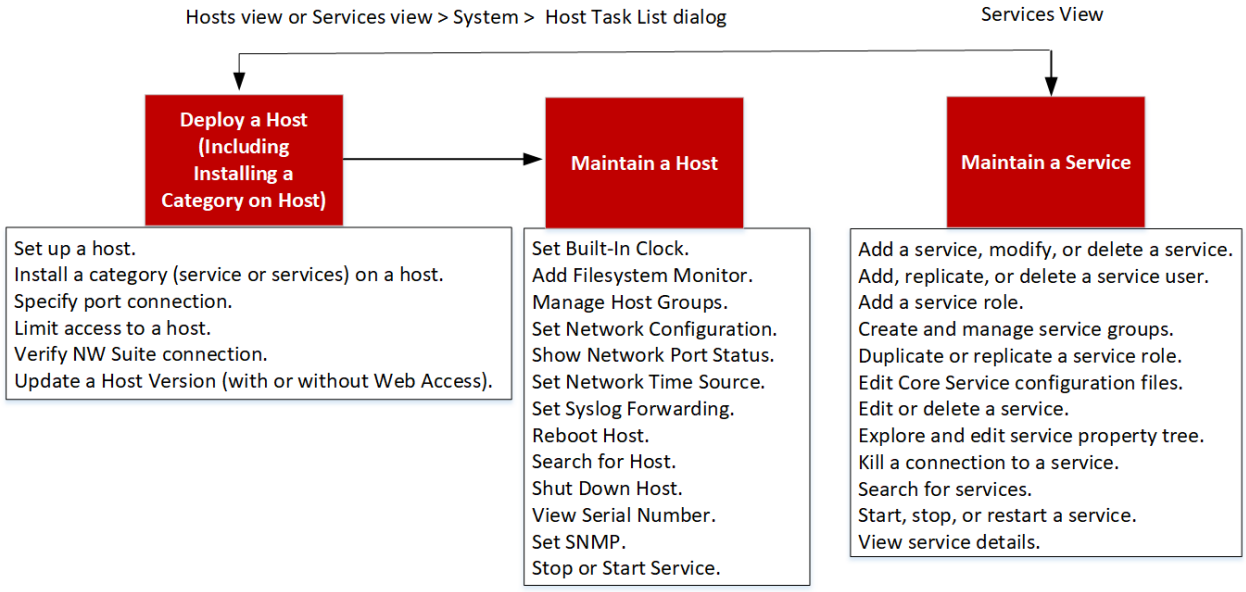
1. Update the NW Server host.
2. Update the Event Stream Analysis host.
3. Update the Endpoint Log Hybrid host.
4. Update the Malware Analysis host.
5. Update one Broker host, two Network Decoder hosts, and two Concentrator hosts.

Session 2: Update Other Hosts and Site 2

1. Update the second Broker host.
2. Update the two remaining Network Decoder hosts.
3. Update the two remaining Concentrator hosts.
4. Update all the other hosts.

Hosts and Services Set Up Procedures

Every service requires a host. After you set up a host, you can assign services to and from this host to other hosts in your NetWitness Platform deployment. This topic contains information about basic procedures. For additional procedures, see Hosts and Services Maintenance Procedures.



High-Level Task	Description
Set Up a Host	Complete the following tasks in the order shown to set up a host. Step 1. Deploy a Host Step 2. Install a Service on a Host Step 3. Review SSL Ports for Trusted Connections Step 4. Manage Access to a Service

Step 1. Deploy a Host

Caution: If you include "." in a host name, the host name must also include a valid domain name.

1. Deploy a host.

   You can deploy a physical host (RSA Appliance), virtual host on-prem, a virtual in AWS, or a virtual host in Azure. See the following guides for instructions on how to deploy hosts.

   - *Physical Host Installation Guide*
   - *Virtual Host Installation Guide*

- *AWS Installation Guide*
- *Azure Installation Guide*

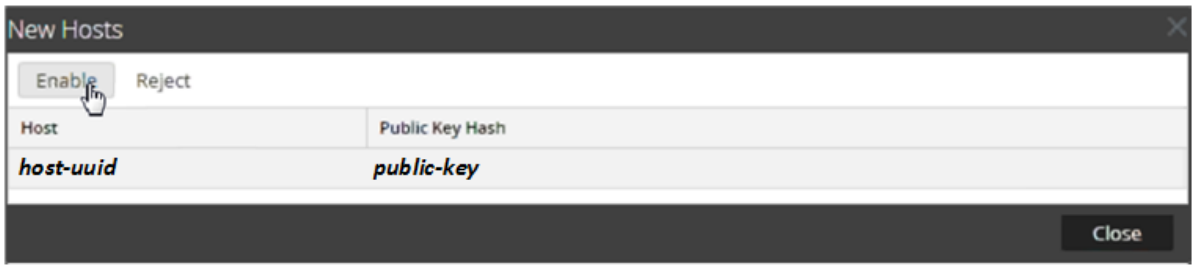
2. Go to **ADMIN** > **Hosts**.

   The New Hosts dialog is displayed with the hosts that you deployed.

3. Select the hosts that you want to enable.

   The Enable menu option becomes active.

4. Click **Enable**.



5. Select the host you enabled.

   The host is displayed in the Hosts view. At this point, you can install a service on the host.

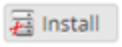
Step 2. Install a Service on a Host

Perform the following steps to install a service on a host.

1. In NetWitness Platform, go to **ADMIN** > **Hosts**.

   The Hosts view is displayed.

2. Select the host on which you want to install the service (for example, **Event Stream Analysis**).

3. Click 

in the toolbar.

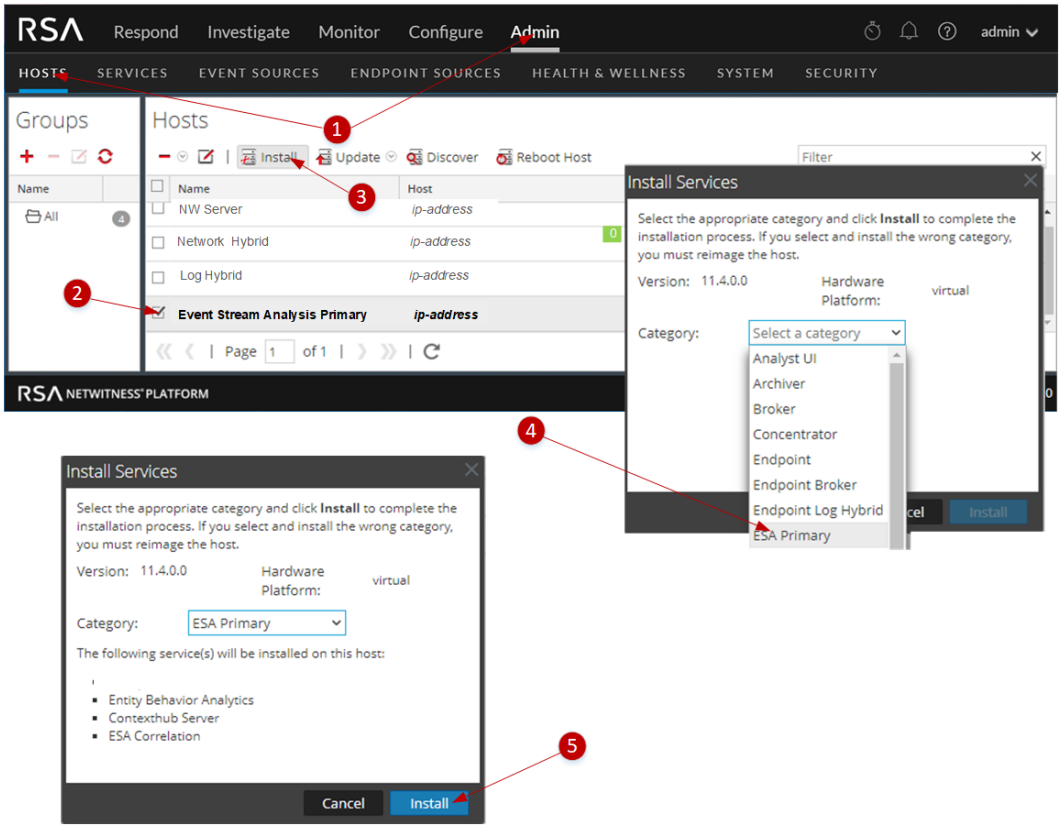
   The Install Services dialog is displayed.

4. Select a service from the **Category** drop-down list (for example, **ESA Primary**).

   The 

becomes active in the Install Services dialog.

5. Click Install.



Step 3. Review SSL Ports for Trusted Connections

To support trusted connections each core service has two ports, an unencrypted non-SSL port and an encrypted SSL port. Trusted connections require the encrypted SSL port.

Encrypted SSL Ports

By default, trusted connections are established with two settings:

- SSL is enabled.
- Core service is connected to an encrypted SSL port.

Each NetWitness Platform Core service has two ports:

- Unencrypted non-SSL port
  Example: Archiver 50008
- Encrypted SSL port
  Example: Archiver 56008

The SSL port is the non-SSL port + 6000.

The following table lists all NetWitness Platform services with their respective ports and shows that each core service has two ports. All port numbers listed are TCP.

Services	Unencrypted Non-SSL Port	Encrypted SSL Port	Notes
Admin Server			
Admin	N/A	N/A	Implemented with the NW Server
Config	N/A	N/A	Implemented with the NW Server
Content	N/A	N/A	Implemented with the NW Server
Integration	N/A	N/A	Implemented with the NW Server
Investigate	N/A	N/A	Implemented with the NW Server
License	N/A	N/A	Implemented with the NW Server
Orchestration	N/A	N/A	Implemented with the NW Server
Reporting Engine	51113	N/A	
Respond	N/A	N/A	Implemented with the NW Server
Security	N/A	N/A	Implemented with the NW Server
Analyst UI			
Broker	50003	56003	Implemented with the Analyst UI
Investigate	N/A	N/A	Implemented with the Analyst UI
Reporting Engine	51113	N/A	Implemented with the Analyst UI
Respond	N/A	N/A	Implemented with the Analyst UI
Archiver			
Archiver	50008	56008	Core Service
Workbench	50007	56007	
Broker			
Broker	50003	56003	Core Service
Cloud Gateway			
Cloud Gateway	N/A	N/A	
Concentrator			
Concentrator	50005	56005	Core Service
Endpoint Broker			
Endpoint Broker	N/A	N/A	
Endpoint Log Hybrid			
Log Collector	50001	56001	
Log Decoder	50002	56002	
Endpoint Server	N/A	N/A	
Concentrator	50005	56005	

Services	Unencrypted Non-SSL Port	Encrypted SSL Port	Notes
ESA Primary			
Entity Behavior Analytics Contexthub ESA Correlation	N/A N/A N/A	N/A N/A 50030	
ESA Secondary			
Entity Behavior Analytics ESA Correlation	N/A N/A	N/A N/A	
Health and Wellness Beta			
Metrics	N/A	N/A	
Log Collector			
Log Collector	50001	56001	
Log Decoder			
Log Collector Log Decoder	50001 50002	56001 56002	Core Service
Log Hybrid			
Log Collector Log Decoder Concentrator	50001 50002 50005	56001 56002 56005	
Log Hybrid - Retention			
Log Collector Log Decoder	50001 50002	56001 56002	
Malware Analysis			
Malware Analysis Broker	N/A	60007	
Network Decoder			
Network Decoder	50004	56004	Core Service
Network Hybrid			
Concentrator Network Decoder	50005	56005	
UEBA			

Services	Unencrypted Non-SSL Port	Encrypted SSL Port	Notes
UEBA	N/A	N/A	
Warehouse Connector			
Warehouse Connector	50020	56020	Command line installation

Step 4. Manage Access to a Service

In a trusted connection, a service explicitly trusts the NW Server to manage and authenticate users. With this trust, services in ADMIN > Services no longer require credentials to be defined for every NetWitness Platform Core service. Instead, users who have been authenticated by the server can access the service without entering another password.

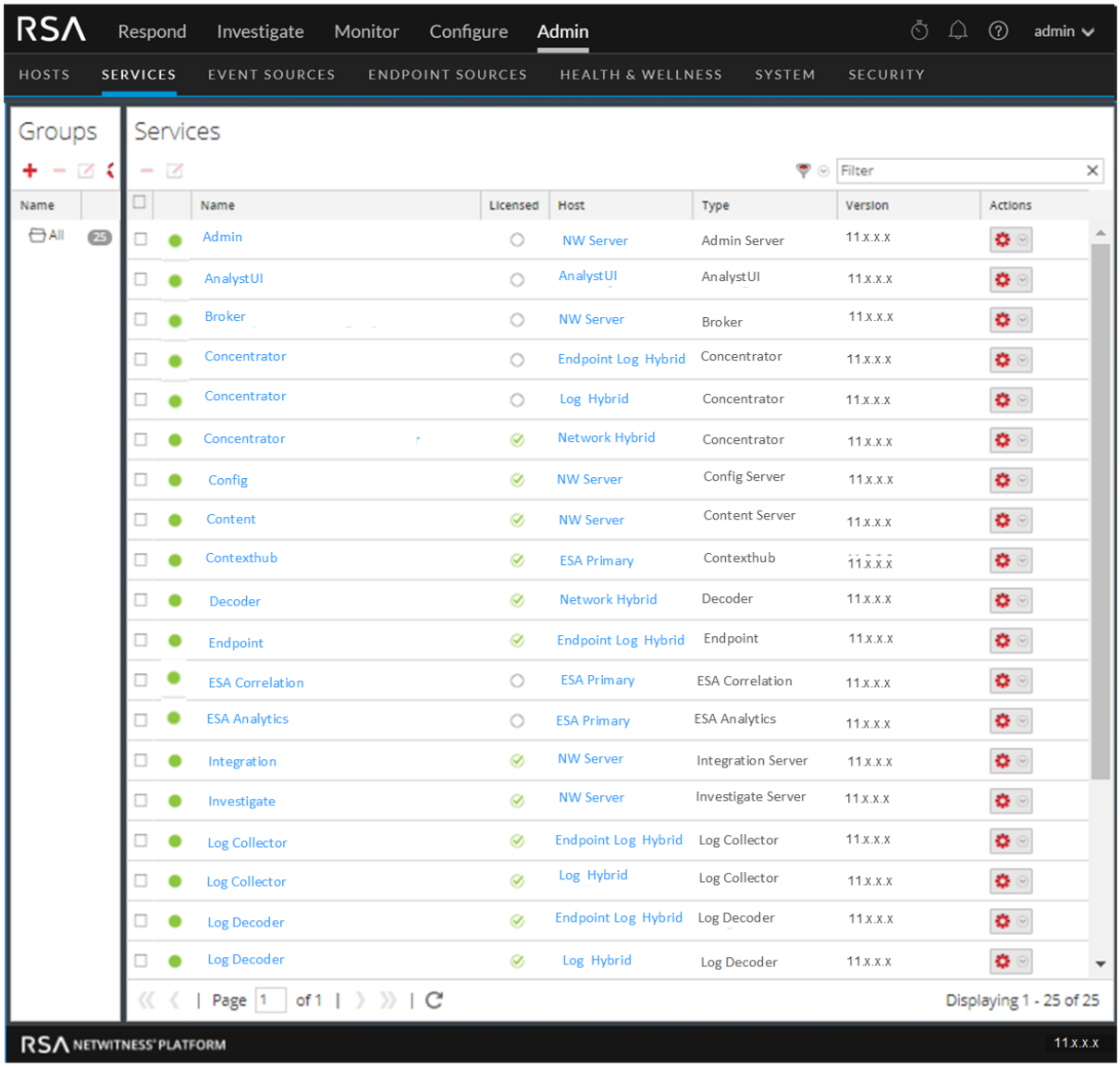
Test a Trusted Connection

Prerequisites

1. The administrator must assign a role to the user.
   For more information, see "Add a User and Assign a Role" in the *System Security and User Management Guide*.
2. The user must:
   - Log in to NetWitness Platform for the server to authenticate the user.
   - Have access to the service.

Procedure

1. In NetWitness Platform, go to **ADMIN > Services**.
   The Services view is displayed.


RSA
Respond
Investigate
Monitor
Configure
Admin
admin
HOSTS
SERVICES
EVENT SOURCES
ENDPOINT SOURCES
HEALTH & WELLNESS
SYSTEM
SECURITY
Groups
Services
Filter
Name
All 25
Name
Licensed
Host
Type
Version
Actions
Admin NW Server Admin Server 11.x.x.x
AnalystUI AnalystUI AnalystUI 11.x.x.x
Broker NW Server Broker 11.x.x.x
Concentrator Endpoint Log Hybrid Concentrator 11.x.x.x
Concentrator Log Hybrid Concentrator 11.x.x.x
Concentrator Network Hybrid Concentrator 11.x.x.x
Config NW Server Config Server 11.x.x.x
Content NW Server Content Server 11.x.x.x
Contexthub ESA Primary Contexthub 11.x.x.x
Decoder Network Hybrid Decoder 11.x.x.x
Endpoint Endpoint Log Hybrid Endpoint 11.x.x.x
ESA Correlation ESA Primary ESA Correlation 11.x.x.x
ESA Analytics ESA Primary ESA Analytics 11.x.x.x
Integration NW Server Integration Server 11.x.x.x
Investigate NW Server Investigate Server 11.x.x.x
Log Collector Endpoint Log Hybrid Log Collector 11.x.x.x
Log Collector Log Hybrid Log Collector 11.x.x.x
Log Decoder Endpoint Log Hybrid Log Decoder 11.x.x.x
Log Decoder Log Hybrid Log Decoder 11.x.x.x
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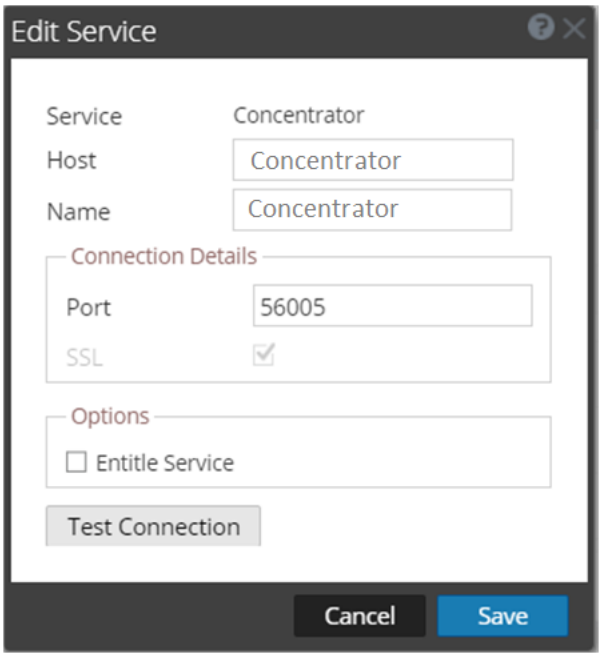
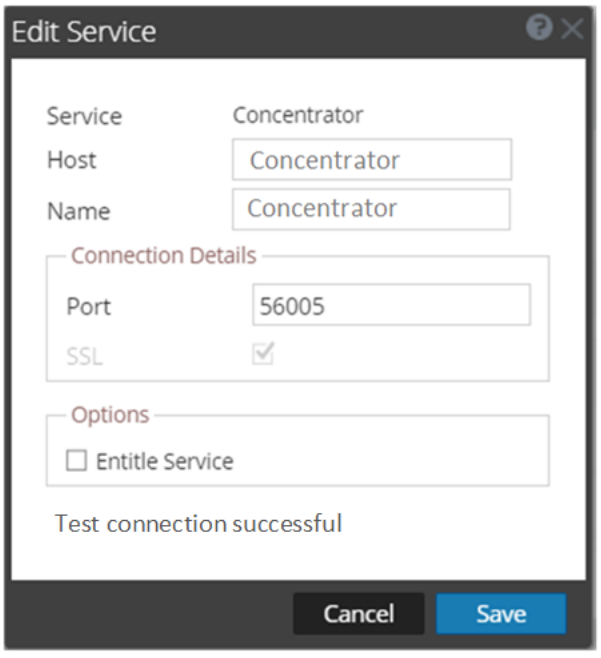
RSA NETWITNESS PLATFORM
11.x.x.x

2. Select the checkbox of the service (for example, a Concentrator) to test and click  .
   The **Edit Service** dialog is displayed.



Note: The Options box will only display if the selected service is not licensed. A licensed service is denoted by a  in the Services view.

3. Remove the username to test the connection without credentials.
4. Click **Test Connection**.

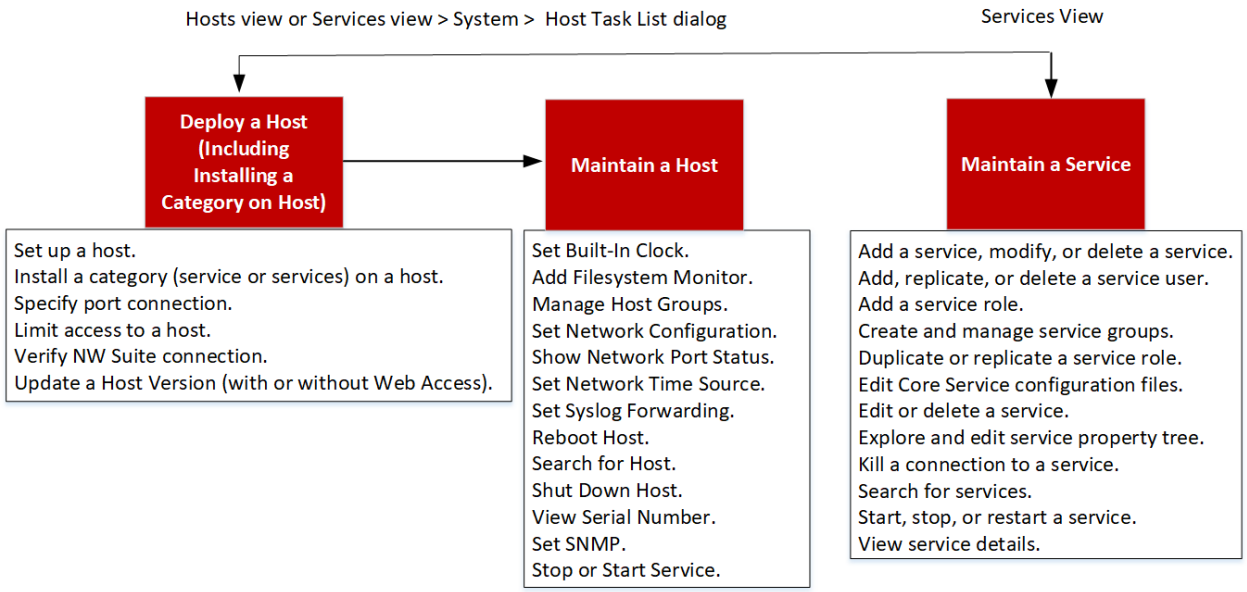


The message `Test connection successful` confirms the trusted connection is established. The previously authenticated user can access the service without typing a username and password on the service.

5. Click **Save**.

Hosts and Services Maintenance Procedures

Every service requires a host. After you set up a host, you can assign services to and from this host to other hosts in your NetWitness Platform deployment.



High-Level Task	Description

Maintain a Host - Basics	The following maintenance tasks are shown in alphabetical order.
	• Apply Version Updates to a Host
	  • Apply Updates from the Hosts View with RSA Live Update Repo Connection (Web Access)
	  • Apply Version Update from Hosts View without RSA Live Update Repo Connection (No Web Access)
	  • Apply Updates from the Command Line (No Web Access)
	• Create and Manage Host Groups
	• Search for Hosts
	• Set Network Time Source
	• Show Network Port Status
	• Show Serial Number
	• Shut Down Host
	• Stop and Start a Service on a Host

High-Level Task	Description
Maintain a Host from the Host Task List Dialog	You use the Host Task List dialog to manage tasks that relate to a host and its communications with the network. Several service and host configuration options are available for Core hosts. • Execute a Task From the Host Task List • Add and Delete a Filesystem Monitor • Reboot a Host • Set Host Built-In Clock • Set Network Time Source • Set SNMP • Set Syslog Forwarding • Show Network Port Status • Show Serial Number • Shut Down Host • Stop and Start a Service on a Host
Maintain a Service	The following procedures describe how to maintain services. • Add, Replicate, or Delete a Service User • Add a User Role to a Service • Change a Service User Password • Create and Manage Service Groups • Duplicate or Replicate a Service Role • Edit Core Service Configuration Files • Edit or Delete a Service • Explore and Edit Service Property Tree • Terminate a Connection to a Service • Search for Services • Start, Stop, or Restart a Service • View Service Details

Apply Version Updates to a Host

Use the following methods to apply version updates to a host.

Note: If you have changed your location of the repository, see Set Up an External Repository with RSA and OS Updates for instructions.

- Apply Updates from the Hosts View with RSA Live Update Repo Connection (Web Access)
- Apply Version Update from Hosts View without RSA Live Update Repo Connection (No Web Access)
- Apply Updates from the Command Line (No Web Access)

Complete the following tasks to update a host to a new version update.

Apply Updates from the Hosts View with RSA Live Update Repo Connection (Web Access)

Task 1. Populate Local Repo or Set Up an External Repo

When you set up your NW Server, you select the Local Repository (Repo) or an External Repository (Repo). The Hosts view retrieves version updates from the repo you selected.

If you select the Local Repo, you do not need to set it up, but you must make sure that it is populated with the latest version updates. See Populate Local Update Repository for instructions on how to populate it with a version update.

Note: If you selected an External Repo, you must set it up. For more information on how for instructions on how to populate it with a version update see Set Up an External Repository with RSA and OS Updates.

Task 2. Apply Updates from the Hosts View to Each Host

Use one of the following methods to apply version updates (for example, 11.4.0.0) to a host.

- Online Method - Connected to RSA Live
- Offline Method from Hosts View
- Offline Method using Command Line Interface

Online Method (Connected to RSA Live)

Use this method if NetWitness Platform has an RSA Live Update Repo Connection (Web Access).

Task 1. Populate Local Repo or Set Up an External Repo

When you set up your NW Server, you select the Local Repository (Repo) or an External Repository (Repo). The Hosts view retrieves version updates from the repo you selected.

If you select the Local Repo, you do not need to set it up, but you must make sure that it is populated with the latest version updates. See Appendix A. Populate Local Repo for instructions on how to populate it with a version update.

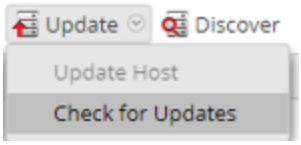
Note: If you selected an External Repo, you must set it up. For more information on how for instructions on how to populate it with a version update see Appendix B. Set Up External Repo.

Task 2. Apply Updates from the Hosts View to Each Host

The Hosts view displays the software version updates available in your Local Update Repository, and you choose and apply the updates you want from the Host view.

This procedure tells you how to update a host to a new version of NetWitness Platform.

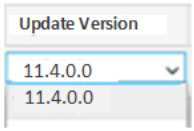
1. Log in to NetWitness Platform.
2. Go to **Admin > Hosts**.
3. (Conditional) Check for the latest updates.



4. Select a host or hosts.

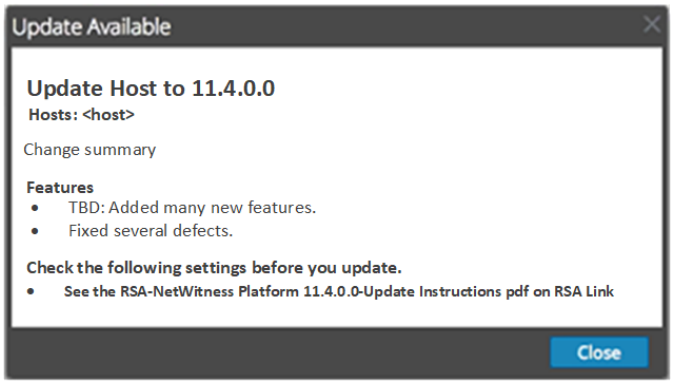
   You must update the NW Server to the latest version first. You can update the other hosts in any sequence you prefer, but RSA recommends that you follow the guidelines in Running in Mixed Mode.
   `Update Available` is displayed in the Status column of the Hosts list view if you have an version update in your Local Update Repository for the selected hosts.

5. Select the version you want to apply from the **Update Version** column.



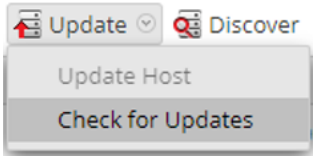
   If you:

   - Want to update more than one host to that version, after you update the NW Server host, select the checkbox to the left of the hosts. Only currently supported update versions are listed.
   - Want to view a dialog with the major features in the update, click the ⓘ to the right of the update version number. The following is an example of this dialog.

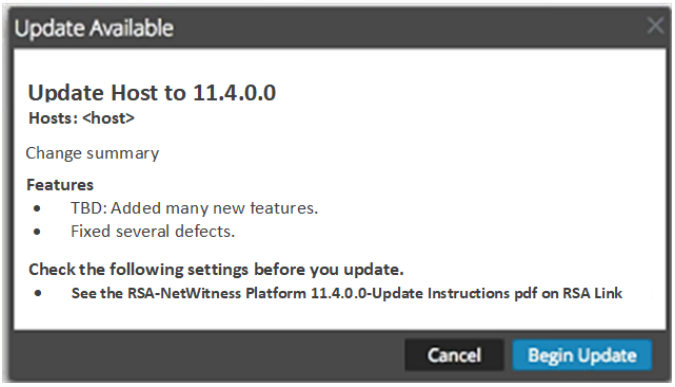


- Cannot find the version you want, select **Update > Check for Updates** to check the repository for any available updates. If an update is available, the message `New updates are available` is displayed, and the Status column updates automatically to show `Update Available`. By default, only supported updates for the selected host are displayed.

6. Click **Update > Update Host** from the toolbar.



A dialog is displayed with information about the selected update. Click **Begin Update**.



The Status column tells you what is happening in each of the following stages of the update:

- Stage 1 - **Downloading update packages** - downloads the repository artifacts to the NW Server applicable to the services on the host you chose.
- Stage 2 - **Configuring update packages** - configures update files in to correct format.
- Stage 3 - **Update in progress** - updates host to the new version.

7. When you see `Update in progress`, refresh the browser.

   This may display the NetWitness Log In screen from which you log in again and navigate back to the Host view.

   After the host is updated, NetWitness Platform prompts you to **Reboot Host**.

8. Click **Reboot Host** from the toolbar.

NetWitness Platformshows the status as `Rebooting...` until the host comes back online and the Status shows `Up-to-Date`. Contact Customer Care if the host does not come back online.

Note: If you have the Defense Information Systems Agency Security Technical Implementation Guide (DISA STIG) enabled, opening core services can take approximately 5 to 10 minutes. This delay is caused by the generation of new certificates.

Offline Method from Hosts View

Use this method if NetWitness Platform does not have an RSA Live Update Repo Connection (No Web Access) and you want to apply updates from the **Admin** > **Hosts** view.

Note: The offline User Interface method is only available if you are upgrading a host from 11.3.1.0 or later to 11.4.0.0. If you are upgrading a host on an earlier version, you must use the Offline Method described in Offline Method Using Command Line Interface .

Follow these instructions to apply version updates from the User Interface without a NetWitness Platform connection to the Internet (for example, no Live connection). The follow rules apply when you apply version updates:

- You must update the NW Server host first.
- You can only apply a version that is the compatible with the existing host version.

Task 1. Populate Staging Folder (`/var/lib/netwitness/common/update-stage/`) with Version Updates

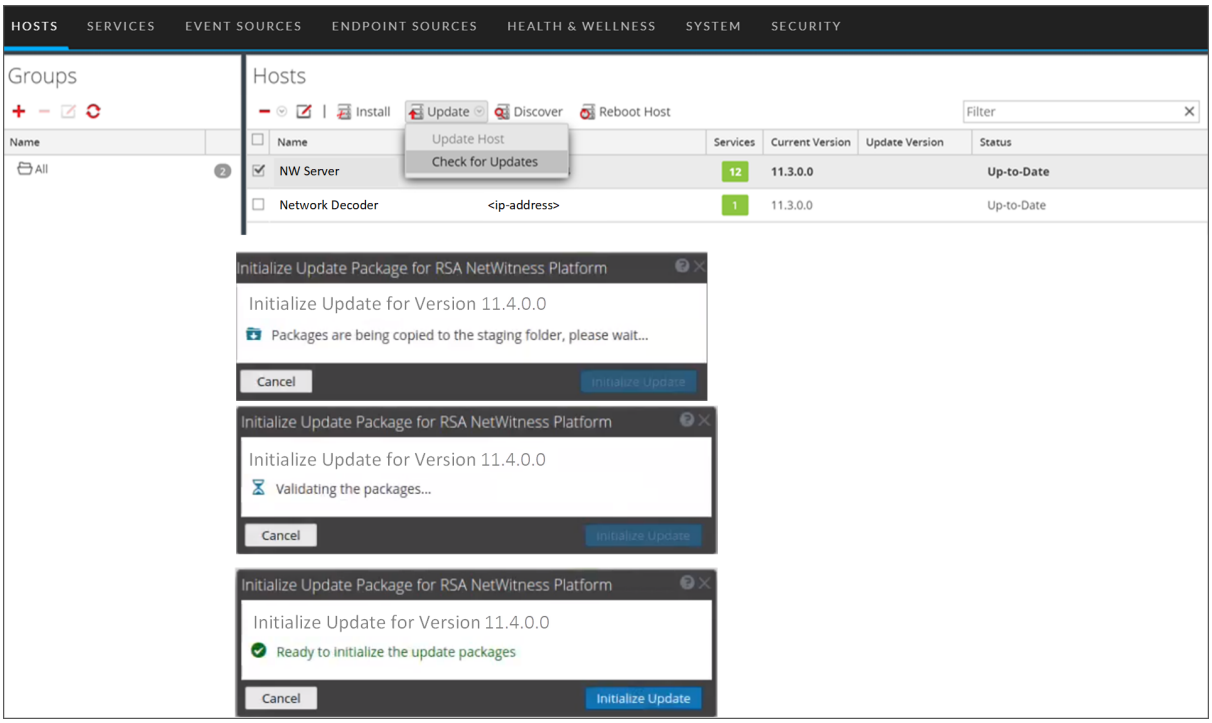
1. Download `.zip` update package for the version you want (for example, `netwitness-11.4.0.0.zip`) from RSA Link to a local directory.
2. SSH to the NW Server host.
3. Copy update package you want from the local directory to the `/var/lib/netwitness/common/update-stage/` staging folder. For example:
   ```
   sudo cp /tmp/netwitness-<version-number>.zip
   /var/lib/netwitness/common/update-stage/
   ```

   Note: NetWitness Platform unzips the file automatically.

Task 2. Apply Updates from the Staging Area to Each Host

Caution: You must update the NW Server host before updating any Non-NW Server host.

1. Log in to NetWitness Platform.
2. Go to **Admin** > **Hosts**.
3. Check for updates and wait for the update packages to be copied, validated, and ready to be initialized.

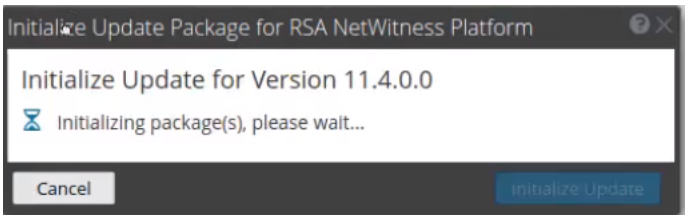


`Ready to initialize the update packages` is displayed if:

- NetWitness Platform can access the update package.
- The package is complete and has no errors.

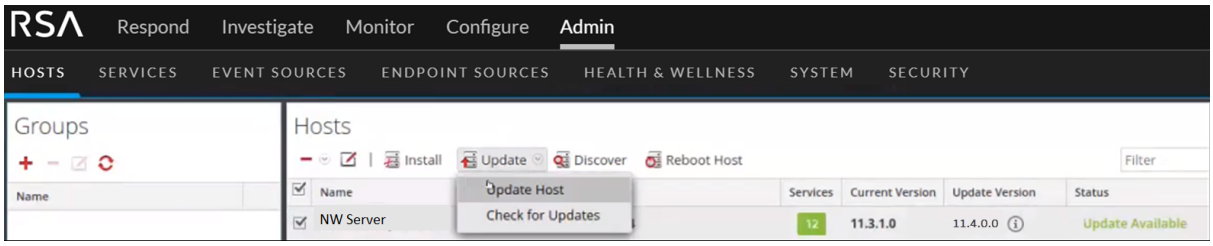
Refer to Appendix C. Troubleshooting Version Installations and Upgrades for instructions on how to troubleshoot errors (for example, `Error deploying version <version-number>` and `Missing the following update package(s)`, displayed in the Initiate Update Package for RSA NetWitness Platform dialog.

4. Click **Initialize Update**.



It takes some time to initialize the packages because the files are large and need to be unzipped. After the initialization is successful, the **Status** column displays `Update Available` and you complete the rest of the steps in this procedure to finish the update of the host.

5. Click **Update** > **Update Hosts** from the toolbar.



6. Click **Begin Update** from the **Update Available** dialog.

   After the host is updated, it prompts you to reboot the host.

7. Click **Reboot** from the toolbar.

Offline Method Using Command Line Interface

Use this method if NetWitness Platform does not have an RSA Live Update Repo Connection (No Web Access) and you want to apply updates using the Command Line Interface.

If your RSA NetWitness Platform deployment does not have Web access, complete the following procedure to apply a version update.

1. Download the `.zip` update package for the version you want (for example, `netwitness-11.4.0.0.zip`) from RSA Link to the `/root` directory.
2. SSH to the NW Server host.
3. Make a `/tmp/upgrade/<version>` staging directory for the version you want (for example, `/tmp/upgrade/11.4.0.0`).
   ```
   mkdir -p /tmp/upgrade/11.4.0.0
   ```
4. Copy the `.zip` update package to the `/root` directory).

   Note: 1.) Make sure that you copy the `netwitness-11.4.0.0.zip` file to a directory path other than the staging directory path (for example, the `/root` directory). 2.) Make sure that you extract the rpm files to the staging directory path (for example, `/tmp/upgrade/11.4.0.0` directory).

5. Unzip the package into the staging directory you created (for example, `/tmp/upgrade/11.4.0.0`).
   ```
   unzip /root/netwitness-11.4.0.0.zip -d /tmp/upgrade/11.4.0.0
   ```
6. Initialize the update on the NW Server.
   ```
   upgrade-cli-client --init --version 11.4.0.0 --stage-dir /tmp/upgrade/
   ```
7. Apply the update to the NW Server.
   ```
   upgrade-cli-client --upgrade --host-addr <NW Server IP> --version 11.4.0.0
   ```
8. Log in to NetWitness Platform, go to **Admin** > **Hosts**, and reboot the NW Server host in the Host view.
9. For each component host:

   a. Apply the update to each component host:
      ```
      upgrade-cli-client --upgrade --host-addr <component-host IP address> --
      ```

```
version 11.4.0.0
```

The update is complete when the polling is completed.

b. Log in to NetWitness Platform, go to **Admin** > **Hosts**, and reboot the component host in the Host view.

You can verify the version applied to the host with the following command.

```
upgrade-cli-client --list
```

Note: 1.) If you have DISA STIG enabled, opening Core Services can take approximately 5 to 10 minutes. This delay is caused by the generating of new certificates.
2.) If you have Unity storage, check the PowerPath status and verify the it can see the Unity device.
3.) If you get the error illustrated in the following example, the update installs correctly and no action is required. If you encounter additional errors during the update, contact Customer Support

```
2019-01-28 20:13:26.580 ERROR 7994 — [ 127.0.0.1:5671]
o.s.a.r.c.CachingConnectionFactory : Channel shutdown: connection error;
protocol method: #method<connection.close>(reply-code=320, reply-
text=CONNECTION_FORCED - broker forced connection closure with reason
'shutdown', class-id=0, method-id=0)
```

Apply Version Update from Hosts View without RSA Live Update Repo Connection (No Web Access)

Note: This feature was introduced in 11.3.1. You can apply a version update to a host offline through the Hosts view after that host has been updated to 11.3.1.0.

Follow these instructions to apply version updates from the User Interface without a NetWitness Platform connection to the Internet (for example, no Live connection). The follow rules apply when you apply version updates:

- You must update the NW Server host first.
- You can only apply a version that is the compatible with the existing host version.

Task 1. Populate Staging Folder (`/var/lib/netwitness/common/update-stage/`) with Version Updates

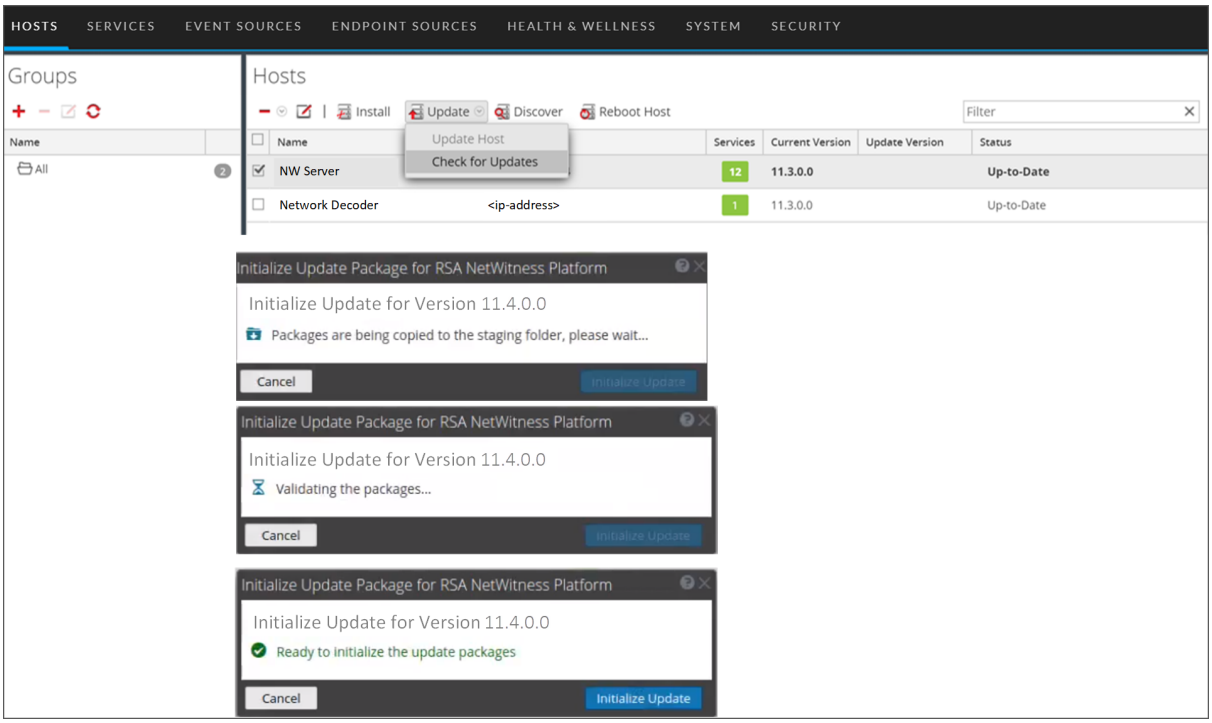
1. Download `.zip` update package for the version you want (for example, `netwitness-11.4.0.0.zip`) from RSA Link to a local directory.
2. SSH to the NW Server host.
3. Copy update package you want from the local directory to the `/var/lib/netwitness/common/update-stage/` staging folder. For example:
   ```
   sudo cp /tmp/netwitness-<version-number>.zip
   /var/lib/netwitness/common/update-stage/
   ```

   Note: NetWitness Platform unzips the file automatically.

Task 2. Apply Updates from the Staging Area to Each Host

Caution: You must update the NW Server host before updating any Non-NW Server host.

1. Log in to NetWitness Platform.
2. Go to **ADMIN** > **Hosts**.
3. Check for updates and wait for the update packages to be copied, validated, and ready to be initialized.

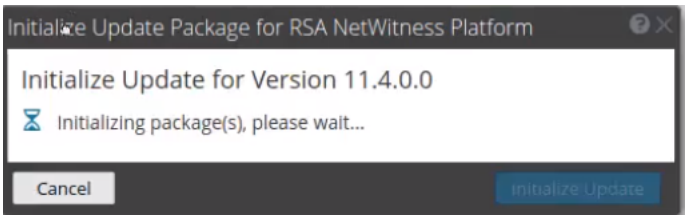


`Ready to initialize the update packages` is displayed if:

- NetWitness Platform can access the update package.
- The package is complete and has no errors.

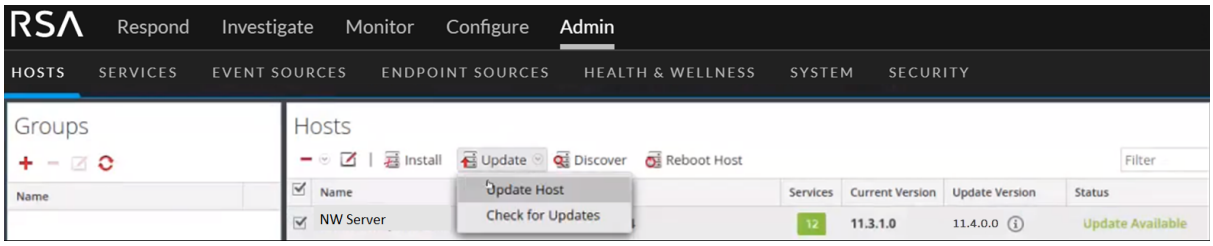
Refer to Troubleshooting Version Installations and Updates for instructions on how to troubleshoot errors (for example, `Error deploying version <version-number>` and `Missing the following update package(s)`, displayed in the Initiate Update Package for RSA NetWitness Platform dialog.

4. Click **Initialize Update**.



It takes some time to initialize the packages because the files are large and need to be unzipped. After the initialization is successful, the **Status** column displays `Update Available` and you complete the rest of the steps in this procedure to finish the update of the host.

5. Click **Update** > **Update Hosts** from the toolbar.



6. Click **Begin Update** from the **Update Available** dialog.

   After the host is updated, it prompts you to reboot the host.

7. Click **Reboot** from the toolbar.

Apply Updates from the Command Line (No Web Access)

If your NetWitness Platform deployment does not have Web access, complete the following procedure to apply a version update. This means the NW Serer host is not connected to Live Services.

