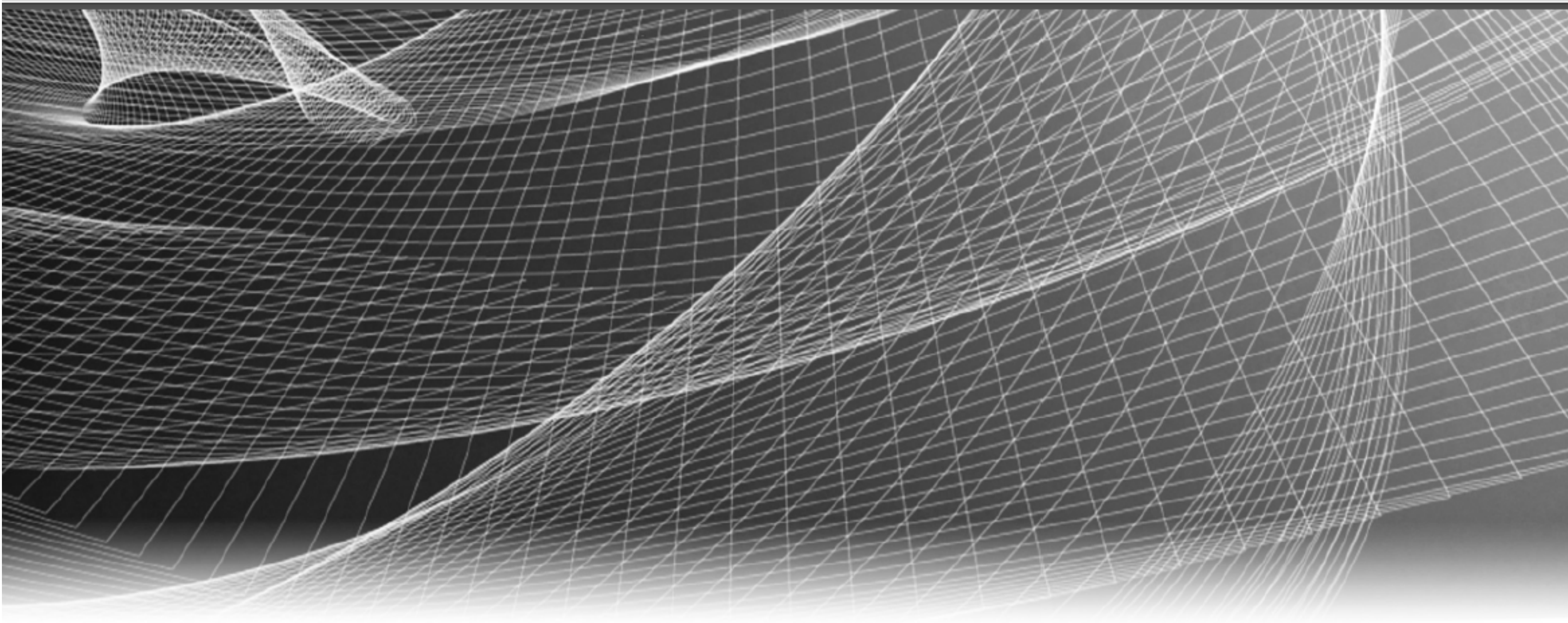

RSA Security Analytics

System Configuration Guide

for Version 10.6.5

Contact Information

RSA Link at https://community.rsa.com contains a knowledgebase that answers common questions and provides solutions to known problems, product documentation, community discussions, and case management.

Trademarks

License Agreement

Third-Party Licenses

Note on Encryption Technologies

This product may contain encryption technology. Many countries prohibit or restrict the use, import, or export of encryption technologies, and current use, import, and export regulations should be followed when using, importing or exporting this product.

Distribution

EMC believes the information in this publication is accurate as of its publication date. The information is subject to change without notice.

November 2017

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System Configuration Overview

In the Administration System view, administrators can configure system settings to receive optimal performance from Security Analytics. Configuration options include the following:

- Global notifications
- Email notifications
- Global audit logging
- Log settings
- Connection to RSA Security Analytics Live
- URL integration
- Advanced performance settings.

In this guide, the standard procedures provide instructions for administrators who want to customize settings that apply across the system in Security Analytics. Although some of these settings have default values, the administrator needs to view and evaluate all default values.

Additional procedures are not essential for the set up of Security Analytics, they include certain customization options that are beyond the usual setup; for example, adding custom context menus or setting up a proxy.

In addition, reference topics and troubleshooting topics supply detailed information about the user interface and suggestions for resolving possible issues.

Standard Procedures

The topics in this section provide instructions for administrators who want to customize settings that apply across the system in Security Analytics. Although some of these settings have default values, the administrator needs to view and evaluate all default values. The procedures can be performed in any sequence and are listed alphabetically.

Access System Settings

Configure Notification Servers

Configure Notification Outputs

Configure Templates for Notifications

Configure the Email Settings as Notification Server

Configure Email Server and Notification Account

Configure Global Audit Logging

Configure Investigation Settings

Configure Live Services Settings

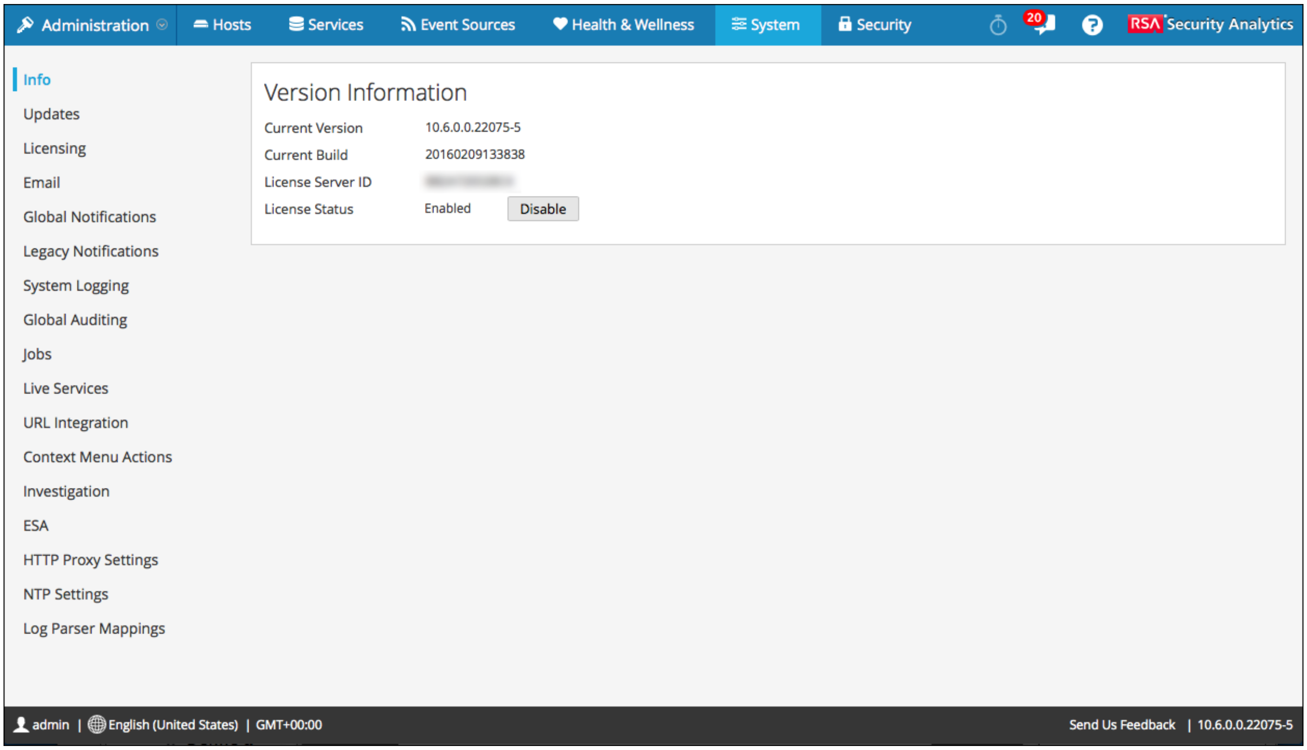
Configure Log File Settings

Access System Settings

This topic introduces system configuration capabilities of Security Analytics in the Administration System view. Administrators can configure notifications, email notifications, global audit logging, logging settings, connection to RSA Security Analytics Live, URL integration, and advanced performance settings in Security Analytics.

To access the system settings:

In the Security Analytics menu, select **Administration > System**.
The Administration System view is displayed.



Version Information

Current Version	10.6.0.0.22075-5
Current Build	20160209133838
License Server ID	[redacted]
License Status	Enabled

On the left panel of the Administration System view is an options panel listing all system nodes available for configuration. When you select a node, the associated content is displayed in the right panel.

Configure Notification Servers

This topic provides instructions on how to configure notification servers. For ESA, notification servers are required to define an ESA rule. A notification server is also required to configure global audit logging.

Global Notifications configurations define notifications settings for Event Source Management (ESM), Health and Wellness, Global Audit Logging, Event Stream Analysis (ESA), and Incident Management. Notification Servers define the servers from which you want to receive notifications from the system. For Global Audit Logging, define Log Decoders as Syslog Notification Servers.

You can define, delete, edit, import, and export a notification server in Security Analytics. Individual topics describe the relevant procedures. For more information on ESA alert configuration, see "Notification Methods" in the **Alerting Using ESA Guide**. You delete, edit, import, and export notification outputs and notification servers in the same way as templates. You cannot disable or delete notification servers associated with global audit logging configurations.

Notification Servers Overview

This topic provides an overview of notification servers. You configure notification servers in the Administration System view (Administration > System > Notifications > Servers tab).

Global Notifications are used by a variety of components in Security Analytics, such as Event Stream Analysis (ESA), Incident Management, Health and Wellness, Event Source Management (ESM), and Global Audit Logging. Notification settings are called **Notification Servers**.

Event Stream Analysis sends notifications to users through email, SNMP, or Syslog about various system events. In ESA, these alert notification settings are called Notification Servers. You can configure multiple notification servers and use them while defining an ESA rule, for example, you can configure multiple mail servers or Syslog servers and use the settings while defining an ESA rule.

You can configure the following notification servers:

- Email
- SNMP
- Syslog
- Script

Email notification servers enable you to configure email server settings to send alert notifications. SNMP notification servers enable you to configure SNMP trap host settings as a notification server to send alert notifications.

Syslog notification servers enable you to configure Syslog settings as a notification server to send notifications. When enabled, Syslog provides auditing through the use of the RFC 5424 Syslog protocol. Syslog has proven to be an effective format to consolidate logs, as there are many open source and proprietary tools for reporting and analysis. For Global Audit Logging, you can only use Syslog Notification Servers.

Script notification servers enable you to configure Script as a notification server.

For detailed information on the different notification server configurations, including parameters and descriptions, seeDefine Notification Server Dialogs.

Configure the Email Settings as Notification Server

This topic provides instructions to configure email server settings as a notification server to send alert notifications.

Prerequisites

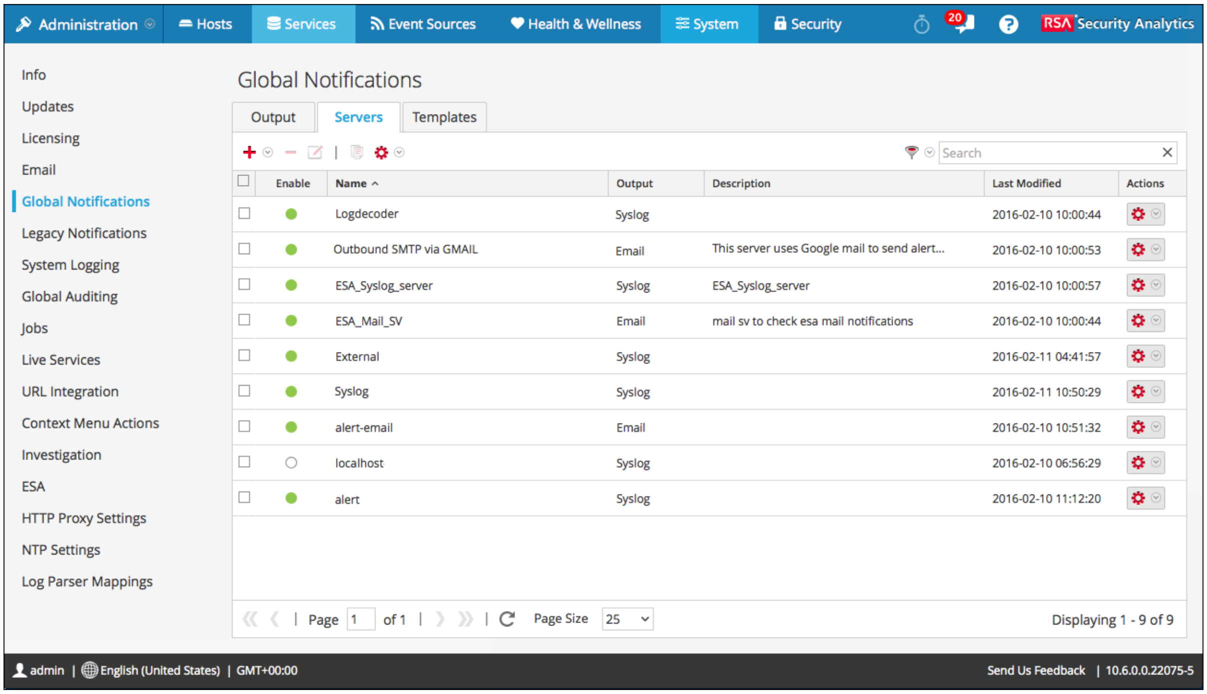
Make sure that you have the email server settings that you would like to use as a notification server.

Procedure

To configure the email setting as notification server:

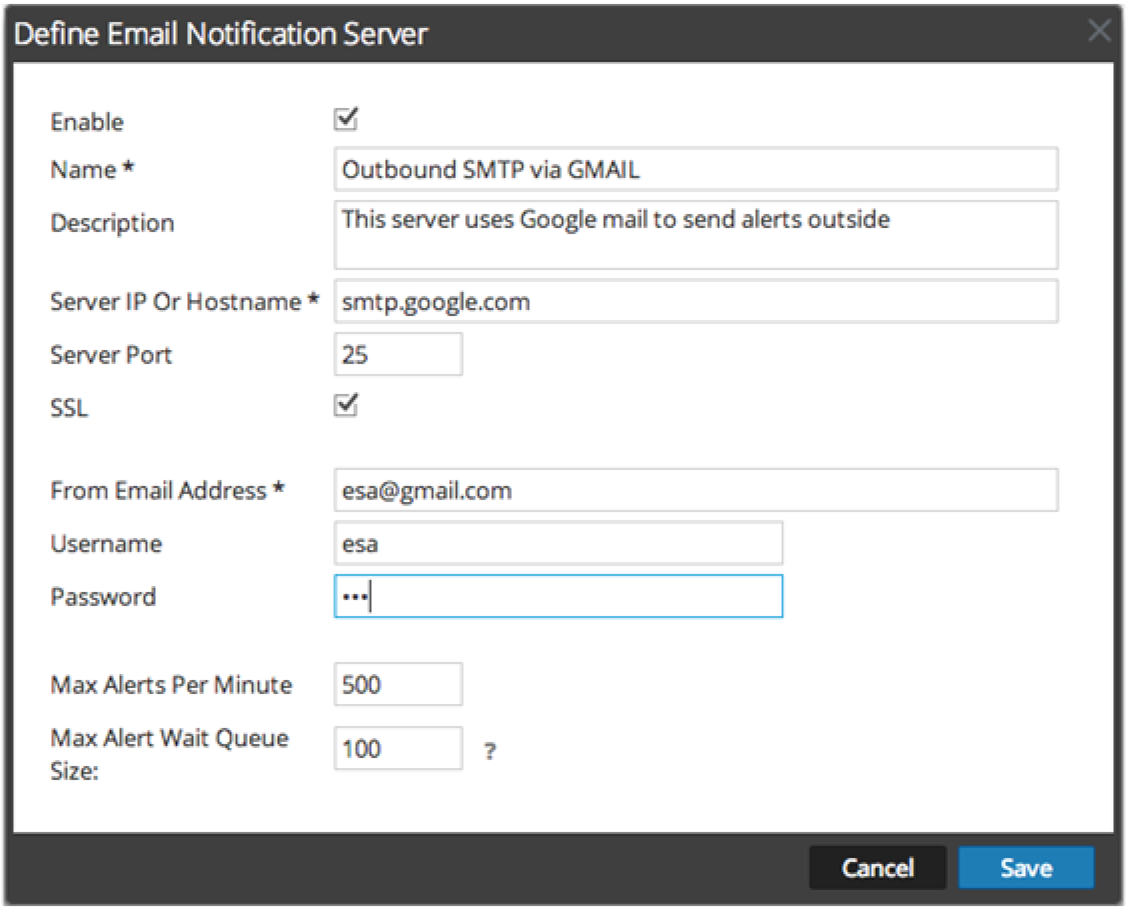
1. In the **Security Analytics** menu, select **Administration** > **System**.
2. In the options panel, select **Global Notifications**.

   The **Notifications** configuration panel is displayed with the **Output** tab open.
3. Click the **Servers** tab.



□	Enable	Name	Output	Description	Last Modified	Actions
□	●	Logdecoder	Syslog		2016-02-10 10:00:44	
□	●	Outbound SMTP via GMAIL	Email	This server uses Google mail to send alert...	2016-02-10 10:00:53	
□	●	ESA_Syslog_server	Syslog	ESA_Syslog_server	2016-02-10 10:00:57	
□	●	ESA_Mail_SV	Email	mail sv to check esa mail notifications	2016-02-10 10:00:44	
□	●	External	Syslog		2016-02-11 04:41:57	
□	●	Syslog	Syslog		2016-02-11 10:50:29	
□	●	alert-email	Email		2016-02-10 10:51:32	
□	○	localhost	Syslog		2016-02-10 06:56:29	
□	●	alert	Syslog		2016-02-10 11:12:20	

4. From the + ⌄ drop-down menu, select **Email**.



Enable	☑
Name *	Outbound SMTP via GMAIL
Description	This server uses Google mail to send alerts outside
Server IP Or Hostname *	smtp.google.com
Server Port	25
SSL	☑
From Email Address *	esa@gmail.com
Username	esa
Password	•••
Max Alerts Per Minute	500
Max Alert Wait Queue Size:	100 ?

5. In the **Define Email Notification Server** dialog, provide the required information and click **Save**.

> **Note:** For ESM/SMS and ESA notifications, you must specify only the hostname/FQDN in the Server IP or Hostname field.

For details of the parameters and descriptions, seeDefine Notification Server Dialogs .

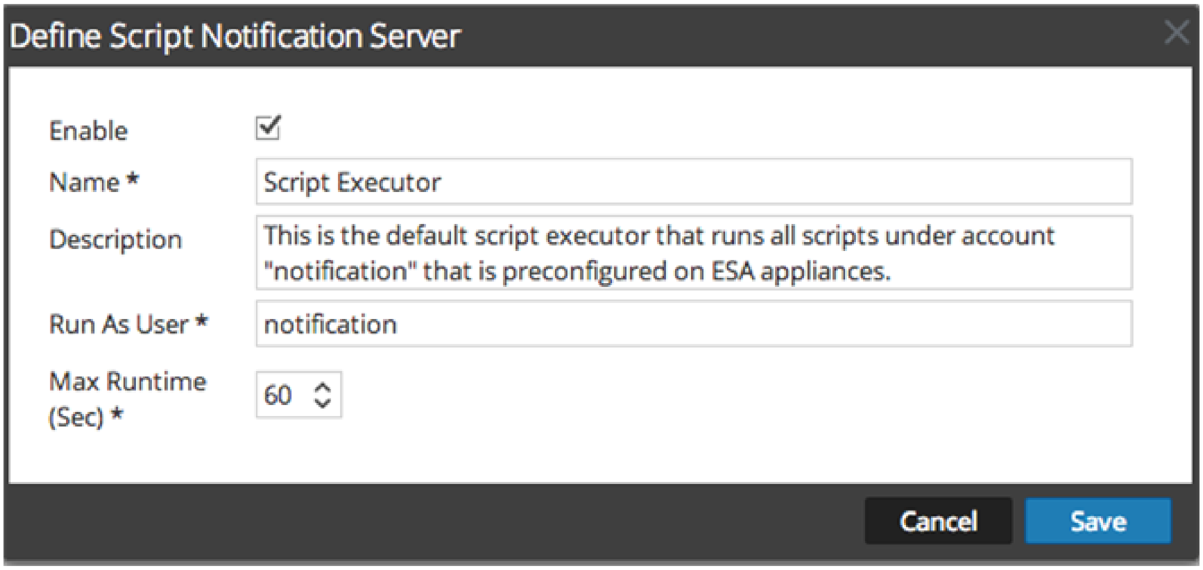
Configure Script as a Notification Server

This topic provides instructions to configure Script as a Notification Server. ESA allows you to run scripts in response to ESA alerts. You need to first configure the user identity and other details that is required to execute the script.

Procedure

To configure Script as a notification server:

1. In the **Security Analytics** menu, select **Administration** > **System**.
2. In the options panel, select **Global Notifications**.
3. Click the **Servers** tab.
4. From the + ⌄ drop-down menu, select **Script**.



Define Script Notification Server

Enable ☑

Name * Script Executor

Description This is the default script executor that runs all scripts under account "notification" that is preconfigured on ESA appliances.

Run As User * notification

Max Runtime (Sec) * 60

5. In the **Define Script Notification Server** dialog, provide the required information and click **Save**.

For details of the parameters and descriptions, seeDefine Notification Server Dialogs.

Configure the SNMP Settings as Notification Server

This topic provides instructions to configure the SNMP trap host settings as a notification server to send alert notifications.

Prerequisites

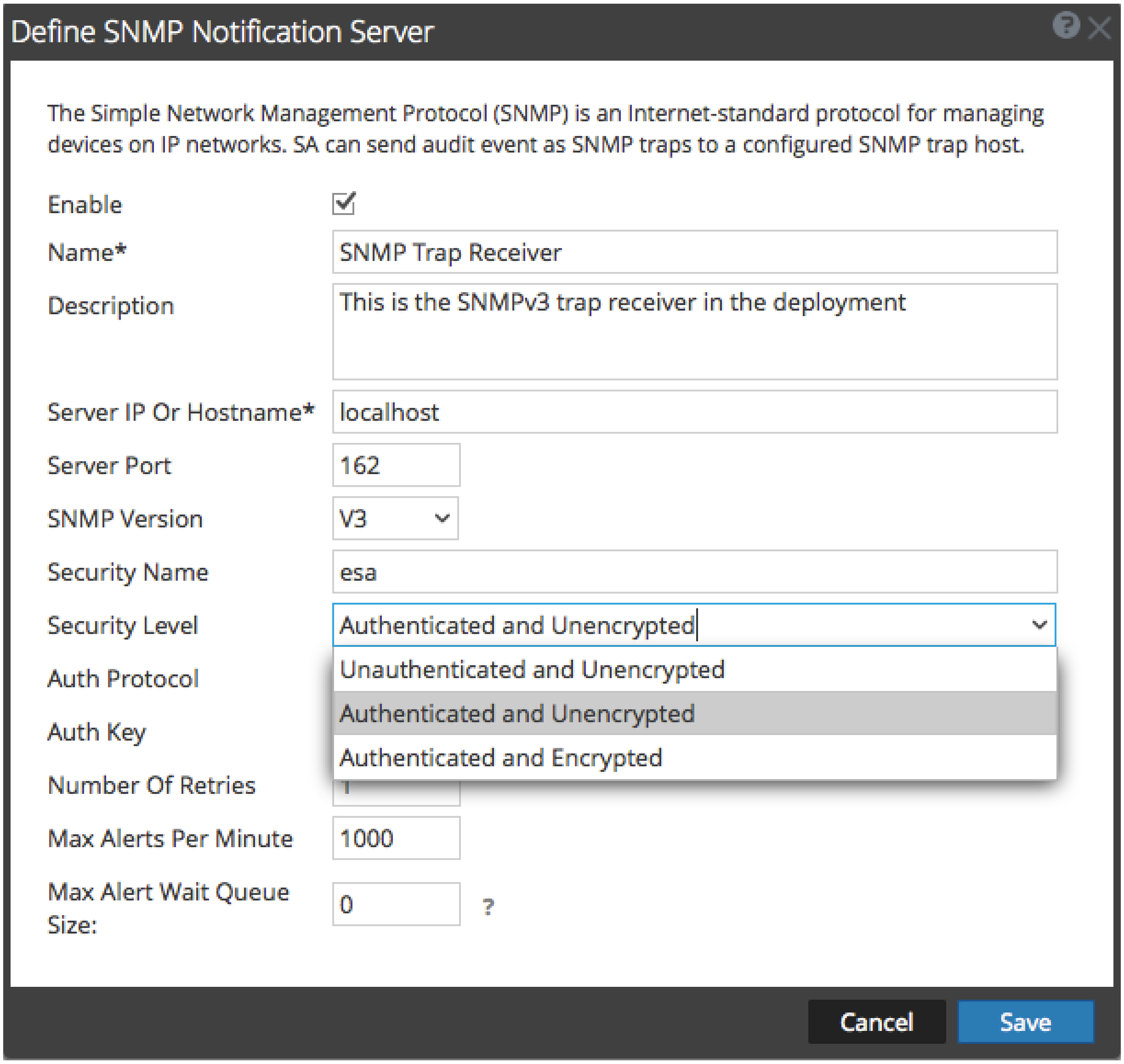
Make sure that you have the SNMP trap host settings that you would like to use as a notification server.

Procedure

To configure the SNMP trap host settings as notification server:

1. In the **Security Analytics** menu, select **Administration > System**.
2. In the options panel, select **Global Notifications**.
3. Click the **Servers** tab.

4. From the + drop-down menu, select **SNMP**.



Define SNMP Notification Server

The Simple Network Management Protocol (SNMP) is an Internet-standard protocol for managing devices on IP networks. SA can send audit event as SNMP traps to a configured SNMP trap host.

Enable	☑
Name*	SNMP Trap Receiver
Description	This is the SNMPv3 trap receiver in the deployment
Server IP Or Hostname*	localhost
Server Port	162
SNMP Version	V3
Security Name	esa
Security Level	Authenticated and Unencrypted
Auth Protocol	
Auth Key	
Number Of Retries	1
Max Alerts Per Minute	1000
Max Alert Wait Queue Size:	0

Unauthenticated and Unencrypted
Authenticated and Unencrypted
Authenticated and Encrypted
?
Cancel
Save

5. In the **Define SNMP Notification Server** dialog, provide the required information and click **Save**.

For details of the parameters and descriptions, see Define Notification Server Dialogs.

Configure a Syslog Notification Server

This topic provides instructions on how to configure a Syslog notification server. When enabled, Syslog provides auditing through the use of the RFC 5424 Syslog protocol. Syslog has proven to be an effective format to consolidate logs, as there are many open source and proprietary tools for reporting and analysis.

Prerequisites

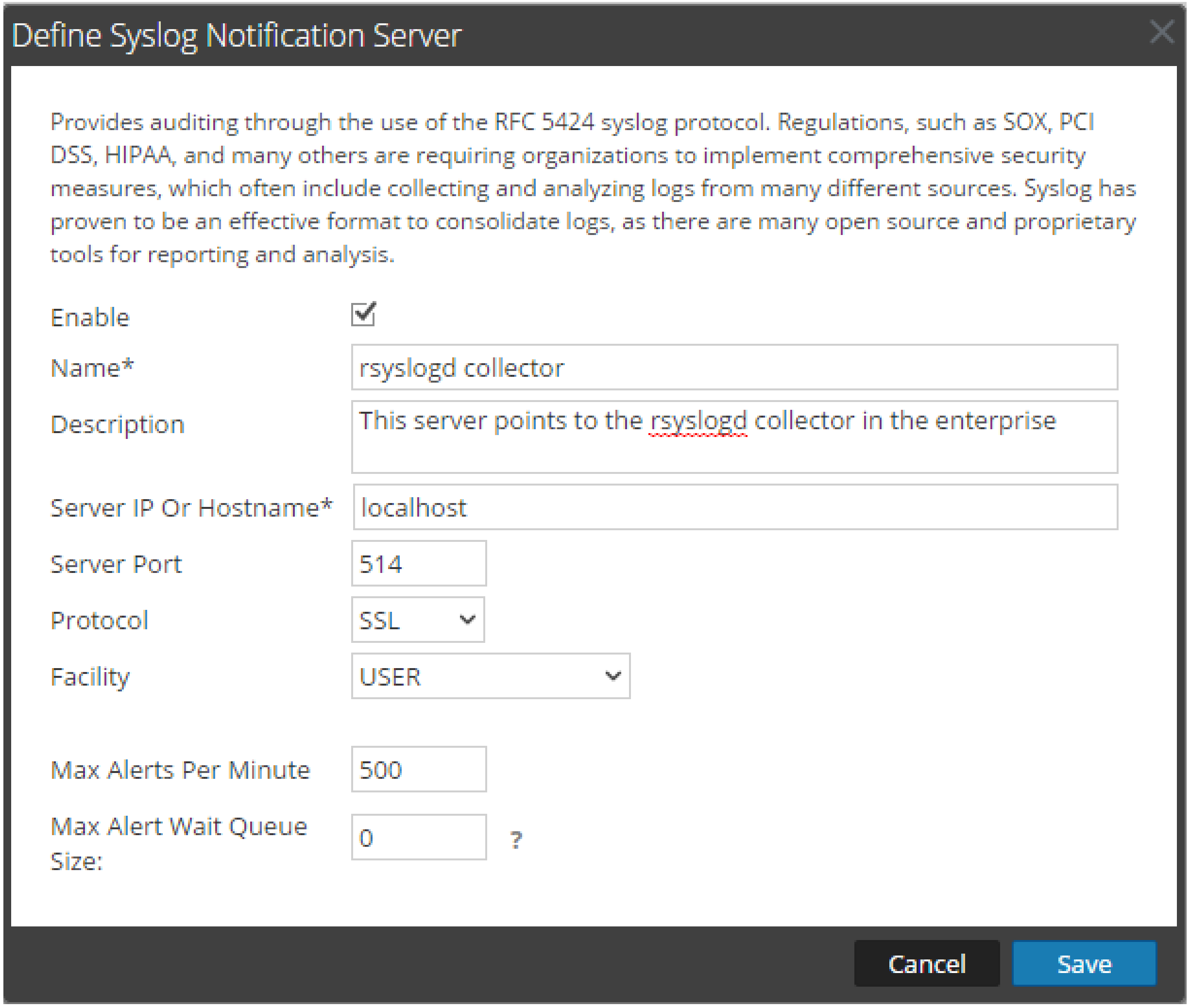
Make sure that you have the Syslog settings that you would like to use as notification server.

Procedure

To configure Syslog as a notification server:

1. In the **Security Analytics** menu, select **Administration > System**.
2. In the options panel, select **Global Notifications**.
3. Click the **Servers** tab.

4. From the + ⌄ drop-down menu, select **Syslog**.



Define Syslog Notification Server

Provides auditing through the use of the RFC 5424 syslog protocol. Regulations, such as SOX, PCI DSS, HIPAA, and many others are requiring organizations to implement comprehensive security measures, which often include collecting and analyzing logs from many different sources. Syslog has proven to be an effective format to consolidate logs, as there are many open source and proprietary tools for reporting and analysis.

Enable	☑
Name*	rsyslogd collector
Description	This server points to the rsyslogd collector in the enterprise
Server IP Or Hostname*	localhost
Server Port	514
Protocol	SSL
Facility	USER
Max Alerts Per Minute	500
Max Alert Wait Queue Size:	0

5. In the **Define Syslog Notification Server** dialog, provide the required information and click **Save**.

For details of the parameters and descriptions, see Define Notification Server Dialogs.

Configure Notification Outputs

This topic provides instructions on how configure notification outputs. These notification outputs are required to define an ESA rule.

Global Notifications configurations define notifications settings for Event Source Management (ESM), Health and Wellness, Global Audit Logging, Event Stream Analysis (ESA), and Incident Management.

You do not need to configure the Output tab for Global Audit Logging.

Notification Output configurations define email addresses and subject lines, SNMP trap OID settings, syslog output settings, and script code.

You can define, delete, edit, import, and export notification outputs in Security Analytics. Individual topics describe the relevant procedures. For more information on ESA alert configuration, see "Notification Methods." You delete, edit, import, and export notification outputs and notification servers in the same way as templates. If you attempt to delete a notification output being used by alerts, you will receive a warning confirmation message that the alerts using the notification will not function properly. The message shows the number of alerts in use.

Notification Outputs Overview

This topic provides an overview of notification outputs. These notification outputs are required when defining an ESA rule. You configure notification outputs in the Administration System view (Administration > System > Notifications > Outputs tab).

Global Notifications configurations define notifications settings for Event Source Management (ESM), Health and Wellness, Global Audit Logging, Event Stream Analysis (ESA), and Incident Management.

You do not need to configure notification outputs (the Output tab) for Global Audit Logging.

Notification outputs are the destinations used for sending notifications. For ESA, notification outputs enable you to define how you want to receive the ESA alerts. The following are the different notification outputs supported by Security Analytics:

- Email
- SNMP
- Syslog
- Script

Email notification settings define the destination email address to which you can send the alerts. You can also add a custom description in the subject of the email and define multiple destination email addresses.

SNMP notification settings enable you to define the SNMP settings to send alert notifications. Syslog notifications enable you to define the Syslog settings used to send alert notifications. Script notifications enable you to define the Script that executes in response to the alert.

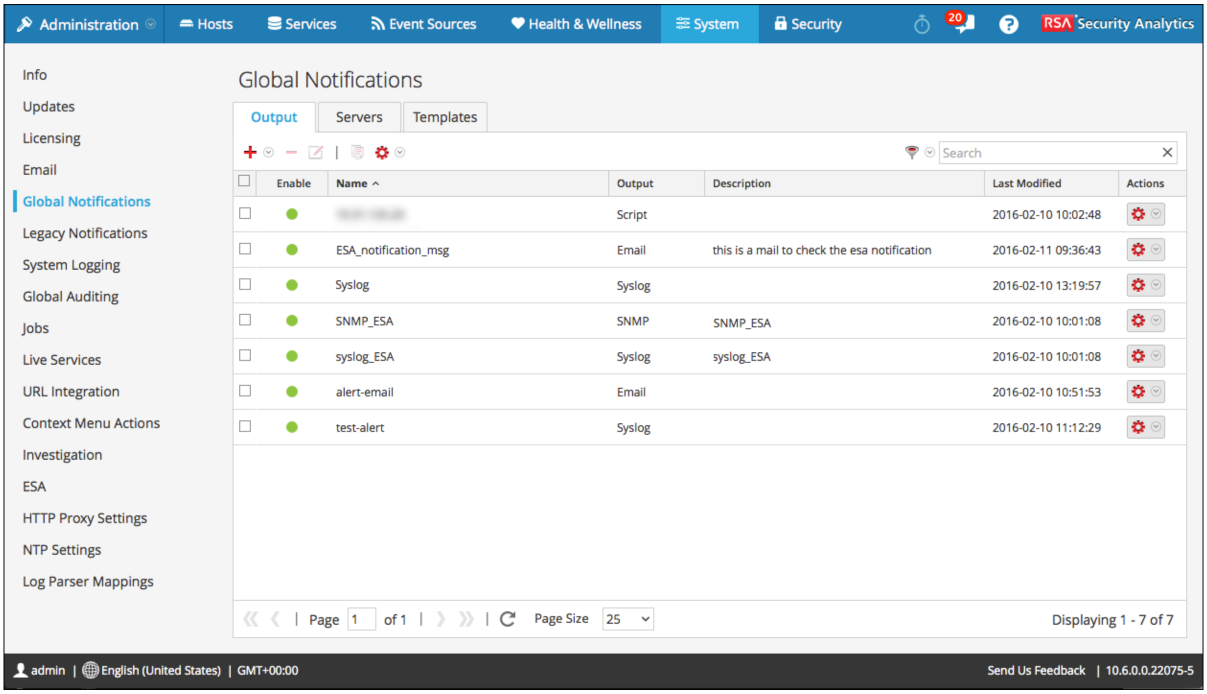
For detailed information on the notification configurations, including parameters and descriptions, see Define Notification Server Dialogs.

Configure Email as a Notification

This topic provides instructions to configure Email as a notification to send alert notifications.

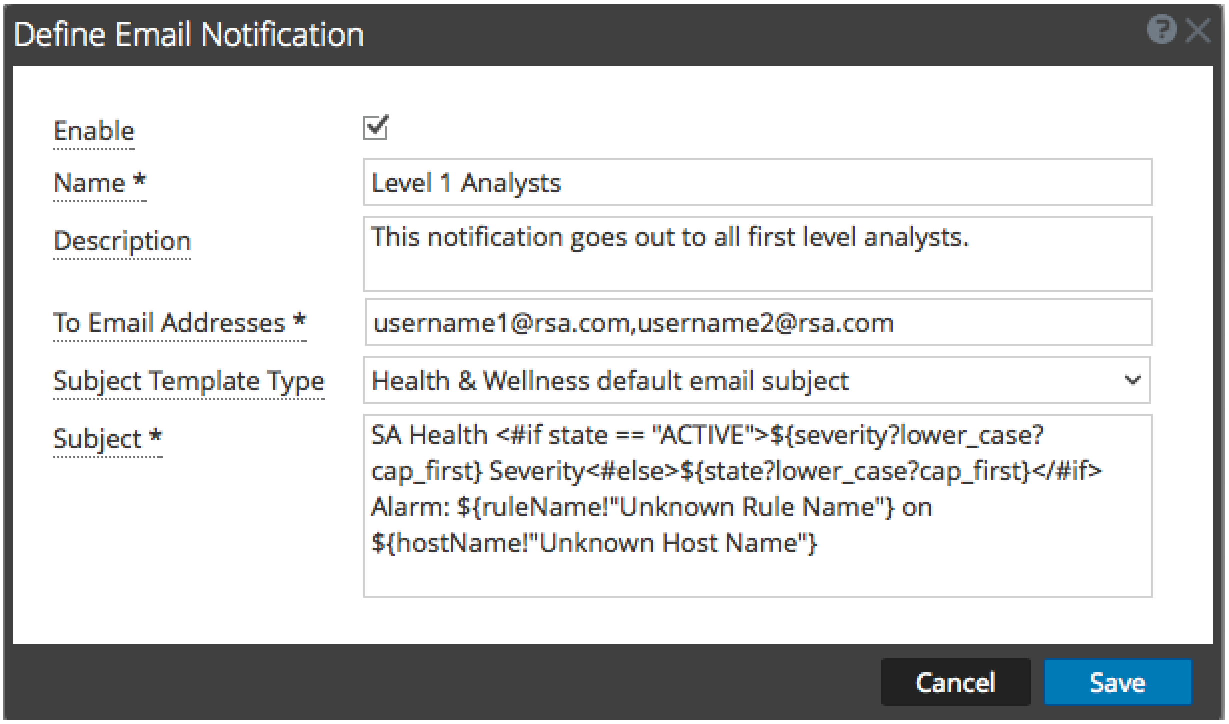
To configure Email as a notification:

1. In the **Security Analytics** menu, select **Administration > System**.
2. In the options panel, select **Global Notifications**.