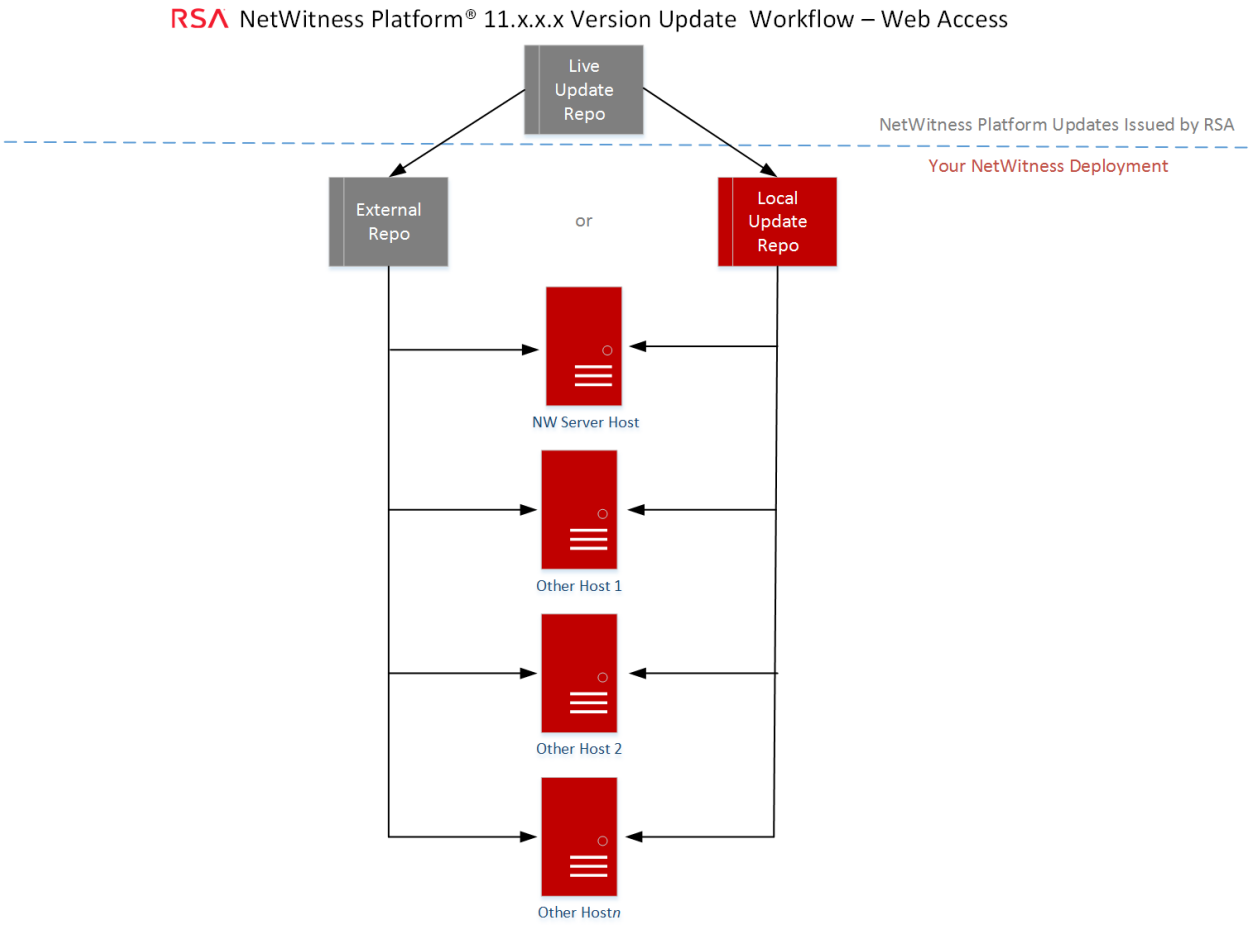
Note: In the following procedure, 11.4.0.0 is the version update used as an example in the code strings.

1. Download `.zip` update package for the version you want (for example, `netwitness-11.4.0.0.zip`) from RSA Link to a local directory.
2. SSH to the NW Server host.
3. Make a `/tmp/upgrade/<version>` staging directory for the version you want (for example, `tmp/upgrade/11.4.0.0`).
   ```
   mkdir -p /tmp/upgrade/11.4.0.0
   ```
4. Copy the `.zip` update package a directory on the to the NW Server other than the staging directory (for example `/tmp` directory).
5. Unzip the package into the staging directory you created (for example, `/tmp/upgrade/11.4.0.0`).
   ```
   unzip /<download-location>/netwitness-11.4.0.0.zip -d /tmp/upgrade/11.4.0.0
   ```
6. Initialize the update on the NW Server.
   ```
   upgrade-cli-client --init --version 11.4.0.0 --stage-dir /tmp/upgrade/
   ```
7. Apply the update to the NW Server.
   ```
   upgrade-cli-client --upgrade --host-addr <NW Server IP> --version 11.4.0.0
   ```
8. Log in to NetWitness Platform and reboot the NW Server host in the Host View.
9. Apply update to each non-NW Server host.
   ```
   upgrade-cli-client --upgrade --host-addr <non-NW Server IP address> --version 11.4.0.0
   ```
   The update is complete when the polling is completed.
10. Log in to NetWitness Platform and reboot the host in the Host View.
    You can verify the version applied to the host with the following command:
    ```
    upgrade-cli-client --list
    ```

Populate Local Update Repository

NetWitness Platform sends version updates to the Local Update Repository from the Live Update Repository. Access to the Live Update Repository requires and uses the Live Account credentials configured under **ADMIN > System > Live Services**. In addition, you must check the **Automatically download information about new updates every day** checkbox under **ADMIN > System > Updates** to populate the Local Repo daily.

The following diagram illustrates how you obtain version updates if your NetWitness Platform deployment has web access.



Note: When you make the initial connection with the Live Update Repository, you will be accessing all the CentOS 7 system packages and the RSA Production packages. This download of over 6.5 GB of data takes an indeterminate amount of time depending on your NW Server Internet connection and the traffic of the RSA repository. It is not mandatory to use the Live update repository. Alternatively you can use an external Repo.

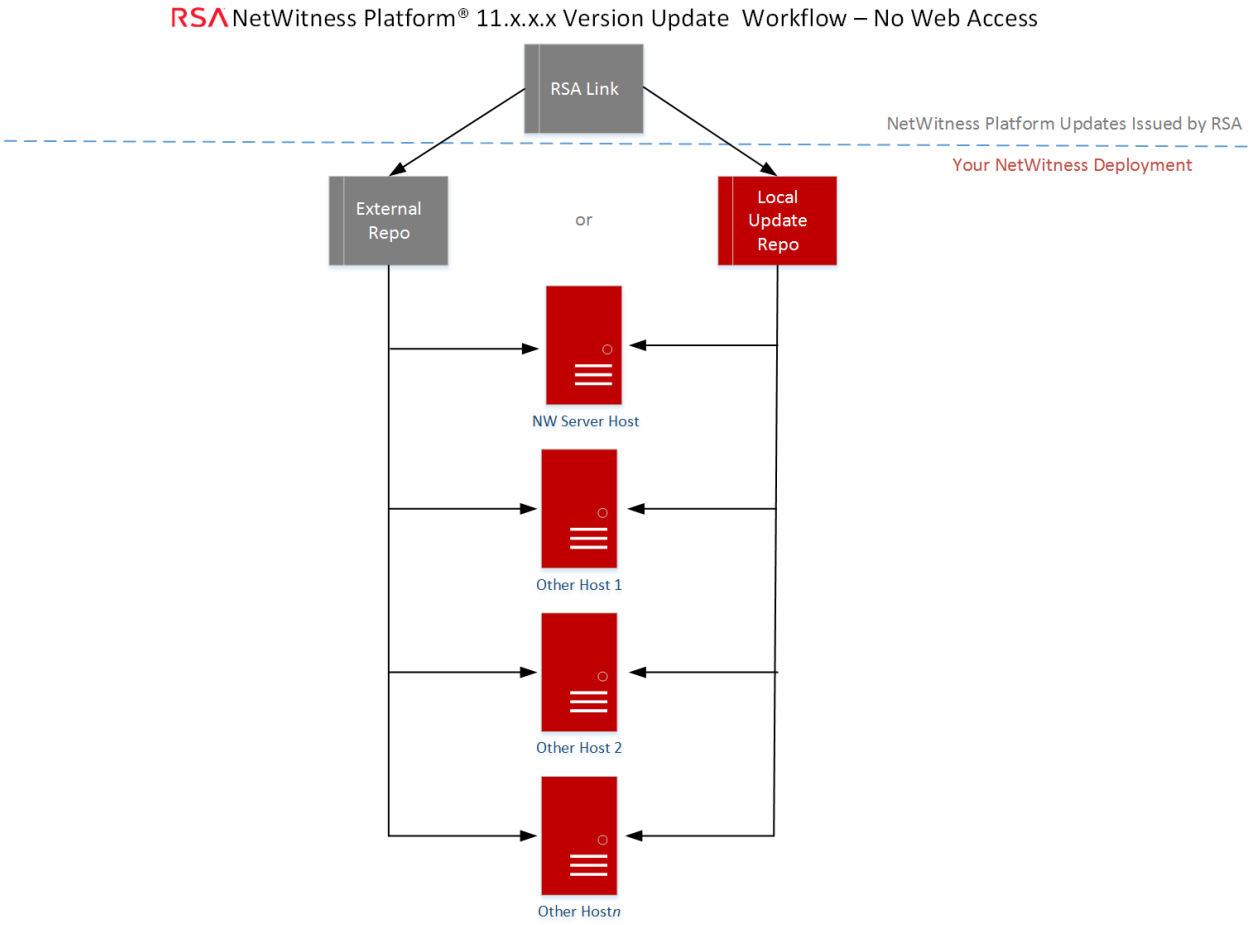
To connect to the Live Update Repository, go to Admin > System, select **Live Services** in the options panel and make sure that credentials are configured (Connection light should be green). If it is not green, click **Sign In** and connect.

Note: If you need to use proxy to reach out to the Live Update Repository, you can configure the Proxy Host, Proxy Username, and Proxy Password. For more information see "Configure Proxy for NetWitness Platform" in the *System Configuration Guide*.

If your NetWitness Platform deployment does not have Web Access, you can use one of the following procedures to apply version updates to hosts.

- Apply Version Update from Hosts View without RSA Live Update Repo Connection (No Web Access)
- Apply Updates from the Command Line (No Web Access)

The following diagram illustrates how you obtain version updates if your NetWitness Platform deployment does not have web access.



Set Up an External Repository with RSA and OS Updates

Note: In the following procedure, 11.4.0.0 is the version update used as an example in the code strings.

Complete the following procedure to set up an external repository (Repo).

Note: 1.) You need an unzip utility installed on the host to complete this procedure. 2.) You must know how to create a web server before you complete the following procedure.

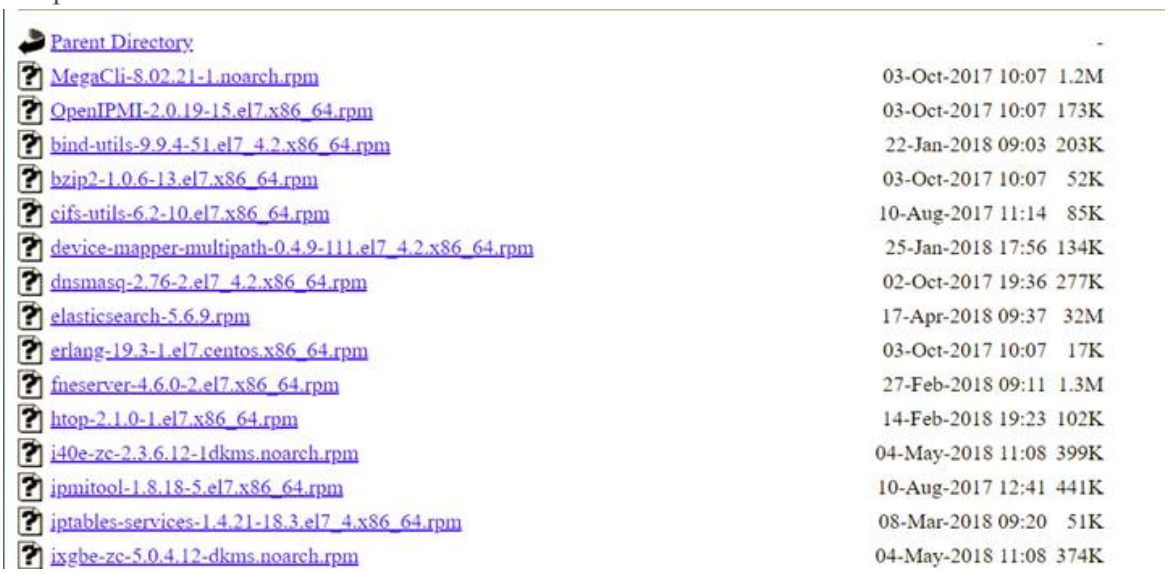
1. (Conditional) Complete this step if you have an external repo and you want to override it.
   - Case 1: You bootstrapped the host from an external repo and you want to upgrade using a local repo on the Admin Server.
     a. Create the `/etc/netwitness/platform/repobase` file.
        `vi /etc/netwitness/platform/repobase`
     b. Edit the `repobase` file so that the only information in the file is the following URL.
        `https://nw-node-zero/nwrpmrepo`
     c. Complete the instructions on how to run the upgrade using the `upgrade-cli-client` tool.
   - Case 2: You bootstrapped the host from local repo on the Admin server (NW Server host) and you want to use an external repo for the upgrade.
     a. Create the `/etc/netwitness/platform/repobase` file.
        `vi /etc/netwitness/platform/repobase`
     b. Edit the `repobase` file so that the only information in the file is the following URL.
        `https://<webserver-ip>/<alias-for-repo>`
     c. Complete the instructions on how to run the upgrade using the `upgrade-cli-client` tool.
        The instructions are in the Upgrade Tasks.
2. Set up the external repo.
   a. Log in to the web server host.
   b. Create directory to host the NW repository (`netwitness-11.4.0.0.zip`), for example `ziprepo` under `web-root` of the web server. For example, /var/netwitness is the web-root, run the following command string.
      `mkdir -p /var/netwitness/<your-zip-file-repo>`
   c. Create the 11.4.0.0 directory under `/var/netwitness/<your-zip-file-repo>`.
      `mkdir -p /var/netwitness/<your-zip-file-repo>/11.4.0.0`
   d. Create the `OS` and `RSA` directories under `/var/netwitness/<your-zip-file-repo>/11.4.0.0`.
      `mkdir -p /var/netwitness/<your-zip-file-repo>/11.4.0.0/OS`
      `mkdir -p /var/netwitness/<your-zip-file-repo>/11.4.0.0/RSA`
   e. Unzip the `netwitness-11.4.0.0.zip` file into the `/var/netwitness/<your-zip-file-repo>/11.4.0.0` directory.
      `unzip netwitness-11.4.0.0.zip -d /var/netwitness/<your-zip-file-repo>/11.4.0.0`
      Unzipping `netwitness-11.4.0.0.zip` results in two zip files (`OS-11.4.0.0.zip` and `RSA-11.4.0.0.zip`) and some other files.

f. Unzip the:
`OS-11.4.0.0.zip` into the `/var/netwitness/<your-zip-file-repo>/11.4.0.0/OS` directory.
`unzip /var/netwitness/<your-zip-file-repo>/11.4.0.0/OS-11.4.0.0.zip -d /var/netwitness/<your-zip-file-repo>/11.4.0.0/OS`
The following example illustrates how the Operating System (OS) file structure appears after you unzip the file.

The external url for the repo is `http://<web server IP address>/<your-zip-file-repo>`.

g. Unzip the:
`RSA-11.4.0.0.zip` into the `/var/netwitness/<your-zip-file-repo>/11.4.0.0/RSA` directory.
`unzip /var/netwitness/<your-zip-file-repo>/11.4.0.0/RSA-11.4.0.0.zip -d /var/netwitness/<your-zip-file-repo>/11.4.0.0/RSA`
The following example illustrates how the RSA version update file structure appears after you

unzip the file.



Parent Directory		-
MegaCli-8.02.21-1.noarch.rpm	03-Oct-2017 10:07	1.2M
OpenIPMI-2.0.19-15.el7.x86_64.rpm	03-Oct-2017 10:07	173K
bind-utils-9.9.4-51.el7_4.2.x86_64.rpm	22-Jan-2018 09:03	203K
bzip2-1.0.6-13.el7.x86_64.rpm	03-Oct-2017 10:07	52K
cifs-utils-6.2-10.el7.x86_64.rpm	10-Aug-2017 11:14	85K
device-mapper-multipath-0.4.9-111.el7_4.2.x86_64.rpm	25-Jan-2018 17:56	134K
dnsmasq-2.76-2.el7_4.2.x86_64.rpm	02-Oct-2017 19:36	277K
elasticsearch-5.6.9.rpm	17-Apr-2018 09:37	32M
erlang-19.3-1.el7.centos.x86_64.rpm	03-Oct-2017 10:07	17K
fneserver-4.6.0-2.el7.x86_64.rpm	27-Feb-2018 09:11	1.3M
htop-2.1.0-1.el7.x86_64.rpm	14-Feb-2018 19:23	102K
i40e-zc-2.3.6.12-1dkms.noarch.rpm	04-May-2018 11:08	399K
ipmitool-1.8.18-5.el7.x86_64.rpm	10-Aug-2017 12:41	441K
iptables-services-1.4.21-18.3.el7_4.x86_64.rpm	08-Mar-2018 09:20	51K
ixgbe-zc-5.0.4.12-dkms.noarch.rpm	04-May-2018 11:08	374K

h. (Conditional - For Azure) Follow these steps for Azure update.

   i. `mkdir -p /var/netwitness/<your-zip-file-repo>/11.4.0.0/OS/other`

   ii. `unzip nw-azure-11.3-extras.zip -d /var/netwitness/<your-zip-file-repo>/11.4.0.0/OS/other`

   iii. `cd /var/netwitness/<your-zip-file-repo>/11.4.0.0/OS`

   iv. `createrepo`

i. Use the `http://<web server IP address>/<your-zip-file-repo>` in response to **Enter the base URL of the external update repositories** prompt from NW 11.4.0.0 Setup program (`nwsetup-tui`) prompt.

Create and Manage Host Groups

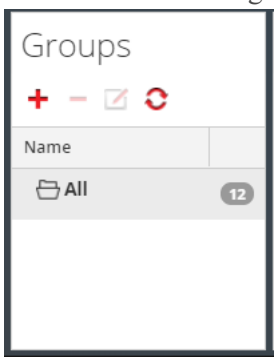
The Hosts view provides options for creating and managing groups of hosts. The Groups panel toolbar includes options for creating, editing, and deleting host groups. Once groups are created, you can drag individual hosts from the Hosts panel into a group.

Groups may reflect functional, geographical, project-oriented, or any other organization principle that is useful. A host may belong to more than one group. Here are some examples of possible groupings:

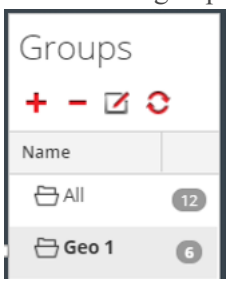
- Group different categories to make it easier to configure and monitor all Brokers, Network Decoders, or Concentrators.
- Group hosts that are part of the same data flow; for example, a Broker, and all associated Concentrators and Network Decoders.
- Group hosts according to their geographic region and location within the region. If a major power outage occurs in a location, potentially affected hosts are easily identifiable.

Create a Group

1. Select **ADMIN** > **Hosts**.
   The Hosts view is displayed.
2. In the **Groups** panel toolbar, click +.
   A field for the new group opens with a blinking cursor.



3. Type the name of the new group in the field (for example, `Geo 1`) and press **Enter**.
   The group is created as a folder in the tree. The number next to the group indicates the number of hosts in that group.



Change the Name of a Group

1. In the Hosts view **Groups** panel, double-click the group name, or select the group and click .
   The name field opens with a blinking cursor.
2. Type the new name of the group and press **Enter**.
   The name field closes and the new group name is displayed in the tree.

Add a Host to a Group

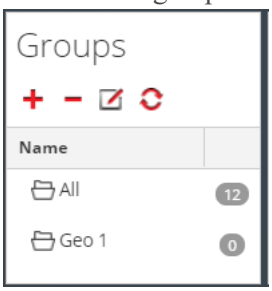
In the Hosts view **Hosts** panel, select a host and drag the host to a group folder in the Groups panel. The host is added to the group.

View the Hosts in a Group

To view the hosts in a group, click the group in the **Groups** panel.
The Hosts panel lists the hosts in that group.

Remove a Host from a Group

1. In the Hosts view **Groups** panel, select the group that contains the host that you want to remove. The hosts in that group appear in the Hosts panel.
2. In the **Hosts** panel, select one or more hosts that you want to remove from the group, and in the toolbar, select − > **Remove from Group**.
   The selected hosts are removed from the group, but are not removed from the NetWitness Platform user interface. The number of hosts in the group, which is listed near the group name, decreases by the number of hosts removed from the group. The `All` group contains the hosts that were removed from the group.
   In the following example, the host group called `Geo 1` does not contain any hosts, because all the hosts in that group are removed.



Delete a Group

1. In the Hosts view **Groups** panel, select the group that you want to delete.
2. Click −.
   The selected group is removed from the Groups panel. The hosts that were in the group are not removed from the NetWitness Platform user interface. The `All` group contains the hosts from the deleted group.

Search for Hosts

You can search for hosts from a list of hosts in the Hosts view. The Hosts view enables you quickly filter the list of hosts by Name and Host. It is possible to have numerous NetWitness Platform hosts in use for various purposes. Instead of scrolling through the host list, you can quickly filter the host list to locate the hosts that you want to administer.

In the Services view, you can search for a service and quickly find the host that runs that service.

Search for a Host

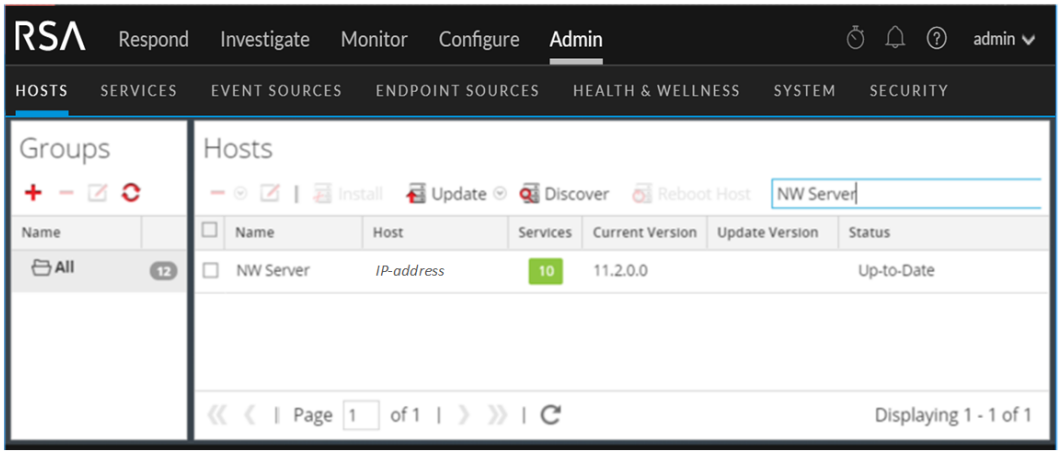
1. Select **ADMIN** > **Hosts**.
2. In the **Hosts** panel toolbar, type a host **Name** or **Hostname** in the **Filter** field.

   The Hosts panel lists the hosts that match the names entered in the Filter field.

Find the Host that Runs a Service

1. Select **ADMIN > Services**.
2. In the **Services** view, select a service. The associated host is listed in the Host column for that service.
3. To administer the host in the Hosts view, click the link in the **Host** column for that service. The host associated with the selected service is displayed in the Hosts view.

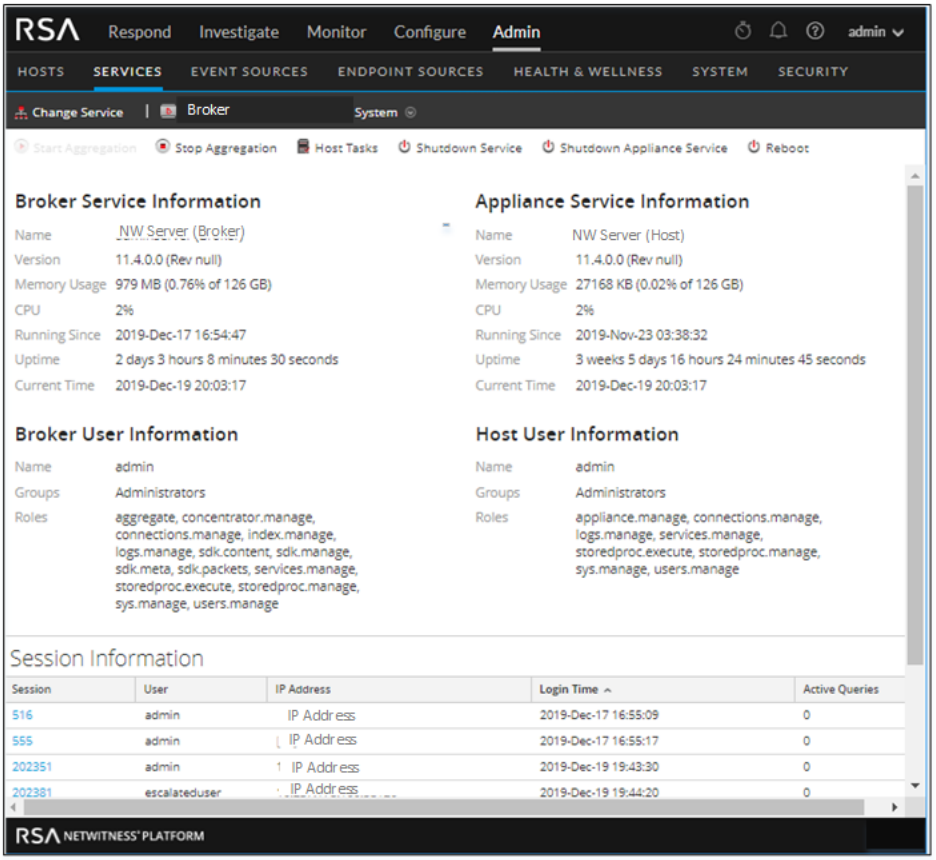


Execute a Task From the Host Task List

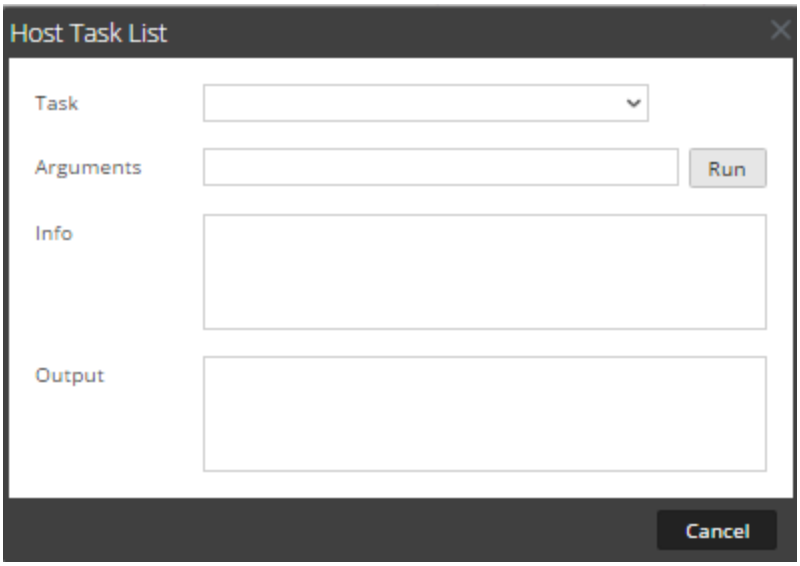
1. Select **ADMIN > Services**.
2. In the **Services** list, select a service and click  **> View > System**.

   Note: The Admin, Config, Orchestration, Security, Investigate, and Respond services do have access to the System view. They only have access to the Explore view.

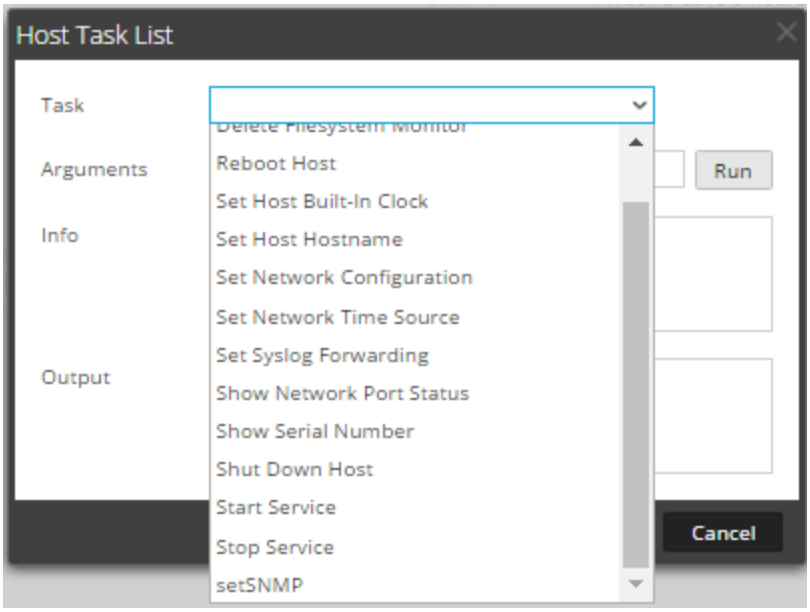
   The System view for the service is displayed below.



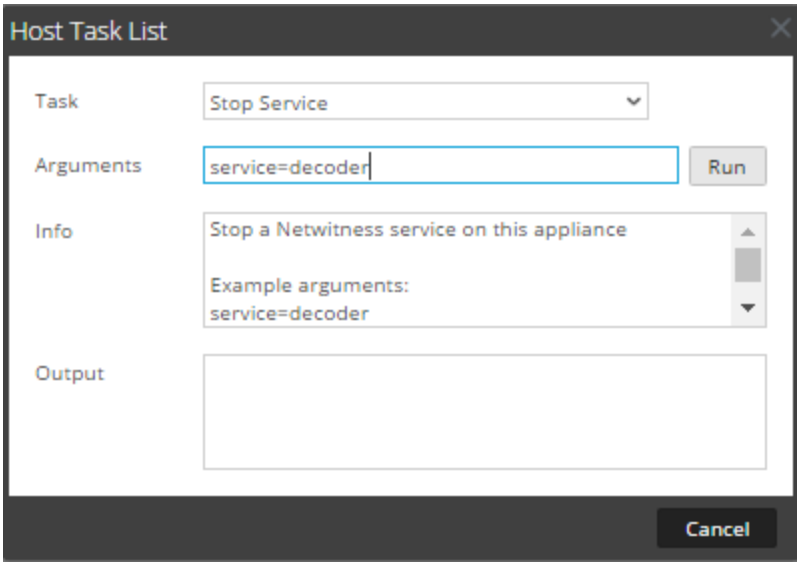
3. In the **Services System** view toolbar, click Host Tasks.



4. In the **Host Task List** dialog, click in the **Task** field to display a drop-down list of tasks that run on a host.



5. Select a task (for example, click **Stop Service**).
The task is displayed in the Task field. Task description, example arguments, security roles, and parameters are displayed in the Info area.



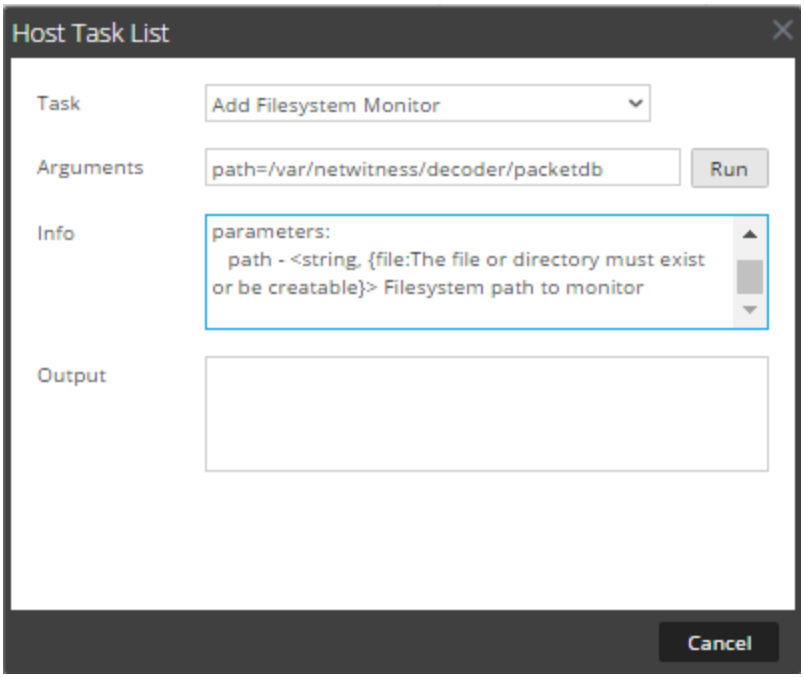
6. Type arguments if necessary and click **Run**.
The command executes and the result is displayed in the Output section.

Add and Delete a Filesystem Monitor

When you want a service to monitor traffic on a specific file system, you can select the service and then specify the path. NetWitness Platform adds a filesystem monitor. Once a file system monitor is added to a service, the service continues to monitor traffic on that path until the file system monitor is deleted.

Configure the Filesystem Monitor

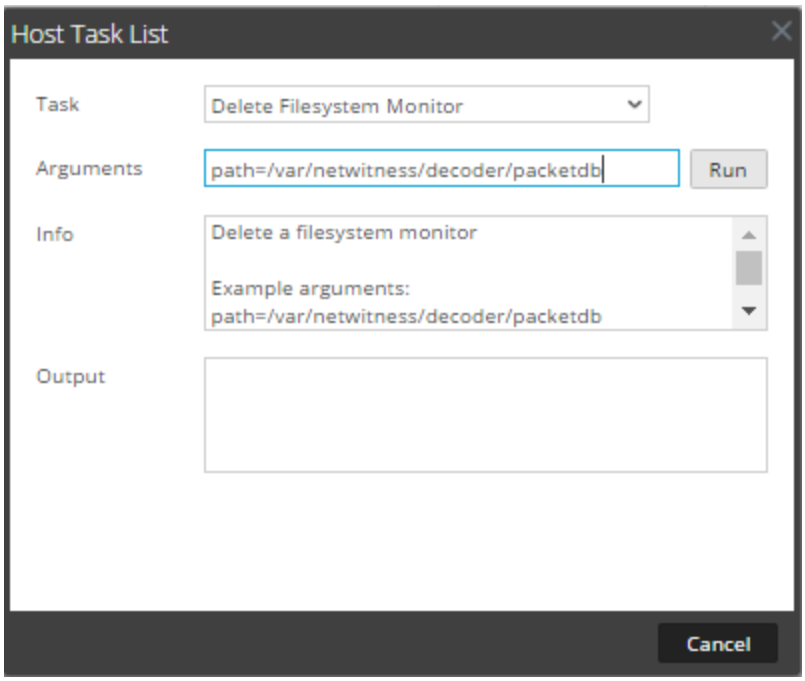
1. Select **ADMIN > Services**.
2. In the **Services** list, select a service and click > **View** > **System**.
   The System view for the service is displayed.
3. In the **Services System** view toolbar, click **Host Tasks**.
4. In the **Host Task List**, select **Add Filesystem Monitor**.
   In the Info area, a brief explanation of the task and the task arguments is displayed.
5. To identify the file system to monitor, type the path in the **Arguments** field. For example:
   path=/var/netwitness/decoder/packetdb



6. Click **Run**.
   The result is displayed in the Output area. The service begins to monitor the file system and continues to monitor it until you delete the filesystem monitor.

Delete a Filesystem Monitor

1. Select **ADMIN > Services**.
2. In the **Services** list, select a service and click > **View** > **System**.
   The System view for the service is displayed.
3. In the **Services System** view toolbar, click **Host Tasks**.
4. In the **Host Task List**, select **Delete Filesystem Monitor**.
   In the Info area, a brief explanation of the task and the task arguments is displayed.
5. To identify the filesystem to stop monitoring, type the path in the **Arguments** field. For example:
   path=/var/netwitness/decoder/packetdb



6. Click **Run**.
   The result is displayed in the Output area. The service stops monitoring the file system.

Reboot a Host

Under certain conditions, you must reboot a host; for example, after installing a software upgrade. This procedure uses a Host Task List message to shut down and restart a host.

NetWitness Platform also offers other options for shutting down a host:

- To shut down and restart a host through an attached service, go to the Hosts view from a service in the Services view (see Search for Hosts) and then follow the Shut Down and Restart a Host from the Hosts View procedure below.
- To shut down the physical host without restarting, see Shut Down Host.

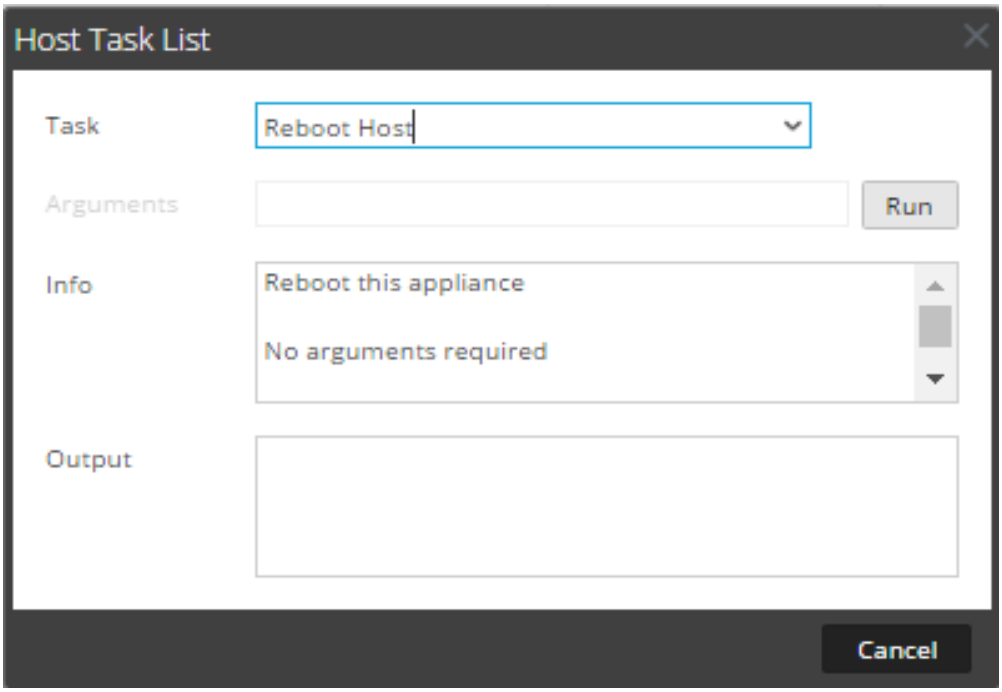
Shut Down and Restart a Host from the Hosts View

1. Select **ADMIN > Hosts**.
2. In the **Hosts** panel, select a host.
3. Select 

from the toolbar.

Shut Down and Restart a Host from the Host Task List

1. Select **ADMIN** > **Services**.
2. In the **Services** panel, select a service and click  **> View > System**.
   The System view for the service is displayed.
3. In the **Services System** view toolbar, click **Host Tasks**.
4. In the **Host Task List**, select **Reboot Host** in the **Task** field.
   No arguments are required.



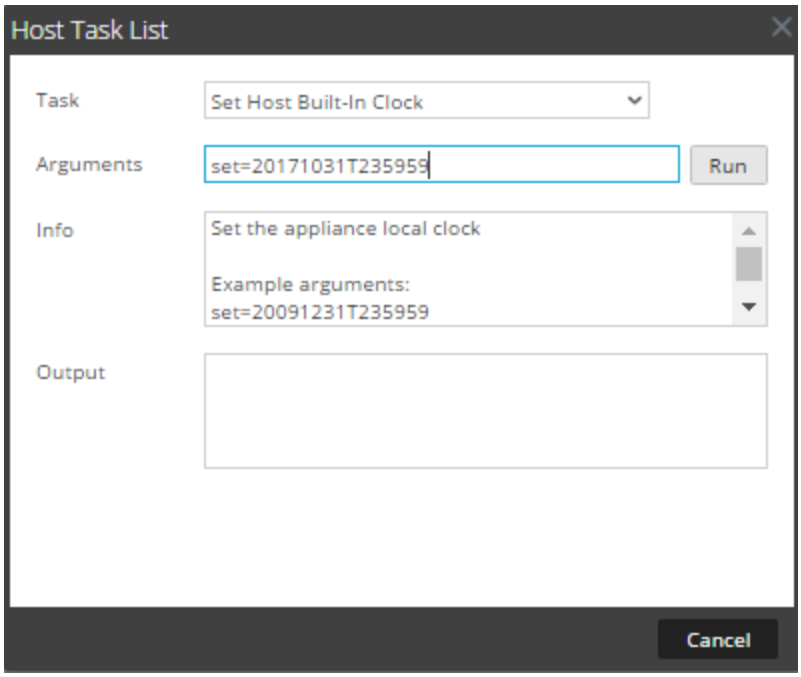
5. Click **Run**.
   The host is rebooted and the result is displayed in the Output area.

Set Host Built-In Clock

After a shutdown or battery failure, it may be necessary to set the local clock on a host. The Set Host Built-In Clock task resets the clock time.

Set the Time on the Local Clock

1. Select **ADMIN > Services**.
2. In the **Services** list, select a service and > **View** > **System**.
   The System view for the service is displayed.
3. In the **Services System** view toolbar, click **Host Tasks**.
4. In the **Host Task List**, select **Set Host Built-In Clock**.
   Help for the task is displayed in the Info area.
5. Enter the date and time arguments in the **Arguments** field.
   For example, to specify October 31, 2017 at 11:59:59 PM, type:
   `set=20171031T235959`



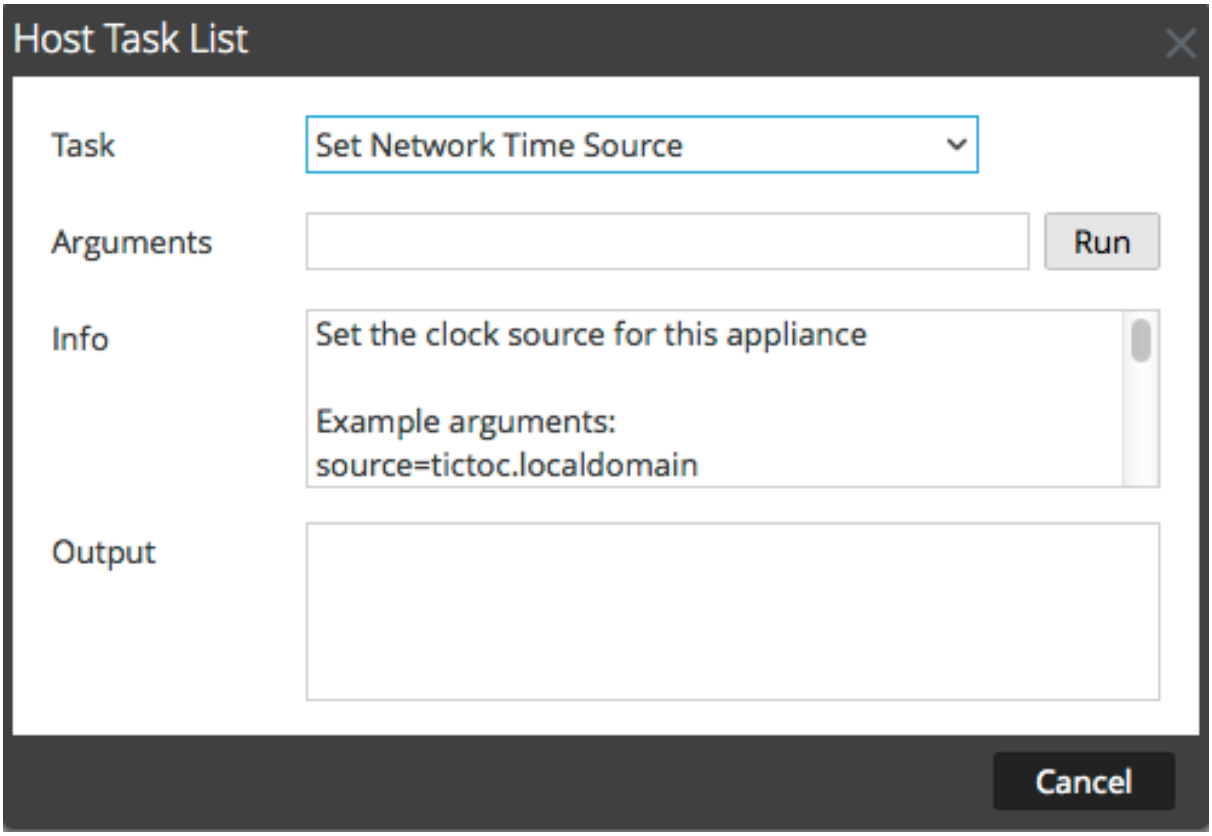
6. Click **Run**.
   The clock is set to the specified time and a message is displayed in the Output area.

Set Network Time Source

When setting the clock source for a host, set the hostname or address of an Network Time Protocol (NTP) server to be the network clock source for the host. If the host is using a local clock source, you must specify **local** here to allow **Set the Local Clock Source** to be effective.

Specify the Network Clock Source

1. Select **ADMIN > Services**.
2. In the **Services** list, select a service and click > **View** > **System**.
   The System view for the service is displayed.
3. In the **Services System** view toolbar, click **Host Tasks**.
4. In the **Host Task List**, select **Set Network Time Source**.



5. Do one of the following:
   - Type the hostname or address of the NTP server to serve as the clock source for this host; for example: `source=tictoc.localdomain`
   - If you want to use the host clock as a clock source, type: `source=local`
6. Click **Run**.
   The clock source is set and a message is displayed in the Output area.

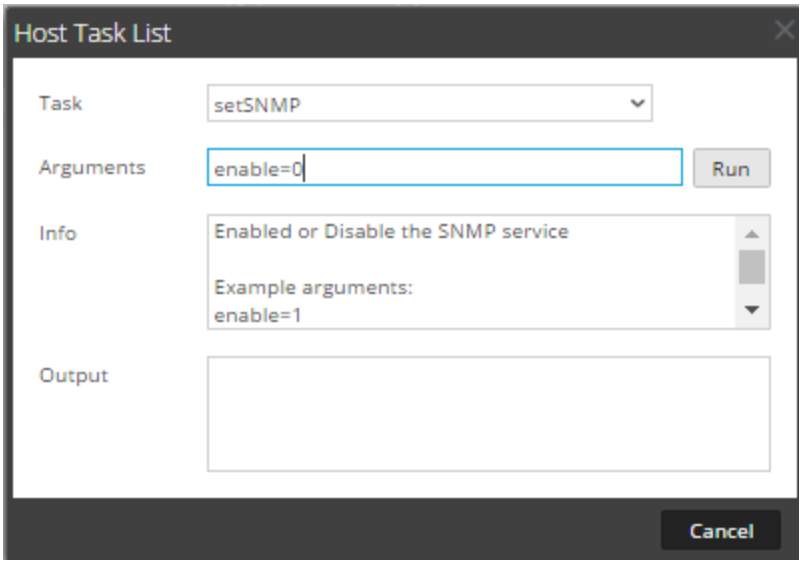
Note: If you specified a NTP clock source of **local**, the host clock serves as the clock source and the time is configured using Set Host Built-In Clock.

Set SNMP

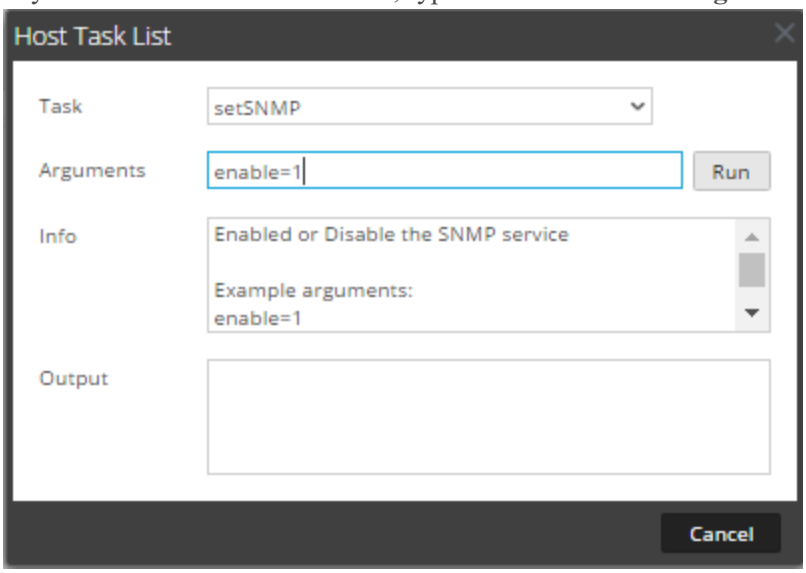
The Set SNMP task in the Host Task List enables or disables the SNMP service on a host. For a host to receive SNMP notifications, enable the SNMP service. If you are not using SNMP for NetWitness Platform notifications, it is not necessary to enable the service.

Toggle SNMP Service on the Host

1. Select **ADMIN > Services**.
2. In the **Services** list, select a service and click > **View** > **System**.
   The System view for the service is displayed.
3. In the **Services System view** toolbar, click **Host Tasks**.
4. In the **Host Task List**, select **setSNMP**.
   In the Info area, a brief explanation of the task and the task arguments is displayed.
5. Do one of the following:
   - If you want to disable the service, type `enable=0` in the **Arguments** field.



- If you want to enable the service, type **`enable=1`** in the **Arguments** field.



6. Click **Run**.
   The result is displayed in the Output area.

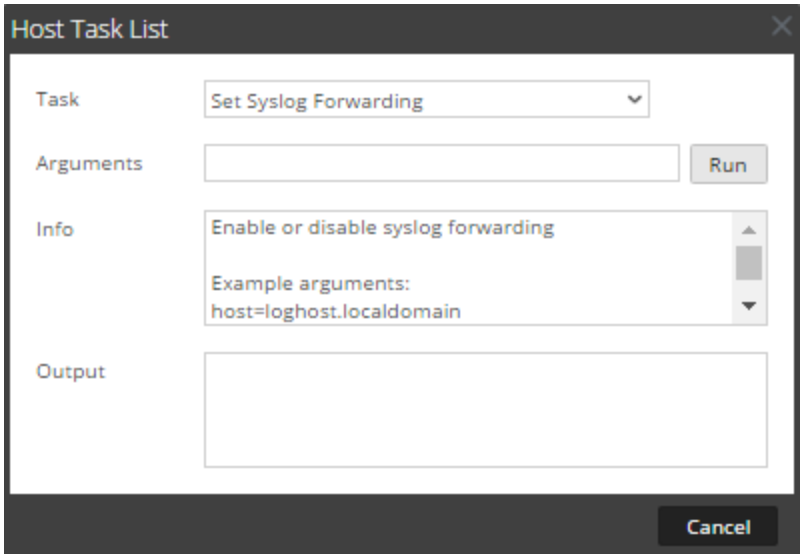
Set Syslog Forwarding

You can configure Syslog forwarding to forward the operating system logs of your NetWitness Platform Hosts to a remote syslog server. You can use the Set Syslog Forwarding task in the Host Task List to enable or disable syslog forwarding.

Set Up and Start Syslog Forwarding

1. Select **ADMIN > Services**.
2. In the **Services** list, select a service and click > **View** > **System**.
   The System view for the service is displayed.
3. In the **Services System** view toolbar, click **Host Tasks**.

4. In the **Host Task List**, select **Set Syslog Forwarding**.
   In the Info area, a brief explanation of the task and the task arguments is displayed.



5. In the **Arguments** field, do any one of the following.

   - To enable syslog forwarding, specify any one of the following formats:
     `host=<loghost>.<localdomain>` (for example, `host=syslogserver.local`).

     `host=<loghost>.<localdomain>:<port>` (for example, `host=syslogserver.local:514`).

     `host=<IP>` (for example, `host=10.31.244.244`).

     `host=<IP>:<port>` (for example, `host=10.31.244.244:514`).

     The following table lists the parameters used to enable syslog forwarding.

Parameter	Description
`loghost`	The host name of the remote syslog server.
`localdomain`	The domain of the remote syslog server.
`port`	IP address of the remote syslog server.
`IP`	The port number on which the remote syslog server receives a syslog messages.

   - To disable syslog forwarding, type **`host=disable`**.

6. Click **Run**.
   The result is displayed in the Output area.

Once syslog forwarding is enabled or disabled, the `/etc/rsyslog.conf` file is updated automatically to enable or disable syslog forwarding to the remote syslog destination and the syslog service is restarted.

If you enable syslog forwarding, the logs from the configured service are forwarded to the defined syslog server and continues forwarding until disabled.

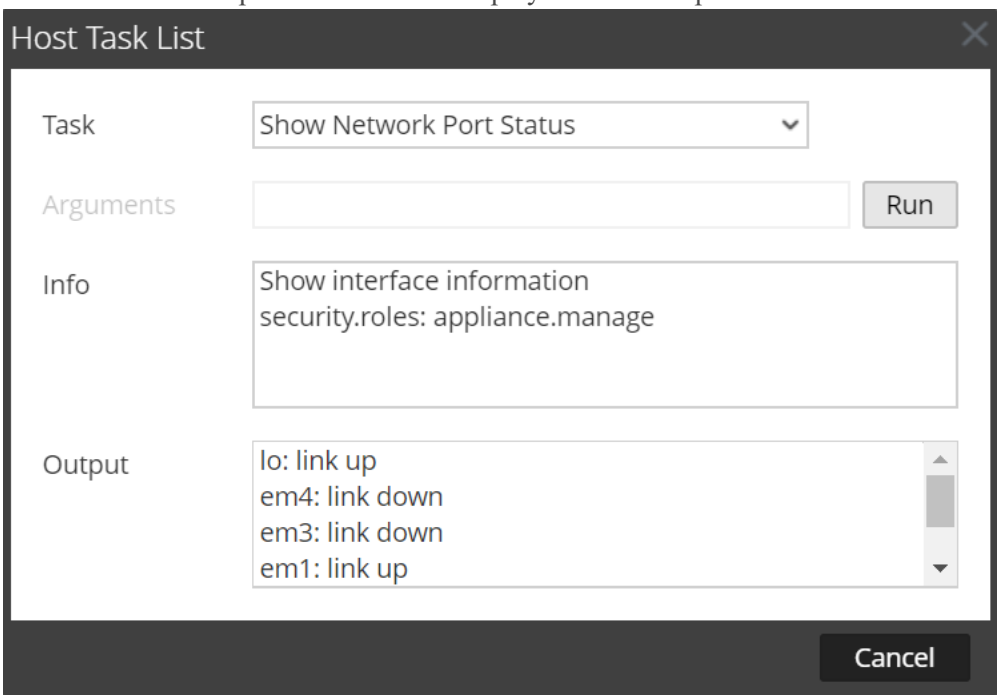
Note: You can now log in to the remote syslog server and verify if the messages are being received from the NetWitness Platform services configured for syslog forwarding.

Show Network Port Status

The Show Network Port Status task in the Host Task List gives you the status of all configured ports on the host.

Display the Network Port Status

1. Select **ADMIN > Services**.
2. In the **Services** list, select a service and > **View**> **System**.
   The System view for the selected service is displayed.
3. In the **Services System** view toolbar, click **Host Tasks**.
4. In the **Host Task List**, click **Show Network Port Status**.
   The task is displayed in the Task field, and information about the task is displayed in the Info area.
5. No arguments are required for this task. Click **Run**.
   The status for each port on the host is displayed in the Output area.

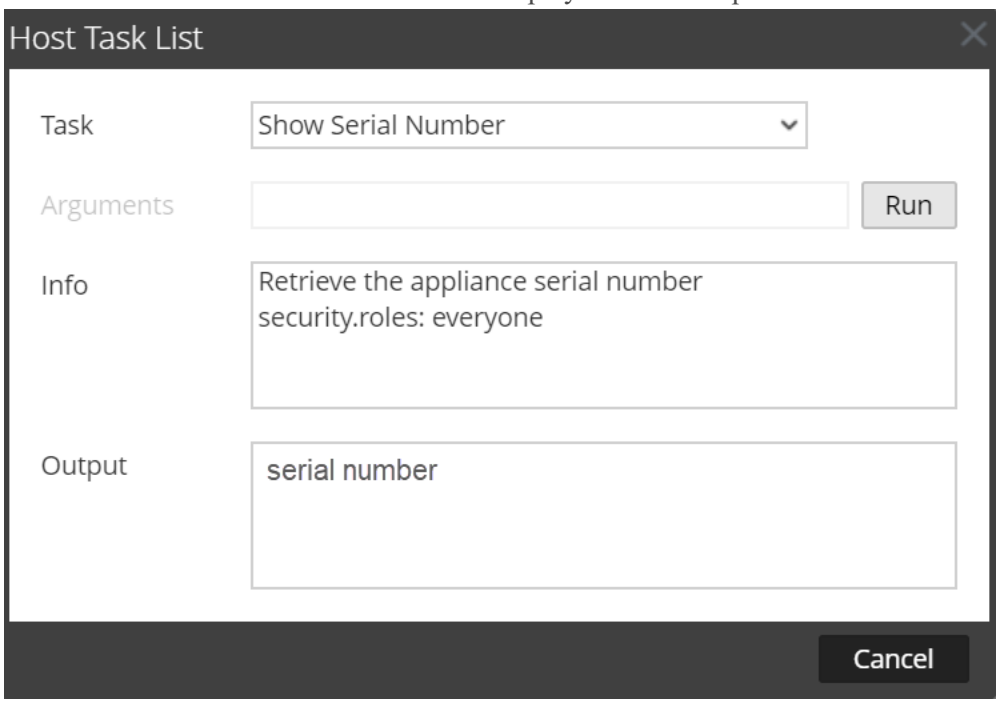


Show Serial Number

The Show Serial Number task in the Host Task List displays the serial number of a host.

Show the Serial Number

1. Select **ADMIN > Services**.
2. In the **Services** list, select a service and click > **View> System**.
   The System view for the service is displayed.
3. In the **Services System** view toolbar, click **Host Tasks**.
4. In the **Host Task List**, select **Show Serial Number**.
   In the Info area, a brief explanation of the task and the task arguments is displayed.
5. No arguments are required for this task. Click **Run**.
   The serial number of the selected host is displayed in the Output area.



Shut Down Host

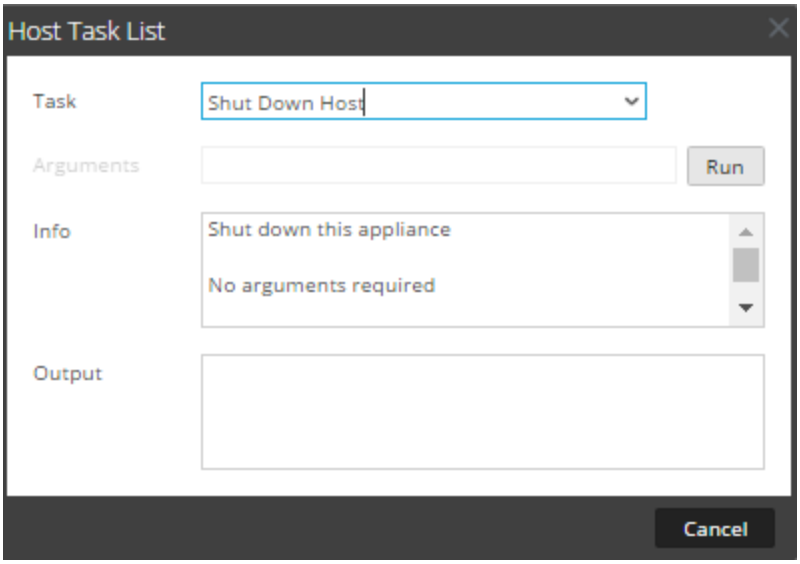
Under certain circumstances (for example, a hardware upgrade or an extended power outage that exceeds backup power capacity), it may be necessary to shut down a physical host. When you shut down a host, all services running on the host are stopped and the physical host turns off.

The physical host does not restart automatically. Use the power switch to restart the host. Once the physical host restarts, the host and services are configured to restart automatically.

See Reboot a Host for how to start and stop a host without shutting down the host.

Shut Down the Host

1. In the **Host Task List**, select **Shut Down Host**.



2. To execute the task, click **Run**.
   The host shuts down, and the host turns off.

Stop and Start a Service on a Host

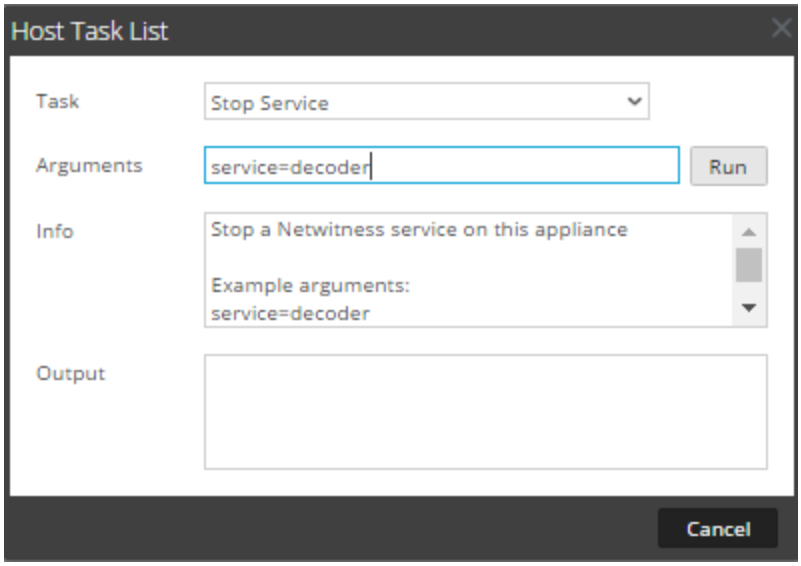
The Host Task List has two options for stopping and starting a service on a host. When you stop a service using the **Stop Service** message, all processes of the service are stopped and users connecting to the service are disconnected. Unless there is a problem with the service, it restarts automatically. This is the same as the **Shutdown Service** option in the Services System view.

If a service does not restart automatically after being stopped, you can restart it manually using the **Start Service** message.

Stop a Service on a Host

1. Select **ADMIN** > **Services**.
2. In the **Services** list, select a service and click > **View**> **System**.
   The System view for the service is displayed.
3. In the **Services System** view toolbar, click **Host Tasks**.
4. In the **Host Task List**, select **Stop Service**.
   The task is displayed in the Task field, and information about the task is displayed in the Info area.

5. Specify the service (`decoder`, `concentrator`, `broker`, `logdecoder`, `logcollector`) to stop in the **Arguments** field; for example, **`service=decoder`**.

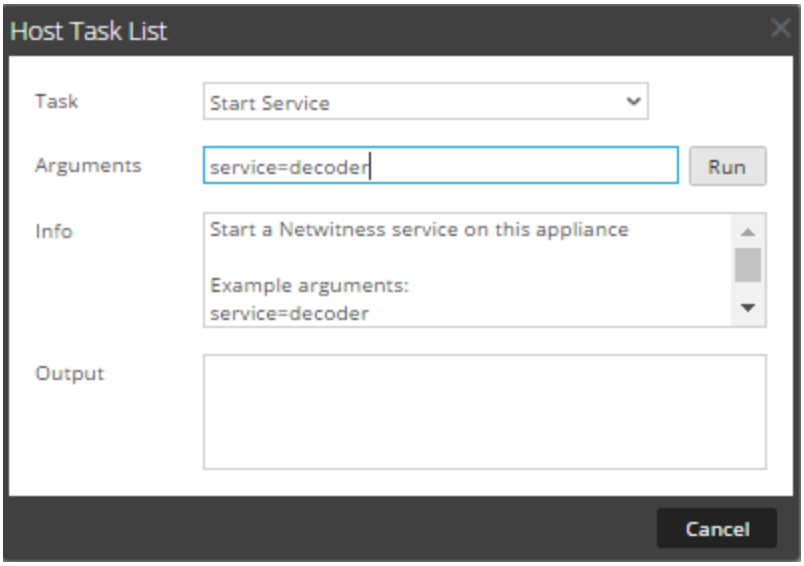


6. To execute the task, click **Run**.
   The service stops and the status is displayed in the Output area. All processes of the service are stopped and users connecting to the service are disconnected. Unless there is a problem with the service, it restarts automatically.

Start a Service on a Host

1. Select **ADMIN** > **Services**.
2. In the **Services** list, select a service and click > **View**> **System**.
   The System view for the service is displayed.
3. In the **Services System** view toolbar, click **Host Tasks**.
4. In the **Host Task List**, select **Start Service**.
   The task is displayed in the Task field, and information about the task is displayed in the Info area.

5. Specify the service (`decoder`, `concentrator`, `broker`, `logdecoder`, `logcollector`) to stop in the **Arguments** field; for example, **`service=decoder`**.



6. To execute the task, click **Run**.
   The service starts and the status is displayed on the Output area.

Add, Replicate, or Delete a Service User

You must add a user to a service for:

- Aggregation
- Accessing the service with the:
  - Thick client
  - REST API

Note: This topic does not apply to users who access services through the user interface on NetWitness Server. You must add those users to the system, not a service. For details, see the "Set Up a User" in *System Security and User Management Guide*.

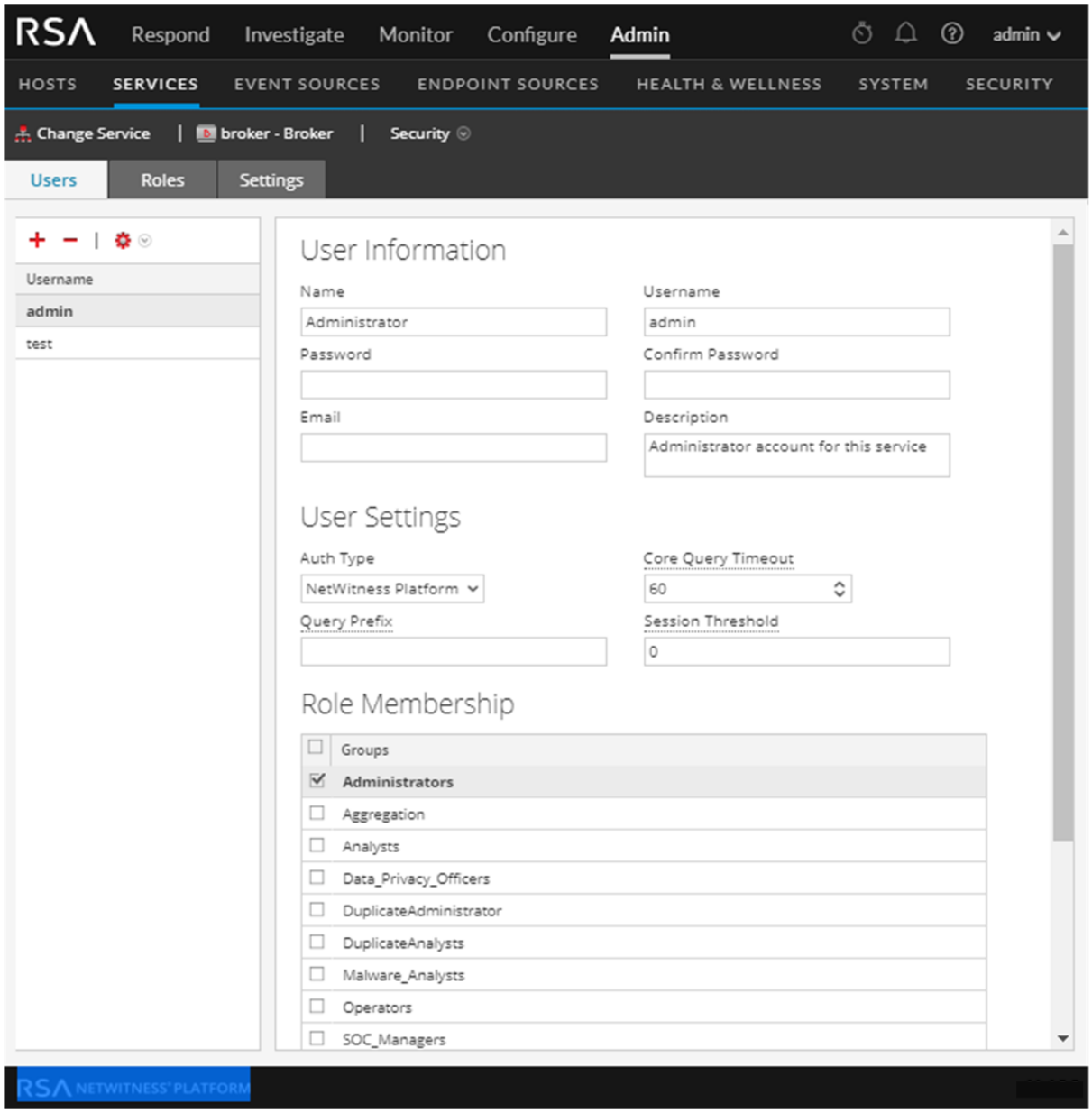
For each service user, you can:

- Configure user authentication and query handling properties for the service
- Make the user a member of a role, which has a set of permissions the user receives
- Replicate the user account to other services
- Change the service user password on selected services

Change a Service User Password provides instructions for changing the service user password across services.

To navigate to the Services Security view:

1. In NetWitness Platform, go to **ADMIN > Services**.
2. Select a service, then click > **View** > **Security**.
   The Security view for the selected service is displayed with the Users tab open.



Add a Service User

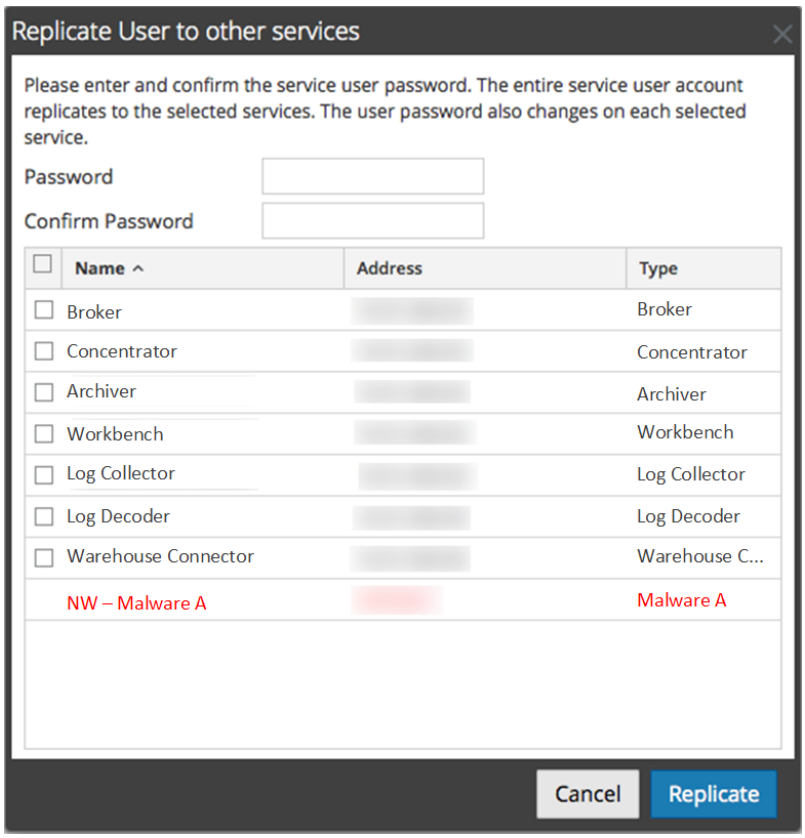
1. On the **Users** tab, click .
2. Type the user name to access the service, then press **Enter**.
   The User Information section displays the user name and the rest of the fields are available for editing.

3. Type the password for logging on to the service in the **Password** and **Confirm Password** fields.
4. (Optional) Provide additional information:
   - **Name** for logging on to NetWitness Platform
   - **Email** address
   - **Description** of the user
5. In the User Settings section, select the following information:
   - **Authentication Type**
     - If NetWitness Platform authenticates the user, select **NetWitness**.
     - If Active Directory or PAM is configured on NetWitness Server to authenticate the user, select **External**.
   - **Core Query Timeout** is the maximum number of minutes a user can run a query on the service. This field applies to NetWitness Platform 10.5 and later service versions and does not appear for 10.4 and earlier versions.
6. (Optional) Specify additional query criteria:
   - **Query Prefix** filters queries. Type a prefix to restrict results the user sees.
   - **Session Threshold** controls how the service scans meta values to determine session counts. Any meta value with a session count that is above the threshold stops its determination of the true session count.
7. In the **Role Membership** section, select each role to assign to the user. When a user is a member of a role on a service, the user has the permissions assigned to the role.
8. To activate the new service user, click **Apply**.

Replicate a User to Other Services

Note: The **admin** user cannot be replicated to other services.

1. In the Users tab, select a user and click  > **Replicate**.
   The Replicate Users to Other Services dialog is displayed.



2. Enter and confirm the password.
3. Select each service to which you are replicating the user.
4. Click **Replicate**.

Delete a Service User

1. On the **Users** tab, select the **Username** and click −.
   NetWitness Platform requests confirmation that you want to delete the selected user.
2. To confirm, click **Yes**.

Add a User Role to a Service

There are pre-configured roles in NetWitness Platform that are installed on the server and on each service. You can also add custom roles. The following table lists the pre-configured user roles and their permissions.

Role	Permission
Administrators	Full system access
Operators	Access to configurations but not to metadata and session content
Analysts	Access to metadata and session content but not to configurations

Role	Permission
SOC_ Managers	Same access as Analysts and additional permissions to handle incidents
Malware_ Analysts	Access to malware events and to metadata and session content
Data_Privacy_ Officers	Access to metadata and session content and configuration options that manage obfuscation and viewing of sensitive data within the system (see *Data Privacy Management Guide*).

You must add a service role when you have added a:

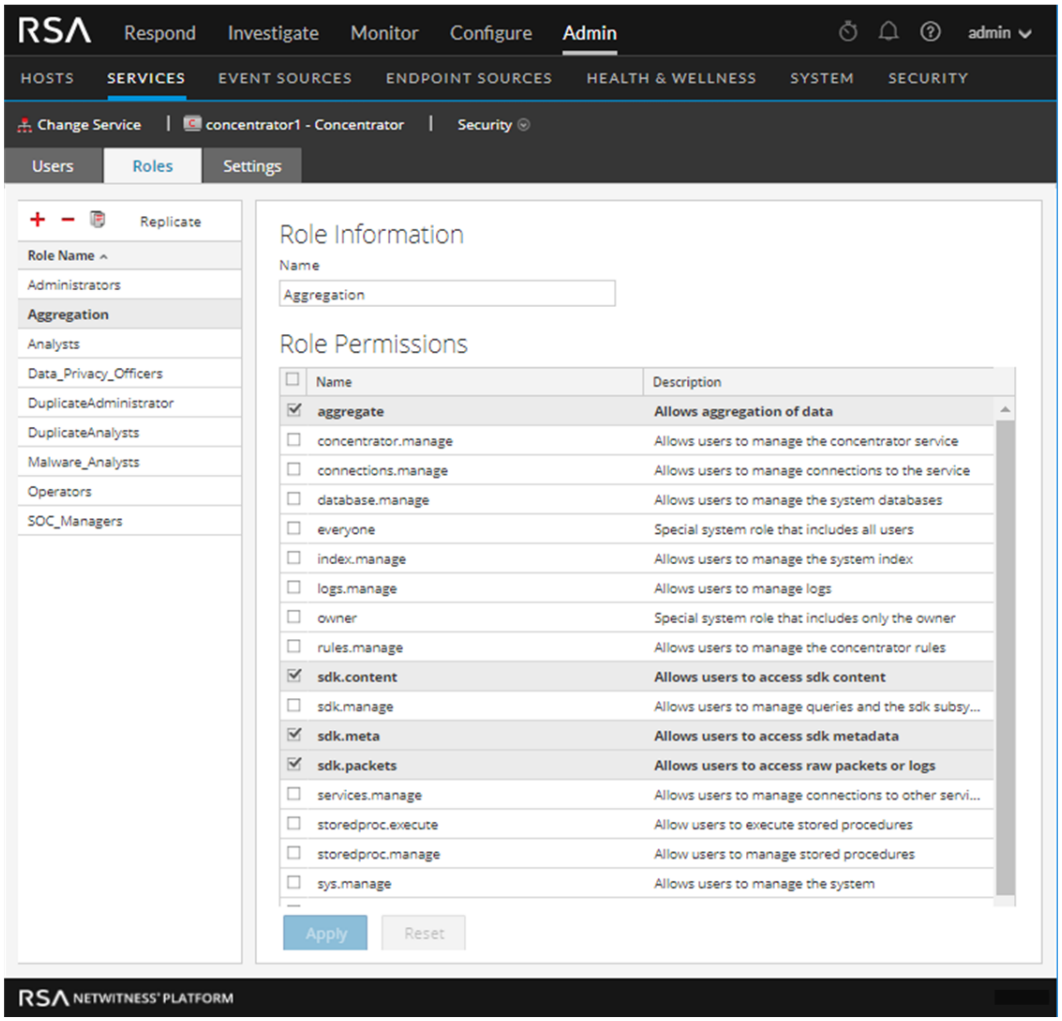
- **Service** user or users that requires a new set of permissions.
- **Custom role on NetWitness Server** because trusted connections require that the same custom role exists both on the server and on each service the custom role will access. The names must be identical. For example, if you add a Junior Analysts role on the server then you must add a Junior Analysts role on each service the role will access. For more information, see "Add a Role and Assign Permissions" in the *System Security and User Management Guide*.

There is also a pre-configured **Aggregation** service role. Services Security View - Aggregation Role and Services Security View - Service User Roles and Permissions provide additional information.

To add a service user role and assign permissions to it:

1. In NetWitness Platform, go to **ADMIN > Services**.
2. Select a service, then  **> View > Security**.
   The Security view for the selected service is displayed with the Users tab open.

3. Select the **Roles** tab and click +.
   The Services Security view is displayed and five pre-configured roles are already listed.



4. Click +, type the **Role Name** and press **Enter**.
   The Role Name is displayed above a list of **Role Permissions**.
5. Select each permission the role will have on the service.
6. Click **Apply**.

You can add service users to the role in the **Users** tab.

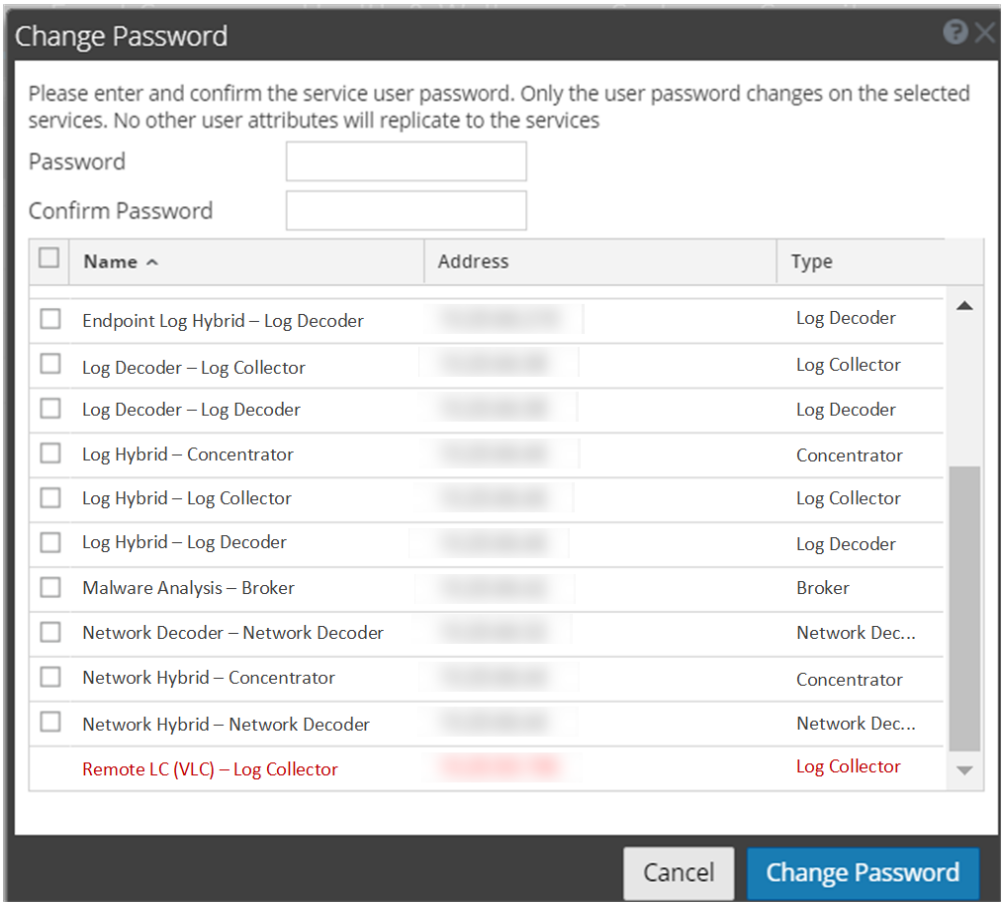
Change a Service User Password

This procedure allows administrators to change the password of a service user and replicate the new password to all Core services with that user account defined. It replicates only the password change to the Core services selected and does not replicate the entire user account. Administrators can also change the password of the **admin** account on the Core services.

Note: The Change Password option does not apply to external users.

To change the password of a service user:

1. In NetWitness Platform, go to **ADMIN > Services**.
   The Admin Services view is displayed.
2. Select a service, then click ⚙ > **View > Security**.
   The Security view for the selected services is displayed.
3. In the **Users** tab, select a user and select **Change Password** from ⚙.
   The **Change Password** dialog is displayed.



4. Type a new password for the user and confirm the password.
5. Select the services where you want the user password to change.
6. Click **Change Password**.
   The status of the password change on the selected services is displayed.

IMPORTANT: If you change the admin password on a NetWitness service that is used as a Reporting Engine data source, you must remove and then re-add the service as a data source. For details, see "Configure the Data Sources" topic in the *Reporting Engine Configuration Guide for RSA NetWitness Platform 11.x Guide*.

Create and Manage Service Groups

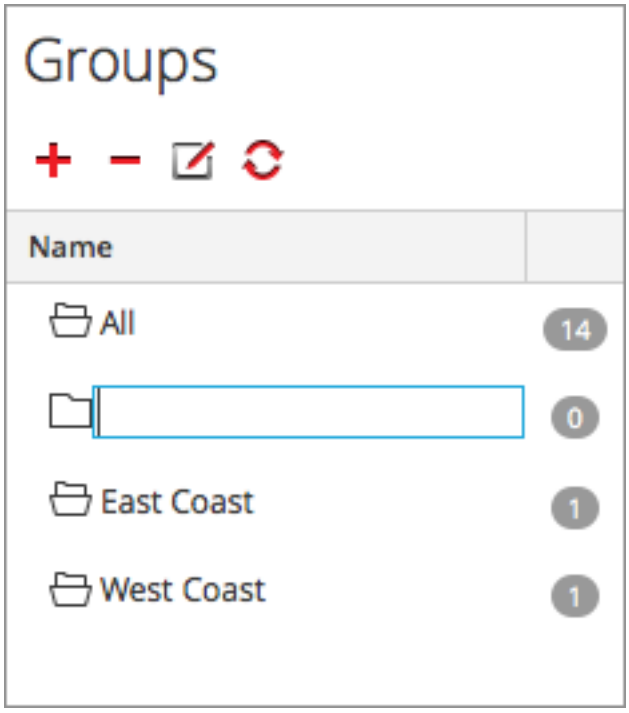
The Admin Services view provides options to create and manage groups of services. The Services list toolbar includes options to create, edit, and delete service groups. Once groups are created, you can drag individual services from the Services panel into a group.

Groups may reflect functional, geographical, project-oriented, or any other organization principle that is useful. A service may belong to more than one group. Here are some examples of possible groupings.

- Group different service types to make it easier to configure and monitor all Brokers, Network Decoders, or Concentrators.
- Group services that are part of the same data flow; for example, a Broker, and all associated Concentrators and Network Decoders.
- Group services according to their geographic region and location within the region. If a major power outage occurs in a location, potentially affected services are easily identifiable.

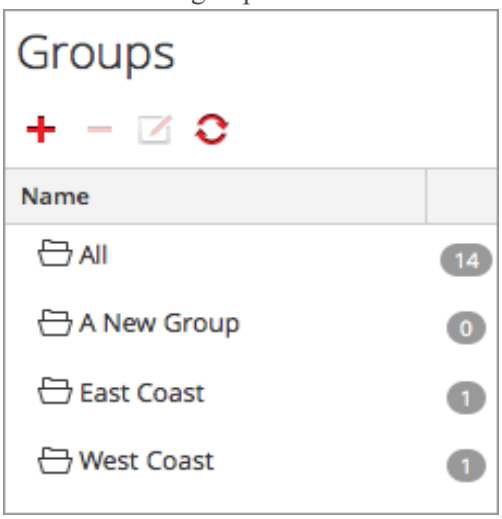
Create a Group

1. In NetWitness Platform, go to **ADMIN** > **Services**.
   The Admin Services view is displayed.
2. In the **Groups** panel toolbar, click  .
   A field for the new group opens with a blinking cursor.



3. Type the name of the new group in the field (for example, **`A New Group`**) and press **Enter**.
   The group is created as a folder in the tree. The number next to the group indicates the number of

services in that group.



Change the Name of a Group

1. In the Services view **Groups** panel, double-click the group name or select the group and click .
   The name field opens with a blinking cursor.
2. Type the new name of the group and press **Enter**.
   The name field closes and the new group name is displayed in the tree.

Add a Service to a Group

In the Services view **Services** panel, select a service and drag the service to a group folder in the groups panel.
The service is added to the group.

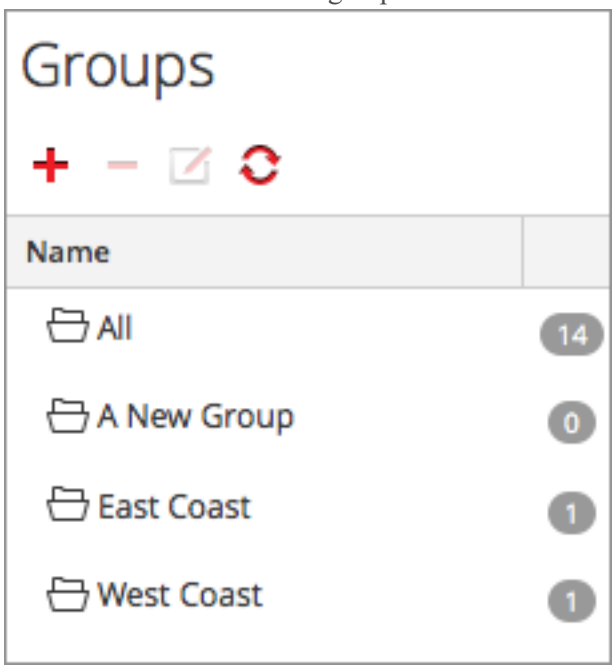
View the Services in a Group

To view the services in a group, click the group in the **Groups** panel.

The Services panel lists the services in that group.

Remove a Service from a Group

1. In the Services view **Groups** panel, select the group that contains the service that you want to remove. The services in that group appear in the Services panel.
2. In the **Services** panel, select one or more services that you want to remove from the group, and in the toolbar, select − > **Remove from Group**.
   The selected services are removed from the group, but are not removed from the NetWitness Platform user interface. The number of services in the group, which is listed near the group name, decreases by the number of services removed from the group. The **All** group contains the services that are removed from the group.
   In the following example, the service group called **A New Group** does not contain any services, because the service in that group is removed.



Delete a Group

1. In the Services view **Groups** panel, select the group that you want to delete.
2. Click −.
   The selected group is removed from the Groups panel. The services that were in the group are not removed from the NetWitness Platform user interface. The **All** group contains the services from the deleted group.

Duplicate or Replicate a Service Role

An efficient way to add a new service role is to duplicate a similar role, save it with a new name and revise the permissions that are already assigned. For example, you could duplicate the Analysts role. Then, save it as `JuniorAnalysts` and modify the permissions.

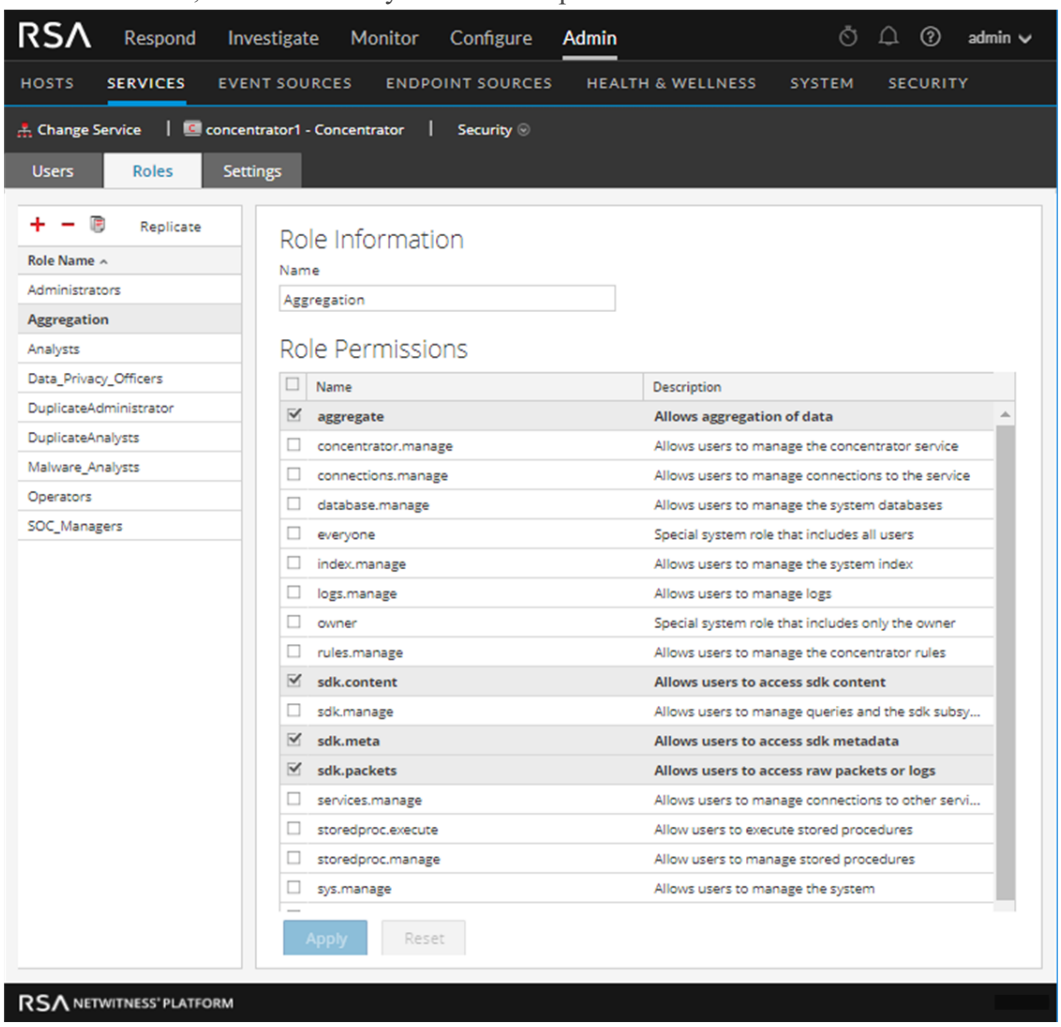
The quick way to add an existing role to other services is to replicate the role. For example, you could replicate the `JuniorAnalysts` role that exists on a Broker to a Concentrator and Log Decoder.

To navigate to the Services Security view:

1. In NetWitness Platform, go to **ADMIN > Services**.
2. Select a service, then click > **View** > **Security**.
   The Security view for the selected service is displayed with the Users tab open.
3. Select the **Roles** tab.

Duplicate a Service Role

1. In the **Roles** tab, select the role you want to duplicate.



2. Click > **Duplicate Role.**
3. Type a new name and click **Apply**.

4. Select the new role.
5. In the **Role Permissions** section, select or deselect permissions to modify what the new role can do.

Replicate a Role

1. In the **Roles** tab, select the role you want to replicate and click **Replicate**.
2. In the **Replicate Role to Other Services** dialog, select each service on which to add the role.
3. Click **Replicate**.

Edit Core Service Configuration Files

The service configuration files for Network Decoder, Log Decoder, Broker, Concentrator, Archiver, and Workbench services are editable as text files. In the Services Config view > Files tab, you can:

- View and edit a service configuration file that the NetWitness Platform system is currently using.
- Retrieve and restore the latest backup of the file you are editing.
- Push the open file to other services.
- Save changes made to a file.

The files available to edit vary depending upon the type of service being configured. The files that are common to all Core services are the:

- The NetWitness file (`netwitness`). This is preconfigured and does not require editing.
- The service index file (`index-<service>`). This is preconfigured and may require editing.
  See Edit a Service Index File for more information.
- The scheduler file (`scheduler`). The scheduler service is optional and requires editing.
  See Configure the Task Scheduler for more information.
- The crash reporter file (`crashreporter`). The crash reporter service is optional and requires editing.
  See Enable the Crash Reporter Service for more information.
- The feed definitions file (`feed-definitions`). This file is optional and may require editing.
  See "Feed Definitions File" in the *Decoder Configuration Guide* for more information.

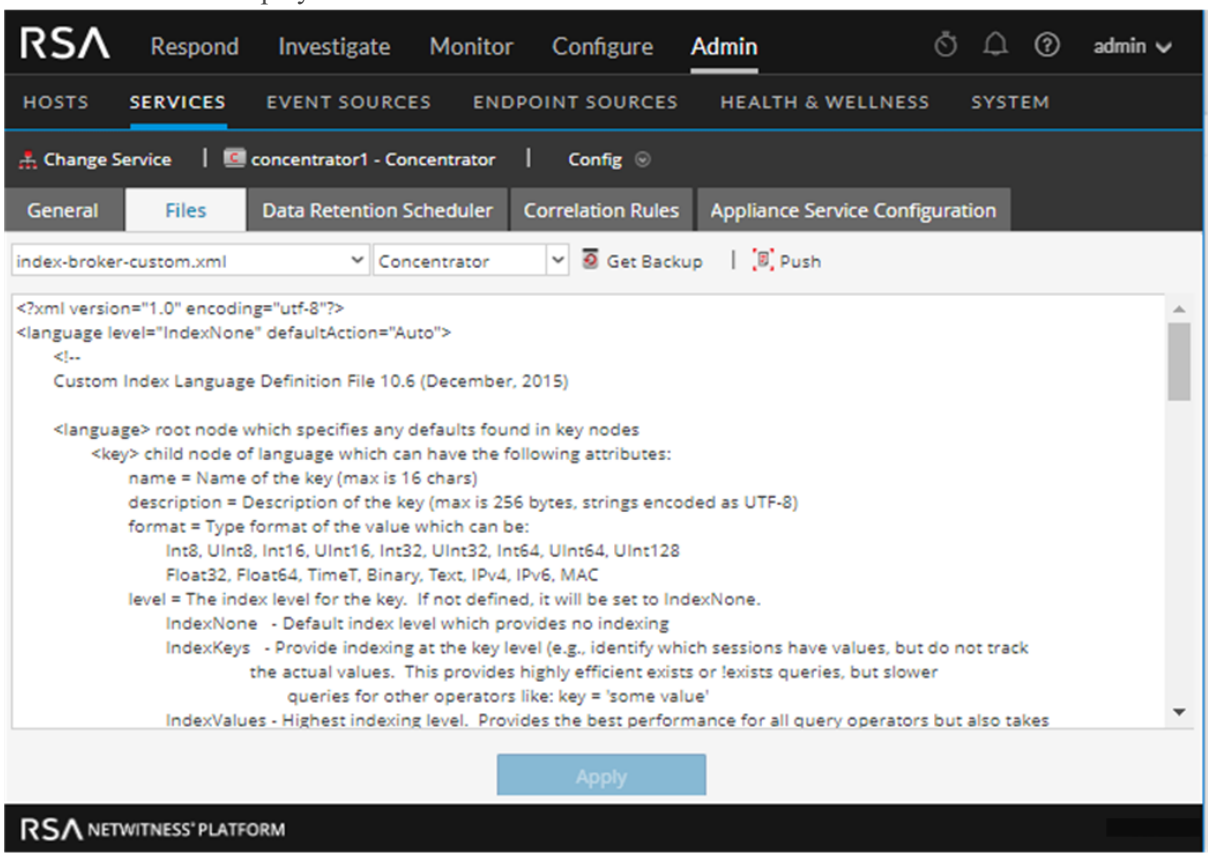
In addition, the Network Decoder has files that configure parsers, feed definitions, and a wireless LAN adapter. There is also the table mapping file provided by RSA, `table-map.xml`, which is an important part of the Log Decoder.