□	Enable	Name	Output	Description	Last Modified	Actions
□	●	[redacted]	Script		2016-02-10 10:02:48	
□	●	ESA_notification_msg	Email	this is a mail to check the esa notification	2016-02-11 09:36:43	
□	●	Syslog	Syslog		2016-02-10 13:19:57	
□	●	SNMP_ESA	SNMP	SNMP_ESA	2016-02-10 10:01:08	
□	●	syslog_ESA	Syslog	syslog_ESA	2016-02-10 10:01:08	
□	●	alert-email	Email		2016-02-10 10:51:53	
□	●	test-alert	Syslog		2016-02-10 11:12:29	

3. On the **Output** tab, from the + ⌄ drop-down menu, select **Email**.



Define Email Notification

Enable	☑
Name *	Level 1 Analysts
Description	This notification goes out to all first level analysts.
To Email Addresses *	username1@rsa.com,username2@rsa.com
Subject Template Type	Health & Wellness default email subject
Subject *	SA Health <#if state == "ACTIVE">${severity?lower_case?cap_first} Severity<#else>${state?lower_case?cap_first}</#if> Alarm: ${ruleName!"Unknown Rule Name"} on ${hostName!"Unknown Host Name"}

4. In the **Define Email Notification** dialog, provide the required information and click **Save**.

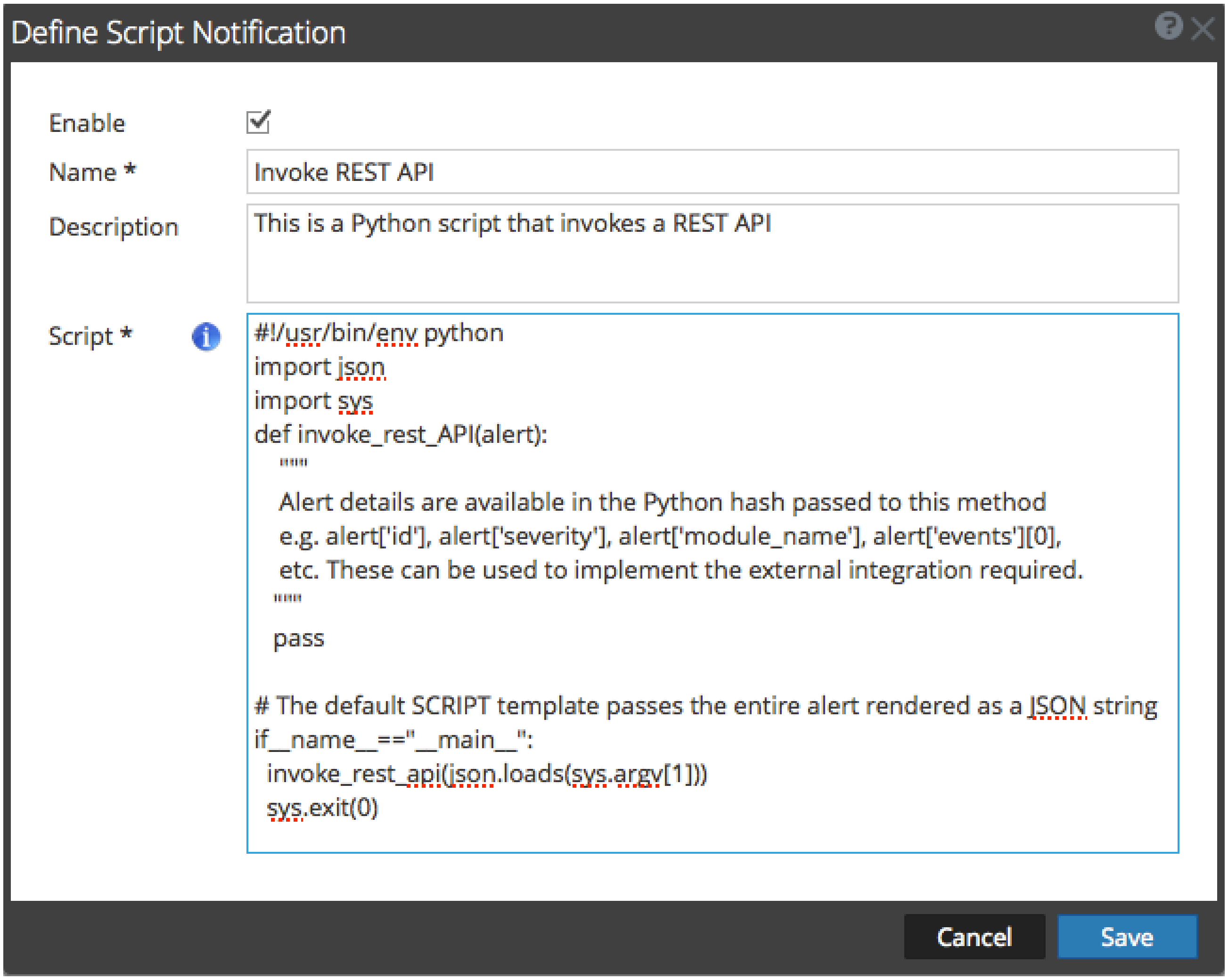
For details of the parameters and descriptions, see Define Notification Server Dialogs.

Configure Script as a Notification

This topic provides instructions to define the Script and configure it as a notification output. ESA allows you to run scripts in response to ESA alerts. You need to define the script using the Administration > System > Notifications > Output tab. You can use any script for ESA notifications.

To configure the script as a notification:

1. In the **Security Analytics** menu, select **Administration > System**.
2. In the options panel, select **Global Notifications**.
3. On the Output tab, from the + drop-down menu, select **Script**.



Enable ☑

Name * Invoke REST API

Description This is a Python script that invokes a REST API

Script *

```
#!/usr/bin/env python
import json
import sys
def invoke_rest_API(alert):
    """
    Alert details are available in the Python hash passed to this method
    e.g. alert['id'], alert['severity'], alert['module_name'], alert['events'][0],
    etc. These can be used to implement the external integration required.
   """
   pass

# The default SCRIPT template passes the entire alert rendered as a JSON string
if__name__=="__main__":
  invoke_rest_api(json.loads(sys.argv[1]))
  sys.exit(0)
```

4. In the **Define Script Notification** dialog, provide the required information and click **Save**.

For details of the parameters and descriptions, see Define Notification Server Dialogs.

Configure SNMP as a Notification

This topic provides instructions to use SNMP as a notification output to send alert notifications.

Prerequisites

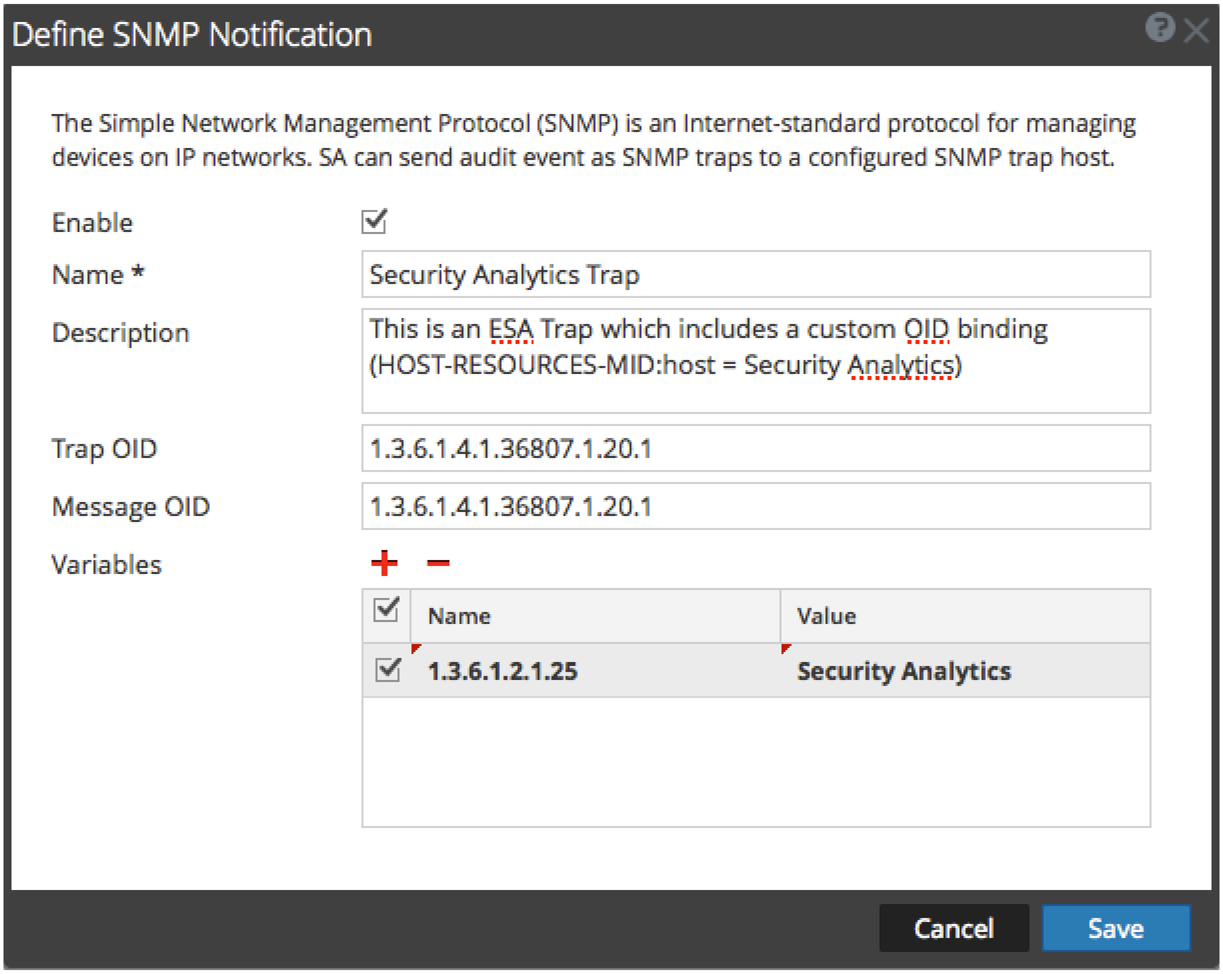
Make sure that you have the SNMP settings that you would like to use as notification.

Procedure

To configure SNMP as a notification output:

1. In the **Security Analytics** menu, select **Administration > System**.
2. In the options panel, select **Global Notifications**.

3. On the Output tab, from the + ⌄ drop-down menu, select **SNMP**.



Define SNMP Notification

The Simple Network Management Protocol (SNMP) is an Internet-standard protocol for managing devices on IP networks. SA can send audit event as SNMP traps to a configured SNMP trap host.

Enable	☑
Name *	Security Analytics Trap
Description	This is an ESA Trap which includes a custom OID binding (HOST-RESOURCES-MID:host = Security Analytics)
Trap OID	1.3.6.1.4.1.36807.1.20.1
Message OID	1.3.6.1.4.1.36807.1.20.1
Variables	+ −

☑	Name	Value
☑	**1.3.6.1.2.1.25**	**Security Analytics**

4. In the SNMP Notification dialog, provide the required information and click **Save**.

For details of the parameters and descriptions, see Define Notification Server Dialogs.

Configure Syslog as a Notification

This topic provides instructions to configure Syslog as a notification output when sending alert notifications.

Prerequisites

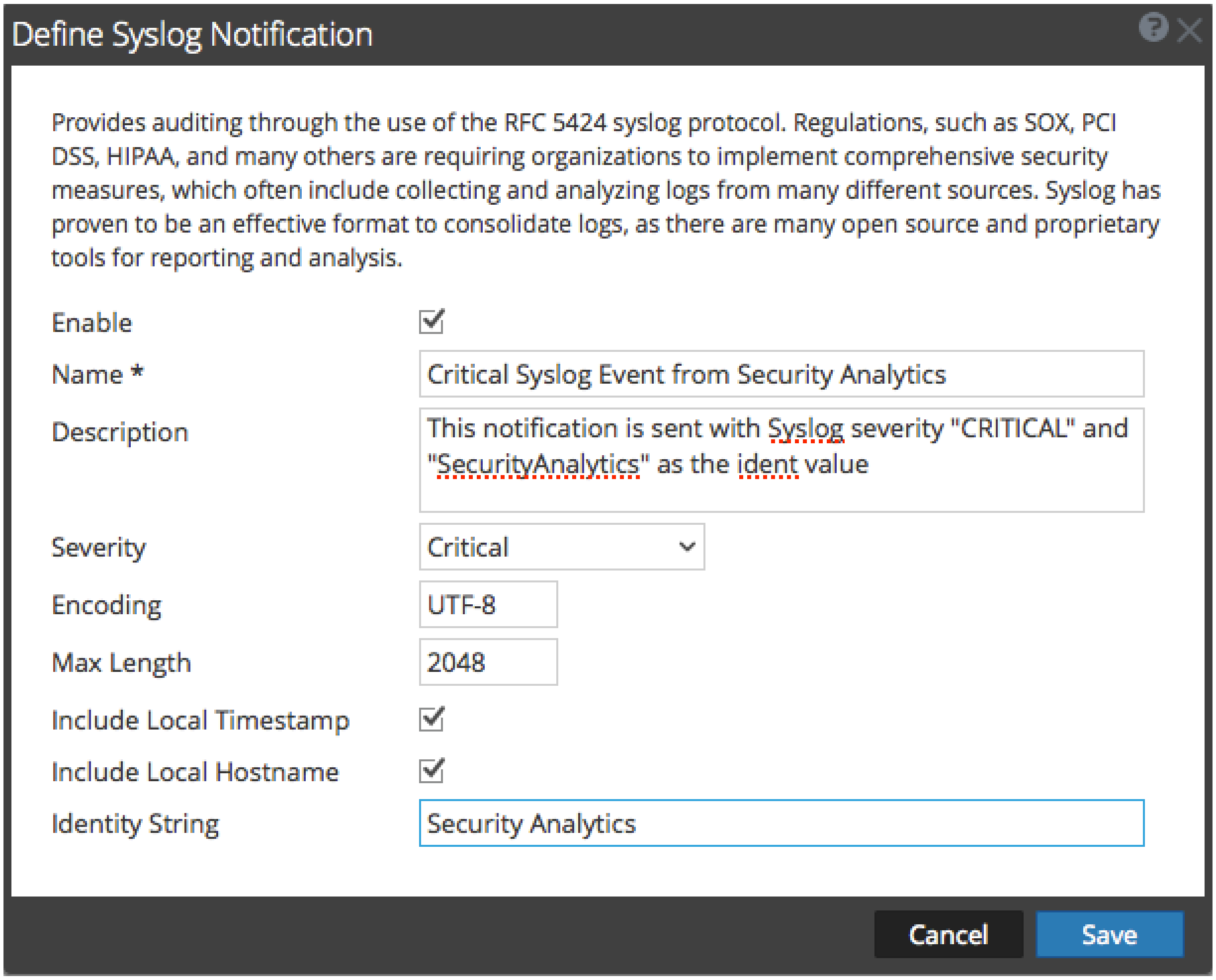
Make sure that you have the Syslog settings that you would like to use as a notification.

Procedure

To configure Syslog as a notification:

1. In the **Security Analytics** menu, select **Administration > System**.
2. In the options panel, select **Global Notifications**.

3. On the Output tab, from the + ⌄ drop-down menu, select **Syslog**.



Define Syslog Notification

Provides auditing through the use of the RFC 5424 syslog protocol. Regulations, such as SOX, PCI DSS, HIPAA, and many others are requiring organizations to implement comprehensive security measures, which often include collecting and analyzing logs from many different sources. Syslog has proven to be an effective format to consolidate logs, as there are many open source and proprietary tools for reporting and analysis.

Enable	☑
Name *	Critical Syslog Event from Security Analytics
Description	This notification is sent with Syslog severity "CRITICAL" and "SecurityAnalytics" as the ident value
Severity	Critical
Encoding	UTF-8
Max Length	2048
Include Local Timestamp	☑
Include Local Hostname	☑
Identity String	Security Analytics

4. In the **Define Syslog Notification** dialog, provide the required information and click **Save**.

For details of the parameters and descriptions, see Define Notification Server Dialogs.

Configure Templates for Notifications

You configure notification templates in the Administration System view (Administration > System > Notifications > Templates tab). A notification template defines the format and message fields of the notifications. There are different template types for the notifications that you can configure:

- Audit Logging
- Event Stream Analysis
- Event Source Monitoring
- Health Alarms

You can use the available default templates or you can configure your own templates for Email, SNMP, Syslog, and Script, depending on the template type.

Global audit logging sends audit logs in the format specified in the Audit Logging template. You can use the default audit logging templates or you can define your own audit logging template. For more information on how to define an Audit Logging template, see Define a Template for Global Audit Logging.

Event Stream Analysis (ESA) sends notifications in the format specified in the Event Stream Analysis templates. The default Event Stream Analysis templates for email, SNMP, Syslog, and Script are available on installation. You can customize these templates as well as create new templates which you can use for the notifications. For more information on how to define ESA templates, see Define a Template for ESA Alert Notifications.

For more information on ESA alert configuration, see "Notification Methods" in the **Alerting Using ESA Guide**. You cannot delete templates associated with global audit log configurations.

> **Note:** When upgrading from Security Analytics 10.4, all existing notification templates migrate to the Event Stream Analysis template type.

To learn how to define, delete, edit, duplicate, import, and export a notification template in Security Analytics, see:

Configure Global Notifications Templates

Define a Template for ESA Alert Notifications

Import and Export a Global Notifications Template

Configure Global Notifications Templates

This topic provides instructions for adding, editing, duplicating, and deleting global notifications templates.

You can use the available default templates or you can configure your own templates for Email, SNMP, Syslog, and Script, depending on the template type.

Global audit logging sends audit logs in the format specified in the Audit Logging template. You can use the default audit logging templates or you can define your own audit logging template. For more information on how to define an Audit Logging template, see "Define a Template for Global Audit Logging."

Event Stream Analysis (ESA) sends notifications in the format specified in the Event Stream Analysis templates. The default Event Stream Analysis templates for email, SNMP, Syslog, and Script are available on installation. You can customize these templates as well as create new templates which you can use for the notifications. For more information on how to define ESA templates, see Define a Template for ESA Alert Notifications.

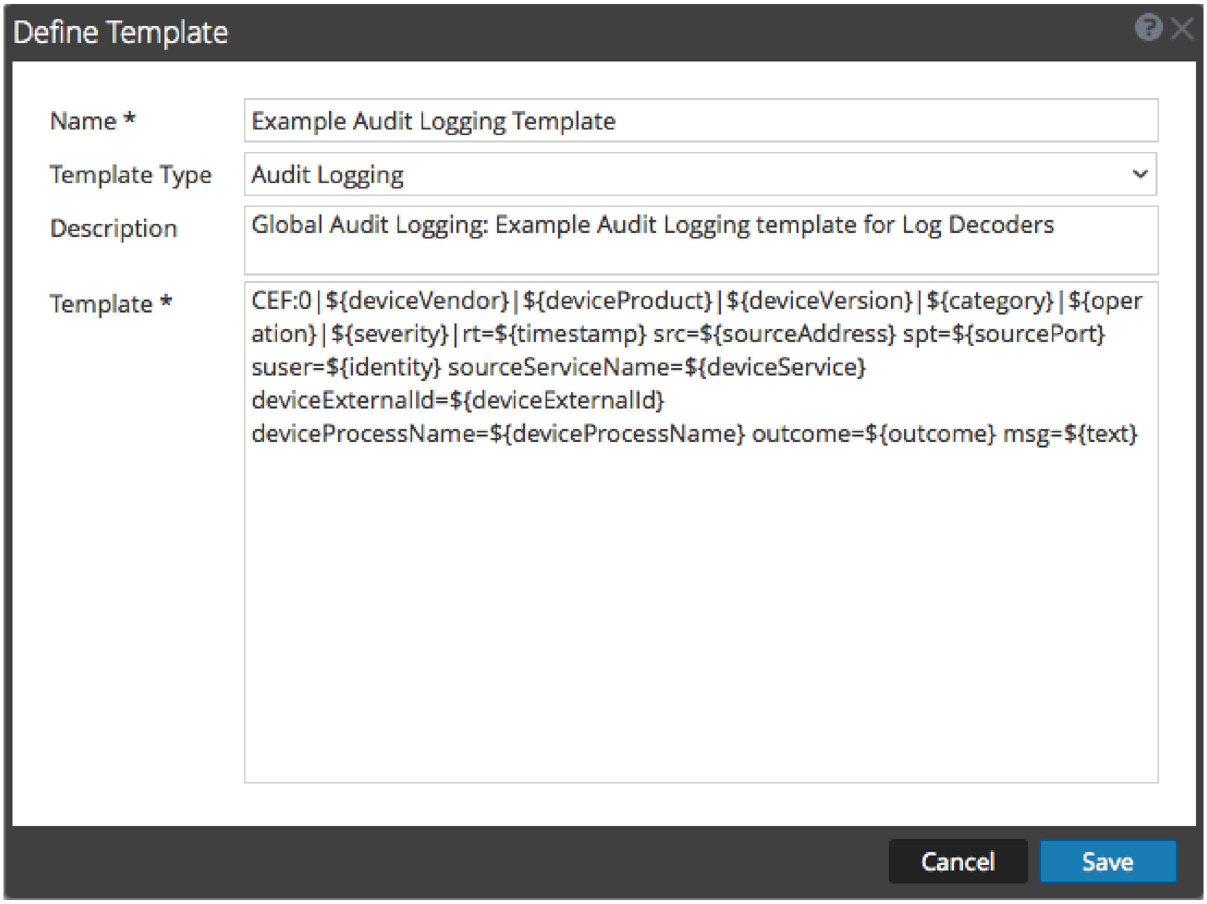
When upgrading from Security Analytics 10.4, all existing notification templates migrate to the Event Stream Analysis template type.

Add a Template

You can use the default templates provided or you can configure your own templates. Follow this procedure to configure your own template.

1. In the **Security Analytics** menu, select **Administration > System**.
2. In the options panel, select **Global Notifications**.
3. Click the **Templates** tab.
4. Click ✚ to configure a template.
5. In the **Define Template** dialog, provide the following information:
    a. In the **Name** field, type the name for the template.
    b. In the **Template Type** field, select the type of template you want to create. For example, if you are creating a template for global audit logging, select the Audit Logging template type.
    c. In the **Description** field, type a brief description for the template.
    d. In the **Template** field, specify the format for the template.

e. Click **Save** to save the template.



Name * Example Audit Logging Template

Template Type Audit Logging

Description Global Audit Logging: Example Audit Logging template for Log Decoders

Template *

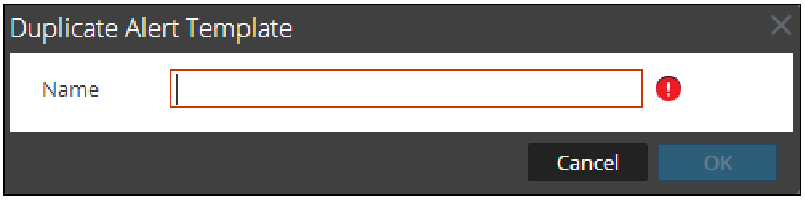
```
CEF:0|${deviceVendor}|${deviceProduct}|${deviceVersion}|${category}|${oper
ation}|${severity}|rt=${timestamp} src=${sourceAddress} spt=${sourcePort}
suser=${identity} sourceServiceName=${deviceService}
deviceExternalId=${deviceExternalId}
deviceProcessName=${deviceProcessName} outcome=${outcome} msg=${text}
```

Duplicate a Template

You can make a copy of an existing default or user-defined template. To duplicate a template:

1. In the **Security Analytics** menu, select **Administration** > **System**.
2. In the options panel, select **Global Notifications**.
3. Click the **Templates** tab.
4. Select the template that you want to duplicate and click 📄.

   The Duplicate Alert Template dialog is displayed.



5. Type the name for the duplicate template.
6. Click **OK**.

You can modify a default or user-defined template. When you edit a template, the changes are reflected only when the alert is triggered.

Edit a Template

1. In the **Security Analytics** menu, select **Administration** > **System**.
2. In the options panel, select **Global Notifications**.
3. Click the **Templates** tab.
4. Select a template and click ✎.
5. In the **Define Template** dialog, modify the **Name**, **Template Type**, **Description**, and **Template** fields as required.
6. Click **Save** to save the template.

Delete a Template

You can delete a user-defined template. When you delete a template that is used in an ESA rule, the Event Stream Analysis default template is used for alerts. You cannot delete templates associated with global audit logging configurations.

1. In the **Security Analytics** menu, select **Administration** > **System**.
2. In the options panel, select **Global Notifications**.
3. Click the **Templates** tab.
4. Select one or more templates and click ⊟.
   A confirmation dialog is displayed.
5. Click **Yes**.
   The selected template is deleted.

Define a Template for ESA Alert Notifications

This topic describes how you can define a template for alert notifications. Event Stream Analysis (ESA) allows you to define useful templates for alerts. You need to have a good understanding of FreeMarker and the ESA data model to define a template. For more information on FreeMarker, see FreeMarker Template Author's Guide.

ESA Data Model

Consider an ESA alert rule as shown below:

```
@Name('module_144d43f5_f0b4_4cd0_8c6c_5ce65c37e624_Alert')
@Description('Brute Force Login To Same Destination')
@RSAAlert(oneInSeconds=0, identifiers={"ip_dst"})
SELECT* FROMEvent (ec_activity = 'Logon',ec_theme = 'Authentication',ec
outcome = 'Failure',ip_dst IS NOT NULL)
.std:groupwin(ip_dst)
.win:time_length_batch(60 seconds, 2)
GROUPBYip_dst HAVING COUNT(*) = 2;
```

When a rule like the above is fired, the alert generated will have two constituent events each resembling a NextGen session with multiple meta values. The alert data-object passed to the FreeMarker template evaluator will be as follows:

```
(root)
 |
 +- id = "4e67012f-9c53-4f0b-ac44-753e2c982b79"           // Unique identifier for each alert
 |
 +- severity = 1                                  // The severity of the alert
 +- time = 2013-12-31T11:02Z                               // The alert time (needs a ?datetime for proper rendering)
 | +- moduleType = "ootb"                              // The module type
 |
 +- moduleName = "Brute Force Login To Same Destination"       // A description of the module
 |
 +- statement = "module_144d43f5_f0b4_4cd0_8c6c_5ce65c37e624_Alert" // The name of the EPL statement
 | +- events                                     // The constituent events - as a sequence of event maps
    |  +- [0]                                    // offset 0 (i.e. the first constituent event)
    |  |    |  |
    |  +- event_cat_name = "User.Activity.Failed Logins"
    |  +- device_class = "Firewall"                        // event meta (accessible as ${events[0].device_class}$)
    |  |    |  +- event_source_id = "uttam:50002:1703395"   // Investigation URI to the individual session (used by SA)
    |  |
    |  +- ...                                   // Other meta
    |  |
    |  +- sessionid = 1703395                          // NextGen sessionid
    |  |
    |  +- time = 1388487764                           // event/session time at NextGen source (as a long Unix timestamp)
    |  |
    |  +- user_dst = "user5"
    |
    +- [1]                                       // offset 1 (i.e. the second consituent event)
       |
+- device_class = "Firewall"
|
+- event_cat_name = "User.Activity.Failed Logins"
|
+- event_source_id = "uttam:50002:1703405"
|
+- ...
|
+- sessionid = 1703405
|
+- time = 1388487766
|
+- user_dst = "user5"
```

There are two types of template variables available in the data model:

- **Alert Meta Data:** These hold alert level details like statement name, module name, alert id, alert time, severity, and others. In FreeMarker terminology, these are top level variables associated with the alert instance itself and can be referenced simply by their names like `${moduleName}`. The `time` meta is special because it is of type `Date` and it needs to be suffixed with a `?datetime` to be properly rendered.

- **Constituent Event Meta Data**: These include the session meta fields from individual events that constitute the alert. An alert can have multiple constituent events, so there can be more than one such maps in the same alert. These show up as a sequence of hashes to the FreeMarker template evaluator and must be referenced. For instance, the alert has two constituent events the event_source_id for the first is available as `${events [0].event_source_id}` and the same for the second is accessible as ${`events [1].event_source_id.`} You also need to be aware of which meta fields are multi-valued because those need be treated as sequences, for example ${`events[0].alias_host`} will not work because it is a sequence.

Note: The metadata available in the constituent events for a given alert is determined by the EPL SELECT clause. For example, alerts from `SELECT sessionid, time FROM ...` will have only two meta values available (sessionid, time). Constituent events in `SELECT * FROM Event ...` will carry all meta fields from the `Event` type with **non-null** values.

If your template uses meta keys that are not present in all alert output, you should consider using the FreeMarker provisions for default values.

For example, if a template with text Id=${id},ec_outcome=${ec_outcome} is evaluated for an alert which does not include the meta key `ec_outcome` then the template evaluation fails. In such cases, you can use the missing value placeholder `${ec_outcome!”default”}`.

Import and Export a Global Notifications Template

This topic provides instructions on how to Import and export a template for notifications.

- You can export default or user-defined templates.
- You can import a template that has been exported from the Security Analytics instance. If you import a template with the same name as an existing template, then the existing template will be overwritten.

Import a Template

1. In the **Security Analytics** menu, select **Administration** > **System**.
2. In the options panel, select **Global Notifications**.
3. Click the **Templates** tab.
4. In the toolbar, select ⚙ > **Import**.

   The **Import** dialog is displayed.
5. In the **Enter File Name** field, type the filename or click **Browse** and select the file to be imported.
6. Click **Import**.

Export a Template

1. In the **Security Analytics** menu, select **Administration** > **System**.
2. In the options panel, select **Global Notifications**.
3. Click the **Templates** tab.
4. Select the template you want to export.

   > **Note:** You can export all the templates using the ⚙ > **Export All** option.
5. In the **Actions** column, select ⚙ > **Export**.

   The **Export** dialog is displayed.
6. In the **Enter File Name** field, type the filename.
7. Click **Save**.

Configure Email Server and Notification Account

This topic provides instructions for configuring email so that users can receive notifications in Security Analytics. RSA Security Analytics can send notifications to users via email about various system events. To be able to configure these email notifications, you must first configure the SMTP email server. The Email Configuration panel provides a way to:

- Configure the email server.
- Set up an email account to receive notifications.
- View statistics on email operations.

Security Analytics requires access to an SMTP mail server in order to send reports to users. Each user account can be configured to receive emailed reports. These reports can be generated manually, through the user interface, or automatically, through the auditing system. The following guidelines apply:

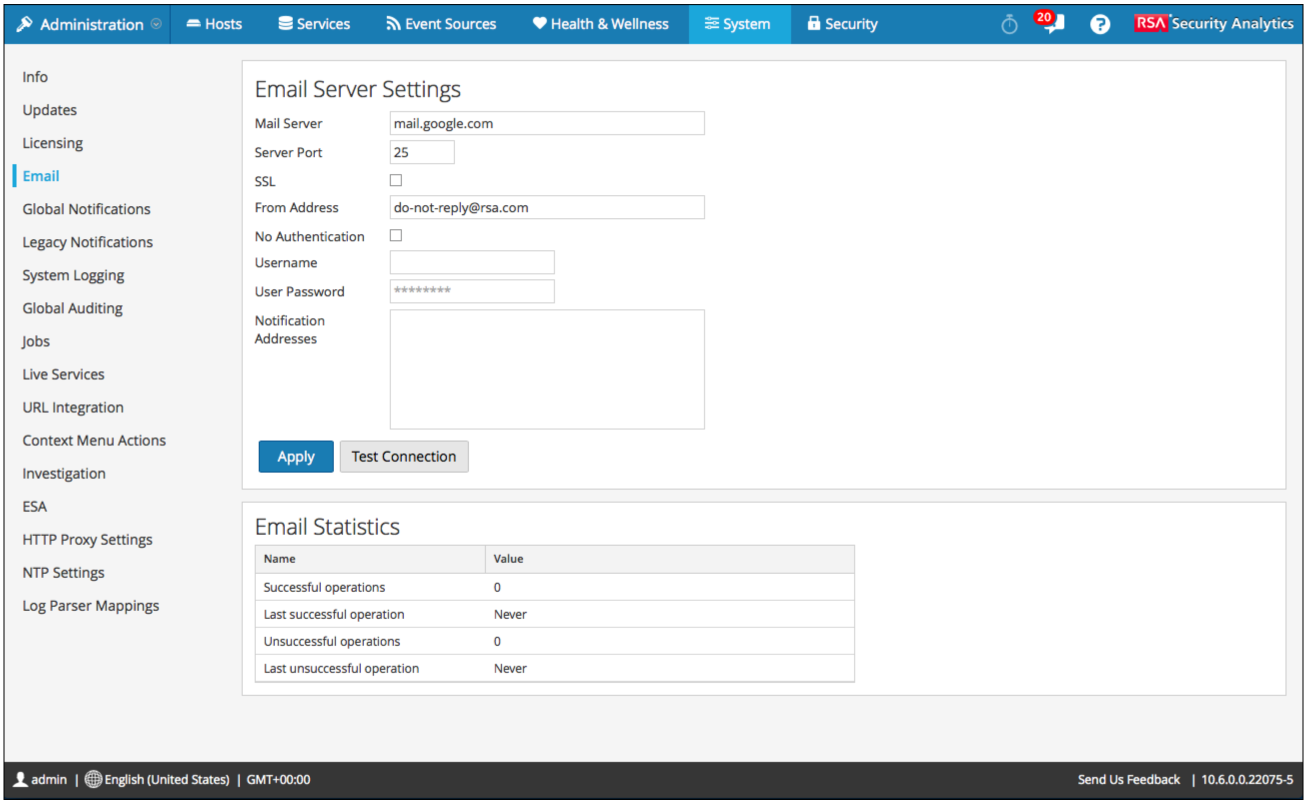
- Any SMTP mail host can be used to deliver emails, and each host requires a different configuration. The SMTP provider provides the settings for configuration.
- Some SMTP servers require user authentication in order to relay emails successfully. Typically, this is the login and password for the email account.
- Best practice is to create a new, dedicated email account on the SMTP email server for Security Analytics reports.

Procedure

To configure Security Analytics email notifications:

1. In the Security Analytics menu, select **Administration > System**.
   The Administration System view is displayed.

2. In options panel, select **Email**.



Email Server Settings

Mail Server: mail.google.com

Server Port: 25

SSL ☐

From Address: do-not-reply@rsa.com

No Authentication ☐

Username:

User Password: ********

Notification Addresses:

Email Statistics

Name	Value
Successful operations	0
Last successful operation	Never
Unsuccessful operations	0
Last unsuccessful operation	Never

3. If you want to change the default mail server, specify the **Mail server** name and **Server port**.

4. If the email server communicates with Security Analytics using SSL, check the box next to **Use SSL**.

5. In the **From address** field, type the name of the email account sending Security Analytics email notifications.

6. If the SMTP server requires user authentication to relay emails successfully, type the **Username** and **User Password** for logging in to the email account.

7. To activate the settings, click **Apply**.

   You can now configure Security Analytics modules to receive various notifications by email.

Configure Global Audit Logging

Overview

Global Audit Logging provides Security Analytics Auditors with consolidated visibility into user activities within Security Analytics in real-time from one centralized location. This visibility includes audit logs gathered from the Security Analytics system and the different services throughout the Security Analytics infrastructure.

Security Analytics audit logs collect in a centralized system that converts them into the required format and forwards them to an external syslog system. The external syslog system can be a third-party syslog server or a Log Decoder.

You configure global audit logging in the Global Audit Logging Configurations panel. An audit logging template defines the format and message fields of the audit log entries. A Syslog Notification Server configuration defines the destination to send the audit logs. If you want to forward audit logs to a Log Decoder, configure a Syslog type of Notification Server for the Log Decoder.