Note: The default values in these configuration files are good for the most common situations, however some editing is necessary for optional services, such as the crash reporter or scheduler. Only administrators with a good understanding of the networks and the factors that affect the way services collect and parse data should make changes to these files in the Files tab.

Edit a Service Configuration File

To edit a file:

1. In NetWitness Platform, go to **ADMIN > Services**.
2. In the Services list, select a service.
3. Select > **View** > **Config**.
   The Service Config view is displayed with the General tab open.
4. Click the **Files** tab.
   cThe selected service, such as Concentrator, appears in the drop-down list on the right.
5. (Optional) To edit a file for the host instead of the service, select **Host** in the drop-down list.
6. Choose a file from the **Please Select A File To Edit** drop-down list.
   The file content is displayed in edit mode.



7. Edit the file and click **Apply**.

The current file is overwritten and a backup file is created. The changes go into effect after the service is restarted.

Revert to a Backup Version of a Service Configuration File

After you make changes to a configuration file, save the file, and restart the service, a backup file is available.

To revert to a backup of a configuration file:

1. Select a configuration file by completing steps 1-6 of Edit a Service Configuration File.
2. Click 

.
   The backup file opens in the text editor.
3. To revert to the backup version, click **Save**.

The changes go into effect after the service is restarted.

Push a Configuration File to Other Services

Once you have edited a service configuration file, you can push the same configuration to other services of the same type.

1. Select a configuration file by completing steps 1-6 of Edit a Service Configuration File.
2. Click 

.
   The Select Services dialog is displayed.
3. Select each service to push the configuration file on it. Each service must be the same type as the one you selected in the Services view.

   Caution: If you decide not to push the configuration file, click **Cancel**.
4. To push the configuration file to all selected services, click **OK**.

The configuration file is pushed to all selected services.

Edit a Service Index File

This topic provides important information and guidelines for configuring service custom index files, which are editable in the Service Config view > Files tab.

The index file, along with other configuration files, controls operation of each core service. Accessing the index file through the Service Config view in NetWitness Platform opens the file in a text editor, where you can edit the file.

Note: Only administrators with a thorough and comprehensive understanding of Core service configuration are qualified to make changes to an index file, which is one of the central configuration files for the appliance service. Changes made should be consistent across all Core services. Invalid entries or a misconfigured file can prevent the system from starting and can require the assistance of RSA Support to bring the system back into a working state.

These are the index files:

- index-broker.xml, and index-brokercustom.xml
- index-concentrator.xml, and index-concentrator-custom.xml
- index-decoder.xml, and index-decodercustom.xml
- index-logdecoder.xml, and index-logdecodercustom.xml
- index-archiver.xml, and index-archiver-custom.xml
- index-workbench.xml, and index-workbench-custom.xml

Index and Custom Index Files

All customer-specific index changes are made in index-<service>-custom.xml. This file overrides any settings in index-<service>.xml, which is solely controlled by RSA.

The custom index file, index-<service>-custom.xml, allows creation of custom definitions or overrides of your own language keys that are not overwritten during the upgrade process.

- Keys that are defined in index-<service>-custom.xml replace the definitions found in index-<service>.xml.
- Keys that are added to index-<service>custom.xml and not found in index -<service>.xml are added to the language as a new key.

Some common applications for editing the index file are:

- To add new custom meta keys to add new fields to the NetWitness Platform user interface.
- To configure protected meta keys as part of a data privacy solution as described in the *Data Privacy Management Guide*.
- To adjust the NetWitness Platform Core database query performance as described in the *NetWitness Platform Core Database Tuning Guide*.

Caution: Never set the index level to IndexKeys or IndexValues on a Network Decoder if you have a Concentrator or Archiver aggregating from the Network Decoder. The index partition size is too small to support any indexing beyond the default time meta key.

Configure the Task Scheduler

Scheduler File

You can edit the scheduler file that in the Service Config view > Files tab. This file configures the built-in task scheduler for a service. The task scheduler can automatically send messages at predefined intervals or specific times of the day.

Scheduler Task Syntax

A task line in the scheduler file consists of the following syntax, where <Value> has no spaces:

```
<ParamName>=<Value>
```

If <Value> has any spaces, this is the syntax:

```
<ParamName>="<Value>"
```

In each task line, these guidelines apply:

- Parameter time or one of the interval parameters (seconds, minutes or hours) is required.
- Escape special characters with a \ (backslash).

Task Line Parameters

The following task line parameters are accepted by the scheduler.

Syntax	Description
daysOfWeek: <string, optional, {enum-any:sun|mon|tue|wed|thu|fri|sat|all}>	The days of week to execute a task. The default value is all.
deleteOnFinish: <bool, optional>	Delete the task when it has successfully finished.
hours: <uint32, optional, {range:1 to 8760}>	The number of hours between executions.
logOutput: <string, optional>	Output the response to log using the specified module name.
minutes: <uint32, optional, {range:1 to 525948}>	The number of minutes between executions.
msg: <string>	The message to send the node.
params: <string, optional>	The parameters for the message.
pathname: <string>	The path of the node that receives the message.
seconds: <uint32, optional, {range:1 to 31556926}>	The number of seconds between executions.
time: <string>	The time of execution in HH::MM:SS format (local time of this server).
timesToRun: <uint32, optional>	How many times to run because service start, **0** = unlimited (default).

Messages

The following are the message strings to use in the Task Scheduler msg parameter.

Message	Description
addInter	Add a task to run at a defined interval. For example, this message runs the `/index save` command every 6 hours: `addInter hours=6 pathname=/index msg=save`
addMil	Add a task to run at a specific time of day or even day(s) of the week. For example, this message runs the `/index save` command at 1 AM every business day: `addMil time= 01:00:00 pathname=/index msg=save daysOfWeek=mon,tue,wed,thu,fri`
delSched	Deletes an existing scheduled task. The `id` parameter of the task must be retrieved from the print message.
print	Prints all scheduled tasks.
replace	Assign all scheduled tasks in one message, deleting any existing tasks.
save	Save node.

Sample Task Line

The following example task line in the `scheduler` file downloads the feeds package file (`feeds.zip`) to the selected Network Decoder every 120 minutes from the feeds host server:

```
minutes=120 pathname=/parsers msg=feed params="type\=wget file\=http://feedshost/nwlive/feeds.zip"
```

Enable the Crash Reporter Service

The Crash Reporter is an optional service for NetWitness Platform services. When activated for any of the Core services, the Crash Reporter automatically generates a package of information to be used for diagnosing and solving the problem that resulted in the service failure. The package is automatically sent to RSA for analysis. The results are forwarded to RSA Support for any further action.

The information package sent to RSA does not contain captured data. This information package consists of the following information:

- Stack trace
- Logs
- Configuration settings
- Software version
- CPU information
- Installed RPMs
- Disk geometry

The Crash Reporter crash analysis can be activated for any Core product.

The `crashreporter.cfg` File

One of the files available for editing in the Service Config view > Files tab is `crashreporter.cfg`, the Crash Reporter Client Server configuration file.

This file is used by the script that checks, updates, and builds crash reports on the host. The list of products to monitor can include Network Decoders, Concentrators, Brokers, and hosts.

This table lists the settings for the `crashreporter.cfg` file.

Setting	Description
`applicationlist=decoder, concentrator, host`	Define the list of products to monitor.
`sitedir=/var/crashreporter`	Location of the site directory for the report.
`webdir=/usr/share/crashreporter/Web`	Location of the web directory.
`devdir=/var/crashreporter/Dev`	Location of the development directory.
`datadir=/var/crashreporter/data`	Location of the directory storing data files.
`perldir=/usr/share/crashreporter/perl`	Location of the Perl files.
`bindir=/usr/share/crashreporter/bin`	Location of the binary executables.
`libdir=/usr/share/crashreporter/lib`	Location of the binary libraries.
`cfgdir=/etc/crashreporter`	Location of the configuration files.
`logdir=/var/log/crashreporter`	Location of the log files.
`scriptdir=/usr/share/crashreporter/scripts`	Location of the directory containing scripts.
`workdir=/var/crashreporter/work`	Location of the process work directory.
`sqldir=/var/crashreporter/sql`	Location where created SQL files are placed.
`reportdir=/var/crashreporter/reports`	Location where temporary reports are created.
`packagedir=/var/crashreporter/packages`	Location of the created package files.
`gdbconfig=/etc/crashreporter/crashreporter.gdb`	Location of the `gdb` configuration file.
`corewaittime=30`	Define the number of seconds to wait after finding a core to determine if the core is still being written.
`cyclewaittime=10`	Define the number of minutes to wait between search cycles

Setting	Description
`deletecores=1`	Specify if the Core files should be deleted after report. 0 = No 1 = Yes **Note:** Until the Core file is deleted, it is reported each time crashreporter is restarted.
`deletereportdir=1`	Specify if the report directory should be deleted after the report. Useful to view ore reports on box. 0 = No 1 = Yes **Note:** If not deleted, the directory will be included in each subsequent package.
`debug=1`	Specify whether debugging messages are turned on or off in the `crashreporter` logging output. 0 = No 1 = Yes
`posturl=https://www.netwitnesslive.com/crash...ter/submit.php`	Define the webserver post URL.
`postpackages=0`	Specify if the packages should be posted to the webserver. 0 = No 1 = Yes
`deletepackages=1`	Specify if packages should be deleted after they are posted to webserver. 0 = No 1 = Yes

Configure the Crash Reporter Service

To configure the Crash Reporter service:

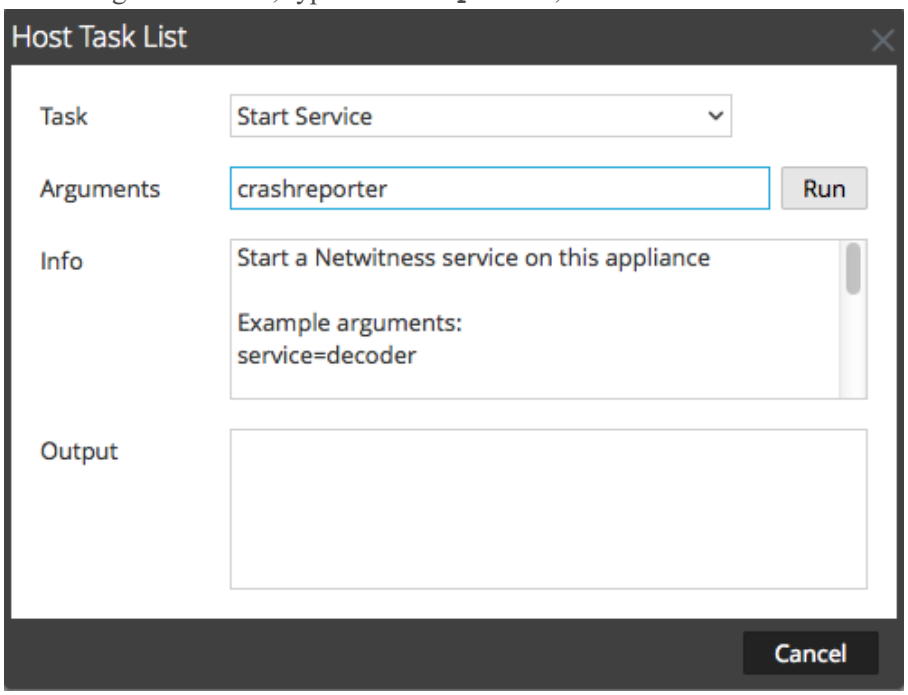
1. Select **ADMIN > Services**.
2. Select a service and click  **> View > Config**.
3. Select the **Files** tab.
4. Edit `crashreporter.cfg`.
5. Click **Save**.

6. To display the Service System view, select **Config > System**.
7. To restart the service, click Shutdown Service.
   The service shuts down and restarts.

Start and Stop the Crash Reporter Service

To start the Crash Reporter Service:

1. Select **ADMIN > Services**.
2. Select a service and click > **View > System**.
3. In the toolbar, click Host Tasks.
   The Host Task List is displayed.
4. In the Task drop-down list, select **Start Service**.
5. In the Arguments field, type `crashreporter`, then click **Run**.



The Crash Reporter service is activated and remains active until you stop it.

To stop the Crash Reporter service, select **Stop Service** from the Task drop-down list.

Maintain the Table Map Files

The table mapping file provided by RSA, `table-map.xml`, is a very important part of the Log Decoder. It is a meta definition file which also maps the keys used in a log parser to the keys in the `metadb`.

Note: Do not edit the `table-map.xml` file. If you want to make changes to the table-map, make them in the `table-map-custom.xml` file. The latest `table-map.xml` file is available on Live Services, which RSA updates as required. If you make changes to the `table-map.xml` file, they can be overwritten during a content or service upgrade.

The table map and custom table map files have two purposes:

- To translate the variables used in the Log Parsers to NetWitness meta key names
- To tell the system which keys to move onto the Concentrator.

For example, look at the out-of-the-box Palo Alto log parser, and examine one of its meta keys: `stransaddr`. This key represents the source translated address. If we look in the `table-map.xml`file we can see that this variable is listed as `Transient`:

```
<mapping envisionName="stransaddr" nwName="stransaddr" flags="Transient"
format="Text" />
```

Because this variable is listed as, `Transient`, it never moved to the Concentrator. In fact, if you look at all the metadata that we parse from that log in the Concentrator, it is not listed as an available key.

Assume we change the value in the `table-map-custom.xml`file to the following:

```
<mapping envisionName="stransaddr" nwName="stransaddr" flags="None"
format="Text" />
```

In this case, the key-value pair would get copied to the Concentrator, and from there you can choose whether or not to index it.

In the`table-map.xml`file, some meta keys are set to `Transient` and some are set to `None`. To store and index a specific meta key, the key must be set to `None`. To make changes to the mapping, you need to create a copy of the file named `table-map-custom.xml` on the Log Decoder and set the meta keys to `None`.

For meta key indexing:

- When a key is marked as `None` in the `table-map.xml` file in the Log Decoder, it is indexed.
- When a key is marked as `Transient` in the `table-map.xml` file in the Log Decoder, it is not indexed. To index the key, copy the entry to the `table-map-custom.xml` file and change the keyword `flags="Transient"` to `flags="None"`.
- If a key does not exist in the `table-map.xml`file, add an entry to the `table-map-custom.xml`file in the Log Decoder.

IMPORTANT: Do not update the **`table-map.xml`** file because an upgrade can overwrite it. Add all of the changes that you want to make to the **`table-map-custom.xml`**file.

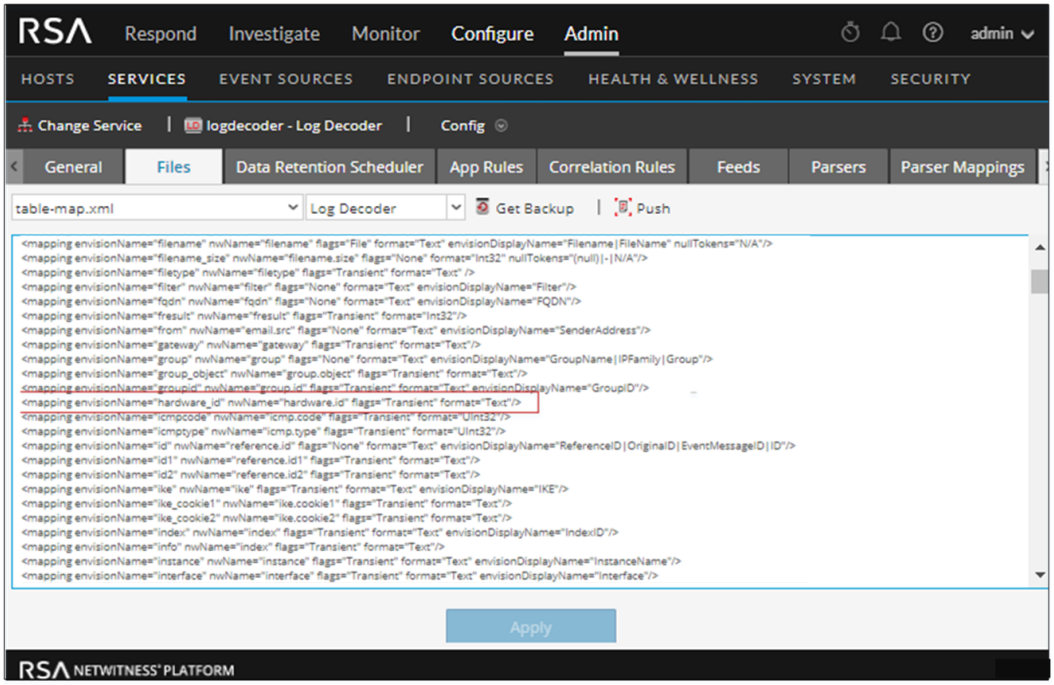
Prerequisites

If you do not have a `table-map-custom.xml` file on the Log Decoder, create a copy of `table-map.xml` and rename it to `table-map-custom.xml`.

To verify and update the table mapping file:

1. Go to **ADMIN** > **Services**.
2. In the Services list, select a Log Decoder and click  > **View** > **Config**.

3. Click the **Files** tab and select the **table-map.xml** file.



4. Verify that the `flags` keywords are set correctly to either `Transient` or `None`.
5. If you need to change an entry, do not change the `table-map.xml` file. Instead, copy the entry, select the `table-map-custom.xml` file, find the entry in the `table-map-custom.xml` file and change the `flags` keyword from `Transient` to `None`.
   For example, the following entry for the `hardware.id` meta key in the `table-map.xml` file is not indexed and the `flags` keyword shows as `Transient`:
   `<mapping envisionName="hardware_id" nwName="hardware.id"`
   `flags="Transient"``/>`
   To index the `hardware.id` meta key, change the flags keyword from `Transient` to `None` in the `table-map-custom.xml` file:
   `<mapping envisionName="hardware_id" nwName="hardware.id"` **`flags="None"`**`/>`
6. If an entry does not exist in the `table-map.xml` file, add an entry to the `table-map-custom.xml` file.
7. After making your changes to the `table-map-custom.xml` file, click **Apply**.

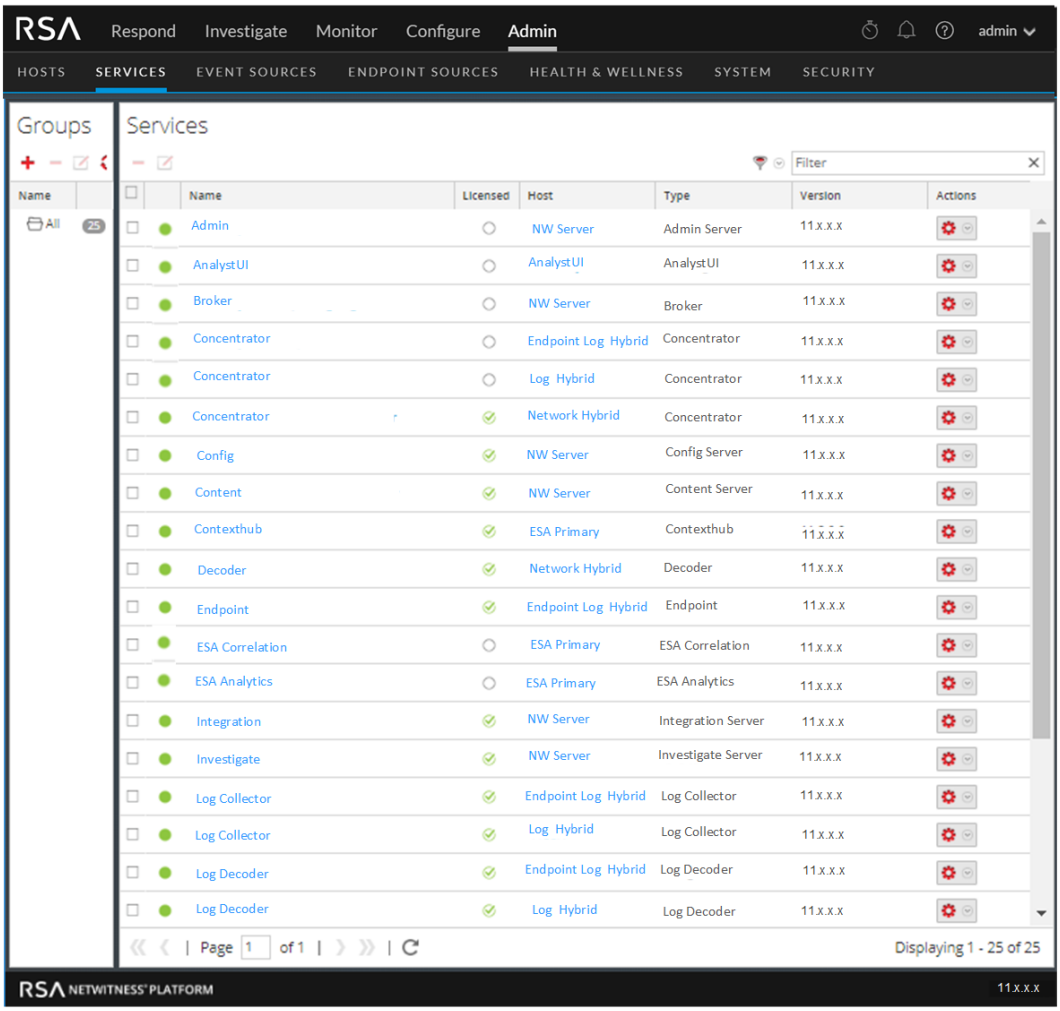
Caution: Before changing the table mapping files, carefully consider the effect of changing the index from `Transient` to `None` because it can impact the available storage and performance of the Log Decoder. For this reason, only certain meta keys are indexed out-of-the-box. Use the `table-map-custom.xml` file for different use cases.

Edit or Delete a Service

You can edit service settings, such as changing the host name or port number, or deleting a service that you no longer need.

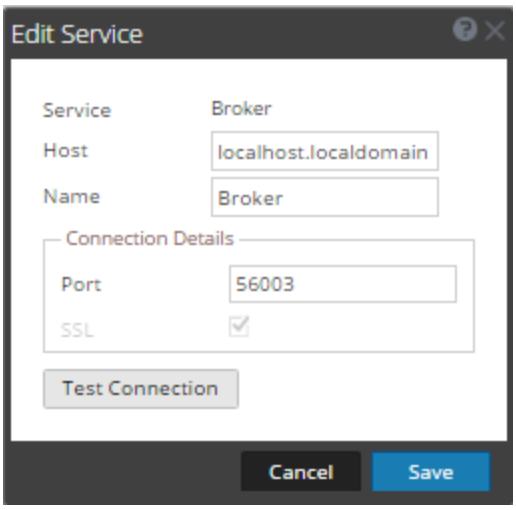
Each of the following procedures starts in the Services view.

To navigate to the Services view, in NetWitness Platform, go to **ADMIN > Services**.



Edit a Service

1. In the Services view, select a service and either click  or  > **Edit**.
   The **Edit Service** dialog is displayed. It shows only the fields that apply to the selected service.



2. Edit the service details by changing any of the following fields:
   - **Name**
   - **Port** - Each Core service has two ports, SSL and non-SSL.
   - **SSL** - For trusted connections, you must use SSL.
   - **Username** and **Password** - Use these credentials to test the connection to a service.
     a. If you use a trusted connection, delete the username.
     If you do not use a trusted connection, type a username and password.
     b. Click **Test Connection**.
3. Click **Save**.

Delete a Service

1. In the Services view, select one or more services and either click − or > **Delete**.
2. A dialog requests confirmation. To delete the service, click **Yes**.

The deleted service is no longer available to the NetWitness Platform modules.

Explore and Edit Service Property Tree

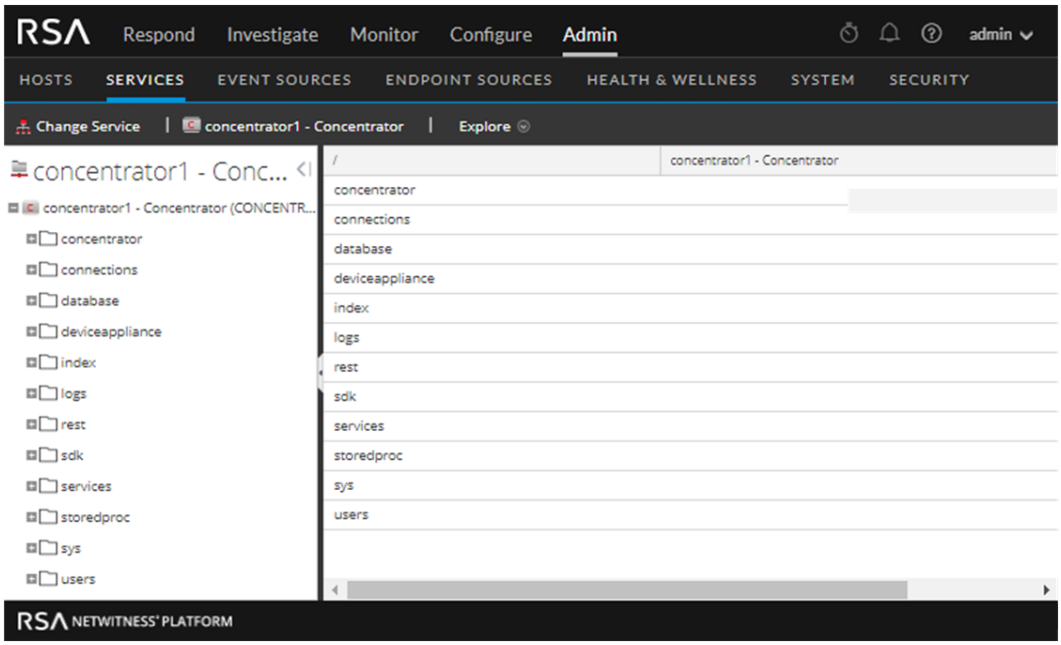
You have advanced access and control of service functionality in the Services Explore view, which consists of two parts. The Node list displays service functionality in a tree structure of folders. The Monitor panel displays properties of the folder or file selected in the Nodes list.

Each of the following procedures starts in the Explore view.

To navigate to the Explore view:

1. In NetWitness Platform, go to **ADMIN > Services**.

2. Select a service, then select > **View** > **Explore**.
   The Explore view is displayed. The Node list is on the left and the Monitor panel is on the right.



Display or Edit a Service Property

To display a service property:

1. Right-click a file in the Node list or Monitor panel.
2. Click **Properties**.

To edit the value of a service property:

1. In the **Monitor** panel, select an editable property value.
2. Type a new value.

Send a Message to a Node

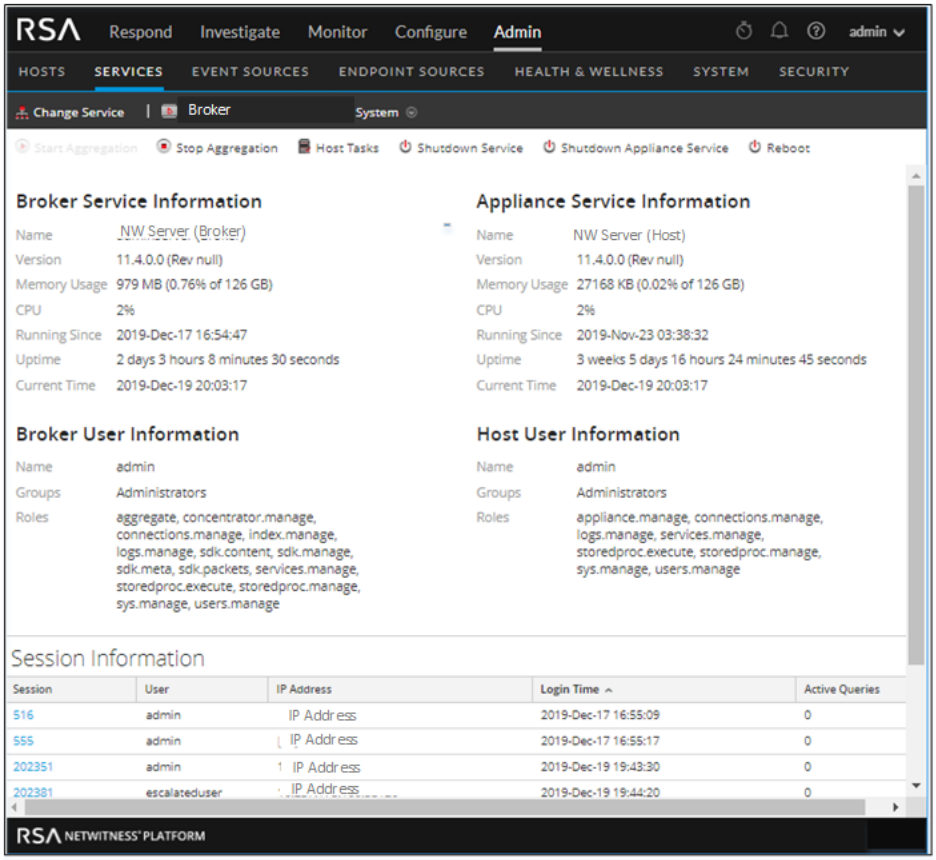
1. In the Properties dialog, select a message type from the drop-down list. Options vary according to the file selected in the Node list.
   A description of the selected message type is displayed in the **Message Help** field.
2. (Optional) If the message requires them, type the **Parameters**.
3. Click **Send**.
   The value or format is displayed in the Response Output field.

Terminate a Connection to a Service

You can view sessions that are running on a service in the Service System view. From within the list of sessions, you can terminate the session and the active queries in a session.

Terminate a Session on a Service

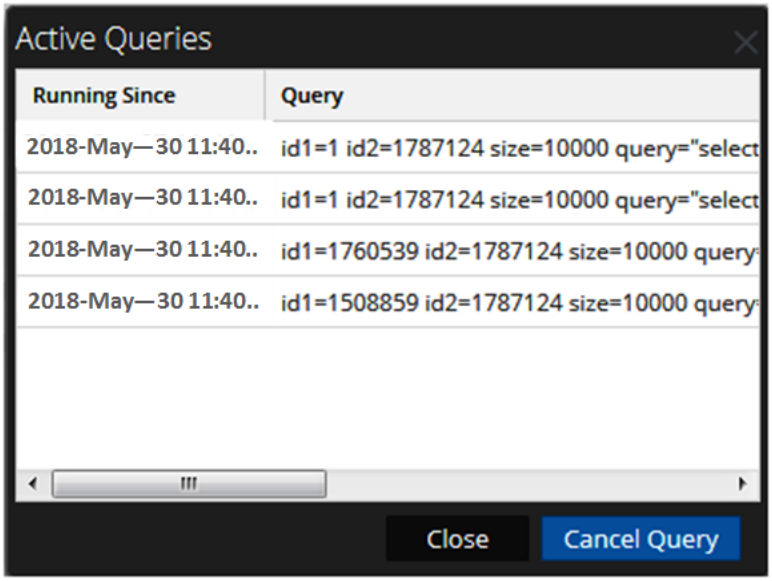
1. In NetWitness Platform, go to **ADMIN > Services**.
   The Admin Services view is displayed.
2. Select a service, and select  **> View > System**.
   The Services System view is displayed.



3. In the **Session Information** list at the bottom, click a session number from the Session column.
   The confirmation dialog is displayed.
4. Click **Yes**.

Terminate an Active Query in a Session

1. Scroll down to the **Sessions** list.
2. In the **Active Queries** column, click a non-zero count of active queries for a session. You cannot click on it if there are 0 active queries.
   The Active Queries dialog is displayed.



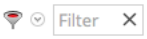
3. Select a query and click **Cancel Query**.
   The query stops and the Active Queries column is updated.

Search for Services

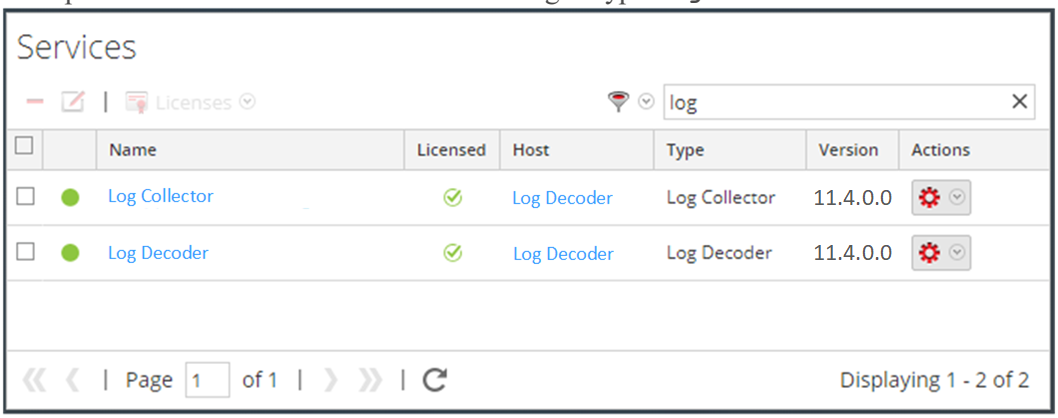
You can search for services from the list of services in the Services view. The Services view enables you to quickly filter the list of services by Name, Host, and Service Type. You can use the Filter drop-down menu and the Filter field separately or at the same time to filter the Services view.

Search for a Service

1. In NetWitness Platform, go to **ADMIN> Services**.
2. In the **Services** list toolbar, type a service **Name**, **Host**, or service **Type** in the **Filter** field.

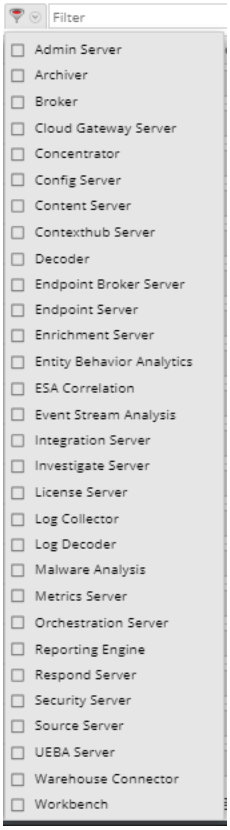


The Services panel lists the services that match the names entered in the Filter field. The following example shows the search results after starting to type **log** in the filter field.

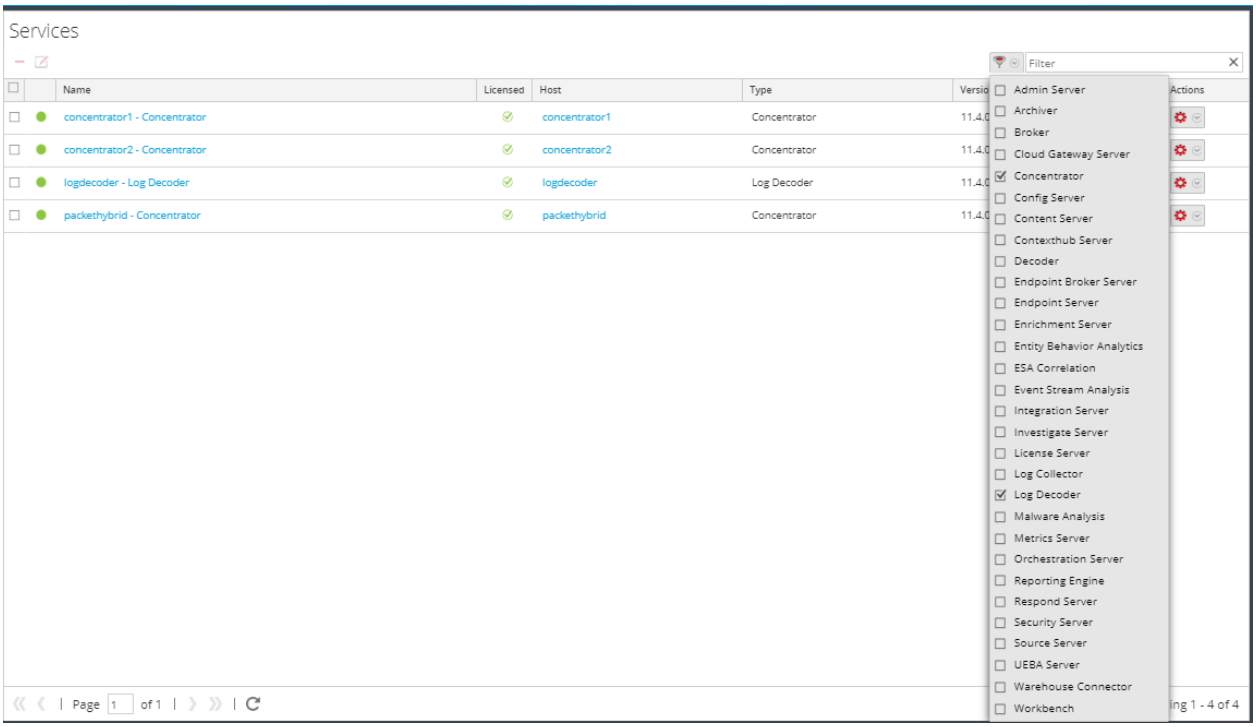


Filter Services by Type

1. In NetWitness Platform, go to **ADMIN > Services**.
2. In the Services view, click and select the service types that you want to appear in the Services view.



The selected service types appear in the Services view. The following example shows the Services view filtered for Concentrator and Log Decoder.

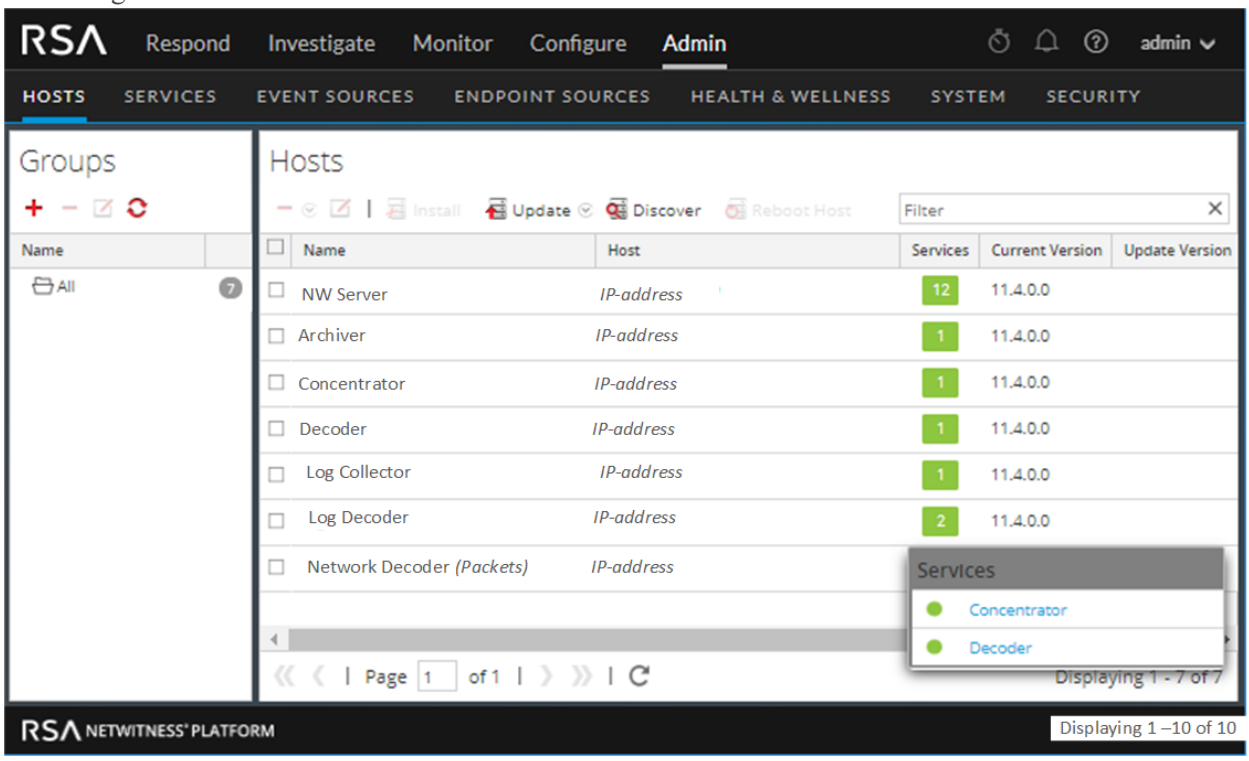


Find the Services on a Host

In addition to being able to locate the services for a host in the Services view, you can also quickly find the services that run on a host in the Hosts view.

1. In NetWitness Platform, go to **ADMIN > Hosts**.
2. In the Hosts view, select a host and click the box that contains a number (the number of services) in the **Services** column.
   A list of the services on the selected host is displayed.

In the following example, a list of two services on the selected host are listed after clicking the box containing the number 2.



3. You can click the service links to view the services in the Services view.

Start, Stop, or Restart a Service

These procedures apply to Core services only.

Each of the following procedures starts in the Services view. In NetWitness Platform, go to **ADMIN** > **Services**.

Start a Service

1. Select a service and click > **Start**.

Stop a Service

When you stop a service, all of its processes stop and active users are disconnected from it.

To stop a service:

1. Select a service and click > **Stop**.
2. A dialog requests confirmation. To stop the service, click **Yes**.

Restart a Service

Occasionally, you have to restart a service for changes to take effect. When you change a parameter that requires a restart, NetWitness Platform displays a message.

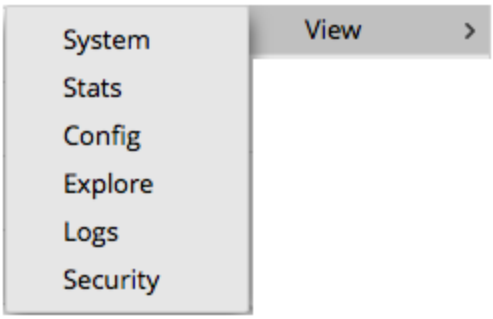
To restart a service:

1. Select a service and click > **Restart**.
2. A dialog requests confirmation. To stop the service, click **Yes**.

The service stops, then restarts automatically.

View Service Details

You can view and edit information about services using options in the View menu for a service.



Purpose of Each Service View

Each view displays a functional piece of a service and is described in detail in its own section:

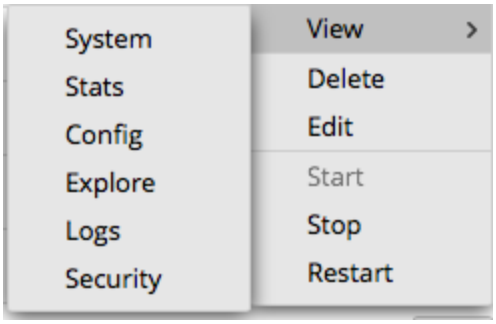
- Services System View shows a summary of service, appliance service, service user, host user, and session information.
- Services Stats View provides a way to monitor service operations and status.
- Services Config View is for configuring all aspects of a service.
- Services Explore View is for viewing and editing host and service configurations.
- System Logging Panel shows service logs that you can search.
- Services Security View is a way to add NetWitness Platform Core user accounts for aggregation, thick client users, and REST API users.

Access a Service View

To access a view for a service:

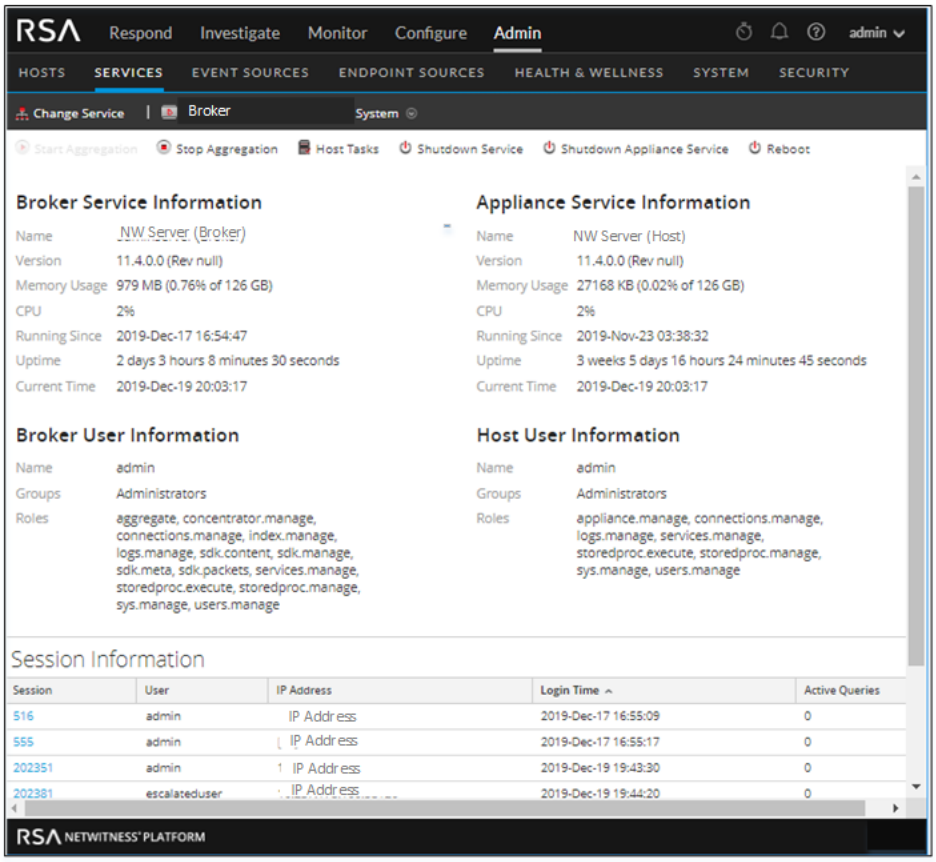
1. In NetWitness Platform, go to **ADMIN > Services**.
2. Select a service and click > **View**.

The View menu is displayed.

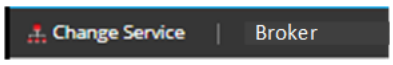


3. From the options on the left, select a view.

   Below is an example of the Services System view for a Broker.



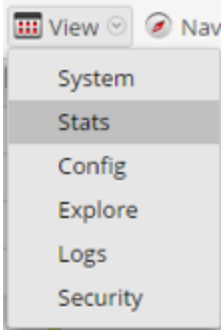
4. Use the toolbar to navigate:



   a. Click **Change Service** to select another service.
      The Administrate Service dialog is displayed.

   b. Select the checkbox to the left of the service that you want.

   c. Select the view that you want for the service you selected in the View drop-down list.



The new view (for example, Stats) is displayed for the service you selected.

Hosts and Services Views References

This topic is a reference for features in the NetWitness Platform Admin user interface.

The Admin module pulls NetWitness Platform Admin activities into a single view to monitor and manage hosts (appliances), services, tasks, and security.