The following are some of the user actions logged from Security Analytics (SA):

- **User login success:** The SA server authenticates the user's identity and the action is logged in the audit logs file.
  For example,
  ```
  2017-03-22 14:16:19,329 deviceVersion: "10.6.3.0" deviceService: "SA_SERVER" category:
  AUTHENTICATION operation: "Logon" outcome: "Success" identity: "admin" userRole:
  "Administrators+Administrators+PRIVILEGED_CONNECTION_AUTHORITY"
  userAgent: "Mozilla/5.0 (Windows NT 6.1; WOW64) AppleWebKit/537.36 (KHTML, like
  Gecko) Chrome/56.0.2924.87 Safari/537.36" referrerURL: "127.0.0.1"
  ```
- **User access denied:** The SA server authenticates the user's identity and on login failure the action is logged in the audit logs file. For example,
  ```
  2017-03-22 14:17:13,712 deviceVersion: "10.6.3.0" deviceService: "SA_SERVER" category:
  AUTHENTICATION operation: "Logon" outcome: "Failure" text: "Invalid credentials"
  identity: "admin" userAgent: "Mozilla/5.0 (Windows NT 6.1; WOW64) AppleWebKit/537.36
  (KHTML, like Gecko) Chrome/56.0.2924.87 Safari/537.36" referrerURL: "127.0.0.1"
  ```
- **User logouts:** The SA server authenticates the logout action and the action is logged in the audit logs file.
  For example,
  ```
  2017-03-22 14:15:08,919 deviceVersion: "10.6.3.0" deviceService: "SA_SERVER" category:
  ```

```
AUTHENTICATION operation: "Logoff" outcome: "Success" identity: "admin" userRole:
"Administrators+Administrators+PRIVILEGED_CONNECTION_AUTHORITY"
```

- **Maximum Login failures exceeded:** The SA server authenticates the login action and on several failure login attempts, the action is logged in the audit logs file.
  For example,
  ```
  2017-03-22 15:26:58,987 deviceVersion: "10.6.3.0" deviceService: "SA_SERVER" category:
  SECURITY operation: "Account Locked" outcome: "Success" identity: "Unknown identity"
  2017-03-22 15:26:58,987 deviceVersion: "10.6.3.0" deviceService: "SA_SERVER" category:
  AUTHENTICATION operation: "Logon" outcome: "Failure" text: "Invalid credentials"
  identity: "testuser" userAgent: "Mozilla/5.0 (Windows NT 6.1; WOW64)
  AppleWebKit/537.36 (KHTML, like Gecko) Chrome/56.0.2924.87 Safari/537.36"
  referrerURL: "127.0.0.1"
  ```
- **User account unlock:** The SA server allows the user to unlock the account and the action is logged in the audit logs file.
  For example,
  ```
  2017-03-22 15:29:16,681 deviceVersion: "10.6.3.0" deviceService: "SA_SERVER" category:
  DATA_ACCESS operation: "HttpRequest" parameters: "
  {referrer=https://10.101.65.62/admin/security, method=POST, userAgent=Mozilla/5.0
  (Windows NT 6.1; WOW64) AppleWebKit/537.36 (KHTML, like Gecko)
  Chrome/56.0.2924.87 Safari/537.36, queryString=, uri=/admin/system/local/users/unlock,
  remoteAddress=127.0.0.1}" outcome: "Success" identity: "admin" userRole:
  "Administrators+Administrators+PRIVILEGED_CONNECTION_AUTHORITY"
  ```
- **All UI pages accessed:** The SA server logs system entries related to all the accessed UI pages on the audit logs file.
  For example,
  ```
  2017-03-14 19:28:36,253 deviceVersion: "10.6.3.0" deviceService: "SA_SERVER" category:
  SYSTEM operation: "Page Accessed" outcome: "Success" key: "[INV]
  \"concen1.vapp.mintberrycrunch.lol - Concentrator\" Event List" identity: "admin" userRole:
  "Administrators+Administrators+PRIVILEGED_CONNECTION_AUTHORITY"

  2017-03-22 15:28:05,432 deviceVersion: "10.6.3.0" deviceService: "SA_SERVER" category:
  SYSTEM operation: "Page Accessed" outcome: "Success" key: "[UNF] Dashboard" identity:
  "admin" userRole: "Administrators+Administrators+PRIVILEGED_CONNECTION_
  AUTHORITY"
  ```

```
2017-03-22 15:28:05,456 deviceVersion: "10.6.3.0" deviceService: "SA_SERVER" category:
DATA_ACCESS operation: "HttpRequest" parameters: "
{referrer=https://10.101.65.62/login?failed, method=GET, userAgent=Mozilla/5.0 (Windows
NT 6.1; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/56.0.2924.87
Safari/537.36, queryString=, uri=/unified/dashboard, remoteAddress=127.0.0.1}" outcome:
"Success" identity: "admin" userRole: "Administrators+Administrators+PRIVILEGED_
CONNECTION_AUTHORITY"
```

- **Committed configuration changes:** The SA server manages all the configuration changes (for instance, when a user changes their own password) and logs its findings into the audit logs file.
  For example,

  ```
  2017-03-22 15:35:24,749 deviceVersion: "10.6.3.0" deviceService: "SA_SERVER" category:
  MANAGEMENT operation: "set" outcome: "Success" key:
  "/com.netwitness.spectrum/Configuration/ModuleSandboxConfiguration/moduleSandboxConfi
  g/PDFIgnored" value: "type: Boolean\nboolean: false\n" identity: "admin" userRole:
  "Administrators+Administrators+PRIVILEGED_CONNECTION_AUTHORITY"
  ```

- **Queries performed by the user:** The SA server logs all queries performed by the user in the audit logs file.
  For example,

  ```
  2017-03-22 16:03:16,998 deviceVersion: "10.6.3.0" deviceService: "SA_SERVER" category:
  DATA_ACCESS operation: "query" parameters: "NativeValuesMessage{ deviceId=7,
  isAppliancePath=false, timeout=null, collectionName=\'\', appliancePath=false,
  sdkPath=\'/sdk\',
  callbackChannel=\'/meta/values/7/1490198595055/domain.src;collectionName=\',
  returnValues=false, fieldName=\'domain.src\', fieldIdRange=FieldIdRange [ beginId=1,
  endId=6102022 ], threshold=100000, size=20, flags=6401, where=\'time=\"2017-03-19
  13:39:00\"-\"2017-03-20 13:38:59\"\', options=InvestigationOptions{options={date_range=null,
  total_by=SESSION_COUNT, order_by=TOTAL, time_range_type=LAST_24_HOURS, sort_
  order=DESCENDING}, dateRange=null, orderBy=TOTAL, sortOrder=DESCENDING,
  timeRangeType=LAST_24_HOURS, totalBy=SESSION_COUNT}, metaAliases={},
  aggregateFunction=\'null\', aggregateFieldName=\'null\', min=null, max=null}" outcome:
  "Success" identity: "admin" userRole: "Administrators+Administrators+PRIVILEGED_
  CONNECTION_AUTHORITY"
  ```

- **Data export operations:** The SA server allows data export operations to be performed and the actions are logged in the audit logs file. For example,

  ```
  2017-03-22 16:06:24,025 deviceVersion: "10.6.3.0" deviceService: "SA_SERVER" category:
  ```

```
DATA_ACCESS operation: "submitExtractPcap" parameters: "deviceId=7 collectionName=
predicateHandle= sessionIds=[279158] startDate=null endDate=null id1=1 id2=0" outcome:
"Success" identity: "admin" userRole: "Administrators+Administrators+PRIVILEGED_
CONNECTION_AUTHORITY"
```

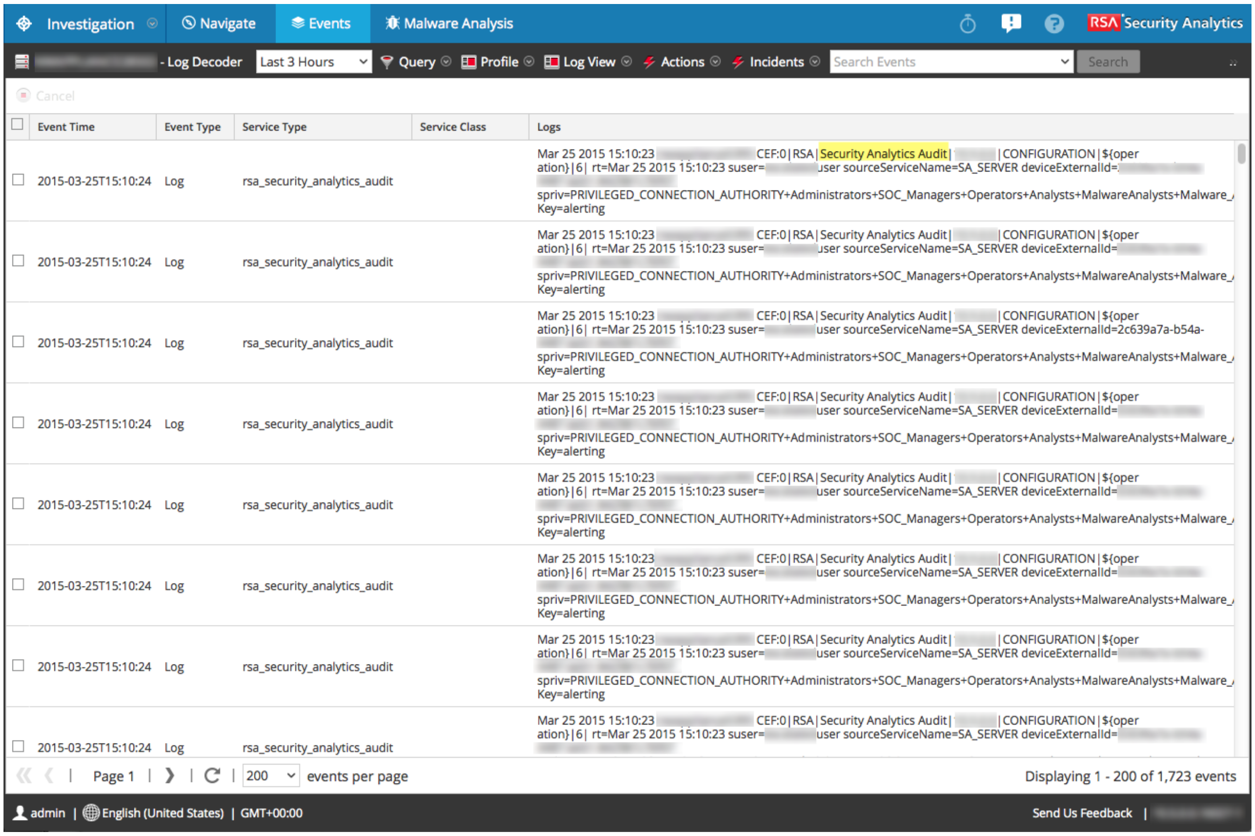
After you create a global audit logging configuration, audit logs containing these user actions automatically go to the external syslog system in the format specified in the selected Audit Logging template. You can create multiple global audit logging configurations for different destinations that use different templates. For example, you can create a global audit logging configuration for an external Syslog server with a template that contains all of the available meta keys and another configuration for a Log Decoder with a template that contains selected meta keys.

For Log Decoders, you use the 10.5 Default Audit CEF Template. You can add or remove fields from the Common Event Format (CEF) template if you have specific requirements. Define a Template for Global Audit Logging provides instructions and Supported CEF Meta Keys describes the CEF meta keys available to use in the audit logging templates.

For third-party syslog servers, you can use a default audit logging template or define your own format (CEF or non-CEF). Define a Template for Global Audit Logging provides instructions and Supported Global Audit Logging Meta Key Variables describes the available variables.

Auditors can view the audit logs on the selected Log Decoder or third-party syslog server. If using a Log Decoder, auditors can view the audit logs using Security Analytics Investigations or Reports.

The following figure shows global audit logs in Investigations (Investigations > Events).



☐ Event Time	Event Type	Service Type	Service Class	Logs

☐ 2015-03-25T15:10:24	Log	rsa_security_analytics_audit		Mar 25 2015 15:10:23 [redacted] CEF:0|RSA|Security Analytics Audit|[redacted]|CONFIGURATION|${oper
				ation}|6| rt=Mar 25 2015 15:10:23 suser=[redacted]user sourceServiceName=SA_SERVER deviceExternalId=[redacted]
				spriv=PRIVILEGED_CONNECTION_AUTHORITY+Administrators+SOC_Managers+Operators+Analysts+MalwareAnalysts+Malware_
				Key=alerting

☐ 2015-03-25T15:10:24	Log	rsa_security_analytics_audit		Mar 25 2015 15:10:23 [redacted] CEF:0|RSA|Security Analytics Audit|[redacted]|CONFIGURATION|${oper
				ation}|6| rt=Mar 25 2015 15:10:23 suser=[redacted]user sourceServiceName=SA_SERVER deviceExternalId=[redacted]
				spriv=PRIVILEGED_CONNECTION_AUTHORITY+Administrators+SOC_Managers+Operators+Analysts+MalwareAnalysts+Malware_
				Key=alerting

☐ 2015-03-25T15:10:24	Log	rsa_security_analytics_audit		Mar 25 2015 15:10:23 [redacted] CEF:0|RSA|Security Analytics Audit|[redacted]|CONFIGURATION|${oper ation}|6| rt=Mar 25 2015 15:10:23 suser=[redacted]user sourceServiceName=SA_SERVER deviceExternalId=2c639a7a-b54a- [redacted] spriv=PRIVILEGED_CONNECTION_AUTHORITY+Administrators+SOC_Managers+Operators+Analysts+MalwareAnalysts+Malware_ Key=alerting

☐ 2015-03-25T15:10:24	Log	rsa_security_analytics_audit		Mar 25 2015 15:10:23 [redacted] CEF:0|RSA|Security Analytics Audit|[redacted]|CONFIGURATION|${oper
				ation}|6| rt=Mar 25 2015 15:10:23 suser=[redacted]user sourceServiceName=SA_SERVER deviceExternalId=[redacted]
				spriv=PRIVILEGED_CONNECTION_AUTHORITY+Administrators+SOC_Managers+Operators+Analysts+MalwareAnalysts+Malware_
				Key=alerting

☐ 2015-03-25T15:10:24	Log	rsa_security_analytics_audit		Mar 25 2015 15:10:23 [redacted] CEF:0|RSA|Security Analytics Audit|[redacted]|CONFIGURATION|${oper
				ation}|6| rt=Mar 25 2015 15:10:23 suser=[redacted]user sourceServiceName=SA_SERVER deviceExternalId=[redacted]
				spriv=PRIVILEGED_CONNECTION_AUTHORITY+Administrators+SOC_Managers+Operators+Analysts+MalwareAnalysts+Malware_
				Key=alerting

☐ 2015-03-25T15:10:24	Log	rsa_security_analytics_audit		Mar 25 2015 15:10:23 [redacted] CEF:0|RSA|Security Analytics Audit|[redacted]|CONFIGURATION|${oper
				ation}|6| rt=Mar 25 2015 15:10:23 suser=[redacted]user sourceServiceName=SA_SERVER deviceExternalId=[redacted]
				spriv=PRIVILEGED_CONNECTION_AUTHORITY+Administrators+SOC_Managers+Operators+Analysts+MalwareAnalysts+Malware_
				Key=alerting

☐ 2015-03-25T15:10:24	Log	rsa_security_analytics_audit		Mar 25 2015 15:10:23 [redacted] CEF:0|RSA|Security Analytics Audit|[redacted]|CONFIGURATION|${oper
				ation}|6| rt=Mar 25 2015 15:10:23 suser=[redacted]user sourceServiceName=SA_SERVER deviceExternalId=[redacted]
				spriv=PRIVILEGED_CONNECTION_AUTHORITY+Administrators+SOC_Managers+Operators+Analysts+MalwareAnalysts+Malware_
				Key=alerting

☐ 2015-03-25T15:10:24	Log	rsa_security_analytics_audit		Mar 25 2015 15:10:23 [redacted] CEF:0|RSA|Security Analytics Audit|[redacted]|CONFIGURATION|${oper ation}|6| rt=Mar 25 2015 15:10:23 suser=[redacted]user sourceServiceName=SA_SERVER deviceExternalId=[redacted]

For examples of some of the user actions logged, see Add New Configuration Dialog. For a list of message types being logged by the various Security Analytics components, seeGlobal Audit Logging Operation Reference.

Global Audit Logging - High-Level Procedure

Global Audit Logging is configured in the Global Audit Logging Configurations panel, which is accessed from Administration System view > Global Auditing. Before you can configure Global Audit Logging, you need to configure a Syslog Notification Server and an Audit Logging template. A Syslog Notification Server defines the destination to send the audit logs. An Audit Logging template defines the format and message fields of the audit log entry.

The Global Audit Logging Configuration panel provides a **view settings** link that takes you to the Global Notifications panel (Administration System view > Global Notifications) where you can configure the Syslog Notification Server and Audit Logging template.

Perform the following procedures in the order shown to configure Global Audit Logging.

Procedures	Reference / Instructions
1. Configure a Syslog Notification Server.	Configure a Syslog Notification Server to use for Global Audit Logging. You can define a third-party syslog server or Log Decoder as a destination to receive the audit logs. Configure a Destination to Receive Global Audit Logs. Global Audit Logging configurations use the Syslog notification server type. If you want to forward audit logs to a Log Decoder, create a Notification Server of the Syslog type.
2. Select or configure an Audit Logging template to use.	Select an Audit Logging template for the Syslog notification server. You can use a default Audit Logging template or define your own audit logging template. Global Audit Logging configurations use the Audit Logging template type and a Syslog notification server. Configure Templates for Notifications provides additional information. For Log Decoders, use the **10.5 Default Audit CEF Template**. You can add or remove fields from the Common Event Format (CEF) template if you have specific requirements. Define a Template for Global Audit Logging provides instructions. For third-party syslog servers, you can use a default audit logging template or define your own format (CEF or non-CEF). Define a Template for Global Audit Logging provides instructions and Supported Global Audit Logging Meta Key Variables describes the available variables.
3. (Optional - Only if consuming with a Log Decoder) Deploy the Common Event Format parser to your Log Decoder from Live.	Ensure that you have deployed and enabled the latest Common Event Format parser from Live. Find and Deploy Live Resources and Enable and Disable Log Parsers provide instructions.

Procedures	Reference / Instructions
4. Define a global audit logging configuration, which defines how the global audit logs are forwarded to external Syslog systems.	Define a Global Audit Logging Configuration provides instructions. After you add a Global Audit Logging configuration, audit logs are forwarded to the selected Notification Server in the configuration.
5. Verify that the global audit logs show the audit events.	Test your audit logs to ensure that they show the audit events as defined in your audit logging template. Verify Global Audit Logs provides instructions.

Configure a Destination to Receive Global Audit Logs

In Global Audit Logging, Syslog Notification Servers are the configurations that define the destinations to receive global audit logs. You need to configure a Syslog Notification Server to use Global Audit Logging. You can define a third-party syslog server or a Log Decoder as the destination to receive the audit logs.

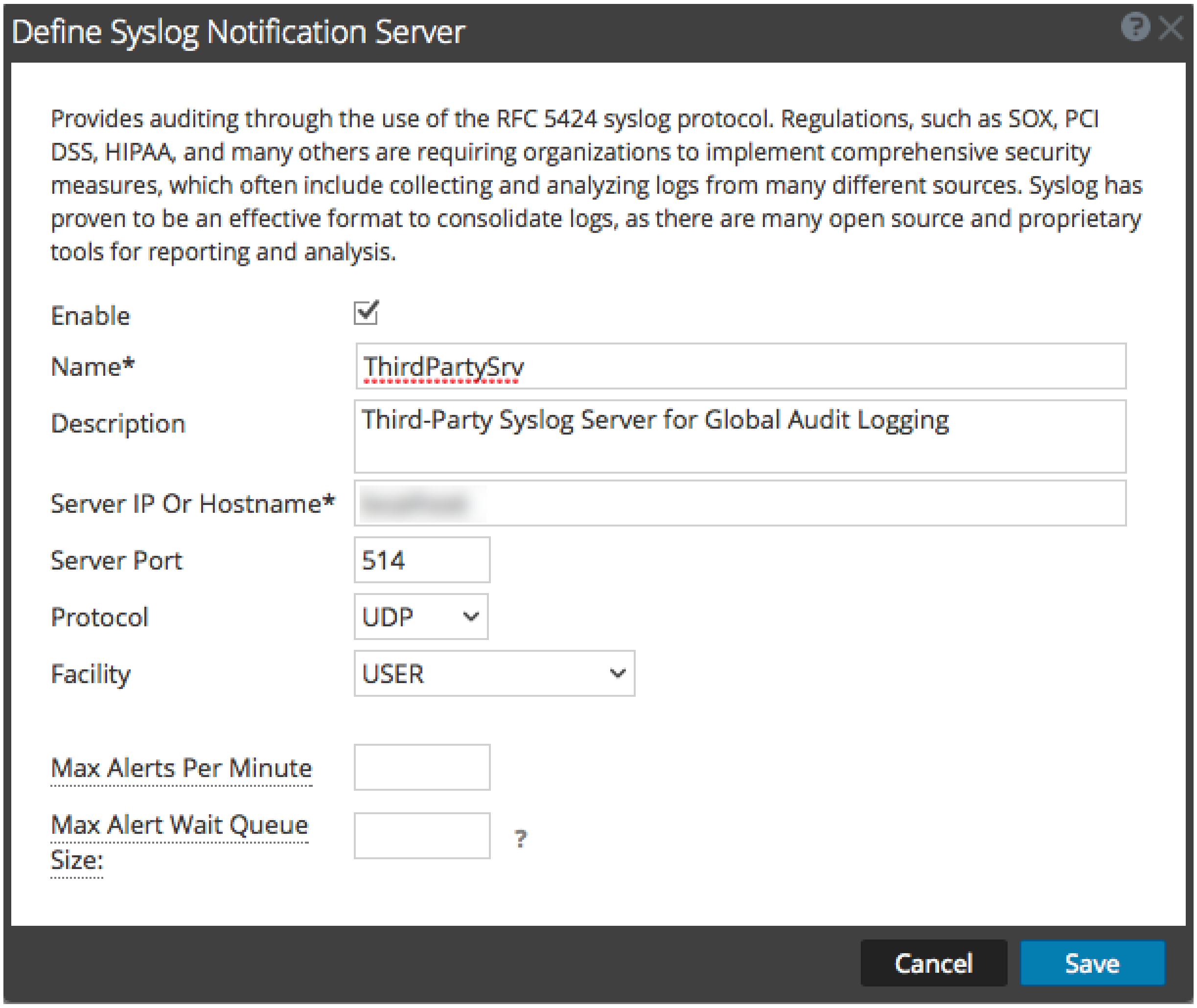
Configure a Syslog Notification Server for a Third-Party Syslog Server

1. In the **Security Analytics** menu, select **Administration > System**.
2. In the options panel, select **Global Notifications**.
3. Click the **Servers** tab.

   Note: You do not need to configure the Output tab for Global Audit Logging.

4. From the + ⌄ drop-down menu, select **Syslog**.

   The **Define Syslog Notification Server** dialog is displayed.



Define Syslog Notification Server

Provides auditing through the use of the RFC 5424 syslog protocol. Regulations, such as SOX, PCI DSS, HIPAA, and many others are requiring organizations to implement comprehensive security measures, which often include collecting and analyzing logs from many different sources. Syslog has proven to be an effective format to consolidate logs, as there are many open source and proprietary tools for reporting and analysis.

Enable	☑
Name*	ThirdPartySrv
Description	Third-Party Syslog Server for Global Audit Logging
Server IP Or Hostname*	[redacted]
Server Port	514
Protocol	UDP
Facility	USER
Max Alerts Per Minute	
Max Alert Wait Queue Size:	

5. Configure the Syslog notification server as described in the following table.

Field	Description
Enable	Select to enable the notification server.
Name	A name to identify or label the third-party syslog server.
Description	(Optional) A brief description of the notification server.
Server IP or Hostname	The third-party syslog server hostname or IP address.
Server Port	The port number where the target syslog process is listening.

Field	Description
Protocol	The protocol to be used for transferring formatted audit logs to the third-party syslog server.
Facility	The syslog facility to be used for writing formatted audit logs to the third-party syslog server.

The **Max Alerts Per Minute** and **Max Alert Wait Queue Size** fields are not used for Global Audit Logging.

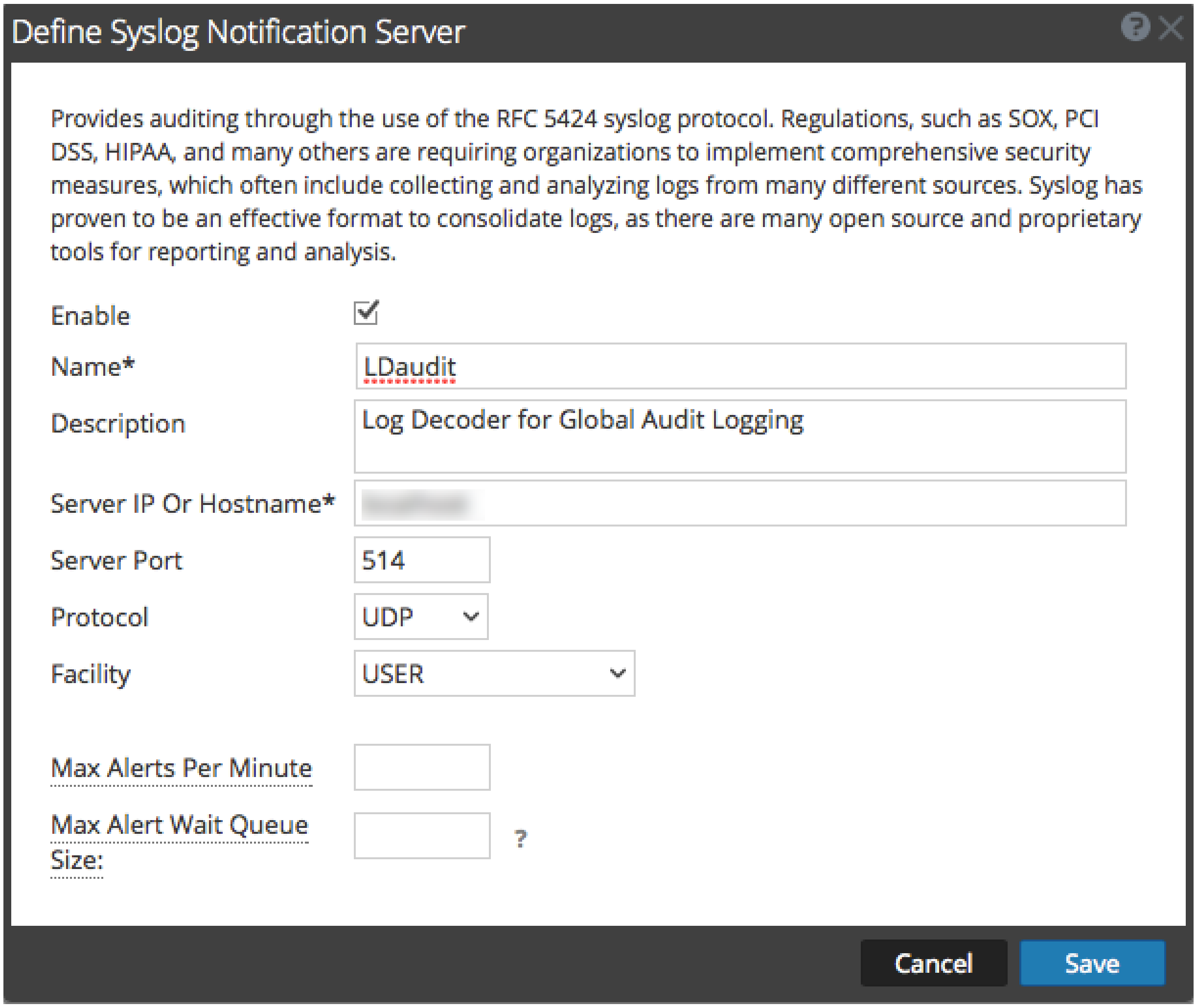
6. Click **Save**.

Configure a Syslog Notification Server for a Log Decoder

1. In the **Security Analytics** menu, select **Administration** > **System**.
2. In the options panel, select **Global Notifications**.
3. Click the **Servers** tab.

   Note: You do not need to configure the Output tab for Global Audit Logging.

4. From the + ⌄ drop-down menu, select **Syslog**.
   The **Define Syslog Notification Server** dialog is displayed.



Define Syslog Notification Server

Provides auditing through the use of the RFC 5424 syslog protocol. Regulations, such as SOX, PCI DSS, HIPAA, and many others are requiring organizations to implement comprehensive security measures, which often include collecting and analyzing logs from many different sources. Syslog has proven to be an effective format to consolidate logs, as there are many open source and proprietary tools for reporting and analysis.

Enable	☑
Name*	LDaudit
Description	Log Decoder for Global Audit Logging
Server IP Or Hostname*	[redacted]
Server Port	514
Protocol	UDP
Facility	USER
Max Alerts Per Minute	
Max Alert Wait Queue Size:	

5. Configure the Syslog notification server as described in the following table.

Field	Description
Enable	Select to enable the notification server.
Name	A name to identify or label the Log Decoder syslog notification server.
Description	(Optional) A brief description of the notification server.
Server IP or Hostname	The Log Decoder hostname or IP address.
Server Port	The port number where the target syslog process is listening.

Field	Description
Protocol	The protocol to be used for transferring formatted audit logs to the Log Decoder.
Facility	The Syslog facility to be used for writing formatted audit logs to the Log Decoder.

The **Max Alerts Per Minute** and **Max Alert Wait Queue Size** fields are not used for Global Audit Logging.

6. Click **Save**.

Next Steps

Select a default Audit Logging template to use for Global Audit Logging. If necessary, you can define your own custom template. Define a Template for Global Audit Logging provides additional information.

Define a Template for Global Audit Logging

This topic provides instructions on how to define an audit logging template to use for Global Audit Logging. Before you configure Global Audit Logging, configure a Syslog notification server and select an Audit Logging template. You can choose to use a default audit logging template or you can define your own template.

Security Analytics version 10.5 includes two default audit logging templates:

- **10.5 Default Audit CEF Template**: You can use this template for Log Decoders and third-party syslog servers.
- **10.5 Default Audit Human-Readable Format**: You can use this template only for third-party syslog servers. Do not forward messages from this template to a Log Decoder.

The first procedure provides instructions on how to define an audit logging template for a Log Decoder. The audit logging template defines the format and message fields of the audit logs sent to the Log Decoder or third-party syslog server.

Global audit logging templates that you define for a Log Decoder use Common Event Format (CEF) and must meet the following specific standard requirements:

- Include the CEF headers in the template.
- Use only the extensions (Key=Value) listed in the Supported CEF Meta Keys table.
- Ensure that the extensions are in the `key=${string}<space>key=${string}` format.

The second procedure provides instructions on how to define a custom global audit logging template in human-readable format for a third-party syslog server. For third-party syslog servers, you can define your own format (CEF or non-CEF).

Define a Global Audit Logging Template for a Log Decoder

You can use the **10.5 Default Audit CEF Template** to send global audit logs to a Log Decoder. If you want to define your own template, follow this procedure.

1. In the **Security Analytics** menu, select **Administration > System**.
2. In the options panel, select **Global Notifications**.
3. Click the **Templates** tab.
4. Click ✚ to configure a template.

5. In the **Define Template** dialog, provide the following information:

   a. In the **Name** field, type the name for the template.

   b. In the **Template Type** field, select the **Audit Logging** template type.

   c. In the **Description** field, type a brief description for the template.

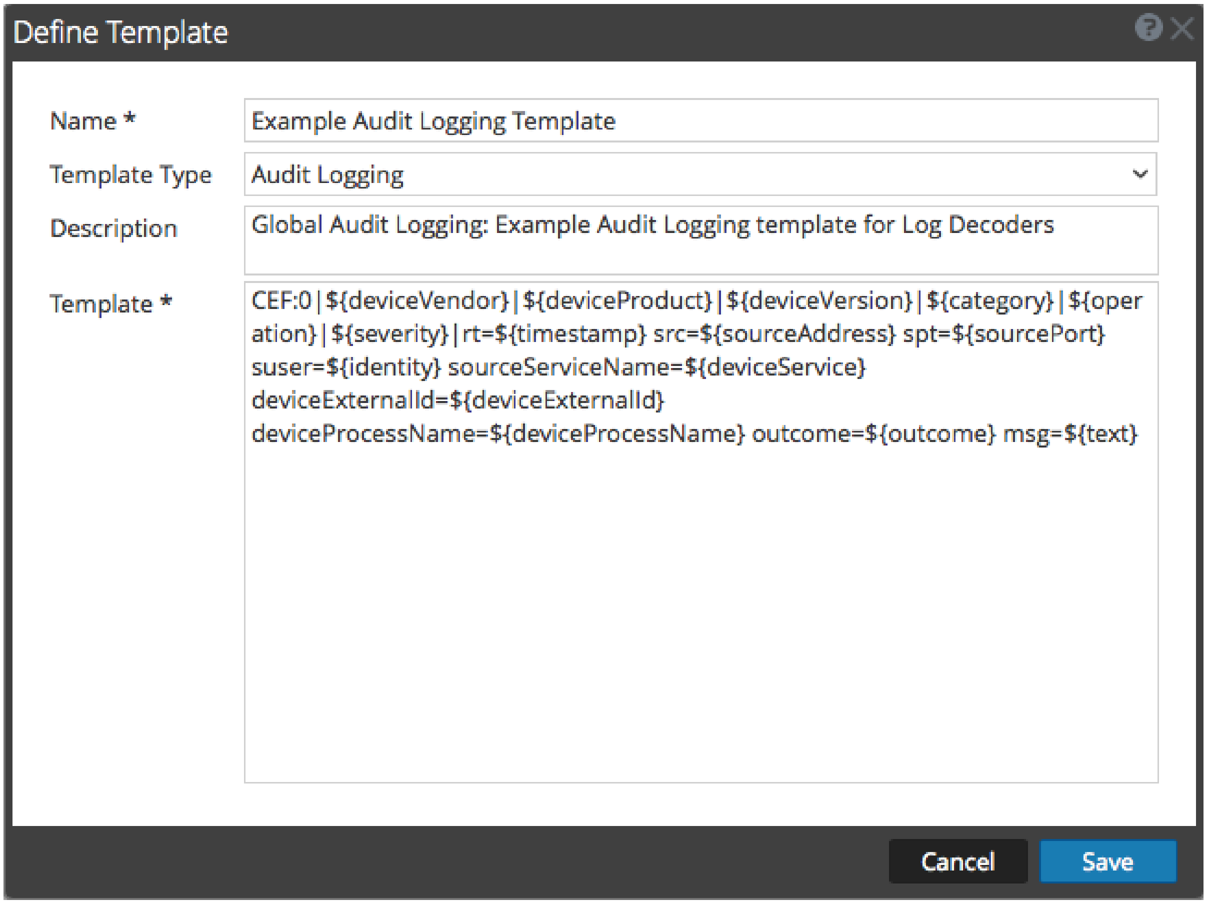
   d. In the **Template** field, enter the format for the audit logging template.
   The following format is a customized template provided as an example. It differs from the default CEF template.

```
CEF:0|${deviceVendor}|${deviceProduct}|${deviceVersion}|${category
}|${oper
ation}|${severity}| rt=${timestamp} src=${sourceAddress}
spt=${sourcePort}
suser=${identity} sourceServiceName=${deviceService}
deviceExternalId=${deviceExternalId} dst=${destinationAddress}
dpt=${destinationPort} dvcpid=${deviceProcessId}
deviceProcessName=${deviceProcessName} outcome=${outcome}
msg=${text}
```

   The highlighed CEF syslog header is required to conform to the CEF standard and is a requirement for the CEF parser in the Log Decoder. The other keys are optional and you can configure them. See all the supported meta keys that are supported by the CEF parser in the Log Decoder in the Supported CEF Meta Keys table.

   Note: Use all of the extensions in the following format:
   `deviceProcessName=${deviceProcessName} outcome=${outcome}`
   Include a `<space>` between each key=${string} pair in the extension keys section.

6. Click **Save**.



Define Template

Name * Example Audit Logging Template

Template Type Audit Logging

Description Global Audit Logging: Example Audit Logging template for Log Decoders

Template *

```
CEF:0|${deviceVendor}|${deviceProduct}|${deviceVersion}|${category}|${oper
ation}|${severity}|rt=${timestamp} src=${sourceAddress} spt=${sourcePort}
suser=${identity} sourceServiceName=${deviceService}
deviceExternalId=${deviceExternalId}
deviceProcessName=${deviceProcessName} outcome=${outcome} msg=${text}
```

After you define the CEF audit logging template, ensure that you have deployed and enabled the latest Common Event Format (CEF) parser from Live. "Find and Deploy Live Resources" and "Enable and Disable Log Parsers" provide instructions.

Note: If you need to use a specific meta key for Investigations and Reporting, ensure that the meta keys that you select are indexed in the **table-map.xml** file on the Log Decoder. If they are not indexed, follow the Maintain the Table Map Files topic in the *Host and Services Configuration Guide* procedure to update the table mappings. Ensure that the meta keys are also indexed in the **index-concentrator.xml** on the Concentrator.Edit a Service Index File topic in the *Host and Services Configuration Guide*provides additional information.

Define a Custom Global Audit Logging Template

For third-party syslog servers, you can define your own template format (CEF or non-CEF). You can use the **10.5 Default Audit Human-Readable Format** template to send global audit logs to a third-party syslog server in a format that is easier to read than the CEF format. If you want to define your own template in human-readable format, follow this procedure.

For Log Decoders, you must use a CEF template with some specific requirements. The *Define an Audit Logging Template for a Log Decoder* procedure above provides instructions for creating a template in CEF format.

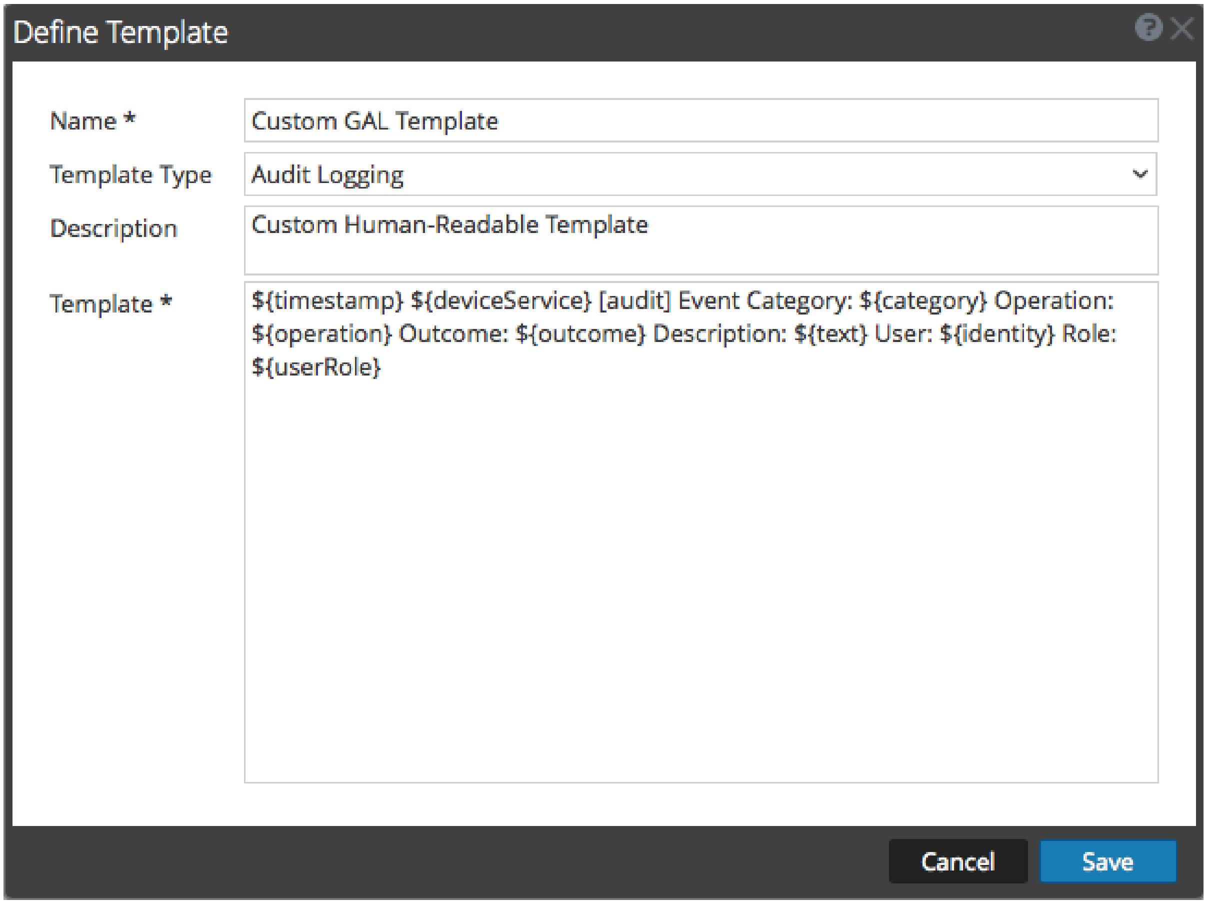
To define a custom global audit logging template in human-readable format:

1. In the **Security Analytics** menu, select **Administration > System**.
2. In the left navigation panel, select **Notifications**.
3. Click the **Templates** tab.
4. Click + to configure a template.
5. In the **Define Template** dialog, provide the following information:
    a. In the **Name** field, type the name for the template.
    b. In the **Template Type** field, select the **Audit Logging** template type.
    c. In the **Description** field, type a brief description for the template.
    d. In the **Template** field, enter the format for the audit logging template. The following example is in human-readable format with selected meta key variables.

    ```
    ${timestamp} ${deviceService} [audit] Event Category: ${category}
    Operation: ${operation} Outcome: ${outcome} Description: ${text}
    User: ${identity} Role: ${userRole}
    ```

    You can use any of the meta key variables that are supported by global audit logging shown in the Supported Global Audit Logging Meta Key Variables table.

6. Click **Save**.



Define Template

Name * Custom GAL Template

Template Type Audit Logging

Description Custom Human-Readable Template

Template * ${timestamp} ${deviceService} [audit] Event Category: ${category} Operation: ${operation} Outcome: ${outcome} Description: ${text} User: ${identity} Role: ${userRole}

The following example shows global audit logs in human-readable format for this template:

```
06 2015 14:16:04 REPORTING_ENGINE [audit] Event Category: CONFIGURATION
Operation: Set Outcome: null Description: null User: admin Role:
Administrators+Administrators+PRIVILEGED_CONNECTION_AUTHORITY
```

```
Apr 06 2015 14:16:04 REPORTING_ENGINE [audit] Event Category:
CONFIGURATION Operation: IPDBConfig Outcome: SUCCESS Description: Config
update event occurred User: admin Role:
Administrators+Administrators+PRIVILEGED_CONNECTION_AUTHORITY
```

```
Apr 06 2015 14:16:04 SA_SERVER [audit] Event Category: DATA_ACCESS
Operation: /admin/1/config Outcome: Success Description: null User:
admin Role: Administrators+Administrators+PRIVILEGED_CONNECTION_
AUTHORITY
```

Next Step

Define a Global Audit Logging Configuration provides instructions for defining a global audit logging configuration for Security Analytics.

Define a Global Audit Logging Configuration

This topic tells administrators how to define a global audit logging configuration. This procedure is required only if you choose to set up centralized audit logging in your environment. These global audit logging configurations define how the global audit logs are forwarded to external syslog systems or Log Decoders. Audit logs are forwarded to the selected Notification Servers.

Prerequisites

Before starting this procedure, configure the following to use for global audit logging:

- Syslog Notification Server
- Audit Logging Template

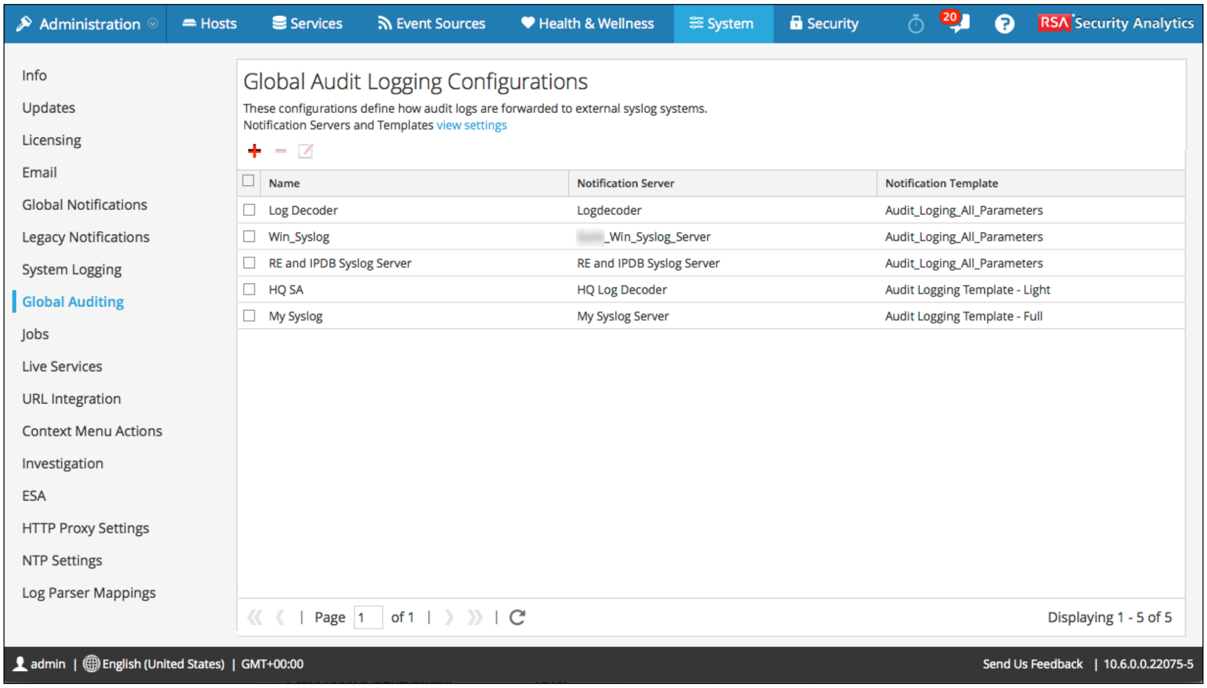
You configure the notification server and template on the Global Notifications panel. You can access the Global Notifications panel by clicking the **view settings** link on the Global Audit Logging Configurations panel. You can only define a Syslog type of Notification Server for global audit logging. For Log Decoders, use a Syslog type of Notification Server and a Common Event Format (CEF) audit logging template. You can use a default audit logging template or define your own template. You can create multiple audit logging templates and Syslog Notification Servers to use for your global audit logging configurations.

If you are forwarding global audit logs to a Log Decoder, deploy the Common Event Format parser to your Log Decoder from Live.

Add a Global Audit Logging Configuration

1. In the **Security Analytics** menu, select **Administration > System**.
2. In the options panel, select **Global Auditing**.

   The **Global Audit Logging Configurations** panel is displayed.



Global Audit Logging Configurations

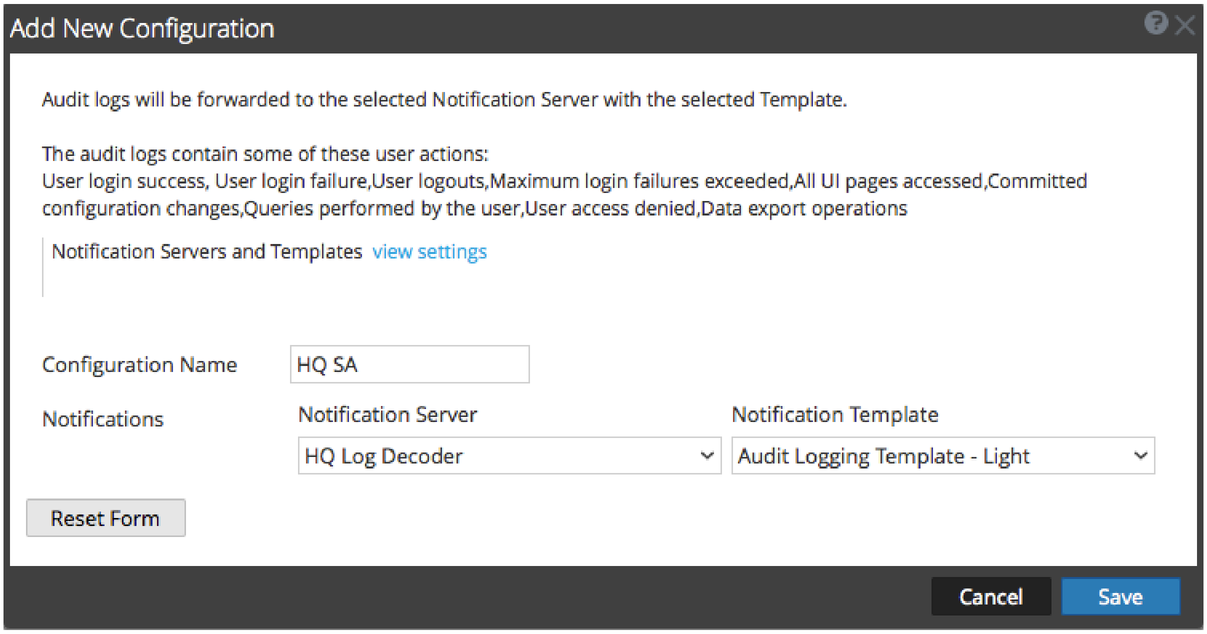
These configurations define how audit logs are forwarded to external syslog systems.
Notification Servers and Templates view settings

□	Name	Notification Server	Notification Template
□	Log Decoder	Logdecoder	Audit_Loging_All_Parameters
□	Win_Syslog	[redacted]_Win_Syslog_Server	Audit_Loging_All_Parameters
□	RE and IPDB Syslog Server	RE and IPDB Syslog Server	Audit_Loging_All_Parameters
□	HQ SA	HQ Log Decoder	Audit Logging Template - Light
□	My Syslog	My Syslog Server	Audit Logging Template - Full

Displaying 1 - 5 of 5

3. Click ✚ to add a global audit logging configuration.

   The **Add New Configuration** dialog is displayed.



Add New Configuration

Audit logs will be forwarded to the selected Notification Server with the selected Template.

The audit logs contain some of these user actions:
User login success, User login failure,User logouts,Maximum login failures exceeded,All UI pages accessed,Committed configuration changes,Queries performed by the user,User access denied,Data export operations

Notification Servers and Templates view settings

Configuration Name	HQ SA	
Notifications	Notification Server	Notification Template
	HQ Log Decoder	Audit Logging Template - Light

4. In the **Configuration Name** field, type a unique name for the global audit logging configuration. For example, you can create a configuration for a specific type of global audit logging configuration, such as HQ SA for a Security Analytics headquarters configuration.

5. In the **Notifications** section, select the syslog **Notification Server** to use for this configuration. The notification server is the destination to send the global audit logs.
6. Select the audit logging **Notification Template** to use for this configuration. The Audit Logging template defines the format and audit log message fields to be sent.
7. Click **Save**.

Add New Configuration Dialog provides additional information and examples of the user actions logged. For a list of message types being logged by the various Security Analytics components, see Global Audit Logging Operation Reference.

Edit a Global Audit Logging Configuration

This topic provides instructions on how to edit a global audit logging configuration. You can edit a global audit logging configuration to change the destination of the global audit logs for your user audits by selecting a different Notification Server. You can also change the format and message fields of the global audit log entries by selecting a different Notification Template. You make changes to the Notification Server or Template on the Global Notifications panel. You can access the Global Notifications panel by clicking the **view settings** link on the Global Audit Logging Configurations panel.

You cannot change which Security Analytics user actions are logged and sent in the global audit logs.

1. In the **Security Analytics** menu, select **Administration > System**.
2. In the options panel, select **Global Auditing**.
3. In the **Global Audit Logging Configurations** panel, select a configuration to edit and click ✎.
4. In the **Add New Configuration** dialog, modify the global audit logging configuration as required. You can modify the **Configuration Name** and select a different **NotificationServer** or **Template**.
5. Click **Save.**

Delete a Global Audit Logging Configuration

Deleting a global audit configuration does not delete the associated notification server and template. After you delete a global audit logging configuration, the forwarding of global audit logs specified in that configuration is discontinued.

1. In the **Security Analytics** menu, select **Administration > System**.
2. In the options panel, select **Global Auditing**.

3. In the **Global Audit Logging Configurations** panel, select a configuration to delete and click ✎.

   A confirmation dialog is displayed.

4. Click **Yes**.

   The selected configuration is deleted.

Verify Global Audit Logs

This topic provides instructions on how to verify global audit logs. After you have configured global audit logging, you need to test your global audit logs to ensure that they show the audit events as defined in your global audit logging template.

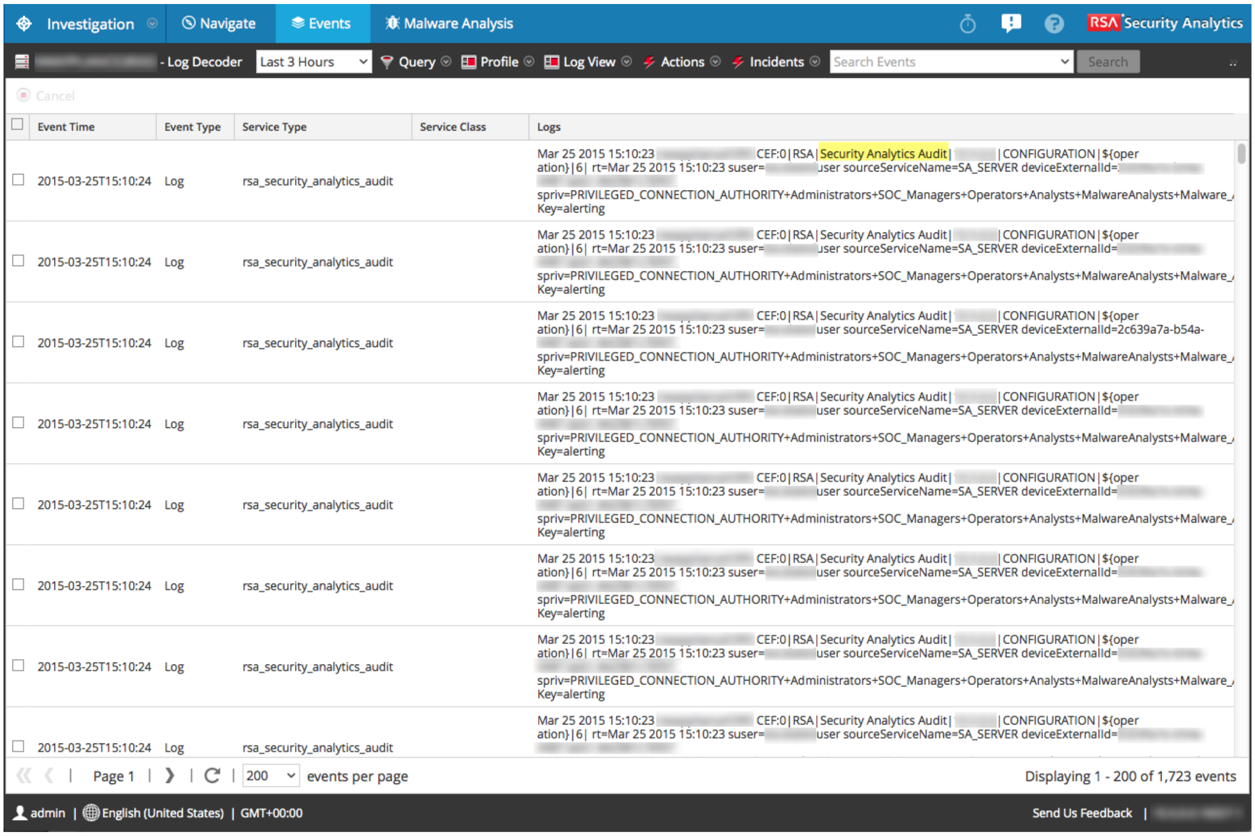
Prerequisites

Before starting this task, complete the steps detailed in Configure Global Audit Logging.

Procedure

To view and verify the global audit logs if you are using a Log Decoder:

1. In the **Security Analytics** menu, select **Investigation > Events**.
2. From within the Navigate view, select the Log Decoder, and click **Navigate**. The global audit logs appear and display `Security Analytics Audit` within the logs.



[redacted] - Log Decoder | Last 3 Hours

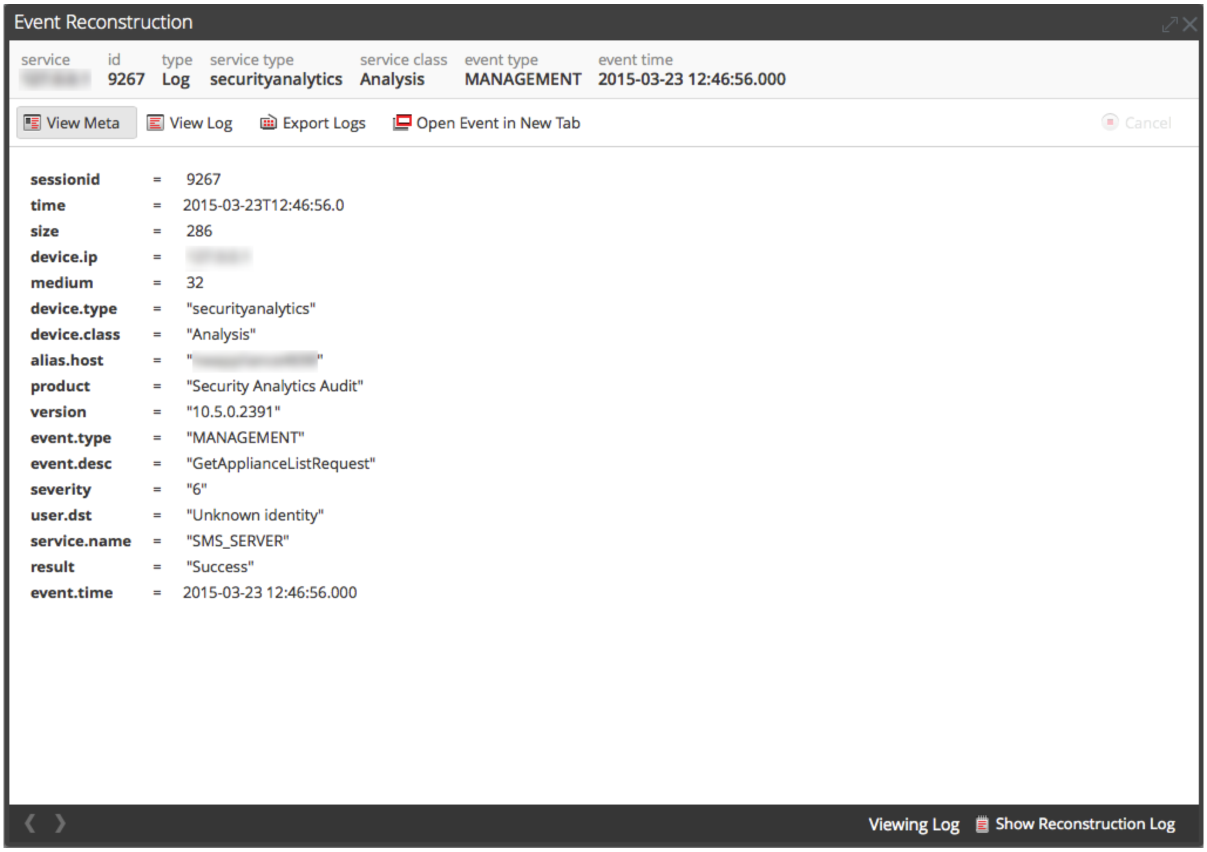
☐	Event Time	Event Type	Service Type	Service Class	Logs
☐	2015-03-25T15:10:24	Log	rsa_security_analytics_audit		Mar 25 2015 15:10:23 [redacted] CEF:0|RSA|Security Analytics Audit|[redacted]|CONFIGURATION|${oper ation}|6| rt=Mar 25 2015 15:10:23 suser=[redacted]user sourceServiceName=SA_SERVER deviceExternalId=[redacted] spriv=PRIVILEGED_CONNECTION_AUTHORITY+Administrators+SOC_Managers+Operators+Analysts+MalwareAnalysts+Malware_ Key=alerting
☐	2015-03-25T15:10:24	Log	rsa_security_analytics_audit		Mar 25 2015 15:10:23 [redacted] CEF:0|RSA|Security Analytics Audit|[redacted]|CONFIGURATION|${oper ation}|6| rt=Mar 25 2015 15:10:23 suser=[redacted]user sourceServiceName=SA_SERVER deviceExternalId=[redacted] spriv=PRIVILEGED_CONNECTION_AUTHORITY+Administrators+SOC_Managers+Operators+Analysts+MalwareAnalysts+Malware_ Key=alerting
☐	2015-03-25T15:10:24	Log	rsa_security_analytics_audit		Mar 25 2015 15:10:23 [redacted] CEF:0|RSA|Security Analytics Audit|[redacted]|CONFIGURATION|${oper ation}|6| rt=Mar 25 2015 15:10:23 suser=[redacted]user sourceServiceName=SA_SERVER deviceExternalId=2c639a7a-b54a- [redacted] spriv=PRIVILEGED_CONNECTION_AUTHORITY+Administrators+SOC_Managers+Operators+Analysts+MalwareAnalysts+Malware_ Key=alerting
☐	2015-03-25T15:10:24	Log	rsa_security_analytics_audit		Mar 25 2015 15:10:23 [redacted] CEF:0|RSA|Security Analytics Audit|[redacted]|CONFIGURATION|${oper ation}|6| rt=Mar 25 2015 15:10:23 suser=[redacted]user sourceServiceName=SA_SERVER deviceExternalId=[redacted] spriv=PRIVILEGED_CONNECTION_AUTHORITY+Administrators+SOC_Managers+Operators+Analysts+MalwareAnalysts+Malware_ Key=alerting
☐	2015-03-25T15:10:24	Log	rsa_security_analytics_audit		Mar 25 2015 15:10:23 [redacted] CEF:0|RSA|Security Analytics Audit|[redacted]|CONFIGURATION|${oper ation}|6| rt=Mar 25 2015 15:10:23 suser=[redacted]user sourceServiceName=SA_SERVER deviceExternalId=[redacted] spriv=PRIVILEGED_CONNECTION_AUTHORITY+Administrators+SOC_Managers+Operators+Analysts+MalwareAnalysts+Malware_ Key=alerting
☐	2015-03-25T15:10:24	Log	rsa_security_analytics_audit		Mar 25 2015 15:10:23 [redacted] CEF:0|RSA|Security Analytics Audit|[redacted]|CONFIGURATION|${oper ation}|6| rt=Mar 25 2015 15:10:23 suser=[redacted]user sourceServiceName=SA_SERVER deviceExternalId=[redacted] spriv=PRIVILEGED_CONNECTION_AUTHORITY+Administrators+SOC_Managers+Operators+Analysts+MalwareAnalysts+Malware_ Key=alerting
☐	2015-03-25T15:10:24	Log	rsa_security_analytics_audit		Mar 25 2015 15:10:23 [redacted] CEF:0|RSA|Security Analytics Audit|[redacted]|CONFIGURATION|${oper ation}|6| rt=Mar 25 2015 15:10:23 suser=[redacted]user sourceServiceName=SA_SERVER deviceExternalId=[redacted] spriv=PRIVILEGED_CONNECTION_AUTHORITY+Administrators+SOC_Managers+Operators+Analysts+MalwareAnalysts+Malware_ Key=alerting
☐	2015-03-25T15:10:24	Log	rsa_security_analytics_audit		Mar 25 2015 15:10:23 [redacted] CEF:0|RSA|Security Analytics Audit|[redacted]|CONFIGURATION|${oper ation}|6| rt=Mar 25 2015 15:10:23 suser=[redacted]user sourceServiceName=SA_SERVER deviceExternalId=[redacted]

Page 1 | 200 events per page — Displaying 1 - 200 of 1,723 events

admin | English (United States) | GMT+00:00 — Send Us Feedback | [redacted]

3. Compare the fields in the global audit logs with the fields defined in the global audit logging template that you used in your global audit logging configuration.

4. Double-click a log and in the Event Reconstruction dialog, select **View Meta**.



service	id	type	service type	service class	event type	event time
[redacted]	9267	Log	securityanalytics	Analysis	MANAGEMENT	2015-03-23 12:46:56.000

```
sessionid      =  9267
time           =  2015-03-23T12:46:56.0
size           =  286
device.ip      =  [redacted]
medium         =  32
device.type    =  "securityanalytics"
device.class   =  "Analysis"
alias.host     =  "[redacted]"
product        =  "Security Analytics Audit"
version        =  "10.5.0.2391"
event.type     =  "MANAGEMENT"
event.desc     =  "GetApplianceListRequest"
severity       =  "6"
user.dst       =  "Unknown identity"
service.name   =  "SMS_SERVER"
result         =  "Success"
event.time     =  2015-03-23 12:46:56.000
```

5. Verify that the meta that you want to audit is correct.

Example CEF Output

The following example shows global audit logs for an audit logging Common Event Format (CEF) template.

Template:

```
CEF:0|${deviceVendor}|${deviceProduct}|${deviceVersion}|${category}|${operation}|${severity}| rt=${timestamp} src=${sourceAddress}
spt=${sourcePort}
suser=${identity} sourceServiceName=${deviceService}
```

```
deviceExternalId=${deviceExternalId} dst=${destinationAddress}
dpt=${destinationPort} dvcpid=${deviceProcessId}
deviceProcessName=${deviceProcessName} outcome=${outcome} msg=${text}
```

Example logs:

```
2015-04-09T18:45:46.313096+00:00 <hostname> CEF:0|RSA|Security Analytics
Audit|10.5.0.0|AUTHENTICATION|login|6|rt=Apr 09 2015 18:45:46
src=10.20.252.197 spt=51366 suser=admin sourceServiceName=LOG_DECODER
deviceExternalId=96b08193-a9d0-4a79-b362-87b56851f411 outcome=success

2015-04-09T18:45:46.322132+00:00 <hostname> CEF:0|RSA|Security Analytics
Audit|10.5.0.0|AUTHENTICATION|logoff|6|rt=Apr 09 2015 18:45:46
src=10.20.204.33 spt=47690 suser=admin sourceServiceName=BROKER
deviceExternalId= 314fb8c8-afe4-4249-9468-a36035008a52 outcome=success

2015-04-09T18:45:46.325792+00:00 <hostname> CEF:0|RSA|Security Analytics
Audit|10.5.0.0|AUTHENTICATION|logoff|6|rt=Apr 09 2015 18:45:46
src=10.20.252.197 spt=59495 suser=admin sourceServiceName=CONCENTRATOR
deviceExternalId= 96b08193-a9d0-4a79-b362-87b56851f411 outcome=success
```

Where `<hostname>` is the syslog header hostname (alias.host).

For CEF templates, if an audit event does not have a value for a field in the template, then the corresponding event arriving at the third party syslog server or Log Decoder will have the field removed.

Example Human-Readable Format Output

The following example shows global audit logs for an audit logging human-readable format template on a third-party syslog server.

Template:

```
${timestamp} ${deviceService} [audit] Event Category: ${category}
Operation: ${operation} Outcome: ${outcome} Description: ${text}
User: ${identity} Role: ${userRole}
```

Example logs:

```
06 2015 14:16:04 REPORTING_ENGINE [audit] Event Category: CONFIGURATION
Operation: Set Outcome: null Description: null User: admin Role:
Administrators+Administrators+PRIVILEGED_CONNECTION_AUTHORITY

Apr 06 2015 14:16:04 REPORTING_ENGINE [audit] Event Category:
CONFIGURATION Operation: IPDBConfig Outcome: SUCCESS Description: Config
update event occurred User: admin Role:
Administrators+Administrators+PRIVILEGED_CONNECTION_AUTHORITY
```

```
Apr 06 2015 14:16:04 SA_SERVER [audit] Event Category: DATA_ACCESS
Operation: /admin/1/config Outcome: Success Description: null User:
admin Role: Administrators+Administrators+PRIVILEGED_CONNECTION_
AUTHORITY
```

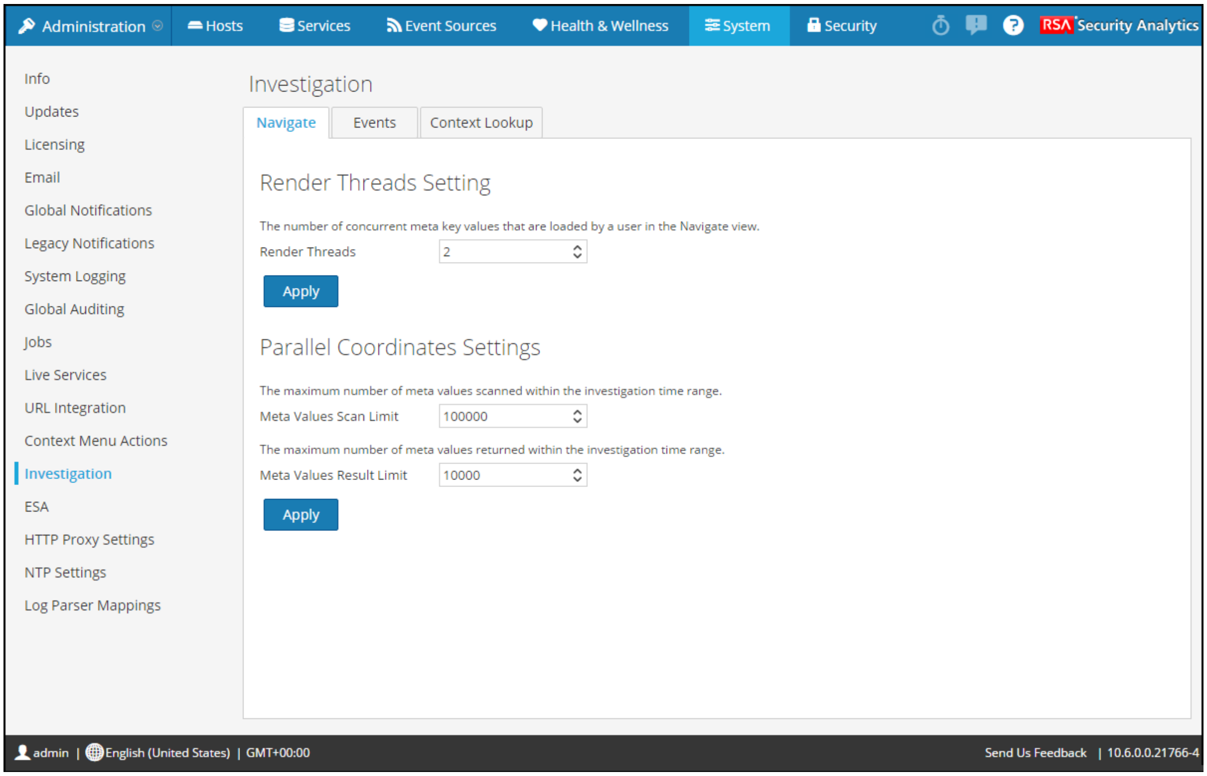
Configure Investigation Settings

This topic provides instructions for administrators who are configuring the settings that apply to all Investigations on the Security Analytics instance being configured. The settings for configuring and tuning behavior of Security Analytics Investigation are available in the System view > Investigation panel. These settings apply to all investigations and reconstructions on the current instance of Security Analytics.

Configure Navigate, Events, and Context Lookup Settings

1. In the **Security Analytics** menu, select **Administration > System.**
2. In the options panel, select **Investigation.**

   The Investigation Configuration panel is displayed.



Investigation

Render Threads Setting

The number of concurrent meta key values that are loaded by a user in the Navigate view.

Render Threads: 2

Parallel Coordinates Settings

The maximum number of meta values scanned within the investigation time range.

Meta Values Scan Limit: 100000

The maximum number of meta values returned within the investigation time range.

Meta Values Result Limit: 10000

3. In the **Navigate** tab, in the **Render Threads Settings** field, select the maximum number of concurrent meta key values that are loaded by a single user in the navigate view. Click **Apply**.
4. In the **Navigate** tab, in the **Parallel Coordinates Settings** section, set the maximum limits for meta values scanned and meta value results that can be included in a parallel coordinates visualization. For better performance, these are the recommended settings: Meta Values

Scan Limit -100000 and Meta Values Result Limit to 1,000-10,000
Click **Apply**.

5. In the **Events** tab, in the **Event Search Settings** section, set the maximum numbers of events scanned and event results displayed when an analyst is conducting an event search in the Events view. Click **Apply**.
6. In the **Events** tab, in the **Reconstruction Settings** section, set the limits for the amount of data processed in the reconstruction of a single event. The default values are 100 maximum packets and 2097152 bytes. If analysts are seeing slow performance when reconstructing sessions in Investigation, the reconstructing settings may need adjustment. Click **Apply.**

> **Caution:** Setting a higher value affects the performance of the Security Analytics server by increasing the time and memory taken to create a reconstruction of an event. Setting the value to zero disables any limit and may lead to a Security Analytics server crash.

7. (Optional) In the **Events** tab, in the **Web View Reconstruction Settings** section, enable the use of supporting files in a web view reconstruction, and configure the additional settings to calibrate web view reconstructions. These include the time range (in seconds) to scan for related events, the maximum number of related events to scan, and overrides to Reconstruction Settings for use with web view reconstructions. Click **Apply**.
8. In the **Context Lookup** tab, manage mapping of Context Hub meta types with meta keys in Investigation. You can add or remove meta keys to the list of meta types supported in Investigation by Context Hub. Procedures associated with this tab are provided in "Manage Meta Type and Meta Key Mapping" in the **Investigation and Malware Analysis Guide**.

Clear Reconstruction Cache for Services

Under Reconstruction Cache Settings, administrators can clear the cache for one or more services. For example, the administrator can clear the cache for a single Broker, a Broker and Decoder, or all connected services. These are a few examples of causes for stale cache being used in a reconstruction.

- The downstream services may have their sessions invalidated or data reset. As an example, if Investigation is browsing a Broker and a downstream Concentrator or Decoder has a data reset, the meta and session data for the investigating service (Broker) does not match the content if the downstream service has reset and repopulated. The reconstruction in Investigation shows content from cache, which does not match the real content. Even if the Decoder is offline, content is still displayed in the Broker reconstruction. Clearing cache on the Broker causes the Security Analytics to reach out to the Decoder and an error is returned because the Decoder is offline.

- Another case where cache may be stale is when a service ID for a downstream service changes. This can happen when exporting, importing, deleting, and adding services to Security Analytics because Security Analytics can reuse service IDs. In this case, clearing the cache on the Broker causes Security Analytics to request data from the services.

To clear reconstruction cache, do one of the following:

1. To clear cache for one or more services, select the services and click **Clear Cache for the Selected Services**.
2. To clear the cache for all listed services, click **Clear Cache for All Services.**
   The reconstruction cache for the selected services is cleared. Security Analytics sends a request for data to the services.

Configure Live Services Settings

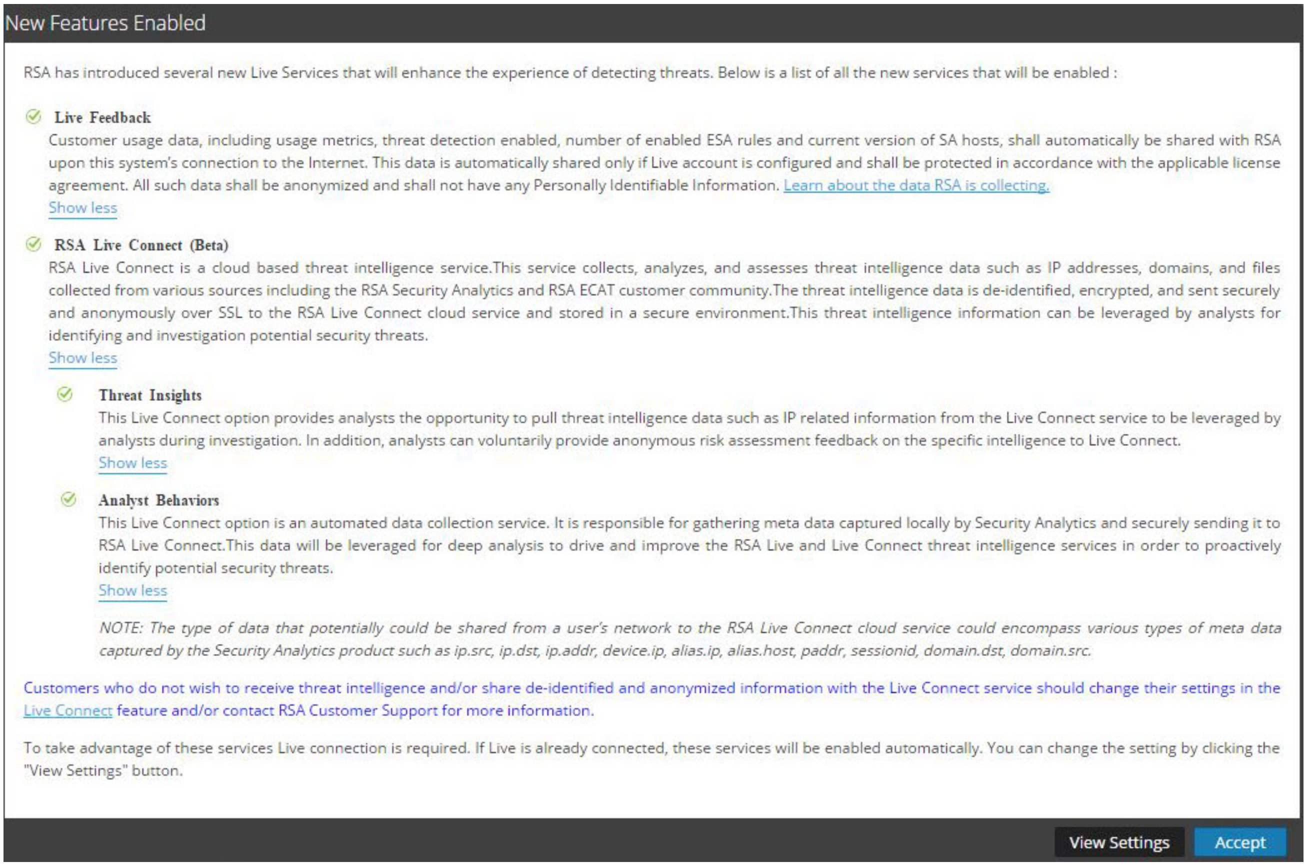
Options for configuring Live Services are in the System View > Live Services Configuration panel. The Live Configuration panel allows you to configure:

- The Live account.
- The Live Content update schedule and preferences for notification of updates.
- Participation in Security Analytics Live Feedback.
- Sharing Live Content Usage
- RSA Live Connect (Beta)

Prerequisite

To activate your Live account for Security Analytics, please contact RSA Customer Care. When you have a confirmation that your Live account has been set up, you can configure and test the CMS server connection.

When you log on to Security Analytics for the first time, you are prompted with **New Features Enabled** dialog.



New Features Enabled

RSA has introduced several new Live Services that will enhance the experience of detecting threats. Below is a list of all the new services that will be enabled :

✓ **Live Feedback**

Customer usage data, including usage metrics, threat detection enabled, number of enabled ESA rules and current version of SA hosts, shall automatically be shared with RSA upon this system's connection to the Internet. This data is automatically shared only if Live account is configured and shall be protected in accordance with the applicable license agreement. All such data shall be anonymized and shall not have any Personally Identifiable Information. Learn about the data RSA is collecting.

Show less

✓ **RSA Live Connect (Beta)**

RSA Live Connect is a cloud based threat intelligence service.This service collects, analyzes, and assesses threat intelligence data such as IP addresses, domains, and files collected from various sources including the RSA Security Analytics and RSA ECAT customer community.The threat intelligence data is de-identified, encrypted, and sent securely and anonymously over SSL to the RSA Live Connect cloud service and stored in a secure environment.This threat intelligence information can be leveraged by analysts for identifying and investigation potential security threats.

Show less

✓ **Threat Insights**

This Live Connect option provides analysts the opportunity to pull threat intelligence data such as IP related information from the Live Connect service to be leveraged by analysts during investigation. In addition, analysts can voluntarily provide anonymous risk assessment feedback on the specific intelligence to Live Connect.

Show less

✓ **Analyst Behaviors**

This Live Connect option is an automated data collection service. It is responsible for gathering meta data captured locally by Security Analytics and securely sending it to RSA Live Connect.This data will be leveraged for deep analysis to drive and improve the RSA Live and Live Connect threat intelligence services in order to proactively identify potential security threats.

Show less

NOTE: The type of data that potentially could be shared from a user's network to the RSA Live Connect cloud service could encompass various types of meta data captured by the Security Analytics product such as ip.src, ip.dst, ip.addr, device.ip, alias.ip, alias.host, paddr, sessionid, domain.dst, domain.src.

Customers who do not wish to receive threat intelligence and/or share de-identified and anonymized information with the Live Connect service should change their settings in the Live Connect feature and/or contact RSA Customer Support for more information.

To take advantage of these services Live connection is required. If Live is already connected, these services will be enabled automatically. You can change the setting by clicking the "View Settings" button.