Topics

Hosts View

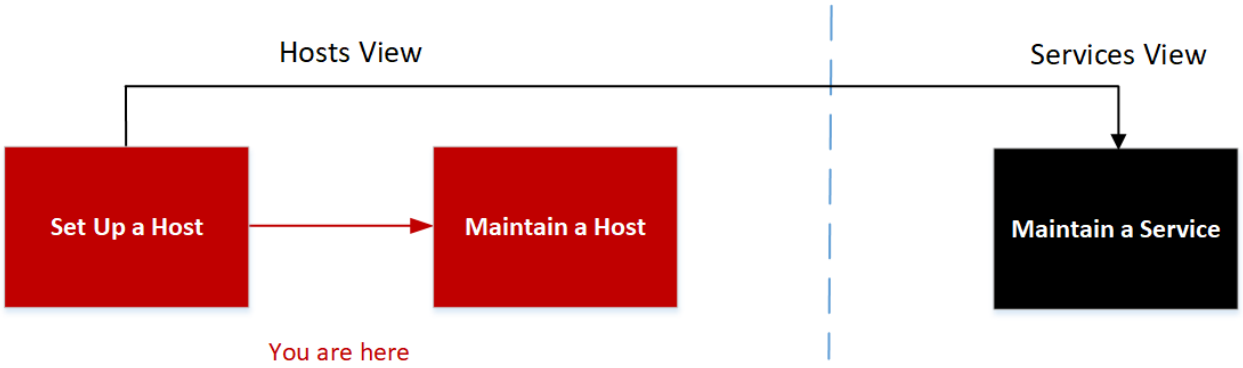
You set up and maintain the physical or virtual machine on which NetWitness Platform services run in the Hosts view.

IMPORTANT: For help with resolving errors you receive during version installation and update, see Troubleshooting Version Installations and Updates .

A service performs a unique function, such as collecting logs or archiving data. Each service runs on a dedicated port and is modeled as a plug-in to enable or disable, according to the function of the host. You must configure the Core services first. You must configure hosts and services to communicate with the network and each other so they can perform their functions such as storing or capturing data.

Workflow

This workflow shows the procedures you complete to set up a host, maintain a host, and update the host with new NetWitness Platform versions. Setting up a host is the first task in this workflow. The hosts with Core services are set up out-of-the-box. After that, you can set up additional hosts to enhance your NetWitness Platform deployment. The other two tasks, maintaining a host and updating versions for a host, are performed when required and do not have a specific order of completion.



What do you want to do?

User Role	I want to...	Documentation
Administrator	set up a host.*	Setting Up a Host
Administrator	maintain a host.*	Maintaining Hosts
Administrator	maintain a service.	Maintaining Services
Administrator	apply version updates to a host.*	Apply Version Updates to a Host

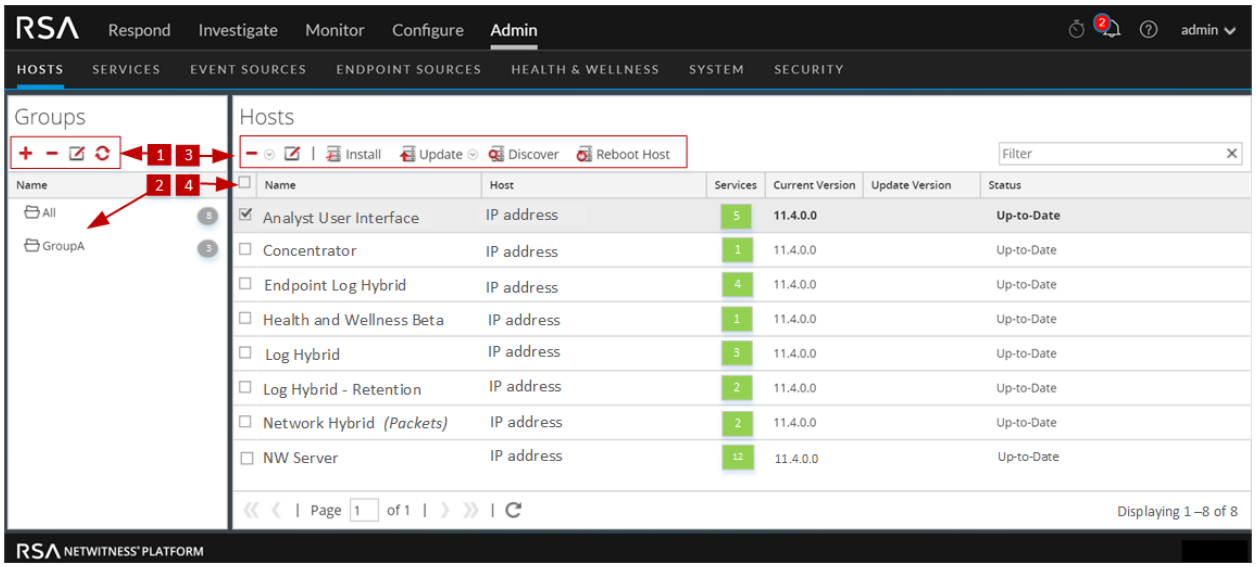
* You can perform these tasks in the current view.

Related Topics:

- Services View
- Hosts and Services Set Up Procedures
- Hosts and Services Maintenance Procedures

Quick Look

This is an example of the Hosts view.



1 Groups Panel Toolbar - Provides options to work with host groups in the list.
2 Groups Panel - Lists all host groups currently in your deployment.
3 Hosts List Toolbar - Provides options to work with the Hosts list.
4 Hosts List - Lists all hosts currently in your deployment.

Groups Panel Toolbar

Feature	Description
+	Displays a new row in the Groups panel in which you enter the name of a new group.
−	Asks for confirmation that you want to delete the group. You can confirm or cancel the deletion.
	Opens the field for renaming the selected preexisting group. You can also double click on the group name in the Groups panel to rename the group. Changes take effect immediately.
	Refreshes the Groups panel to reflect the changes and goes back to the All group view. Changes take effect immediately.

Groups Panel

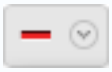
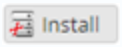
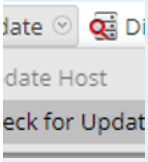
The Groups panel provides a logical way to organize hosts, such as by function, geography, or project. Once hosts are grouped, it is easier to perform operations on multiple hosts by interacting with each host in a group rather than individual hosts from an non-grouped list. You can drag a host from the Hosts list to add it to a group. A host may belong to more than one group.

Note: In NetWitness Live, groups can subscribe to resources while individual hosts cannot.

Column Title	Description
Name	The host groups are displayed in the Groups panel. The number next to each group name displays the number of hosts that added to the group.

Hosts List Toolbar

The Hosts list toolbar contains the tools that you use to maintain the hosts in your NetWitness Platform deployment.

Feature	Description
	This drop-down list displays two options. • **Remove Host**: Deletes the selected host from both the host group and the Hosts list altogether. All related services will be removed as well. • **Remove From Group**: Removes the selected host from the host group. The Host will still be available in the Hosts list. Changes take effect immediately.
	Opens the Edit Host dialog in which you edit a host or service identification and basic communication settings. See Step 1. Deploy a Host for more information.
	Opens the Install Services dialog from which you can install a service on a deployed host. See Step 2. Install a Service on a Host for more information.
	This drop-down list displays two options. • **Update Host**: Updates the selected hosts with the version you select in the Update Version column. • **Check for Updates**: Checks the Local Update Repo for the latest updates available from RSA. Changes take effect immediately. See Apply Version Updates to a Host for more information.

Feature	Description
Discover	Most of the time, the Discovery function completes automatically and you do not need to click Discover. For a fresh installation, click Discover to access the Provision dialog box so you can complete the provisioning phase. After the provisioning phase, NetWitness Platform automatically discovers services running on the host and you do not need to click Discover.
Reboot Host	Restarts the host immediately.
Filter	Entering a Name or Host here filters the list. This field allows you to quickly find a particular host.

Hosts List

Column	Description
☐	Select the host by clicking the corresponding checkbox in this column. To select all of the hosts, select the checkbox in the header.
Name	Displays the name of the host that was given when the host was installed. This column is organized in alphabetical order by default. Click the Name column title to view in reverse alphabetical order.
Host	Displays the IP address of each host.
Services	Displays the number of services added to the host.
Current Version	Displays the version that the host is currently on.
Update Version	Displays a drop-down list of versions that the user can upgrade to. See Apply Version Updates to a Host for more information.
Status	Displays whether or not the host is upgraded to the most current version. If the host is on the most current version, then the Status displays "Up-to-Date".

Services View

You set up and maintain the NetWitness Platform services in the Services view. In the Services view, you can:

- Quickly search for and locate a specific service or type of service, such as Log Decoder or Warehouse Connector.
- Use shortcuts to get to administration tasks.
- Add, edit, and remove services.
- Sort services by name and host.
- Filter services by type, name, and host.
- Start, stop, and restart services.

A service performs a unique function, such as collecting logs or archiving data. Each service runs on a dedicated port and is modeled as a plug-in to enable or disable, according to the function of the host. You must configure the following Core services first.

Services	Unencrypted Non-SSL Port	Encrypted SSL Port	Notes
Admin Server			
Admin	N/A	N/A	Implemented with the NW Server
Config	N/A	N/A	Implemented with the NW Server
Content	N/A	N/A	Implemented with the NW Server
Integration	N/A	N/A	Implemented with the NW Server
Investigate	N/A	N/A	Implemented with the NW Server
License	N/A	N/A	Implemented with the NW Server
Orchestration	N/A	N/A	Implemented with the NW Server
Reporting Engine	51113	N/A	
Respond	N/A	N/A	Implemented with the NW Server
Security	N/A	N/A	Implemented with the NW Server
Analyst UI			
Broker	50003	56003	Implemented with the Analyst UI
Investigate	N/A	N/A	Implemented with the Analyst UI
Reporting Engine	51113	N/A	Implemented with the Analyst UI
Respond	N/A	N/A	Implemented with the Analyst UI
Archiver			
Archiver	50008	56008	Core Service
Workbench	50007	56007	

Services	Unencrypted Non-SSL Port	Encrypted SSL Port	Notes
Broker			
Broker	50003	56003	Core Service
Cloud Gateway			
Cloud Gateway	N/A	N/A	
Concentrator			
Concentrator	50005	56005	Core Service
Endpoint Broker			
Endpoint Broker	N/A	N/A	
Endpoint Log Hybrid			
Log Collector Log Decoder Endpoint Server Concentrator	50001 50002 N/A 50005	56001 56002 N/A 56005	
ESA Primary			
Entity Behavior Analytics Contexthub ESA Correlation	N/A N/A N/A	N/A N/A 50030	
ESA Secondary			
Entity Behavior Analytics ESA Correlation	N/A N/A	N/A N/A	
Health and Wellness Beta			
Metrics	N/A	N/A	
Log Collector			
Log Collector	50001	56001	
Log Decoder			
Log Collector Log Decoder	50001 50002	56001 56002	Core Service
Log Hybrid			

Services	Unencrypted Non-SSL Port	Encrypted SSL Port	Notes
Log Collector Log Decoder Concentrator	50001 50002 50005	56001 56002 56005	
Log Hybrid - Retention			
Log Collector Log Decoder	50001 50002	56001 56002	
Malware Analysis			
Malware Analysis Broker	N/A	60007	
Network Decoder			
Network Decoder	50004	56004	Core Service
Network Hybrid			
Concentrator Network Decoder	50005	56005	
UEBA			
UEBA	N/A	N/A	
Warehouse Connector			
Warehouse Connector	50020	56020	Command line installation

You must configure hosts and services to communicate with the network and each other so they can perform their functions such as storing or capturing data.

Workflow

This workflow shows the procedures you complete to set up and maintain a service. Adding a service to a host is the first task in this workflow. The hosts with Core services are set up out-of-the-box. After that, you can set up additional services on hosts to enhance your NetWitness Platform deployment.

What do you want to do?

User Role	I want to...	Documentation
Administrator	set up a host.	Setting Up a Host
Administrator	maintain a host.	Maintaining Hosts
Administrator	maintain a service.*	Maintaining Services

* You can perform these tasks in the current view.

Related Topics

- View Service Details
- Hosts View
- Hosts and Services Set Up Procedures
- Hosts and Services Maintenance Procedures

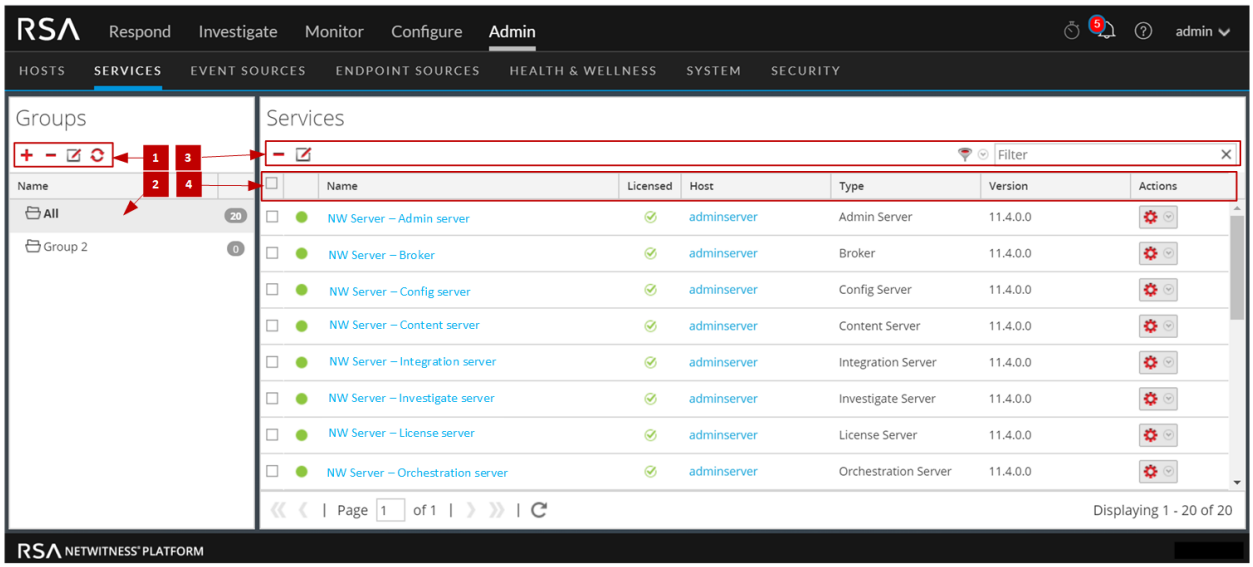
See the following RSA NetWitness Platform guides for detailed information on individual services. Go to the Master Table of Contents to find all RSA NetWitness Platform 11.x documents.

Archiver Configuration Guide
Broker and Concentrator Configuration Guide
Cloud Behavioral Analytics Gateway Configuration Guide
Context Hub Configuration Guide
Decoder Configuration Guide
Endpoint Configuration Guide
Event Stream Analysis (ESA) Configuration Guide
Malware Analysis Configuration Guide
Log Collection Configuration Guide
Malware Analysis Configuration Guide
Reporting Engine User Guide

NetWitness Respond Configuration Guide
RSA NetWitness UEBA User Guide
Workbench Configuration Guide
Warehouse Connector Configuration Guide

Quick Look

This is an example of the Services view.



1 Groups Panel Toolbar - Provides options to work with service groups in the list.
2 Groups Panel - Lists all service groups currently in your deployment.
3 Services List Toolbar - Provides options to work with the Services list.
4 Services List - Lists all services currently in your deployment.

Groups Panel Toolbar

Feature	Description
	Displays a new row in the Groups panel in which you enter the name of a new group.
	Asks for confirmation that you want to delete the group. You can confirm or cancel the deletion.
	Opens the field for renaming the selected preexisting group. You can also double click on the group name in the Groups panel to rename the group. Changes take effect immediately.
	Refreshes the Groups panel to reflect the changes and goes back to the All group view. Changes take effect immediately.

Groups Panel

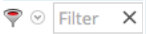
The Groups panel provides a logical way to manage groups of services, such as by function, geography, or project. After you create a group, you can drag individual services from the Services panel into the group. A service may belong to more than one group.

Column Title	Description
Name	The service groups are displayed in the Groups panel. The number next to each group name displays the number of hosts that added to the group.

Services List Toolbar

This topic introduces the options in Services list toolbar to add, remove, edit, and get a license for services. You can also filter the services listed in the Services list.

To access the Admin Services view, in NetWitness Platform, go to **ADMIN > Services.** The Services list toolbar is at the top of the Services list in the Services view.

Feature	Description
	Adds a service for your deployment of NetWitness Platform to manage. See Step 2. Install a Service on a Host.
	Deletes a service from your deployment of NetWitness Platform. See Edit or Delete a Service.
	Edits service identification and basic communication settings.
	Filters the services listed in Services view. In the Filter drop-down list, you can filter the services by one or more selected service types. In the Filter field, you can filter the services by Name and Host. You can use the Filter drop-down list and the Filter field at the same time to filter the services listed in the Services view.

Services List

Column	Description
	Select the service by clicking the corresponding checkbox in this column. To select all of the services, select the checkbox in the header.
Online/Offline Indicator	Displays ● if the service is online. Displays ● if the service is offline.
Name	Displays the name of the service that was given when the service was installed. This column is organized in alphabetical order by default. Click the Name column title to view in reverse alphabetical order.

Column	Description
Licensed	Displays ✓ if the service is licensed. Displays ● if the service is not licensed. If one or more services are not licensed, a red banner will appear at the top of the screen that will prompt you to fix this. 
Host	Displays the host name that the service belongs to.
Type	Displays the service type.
Version	Displays the version that the service is currently on.
Actions	Use drop-down list to: • Navigate to the different service views (System, Stats, Config, Explore, Logs, Security) See View Service Details for more information. • Delete, edit, start, stop, and restart a service. See Start, Stop, or Restart a Service for more information.

Topics

- Edit Service Dialog
- Services Config View
- Services Explore View
- Services Logs View
- Services Security View
- Services Stats View
- Services System View

Edit Service Dialog

NetWitness Platform services are automatically discovered in NetWitness Platform.

You can use the Edit Service dialog to modify services. To access the Edit Service dialog, go to **ADMIN** > **Services** and click in the **Services** list toolbar.

Workflow

What do you want to do?

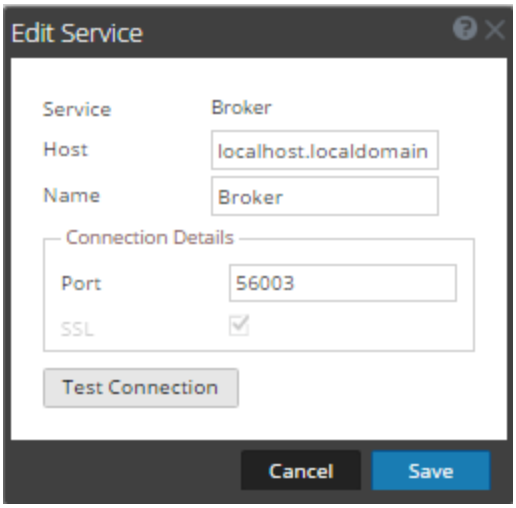
User Role	I want to...	Documentation
Administrator	set up a host.	Setting Up a Host
Administrator	maintain a host.	Maintaining Hosts
Administrator	maintain a service.	Maintaining Services
Administrator	edit a service.*	Edit a Service

* You can perform these tasks in the current view.

Related Topics:

- Services View
- Hosts and Services Set Up Procedures
- Hosts and Services Maintenance Procedures

Quick Look



The following list describes the features of the Add Service or Edit Service dialogs.

Field or Option	Description
Service	Displays the service type. You can add the following services: Archiver, Broker, Concentrator, Network Decoder, Event Stream Analysis, Incident Management, IPDB Extractor, Log Collector, Log Decoder, Malware Analysis, Reporting Engine, Warehouse Connector, and Workbench.
Host	Specifies the host on which the service resides.
Name	Specifies the name used to identify the service, for example, **Broker**. An understandable naming convention can make administrative tasks easier. Some administrators find it convenient to use the hostname or IP address (specified in the **Host** field) for the **Name** as well.
Port	Specifies the port used to communicate with this service. The default port, based on the selected service type in the **Service** field, is autofilled here. If you select **SSL** below, this port becomes an SSL port. If you do not select **SSL**, it becomes a non-SSL port. You can customize this port by opening a firewall for the port that you add. For information about ports, see "Network Architecture and Ports" in the *Deployment Guide*.
SSL	Indicates that NetWitness Platform uses SSL for communications with this service.
Username	Specifies the username used to log in to this service. The default username is `admin`.
Password	Specifies the password used to log in to this service. The default password is `netwitness`.
Test Connection	Tests the connection of a service that you are adding.
Cancel	Closes the Add Service or Edit Service dialog. If you do not save the service before closing the dialog, the service is not added or edited.
Save	Adds a new service or saves changes to existing service.

Services Config View

The Services Config view is one of the views available from the **ADMIN > Services >** . It provides a user interface for configuring all aspects of a Core service or NetWitness Platform service.

The configuration options in the Services Config view are organized as tabs, with each tab providing a view of a set of related parameters. Unlike the Services Explore view, which offers direct access to all configuration files for a service, these tabs present the most commonly modified parameters of service configuration in a user-friendly view.

Due to configuration requirements for different services; each type of service has variations in available tabs and configuration parameters in this view. Individual topics describe configuration parameters that are specific to a host (Brokers, Concentrators, Network Decoders, Log Decoders, and Archivers) or service (for example, Reporting Engine, IPDB Extractor, Log Collector, and Warehouse Connector).

Workflow

What do you want to do?

User Role	I want to...	Documentation
Administrator	set up a host.	Setting Up a Host
Administrator	maintain a host.	Maintaining Hosts
Administrator	maintain a service.	Maintaining Services
Administrator	configure an Archiver service.	See *Archiver Configuration Guide*.
Administrator	configure a Broker service.	See *Broker and Concentrator Configuration Guide*.
Administrator	configure a Concentrator service.	See *Broker and Concentrator Configuration Guide*.
Administrator	configure a Context Hub service.	See *Context Hub Configuration Guide*.
Administrator	configure an Endpoint Broker service.	See *Endpoint Configuration Guide*.
Administrator	configure an Endpoint Log Hybrid service.	See *Endpoint Configuration Guide*.

User Role	I want to...	Documentation
Administrator	configure an ESA Primary service.	See *ESA Configuration Guide*.
Administrator	configure an ESA Secondary service.	See *ESA Configuration Guide*.
Administrator	configure a Log Collector service.	See *Log Collection Configuration Guide*.
Administrator	configure a Log Decoder service.	See *Decoder Configuration Guide*
Administrator	configure a Malware Analysis service.	See *Malware Analysis User Guide*.
Administrator	configure a Network Decoder service.	See *Decoder Configuration Guide*.
Administrator	configure a Reporting Engine service.	See *Reporting Engine Configuration Guide*.
Administrator	configure a Respond service.	See *NetWitness Respond Configuration Guide*.
Administrator	configure a UEBA service.	See *NetWitness UEBA User Guide*.
Administrator	configure a Warehouse Connector service.	See *Warehouse Connector Configuration Guide*.
Administrator	configure a Workbench service.	See *Workbench Configuration Guide*.

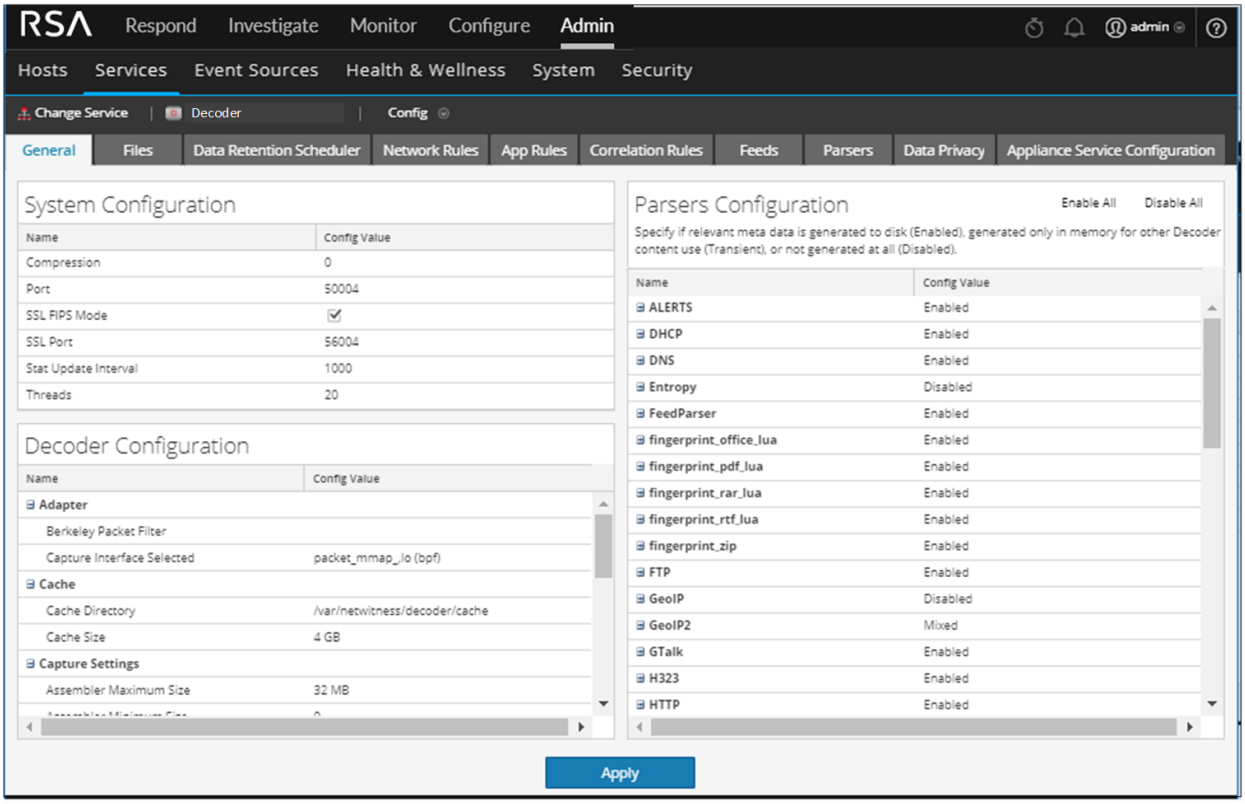
Go to the Master Table of Contents to find all RSA NetWitness Platform 11.x documents.

Related Topics

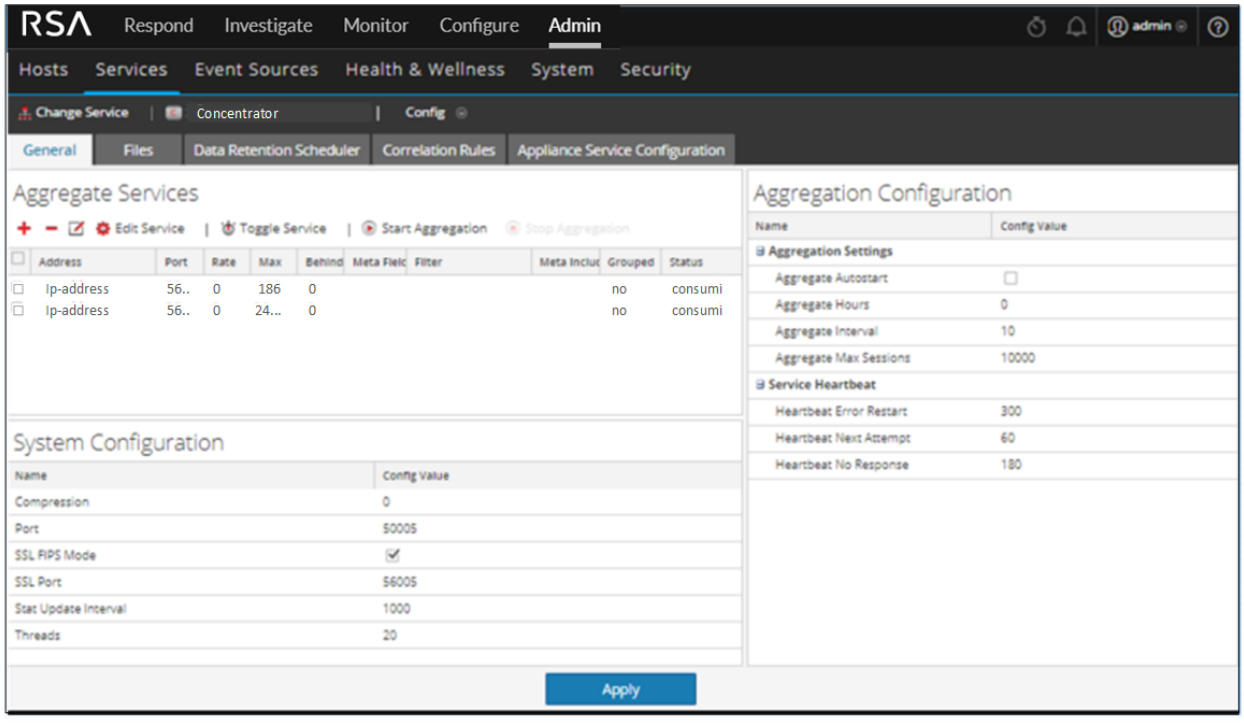
- Edit Service Dialog
- Services Explore View
- Services Logs View
- Services Security View
- Services Stats View
- Services System View
- Services View

Quick Look

This is an example of the Services Config view for a Network Decoder.



This is an example of the Services Config view for a Concentrator.



Note: Although both examples show the Services Config view, the tabs and panels are different for each. Refer to the respective guides for detailed instructions on how to configure a particular Services Config view.

Topics

Services Config View - Appliance Service Configuration Tab

The Appliance Service Configuration tab appears in the Services Config view for the Archiver, Broker, Concentrator, IPDB Extractor, Network Decoder, Log Collector, and Log Decoder services.

This topic lists and describes the available configuration parameters for the NetWitness Platform Core Appliance service. The NetWitness Platform Core Appliance service provides hardware monitoring on legacy NetWitness hardware.

Workflow

What do you want to do?

User Role	I want to...	Documentation
Administrator	set up a host.	Setting Up a Host
Administrator	maintain a host.	Maintaining Hosts
Administrator	maintain a service.*	Maintaining Services
Administrator	view or modify appliance service parameters.*	See "Services Config View - Appliance Service Configuration Tab" in the *Hosts and Services Getting Started Guide for Version 10.x*and prior.

User Role	I want to...	Documentation
Administrator	specify how long to retain database records.	See "Configure Data Retention" in the *Data Privacy Management Guide*. For information about the Data Retention tab for Archiver, see "Data Retention Tab - Archiver" in the *Archiver Configuration Guide*.
Administrator	edit `.xml` and `.lua` files.	Edit Core Service Configuration Files

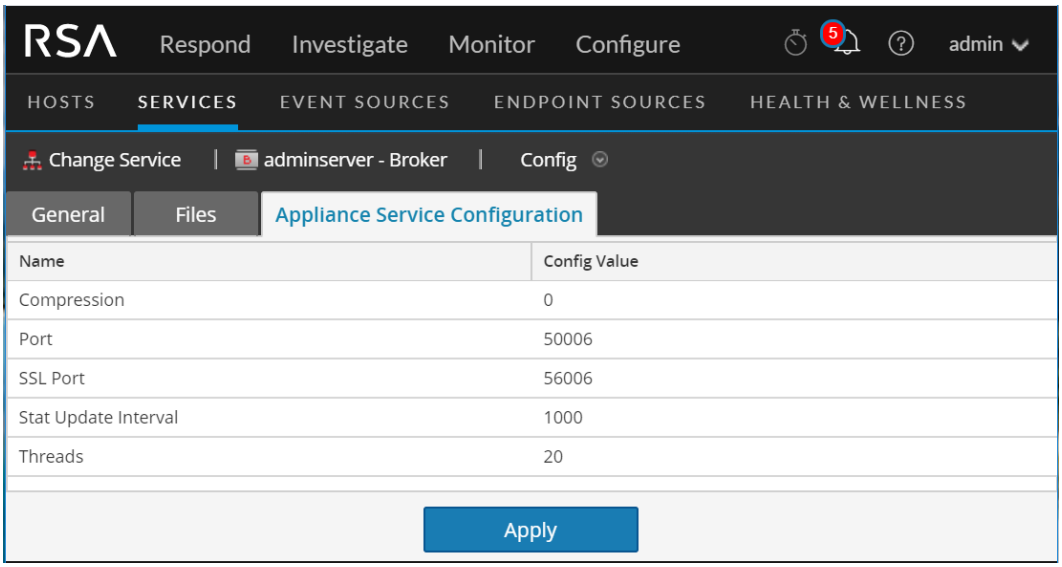
* You can perform these tasks in the current view.

Related Topics

- Services Config View - Data Retention Scheduler Tab
- Services Config View - Data Retention Scheduler Tab
- Services Config View - Files Tab
- Services Config View

Quick Look

This is an example of the Appliance Service Configuration tab for a Broker.



The following list describes the configuration values for this tab.

Name	Description of Configuration Value	When Changes Take Effect
Compression	Compresses a message when it reaches the positive number (in bytes) that you specify.	The next time you connect to this service.
Port	Unencrypted listening port. **0** indicates that the port is disabled.	Upon restart of the service.
SSL FIPS Mode	One of the parameters you need to enable or disable Federal Information Processing Standards (FIPS). For detailed instructions, see "Activate or Deactivate FIPS" in the *System Maintenance Guide*.	Upon restart of the service.
SSL Port	SSL (Secure Sockets Layer) listening port. **0** indicates that the port is disabled. SSL is the standard security technology for establishing an encrypted link between a web server and a browser. This link ensures that all data passed between the web server and browsers remain private and integral.	Upon restart of the service.
Stat Update Interval	How often (in milliseconds) the system updates statistic nodes for monitoring Health and Wellness.	Immediately.
Threads	Threads in thread pool required to used to handle requests. The `Threads` parameter works with the `Polling Interval` parameter for event and log threads.	Immediately.

Services Config View - Data Retention Scheduler Tab

The Data Retention Scheduler tab appears in the Services Config view for the Network Decoder, Log Decoder, and Concentrator.

In the Data Retention Scheduler tab, you can define the criteria for removing database records from primary storage on Network Decoder, Log Decoder, and Concentrator services, and schedule the timing for checking the threshold.

Note: If additional customization is necessary, use the Scheduler under the Files tab in the Services Config view. For example, if you have storage available to save the RAW data versus the metadata, use `Capacity` as the threshold and to set different thresholds per database (metadata versus packet).

Workflow

What do you want to do?

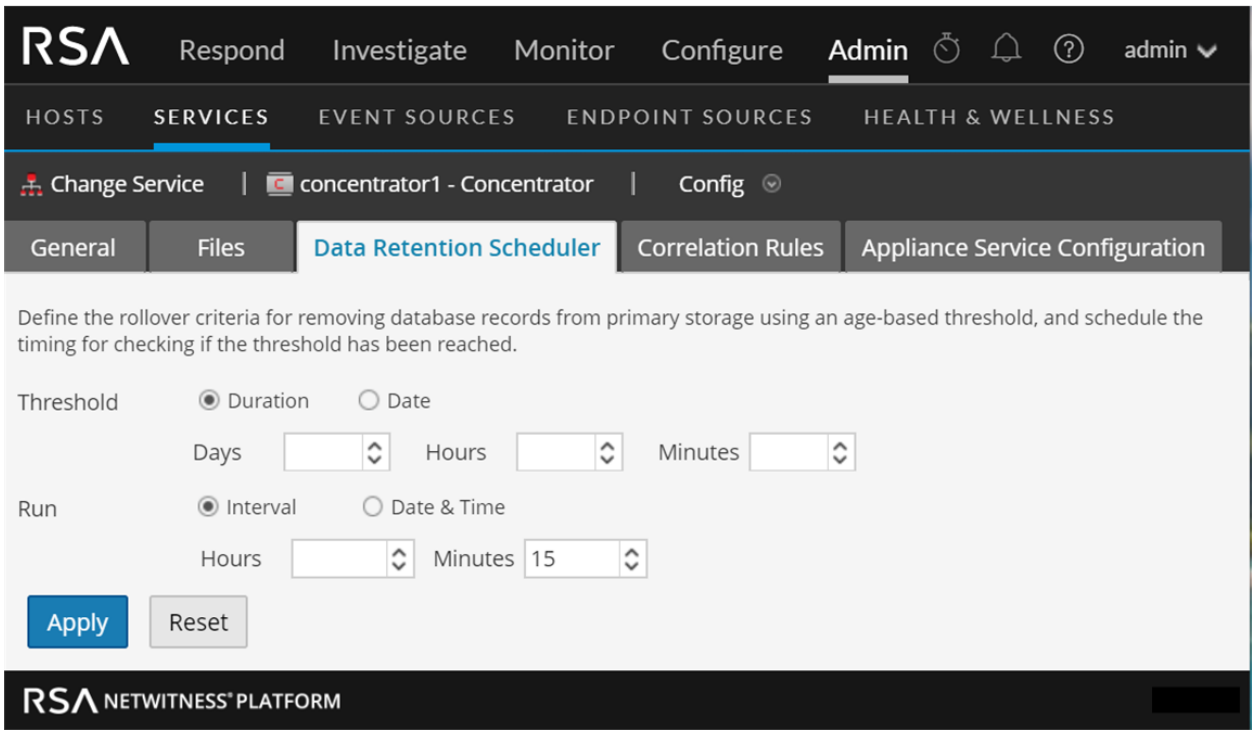
User Role	I want to...	Documentation
Administrator	set up a host.	Setting Up a Host
Administrator	maintain a host.	Maintaining Hosts
Administrator	maintain a service.*	Maintaining Services
Administrator	view or modify appliance service parameters.	See "Services Config View - Appliance Service Configuration Tab" in the *Hosts and Services Getting Started Guide for Version 10.x* and prior.
Administrator	specify how long to retain database records.*	See "Configure Data Retention" in the *Data Privacy Management Guide*. For information about the Data Retention tab for Archiver, see "Data Retention Tab - Archiver" in the *Archiver Configuration Guide*.
Administrator	edit `.xml` and `.lua` files.	Edit Core Service Configuration Files

Related Topics

- Services Config View - Appliance Service Configuration Tab
- Services Config View - Files Tab
- Services Config View

Quick Look

The following figure illustrates the parameters in the Data Retention Scheduler tab for a Concentrator.



The Data Retention Scheduler tab has sections to specify Threshold settings and Run settings. The following table lists the parameters supported for data retention configuration.

Parameter	Description
Threshold	The threshold is based on the age of the data, the amount of time the data was stored or the date on which the data was stored. The date is from the database file, not from the actual session time. • **Duration**: The duration of time that data can be stored before removal. Specifies the number of days (365 maximum), hours (24 maximum), and minutes (60 maximum) that have elapsed since the time stamp on the data. • **Date**: The removal of data based on the date of the timestamp. Specifies the monthly date and time in the and fields.
Run	The schedule for running the job that checks rollover criteria. • **Interval**: Schedule the database check to occur at a regular interval. Specifies the hours and minutes between the scheduled checks. • **Date and Time**: Schedule the database check to occur at a regular day and time. Specifies the day from the drop-down list and the system clock time in `hh:mm:ss` format. Possible values for day are `Everyday`, `Weekdays`, `Weekends`, and `Custom`, where `Custom` allows you to select one or more specific days of the week.

Parameter	Description
Apply	Overwrites any previous schedule for this service and applies the new settings immediately. **Caution:** After you apply these settings, when the threshold is met the system deletes the old data from the database and you can no longer access it.
Reset	Resets the schedule to the last applied state.

Services Config View - Files Tab

The Files tab appears in the Services Config view for Archivers, Brokers, Concentrators, Log Decoders, and Network Decoders.

In the Files tab, you can edit service configuration files as text files. The files you can edit vary depending upon the type of service you are configuring. The following files are common to all Core services.

- The NetWitness file (`netwitness`)
- The service index file (`index-<service>`)
- The scheduler file (`scheduler`)
- The crash reporter file (`crashreporter`)
- The feed definitions file (`feed-definitions`)

In addition, the Decoder has files that configure parsers, feed definitions, and a wireless LAN adapter.

Note: The default values in the configuration files cover most common situations. You may need to edit configuration parameters and values for optional services, such as the crash reporter or scheduler. Do not change these values in the Files tab unless you understand networks and the factors that affect the way services collect and parse data.

More detail on the service configuration parameters is available in the Service Configuration Settings.

Workflow

What do you want to do?

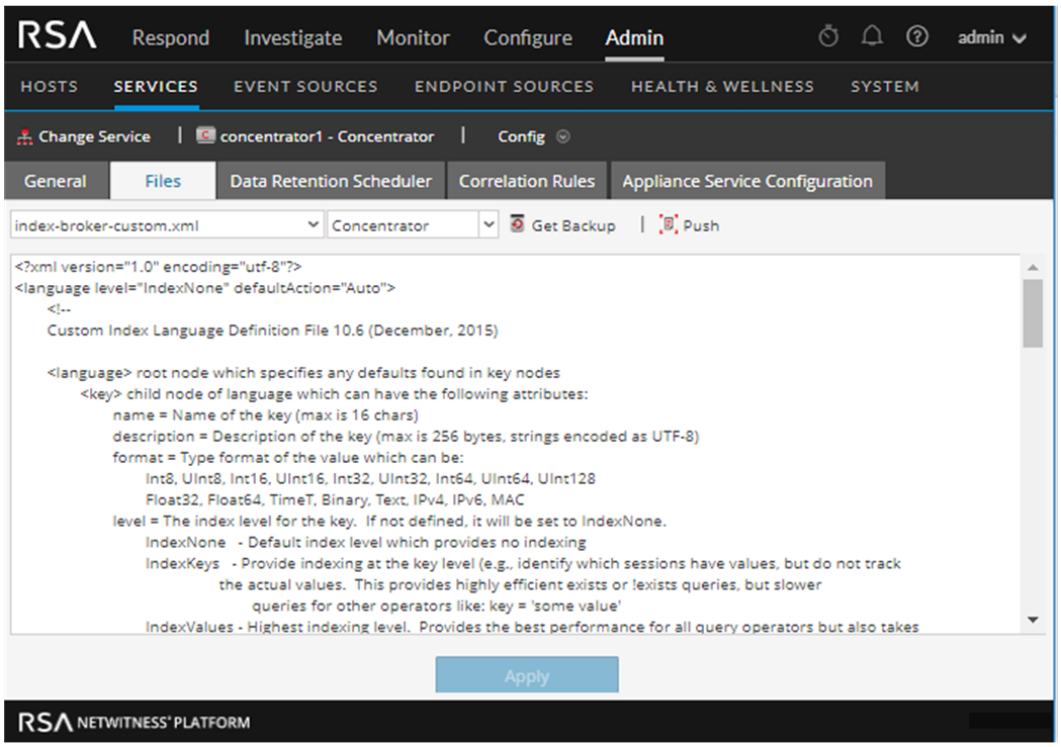
User Role	I want to...	Documentation
Administrator	set up a host.	Setting Up a Host
Administrator	maintain a host.	Maintaining Hosts
Administrator	maintain a service.*	Maintaining Services
Administrator	view or modify appliance service parameters.	See "Services Config View - Appliance Service Configuration Tab" in the *Hosts and Services Getting Started Guide for Version 10.x*and prior.
Administrator	specify how long to retain database records.	See "Configure Data Retention" in the *Data Privacy Management Guide*. For information about the Data Retention tab for Archiver, see "Data Retention Tab - Archiver" in the *Archiver Configuration Guide*.
Administrator	edit `.xml` and `.lua` files.*	Edit Core Service Configuration Files

Related Topics

- Services Config View - Data Retention Scheduler Tab
- Services Config View - Data Retention Scheduler Tab
- Services Config View

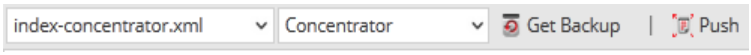
Quick Look

This is an example of the Files tab.



Files Tab Toolbar

The Files tab has a toolbar and an edit window. This is an example of the toolbar.



These are the features of the Files tab toolbar.

Feature	Description
File drop-down list	Displays a list of files that the system is currently using. When you select a file, the text of the file is displayed in the text edit window. In the text window, you can edit the file and save the changes, or create alternate files to use.
Service / Host drop-down list	Displays the service type and host. You can open a file from either the service or the host for editing.
Get Backup	Retrieves the latest backup of the current file, which can prove useful when you have made changes and want to go back to the previous version of the file. The backup does not replace the current file unless you click **Save**.
Push	Displays a dialog in which you can select services of the same type and push the currently viewed file to the services.
Apply	Overwrites the current file and creates a backup file.

Services Explore View

You can use the NetWitness Platform Services Explore view (**ADMIN > Services**,  **> View > Explore**) to display and edit both host and service configurations.

The Services Explore view offers advanced access and control of all NetWitness Platform hosts and services. All services expose their functionality through a treelike series of nodes, similar to the Windows Explorer view of a Windows file system. Here you can:

- View a directory tree showing common files for all selected services.
- Navigate down through the directory to a file.
- Open the same file for each service, and display the contents side by side.
- Select an entry in the file and edit the value.
- Apply a property value from one service to other services.

The Services Explore view can also display a Properties dialog, a simple interface for viewing properties of any node in the system and sending messages to the node.

Caution: A good understanding of the nodes and parameters is required when editing in this view. Incorrect settings can cause performance problems.

Workflow

What do you want to do?

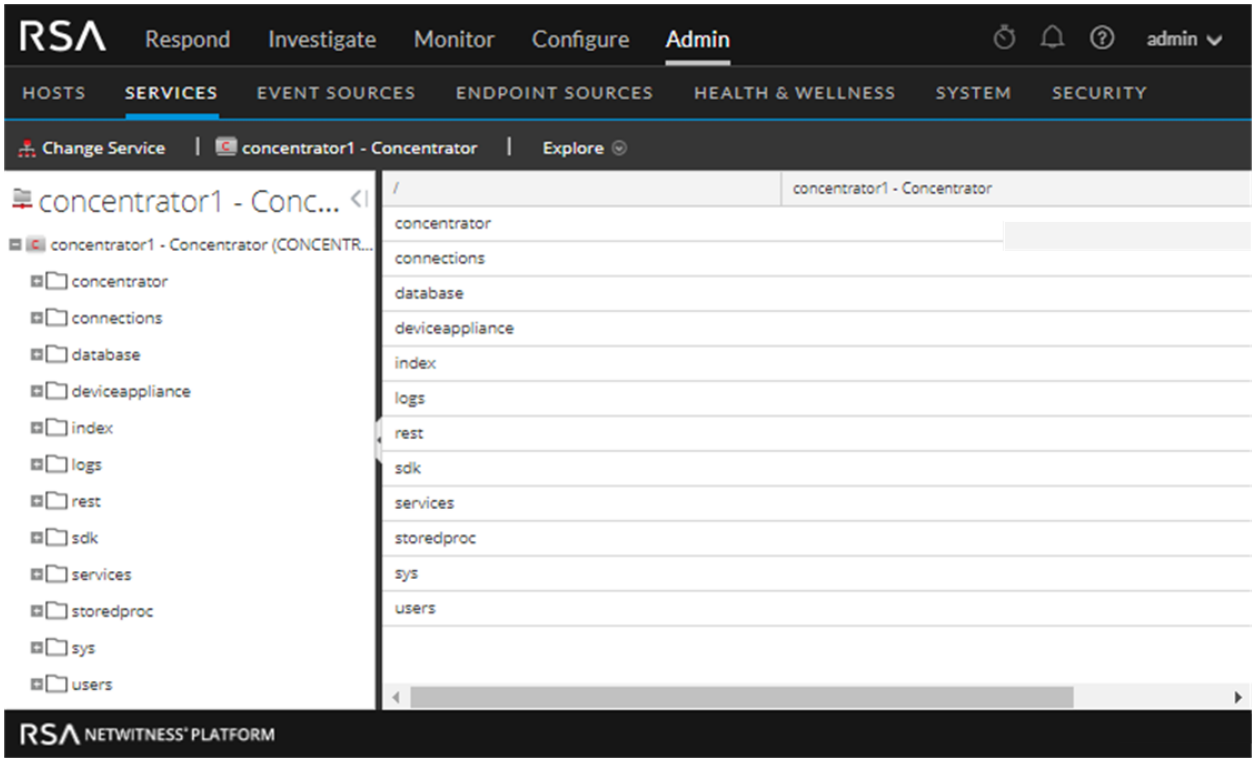
User Role	I want to...	Documentation
Administrator	set up a host.	Setting Up a Host
Administrator	maintain a host.	Maintaining Hosts
Administrator	maintain a service.	Maintaining Services
Administrator	view and edit host and service configurations.*	Explore and Edit Service Property Tree

* You can perform these tasks in the current view.