When you click **Accept**, you automatically agree to the following:

- Participate in Live Feedback.
- Use Live Connect features to receive threat intelligence data.
- Allow Security Analytics to send anonymous, technical data about your environment to RSA.

If you click on **View Settings**, you are redirected to the Live Services user interface to view the settings for Live Feedback and Live Connect Threat Data Sharing. If you have not configured the Live Account a masked screen is displayed.

For information on Analyst Behaviors and Data Sharing, see the **Security Analytics Feedback and Data Sharing** topic in the *Live Services Management Guide*.

About Live Feedback Participation

When you participate in Live Feedback, it collects relevant information for further improvement. For information on Live Feedback, see Live Feedback Overview.

When you install Security Analytics, you will be prompted to participate in Live Feedback. For information, see .Configure Live Services Settings

If needed, you can manually download historical usage data and share it with RSA. For information on how to download historical usage data and share it with RSA, see Upload Data to RSA for Live Feedback.

Procedures

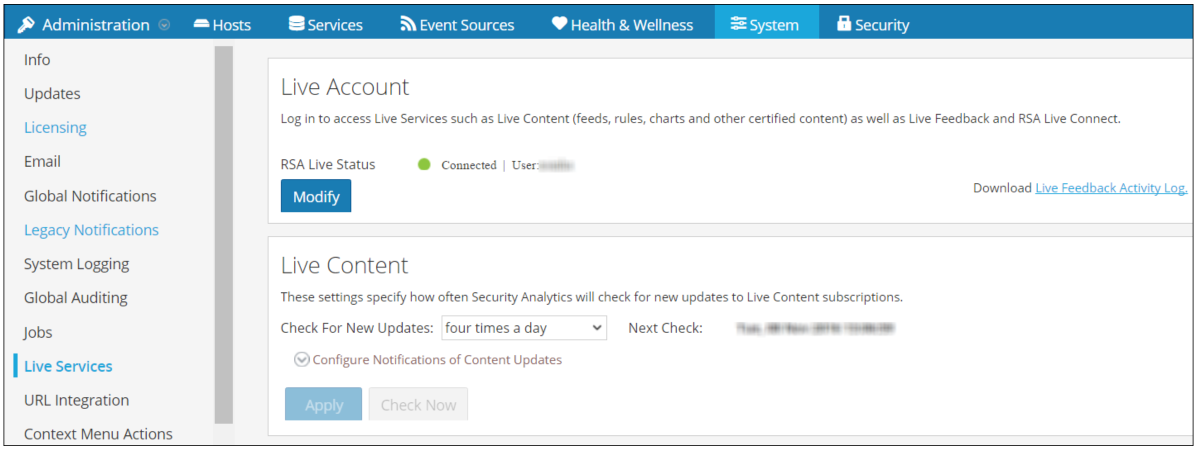
This topic contains the following procedures:

- Access the Live Services Configuration Panel
- Configure Live Account
- Configure the Live Content Synchronization Interval and Notification
- Force Immediate Synchronization
- About RSA Live Connect (Beta)

Access the Live Services Configuration Panel

To access the Live Configuration panel:

1. In the Security Analytics menu, select **Administration > System.**
2. In the left navigation panel, select **Live Services**.



Live Account

Log in to access Live Services such as Live Content (feeds, rules, charts and other certified content) as well as Live Feedback and RSA Live Connect.

RSA Live Status ● Connected | User:[redacted]

Download Live Feedback Activity Log.

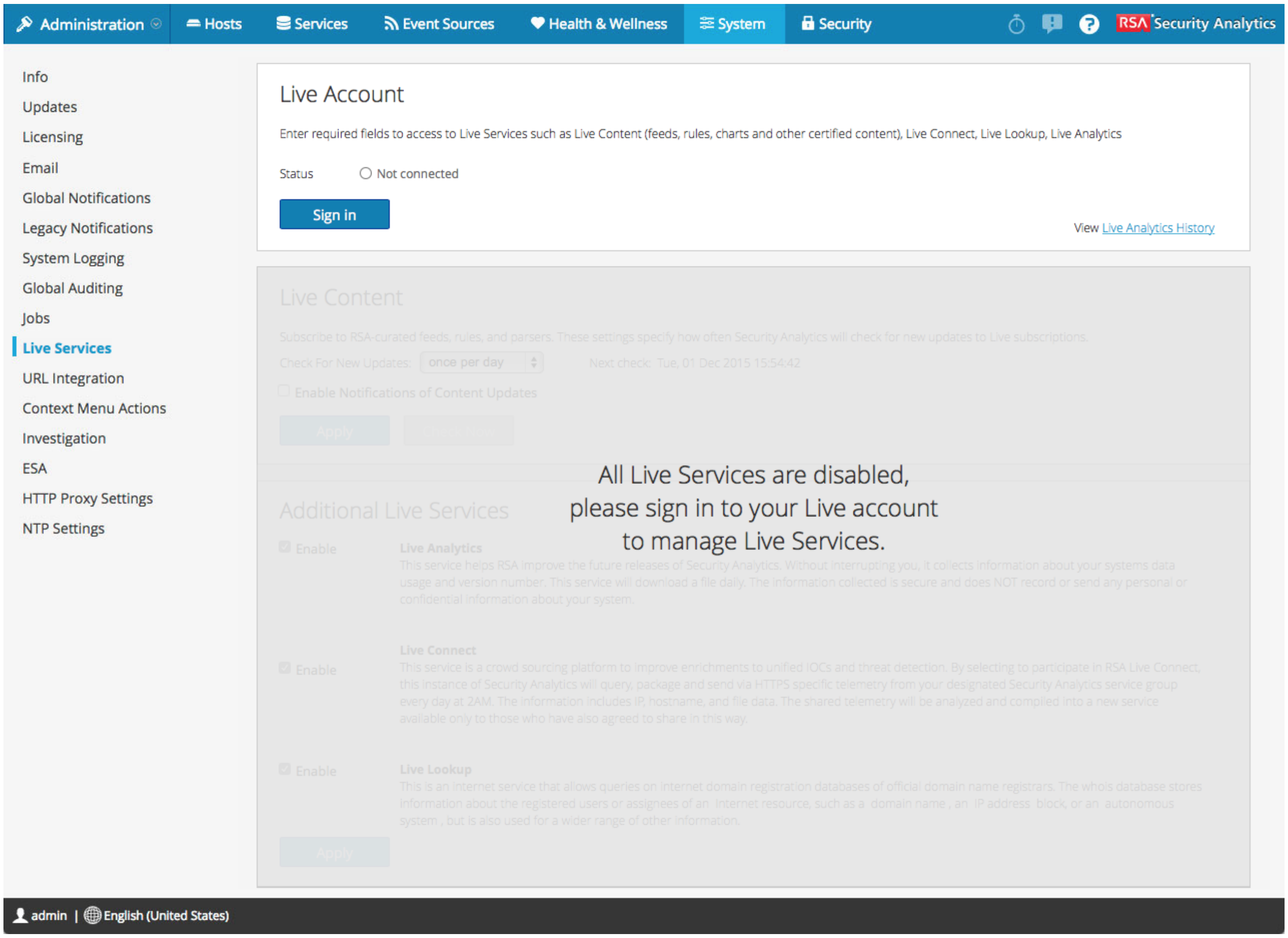
Live Content

These settings specify how often Security Analytics will check for new updates to Live Content subscriptions.

Check For New Updates: four times a day Next Check: [redacted]

Configure Notifications of Content Updates

Note: If you are not signed in with your Live Account credentials, a masked screen is displayed.



Live Account

Enter required fields to access to Live Services such as Live Content (feeds, rules, charts and other certified content), Live Connect, Live Lookup, Live Analytics

Status ○ Not connected

Sign in

View Live Analytics History

Live Content

Subscribe to RSA-curated feeds, rules, and parsers. These settings specify how often Security Analytics will check for new updates to Live subscriptions.

Check For New Updates: once per day   Next check: Tue, 01 Dec 2015 15:54:42

□ Enable Notifications of Content Updates

Apply   Check Now

All Live Services are disabled,
please sign in to your Live account
to manage Live Services.

Additional Live Services

☑ Enable   **Live Analytics**
This service helps RSA improve the future releases of Security Analytics. Without interrupting you, it collects information about your systems data usage and version number. This service will download a file daily. The information collected is secure and does NOT record or send any personal or confidential information about your system.

☑ Enable   **Live Connect**
This service is a crowd sourcing platform to improve enrichments to unified IOCs and threat detection. By selecting to participate in RSA Live Connect, this instance of Security Analytics will query, package and send via HTTPS specific telemetry from your designated Security Analytics service group every day at 2AM. The information includes IP, hostname, and file data. The shared telemetry will be analyzed and compiled into a new service available only to those who have also agreed to share in this way.

☑ Enable   **Live Lookup**
This is an internet service that allows queries on internet domain registration databases of official domain name registrars. The whois database stores information about the registered users or assignees of an Internet resource, such as a domain name , an IP address block, or an autonomous system , but is also used for a wider range of other information.

Apply

Configure Live Account

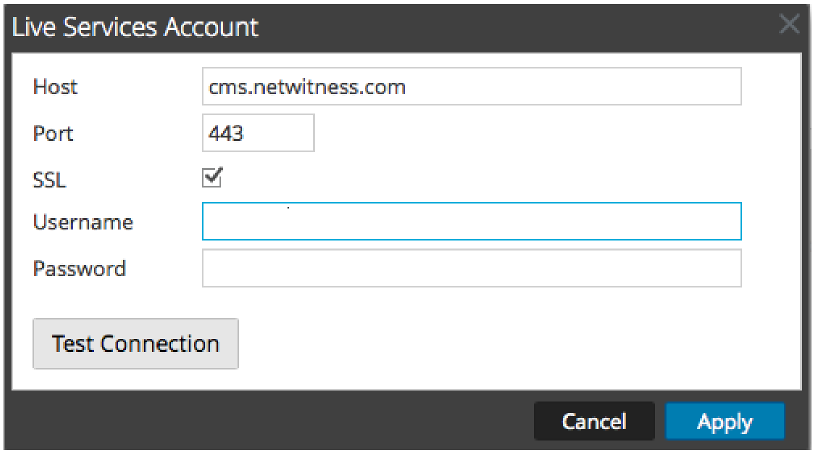
In the **Live Account** section, you must set up the user's Live account. The information needed to set up the user’s Live account consists of the Username, Password, and Live URL for the Content Management System. This information is provided by Customer Care.

To configure Live account:

1. In the **Live Account** section, click **Sign In**.

   > **Note:** The **Modify** button shows that the live account is configured. Click **Modify,** to change the user that is accessing Live Services.

2. In the Live Services Account dialog box, enter the Host (typically **cms.netwitness.com**) and type your username and password.



Live Services Account

Host: cms.netwitness.com

Port: 443

SSL: ☑

Username:

Password:

3. (Optional) If you are using a different CMS, type the host URL for the Content Management System. The default points to the CMS at **cms.netwitness.com**.

4. (Optional) If you are using a different CMS, type the communications port for Live to send requests to the Content Management System. The default for this field is **443**, which is the communications port on the Content Management System.

5. (Optional) If you do not want to use SSL, uncheck the **SSL** option. (SSL is enabled by default.)

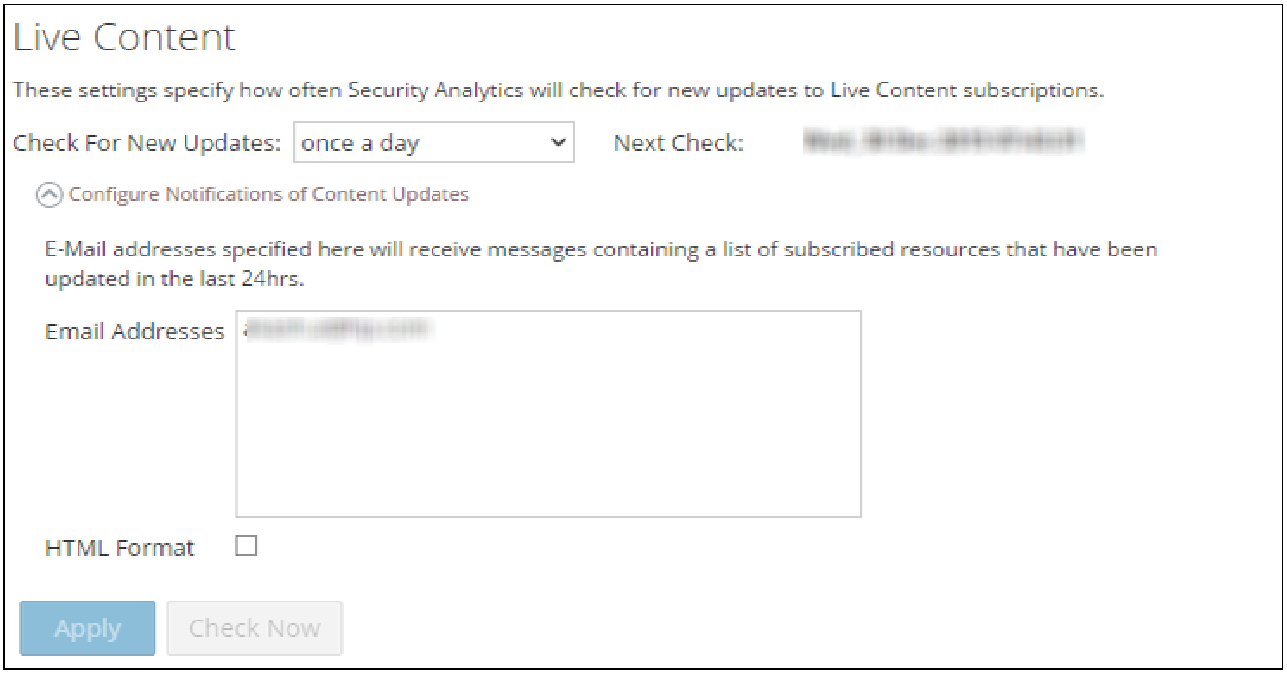
6. Click **Test connection** to test the connection to CMS.

7. To save and apply the configuration, click **Apply**.

Configure the Live Content Synchronization Interval and Notification

You can change the interval at which Security Analytics checks for new updates to Live Content:

1. Use the **Check for New Updates** field to change the interval. Select an interval from the drop-down list. The default value for this setting is **once a day**.



Live Content

These settings specify how often Security Analytics will check for new updates to Live Content subscriptions.

Check For New Updates: once a day

Next Check: [redacted]

Configure Notifications of Content Updates

E-Mail addresses specified here will receive messages containing a list of subscribed resources that have been updated in the last 24hrs.

Email Addresses [redacted]

HTML Format □

2. To configure Security Analytics Live Services to send update reports to one or more people, select **Enable Notifications of Content Updates**.
3. In the **Email Addresses** field, type the email addresses as a comma-separated list, for example, **john@company.com,ted@company.com,brian@company.com**
4. (Optional) To receive messages in HTML format rather than plain text, select **HTML Format**.
5. To save and apply, click **Apply**.

   The time and date of the next scheduled Live synchronization based on the configured interval for checking is displayed.

Force Immediate Synchronization

Instead of waiting for the next scheduled resource cycle, this option forces Live to begin immediate synchronization of the subscribed resources in this instance of Security Analytics. One use for this is to see the immediate impact of a configuration change. For example, a new service has been added, or new resources have been toggled for automatic deployment. The scheduled synchronization could take place hours later if Security Analytics Live is set to synchronize a few times a day.

Caution: Synchronization can cause a parser reload if a FlexParser is deployed in the update cycle. This is acceptable once or twice a day, but a number of back-to-back parser reloads can cause packet loss at the Decoder. If this is the initial setup and you haven't configured Live resource subscriptions, do not Synchronize Now. Wait until you have configured subscriptions.

To force immediate synchronization, click **Check Now**. Security Analytics checks for updates in subscribed resources.

About RSA Live Connect (Beta)

RSA Live Connect is a cloud based threat intelligence service. This service collects, analyzes, and assesses threat intelligence data such as IP addresses, domains, and files collected from various sources including the RSA Security Analytics and RSA ECAT customer community. RSA Live Connect consists of the following features:

- Threat Insights
- Analyst Behaviors

Threat Insights

Threat Insights provides analysts the opportunity to pull threat intelligence data such as IP related information from the Live Connect service to be leveraged by the analysts during investigation.

By default, **Threat Insights** is enabled in **Additional Live Services** section. If Context Hub service is configured, Live Connect is automatically added as a data source for Context Hub. For more information, see the **Configure Live Connect Data Source for Context Hub** topic in the *Context Hub Configuration Guide*.

With Live Connect as a data source for context hub, you can use the Context Lookup option in Investigation > Navigate view or Investigation > Events view to fetch contextual information. For instructions, see the **View Additional Context for a Data Point** topic in the *Investigation and Malware Analysis Guide*.

Analyst Behaviors

Analyst Behaviors is a feature where analysts participate in sharing data to RSA community. This is an automated data collection service. Its goal is to share potential threat intelligence data to the RSA Live Connect cloud service for analysis. The type of data that could be shared from your network to RSA Live Connect includes various types of meta data captured by Security Analytics such as ip.src, ip.dst, ip.addr, device.ip, alias.ip, alias.host, paddr, sessionid, domain.dst, domain.src. For information on Analyst Behaviors and Data Sharing, see the **Security Analytics Feedback and Data Sharing** topic in the *Live Services Management Guide*.

Live Feedback Overview

This topic provides an introduction to Live Feedback. Live Feedback collects relevant information such as the Licensing usage data for Packet Decoder, Log Decoder and Malware Analysis, Threat Detection Enabled or Disabled status, Number of enabled ESA rules,and version number details of all the services of Security Analytics. For more information about the licensing usage data for Packer Decoder, Log Decoder and Malware Analysis, see the **Metered Licenses Tab** topic in the *Licensing Guide*. The information is collected to improve future releases of Security Analytics. You will automatically be signed on to live feedback and you cannot disable this option.

In addition to this, information on the Live Content Usage can also be shared with RSA. Live Content usage metrics for resource types from **Live > Search** such as total count of RSA Application Rule, RSA Correlation Rule etc. can be shared with RSA. The information collected is used to improve the use of Live Content. For more information about sharing live content configuration, see Live Services Configuration Panel.

About Live Feedback Participation

When you participate in Live Feedback, it collects relevant information for further improvement. For information on Live Feedback, see Live Feedback Overview.

When you install Security Analytics, you will be prompted to participate in Live Feedback. For information, see .Configure Live Services Settings

If needed, you can manually download historical usage data and share it with RSA. For information on how to download historical usage data and share it with RSA, see Upload Data to RSA for Live Feedback.

Note: Live Feedback is activated only if you have configured your Live account.

The Live Feedback data is in JSON format as mentioned below. When you sign up with your Live Account credentials, a single encrypted JSON file is automatically uploaded to the RSA servers everyday.

JSON File

The JSON file consists of usage data information for a component or a set of components. In case of a set of components with the same license id, the usage data for all the components is aggregated and represented as a component called Entitlement. However, even if there is a single component such as a log decoder or decoder, an Entitlement component will be generated and will display the usage data for a single component. This aggregation is for components namely log decoders, decoders or malware analysis.

Note: The version of Entitlement is always null as it is the aggregate for a license data.

For example, if there are three Decoders with the same license id "xxx" with the following usage data:
Decoder1 = 150 MB
Decoder2 = 250 MB
Decoder3 = 100 MB
The aggregated usage data of 500 MB is displayed.

This JSON file is described in the following sections:

- Components
- Metrics
- Other Product Details
- Sample

Components

Details of each service in your SA deployment. This is represented as Component. For each component the following details are displayed.

Component	Description
Version	Version number of the component in the SA deployment. For example, 10.6.0.0.x.x.x.x.
ID	This is the unique Component ID that represents the host and is used to link to the metrics generated.
Properties	• **Name** - This is the name of the property for that component. For example, malware analysis, ESA, log decoder, etc. • **Value** - This is the unique value to identify the component.

Metrics

Metrics of the components (hosts) namely log decoder, decoder and malware analysis. The license usage data for each host is shared. For Live Content usage metrics, resource types from **Live > Search** such as total count of RSA Application Rule, RSA Correlation Rule etc. are shared.

Component	Description
StartTimeUTC	This is the time from when the metrics is collected. (in EPOCH format).
Stats	• **Value** - This is the value generated for the specific component ID for each component. • **Name** - This is the name of the statistics for which the metrics is collected. For example, Capture Total Bytes.
EndTimeUTC	This is the time when the metrics collection is complete (in EPOCH format).
Component ID	This is the ID of the component for which the value is recorded.

Other Product Details

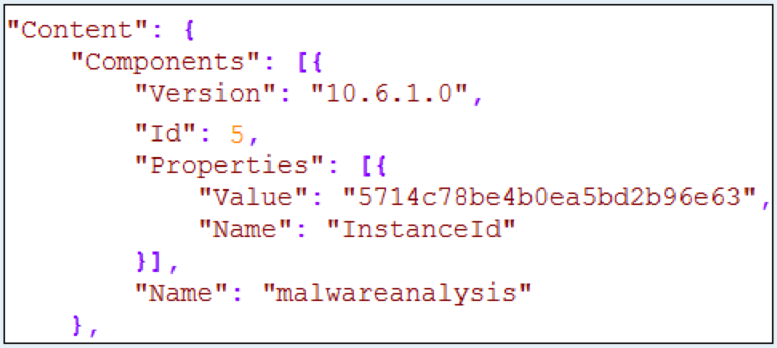
- **Product Type** - This is the name of the product. In this example, the Product Type is Security Analytics.
- **Version** - This is the version of the JSON file which tracks the changes made to the file format.
- **Product Instance** - This is the License Server ID.
- **Checksum** - This is the information which is used for integrity checks.

The following table describes details of the JSON file with examples.

Metrics	Description
Content	Displays the content that contains all the Components, Metrics, Product Type and Product Instance data except Checksum.

<table>
<tr><th>Metrics</th><th>Description</th></tr>
<tr><td rowspan="7">Components</td><td>

The details of all the services in Security Analytics are represented as a Component. The details of the component such as the version number of the component, the name, and the value is displayed as shown below:



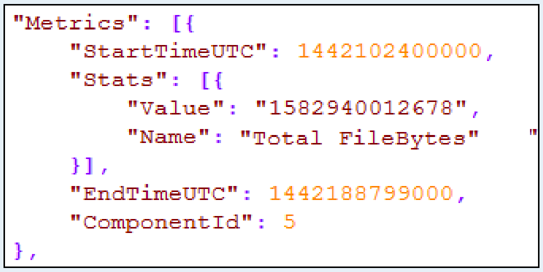
```
"Content": {
    "Components": [{
        "Version": "10.6.1.0",
        "Id": 5,
        "Properties": [{
            "Value": "5714c78be4b0ea5bd2b96e63",
            "Name": "InstanceId"
        }],
        "Name": "malwareanalysis"
    },
```

</td></tr>
<tr><td>

Version: Displays the version of Security Analytics service. For example, 10.6.0.0.8522

</td></tr>
<tr><td>

ID: Displays an unique id which is generated for the Security Analytics service and is used to link to the metrics for that particular component. In this example, the ID for Malware Analysis is 5 and the metrics is displayed for ComponentId 5 in bytes, as shown below:



```
"Metrics": [{
    "StartTimeUTC": 1442102400000,
    "Stats": [{
        "Value": "1582940012678",
        "Name": "Total FileBytes"    "
    }],
    "EndTimeUTC": 1442188799000,
    "ComponentId": 5
},
```

</td></tr>
<tr><td>

Properties: Displays the properties for the component such as name and value as shown in the above figure.

</td></tr>
<tr><td>

Value: Displays the value of the property which is an internal UUID for a component as shown in the above figure This is generated by Security Analytics. For example, For malware analysis the value displayed as "55f7a0b30e502231c42d063f"

</td></tr>
<tr><td>

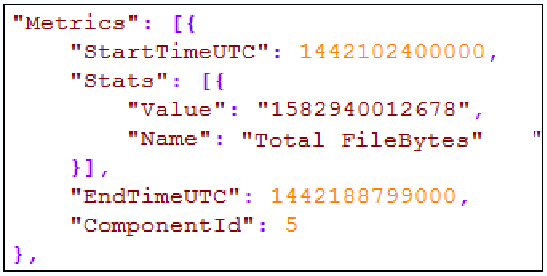
Name: "InstanceId": Displays the name of the property as shown in the above figure.

</td></tr>
<tr><td>

Name": "malwareanalysis": Displays the name of component which is a service name such as LogDecoder, Decoder, or MalwareAnalysis.

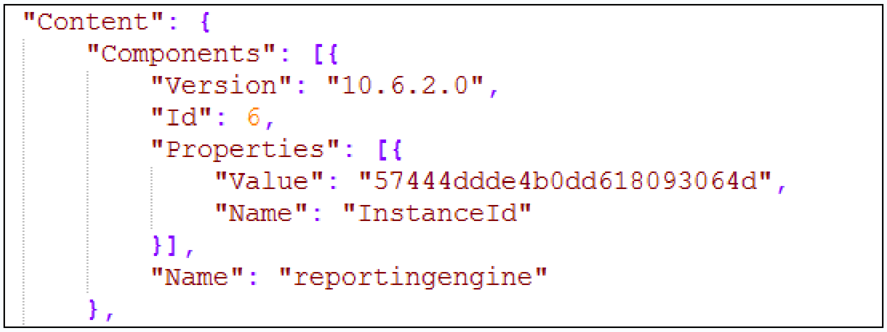
</td></tr>
</table>

Metrics	Description

Metrics	Displays the list of the metrics with the usage data for components namely log decoder, decoder and malware analysis.
	In this example, the metrics is displayed for ComponentId 5 in bytes, as shown below.
	
	`"Metrics": [{`
	`    "StartTimeUTC": 1442102400000,`
	`    "Stats": [{`
	`        "Value": "1582940012678",`
	`        "Name": "Total FileBytes"    "`
	`    }],`
	`    "EndTimeUTC": 1442188799000,`
	`    "ComponentId": 5`
	`},`

	StartTimeUTC: Displays the time when the metrics is collected, in the EPOCH format.
	Stats: Displays the usage value and usage type statistics of the component.
	Value: Displays the value of the statistics. For example, "Value": "1582940012678" as shown in the above figure.
	Name: Displays the name of the statistics. For example, Capture Total Bytes or Total File bytes.
	EndTimeUTC: Displays the time when the metrics collection is complete, in the EPOCH format.
	ComponentId: Displays the component id for which the metric values are collected. This is the same as the "ID" in the Components section.
Content	Displays the content that contains all the Components, Metrics, Product Type and Product Instance data except Checksum.

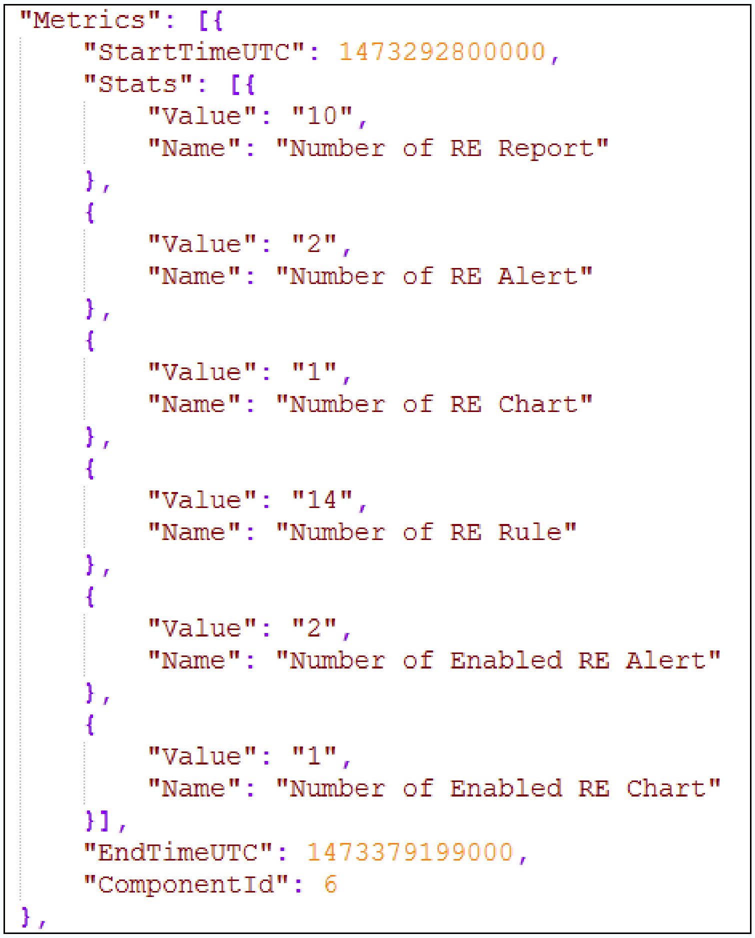
Metrics	Description
Components	The details of all the services in Security Analytics are represented as a Component. The details of the component such as the version number of the component, the name, and the value is displayed as shown below:



```
"Content": {
    "Components": [{
        "Version": "10.6.2.0",
        "Id": 6,
        "Properties": [{
            "Value": "57444ddde4b0dd618093064d",
            "Name": "InstanceId"
        }],
        "Name": "reportingengine"
    },
```

Metrics	Description
	Version: Displays the version of Security Analytics service. For example, 10.6.2.0

Metrics	Description
	ID: Displays an unique id which is generated for the Security Analytics service and is used to link to the metrics for that particular component. In this example, the ID for Reporting Engine is 6 and the metrics is displayed for ComponentId 6 in Total Count, as shown below:



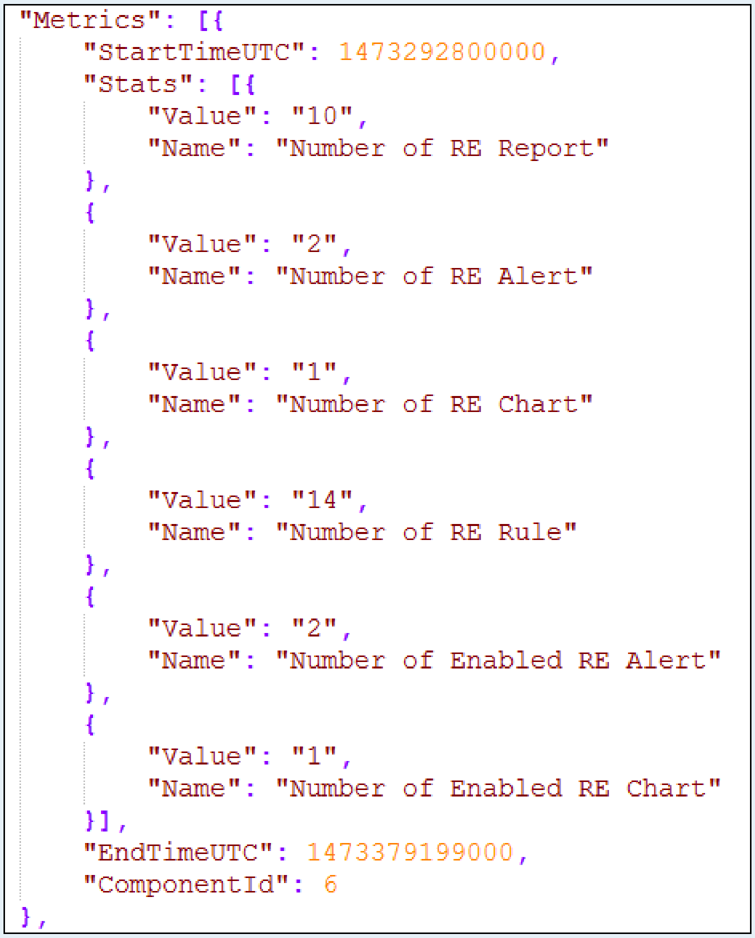
```
"Metrics": [{
    "StartTimeUTC": 1473292800000,
    "Stats": [{
        "Value": "10",
        "Name": "Number of RE Report"
    },
    {
        "Value": "2",
        "Name": "Number of RE Alert"
    },
    {
        "Value": "1",
        "Name": "Number of RE Chart"
    },
    {
        "Value": "14",
        "Name": "Number of RE Rule"
    },
    {
        "Value": "2",
        "Name": "Number of Enabled RE Alert"
    },
    {
        "Value": "1",
        "Name": "Number of Enabled RE Chart"
    }],
    "EndTimeUTC": 1473379199000,
    "ComponentId": 6
},
```

Metrics	Description
	Properties: Displays the properties for the component such as name and value as shown in the above figure.
	Value: Displays the value of the property which is an internal UUID for a component as shown in the above figure. This is generated by Security Analytics. For example, for Reporting Engine the value displayed as "57444ddde4b0dd618093064d"
	Name: "**InstanceId**": Displays the name of the property as shown in the above figure.
	Name": "**reportingengine**": Displays the name of component which is a service name such as LogDecoder, Decoder, or ReportingEngine.

<table>
<tr><th>Metrics</th><th>Description</th></tr>
<tr><td></td><td>

Name: Displays the list of the metrics with the usage data for components namely log decoder, decoder and reportingengine.

In this example, the metrics is displayed for ComponentId 6 in bytes, as shown below.



```
"Metrics": [{
    "StartTimeUTC": 1473292800000,
    "Stats": [{
        "Value": "10",
        "Name": "Number of RE Report"
    },
    {
        "Value": "2",
        "Name": "Number of RE Alert"
    },
    {
        "Value": "1",
        "Name": "Number of RE Chart"
    },
    {
        "Value": "14",
        "Name": "Number of RE Rule"
    },
    {
        "Value": "2",
        "Name": "Number of Enabled RE Alert"
    },
    {
        "Value": "1",
        "Name": "Number of Enabled RE Chart"
    }],
    "EndTimeUTC": 1473379199000,
    "ComponentId": 6
},
```

</td></tr>
<tr><td></td><td>

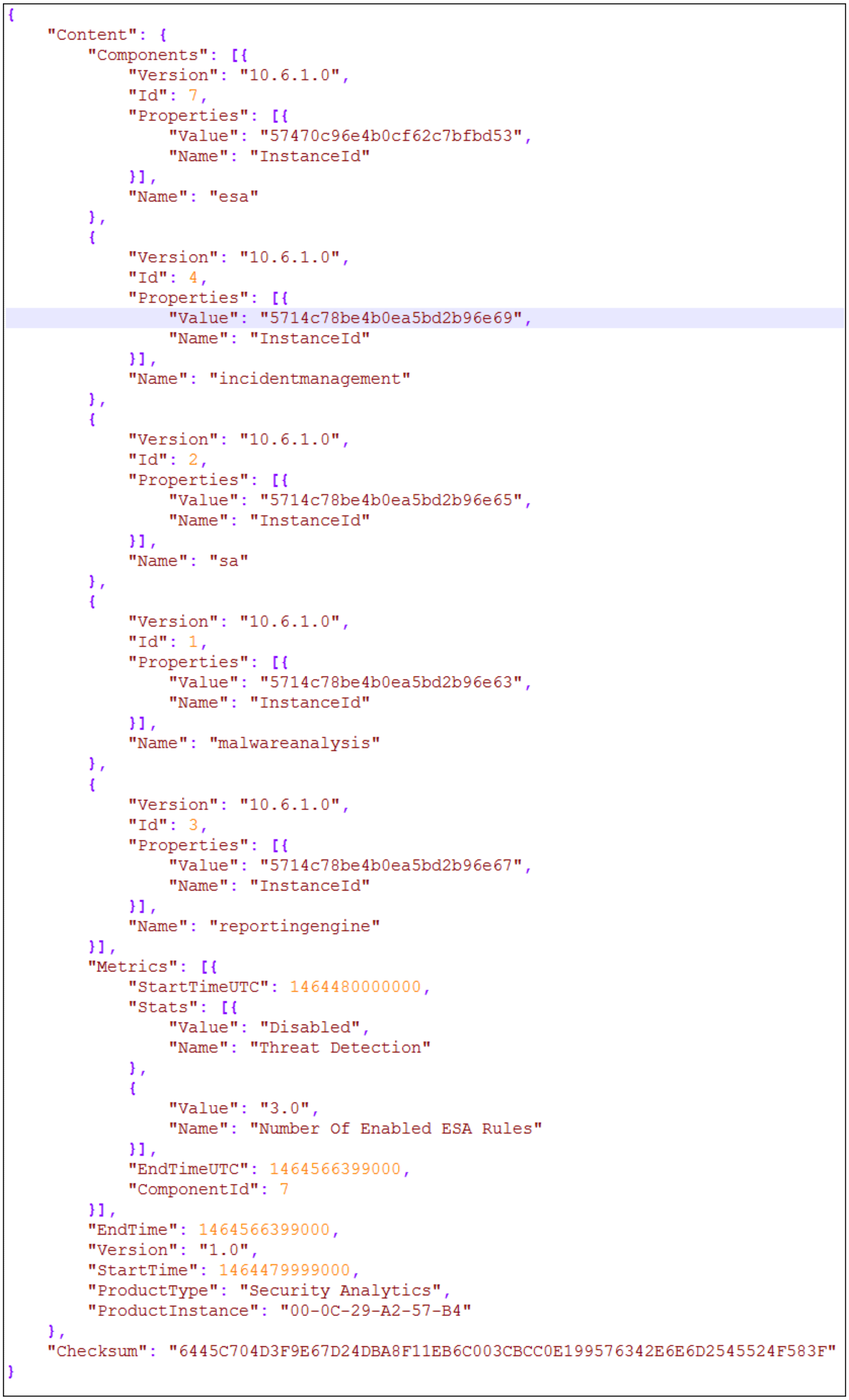
StartTimeUTC: Displays the time when the metrics is collected, in the EPOCH format.

</td></tr>
</table>

Metrics	Description
	Stats: Displays the usage value and usage type statistics of the component.
	Value: Displays the value of the statistics. For example, number of Repoting Engine report is 10, number of Reporting Engine alert is 2, number of Reporting Engine chart is 1 etc. as shown in the above figure.
	Name: Displays the name of the statistics. For example, Number of RE Report, Number of RE Alert, Number of RE chart, Number of RE Rule, Number of Enabled RE Alert, Number of Enabled RE Chart.
	EndTimeUTC: Displays the time when the metrics collection is complete, in the EPOCH format.
	ComponentId: Displays the component id for which the metric values are collected. This is the same as the "ID" in the Components section.
ProductType	Displays the product type that generates the file. For example, `"ProductType": "Security Analytics"`
ProductInstance	Displays the License server Id and is unique per Security Analytics. For example, `"ProductInstance": "00-0C-29-6C-66-E3"`
Checksum	Displays the Checksum for the "Content" section in the file. Used by RSA for integrity check. For example, `"Checksum": "883DACF97E4BCD9F590A1461A4DD0A312B5883A6CF82E0518E77AAB6A6DDB654"`

Sample

Here is a sample JSON file.



```
{
    "Content": {
        "Components": [{
            "Version": "10.6.1.0",
            "Id": 7,
            "Properties": [{
                "Value": "57470c96e4b0cf62c7bfbd53",
                "Name": "InstanceId"
            }],
            "Name": "esa"
        },
        {
            "Version": "10.6.1.0",
            "Id": 4,
            "Properties": [{
                "Value": "5714c78be4b0ea5bd2b96e69",
                "Name": "InstanceId"
            }],
            "Name": "incidentmanagement"
        },
        {
            "Version": "10.6.1.0",
            "Id": 2,
            "Properties": [{
                "Value": "5714c78be4b0ea5bd2b96e65",
                "Name": "InstanceId"
            }],
            "Name": "sa"
        },
        {
            "Version": "10.6.1.0",
            "Id": 1,
            "Properties": [{
                "Value": "5714c78be4b0ea5bd2b96e63",
                "Name": "InstanceId"
            }],
            "Name": "malwareanalysis"
        },
        {
            "Version": "10.6.1.0",
            "Id": 3,
            "Properties": [{
                "Value": "5714c78be4b0ea5bd2b96e67",
                "Name": "InstanceId"
            }],
            "Name": "reportingengine"
        }],
        "Metrics": [{
            "StartTimeUTC": 1464480000000,
            "Stats": [{
                "Value": "Disabled",
                "Name": "Threat Detection"
            },
            {
                "Value": "3.0",
                "Name": "Number Of Enabled ESA Rules"
            }],
            "EndTimeUTC": 1464566399000,
            "ComponentId": 7
        }],
        "EndTime": 1464566399000,
        "Version": "1.0",
        "StartTime": 1464479999000,
        "ProductType": "Security Analytics",
        "ProductInstance": "00-0C-29-A2-57-B4"
    },
    "Checksum": "6445C704D3F9E67D24DBA8F11EB6C003CBCC0E199576342E6E6D2545524F583F"
}
```

Upload Data to RSA for Live Feedback

This topic provides instructions for a Security Analytics administrator to export the metrics in Security Analytics for Live Feedback.