Related Topics

- View Service Details
- Edit Service Dialog
- Services Config View
- Services Logs View
- Services Security View
- Services Stats View
- Services System View
- Services View

Quick Look



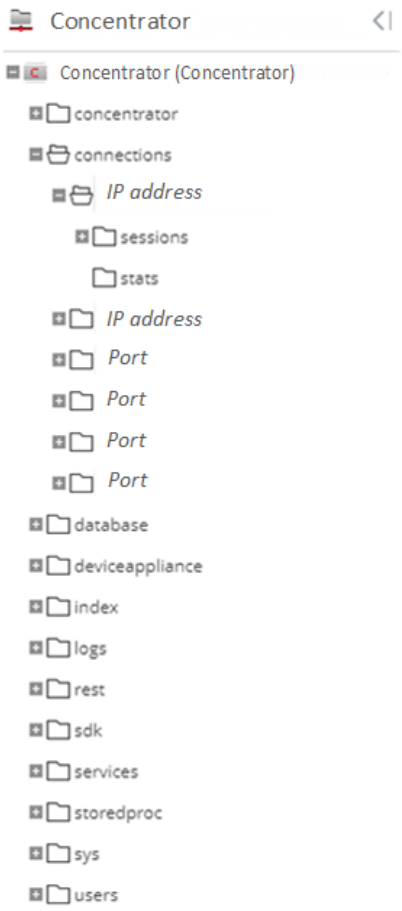
The Services Explore View has two main panels:

- The Node list
- The Monitor panel

You can right-click on a file to access the Properties for the file. See Services Explore View - Properties Dialog for more information.

The Node List

The Node list displays the services as a tree-like series of nodes and folders. The levels in the Node list expand and collapse to display the full hierarchy.



Each root folder is named based on the functionality it exposes. For instance, the `/connections` folder shows all connected IP addresses. Underneath each IP address or port in the list are two folders, `sessions` and `stats`.

- The `sessions` folder displays all authenticated user sessions originating from the IP/Port.
- The `stats` folder displays values, such as the number of messages sent or received, bytes sent or received, and other values set by the service. These are not editable.

Selecting any folder in the tree view displays its children in the Monitor panel. Every node in the tree is actively monitored, so when a statistic or configuration node changes value, it is immediately reflected in the tree and Monitor panel.

The Monitor Panel

The Monitor panel displays properties and values for a selected node (such as `index`) and a child folder (such as `config`). There are two ways to edit values:

- Click the value and type a new value
- Send a `set` message in the Properties dialog

/index/config	Concentrator
index.dir	/var/netwitness/concentrator/index=2.89 TB
index.dir.cold	
index.dir.warm	
index.slices.open	42
page.compression	huffhybrid
reindex.enable	true
save.session.count	auto

Topics

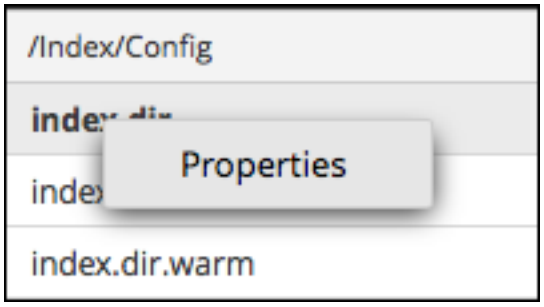
- View Service Details

Services Explore View - Properties Dialog

You can use the Services Explore view > Properties dialog to perform the following tasks.

- Send messages to a system node
- Retrieve values for a property for multiple services
- Set values for a property for multiple services

Right-click any file in the Node list or Monitor panel to display the Properties context menu.



When you select `Properties` from the Node list or Monitor panel context menu, the Properties dialog opens below the Monitor panel. All nodes have support help that contains the following information.

- A description of the node
- The list of supported messages with a corresponding description
- Security roles needed to access the messages

The available messages vary according to the service and root folder. Many of these messages are also accessible as options with a NetWitness Platform dashboard or view.

Workflow

What do you want to do?

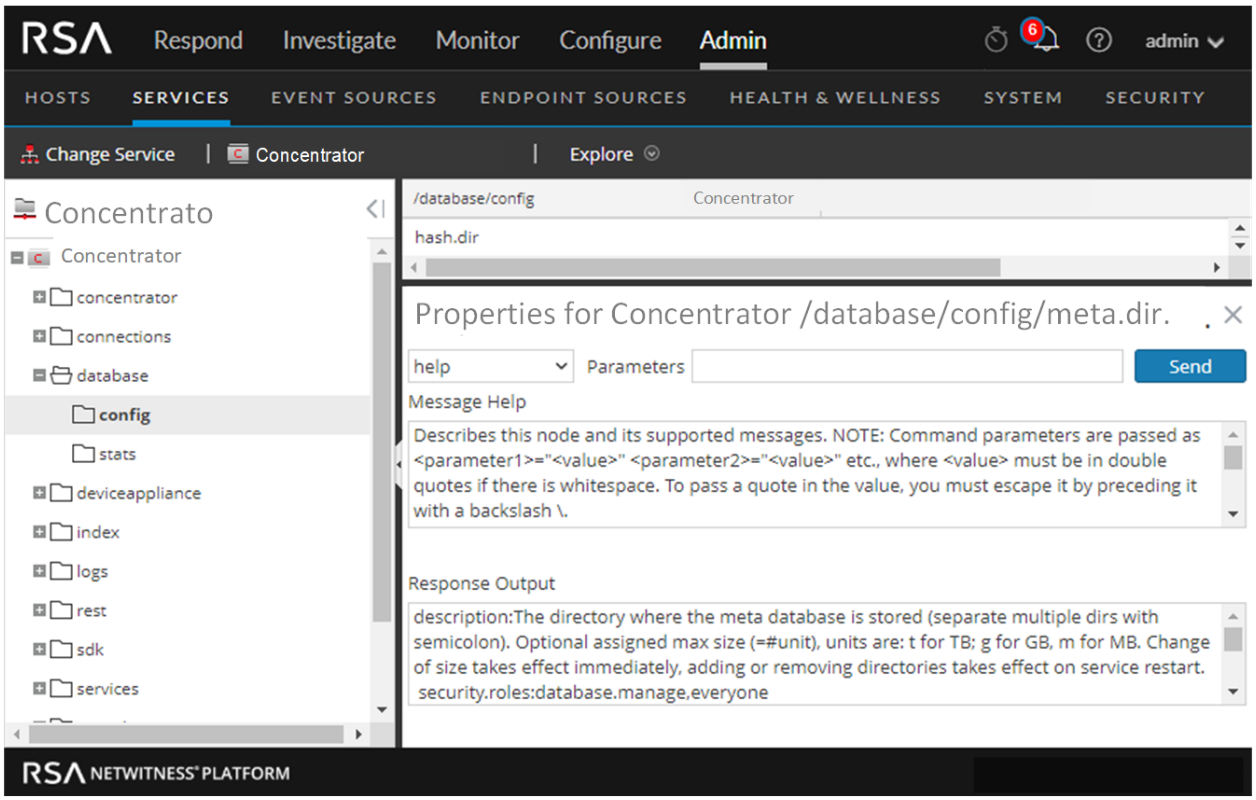
User Role	I want to...	Documentation
Administrator	set up a host.	Setting Up a Host
Administrator	maintain a host.	Maintaining Hosts
Administrator	maintain a service.	Maintaining Services
Administrator	send messages to a system node.*	Explore and Edit Service Property Tree
Administrator	retrieve values for a property for multiple services.*	Explore and Edit Service Property Tree
Administrator	set values for a property for multiple services.*	Explore and Edit Service Property Tree

* You can perform these tasks in the current view.

Related Topics

- Services Explore View

The following example shows the Properties dialog with information in Message Help displayed.



The Properties dialog has the following features.

Feature	Description
Message drop-down list	Lists all available messages for the current node. Select a message from this drop-down list to send to the node.
Parameters input field	Type the message parameters in this field.
Send	Sends the message to the selected node.
Message Help	Displays help text for the current message.
Response Output	Displays the response to a message or output from a message.

Services Logs View

The Services Logs view provides the ability to view and search the logs for a specific service. The Services Logs view is identical to the System Logging panel (**ADMIN > System tab > System Logging**) with two exceptions:

- The Services Logs view has an additional filter to select messages for the service or host.
- The System Logging panel has an additional tab for Settings.

For a complete description of NetWitness Platform logging features in the System Logging panel, see "Monitor Health and Wellness of NetWitness Platform" in the *System Maintenance Guide*.

Workflow

What do you want to do?

User Role	I want to...	Documentation
Administrator	set up a host.	Setting Up a Host
Administrator	maintain a host.	Maintaining Hosts
Administrator	maintain a service.	Maintaining Services
Administrator	view and search the logs for a specific service.*	See "Monitor Health and Wellness of NetWitness Platform" in the *System Maintenance Guide*

* You can perform these tasks in the current view.

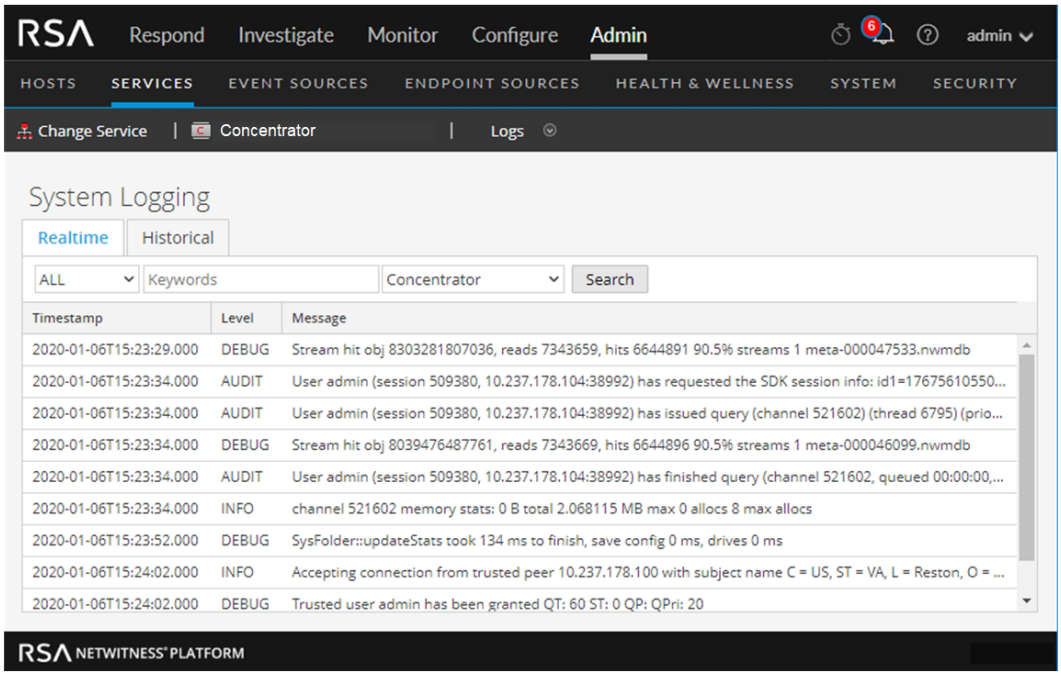
Related Topics

- Edit Service Dialog
- Services Config View
- Services Explore View
- Services Security View
- Services Stats View

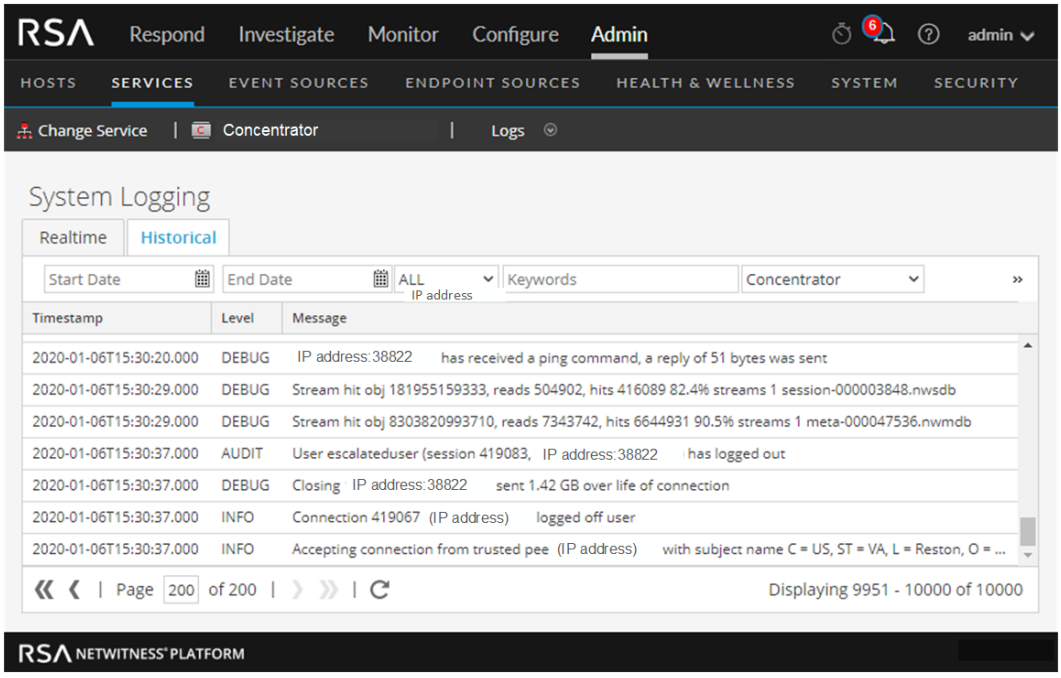
- Services System View
- Services View

Quick Look

The following figure shows the Services Logs view Realtime tab.



The following figure shows the Services Logs view Historical tab.



Feature	Description
Realtime tab	This is the monitor mode of the service log. For more information, see "System Logging - Realtime Tab" in the *System Maintenance Guide*.
Historical tab	This is a searchable view of the service log. For more information, see "System Logging - Historical Tab" in the *System Maintenance Guide*.

Services Security View

In NetWitness Platform, each service has a separate configuration of users, roles, and role permissions, which are managed in the Services Security view.

To access service information and perform service operations through NetWitness Platform, a user must belong to a role that has permissions on that service. For NetWitness Platform version 10.4 or later Core services that utilize trusted connections, it is no longer necessary to create NetWitness Platform Core user accounts for users that log on through the web client. You only need to create NetWitness Platform Core user accounts for aggregation, thick client users, and REST API users.

Note: Only the default admin user in NetWitness Platform is created by default on all services. As a prerequisite to managing service security, the default admin user account must be present in the Admin Services view. For every other user, you must configure access to each particular service through NetWitness Platform.

Workflow

What do you want to do?

User Role	I want to...	Documentation
Administrator	set up a host.	Setting Up a Host
Administrator	maintain a host.	Maintaining Hosts
Administrator	maintain a service.	Maintaining Services
Administrator	manage configuration of users, roles, and role permissions.*	See the *System Security and User Management Guide*.

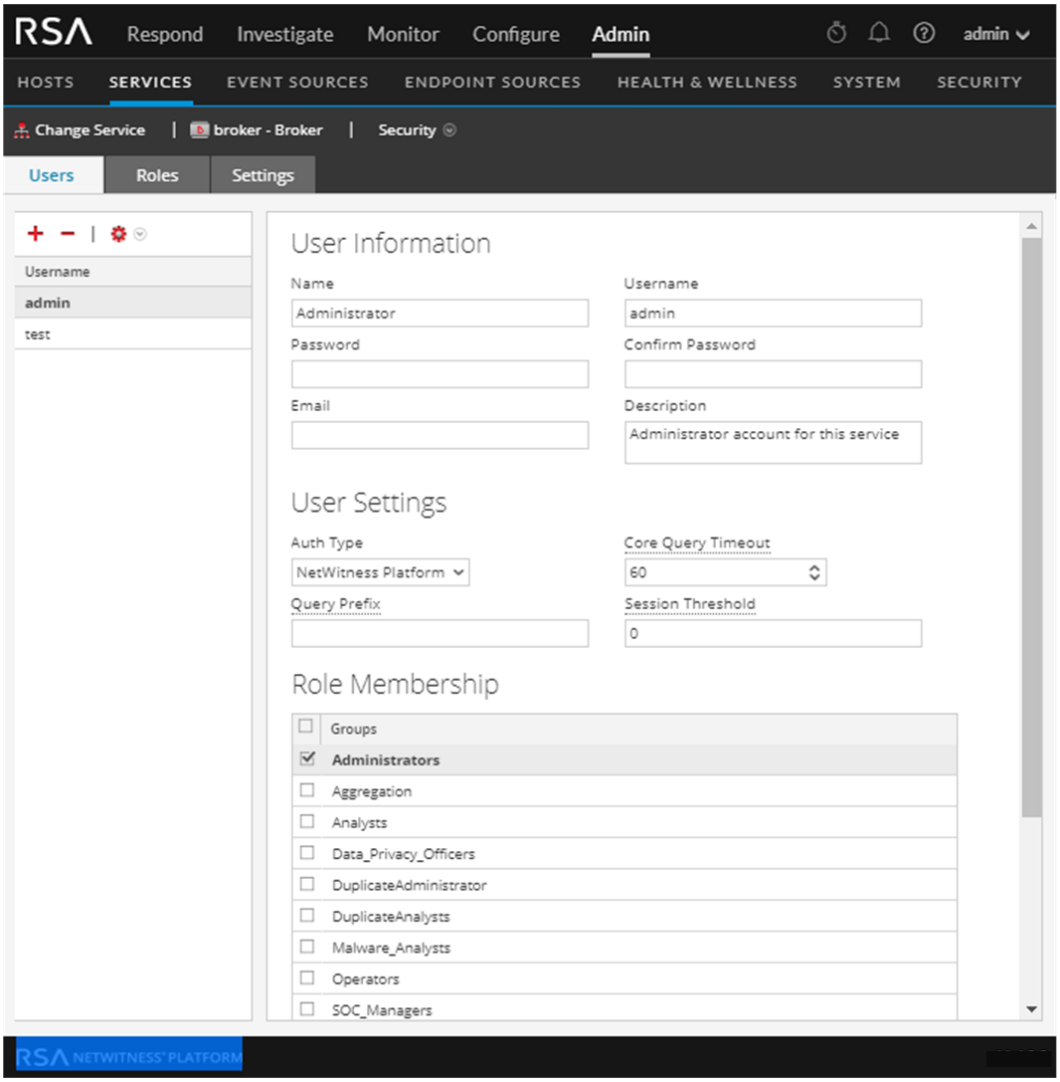
* You can perform these tasks in the current view.

Related Topics

- Add, Replicate, or Delete a Service User
- Add a User Role to a Service

- Change a Service User Password
- Duplicate or Replicate a Service Role
- Edit Service Dialog
- Services Config View
- Services Explore View
- Services Logs View
- Services Stats View
- Services System View
- Services View

Quick Look



The Services Security view has three tabs: Users, Roles, and Settings.

Roles and Service Access

Primary considerations in configuring service security are defining the roles and assigning users to the roles. The Service Security view separates these two functions into the Users tab and the Roles tab.

- In the Users tab, you can add a user, edit user settings, change the user password, and edit the role membership of the user for a selected service. Although you select a single service in the Services Security view, you can apply the settings for one service to other services.
- In the Roles tab, you can create roles and assign permissions to the roles for a selected service.

Topics

Services Security View - Users Tab

In the Services Security view Users tab, you can configure the following for a service:

- Add user accounts.
- Change service user passwords.
- Configure user authentication properties and query handling properties for the service.
- Specify the user role membership, which specifies the roles that the user belongs to on the selected service.

Note: For version 10.4 or later NetWitness Platform Core services that utilize trusted connections, it is no longer necessary to create NetWitness Platform Core user accounts for users that log on through the web client. You only need to create NetWitness Platform Core user accounts for aggregation, thick client users, and REST API users.

Workflow

What do you want to do?

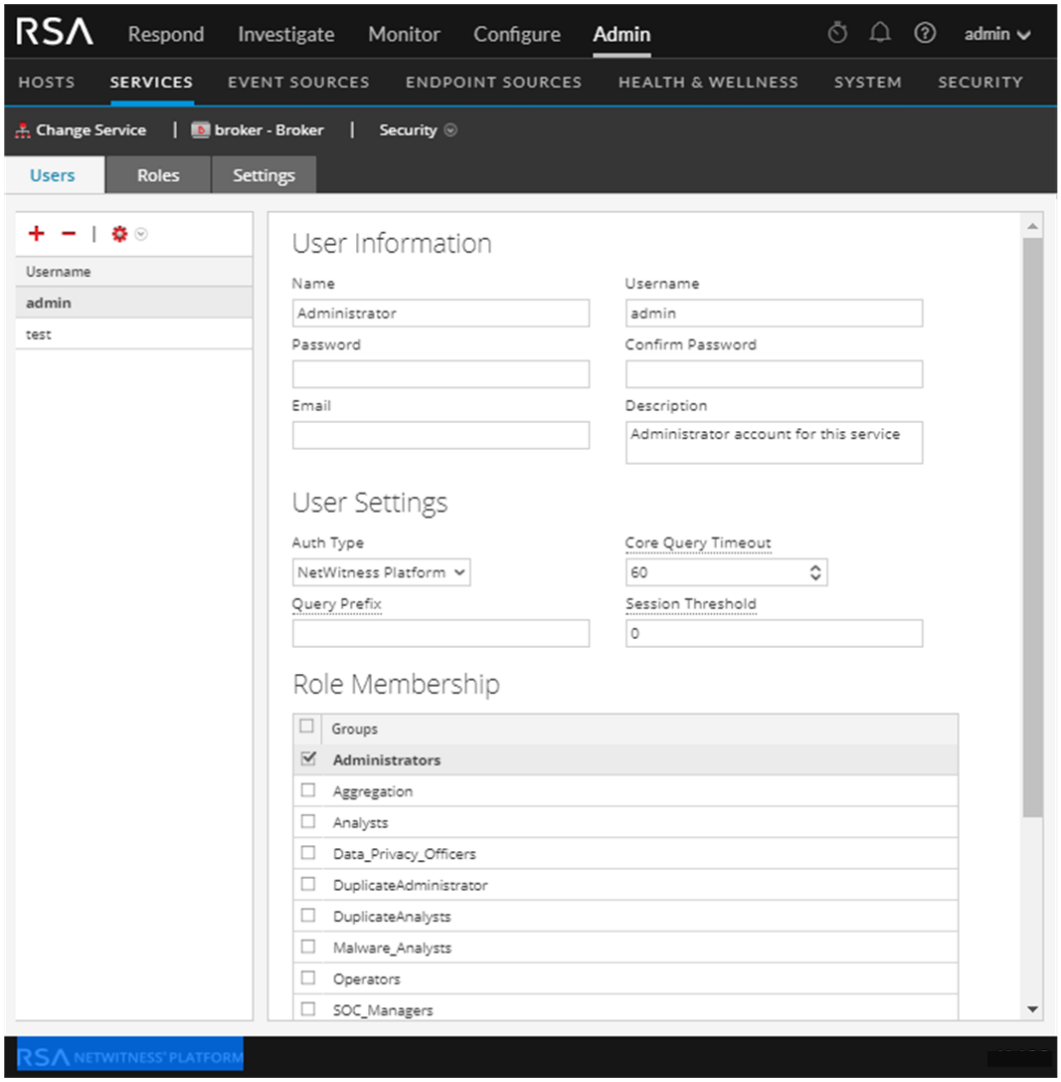
User Role	I want to...	Documentation
Administrator	set up a host.	Setting Up a Host
Administrator	maintain a host.	Maintaining Hosts
Administrator	maintain a service.	Maintaining Services
Administrator	add user accounts.*	Add, Replicate, or Delete a Service User
Administrator	change service user passwords.*	Change a Service User Password
Administrator	configure user authentication properties and query handling properties for the service.*	See "Verify Query and Session Attributes per Role" in the *System Security and User Management Guide*.
Administrator	specify the user role membership (roles that the user belongs to on the selected service).*	See "Add a User and Assign a Role" in the *System Security and User Management Guide*.

* You can perform these tasks in the current view.

Related Topics

- Services Security View - Roles Tab
- Services Security View - Settings Tab
- Services Security View

Quick Look



The Users tab has a User List panel on the left. Selecting a username from the panel makes the User Definition panel on the right available.

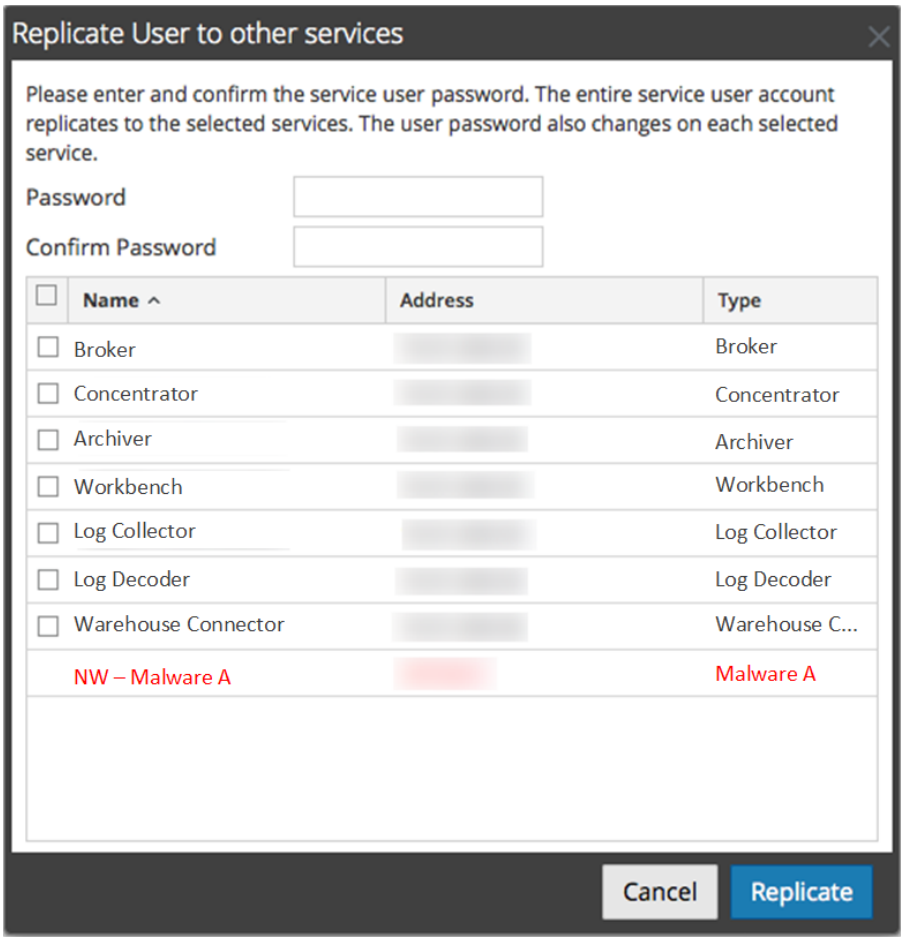
User List Panel

The User List panel has the following features.

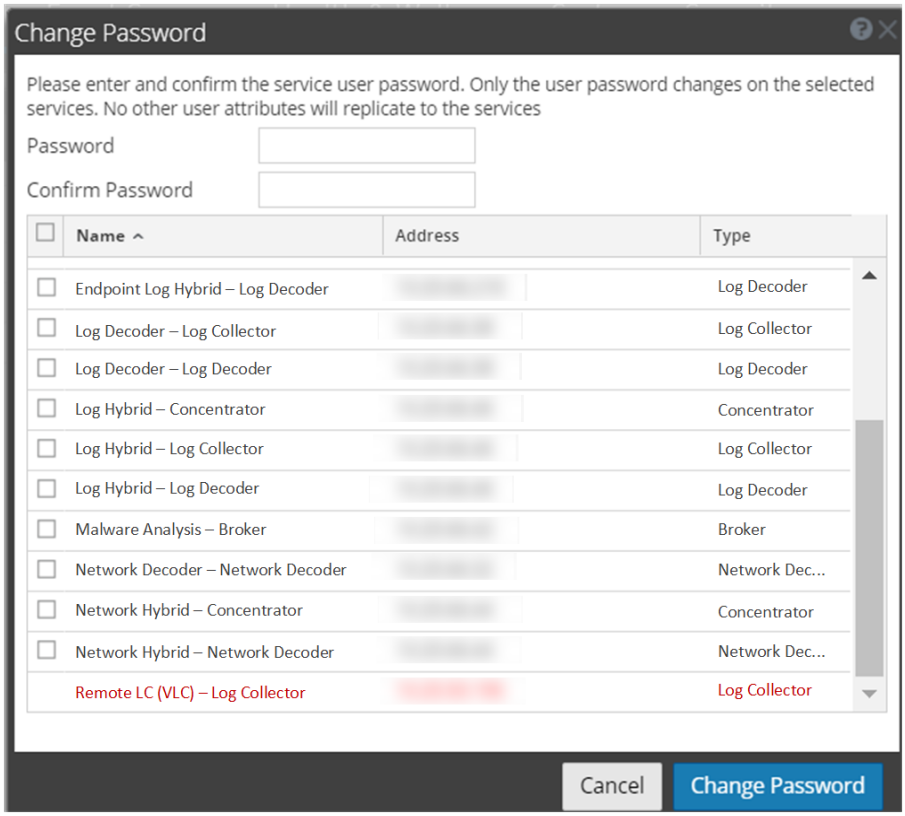
Feature	Description
+	Adds a new user to the current service.
−	Deletes the selected users from the service.

Feature	Description
	Performs one of the following actions on the selected service user account: • **Replicate:** Replicates the entire service user account to selected services. • **Change Password:** Changes the password of a service user and replicates the new password to Core services with that user account defined. The Change Password option replicates only the password change to the Core services selected and does not replicate the entire user account.
Username	The usernames for all user accounts that access the service. The username must be one used to log on to NetWitness Platform.

The following figure shows the "Replicate User to other services" dialog.



The following figure shows the **Change Password** dialog.



User Definition Panel

The User Definition panel has three sections:

- User Information identifies the user as created in the Admin Services Security view.
- User Settings define parameters that apply to this user's access to the service.
- Role Membership defines user roles to which the user belongs.

There are two buttons at the bottom of the panel:

- The **Apply** button saves the changes made in the User Definition panel, and they become effective immediately.
- If you have not saved changes in the User Definition panel, the **Reset** button resets all fields and settings to their values before editing.

User Information

The User Information section has the following features.

Field	Description
Name	The name of the user.
Username	The username that this user enters to log in to the service. This is the NetWitness Platform username generated when the administrator added the user and the associated credentials in the Admin Services Security view.

Field	Description
Password (and **Confirm Password**)	The password that the user enters to log on to the service. This is the NetWitness Platform password generated when the administrator added the user and the associated credentials in the **Administration Security** view. The NetWitness Platform account password and the service password must match in order to allow the user to connect to the service through NetWitness Platform.
Email	(Optional) The user's email address.
Description	(Optional) A general description field to describe this user.

User Settings

The User Settings section has the following features.

Field	Description
Auth Type	The authentication scheme for this user. The product line supports internal and external authentication. • **NetWitness Platform** specifies internal authentication, and is enabled by default. In this mode, all users must authenticate with the user account and passwords that are generated when the administrator uses the NetWitness Platform Admin Services Security view to create the user and their associated credentials. • **External** specifies that authentication is enabled through the host interface with PAM (Pluggable Authentication Modules). For more information, see "Configure PAM Login Capability" in the *System Security and User Management Guide*.
Core Query Timeout	**Note:** This field was previously known as "SA Core Query Timeout" and does not appear for 10.4 and earlier service versions. NetWitness Platform version 10.4 and earlier services use "Query Level" instead. Specifies the maximum number of minutes a user can run a query on the service. If this value is set to **0**, the query timeout is not enforced for the user on the service.
Query Prefix	(Optional) Restricts query results seen by the user by appending the query syntax to every query. For example, adding the query prefix `email != 'ceo@company.com'` prevents those email results from showing up in the sessions.
Session Threshold	(Optional) Controls the behavior of the application when scanning meta values to determine session counts. If any meta value has a session count that is above the set threshold, the determination of the true session count stops when the threshold is reached. If a threshold is set for a session, the Navigate view (INVESTIGATE > Navigate) shows that the threshold was reached and the percentage of query time used to reach the threshold.

Role Membership

The Role Membership section shows a list of all roles. The checkbox next to a role is selected for the roles that a user is a member of for the selected service.

Services Security View - Roles Tab

The Services Security view Roles tab enables you to create roles and assign permissions. Each role can have different permissions for different services. For example, the Analysts role can have different role permissions based on the selected service.

Before you can add users to roles, you need to define user roles, usually by function, and assign permissions to the roles.

Procedures related to this tab are described in Add a User Role to a Service.

Workflow

What do you want to do?

User Role	I want to...	Documentation
Administrator	set up a host.	Setting Up a Host
Administrator	maintain a host.	Maintaining Hosts
Administrator	maintain a service.	Maintaining Services
Administrator	define user roles.*	Add a User Role to a Service
Administrator	assign permissions to the roles.*	See "Add a Role and Assign Permissions" in the *System Security and User Management Guide*.
Administrator	add a user role to a service.*	See "Add a Role and Assign Permissions" in the *System Security and User Management Guide*.

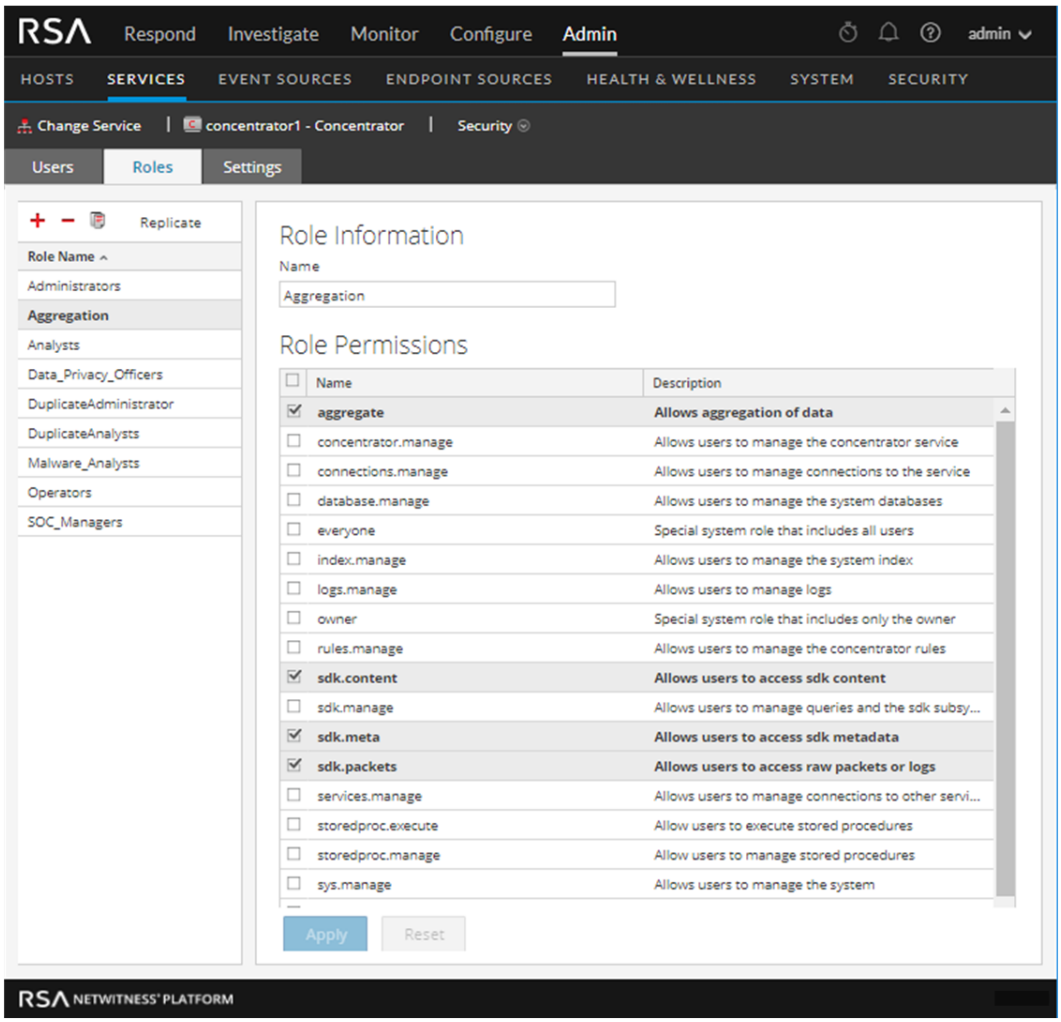
* You can perform these tasks in the current view.

Related Topics

- Duplicate or Replicate a Service Role
- Duplicate or Replicate a Service Role
- Services Security View - Users Tab

- Services Security View - Settings Tab
- Services View

Quick Look



The Roles tab has a **Role Name** panel on the left. Selecting a role name shows the **Role Information** panel for the selected role on the right.

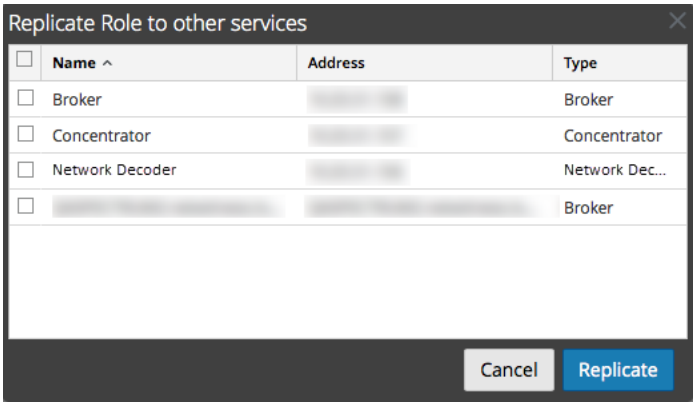
Role Name Panel

The **Role Name** panel has the following features.

Feature	Description
+	Adds a new group to the current service.
−	Deletes the selected group from the current service.

Feature	Description
	Copies a role and its assigned permissions to a new role. The name of the new role must be unique. For example, you can copy the `Analysts` role and create another role with a new name, such as `Analyst_Managers`.
Replicate	Pushes a role and its assigned permissions to other services. After you select a role and click **Replicate**, the Replicate Role to other services dialog is displayed. In the dialog, you can select the services where you want to replicate the role.

The following figure shows the Replicate Role to other services dialog.



Role Information and Permissions Panel

The Role Information and Permissions panel defines role permissions.

There are two buttons:

- The **Apply** button saves the changes made in the Role Permissions panel and they become effective immediately.
- If you have not saved changes in the Role Permissions panel, the **Reset** button resets all fields and settings to their values before editing.

Topics

- Services Security View - Service User Roles and Permissions
- Services Security View - Aggregation Role

Services Security View - Service User Roles and Permissions

The Services Security view Roles tab enables you to create service user roles and assign permissions. You can also use the pre-configured service user roles included with NetWitness Platform to assign user permissions.

Related Topics

- Services Security View - Aggregation Role
- Services Security View - Roles Tab

Service User Roles

NetWitness Platform has the following pre-configured service user roles.

Role	Assigned Permissions	Personnel/Account
Administrators	All permissions	NetWitness Platform System Administrator

Aggregation	`aggregate`
	`sdk.content`
	`sdk.meta`
	`sdk.packets`
		You can use this role to create an Aggregation account.
		This role provides the minimum permissions necessary to perform aggregation of data. It is only available on NetWitness Platform version 10.5 and later services.

Analysts, Malware_ Analysts, and SOC_ Managers	`sdk.meta`
	`sdk.content`
	`sdk.packets`
	`storedproc.execute`
		Users can use specific applications, run queries and view content for purposes of analysis.

Data_Privacy_ Officers	`sys.manage`
	`users.manage`
	`sdk.meta`
	`sdk.content`
	`sdk.packets`
	`sdk.manage`
	`logs.manage`
	`database.manage`
	`index.manage`
	`dpo.manage`
		Data Privacy Officer
		Data Privacy Officers have the `dpo.manage` permission on Network Decoders and Log Decoders.

Operators	`sys.manage`
	`services.manage`
	`connections.manage`
	`users.manage`
	`logs.manage`
	`parsers.manage`
	`rules.manage`
	`database.manage`
	`index.manage`
	`sdk.manage`
	`decoder.manage`
	`archiver.manage`
	`concentrator.manage`
	`storedproc.manage`
		Operators are responsible for the daily operation of the services.

Service User Permissions

There are many permissions that you can assign a service role in NetWitness Platform. Users can have different permissions on each service, depending on their role assignments and the permissions selected for each role. This table describes the permissions that you can assign to a role.

Permission	Definition
sys.manage	Allows the user to edit the service configuration settings.
services.manage	Allows the user to manage connections to other services.
connections.manage	Allows the user to manage connections to the service.
users.manage	Allows the user to create individual users and user roles and specify user permissions.
aggregate	Allows the user to perform aggregation of data.
sdk.meta	Allows the user to run queries in the Investigation and Reporting applications and to view the metadata returned by the query.
sdk.content	Allows the user to access raw packets and logs from any client application (Investigations and Reporting).
sdk.packets	Allows users to access raw packets and logs from any client application.
appliance.manage	Allows the user to manage the appliance (host) tasks. This permission is required by the Appliance service.
decoder. manage	Allows the user to edit the configuration settings for the Network Decoder service.
concentrator.manage	Allows the user to edit the configuration settings for the Concentrator/Broker service.
logs.manage	Allows the user to view the service logs and edit the logging configuration settings for the specified service.
parsers.manage	Allows the user to manage all attributes under the parsers node.
rules.manage	Allows the user to add and delete all rules.
database.manage	Allows the user to set database locations, sizes, and the various configuration settings for the session, meta and/or packet/log databases.
index.manage	Allows the user to manage all index-related attributes.
sdk.manage	Allows the user to view and set all SDK configuration items.
storedproc.execute	Allows the user to execute a Lua stored procedure.
storedproc.manage	Allows the user to manage Lua stored procedures.
archiver.manage	Allows the user to modify the Archiver configuration.

Permission	Definition
dpo.manage	Allows the user to manage the transform configuration and the applicable keys.

Services Security View - Aggregation Role

This topic describes the Aggregation role and permissions that allow service users to perform aggregation.

Related Topics

- Services Security View - Service User Roles and Permissions
- Services Security View - Roles Tab

The Aggregation role is a service user role intended only for aggregation of data. It has the minimum role permissions required to do aggregation:

- aggregate
- sdk.meta
- sdk.packets
- sdk.content

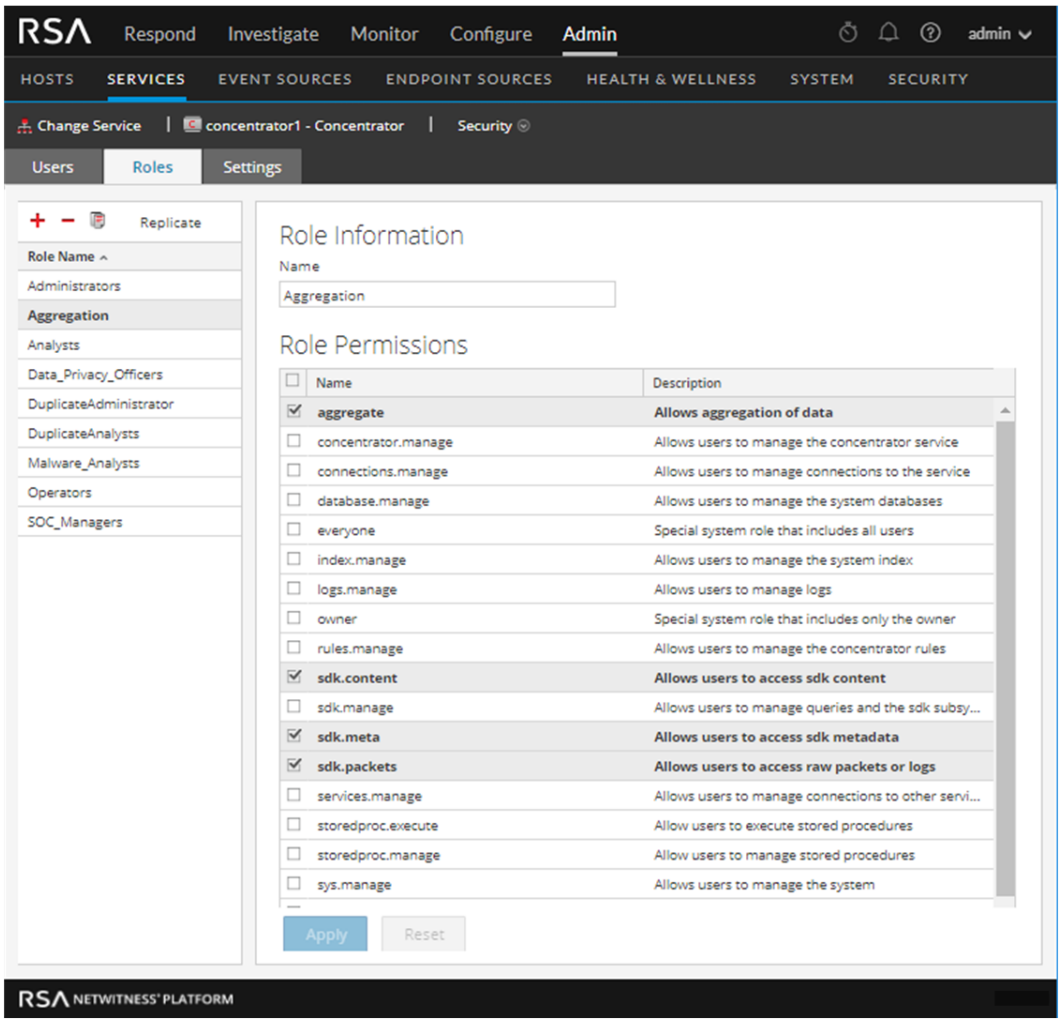
The Aggregation role is available only on NetWitness Platform version 10.5 and later services and it can be used for an aggregation account. Members of this role or service users with these permissions can perform aggregation on Network Decoders, Concentrators, Archivers, and Brokers. The aggregate permission allows service users to perform aggregation of sessions and metadata along with raw packets and logs.

You can still use the decoder.manage, concentrator.manage, and archiver.manage permissions, but the Aggregation role permissions allow aggregation only and prevent the other available operations.

You access the service roles from the **ADMIN** > **Services** (select a service) > > **View** > **Security** > **Roles** tab.

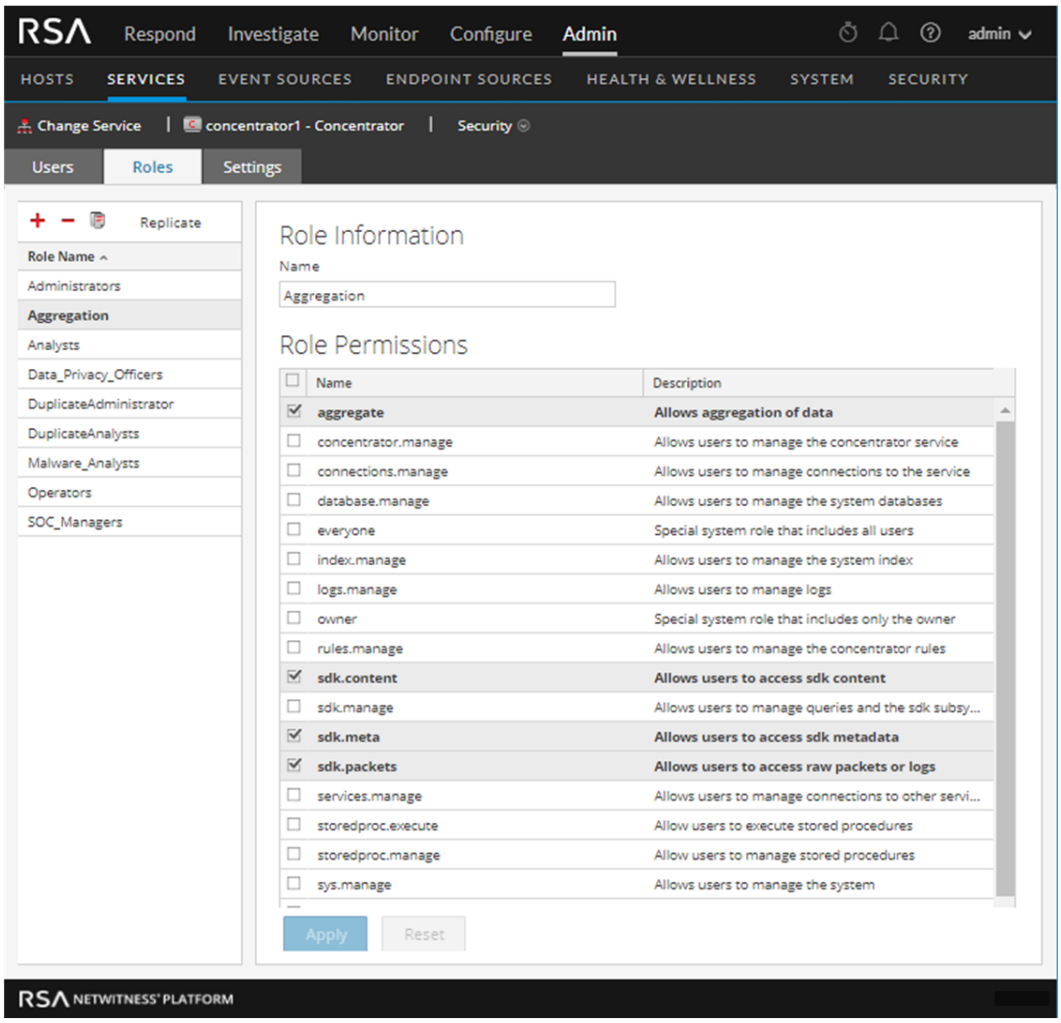
Procedures related to roles are described in Hosts and Services Maintenance Procedures. Services Security View - Service User Roles and Permissions provides detailed information on the pre-configured roles.

The following figure shows the permissions in the Aggregation role.



Services Security View - Settings Tab

In the Services Security view Settings tab, Administrators can enable and configure system roles that define permissions on a per meta key basis for individual Brokers, Concentrators, Network Decoders, and Log Decoders. Configuring this feature adds configurable meta keys to the Services Security view > Roles tab so that individual meta keys can be applied to specific roles on a specific service. The following figure illustrates this.



This configuration is generally part of a data privacy plan implemented to ensure that specific types of content consumed or aggregated by a service are kept secure by limiting visibility of the metadata and content to privileged users. See the *Data Privacy Management Guide* for more information.

Workflow

What do you want to do?

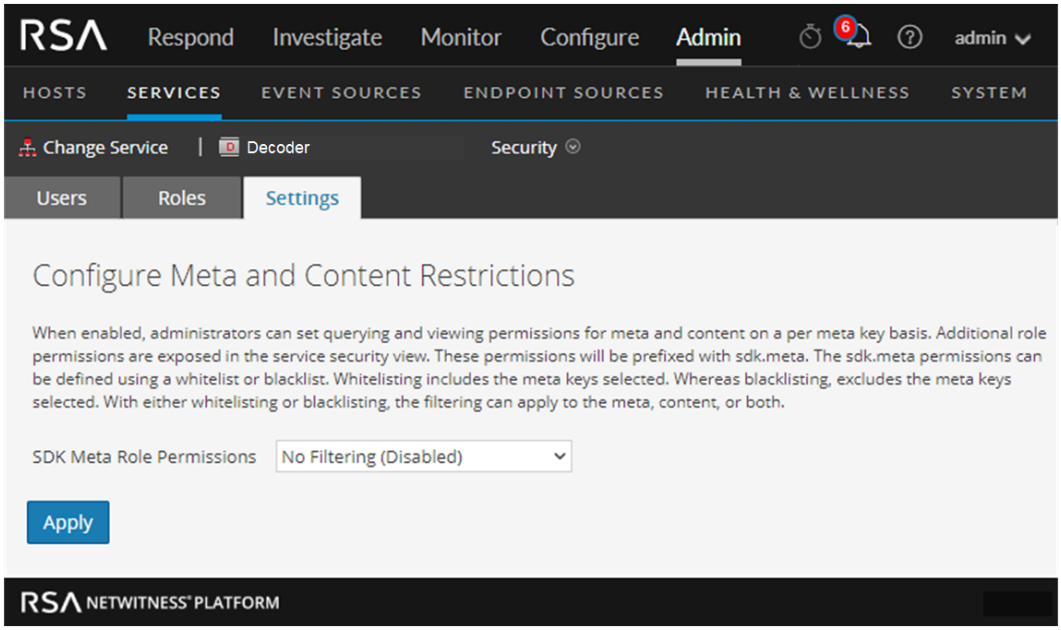
User Role	I want to...	Documentation
Administrator	set up a host.	Setting Up a Host
Administrator	maintain a host.	Maintaining Hosts
Administrator	maintain a service.	Maintaining Services
Administrator	enable and configure system roles that define permissions on a per meta key basis for individual Brokers, Concentrators, Network Decoders, and Log Decoders.*	See the *System Security and User Management Guide* for more information.

* You can perform these tasks in the current view.

Related Topics

- Services Security View - Users Tab
- Services Security View - Roles Tab
- Services Security View

Quick Look



The Settings tab includes two features.

Feature	Description
SDK Meta Role Permissions field	Provides option for disabling or configuring meta key and content restrictions. The filtering options are described.

Feature	Description
Apply button	Applies the selected configuration immediately. If not disabled, the meta keys are added to the Roles tab so they can be applied to specific roles.

SDK Meta Role Permissions Options

The following table lists the filtering options available in the SDK Meta Role Permissions selection list, and the numeric values used to disable (0) and the types of filtering (1 through 6).

Note: There is no need to know the numeric value unless configuring metadata and content visibility manually in the `system.roles` node.

`system.roles` Node Value	Settings Tab Option	Description
0	No Filtering (Disabled)	System roles that define permissions on a per meta key basis are disabled.
1	Whitelist metadata and content	Metadata and content for the specified SDK meta roles are white listed, or visible to users assigned the system role.
2	Whitelist only metadata	Metadata for the specified SDK meta roles is white listed, or visible to users assigned the system role.
3	Whitelist only content	Content for the specified SDK meta roles is white listed, or visible to users assigned the system role.
4	Blacklist metadata and content	Metadata and content for the specified SDK meta roles are black listed, or not visible to users assigned the system role.
5	Blacklist only metadata	Metadata for the specified SDK meta roles is black listed, or not visible to users assigned the system role.
6	Blacklist only content	Content for the specified SDK meta roles is black listed, or not visible to users assigned the system role.

Services Stats View

The Services Stats view provides a way to monitor the status and operations of a service. This view displays key statistics, service system information, and host system information for a service. In addition, more than 80 statistics are available for viewing as gauges and in timeline charts. In historical timeline charts, only statistics for session size, sessions, and packets are viewable.

Workflow

What do you want to do?

User Role	I want to...	Documentation
Administrator	set up a host.	Setting Up a Host
Administrator	maintain a host.	Maintaining Hosts
Administrator	maintain a service.	Maintaining Services
Administrator	monitor the status and operations of a service.*	See the *System Maintenance Guide*.
Administrator	chart statistical information for a service over a user-specified period of time.*	See the *System Maintenance Guide*.

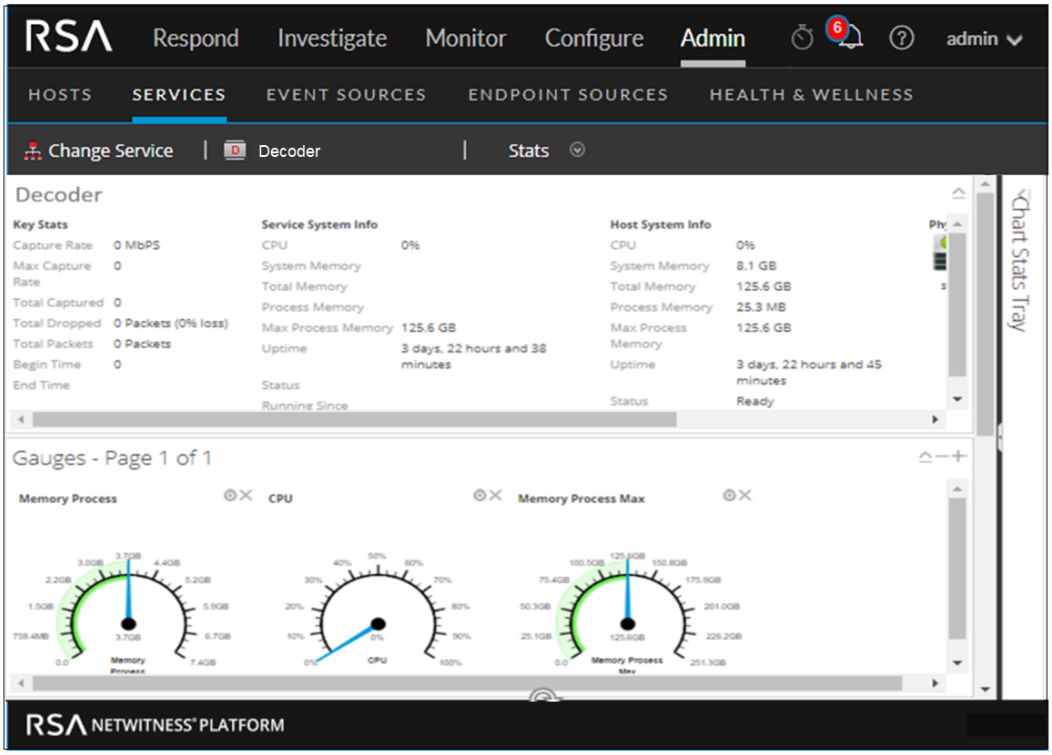
* You can perform these tasks in the current view.

Related Topics

- Edit Service Dialog
- Services Config View
- Services Explore View
- Services Logs View
- Services Security View
- Services System View
- Services View

Quick Look

The following figure shows an example of the Services Stats view for a Network Decoder.



Although different statistics are available for different types of services, certain sections are common to the Services Stats view for any Core service:

- Summary Stats
- Gauges
- Timeline Charts
- Historical Timeline Charts
- Chart Stats Tray

Summary Stats Section

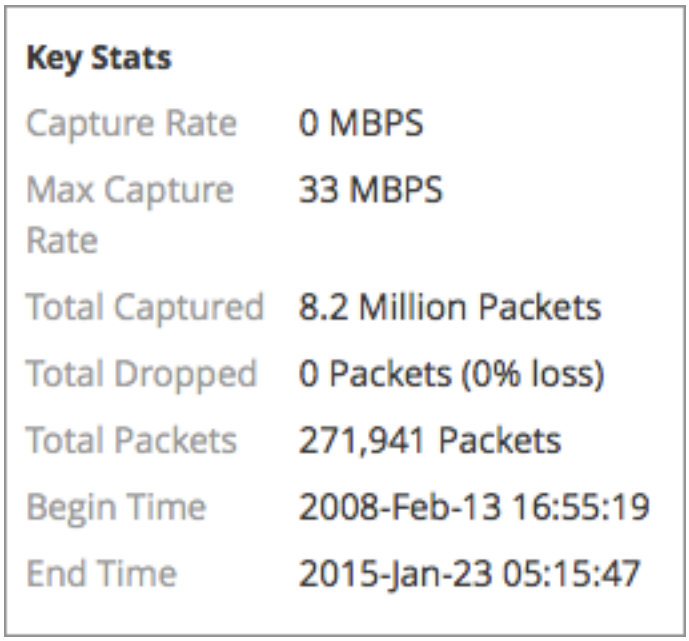
The Summary Stats section is at the top of the default view and has no editable fields. There are five panels in the Summary Stats section: Key Stats, Service System Info, Host System Info, Logical Drives, and Physical Drives. The **Key Stats** panel displays different statistics for different types of services. The remaining four panels in the Summary Stats section are the same for all types of services.

Key Stats

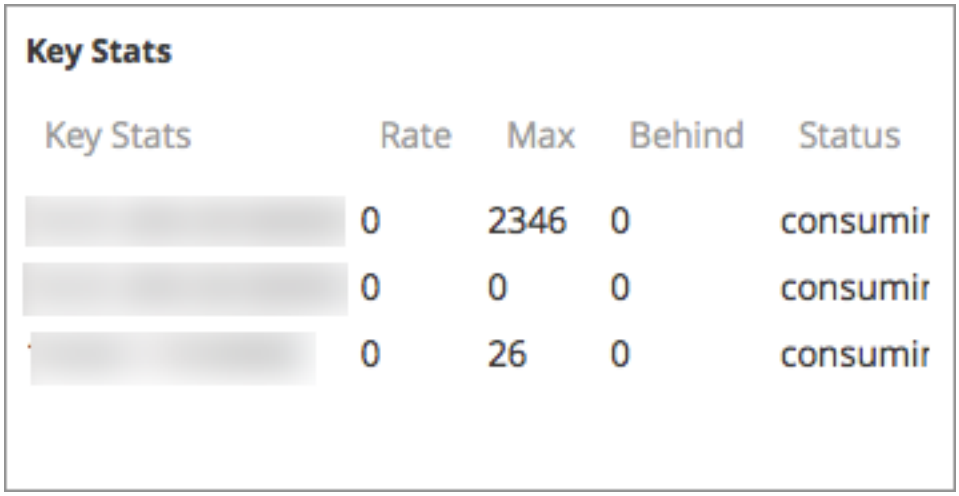
The Key Stats panel displays different statistics for different types of services.

- For a **Network Decoder** or **Log Decoder**, key statistics include capture statistics, such as capture rate, total packets or logs captured, total packets or logs dropped, the data capture begin time and end

time.

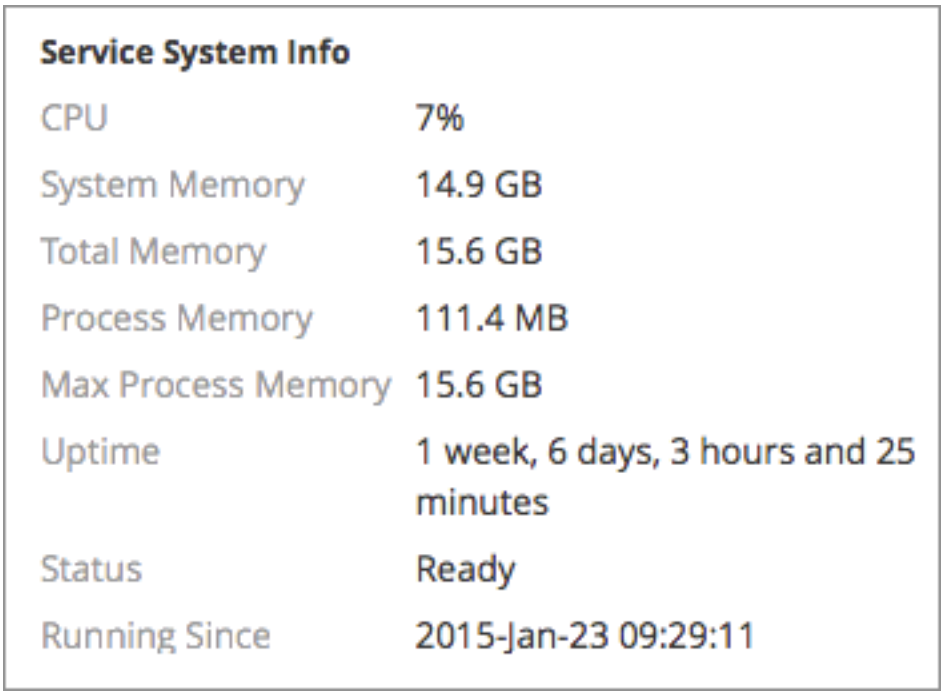


- A **Broker** or **Concentrator** aggregates data from multiple services. Therefore, the key statistics for all aggregate services are presented in a list. The columns in the list provide the service name, the capture rate, the maximum capture rate, the number of sessions behind (that need to be aggregated), and the service status.



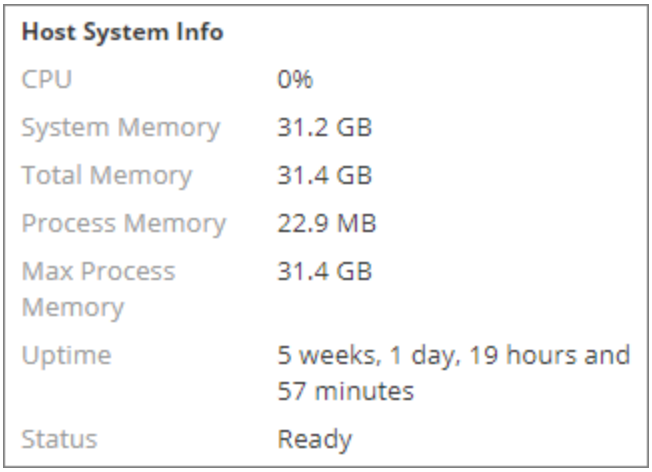
Service System Info

The Service System Info panel includes the percentage of CPU used by the service, the memory usage statistics (system, total, process, and maximum process), service uptime, status, running since time, and the current time.



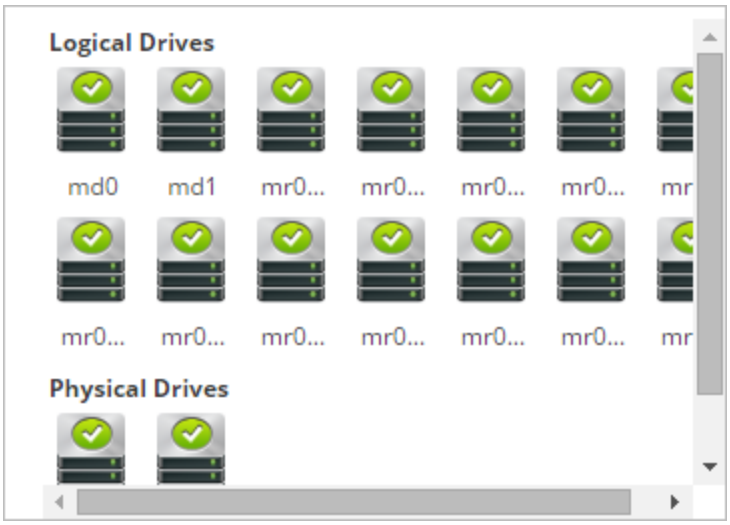
Host System Info

The Host System Info panel includes the percentage of CPU used by the host, the memory usage statistics (system, total, process, and maximum process), host uptime, status, running since time, and the current time.



Logical Drives and Physical Drives

The Logical Drives panel and Physical Drives panel are shown with an icon for the drive name and state. Drive types are used in the names and the drive status options are listed below.



Drive Types and Status

Drive Type	Description	Comments	Status Options
sd	SCSI block device	Directly connected SAS, SATA MegaRAID volumes.	Green: OK Red: FAIL
ld	MegaRAID Logical Volume	Defined in BIOS or with MegaCLI tool.	Green: OK Yellow: DEGRADED/BUILDING Red: FAIL
pd	MegaRAID Physical Disks	Not directly exposed to Linux.	Green: OK Red: FAIL
md	Linux software RAID Volume		Green: OK Yellow: DEGRADED/BUILDING Red: FAIL

Gauges

The Gauges section in the Services Stats view presents statistics in the form of analog gauges. See Services Stats View - Gauges for details on configuring gauges.

Timeline Charts

Timeline charts display the selected statistics in a running timeline with focus on the current time. This is the same for all types of services, and only the display name of the timeline is editable. See Services Stats View - Timeline Charts for details on configuring timelines.

Historical Timeline Charts

Historical timeline charts display statistics for session size, sessions, and packets in a historical timeline. This is the same for all types of services. Only the display name, begin date, and end date. See Services Stats View - Timeline Charts for details on configuring timelines.

Note: Historical timeline charts is being deprecated for Log Collector, Virtual Log Collector (VLC) and Windows Legacy Collector services.

Chart Stats Tray

The Chart Stats Tray lists all available statistics for the selected service type. Different services have different statistics to monitor. See Services Stats View - Chart Stats Tray for a detailed description.

Topics

- Services Stats View - Chart Stats Tray
- Services Stats View - Gauges
- Services Stats View - Timeline Charts

Services Stats View - Chart Stats Tray

In the Services Stats view, the Chart Stats Tray provides a way to customize the monitored statistics for individual services. The Chart Stats Tray lists all available statistics for the service. The number of statistics varies according to the type of service being monitored. Any statistic in the Chart Stats Tray can be displayed in a gauge or a timeline chart. Only statistics for session size, sessions, and packets are viewable in historical timeline charts.

Workflow

What do you want to do?

User Role	I want to...	Documentation
Administrator	set up a host.	Setting Up a Host
Administrator	maintain a host.	Maintaining Hosts
Administrator	maintain a service.	Maintaining Services
Administrator	customize the monitored statistics for individual services.*	See the *System Maintenance Guide*.

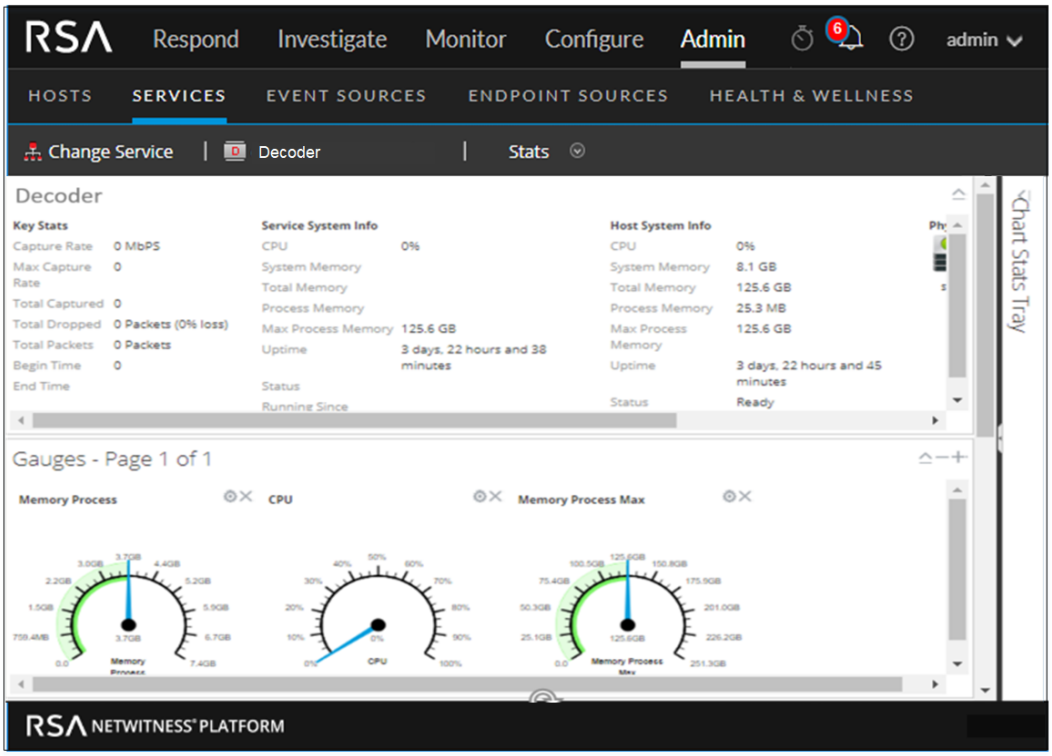
* You can perform these tasks in the current view.

Related Topics

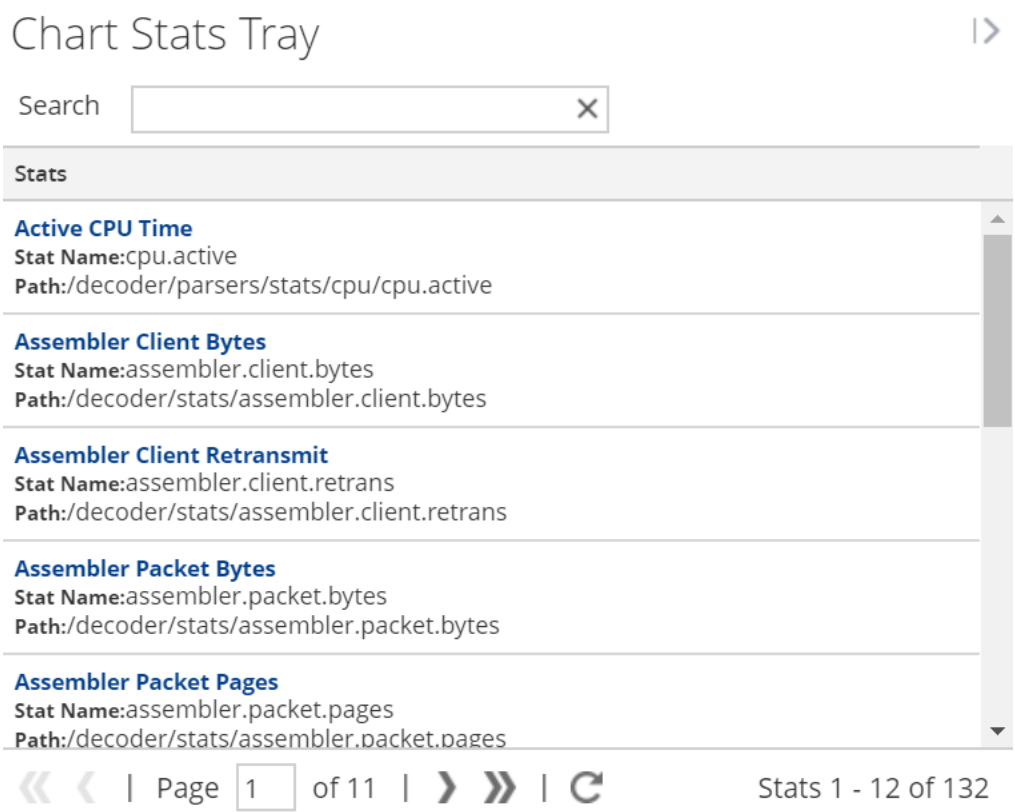
- Services Stats View - Gauges
- Services Stats View - Timeline Charts
- Services Config View

Quick Look

The following example shows the Services Stats view for a Network Decoder. The Chart Stats Tray is collapsed.



To view the Chart Stats Tray, click on the  to expand the Chart Stats Tray.



The Chart Stats Tray has different statistics for different types of services. In the example above, 132 statistics are available for the Network Decoder. The following table describes features of the Chart Stats Tray.

Feature	Description
	Click to expand the panel horizontally.
	Click to collapse the panel horizontally.
Search	Type a search term in the field and press **RETURN**. Statistics that match are displayed with the matching word highlighted.
	Click to go to the first page.
	Click to go to the previous page.
Page 1 of 11	Type a page number in the Page field.
	Click to go to the next page.
	Click to go to the last page.

Feature	Description
	Click to refresh the view.
Stats 1 - 12 of 132	Displays the range of statistics being displayed. The total number statistics varies by service type.

Services Stats View - Gauges

The Gauges section of the Services Stats view presents statistics in the form of an analog gauge. You can drag any statistic available in the Chart Stats Tray to the Gauges section. The properties of each individual gauge are editable; all gauges have an editable title and some have additional editable properties.

Workflow

What do you want to do?

User Role	I want to...	Documentation
Administrator	set up a host.	Setting Up a Host
Administrator	maintain a host.	Maintaining Hosts
Administrator	maintain a service.	Maintaining Services
Administrator	view statistics in the form of an analog gauge.*	See the *System Maintenance Guide*.

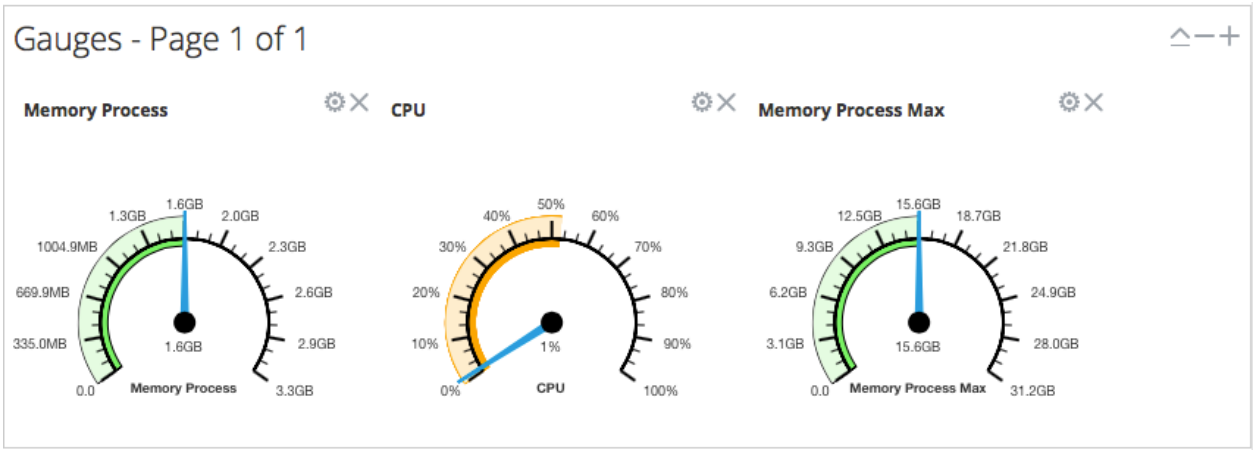
* You can perform these tasks in the current view.

Related Topics

- Services Stats View - Chart Stats Tray
- Services Stats View - Timeline Charts
- Services Config View

Quick Look

The following figure shows the default gauges in the Services Stats view for a Log Decoder.



The default gauges show these statistics:

- Process memory use
- CPU use
- Maximum process memory use

The controls in the Gauges title bar and in each gauge are the standard dashlet controls. Dashlets are the parts that make up a dashboard.

- In the Gauges title bar (from left to right), you can collapse/expand, delete a page, add a page, page backward, and page forward.
- In each gauge, you can edit properties ( ) and delete ( ) the gauge.

Services Stats View - Timeline Charts

The Services Stats view Timeline Charts sections display statistics in a running timeline. The Services Stats view includes two types of timelines: current time and historical. You can drag any statistic available in the Chart Stats Tray to the Timeline Charts section or Historical Timeline Charts section. Only statistics for session size, sessions, and packets are viewable in historical timeline charts. The properties of an individual timeline chart are editable; all timeline charts have an editable title and some have additional editable properties.

Workflow

What do you want to do?

User Role	I want to...	Documentation
Administrator	set up a host.	Setting Up a Host
Administrator	maintain a host.	Maintaining Hosts
Administrator	maintain a service.	Maintaining Services
Administrator	view statistics in the form of a current or historical timeline.*	See the *System Maintenance Guide*.

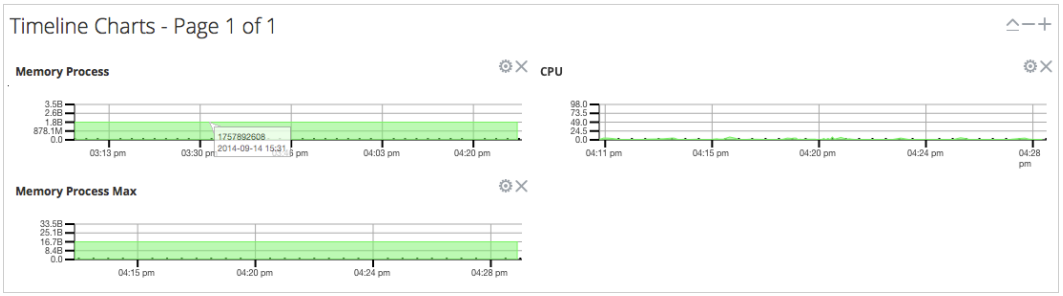
* You can perform these tasks in the current view.

Related Topics

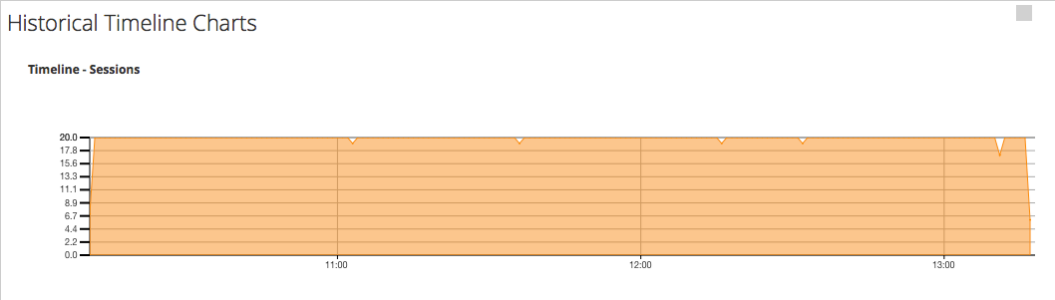
- Services Stats View - Chart Stats Tray
- Services Stats View - Gauges
- Services Config View

Quick Look

The following figure is an example of a current timeline showing the value and timestamp of a data point.



The following figure is an example of a historical timeline chart.



The default current timeline charts show these statistics:

- Memory Process
- CPU
- Memory Process Max

The historical time charts show these statistics:

- Sessions
- Packets
- Session Size

The controls in the Timeline Charts title bar and in each timeline are the standard dashlet controls. The Historical Timeline Charts title bar and timelines have the same controls.

- In the Timeline Charts title bar (from left to right), you can collapse/expand, delete a page, add a page, page backward, and page forward.
- In each timeline, you can edit Properties ( ) and delete ( ) the timeline.
- Hovering over a data point in the chart, displays the value and timestamp for the selected point.

Services System View

This topic introduces features in the Services System view using Decoders (Network Decoder and Log Decoder) as an example. See the appropriate configuration guides for other services (for example, the *RSA NetWitness® Platform Broker and Concentrator Configuration Guide*) for details on their respective **ADMIN > Services > System** views.

A Log Decoder is a special type of Decoder, and is configured and managed in a similar way to a Network Decoder. Therefore, most of the information in this section refers to both types of Decoders. Differences for Log Decoders are noted. For more information on Decoders, see the *Decoder Configuration Guide*.

Workflow

What do you want to do?

User Role	I want to...	Documentation
Administrator	set up a host.	Setting Up a Host
Administrator	maintain a host.	Maintaining Hosts
Administrator	maintain a service.	Maintaining Services
Administrator	view system and session information about a service.*	See the *System Maintenance Guide*.

* You can perform these tasks in the current view.

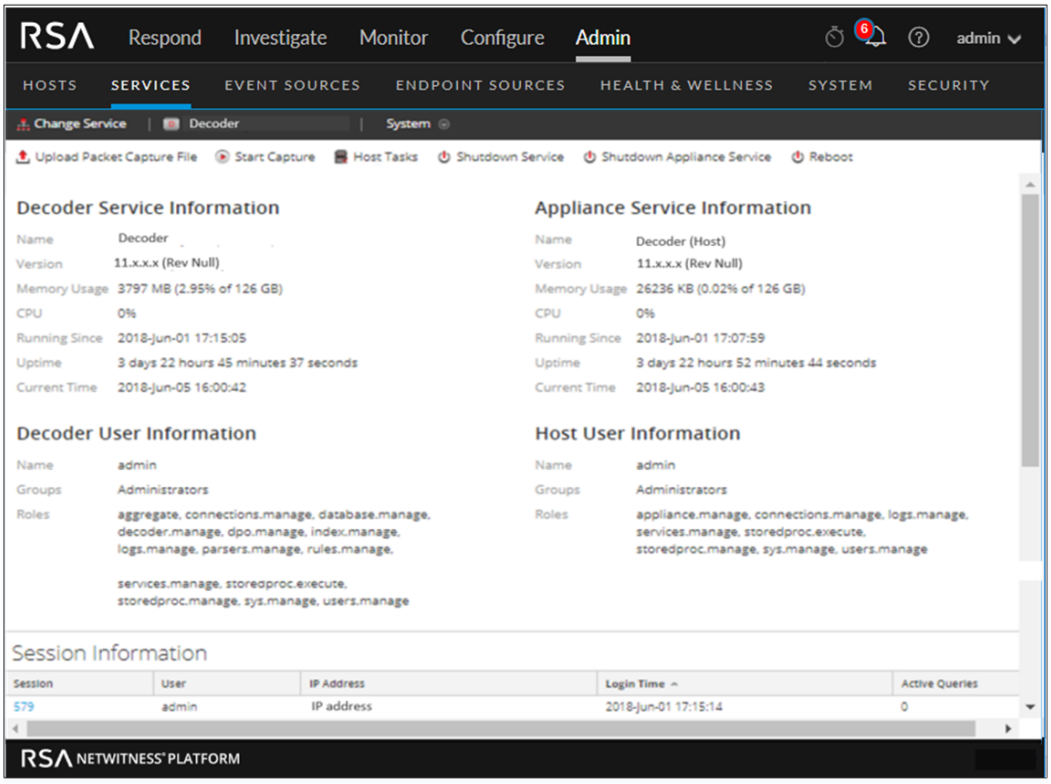
Related Topics

- Edit Service Dialog
- Services Config View
- Services Explore View
- Services Logs View
- Services Security View

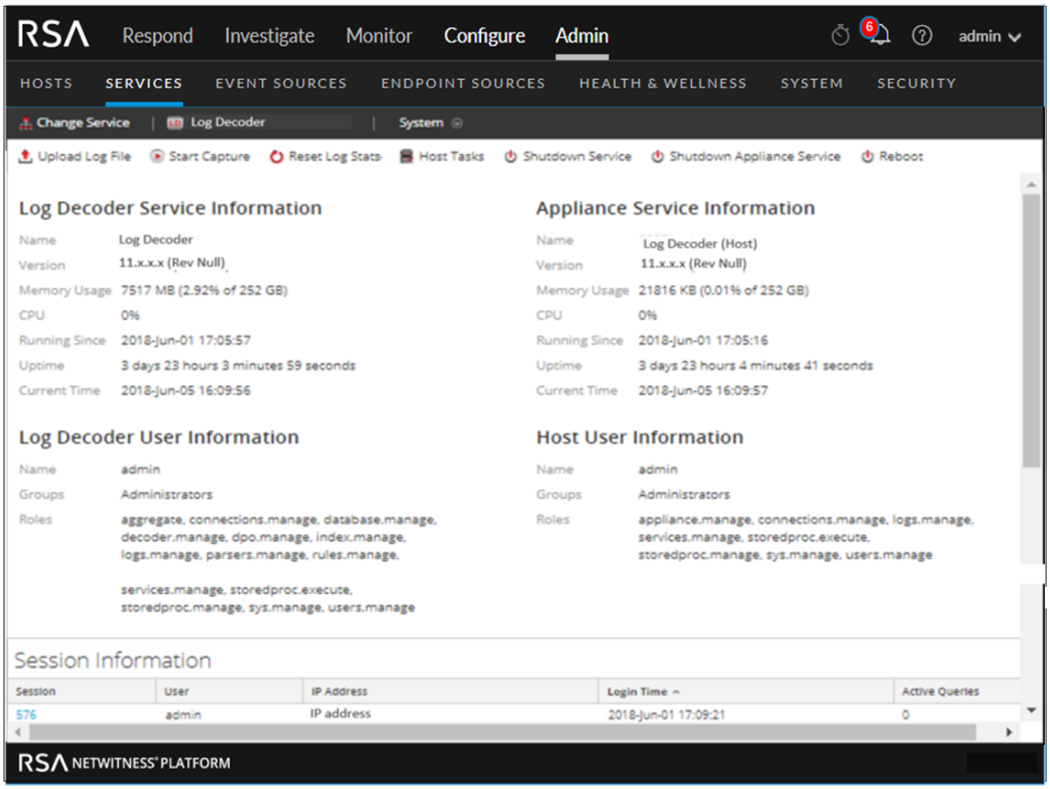
- Services Stats View
- Services View

Quick Look

The following figure shows an example of the Services System view for a Network Decoder.



The following figure shows the Services System view for a Log Decoder.



Services Info Toolbar

The following toolbars show the options specific to Log Decoders (top) and Network Decoders (bottom).

In addition to the common options in the Services System view toolbar, you can start and stop capture of packets or logs. The upload file options are different for the standard Network Decoder (packet capture file) and the Log Decoder (log file).

Action	Description
Upload Packet Capture File	Displays a dialog that provides a way to select a packet capture (`.pcap`) file for upload to the selected Network Decoder. For more information, see "Upload Packet Capture File" in the *Decoder Configuration Guide*. **Note:** This option does not apply to Log Decoders.
Upload Log File	Displays a dialog that provides a way to select a log (`.log`) file for upload to the selected Log Decoder. For more information, see "Upload Log File to a Log Decoder" in the *Decoder Configuration Guide*.
Start/Stop Capture	Starts packet capture on the selected Decoder. When packet capture is in progress, the option in the toolbar changes to Stop Capture, and the option to upload a file is unavailable.

Related Topics

- Services System View - Host Task List Dialog

Services System View - Host Task List Dialog

In the RSA NetWitness Platform Services System view, you can use the Host Tasks option to manage tasks that relate to a host and its communications with the network. Several service and host configuration options are available for Core services.

Workflow

What do you want to do?

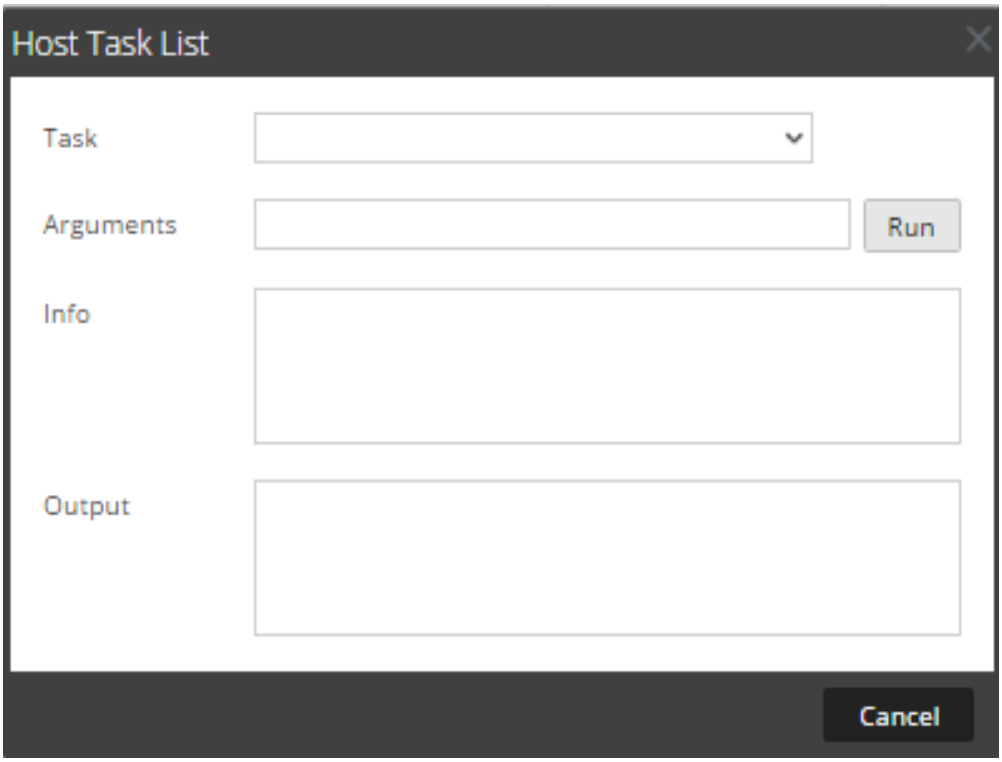
User Role	I want to...	Documentation
Administrator	set up a host.	Setting Up a Host
Administrator	maintain a host.	Maintaining Hosts
Administrator	maintain a service.	Maintaining Services
Administrator	manage host-related tasks and host communications with the network.*	Hosts and Services Maintenance Procedures

* You can perform these tasks in the current view.

Related Topics

- Services System View

Quick Look



The table below describes the Host Task List dialog features.

Field	Description
Task	An entry field in which you type or select a message for a Core host. When you click in this field a drop-down list of available host tasks is displayed.
Arguments	An entry field in which you enter the arguments, if any, for the message.
Run	Executes the task and arguments in the entry fields.
Info	Information about the message purpose and syntax.
Output	The output or result of an executed task.
Cancel	Closes the Host Task list dialog.

Host Task Selection List

These tasks are displayed as a drop-down list in the Task field. The available options are regulated by the security role required to execute the option.

Task	Description
Add Filesystem Monitor	Starts monitoring the storage services attached to the specified filesystem. See Add and Delete a Filesystem Monitor.

Task	Description
Delete Filesystem Monitor	Stops monitoring the storage services attached to the specified filesystem. See Add and Delete a Filesystem Monitor.
Reboot Host	Shuts down and restarts the host. See Reboot a Host.
Set Host Built-in Clock	Sets the local host clock. See Set Host Built-In Clock.
Set Host Hostname	This method of changing the hostname is deprecated in NetWitness Platform 10.6. To edit a hostname, see Edit or Delete a Service.
Set Network Time Source	Sets the clock source for this host. See Set Network Time Source.
Set Syslog Forwarding	Enables or disables syslog forwarding from a remote server to the selected service. See Set Syslog Forwarding.
Show Network Port Status	Shows the network interface information for a host. See Show Network Port Status.
Show Serial Number	Gets the host serial number. See Show Serial Number.
Shut Down Host	Shuts down the physical host and the host remains off. See Shut Down Host.
Start Service	Starts a service on this host. See Stop and Start a Service on a Host.
Stop Service	Stops a service on this host. See Stop and Start a Service on a Host.
setSNMP	Enables or disables the SNMP service on a host. See Set SNMP.

Service Configuration Settings

This topic introduces the available service configuration settings for RSA NetWitness Platform Core services.

NetWitness Platform Core services include Brokers, Concentrators, Network Decoders, Log Decoders, and Archivers. The service configuration parameters listed below constitute all viewable and configurable parameters. Some parameters are configurable in various parts of the NetWitness Platform user interface while other parameters are viewable or configurable only on the Services Explore view.

Aggregation Configuration Parameters

This table lists and describes the available configuration parameters that are common to services that perform aggregation, such as Concentrators and Archivers.

Configuration Path	/concentrator/config or /archiver/config
aggregate.autostart	Automatically restarts aggregation after a service restart, if enabled. Change takes effect immediately.
aggregate.buffer.size	Displays the size of the buffer (default unit is KB) used per round of aggregation. Larger buffers may improve aggregation performance but could impact query performance. Change takes effect after aggregation restart.
aggregate.crc	If enabled, all aggregation streams will be CRC validated. Change takes effect immediately.
aggregate.hours	Displays the maximum number of hours behind a service will be allowed to start aggregation. Change takes effect immediately.
aggregate.interval	Lists the minimum number of milliseconds before another round of aggregation is requested. Change takes effect immediately.
aggregate.meta.page.factor	Lists the allocated number meta pages per session used for aggregation. Change takes effect on service restart.
aggregate.meta.perpage	Lists the allocated number of meta stored on one page of data. Change takes effect on service restart.
aggregate.precache	Determines if the concentrator will precache the next round of aggregation for upstream services. Can improve aggregation performance but could impact query performance. Change takes effect immediately.
aggregate.sessions.max	Lists the number of sessions to aggregate on each round. Change takes effect after aggregation restart.
aggregate.sessions.perpage	Lists the number of sessions stored on one page of data. Change takes effect on service restart.