Overview

If the Live Account is not configured, you can manually upload the usage data to RSA. For more information, see Live Services Configuration Panel.

The Live Account section has a Live Feedback Activity Log which enables you to download the usage data required for Live Feedback. This is active regardless of the Live Account configuration.

You can first download the Live Feedback historical data, and then upload it to share with RSA.

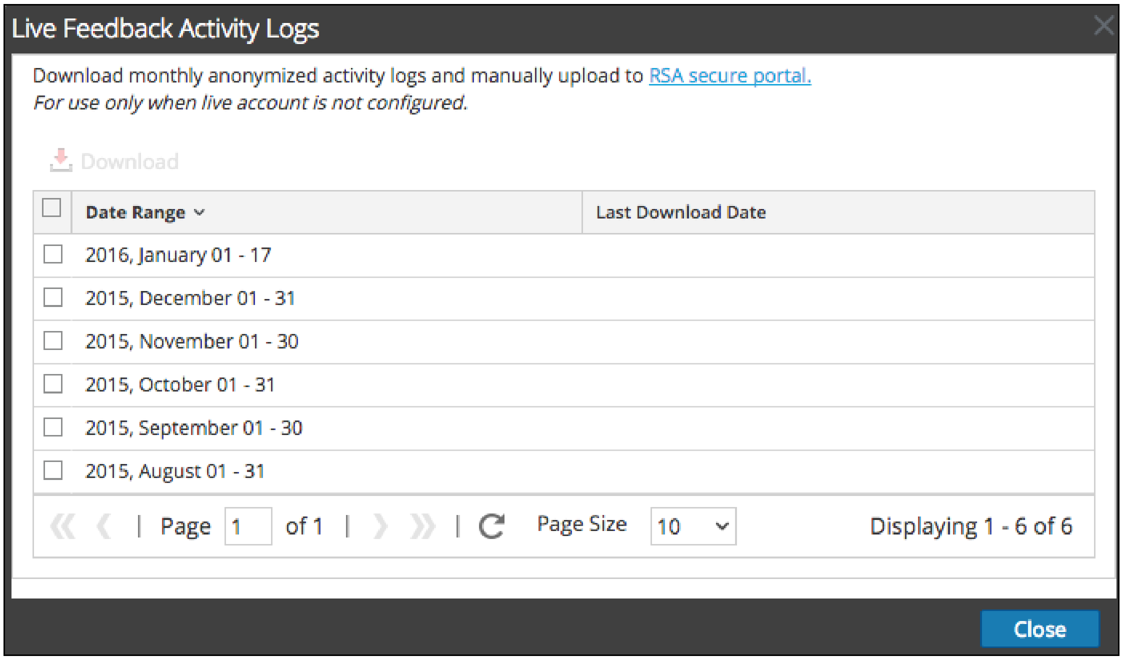
Download Live Feedback Historical Data

To download the Live Feedback historical data:

1. In the **Security Analytics** menu, select **Administration** > **System**.
2. In the options panel, select **Live Services**.

   The **Live Account** screen is displayed which consists of the **RSA Live Status** and Download **Live Feedback Activity Log**.
3. Click the **Download Live Feedback Activity Log**.

   The **Download Live Feedback Activity Log** window opens which allows the Security Analytics user to download the required Live Feedback historical data.



Live Feedback Activity Logs

Download monthly anonymized activity logs and manually upload to RSA secure portal.
For use only when live account is not configured.

□	Date Range	Last Download Date
□	2016, January 01 - 17	
□	2015, December 01 - 31	
□	2015, November 01 - 30	
□	2015, October 01 - 31	
□	2015, September 01 - 30	
□	2015, August 01 - 31	

4. Select one or multiple entries by selecting the checkboxes and click **Download**.

> **Note:** If you select multiple entries in the history table, the downloaded zip file consists of an individual JSON file for each month.

The downloaded Live Feedback data is in JSON format, and is bundled as a .zip file. For more information, see Live Feedback Overview.

Share Data to RSA

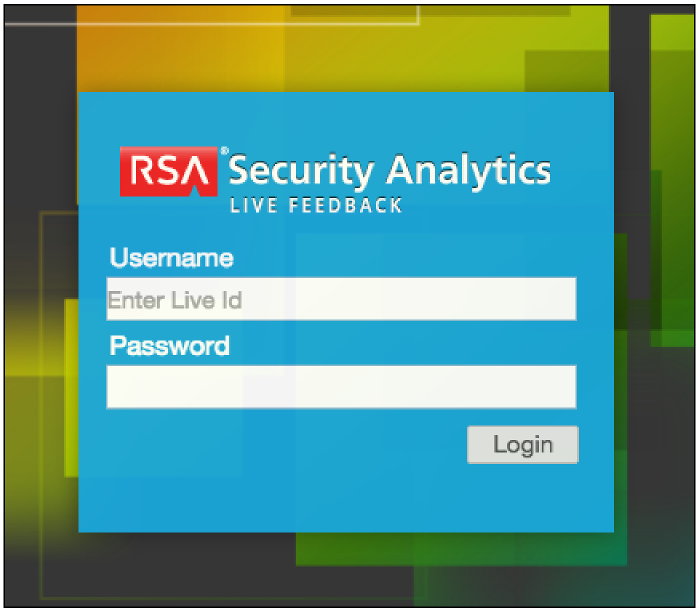
After you download the Live Feedback data, you can then upload it using the following procedure.

To share the data to RSA:

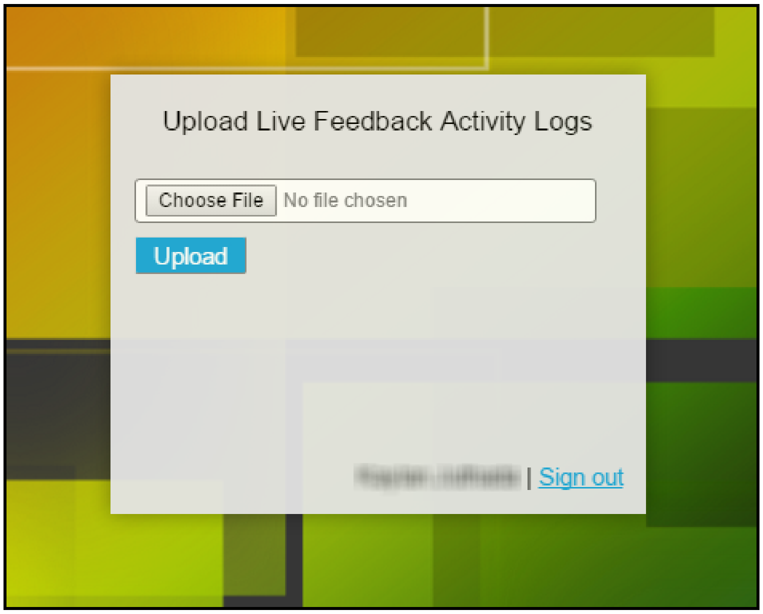
1. Click on the **RSA Secure Portal** available on the **Live Feedback Activity Logs** window.

   The RSA Security Analytics Live Feedback login screen is displayed.

2. Login to the Upload Live Feedback Activity Logs portal using your Live ID credentials.



3. Click **Choose File**, and select the downloaded file.



4. Click **Upload.**

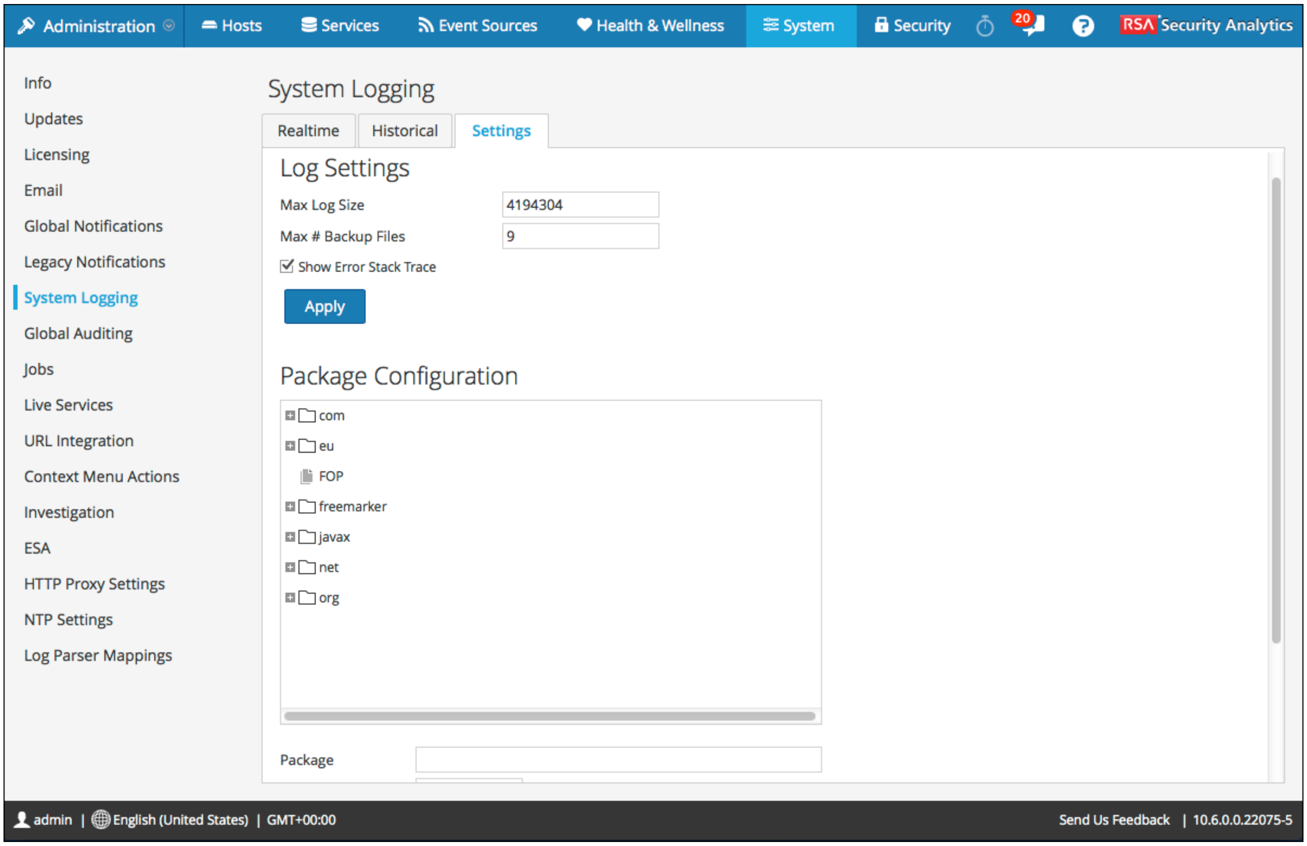
Configure Log File Settings

In RSA Security Analytics, you can configure the size of the log files, the number of backup log files maintained, as well as the default logging levels for the packages within Security Analytics.

Configure System Log File Size and Backup Count

The log file size and backup count are configured with default values. If you want to change the default values for the log file size and number of backups:

1. In the Security Analytics menu, select **Administration** > **System.**
2. In options panel, select **System Logging**.

   The System Logging Configuration panel opens to the Realtime tab by default.
3. Click the **Settings** tab.
4. 

Max Log Size 4194304

Max # Backup Files 9

☑ Show Error Stack Trace

5. In the **Max Log Size** field, type the maximum size in bytes. The minimum value for this setting is **4096**.

6. In the **Max # Backup Files** field, type the maximum number of backup logs to maintain. The minimum value for this setting is **0**. When the maximum number of log files is attained, and a new backup file is made, the oldest backup is discarded.
7. Click **Apply**.

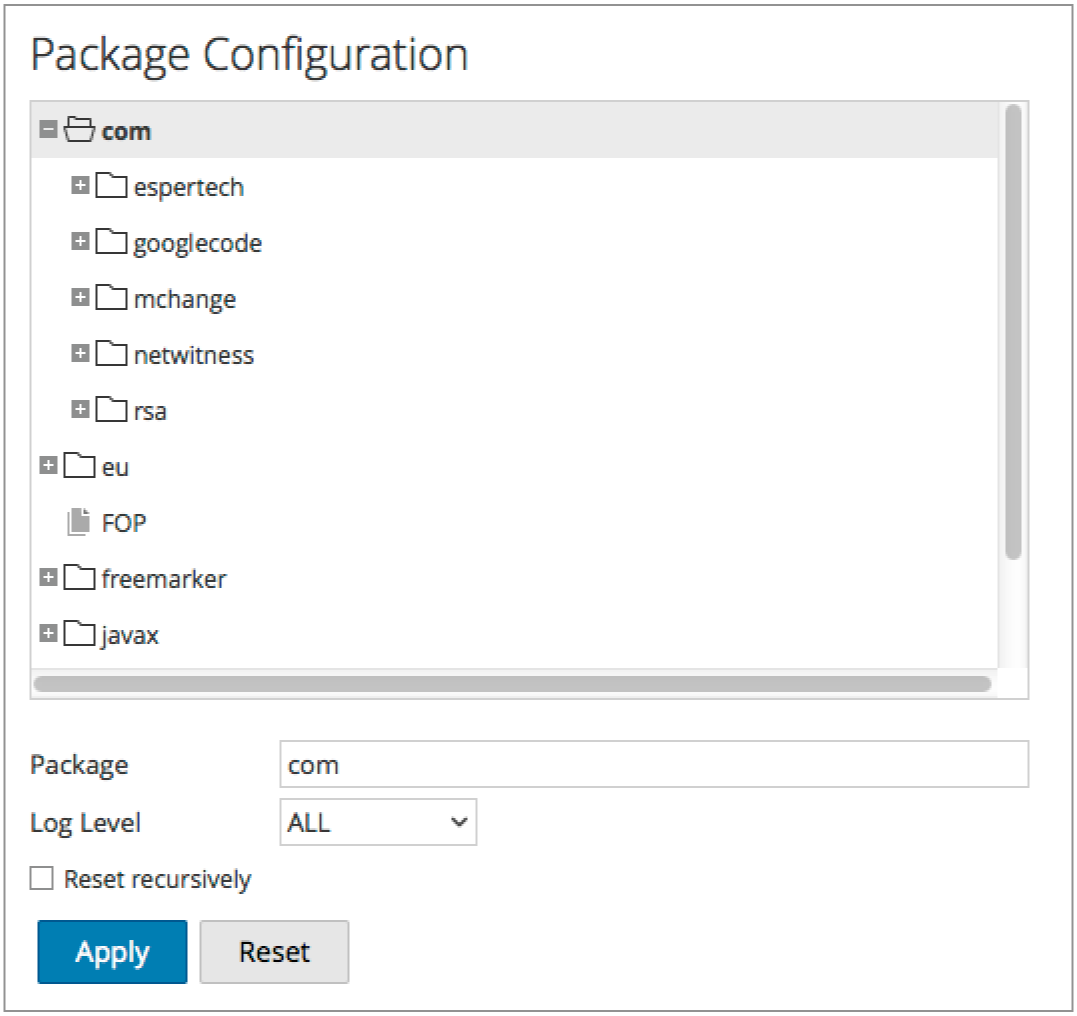
   The changes go into effect immediately.

Set the Log Level for an Individual Package

The Package Configuration section shows the Security Analytics packages in a tree structure. The tree contains all the packages used within Security Analytics. You can drill down into the tree to view the log levels of each package. The log level for all packages that are not explicitly set is the same as the **root** log level. To set the log level for a package:

1. Select the package in the **Package** tree.

   The name of the package is displayed in the **Package** field. If a log level is already set for the package, that level is shown.



Package Configuration

Package: com

Log Level: ALL

□ Reset recursively

2. Select the **Log Level** in the drop-down list.
3. Click **Apply**.

   The new log level becomes effective immediately.
4. (Optional) If you want to revert to the default log level specified for **root**, click **Reset**.

Configure Syslog and SNMP Settings

On the Legacy Notifications panel, you can configure syslog and SNMP notification settings. These configurations are used for Entitlement, legacy Event Source Management (ESM), Warehouse Connector monitoring, and Archiver monitoring.

Configure and Enable Syslog Settings

1. In the **Security Analytics** menu, select **Administration** > **System**.
2. In the options panel, select **Legacy Notifications**.
   The Legacy Notifications Configuration panel is displayed.
3. In the **Server Name** and **Server Port** fields under **Syslog Settings**, type the host name where the target syslog process is running and the port where the target syslog process is listening.
4. In the **Facility**, **Encoding**, **Format**, and **Max length** fields, specify the syslog facility, message text encoding, message format, and maximum message length.
5. In the **Protocol** field, select either UDP or TCP.
6. (Optional) Select the options for what to include in messages: **Truncate overly large syslog messages**, **Include the local timestamp in syslog messages**, and **Include the local hostname in syslog messages**.
7. (Optional) Configure syslog to prepend an Identity String before each syslog alert.
8. Click the **Enable** checkbox.
9. Click **Apply**.
   Syslog notifications are immediately enabled.

Legacy Notifications Configuration Panel provides detailed information about these settings.

Configure and Enable SNMP Settings

1. In the **Security Analytics** menu, select **Administration** > **System**.
2. In the options panel, select **Legacy Notifications**.
   The Legacy Notifications Configuration panel is displayed.
3. In the **Server Name** and **Server Port** fields under **SNMP Settings**, type the host name and listening port of the SNMP trap host.

4. Select the **SNMP version** in the drop-down menu, **v1** or **v2c**.
5. In the **Trap OID** field. specify the object ID for the SNMP trap on the trap host that receives the audit event. The default value is **0.0.0.0.0.1**.
6. In the **Community** field, specify the community string used to authenticate on the SNMP trap host, the default value is **public**.
7. Click the **Enable** checkbox.
8. Click **Apply**.
   SNMP notifications are immediately enabled.

Legacy Notifications Configuration Panel provides detailed information about these settings.

Disable Syslog or SNMP Settings

To disable syslog or SNMP settings on this Security Analytics instance:

1. Clear the appropriate **Enable** checkbox.
2. Click **Apply**.
   The selected settings are immediately disabled.

Additional Procedures

Additional procedures are not essential for the set up of Security Analytics, they include certain customization options that are beyond the usual setup; for example, adding custom context menus or setting up a proxy. Procedures are presented in alphabetical order.

Add Custom Context Menu Actions

Configure NTP Servers

Configure Proxy for Security Analytics

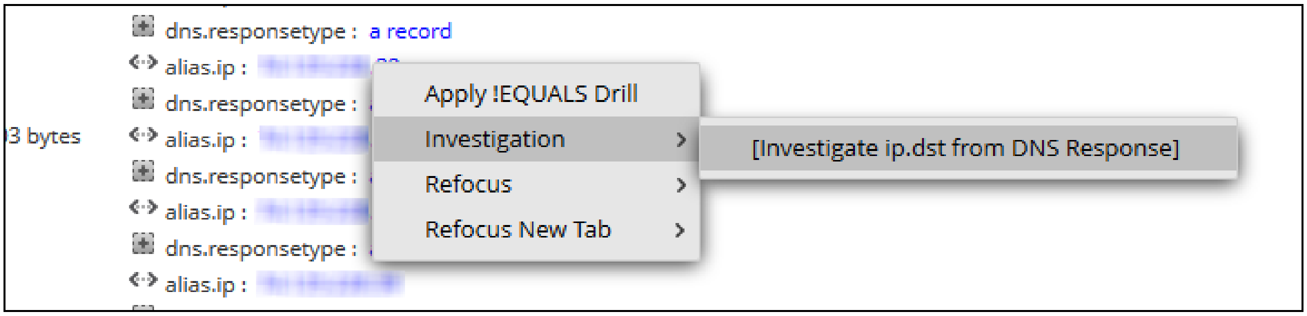
Add Custom Context Menu Actions

In the Context Menu Actions panel, administrators can view, add, and edit context menu actions for the current instance of Security Analytics. Each context menu action applies to a specific context in the Security Analytics user interface, and appears as an option when you right-click a specific location in the user interface.

Some context menu actions are built into Security Analytics; you cannot edit or delete any of the default context menu actions. You can create and edit custom context menu actions. If you want to create a custom variation of a built-in context menu action, you can copy the configuration to a new context menu action and modify the custom context menu action. A context menu action is defined by cascading style sheet (CSS) code that defines:

- The title of the option in the context menu.
- The Security Analytics module in which the context menu is available.
- The content to which the action applies.

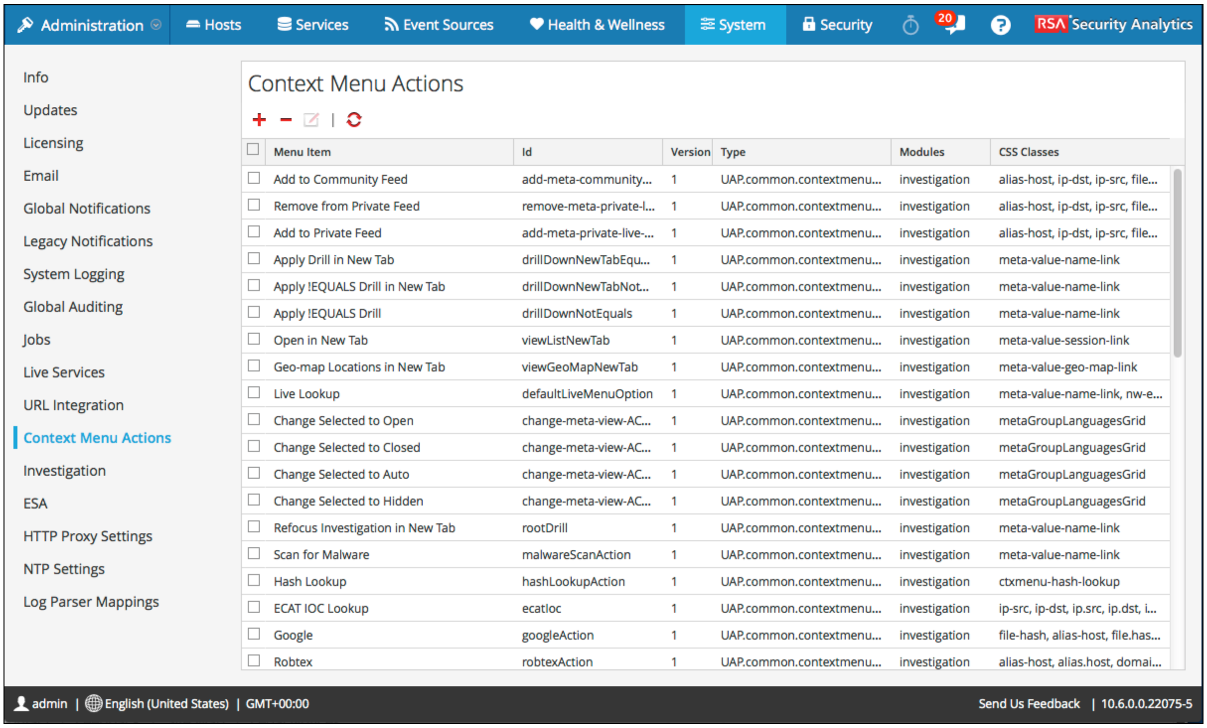
This is an example of a custom context menu action; the steps and CSS code to create this example are provided as an example procedure below.



View Context Menu Actions in Security Analytics

To view existing context actions in Security Analytics both default and custom:

1. In the Security Analytics menu, select **Administration** > **System.**
2. In the options panel, select **Context Menu Actions**.



Context Menu Actions

□	Menu Item	Id	Version	Type	Modules	CSS Classes
□	Add to Community Feed	add-meta-community...	1	UAP.common.contextmenu...	investigation	alias-host, ip-dst, ip-src, file...
□	Remove from Private Feed	remove-meta-private-l...	1	UAP.common.contextmenu...	investigation	alias-host, ip-dst, ip-src, file...
□	Add to Private Feed	add-meta-private-live-...	1	UAP.common.contextmenu...	investigation	alias-host, ip-dst, ip-src, file...
□	Apply Drill in New Tab	drillDownNewTabEqu...	1	UAP.common.contextmenu...	investigation	meta-value-name-link
□	Apply !EQUALS Drill in New Tab	drillDownNewTabNot...	1	UAP.common.contextmenu...	investigation	meta-value-name-link
□	Apply !EQUALS Drill	drillDownNotEquals	1	UAP.common.contextmenu...	investigation	meta-value-name-link
□	Open in New Tab	viewListNewTab	1	UAP.common.contextmenu...	investigation	meta-value-session-link
□	Geo-map Locations in New Tab	viewGeoMapNewTab	1	UAP.common.contextmenu...	investigation	meta-value-geo-map-link
□	Live Lookup	defaultLiveMenuOption	1	UAP.common.contextmenu...	investigation	meta-value-name-link, nw-e...
□	Change Selected to Open	change-meta-view-AC...	1	UAP.common.contextmenu...	investigation	metaGroupLanguagesGrid
□	Change Selected to Closed	change-meta-view-AC...	1	UAP.common.contextmenu...	investigation	metaGroupLanguagesGrid
□	Change Selected to Auto	change-meta-view-AC...	1	UAP.common.contextmenu...	investigation	metaGroupLanguagesGrid
□	Change Selected to Hidden	change-meta-view-AC...	1	UAP.common.contextmenu...	investigation	metaGroupLanguagesGrid
□	Refocus Investigation in New Tab	rootDrill	1	UAP.common.contextmenu...	investigation	meta-value-name-link
□	Scan for Malware	malwareScanAction	1	UAP.common.contextmenu...	investigation	meta-value-name-link
□	Hash Lookup	hashLookupAction	1	UAP.common.contextmenu...	investigation	ctxmenu-hash-lookup
□	ECAT IOC Lookup	ecatIoc	1	UAP.common.contextmenu...	investigation	ip-src, ip-dst, ip.src, ip.dst, i...
□	Google	googleAction	1	UAP.common.contextmenu...	investigation	file-hash, alias-host, file.has...
□	Robtex	robtexAction	1	UAP.common.contextmenu...	investigation	alias-host, alias.host, domai...

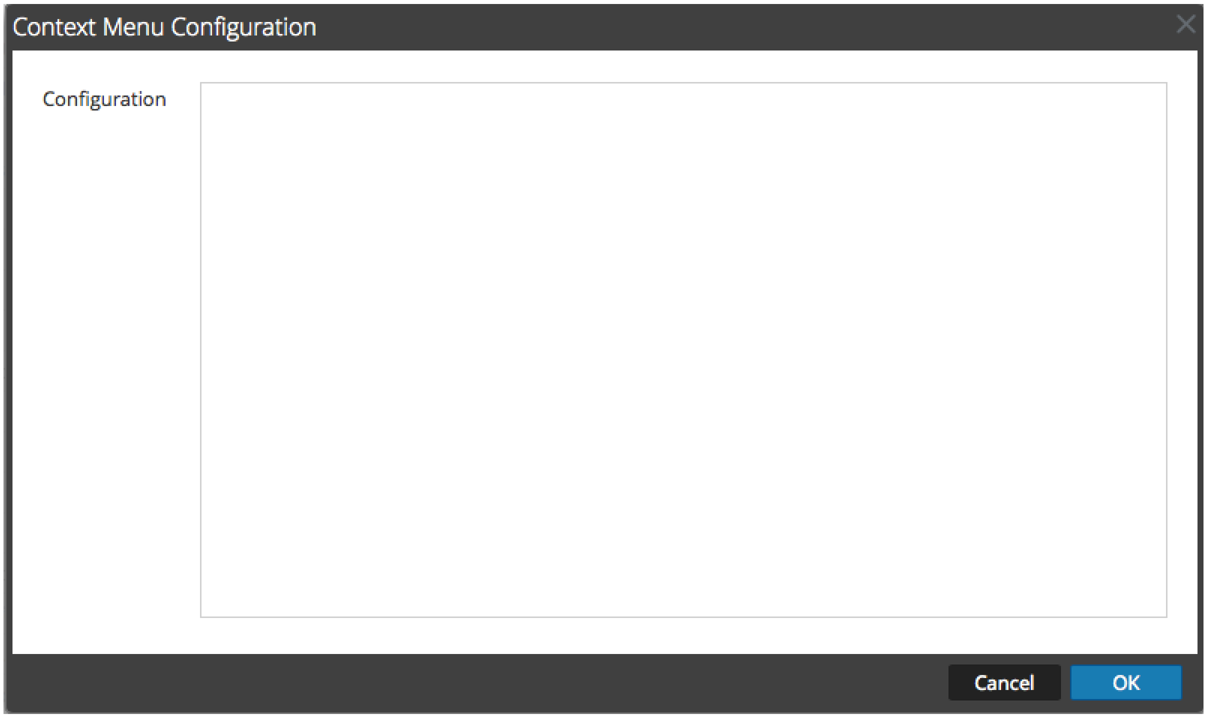
Details of the information in the Context Menu Action panel are provided in Context Menu Actions Panel.

Add a Context Menu Action

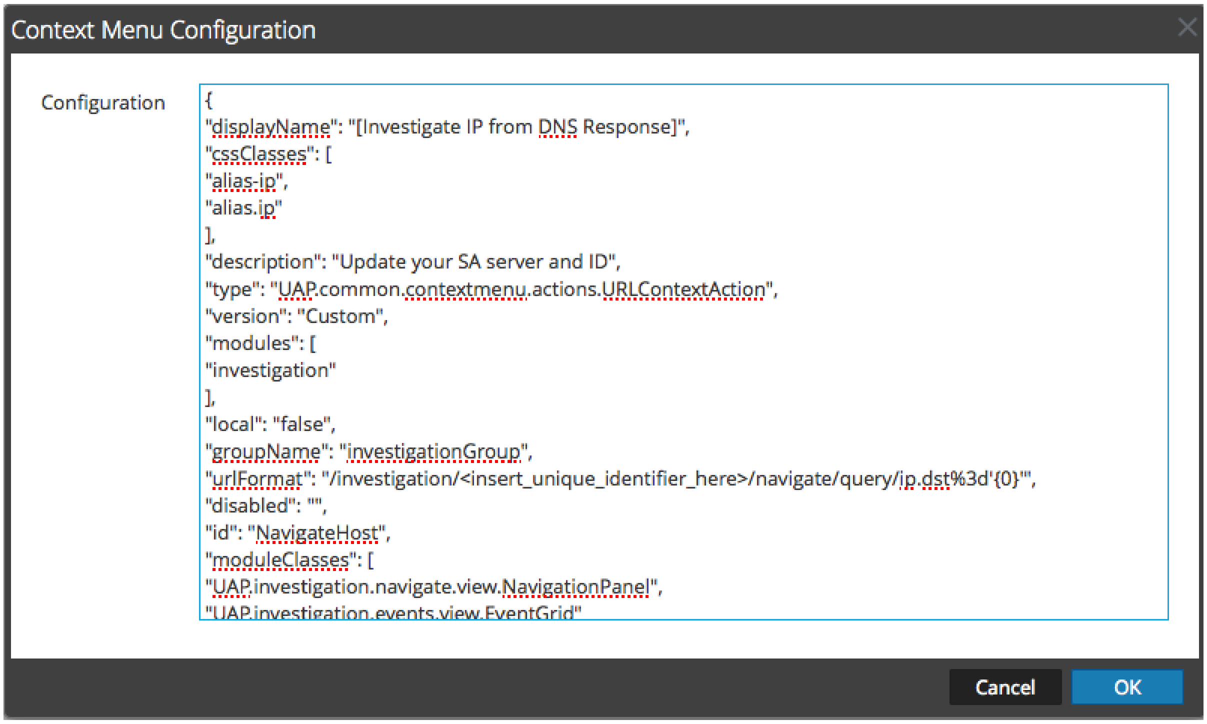
To add a context menu action in Security Analytics:

1. In the toolbar, click + .

   The Context Menu Configuration dialog is displayed.



2. Type the CSS code to define the context menu action. The example procedure at the end of this topic provides step-by-step instructions that you can use to create a useful context menu action.



```
{
"displayName": "[Investigate IP from DNS Response]",
"cssClasses": [
"alias-ip",
"alias.ip"
],
"description": "Update your SA server and ID",
"type": "UAP.common.contextmenu.actions.URLContextAction",
"version": "Custom",
"modules": [
"investigation"
],
"local": "false",
"groupName": "investigationGroup",
"urlFormat": "/investigation/<insert_unique_identifier_here>/navigate/query/ip.dst%3d'{0}'",
"disabled": "",
"id": "NavigateHost",
"moduleClasses": [
"UAP.investigation.navigate.view.NavigationPanel",
"UAP.investigation.events.view.EventGrid"
```

3. Click **OK.**

   The new context menu action is created and added at the end of the list of context menu actions.

4. To activate the new context menu action, restart the browser.

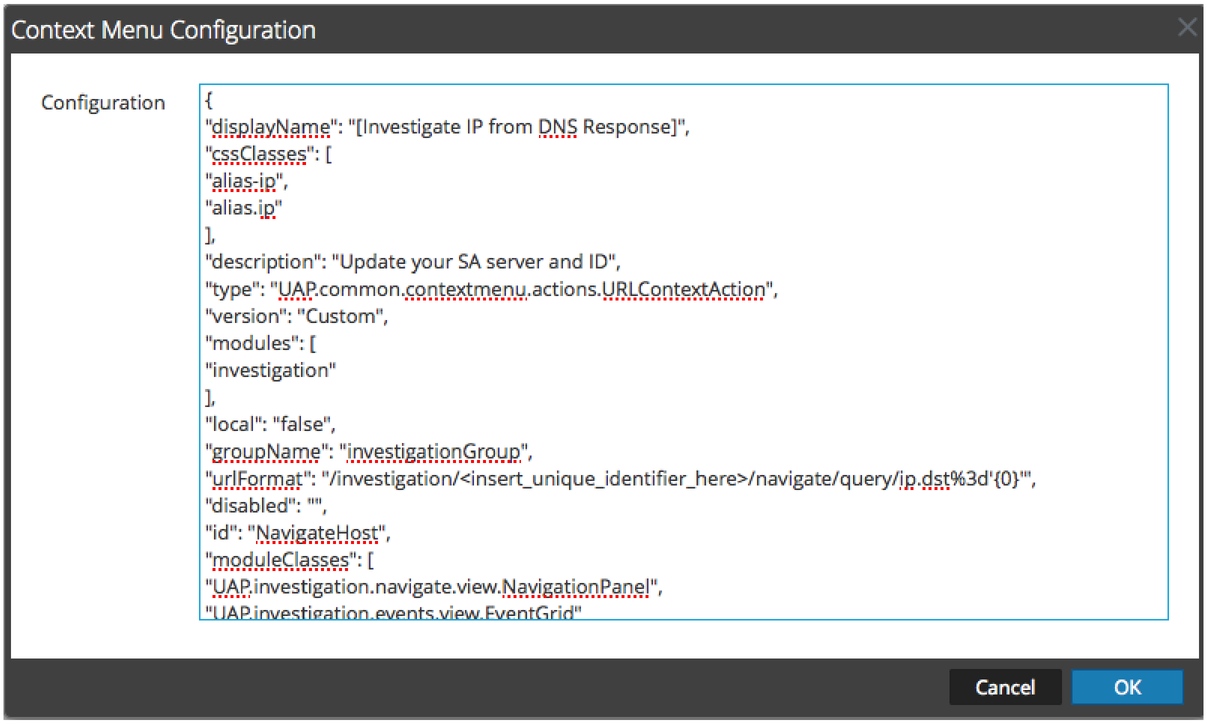
   The context menu action becomes available in the configured location.

Edit a Context Action

To edit a context action:

1. Select the row in the grid and either **double-click** the row or click ✎.

   The **Context Menu Configuration Dialog** is displayed.



```
{
"displayName": "[Investigate IP from DNS Response]",
"cssClasses": [
"alias-ip",
"alias.ip"
],
"description": "Update your SA server and ID",
"type": "UAP.common.contextmenu.actions.URLContextAction",
"version": "Custom",
"modules": [
"investigation"
],
"local": "false",
"groupName": "investigationGroup",
"urlFormat": "/investigation/<insert_unique_identifier_here>/navigate/query/ip.dst%3d'{0}'",
"disabled": "",
"id": "NavigateHost",
"moduleClasses": [
"UAP.investigation.navigate.view.NavigationPanel",
"UAP.investigation.events.view.EventGrid"
```

2. Edit the **Configuration**.

3. To save the changes, click **OK**.

4. To use the updated action, restart the browser.

Delete a Context Action

To remove a context menu action from Security Analytics entirely:

1. Select the action.
2. Click − .

   A dialog requests confirmation that you want to delete the context menu action.
3. Click **Yes**.

   The option is removed from the Context Menu Actions panel.
4. Restart the browser to remove the action from the context menus in which it appeared.

Example Procedure: Context Menu Action to Investigate ip.dst from alias.ip

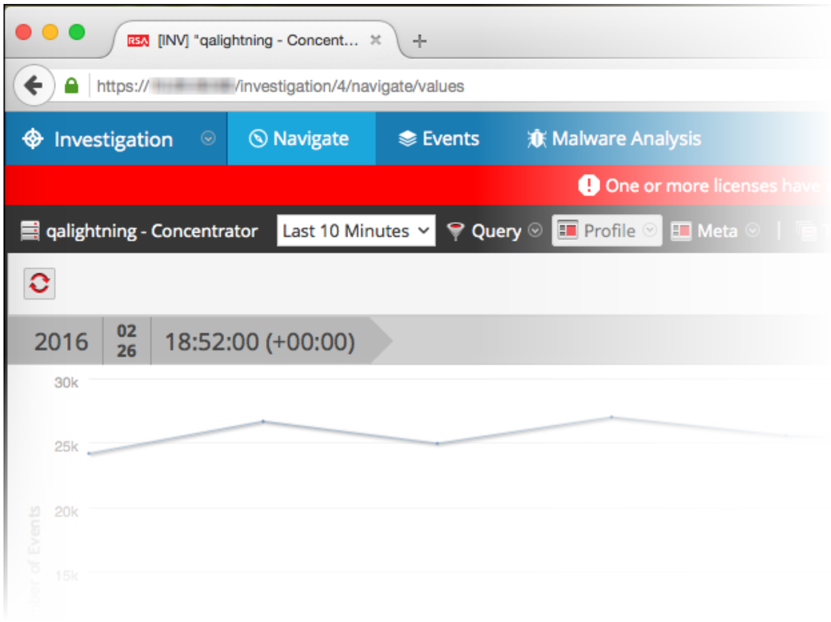
This example adds a context menu action that allows analysts to pivot from the `alias.ip` values (the IP addresses returned from a DNS request) to the `ip.dst` meta key. It helps analysts to locate any detected traffic to the IP address that was returned for a DNS query.