Configuration Path	/concentrator/config or /archiver/config
aggregate.time.window	Displays the maximum +/- time window, in seconds, that all services must be inside before another round of aggregation is requested. Zero turns off time window. Change takes effect immediately.
consume.mode	Determines if the concentrator can only aggregate locally or over a network, based on licensing restrictions. Change takes effect on service restart.
export.enabled	Allows export of session data, if enabled. Change takes effect on service restart.
export.expire.minutes	Lists the number of minutes before export cache files are expired and flushed. Change takes effect immediately.
export.format	Determines the file format used during data export. Change takes effect on service restart.
export.local.path	Displays the local location to cache exported data. Optional assigned max size (=#unit), units are: t for TB; g for GB, m for MB. Change takes effect on service restart.
export.meta.fields	Determines which meta fields are exported. Comma-separated list of fields. * means all fields. * and field list means all fields except the listed fields. Just the field list means only those fields are included. Change takes effect immediately.
export.remote.path	Displays the remote protocol (nfs://) and location to export data. Change takes effect on service restart.
export.rollup	Determines the rollup interval for export files. Change takes effect on service restart.
export.session.max	Displays the maximum sessions per exported file. For export file types that cache, this determines cached memory sizes. Zero is no limit. Change takes effect immediately.
export.size.max	Displays the maximum bytes per exported file. For export file types that cache, this determines cached memory sizes. Zero is no limit. Change takes effect immediately.
export.usage.max	Displays the maximum percentage of cache space used before stopping aggregation. Zero is no limit. Change takes effect immediately.
heartbeat.error	Lists the number of seconds to wait after a service error before attempting a service reconnect. Change takes effect immediately.
heartbeat.interval	Lists the number of milliseconds between heartbeat service checks. Change takes effect immediately.
heartbeat.next.attempt	Lists the number of seconds to wait before attempting a service reconnect. Change takes effect immediately.

Configuration Path	/concentrator/config or /archiver/config
heartbeat.no.response	Lists the number of seconds to wait before taking unresponsive service offline. Change takes effect immediately.

Appliance Service Configuration Parameters

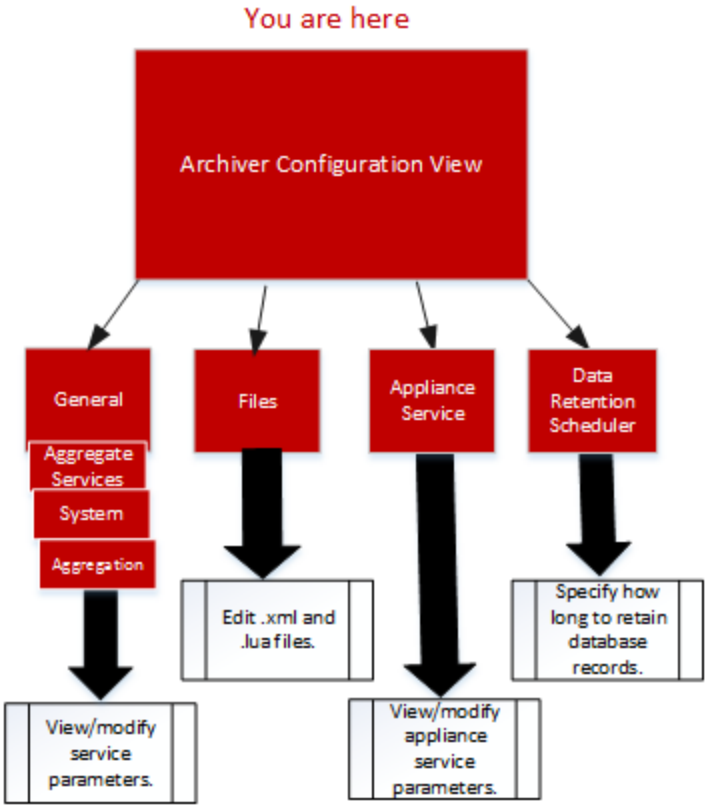
The NetWitness Platform Core Appliance service provides hardware monitoring on legacy NetWitness hardware. The list describes the Appliance Configuration parameters.

Appliance Parameter Field	Description
Logs	/logs/config refer to Core Service Logging Configuration Parameters
REST	/rest/config refer to REST Interface Configuration Parameters
Services	/services/<service name>/config refer to Core Service-to-Service Configuration Parameters
System	/sys/config refer to Core Service System Configuration Parameters

Archiver Service Configuration View

This topic lists and describes the available configuration settings for NetWitness Platform Archivers.

Workflow



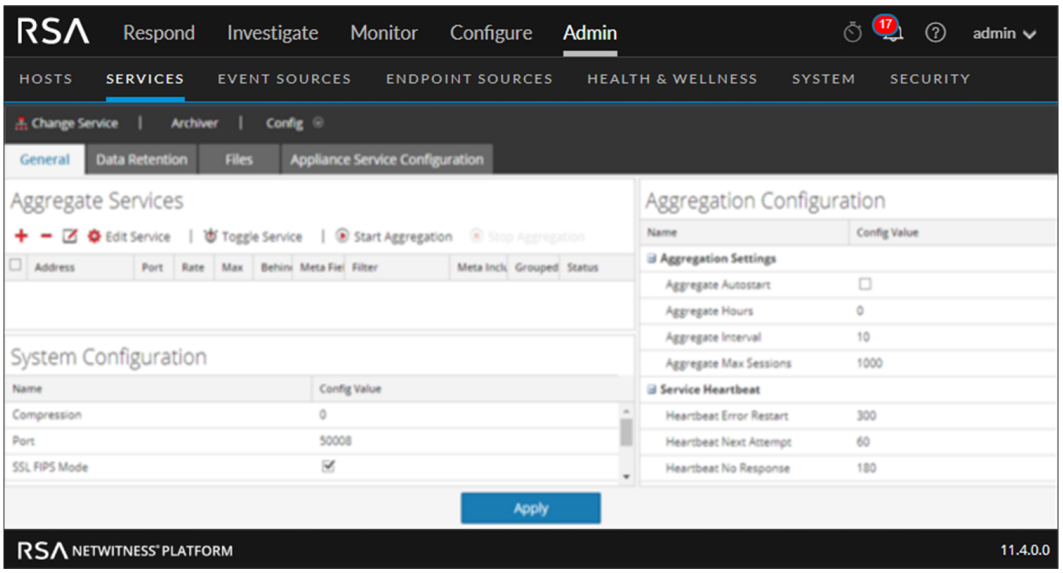
Role	I want to ...
Administrator	Configure Meta Filters for Aggregation. Refer to "(Optional) Configure Meta Filters for Aggregation" in the *RSA NetWitness Platform Archiver Configuration Guide* for instructions.
Administrator	Configure Group Aggregation. Refer to "Configure Group Aggregation" in the *RSA NetWitness Platform Deployment Guide* for instructions.

Quick Look

To access the Services Config view:

1. In **NetWitness Platform**, select **ADMIN > Services**.
   The Admin Services view is displayed.
2. Select an Archiver service and select  **>View > Config**.
   Services Config view for the Archiver service is displayed.

This is an example of the Services Config view for an Archiver.



Broker Service Configuration Parameters

The following list describes the Broker configuration parameters.

Broker Parameter Field	Description
Broker	`/broker/config` refer to Aggregation Configuration Parameters
`aggregate.interval.behind`	Minimum number of milliseconds before another round of aggregation is requested when the broker is behind. Change takes effect immediately.
Database	`/database/config` refer to "Database Configuration Nodes" in the *NetWitness Platform Core Services Database Tuning Guide*.
Index	`/index/config`
`index.dir`	The directory where the broker device mapping files are stored. Change takes effect on service restart.
`language.filename`	The index language specification (XML) that is loaded on startup. Change requires service restart.
Logs	`/logs/config` refer to Core Service Logging Configuration Parameters
REST	`/rest/config` refer to REST Interface Configuration Parameters
SDK	`/sdk/config` refer to "SDK Configuration Nodes" in the *NetWitness Platform Core Services Database Tuning Guide* and NetWitness Platform Core Service system.roles Modes
Services	`/services/<service name>/config` refer to Core Service-to-Service Configuration Parameters

Broker Parameter Field	Description
System	`/sys/config` refer to Core Service System Configuration Parameters

Concentrator Service Configuration Parameters

The following list describes the Concentrator configuration parameters .

Concentrator Parameter Field	Description
Concentrator	`/concentrator/config` refer to Aggregation Configuration Parameters
Database	`/database/config` refer to "Database Configuration Nodes" in the *NetWitness Platform Core Database Tuning Guide*.
Index	`/index/config` refer to "Index Configuration Nodes" in the *NetWitness Platform Core Database Tuning Guide*.
Logs	`/logs/config` refer to Core Service Logging Configuration Parameters
REST	`/rest/config` refer to REST Interface Configuration Parameters
SDK	`/sdk/config` refer to "SDK Configuration Nodes" in the *NetWitness Platform Core Database Tuning Guide*and NetWitness Platform Core Service system.roles Modes
Services	`/services/<service name>/config` refer to Core Service-to-Service Configuration Parameters
System	`/sys/config` refer to Core Service System Configuration Parameters

Core Service Logging Configuration Parameters

The following table describes the logging configuration parameters for all NetWitness Platform Core services. Logging configuration is the same for all Core services.

Logs Configuration Folder	/logs/config
`log.dir`	Displays the directory where the log database is stored. Optional assigned max size (=#) is in MBs. Change takes effect on service restart.
`log.levels`	Controls what types of log messages are stored (comma separated). Module specific settings are defined like this: `<Module>=[debug|info|audit|warning|failure|all|none]`. Change takes effect immediately.

Logs Configuration Folder	/logs/config
log.snmp.agent	Sets a remote SNMP Trap Receiving agent.
snmp.trap.version	Sets the SNMP version (2c or 3) to be used for gets and traps.
snmpv3.engine.boots	Displays the SNMPv3 engine boots count. This field auto-increments on startup and should not normally need to be set by the user.
snmpv3.engine.id	Sets the SNMPv3 engine ID, which is 10-64 hexadecimal digit number optionally preceded by 0x. You can add suffix values at the end of the engine ID for each of the SA Core services running on the same host. For example, if the generated Engine ID for the SA Core host is 0x1234512345, you can set the Engine ID for the Decoder service as 0x123451234501 and set 0x123451234504 for the Appliance service.
snmpv3.trap.auth.local.key	Sets the SNMPv3 Trap Authentication Local Key, which is a 16 or 20 hexadecimal digit number (depending on which authentication protocol is used) preceded by 0x. For MD5, the key is 16 hexadecimal digits, while SHA uses 20 hexadecimal digits. You can use any desired algorithm to generate the local keys. It is recommended that a generation method involving randomness be used as opposed to selecting key values manually.
snmpv3.trap.auth.protocol	Displays the SNMPv3 Trap Authentication Protocol (none, MD5 or SHA).
snmpv3.trap.priv.local.key	Sets the SNMPv3 Trap Privacy Local Key, which is a 16 hexadecimal digit number preceded by 0x.
snmpv3.trap.priv.protocol	Displays the SNMPv3 Trap Privacy Protocol (none or AES).
snmpv3.trap.security.level	Displays the SNMPv3 Trap Security Level, which indicates whether authentication and privacy are used or not. Possible values are noAuthNoPriv, authNoPriv, or authPriv.
snmpv3.trap.security.name	Sets the SNMPv3 Trap Security Name used during SNMPv3 trap authentication.
syslog.size.max	Displays the maximum size of a log sent to syslog (some syslog daemons have issues with very large messages). Zero means no limit. Change takes effect immediately.

Core Service-to-Service Configuration Parameters

This topic lists and describes the configuration parameters that control how a Core service connects to another Core service. For example, when a Concentrator connects to a Network Decoder, the connection parameters are controlled by these settings.

Whenever a Core service establishes a connection to another Core service, the service that acts as the **client** creates a new sub-folder in the `/services` folder of the configuration tree. The name of the sub-folder corresponds to the name of the service and has the form `host:port`. For example, the service connection folder for a Concentrator connection to a Network Decoder could be `/services/reston-va-decoder:50004`. Inside each service connection folder, there is a `config` sub-folder that holds configurable parameters.

The following list describes the Service Configuration parameters:

Services	/services/host:port/config
allow.nonssl.to.ssl	Allows a non-SSL connection to connect to a SSL service, when set to true. Otherwise, if `false`, non-secure to secure connections will be denied. Change takes effect immediately.
compression	Displays a config node that determines if data is compressed before sending. A positive value determines the number of bytes that need to be sent before it will be compressed. Zero means no compression.
crc.checksum	Displays a config node that determines if data streams are validated with a CRC checksum. A positive value determines the number of bytes that need to be sent before it will be CRC validated. Zero means no CRC validation.
ssl	Displays a config node that enables or disables SSL encryption on the connection.

Core Service System Configuration Parameters

The following list describes the System configuration parameters that are common to all NetWitness Platform Core services.

System Configuration Folder	/sys/config
compression	Displays the minimum amount of bytes before a message is compressed, when set to a positive value. Zero means no compression for any message. Change takes effect on subsequent connections.
crc.checksum	Displays the minimum bytes before a message is sent over the network with a CRC checksum (to be validated by the client), when set to a positive value. Zero means no CRC checksum validation with any message. Change takes effect on subsequent connections.
drives	Displays drives to monitor for usage stats. Change takes effect on service restart.
port	Displays the port this service will listen on. Change takes effect on service restart.
scheduler	Displays the folder for scheduled tasks.
service.name.override	Displays an optional service name used by upstream services for aggregation in lieu of hostname.

System Configuration Folder	/sys/config
ssl	Encrypts all traffic using SSL, if enabled. Change takes effect on service restart.
stat.compression	Compresses stats as they are written to the database, if enabled. Change takes effect on service restart.
stat.dir	Displays the directory where the historical stats database is stored (separate multiple dirs with semicolon). Optional assigned max size (=#unit), units are: t for TB; g for GB, m for MB. Change takes effect on service restart.
stat.exclude	Lists stat pathnames to be excluded from the stat database. The following wildcards are permitted: ? match any single character * match zero or more characters to delimiter / ** match zero or more characters including delimiter. Change takes effect immediately.
stat.interval	Determines how often (in milliseconds) statistic nodes are updated in the system. Change takes effect immediately.
threads	Lists the number of threads in the thread pool to handle incoming requests. Change takes effect immediately.

Decoder Configuration Parameters

The following list describes the configuration parameters that are identical on both Network Decoder and Log Decoder services.

Configuration Path	<service>/config
aggregate.buffer.size	Displays the size of the buffer (default unit is KB) used per round of aggregation. Larger buffers may improve aggregation performance but could impact capture performance. Change takes effect after capture restart.
aggregate.precache	Determines if the decoder will pre-cache the next round of aggregation for upstream services. Can improve aggregation performance but could impact capture performance. Change takes effect immediately.
assembler.pool.ratio	Displays the percentage of pool pages that assembler manages and uses for the assembly process. Change takes effect on service restart.
assembler.session.flush	Flushes sessions either when they are complete, or when they are parsed. Change takes effect on service restart.

Configuration Path	<service>/config
assembler.session.pool	Lists the number of entries in the session pool. Change takes effect on service restart.
assembler.size.max	Lists the maximum size that a session will obtain. A setting of 0 removes the session size limit. Change takes effect immediately.
assembler.size.min	Lists the minimum size that a session must be before persisting. Change takes effect immediately.
assembler.timeout.packet	Lists the number of seconds before packets are timed out. Change takes effect immediately.
assembler.timeout.session	Lists the number of seconds before sessions are timed out. Change takes effect immediately.
assembler.voting.weights	Displays the weights used to determine which session stream is marked client and server. Change takes effect immediately.
capture.autostart	Determines if capture begins automatically when the service starts. Change takes effect on service restart.
capture.buffer.size	Displays capture memory buffer allocation size (default unit is MB). Change takes effect on service restart.
capture.device.params	Displays capture service specific parameters. Change takes effect on service restart. The parameters understood by this field are specific to the currently selected capture device. If any of the parameters are not recognized by the current capture device, they are ignored. On Log Decoders, there is only the Log Events capture device. It accepts some optional parameters. • use-envision-time: If this is set to 1, the time metadata for each event will be imported from the Log Collector stream. If this is 0 or not set, the imported event time will be stored in the event.time meta. • port: This parameter can be set to a numeric value to override the default syslog port listener, 514.
capture.selected	Displays current capture service and interface. Change takes effect immediately.
export.expire.minutes	Lists the number of minutes before export cache files are expired and flushed. Change takes effect immediately.
export.packet.enabled	Allows export of packet data, if enabled. Change takes effect on service restart.
export.packet.local.path	Displays the local location to cache packet exported data. Optional assigned max size (=#unit), units are: t for TB; g for GB, m for MB. Change takes effect on service restart.

Configuration Path	<service>/config
export.packet.max	Displays the maximum packets per exported file. For export file types that cache this determines cached memory sizes. Zero is no limit. Change takes effect immediately.
export.packet.remote.path	Lists the remote protocol (nfs://) and location to export data. Change takes effect on service restart.
export.packet.size.max	Displays the packet maximum bytes per exported file. For export file types that cache this determines cached memory sizes. Zero is no limit. Change takes effect immediately.
export.rollup	Determines the rollup interval for export files. Change takes effect on service restart.
export.session.enabled	Allows export of session data, if enabled. Change takes effect on service restart.
export.session.format	Determines the file format used during session export. Change takes effect on service restart.
export.session.local.path	Displays the local location to cache session exported data. Optional assigned max size (=#unit), units are: t for TB; g for GB, m for MB. Change takes effect on service restart.
export.session.max	Displays the maximum sessions per exported file. For export file types that cache, this determines cached memory sizes. Zero is no limit. Change takes effect immediately.
export.session.meta.fields	Determines which meta fields are exported. Comma-separated list of fields. * means all fields. * plus field list means all fields BUT listed fields. Just field list means only those fields are included. Change takes effect immediately.
export.session.remote.path	Displays the remote protocol (nfs://) and location to export data. Change takes effect on service restart.
export.session.size.max	Lists the session maximum bytes per exported file. For export file types that cache, this determines cached memory sizes. Zero is no limit. Change takes effect immediately.
export.usage.max	Lists the session maximum bytes per exported file. For export file types that cache, this determines cached memory sizes. Zero is no limit. Change takes effect immediately.
parse.threads	Lists the number of parse threads to use for session parsing. Zero means let server decide. Change takes effect on service restart.
pool.packet.page.size	Displays the size of a packet page (default is KB). Change takes effect on service restart.

Configuration Path	<service>/config
pool.packet.pages	Lists the number of packet pages decoder will allocate and use. Change takes effect on service restart.
pool.session.page.size	Displays the size of a session page (default is KB). Change takes effect on service restart.
pool.session.pages	Lists the number of session pages decoder will allocate and use. Change takes effect on service restart.

Network Decoder Service Configuration Parameters

This topic lists and describes the available configuration parameters for NetWitness Platform Network Decoders.

Decoder Parameter Field	Description
Decoder	/decoder/config refer to Decoder Configuration Parameters.
Database	/database/config refer to "Database Configuration Nodes" in the *NetWitness Platform Core Database Tuning Guide*.
Index	/index/config refer to "Index Configuration Nodes" in the *NetWitness Platform Core Database Tuning Guide*.
Logs	/logs/config refer to Core Service Logging Configuration Parameters.
REST	/rest/config refer to REST Interface Configuration Parameters.
SDK	/sdk/config refer to "SDK Configuration Nodes" in the *NetWitness Platform Core Database Tuning Guide* and NetWitness Platform Core Service system.roles Modes.
System	/sys/config refer to Core Service System Configuration Parameters.

Log Decoder Service Configuration Parameters

This topic lists and describes the available configuration parameters for Log Decoder configuration settings.

Log Decoder Setting Field	Description
Database	`/database/config` refer to "Database Configuration Nodes" in the *NetWitness Platform Core Database Tuning Guide*.
Decoder	`/decoder/config` refer to Decoder Configuration Parameters.
Index	`/index/config` refer to "Index Configuration Nodes" in the *NetWitness Platform Core Database Tuning Guide*.
Logs	`/logs/config` refer to Core Service Logging Configuration Parameters.
REST	`/rest/config` refer to REST Interface Configuration Parameters.
SDK	`/sdk/config` refer to "SDK Configuration Nodes" in the *NetWitness Platform Core Database Tuning Guide*and NetWitness Platform Core Service system.roles Modes.
System	`/sys/config` refer to Core Service System Configuration Parameters.

Log Tokenizer Configuration Settings

The Log Decoder has a set of configuration items that control how the automatic log tokenizer creates meta items from unparsed logs. The log tokenizer is implemented as a set of built-in parsers that each scan for a subset of recognizable tokens. The functionality of each of these native parsers is shown in the table below. These word items form a full-text index when they are fed to the indexing engine on the Concentrator and Archiver. By manipulating the parsers.disabled configuration entry, you can control which Log Tokenizers are enabled.

Parser Name	Description	Configuration Parameters
Log Tokens	Scans for runs of consecutive characters to produce 'word' meta items.	`token.device.types`, `token.char.classes`, `token.max.length`, `token.min.length`, `token.unicode`
IPSCAN	Scans for text that appears to be an IPv4 address to produce `ip.addr` meta items.	`token.device.types`
IPV6SCAN	Scans for text that appears to be an IPv6 address to produce `ipv6` meta items.	`token.device.types`

Parser Name	Description	Configuration Parameters
URLSCAN	Scans for text that appears to be a URL to produce `alias.host`, `filename`, `username`, and `password` meta items.	`token.device.types`
DOMAINSCAN	Scans for text that appears to be a domain name to produce `alias.host`, `tld`, `cctld`, and `sld` meta items.	`token.device.types`
EMAILSCAN	Scans for text that appears to be an email address to produce `email` and `username` meta items.	`token.device.types`
SYSLOGTIMESTAMPSCAN	Scans for text that appears to be syslog-format timestamps. Syslog is missing the year and time zone. When such text is located, it is normalized into UTC time to create `event.time` meta items.	`token.device.types`
INTERNETTIMESTAMPSCAN	Scans for text that appears to be RFC 3339-format timestamps to create `event.time` meta items.	`token.device.types`

Log Tokenizer Configuration Parameters.

Log Decoder Parser Setting Field	Description
`token.device.types`	The set of device types that will be scanned for raw text tokens. By default, this is set to `unknown`, which means only logs that were not parsed will be scanned for raw text. You can add additional log types here to enrich parsed logs with text token information. If this field is empty, then log tokenization is disabled.
`token.char.classes`	This field controls the type of tokens that are generated. It can be any combination of the values `alpha`, `digit`, `space`, and `punct`. The default value is `alpha`. • `alpha`: Tokens may contain alphabetic characters • `digit`: Tokens may contain numbers • `space`: Tokens may contain spaces and tabs • `punct`: Tokens may contain punctuation marks

Log Decoder Parser Setting Field	Description
token.max.length	This field puts a limit on the length of the tokens. The default value is **5** characters. The maximum length setting allows the Log Decoder to limit the space needed to store the word metadata. Using longer tokens requires more meta database space, but may provide slightly faster raw text searches. Using shorter tokens causes the text query resolver to have to perform more reads from the raw logs during searches, but it has the effect of using much less space in the metadb and index.
token.min.length	This is the minimum length of a searchable text token. The minimum token length will correspond to the minimum number of characters a user may type into the search box in order to locate results. The recommended value is the default, **3**.
token.unicode	This boolean setting controls whether unicode classification rules are applied when classifying characters according to the token.char.classes setting. When this is set to true, each log is treated as a sequence of UTF-8 encoded code points and then classification is performed after the UTF-8 decoding is performed. When this is set to false, each log is treated as ASCII characters and only ASCII character classification is done. Unicode character classification requires more CPU resources on the Log Decoder. If you do not need non-English text indexing, you can disable this setting to reduce CPU utilization on the Log Decoder. The default is enabled.

REST Interface Configuration Parameters

The following list describes the available configuration parameters for the REST interface built in to all NetWitness Platform Core Services.

REST Configuration Path	/rest/config
cache.dir	Displays the host directory to use for temporarily creating and storing files. Change takes effect on service restart.
cache.size	Displays the total maximum size (default unit is MB) of all files in the cache directory before the oldest are deleted. Change takes effect on service restart.
enabled	Switches to enable or disable REST services, **1** is on, **0** is off. Change takes effect on service restart.
port	Displays the port the REST service will listen on. Change takes effect on service restart.
ssl	Encrypts all REST traffic using SSL, if enabled. The default system means use setting from /sys/config/ssl. Change takes effect on service restart.

NetWitness Platform Core Service system.roles Modes

All NetWitness Platform Core services offer role-based authorization modes. This topic describes the modes that are available, and how they are configured within every service.

The configuration node `/sdk/config/system.roles` sets querying and viewing permissions for metadata and content on a per key basis. This parameter supports the data privacy management function and when enabled using one of the non-zero values helps a data privacy officer to control access to specific meta keys and content. This parameter is configurable in the NetWitness Platform user interface (see "Data Privacy Tab" in the *Data Privacy Management Guide* for details). When the value is edited, change takes effect immediately.

Zero means that service permissions based on SDK meta keys are disabled.

- 0 - disabled

When one of the non-zero values is specified, the data privacy officer can select a meta key to whitelist or blacklist the display of the associated metadata, content, or both, for a specific user role on a service.

- 1 - whitelist meta and content filtered
- 2 - whitelist meta filtered
- 3 - whitelist content filtered
- 4 - blacklist meta and content filtered
- 5 - blacklist meta filtered
- 6 - blacklist content filtered

Troubleshooting Version Installations and Updates

This section describes the error messages displayed in the Hosts view when it encounters problems updating host versions and installing services on hosts in the Hosts view. If you cannot resolve an update or installation issue using the following troubleshooting solutions, contact Customer Support (https://community.rsa.com/docs/DOC-1294).

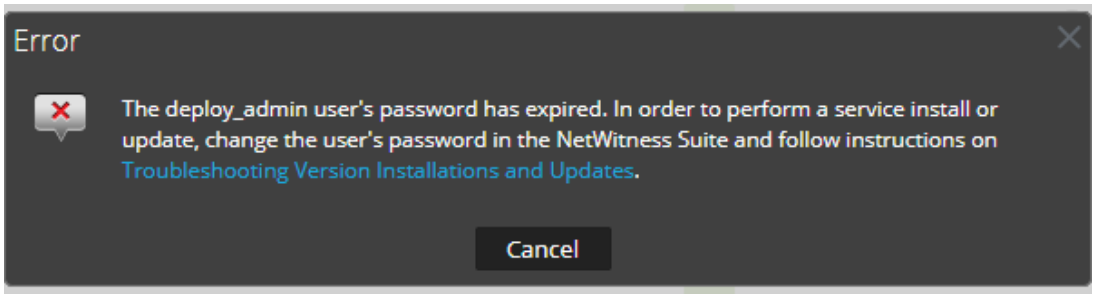
Troubleshooting instructions for the following errors that may occur during the upgrade are described in this section.

- deploy_admin Password Expired Error
- Downloading Error
- Error Deploying Version <version-number> Missing Update Packages
- External Repo Update Error
- Host Installation Failed Error
- Host Update Failed Error
- Missing Update Packages Error
- OpenSSL 1.1.x Error
- Patch Update to Non-NW Server Error
- Reboot Host After Update from Command Line Error
- Reporting Engine Restarts After Upgrade

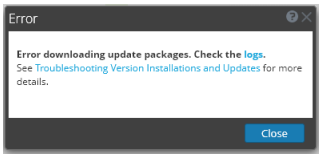
Troubleshooting instructions are also provided for errors for the following hosts and services that may occur during or after an upgrade.

- Log Collector Service
- NW Server
- Orchestration
- Reporting Engine

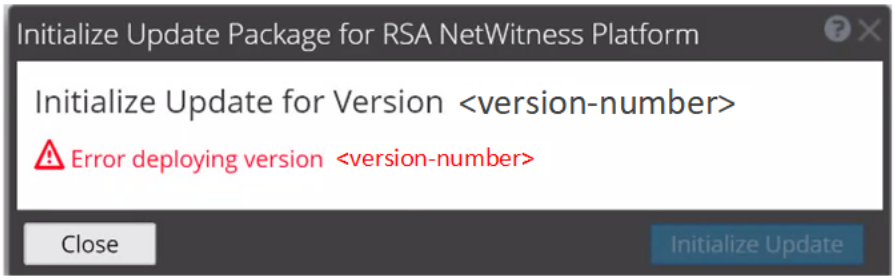
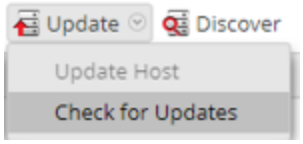
deploy_admin User Password Has Expired Error

Error Message	
Cause	The `deploy_admin` user password has expired.
Solution	Reset your `deploy_admin` password password. 1. On all component hosts (not including the NW Server host), run the following command. `/opt/rsa/saTools/bin/set-deploy-admin-password` 2. After all the component hosts have been updated, run this command on the NW Server host. `/opt/rsa/saTools/bin/set-deploy-admin-password` 3. On the host that failed installation or orchestration, run the `nwsetup-tui` command and use the new **deploy_admin** password in response to the **Deployment Password** prompt.

Downloading Error

Error Message	
Problem	When you select an update version and click **Update** >**Update Host**, the download starts but fails to complete.
Cause	Version download files can be large and take a long time to download. If there are communication issues during the download it will fail.
Solution	1. Try to update again. 2. If it fails again with the same error, try to update using the offline methods as described in "Offline Method from Hosts View" or "Offline Method Using Command Line Interface" in the *Upgrade Guide for NetWitness Platform 11.4*. Go to the Master Table of Contents to find all RSA NetWitness Platform 11.x documents. 3. If you are still not able to update, contact Customer Support (https://community.rsa.com/docs/DOC-1294).

Error Deploying Version <version-number> Missing Update Packages

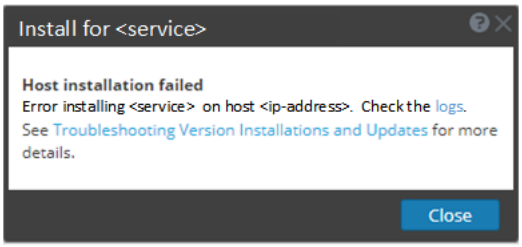
Error Message	
Problem	Error deploying version <version-number> is displayed in the **Initialize Update Package for RSA NetWitness Platform** dialog after you click on **Initialize Update** if the update package is corrupted.
Solution	1. Click **Close** to close the dialog. 2. Remove the version folder from staging folder. 3. Make sure that the salt-master service is running. 4. Recopy the update package zip file to the staging folder. 5. In the Hosts view toolbar, select Check for Updates again.  6. Click **Initialize Update**. 7. Click **Update** > **Update Hosts** from the toolbar. 8. Click **Begin Update** from the **Update Available** dialog. After the host is updated, it prompts you to reboot the host. 9. Click **Reboot** from the toolbar.

External Repo Update Error

Error Message	Received an error similar to the following error when trying to update to a new version from the : `.Repository 'nw-rsa-base': Error parsing config: Error parsing "baseurl = 'https://nw-node-zero/nwrpmrepo /<version-number>/RSA'": URL must be http, ftp, file or https not ""`
Cause	There is an error the path you specified.
Solution	Make sure that:

	• the URL does exist on the NW Server host. • you used the correct path and remove any spaces from it.

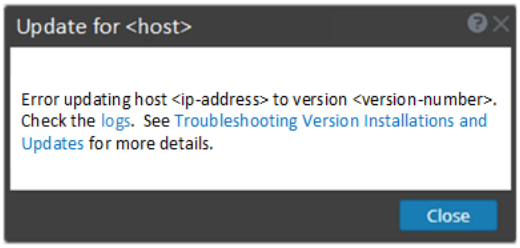
Host Installation Failed Error

Error Message	
Problem	When you select a host and click **Install** the install service process fails.

Solution	1. Try to install the service again.
	Often this is all you need to do.
	2. If you still cannot install the service:
	a. Monitor the following logs on NW Server as it progresses (for example, submit the `tail -f` command string from the command line'):
	`/var/netwitness/uax/logs/sa.log`
	`/var/log/netwitness/orchestration-server/orchestration-server.log`
	`/var/log/netwitness/deployment-upgrade/chef-solo.log`
	`/var/log/netwitness/config-management/chef-solo.log`
	`/var/lib/netwitness/config-management/cache/chef-stacktrace.out`
	The error appears in one or more of these logs.
	b. Try to resolve the issue and reinstall the service.
	• Cause 1 - Entered the wrong `deploy_admin` password in the nwsetup-tui.
	Solution - Reset your `deploy_admin` password password.
	1. On the NW Server host and all other hosts on 11.x, run the following command.
	`/opt/rsa/saTools/bin/set-deploy-admin-password`
	2. On the host that failed installation or orchestration, run the `nwsetup-tui` command and use the new **deploy_admin** password in response to the **Deployment Password** prompt.
	• Cause 2 -The `deploy_admin` password has expired.
	Solution - Reset your `deploy_admin` password password.
	1. On the NW Server host and all other hosts on 11.x, run the following command.
	`/opt/rsa/saTools/bin/set-deploy-admin-password`
	2. On the host that failed installation or orchestration, run the `nwsetup-tui` command and use the new **deploy_admin** password in response to the **Deployment Password** prompt.

	3. If you still cannot apply the update, gather the logs from step 2 and contact Customer Support (https://community.rsa.com/docs/DOC-1294).

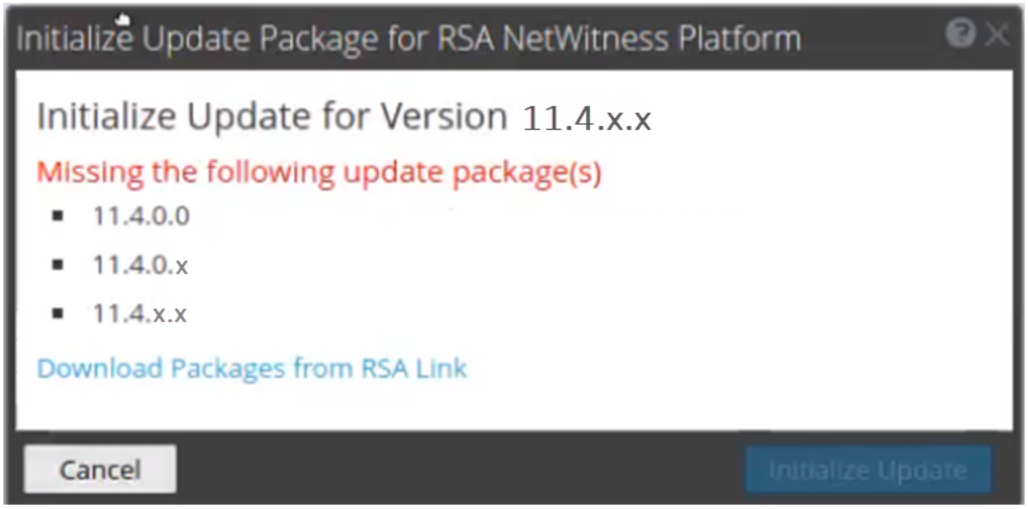
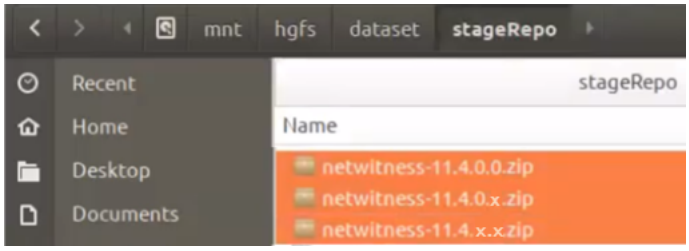
Host Update Failed Error

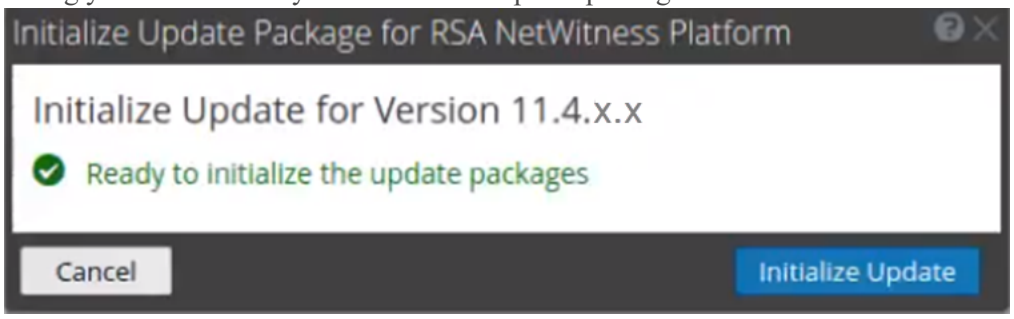
Error Message	
Problem	When you select an update version and click **Update** > **Update Host**, the download process is successful, but the update process fails.

Solution	1. Try to apply the version update to the host again.
	Often this is all you need to do.
	2. If you still cannot apply the new version update:
	a. Monitor the following logs on NW Server as it progresses (for example, run the `tail -f` command from the command line):
	`/var/netwitness/uax/logs/sa.log`
	`/var/log/netwitness/orchestration-server/orchestration-server.log`
	`/var/log/netwitness/deployment-upgrade/chef-solo.log`
	`/var/log/netwitness/config-management/chef-solo.log`
	`/var/lib/netwitness/config-management/cache/chef-stacktrace.out`
	The error appears in one or more of these logs.
	b. Try to resolve the issue and reapply the version update.
	• Cause 1 - `deploy_admin` password has expired.
	Solution - Reset your `deploy_admin` password .
	Complete the following steps to resolve Cause 1.
	1. In the NetWitness Suite menu, select **ADMIN** > **Security** > **Users** tab.
	2. Select the `deploy_admin` and click **Reset Password**.
	3. (Conitional) If NetWitness Suite does not allow you to expired `deploy_admin` password in the **Reset Password** dialog, complete the following steps.
	a. Reset `deploy_admin` to use a new password.
	b. On all non-NW Server hosts on 11.x , run the following command using

	the matching `deploy_admin` password from NW Server host. `/opt/rsa/saTools/bin/set-deploy-admin-password` • Cause 2 -The `deploy_admin` password was changed on NW Server host but not changed on non-NW Server hosts. Complete the following step to resolve Cause 2. ▪ On all non-NW Server hosts on 11.x , run the following command using the matching `deploy_admin` password from NW Server host. `/opt/rsa/saTools/bin/set-deploy-admin-password` 3. If you still cannot apply the update, gather the logs from step 2 and contact Customer Support (https://community.rsa.com/docs/DOC-1294).

Missing Update Packages Error

Error Message	
Problem	Missing the following update package(s) is displayed in the **Initialize Update Package for RSA NetWitness Platform** dialog when you are updating a host from the **Hosts** view offline and there are packages missing in the staging folder.
Solution	1. Click Download Packages from RSA Link in the **Initialize Update Package for RSA NetWitness Platform** dialog. The RSA Link page that contains the update files for the selected version is displayed. 2. Select missing packages from staging folder (for example, **11.4.0.0**, **11.4.0.x**, and **11.4.x.x**). 

	The **Initialize Update Package for RSA NetWitness Platform** dialog is displayed telling you that it is ready to initialize the update packages. 

OpenSSL 1.1.x

Error Message	The following example illustrates an ssh error that can occur when the ssh client is run from a host with OpenSSL 1.1.x installed: `$ ssh root@10.1.2.3` **`ssh_dispatch_run_fatal: Connection to 10.1.2.3 port 22: message authentication code incorrect`**

Problem	Advanced users who want to ssh to a NetWitness Platform host from a client that is using OpenSSL 1.1.x encounter this error because of incompatibility between CENTOS 7.x and OpenSSL 1.1.x. For example:
	`$ rpm -q openssl`
	`openssl-1.1.1-8.el8.x86_64`

Solution	Specify the compatible cipher list on the command line. For example:
	`$ ssh -oCiphers=aes128-ctr,aes192-ctr,aes256-ctr root@10.1.2.3`
	`I've read & consent to terms in IS user agreement.`
	`root@10.1.2.3's password:`
	`Last login: Mon Oct 21 19:03:23 2019`

Patch Update to Non-NW Server Error

Error Message	The `/var/log/netwitness/orchestration-server/orchestration-server.log` has an error similar to the following error: **`API|Failure /rsa/orchestration/task/update-config-management [counter=10 reason=IllegalArgumentException::Version '11.x.x.n' is not supported`**
Problem	After you update the NW Server host to a version, you must update all non-NW Server hosts to the same version. For example, if you update the NW Server from 11.4.0.0 to 11.4.x.x , the only update path for the non-NW Server hosts is the same version (that is, 11.4.x.x). If you try to update any non-NW Server host to a different version (for example, from 11.4.0.0 to an 11.4.0.x) you will get this error.
Solution	You have two options:

	• Update the non-NW Server host to 11.4.x.x, or • Do not update the non-NW Server host (keep it at its current version)

Reboot Host After Update from Command Line Error

Error Message	You receive a message in the User Interface to reboot the host after you update and reboot the host offline. 
Cause	You cannot use CLI to reboot the host. You must use the User Interface.
Solution	Reboot the host in the Host View in the User Interface.

Reporting Engine Restarts After Upgrade

Problem	In some cases, after you upgrade to 11.4 from versions of 11.x, such as 11.2 or 11.3, the Reporting Engine service attempts to restart continuously without success.
Cause	The database files for live charts, alert status, or report status may not be loaded successfully as the files may be corrupted.
Solution	To resolve the issue, do the following: 1. Check which database files are corrupted: Navigate to the file located at `/var/netwitness/reserver/rsa/soc/reporting-engine/logs/reporting-engine.log` and check the following blocks: • If the live charts db file is corrupted, the following logs are displayed: Attempt Failed!!! Clearing pending acquires. While trying to acquire a needed new resource, we failed to succeed more than the maximum number of allowed acquisition attempts (30). Last acquisition attempt exception: org.h2.jdbc.JdbcSQLException: File corrupted while reading record: null. Possible solution: use the recovery tool [90030-196] at org.h2.message.DbException.getJdbcSQLException(DbException.java:345) at org.h2.message.DbException.get(DbException.java:168) org.springframework.beans.factory.BeanCreationException: Error creating bean with name 'chartSummaryDAOImpl': Invocation of init method failed; nested exception is com.rsa.soc.re.exception.ReportingException: java.sql.SQLException: Connections could not be acquired from the underlying database! • If the alert status db file is corrupted, the following logs are displayed:

Attempt Failed!!! Clearing pending acquires. While trying to acquire a needed new resource, we failed to succeed more than the maximum number of allowed acquisition attempts (30). Last acquisition attempt exception:

org.h2.jdbc.JdbcSQLException: File corrupted while reading record: null. Possible solution: use the recovery tool [90030-196]

at org.h2.message.DbException.getJdbcSQLException(DbException.java:345)

at org.h2.message.DbException.get(DbException.java:168)

org.springframework.beans.factory.UnsatisfiedDependencyException: Error creating bean with name 'alertStatusHandler': Unsatisfied dependency expressed through field 'alertExecutionStatsDAO'; nested exception is org.springframework.beans.factory.UnsatisfiedDependencyException: Error creating bean with name 'alertExecutionStatsDAOImpl': Unsatisfied dependency expressed through field 'persistedAlertExecutionStatsDAO'; nested exception is org.springframework.beans.factory.BeanCreationException: Error creating bean with name 'persistedAlertExecutionStatsDAOImpl'

- If the report status db file is corrupted, the following logs are displayed:

  ```
  org.h2.jdbc.JdbcSQLException: File corrupted while reading record: null. Possible solution: use the recovery tool [90030-196]
  ```

2. To resolve the live charts database file corruption, perform the following steps:
   a. Stop the Reporting Engine service.
   b. Move the `livechart.mv.db` file from `/var/netwitness/reserver/rsa/soc/reporting-engine/livecharts` folder to a temporary location.
   c. Restart the Reporting Engine service.

   Note: Some live charts data may be lost on performing the above steps.

   To resolve the alert status or report status database file corruption, perform the following steps:

   a. Stop the Reporting Engine service.
   b. Replace the corrupted db file with the latest `alertstatusmanager.mv.db` or `reportstatusmanager.mv.db` file from `/var/netwitness/reserver/rsa/soc/reporting-engine/archives` folder.
   c. Restart the Reporting Engine service.

   For more information, see the Knowledge Base article Reporting Engine restarts After upgrade to RSA NetWitness Platform 11.4.

Log Collector Service (`nwlogcollector`)

Log Collector logs are posted to `/var/log/install/nwlogcollector_install.log` on the host running the `nwlogcollector` service.

Error Message	`<timestamp>.NwLogCollector_PostInstall: Lockbox Status : Failed to open lockbox: The lockbox stable value threshold was not met because`

	`the system fingerprint has changed. To reset the system fingerprint, open the lockbox using the passphrase.`
Cause	The Log Collector Lockbox failed to open after the update.
Solution	Log in to NetWitness Platform and reset the system fingerprint by resetting the stable system value password for the Lockbox as described in the "Reset the Stable System Value" topic under "Configure Lockbox Security Settings" topic in the *Log Collection Configuration Guide*.

Error Message	`<timestamp> NwLogCollector_PostInstall: Lockbox Status : Not Found`
Cause	The Log Collector Lockbox is not configured after the update.
Solution	If you use a Log Collector Lockbox, log in to NetWitness Platform and configure the Lockbox as described in the "Configure Lockbox Security Settings" topic in the *Log Collection Configuration Guide*.

Error Message	`<timestamp>: NwLogCollector_PostInstall: Lockbox Status : Lockbox maintenance required: The lockbox stable value threshold requires resetting. To reset the system fingerprint, select Reset Stable System Value on the settings page of the Log Collector.`
Cause	You need to reset the stable value threshold field for the Log Collector Lockbox.
Solution	Log in to NetWitness Platform and reset the stable system value password for the Lockbox as described in "Reset the Stable System Value" topic under "Configure Lockbox Security Settings" topic in the *Log Collection Configuration Guide*.

NW Server

These logs are posted to `/var/netwitness/uax/logs/sa.log` on the NW Server Host.

Problem	After upgrade, you notice that Audit logs are not getting forwarded to the configured Global Audit Setup; or, The following message seen in the `sa.log`. `Syslog Configuration migration failed. Restart jetty service to fix this issue`
Cause	NW Server Global Audit setup migration failed to migrate from 11.2.x.x or 11.3.x.x. to 11.4.0.0.
Solution	1. SSH to the NW Server. 2. Submit the following command. `orchestration-cli-client --update-admin-node`

Orchestration

The orchestration server logs are posted to `/var/log/netwitness/orchestration-server/orchestration-server.log` on the NW Server Host.

Problem	1. Tried to upgrade a non-NW Server host and it failed. 2. Retried the upgrade for this host and it failed again. You will see the following message in the `orchestration-server.log`. `"'file' _virtual_ returned False: cannot import name HASHES""`
Cause	Salt minion may have been upgraded and never restarted on failed non-NW Server host

Solution	1. SSH to the non-NW Server host that failed to upgrade.
	2. Submit the following commands.
	`systemctl unmask salt-minion`
	`systemctl restart salt-minion`
	3. Retry the upgrade of the non-NW Server host.

Reporting Engine Service

Reporting Engine Update logs are posted to to`/var/log/re_install.log` file on the host running the Reporting Engine service.

Error Message	`<timestamp> : Available free space in /var/netwitness/re-server/rsa/soc/reporting-engine [ ><existing-GB ] is less than the required space [ <required-GB> ]`
Cause	Update of the Reporting Engine failed because you do not have enough disk space.
Solution	Free up the disk space to accommodate the required space shown in the log message. See the "Add Additional Space for Large Reports" topic in the *Reporting Engine Configuration Guide* for instructions on how to free up disk space.