To implement the context menu action:

1. Determine the unique identifier for your Security Analytics server as follows:

   a. Log onto Security Analytics, in the **Security Analytics menu**, select **Investigation > Navigate**, choose a service (for example, a Concentrator) to investigate, and wait for the values to load.

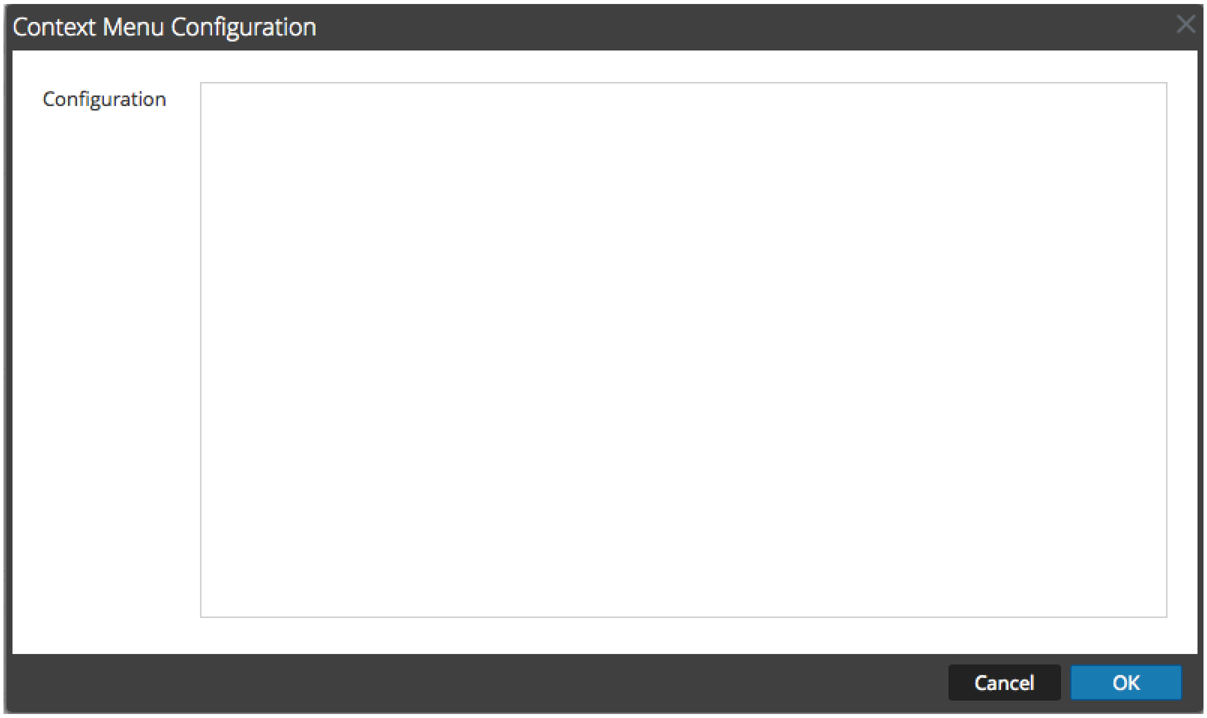
   b. Look for the URL and locate the number after `investigation`. In this example, the unique identifier for the action is 4. You need this unique identifier to add to the context menu action.



https://[redacted]/investigation/4/navigate/values

2. In the toolbar, click ➕.

   The Context Menu Configuration dialog is displayed.



3. Copy the entire sample code block below and paste it in the window.

```
{
    "displayName": "[Investigate IP from DNS Response]",
    "cssClasses": [
        "alias-ip",
        "alias.ip"
    ],
    "description": "Update your SA server and ID",
    "type":
"UAP.common.contextmenu.actions.URLContextAction",
    "version": "Custom",
    "modules": [
        "investigation"
    ],
    "local": "false",
    "groupName": "investigationGroup",
    "urlFormat": "/investigation/<insert_unique_
identifier_here>/navigate/query/ip.dst%3d'{0}'",
        "disabled": "",
        "id": "NavigateHost",
        "moduleClasses": [
            "UAP.investigation.navigate.view.NavigationPanel",

            "UAP.investigation.events.view.EventGrid"
        ],
        "openInNewTab": "true"
    }
```

4. In the **urlFormat** line replace **<insert-unique_identifier_here>** with your unique identifier.

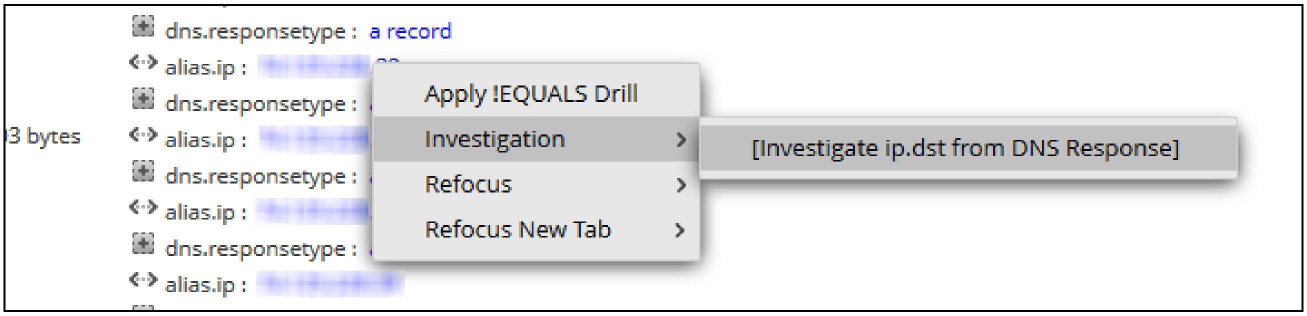
   The URL should look like this:

   `"/investigation/4/navigate/query/ip.dst%3d'{0}'"`

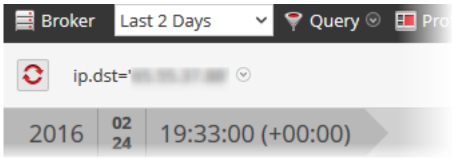
5. Click **OK**, and restart your browser.

6. To test the action, open an investigation in the Navigate view and right-click on the meta key `alias.ip`.

   The context menu with the Investigation option should look like the following figure.



7. Should produce a pivot like this.



8. If you are using this example for DNS traffic investigation, you may want to consider creating a meta group specific to DNS traffic as described in "Manage User-Defined Meta Groups" in the *Investigation and Malware Analysis Guide*.

Configure NTP Servers

This topic provides instructions on how to configure Network Time Protocol (NTP) servers. NTP is a protocol designed to synchronize host machine clocks over a network. For more information on NTP go to their home page (http://www.ntp.org/).

Note: Security Analytics core hosts must be able to communicate with the SA host with UDP port 123 for NTP time synchronization.

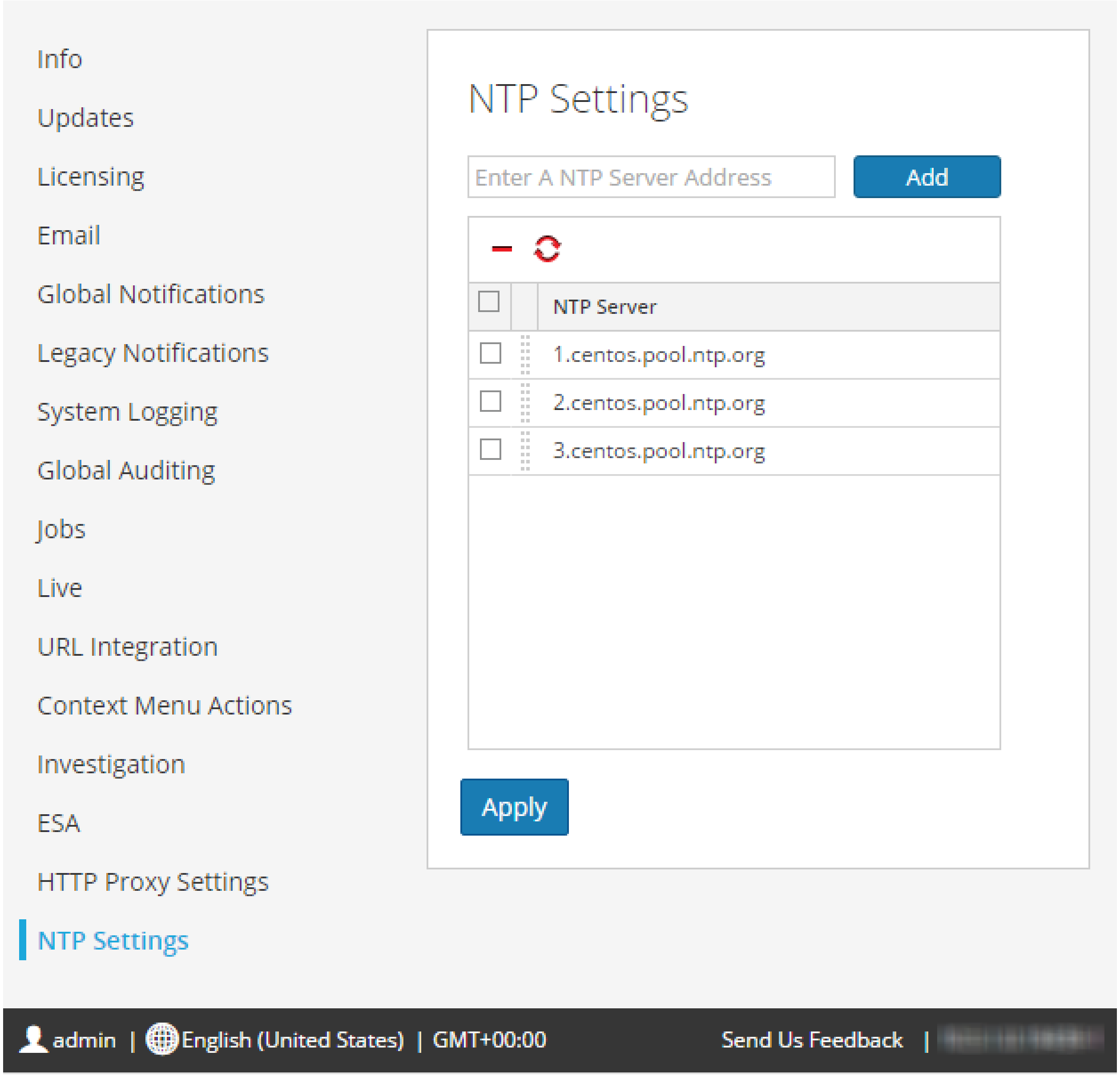
You use the the **Administration** > **System** > **NTP Settings** view to configure one or more NTP servers. After you configure an NTP server, Security Analytics uses NTP to synchronize the host machine clocks. You configure multiple NTP servers for Fail Over purposes. This topic contains the following procedures:

- Add an NTP Server
- Modify an NTP Server

Add an NTP Server

To add an NTP server:

1. In the **Security Analytics** menu, select **Administration > System**.
2. In the options panel, select **NTP Settings**.
   The NTP Settings panel is displayed prompting you to enter the hostname (that is, the IP Address or FQDN) of an NTP server.



□	NTP Server
□	1.centos.pool.ntp.org
□	2.centos.pool.ntp.org
□	3.centos.pool.ntp.org

3. Enter the IP address or FQDN for an NTP server.

   If the hostname syntax is invalid, Security Analytics disables the **Add** and **Apply** buttons and displays **Entered an invalid hostname**.

4. Click **Add**.

   - If the hostname syntax is valid and Security Analytics can reach the server, it displays **Validating**.

- If the hostname syntax is valid and Security Analytics cannot reach a server, the following is displayed, where ***hostname*** is the hostname that you attempted to add: **The NTP server *hostname* is unreachable. Please verify the address or check your firewall settings.**

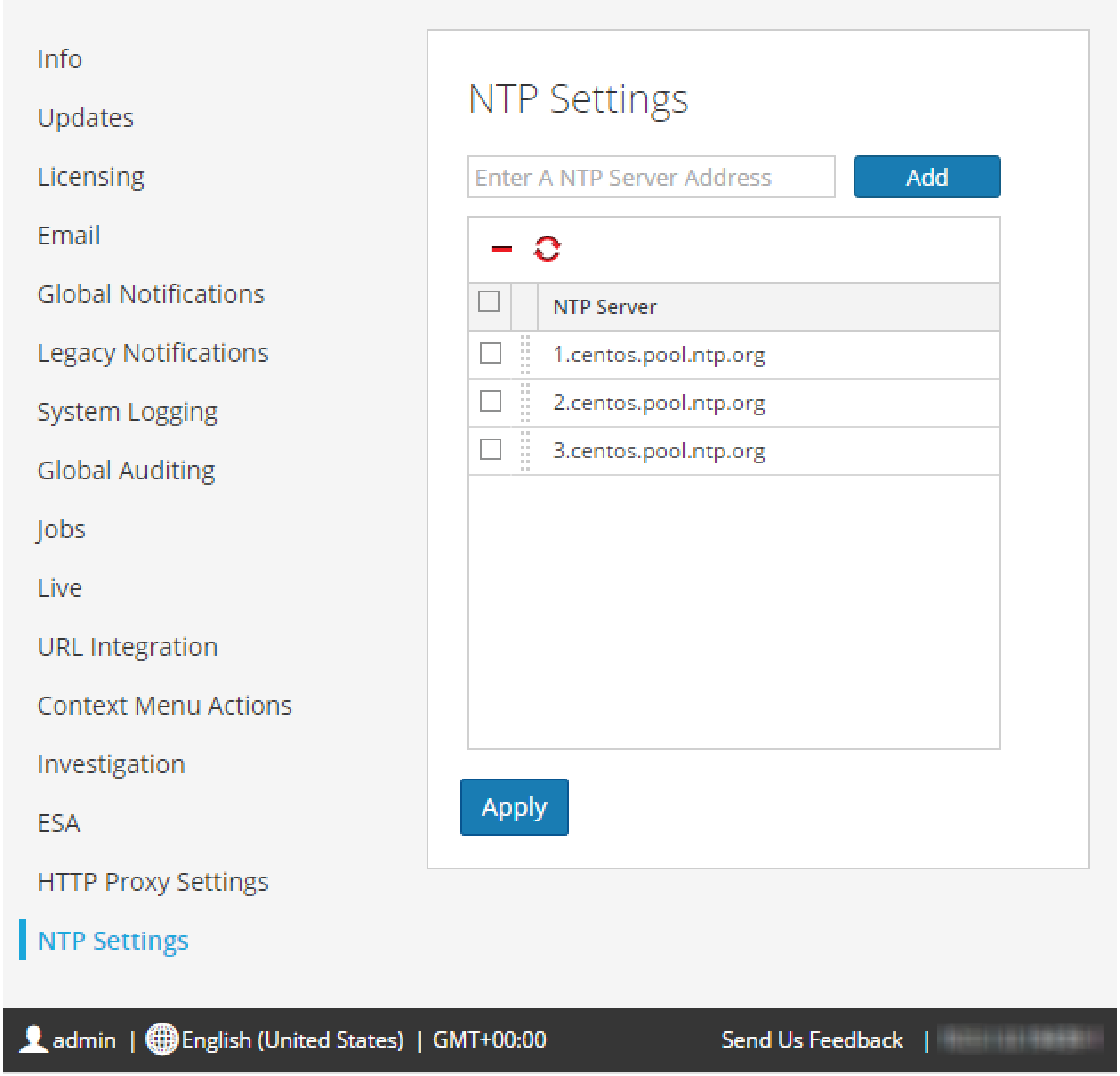
5. Click **Apply**.
   A dialog displays notification that the settings have been saved and requests confirmation that you want to apply the settings now.
6. Click **Yes**.
   The NTP server specified now ensures that your host machine clocks are synchronized. If you decide to configure multiple NTP servers and a server is down, Security Analytics will fail over to next server configured.

For details of the parameters and descriptions, see NTP Settings Panel.

Modify an NTP Server

To modify an existing NTP server:

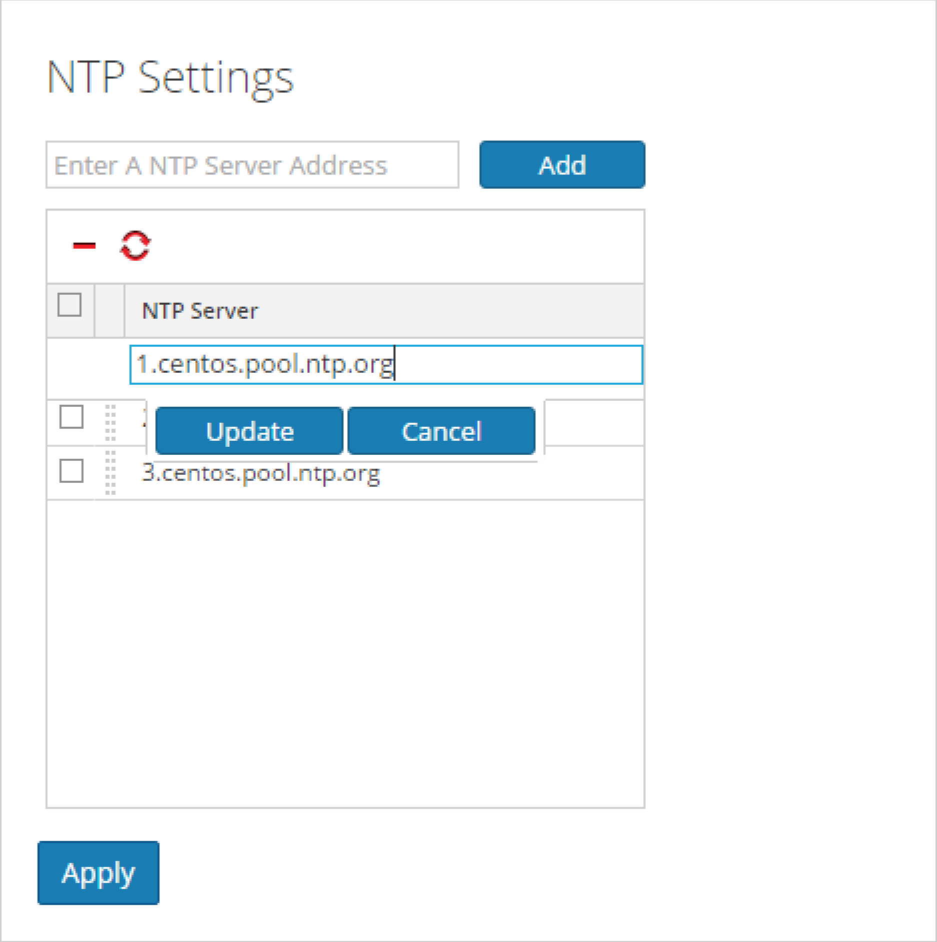
1. In the **Security Analytics** menu, select **Administration > System**.
2. In the options panel, select **NTP Settings**.
   The NTP Setting panel is displayed.



□	NTP Server
□	1.centos.pool.ntp.org
□	2.centos.pool.ntp.org
□	3.centos.pool.ntp.org

3. Double-click the **NTP Server** hostname that you want to modify.

   The NTP Server textbox becomes editable and the Update and Cancel buttons are displayed.



NTP Settings

1.centos.pool.ntp.org

3.centos.pool.ntp.org

4. Edit the hostname, click **Update**, and click **Apply.** (click **Cancel** before you click **Apply** to cancel the edit.)

   Security Analytics changes the hostname according to your edits.

Troubleshooting System Configuration

The topics in this section provide troubleshooting information for administrators who are configuring settings that apply across the system in Security Analytics.

Troubleshoot Global Audit Logging

Troubleshooting NTP Server Configuration

Troubleshoot Global Audit Logging

This topic provides information about possible issues that Security Analytics users may encounter when implementing Global Audit Logging in Security Analytics. Look for explanations and solutions in this topic.

After you configure Global Audit Logging, you should test your audit logs to ensure that they show the audit events as defined in your audit logging template. If you cannot view the audit logs on your third-party syslog server or Log Decoder, or the audit logs do not appear as expected, look at the basic troubleshooting suggestions below. If you are still having issues, you can look at the advanced troubleshooting suggestions.

Basic Troubleshooting

If you cannot view audit logs on a third-party syslog server or Log Decoder:

- Verify that Puppet and RabbitMQ are up and running.
- Verify the syslog notification server configuration and make sure it is enabled. (This configuration is located at Administration > System > Global Notifications. Do not select Legacy Notifications.)
- Check the Global Audit Logging configuration.

Configure Global Audit Logging and Verify Global Audit Logs provide instructions. If you are sending audit logs to a Log Decoder:

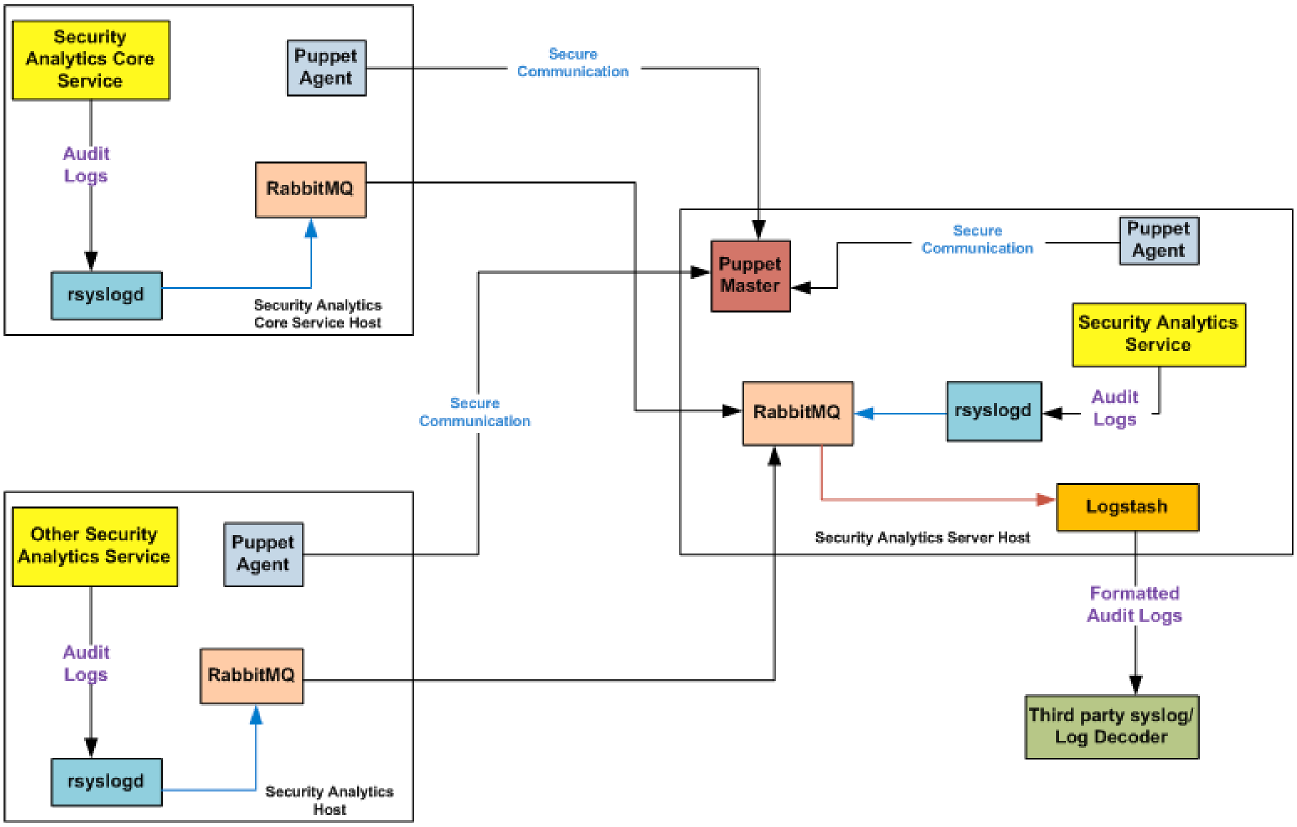
- Ensure that the Log Decoder is aggregating on the Concentrator on the same host (Administration > Services > (Select Concentrator) > View > Config).
- Verify that the latest CEF parser is deployed and enabled.
- Check the audit logging notification template. You must use a CEF template and all logs feeding into the Log Decoder must use a CEF template.

If you are sending audit logs to a third-party syslog server:

- Ensure that the destination port configured for the third-party syslog server is not blocked by a firewall.

Advanced Troubleshooting

In order to use Global Audit Logging on your network, Puppet and RabbitMQ must be functioning. The following Global Audit Logging architectural diagram shows the necessary audit logging components and the flow of audit logs from the individual services to the Logstash on the Security Analytics Server and then to the configured third-party syslog server or Log Decoder.



For centralized audit logging, each of the Security Analytics services writes audit logs to rsyslog listening on port 50514 using UDP on the local host. The rsyslog plugin provided in the audit logging package adds additional information and uploads these logs to RabbitMQ.
Logstash running on the Security Analytics Server host aggregates audit logs from all of the Security Analytics services, coverts them to the required format, and sends them to a third-party syslog server or Log Decoder for investigation. You configure the format of the global audit logs and the destination used by Logstash through the Security Analytics user interface.

Define a Global Audit Logging Configuration provides instructions.

Verify the Packages and Services on the Hosts

Security Analytics Host

The following packages or services must be present on the Security Analytics Server host:

- rsyslog-8.4.1
- rsa-audit-rt
- logstash-1.5.4-1
- rsa-audit-plugins
- rabbitmq server
- puppet master
- puppet agent

Services on a Host other than the Security Analytics Host

The following packages or services must be present on each of the Security Analytics hosts other than the Security Analytics Server host:

- rsyslog-8.4.1
- rsa-audit-rt
- rabbitmq server
- puppet agent

Log Decoder

If you forward global audit logs to a Log Decoder, the following parser should be present and enabled:

- CEF

Possible Issues

What if I perform an action on a service but audit logs do not reach the configured third-party syslog server or Log Decoder?

The possible causes could be one or all of the following:

- A service is not logging to the local syslog server.
- Audit logs are not getting uploaded to RabbitMQ from the local syslog.
- Audit logs are not aggregated on the Security Analytics Server host.
- Aggregated logs on the Security Analytics Server host are not being forwarded to the configured third-party syslog server or Log Decoder.

- The Log Decoder is not configured to receive global audit logs in CEF format:
  - Log Decoder capture is not turned on
  - CEF Parser is not present
  - CEF Parser is not enabled

Possible Solutions

The following table provides possible solutions for the issues.

Issue	Possible Solutions

A service is not logging to the local syslog server.	• Ensure that rsyslog is up and running.
	You could use the following command:
	`service rsyslog status`
	• Ensure that rsyslog is listening on port 50514 using UDP.
	You could use the following command:
	`netstat -tulnp|grep rsyslog`
	• Ensure the application or component is sending audit logs to port 50514. Run the tcpdump utility on the local interface for port 50514.
	You could use the following command:
	`sudo tcpdump -i lo -A udp and port 50514`
	See "Solution Examples" below to view the command outputs.

Audit logs are not getting uploaded to RabbitMQ from the local syslog.	• Ensure that the rsyslog plugin is up and running.
	You could use the following command:
	`ps -ef|grep rsa_audit_onramp`
	• Ensure the RabbitMQ server is up and running.
	You could use the following command:
	`service rabbitmq-server status`
	See "Solution Examples" to view the command outputs.

Issue	Possible Solutions

Audit logs are not aggregated on the Security Analytics Server host.	- Ensure Logstash is up and running.
	You could use the following commands:
	`ps -ef|grep logstash`
	`service logstash status`
	- Ensure the RabbitMQ server is up and running.
	You could use the following command:
	`service rabbitmq-server status`
	- Ensure the RabbitMQ server is listening on port 5672.
	You could use the following command:
	`netstat -tulnp|grep 5672`
	- Check for any errors generated at the Logstash level.
	You could use the following command for the location of the log files:
	`ls -l /var/log/logstash/logstash.*`
	See "Solution Examples" to view the command outputs.

Issue	Possible Solutions

Aggregated logs on the Security Analytics Server host are not being forwarded to the configured third-party syslog server or Log Decoder.	• Ensure Logstash is up and running.
	You could use the following commands:
	`ps -ef|grep logstash`
	`service logstash status`
	• Check for any errors generated at the Logstash level.
	You could type the following command for the location of the log files:
	`ls -l /var/log/logstash/logstash.`
	See "Solution Examples" below to view the command outputs.
	• Ensure that the destination service is up and running.
	• Ensure that the destination service is listening on the correct port using the correct protocol.
	• Ensure that the configured port on the destination host is not blocked.

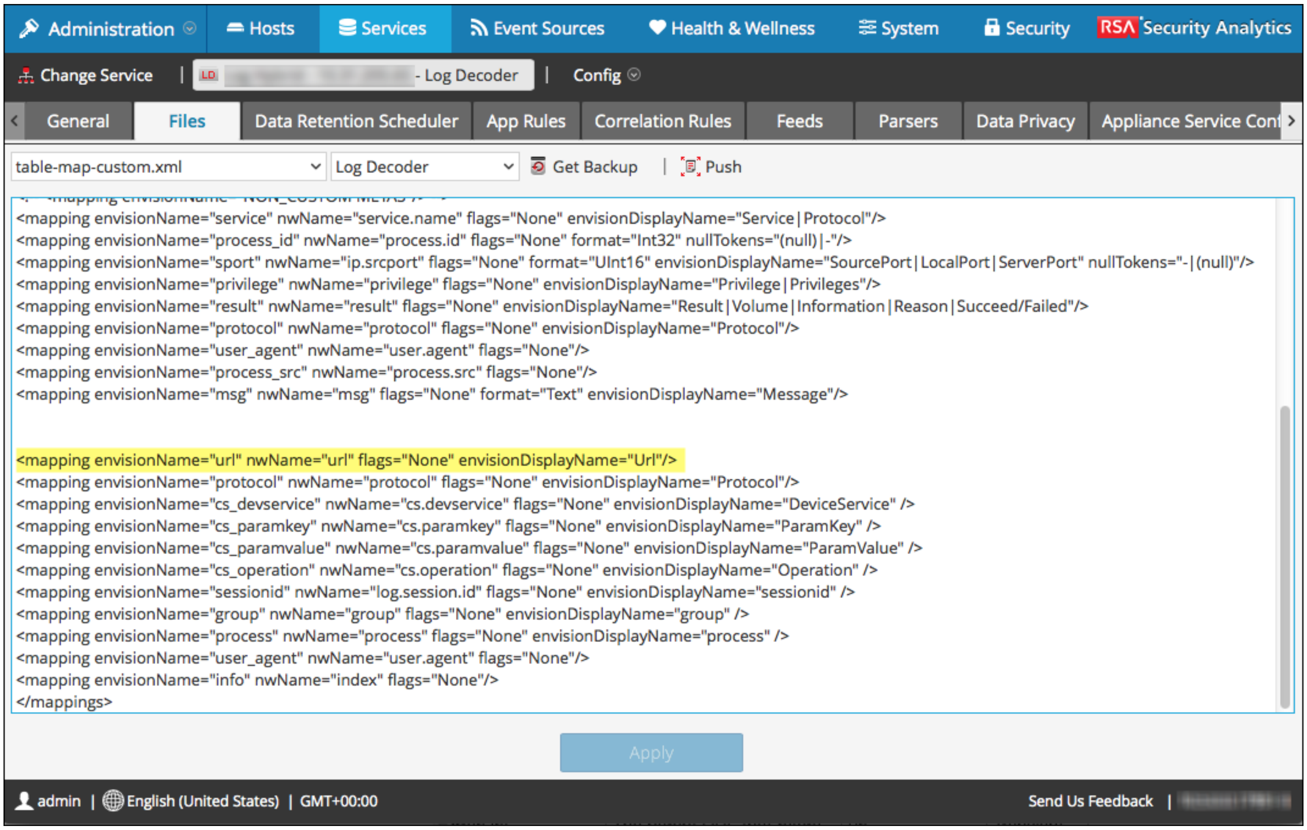
Audit logs forwarded from the Logstash lead to parse failure at the Log Decoder.	• Ensure that you are using an appropriate notification template. Audit Logs parsed by a Log Decoder must be in CEF format. The destination from which audit logs directly or indirectly make their way to the Log Decoder must also use a CEF Template. • The Notification Template must follow the CEF standard. Follow the steps in this guide to either use the default CEF template or create a custom CEF template following strict guidelines. Define a Template for Global Audit Logging provides additional information. • Verify the Logstash configuration.

Why can't we see the custom meta data in Investigation?

Usually, if a meta is not visible in Investigation, it is not being indexed. If you need to use custom meta keys for Investigations and Reporting, ensure that the meta keys that you select are indexed in the **table-map-custom.xml** file on the Log Decoder. Follow the "Maintain the Table Map Files" procedure to modify the **table-map-custom.xml** file on the Log Decoder.

Ensure that the custom meta keys are also indexed in the **index-concentrator-custom.xml** on the Concentrator. "Edit a Service Index File" provides additional information.

The following figure shows an example **table-map-custom.xml** file in Security Analytics (Administration > Services > (select the Log Decoder) > View > Config) with a custom meta `url` example highlighted.



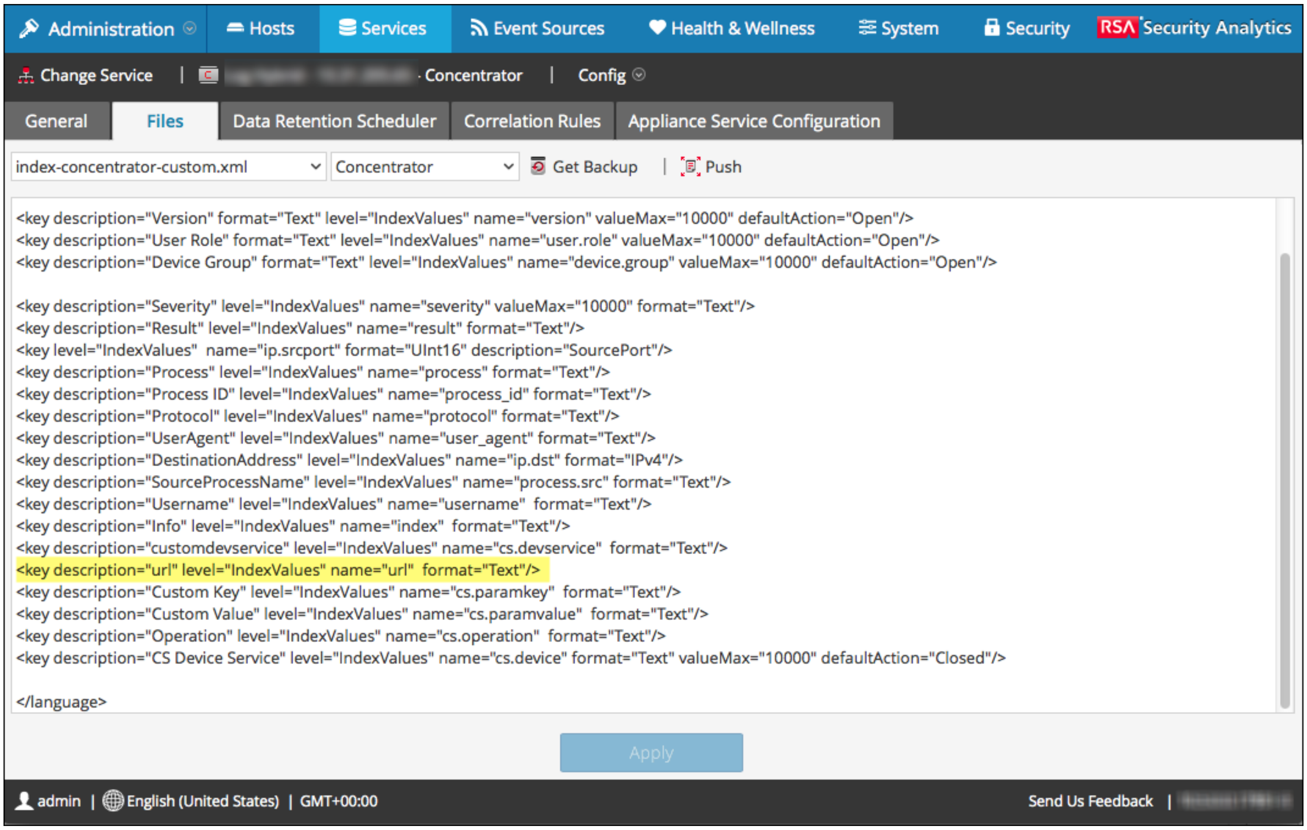
```
<mapping envisionName="service" nwName="service.name" flags="None" envisionDisplayName="Service|Protocol"/>
<mapping envisionName="process_id" nwName="process.id" flags="None" format="Int32" nullTokens="(null)|-"/>
<mapping envisionName="sport" nwName="ip.srcport" flags="None" format="UInt16" envisionDisplayName="SourcePort|LocalPort|ServerPort" nullTokens="-|(null)"/>
<mapping envisionName="privilege" nwName="privilege" flags="None" envisionDisplayName="Privilege|Privileges"/>
<mapping envisionName="result" nwName="result" flags="None" envisionDisplayName="Result|Volume|Information|Reason|Succeed/Failed"/>
<mapping envisionName="protocol" nwName="protocol" flags="None" envisionDisplayName="Protocol"/>
<mapping envisionName="user_agent" nwName="user.agent" flags="None"/>
<mapping envisionName="process_src" nwName="process.src" flags="None"/>
<mapping envisionName="msg" nwName="msg" flags="None" format="Text" envisionDisplayName="Message"/>


<mapping envisionName="url" nwName="url" flags="None" envisionDisplayName="Url"/>
<mapping envisionName="protocol" nwName="protocol" flags="None" envisionDisplayName="Protocol"/>
<mapping envisionName="cs_devservice" nwName="cs.devservice" flags="None" envisionDisplayName="DeviceService" />
<mapping envisionName="cs_paramkey" nwName="cs.paramkey" flags="None" envisionDisplayName="ParamKey" />
<mapping envisionName="cs_paramvalue" nwName="cs.paramvalue" flags="None" envisionDisplayName="ParamValue" />
<mapping envisionName="cs_operation" nwName="cs.operation" flags="None" envisionDisplayName="Operation" />
<mapping envisionName="sessionid" nwName="log.session.id" flags="None" envisionDisplayName="sessionid" />
<mapping envisionName="group" nwName="group" flags="None" envisionDisplayName="group" />
<mapping envisionName="process" nwName="process" flags="None" envisionDisplayName="process" />
<mapping envisionName="user_agent" nwName="user.agent" flags="None"/>
<mapping envisionName="info" nwName="index" flags="None"/>
</mappings>
```

The `url` custom meta example is highlighted in the following code sample from the **table-map-custom.xml** file above:

```
<mapping envisionName="url" nwName="url" flags="None" envisionDisplayName="Url"/>
<mapping envisionName="protocol" nwName="protocol" flags="None" envisionDisplayName="Protocol"/><mapping envisionName="cs_devservice" nwName="cs.devservice"
```

```
flags="None" envisionDisplayName="DeviceService" /><mapping
envisionName="cs_paramkey" nwName="cs.paramkey" flags="None" envisionDisplayName="ParamKey" /><mapping envisionName="cs_paramvalue" nwName="cs.paramvalue"
flags="None" envisionDisplayName="ParamValue" /><mapping
envisionName="cs_operation" nwName="cs.operation" flags="None" envisionDisplayName="Operation" /><mapping envisionName="sessionid" nwName="log.session.id" flags="None"
envisionDisplayName="sessionid" /><mapping envisionName="group" nwName="group" flags="None" envisionDisplayName="group" /><mapping envisionName="process"
nwName="process" flags="None" envisionDisplayName="process" /><mapping envisionName="user_agent" nwName="user.agent" flags="None"/><mapping envisionName="info" nwName="index" flags="None"/>
```

The following figure shows an example **index-concentrator-custom.xml** file in Security Analytics (Administration > Services > (select the Concentrator) > View > Config) with a custom meta `url` example highlighted.



```
<key description="Version" format="Text" level="IndexValues" name="version" valueMax="10000" defaultAction="Open"/>
<key description="User Role" format="Text" level="IndexValues" name="user.role" valueMax="10000" defaultAction="Open"/>
<key description="Device Group" format="Text" level="IndexValues" name="device.group" valueMax="10000" defaultAction="Open"/>

<key description="Severity" level="IndexValues" name="severity" valueMax="10000" format="Text"/>
<key description="Result" level="IndexValues" name="result" format="Text"/>
<key level="IndexValues"  name="ip.srcport" format="UInt16" description="SourcePort"/>
<key description="Process" level="IndexValues" name="process" format="Text"/>
<key description="Process ID" level="IndexValues" name="process_id" format="Text"/>
<key description="Protocol" level="IndexValues" name="protocol" format="Text"/>
<key description="UserAgent" level="IndexValues" name="user_agent" format="Text"/>
<key description="DestinationAddress" level="IndexValues" name="ip.dst" format="IPv4"/>
<key description="SourceProcessName" level="IndexValues" name="process.src" format="Text"/>
<key description="Username" level="IndexValues" name="username"  format="Text"/>
<key description="Info" level="IndexValues" name="index"  format="Text"/>
<key description="customdevservice" level="IndexValues" name="cs.devservice"  format="Text"/>
<key description="url" level="IndexValues" name="url"  format="Text"/>
<key description="Custom Key" level="IndexValues" name="cs.paramkey"  format="Text"/>
<key description="Custom Value" level="IndexValues" name="cs.paramvalue"  format="Text"/>
<key description="Operation" level="IndexValues" name="cs.operation"  format="Text"/>
<key description="CS Device Service" level="IndexValues" name="cs.device" format="Text" valueMax="10000" defaultAction="Closed"/>

</language>
```

The `url` custom meta example is highlighted in the following code sample from the **index-concentrator-custom.xml** file above:

```
<key description="Severity" level="IndexValues" name-
e="severity" valueMax="10000" format="Text"/><key descrip-
tion="Result" level="IndexValues" name="result"
format="Text"/><key level="IndexValues"  name="ip.srcport"
format="UInt16" description="SourcePort"/><key descrip-
tion="Process" level="IndexValues" name="process" form-
at="Text"/><key description="Process ID"
level="IndexValues" name="process_id" format="Text"/><key
description="Protocol" level="IndexValues" name="protocol"
format="Text"/><key description="UserAgent" level-
l="IndexValues" name="user_agent" format="Text"/><key
description="DestinationAddress" level="IndexValues" name-
e="ip.dst" format="IPv4"/><key descrip-
tion="SourceProcessName" level="IndexValues"
name="process.src" format="Text"/><key descrip-
tion="Username" level="IndexValues" name="username"  form-
at="Text"/><key description="Info" level="IndexValues"
name="index"  format="Text"/><key descrip-
tion="customdevservice" level="IndexValues" name-
e="cs.devservice"  format="Text"/>
<key description="url" level="IndexValues" name="url"
format="Text"/>
<key description="Custom Key" level="IndexValues" name-
e="cs.paramkey"  format="Text"/><key description="Custom
Value" level="IndexValues" name="cs.paramvalue"  form-
at="Text"/><key description="Operation" level-
l="IndexValues" name="cs.operation"  format="Text"/><key
description="CS Device Service" level="IndexValues" name-
e="cs.device" format="Text" valueMax="10000" defaultAc-
tion="Closed"/>
```

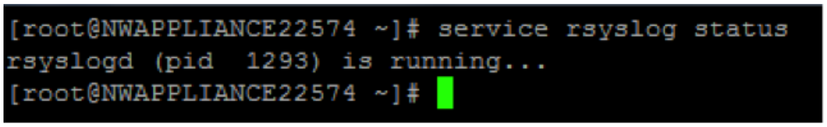
Solution Examples

The following possible solution examples show the outputs of the example commands. See the above table for the complete listing of possible solutions.

Ensure that rsyslog is up and running

You can use the following command:

```
service rsyslog status
```

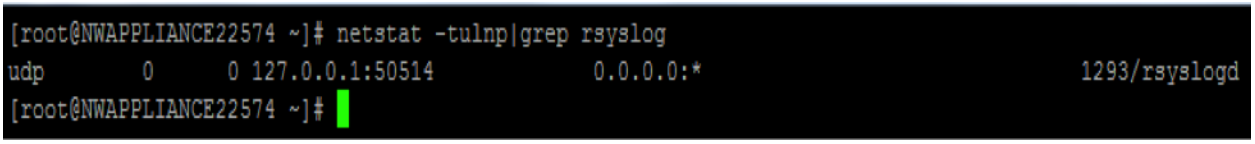


```
[root@NWAPPLIANCE22574 ~]# service rsyslog status
rsyslogd (pid  1293) is running...
[root@NWAPPLIANCE22574 ~]#
```

Ensure that rsyslog is listening on port 50514 using UDP

You can use the following command:

```
netstat -tulnp|grep rsyslog
```



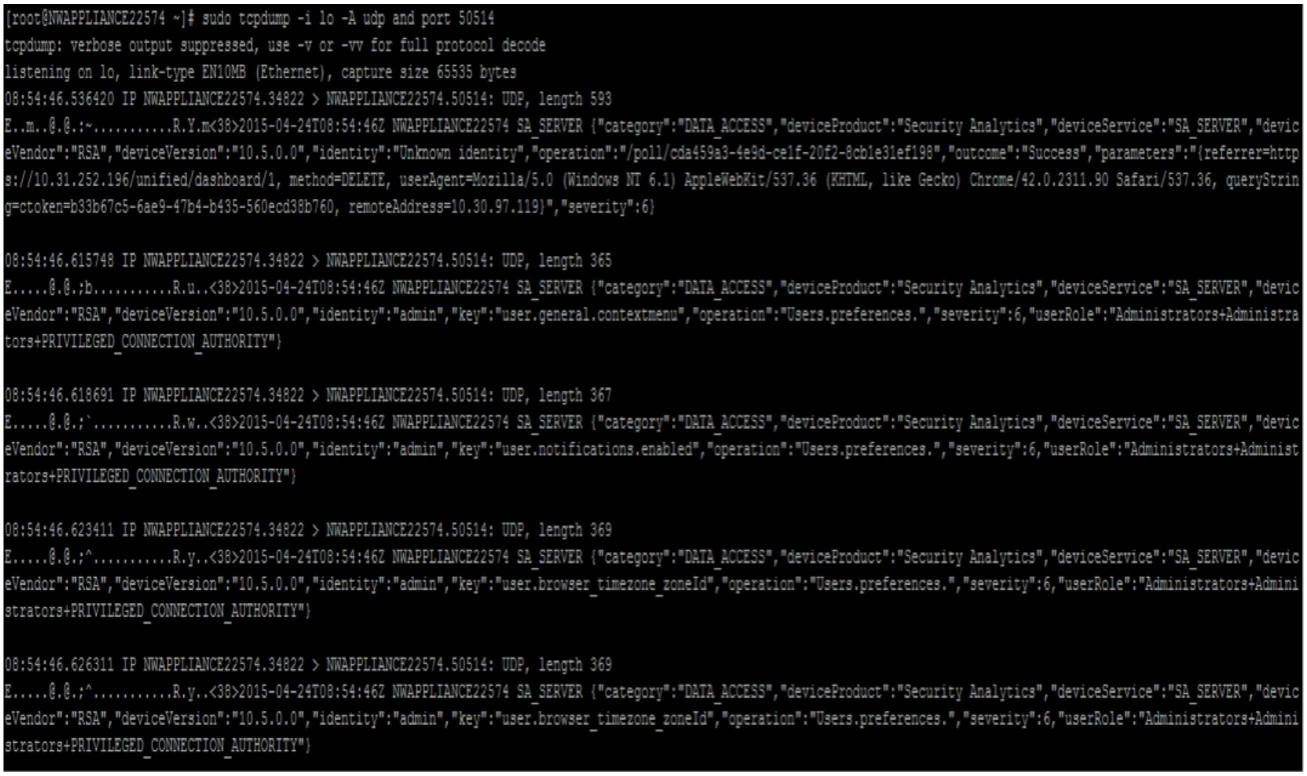
```
[root@NWAPPLIANCE22574 ~]# netstat -tulnp|grep rsyslog
udp        0      0 127.0.0.1:50514             0.0.0.0:*                               1293/rsyslogd
[root@NWAPPLIANCE22574 ~]#
```

Ensure that the application or component is sending audit logs to port 50514

The following figure shows the output of running the tcpdump utility on the local interface for port 50514.

You can use the following command:

```
sudo tcpdump -i lo -A udp and port 50514
```

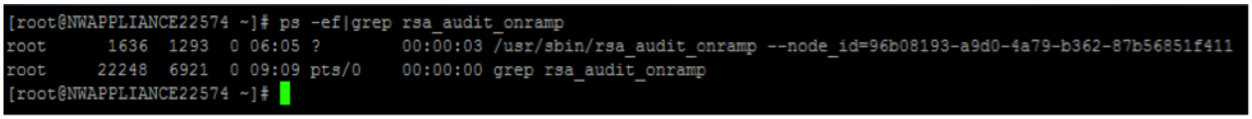


```
[root@NWAPPLIANCE22574 ~]# sudo tcpdump -i lo -A udp and port 50514
tcpdump: verbose output suppressed, use -v or -vv for full protocol decode
listening on lo, link-type EN10MB (Ethernet), capture size 65535 bytes
08:54:46.536420 IP NWAPPLIANCE22574.34822 > NWAPPLIANCE22574.50514: UDP, length 593
E..m..@.@.:~..........R.Y.m<38>2015-04-24T08:54:46Z NWAPPLIANCE22574 SA_SERVER {"category":"DATA_ACCESS","deviceProduct":"Security Analytics","deviceService":"SA_SERVER","devic
eVendor":"RSA","deviceVersion":"10.5.0.0","identity":"Unknown identity","operation":"/poll/cda459a3-4e9d-ce1f-20f2-8cb1e31ef198","outcome":"Success","parameters":"{referrer=http
s://10.31.252.196/unified/dashboard/1, method=DELETE, userAgent=Mozilla/5.0 (Windows NT 6.1) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/42.0.2311.90 Safari/537.36, queryStrin
g=ctoken=b33b67c5-6ae9-47b4-b435-560ecd38b760, remoteAddress=10.30.97.119}","severity":6}

08:54:46.615748 IP NWAPPLIANCE22574.34822 > NWAPPLIANCE22574.50514: UDP, length 365
E.....@.@.;b..........R.u..<38>2015-04-24T08:54:46Z NWAPPLIANCE22574 SA_SERVER {"category":"DATA_ACCESS","deviceProduct":"Security Analytics","deviceService":"SA_SERVER","devic
eVendor":"RSA","deviceVersion":"10.5.0.0","identity":"admin","key":"user.general.contextmenu","operation":"Users.preferences.","severity":6,"userRole":"Administrators+Administra
tors+PRIVILEGED_CONNECTION_AUTHORITY"}

08:54:46.618691 IP NWAPPLIANCE22574.34822 > NWAPPLIANCE22574.50514: UDP, length 367
E.....@.@.;`..........R.w..<38>2015-04-24T08:54:46Z NWAPPLIANCE22574 SA_SERVER {"category":"DATA_ACCESS","deviceProduct":"Security Analytics","deviceService":"SA_SERVER","devic
eVendor":"RSA","deviceVersion":"10.5.0.0","identity":"admin","key":"user.notifications.enabled","operation":"Users.preferences.","severity":6,"userRole":"Administrators+Administ
rators+PRIVILEGED_CONNECTION_AUTHORITY"}

08:54:46.623411 IP NWAPPLIANCE22574.34822 > NWAPPLIANCE22574.50514: UDP, length 369
E.....@.@.;^..........R.y..<38>2015-04-24T08:54:46Z NWAPPLIANCE22574 SA_SERVER {"category":"DATA_ACCESS","deviceProduct":"Security Analytics","deviceService":"SA_SERVER","devic
eVendor":"RSA","deviceVersion":"10.5.0.0","identity":"admin","key":"user.browser_timezone_zoneId","operation":"Users.preferences.","severity":6,"userRole":"Administrators+Admini
strators+PRIVILEGED_CONNECTION_AUTHORITY"}

08:54:46.626311 IP NWAPPLIANCE22574.34822 > NWAPPLIANCE22574.50514: UDP, length 369
E.....@.@.;^..........R.y..<38>2015-04-24T08:54:46Z NWAPPLIANCE22574 SA_SERVER {"category":"DATA_ACCESS","deviceProduct":"Security Analytics","deviceService":"SA_SERVER","devic
eVendor":"RSA","deviceVersion":"10.5.0.0","identity":"admin","key":"user.browser_timezone_zoneId","operation":"Users.preferences.","severity":6,"userRole":"Administrators+Admini
strators+PRIVILEGED_CONNECTION_AUTHORITY"}
```

Ensure that the rsyslog plugin is up and running

You can use the following command:

```
ps -ef|grep rsa_audit_onramp
```

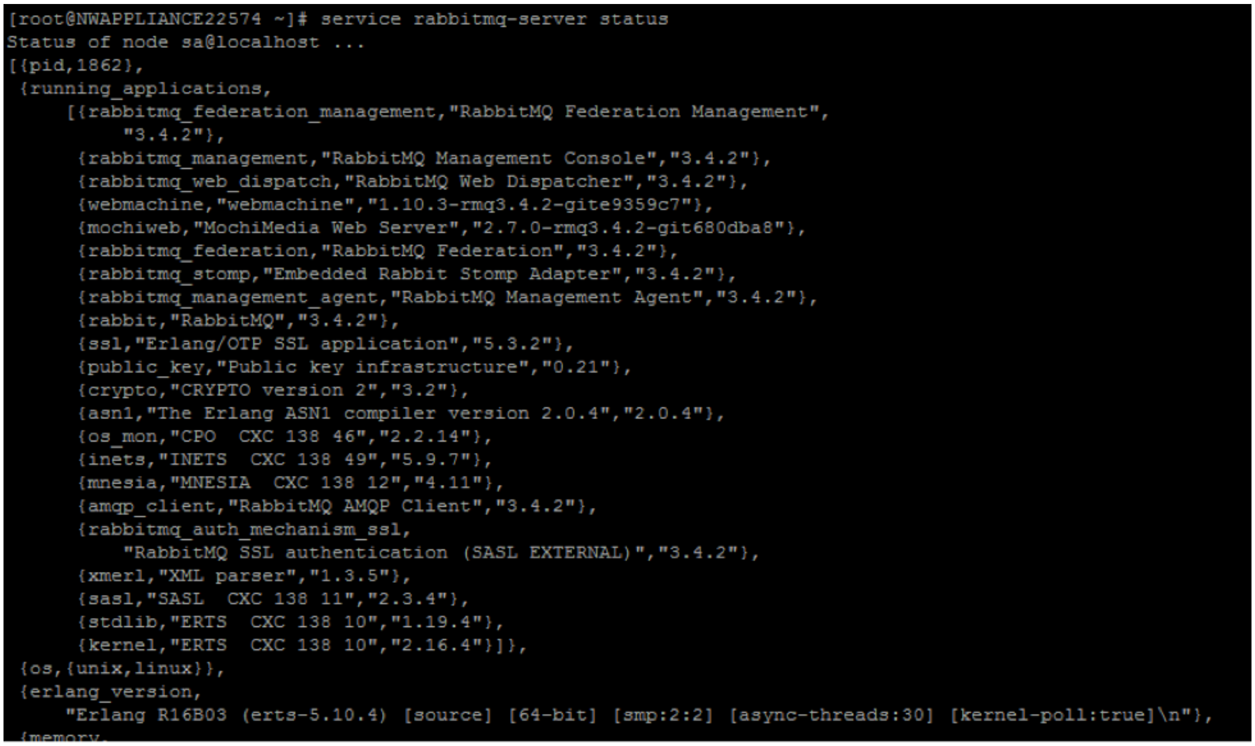


```
[root@NWAPPLIANCE22574 ~]# ps -ef|grep rsa_audit_onramp
root      1636  1293  0 06:05 ?        00:00:03 /usr/sbin/rsa_audit_onramp --node_id=96b08193-a9d0-4a79-b362-87b56851f411
root     22248  6921  0 09:09 pts/0    00:00:00 grep rsa_audit_onramp
[root@NWAPPLIANCE22574 ~]# 
```

Ensure the RabbitMQ server is up and running

You can use the following command:

```
service rabbitmq-server status
```

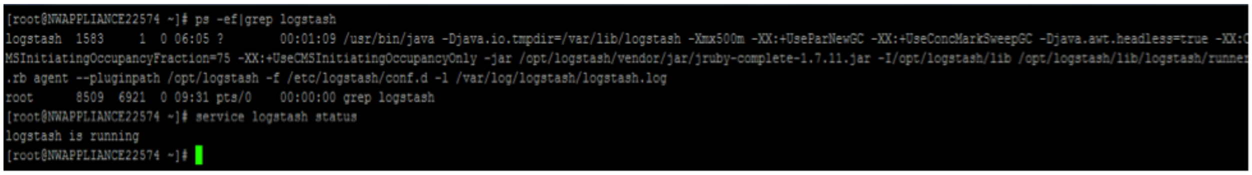


```
[root@NWAPPLIANCE22574 ~]# service rabbitmq-server status
Status of node sa@localhost ...
[{pid,1862},
 {running_applications,
     [{rabbitmq_federation_management,"RabbitMQ Federation Management",
          "3.4.2"},
      {rabbitmq_management,"RabbitMQ Management Console","3.4.2"},
      {rabbitmq_web_dispatch,"RabbitMQ Web Dispatcher","3.4.2"},
      {webmachine,"webmachine","1.10.3-rmq3.4.2-gite9359c7"},
      {mochiweb,"MochiMedia Web Server","2.7.0-rmq3.4.2-git680dba8"},
      {rabbitmq_federation,"RabbitMQ Federation","3.4.2"},
      {rabbitmq_stomp,"Embedded Rabbit Stomp Adapter","3.4.2"},
      {rabbitmq_management_agent,"RabbitMQ Management Agent","3.4.2"},
      {rabbit,"RabbitMQ","3.4.2"},
      {ssl,"Erlang/OTP SSL application","5.3.2"},
      {public_key,"Public key infrastructure","0.21"},
      {crypto,"CRYPTO version 2","3.2"},
      {asn1,"The Erlang ASN1 compiler version 2.0.4","2.0.4"},
      {os_mon,"CPO  CXC 138 46","2.2.14"},
      {inets,"INETS  CXC 138 49","5.9.7"},
      {mnesia,"MNESIA  CXC 138 12","4.11"},
      {amqp_client,"RabbitMQ AMQP Client","3.4.2"},
      {rabbitmq_auth_mechanism_ssl,
          "RabbitMQ SSL authentication (SASL EXTERNAL)","3.4.2"},
      {xmerl,"XML parser","1.3.5"},
      {sasl,"SASL  CXC 138 11","2.3.4"},
      {stdlib,"ERTS  CXC 138 10","1.19.4"},
      {kernel,"ERTS  CXC 138 10","2.16.4"}]},
 {os,{unix,linux}},
 {erlang_version,
     "Erlang R16B03 (erts-5.10.4) [source] [64-bit] [smp:2:2] [async-threads:30] [kernel-poll:true]\n"},
 {memory,
```

Ensure logstash is up and running

You can use the following commands:

```
ps -ef|grep logstash
service logstash status
```

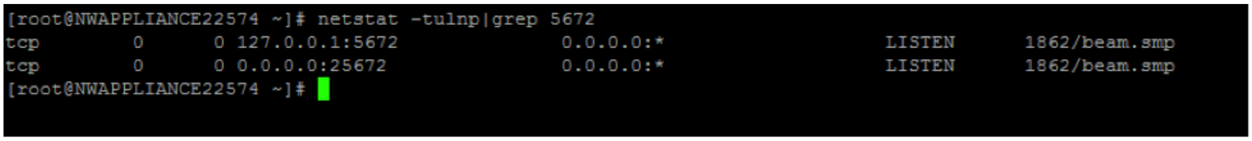


```
[root@NWAPPLIANCE22574 ~]# ps -ef|grep logstash
logstash  1583     1  0 06:05 ?        00:01:09 /usr/bin/java -Djava.io.tmpdir=/var/lib/logstash -Xmx500m -XX:+UseParNewGC -XX:+UseConcMarkSweepGC -Djava.awt.headless=true -XX:C
MSInitiatingOccupancyFraction=75 -XX:+UseCMSInitiatingOccupancyOnly -jar /opt/logstash/vendor/jar/jruby-complete-1.7.11.jar -I/opt/logstash/lib /opt/logstash/lib/logstash/runner
.rb agent --pluginpath /opt/logstash -f /etc/logstash/conf.d -l /var/log/logstash/logstash.log
root      8509  6921  0 09:31 pts/0    00:00:00 grep logstash
[root@NWAPPLIANCE22574 ~]# service logstash status
logstash is running
[root@NWAPPLIANCE22574 ~]#
```

Ensure the RabbitMQ server is listening on port 5672

For example, type the following command:

```
netstat -tulnp|grep 5672
```

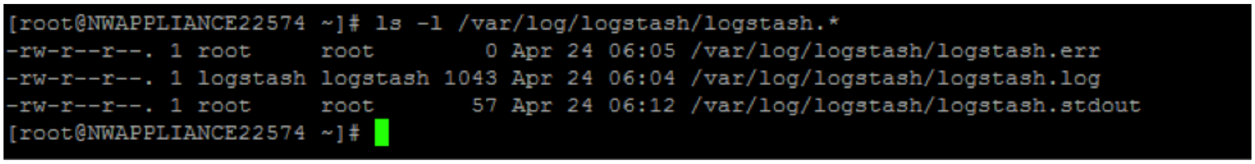


```
[root@NWAPPLIANCE22574 ~]# netstat -tulnp|grep 5672
tcp        0      0 127.0.0.1:5672              0.0.0.0:*                   LISTEN      1862/beam.smp
tcp        0      0 0.0.0.0:25672               0.0.0.0:*                   LISTEN      1862/beam.smp
[root@NWAPPLIANCE22574 ~]#
```

Check for any errors generated at the Logstash level

You can type the following command for the location of the log files:

```
ls -l /var/log/logstash/logstash.*
```



```
[root@NWAPPLIANCE22574 ~]# ls -l /var/log/logstash/logstash.*
-rw-r--r--. 1 root     root        0 Apr 24 06:05 /var/log/logstash/logstash.err
-rw-r--r--. 1 logstash logstash 1043 Apr 24 06:04 /var/log/logstash/logstash.log
-rw-r--r--. 1 root     root       57 Apr 24 06:12 /var/log/logstash/logstash.stdout
[root@NWAPPLIANCE22574 ~]# 
```

See the Possible Solutions table above for the complete listing of issues and possible solutions.

Troubleshooting NTP Server Configuration

This topic describes NTP server configuration issues that you may encounter and suggests solutions to these problems.

Issues Identified by Messages in the NTP Settings Panel or Log Files

This section provides troubleshooting information for issues identified by messages Security Analytics displays in the NTP Settings panel and log files.

Message	User Interface: **Unexpected error occurred. First check the logs then contact Customer Care to resolve error.**
	`System Log:`
	`Timestamp Level Message`
	`yyyy-dd-mmThh:mm:ss:ms ERROR com.rsa.smc.sa.adm.exception.MCOAgent Exception: No request sent, we did not discover any nodes`

Possible Cause	Low level Security Analytics configuration is in error or supporting service is not running.
Solution	Contact Customer Care.
Message	User Interface: **Specified an invalid Hostname syntax**.
Possible Cause	Tried to enter NTP server hostname that does not confirm to IP address or FQDN syntax.
Solution	Reenter hostname in using correct syntax.
Message	User Interface: **Specified NTP server that already exists.**
Possible Cause	Tried to enter NTP server hostname that is already defined in Security Analytics.
Solution	Enter hostname for an NTP server not configured in Security Analytics.
Message	User Interface: **Cannot reach NTP server *hostname*.** Please verify the server address and your firewall settings.

Possible Cause	The server address or firewall settings may be in error.
Solution	Verify the server address and your firewall settings and correct them if required.

References

This topic provides reference materials that describe the user interface for configuring system settings in Security Analytics and define parameters. Administrators use options in the Administration System view to configure system settings. Each panel is described in a separate topic.

- Global Audit Logging Configurations Panel
  - Add New Configuration Dialog
  - Supported CEF Meta Keys
  - Supported Global Audit Logging Meta Key Variables
  - Global Audit Logging Operation Reference
  - Local Audit Log Locations
- Global Notifications Panel
  - Define Notification Server Dialogs
  - Define Notification Output Dialogs
  - Define Notification Template Dialog
  - Output Tab
  - Servers Tab
  - Templates Tab
- HTTP Proxy Settings Panel
- Email Configuration Panel
- ESA Settings Panel
- Investigation Configuration Panel
- Live Services Configuration Panel
- Log Parser Mappings (Beta) Panel
- NTP Settings Panel
- Context Menu Actions Panel
- Legacy Notifications Configuration Panel

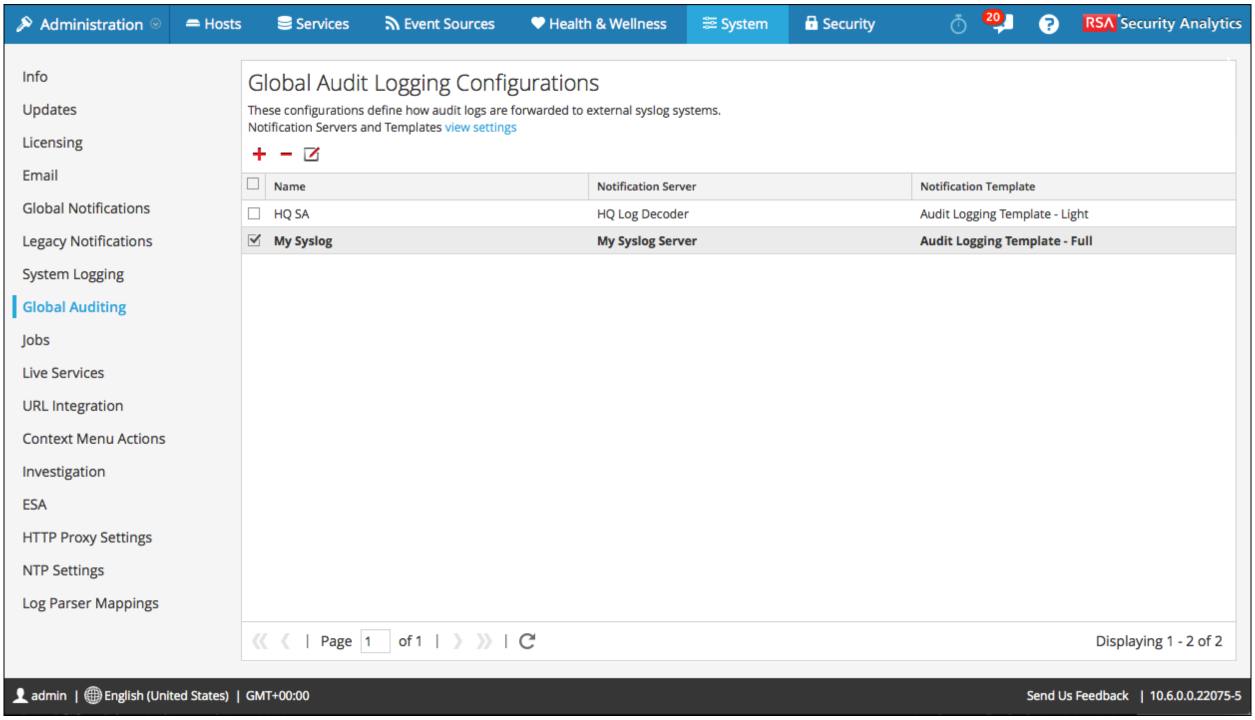
Global Audit Logging Configurations Panel

This topic introduces the features of the Administration System view > Global Audit Logging Configurations panel for configuring global audit logging. In the **G lobal Audit Logging Configurations** panel, you configure global audit logging by adding configurations that define how global audit logs are forwarded to external syslog systems. Global audit logs are forwarded to the selected Notification Server in your global audit logging configuration using the selected Notification Template.

Procedures related to global audit logging are described in Configure Global Audit Logging.

To access the Global Audit Logging Configurations panel:

1. In the **Security Analytics** menu, select **Administration > System**.
2. In the options panel, select **Global Auditing**.



Global Audit Logging Configurations

These configurations define how audit logs are forwarded to external syslog systems.
Notification Servers and Templates view settings

□	Name	Notification Server	Notification Template
□	HQ SA	HQ Log Decoder	Audit Logging Template - Light
☑	**My Syslog**	**My Syslog Server**	**Audit Logging Template - Full**

Features

The Global Audit Logging Configurations panel contains a toolbar and a grid. It also provides a view settings link that takes you to the Global Notifications panel where you can view or configure the notification server and template settings. A Syslog notification server and an Audit Logging notification template are required before you can create a global audit configuration.

Toolbar

The following table describes the icons available in the toolbar.

Feature	Description
+	Adds a global audit logging configuration.
−	Deletes a global audit logging configuration.
✎	Edits a global audit logging configuration.

Grid

The following table describes the features in the grid.

Feature	Description
☑	To select an individual configuration, select the checkbox next to the configuration. To select all configurations, select the checkbox in the title bar of the grid.
Name	Displays the name of the global auditing configuration. For example, you can name the configurations based on the destination of the global audit logs, such as HQ SA and My Syslog Server.
Notification Server	Displays the Syslog Notification Server selected as the destination for the global audit logs. If you want to forward global audit logs to a Log Decoder, create a Syslog type of Notification Server. Configure a Destination to Receive Global Audit Logs provides instructions on how to create a Syslog Notification Server for global audit logging.

Feature	Description
Notification Template	Displays the Audit Logging Notification Template selected for the configuration. It defines the format and message fields of the audit log entries. For Log Decoders, use the **10.5 Default Audit CEF Template**. You can add or remove fields from the Common Event Format (CEF) template if you have specific requirements. Define a Template for Global Audit Logging provides instructions and Supported CEF Meta Keys describes the available CEF meta keys. For, third-party syslog servers, you can use a default audit logging template or define your own format (CEF or non-CEF). Configure Templates for Notifications provides instructions and Supported Global Audit Logging Meta Key Variables describes the available meta key variables.

Add New Configuration Dialog

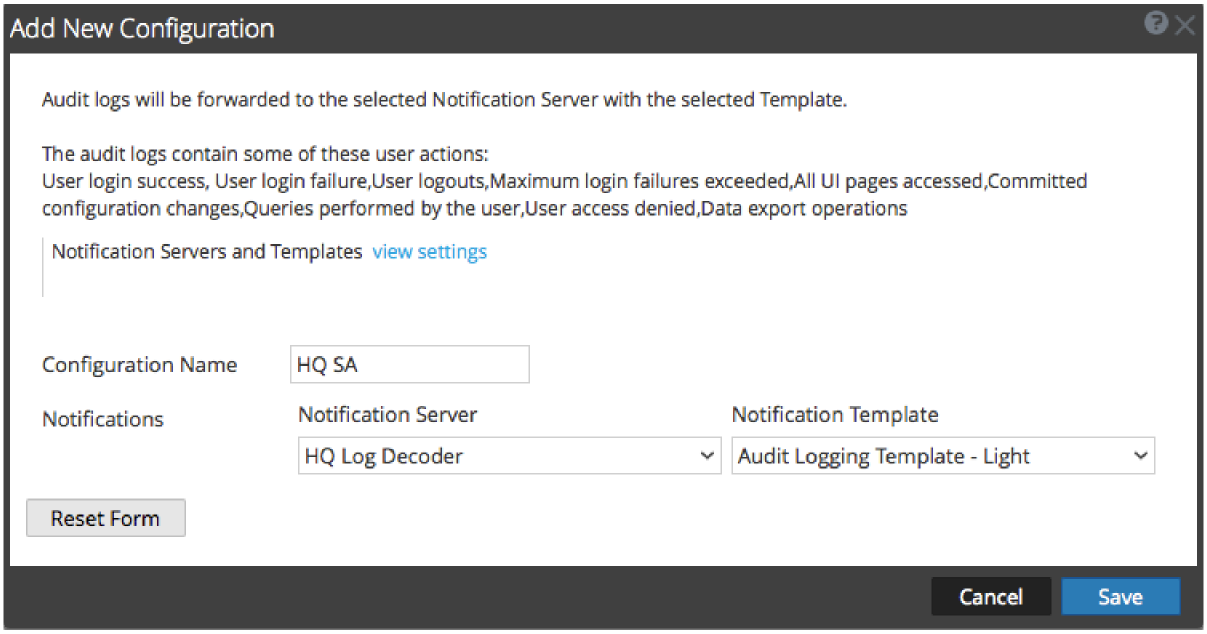
In the RSA Security Analytics Administration System view Global Audit Logging Configurations panel, you can create multiple global audit logging configurations. These configurations are used to forward global audit logs to a central location to perform user audits.

Procedures related to global audit logging are described in Configure Global Audit Logging.

To access the **Add New Configuration** dialog:

1. In the **Security Analytics** menu, select **Administration** > **System**.
2. In the options panel, select **Global Auditing**.
3. In the **Global Audit Logging Configurations** panel, click +.

   The **Add New Configuration** dialog is displayed.



Audit logs will be forwarded to the selected Notification Server with the selected Template.

The audit logs contain some of these user actions:
User login success, User login failure,User logouts,Maximum login failures exceeded,All UI pages accessed,Committed configuration changes,Queries performed by the user,User access denied,Data export operations

Notification Servers and Templates view settings

Configuration Name: HQ SA

Notifications — Notification Server: HQ Log Decoder — Notification Template: Audit Logging Template - Light

The Notifications section enables you to select a syslog notification server for the global audit logging configuration and a template to use for the global audit logs. The template defines the details of the global audit log entries.

Features

The following table describes the features in the Add New Configuration and Edit Configuration dialogs.

Feature	Description
Notifications Servers and Templates **view settings** link	Takes you to the Global Notifications panel where you can view or configure the notification server and template settings. A syslog notification server and an audit logging template are required before you can create a global audit configuration.
Configuration Name	Specifies the unique name used to identify the global audit logging configuration.
Notification Server	Specifies the syslog notification server to send the selected audit log information. Configure a Destination to Receive Global Audit Logs provides instructions on how to create a Syslog Notification Server for global audit logging.
Notification Template	Specifies the template to use for the global audit logging configuration. The template should be an Audit Logging template. For Log Decoders, use the **10.5 Default Audit CEF Template**. You can add or remove fields from the Common Event Format (CEF) template if you have specific requirements. Define a Template for Global Audit Logging provides instructions. For third-party syslog servers, you can use a default audit logging template or define your own format (CEF or non-CEF). Define a Template for Global Audit Logging provides instructions and Supported Global Audit Logging Meta Key Variables describes the available variables.
Reset Form button	Clears the configuration settings in the dialog.

User Actions Logged

The following table provides examples of some of the user actions logged from Security Analytics. These actions are the minimum user actions logged when applicable.

User Action	Example
User login success	A user logs on with valid credentials.
User login failure	A user tries to log on using invalid credentials.
User logouts	A user logs out from Security Analytics (Administration > Sign Out) or a user logs out due to a session timeout.
Max login failures exceeded	A user tries to log on using invalid credentials five times. Five (5) is the number of Max Login Failures defined in Administration Security view > Settings tab (Administration > Security > Settings tab).
All UI pages accessed	When a user accesses the Reporting module (Administration > Reports), it logs as `[REP] Reports`. When a user accesses the Administration System view (Administration > System), it logs as `[ADM] System`.
Committed configuration changes	A user changes his or her password and or any security setting (Administration > Security > Settings tab).
Queries performed by the user	A user performs an investigation query.
User access denied	A user tries to access a module and does not have permissions to access it.
Data export operations	A user exports data from the Events view (Investigation > Events > Actions > Export).

For lists of message type being logged by the various Security Analytics components, see Global Audit Logging Operation Reference.

Supported CEF Meta Keys

This topic describes the Common Event Format (CEF) meta keys that Security Analytics global audit logging supports.

Global audit logging templates that you define for a Log Decoder use Common Event Format (CEF) and must meet the following specific standard requirements:

- Include the CEF headers in the template.
- Use only the extensions and custom extensions in a (Key=Value) format from the meta key table below.
- Ensure that the extensions and custom extensions are in the `key=${string}<space>key=${string}` format.

For third-party syslog servers, you can define your own format (CEF or non-CEF).

Procedures related to this table are described in Define a Template for Global Audit Logging and Configure Global Audit Logging.

Supported Common Event Format (CEF) Meta Keys

The following table describes the CEF Syslog meta keys that Security Analytics global audit logging supports. The Datetime and Hostname fields in the Syslog Prefix are not configurable and not included in the template, but they are prepended to every log message by default. The CEF Header is required to conform to the CEF standard and for any CEF parser. The Extensions and Custom Extensions are optional. The 10.5 Default Audit CEF Template contains many of the fields in this table. You can add any of the Extensions and Custom Extensions listed to the global audit logging template that you define.

CEF Field	String	Description	SA Meta Keys	Index in Log Decoder
Syslog Prefix				
Datetime	Not Configurable	Syslog Header date time	event.-time.str	Transient

CEF Field	String	Description	SA Meta Keys	Index in Log Decoder
Hostname	Not Configurable	Syslog Header hostname	alias.host	None
CEF Header		The CEF Header fields are required to conform to the CEF standard and for any CEF parser.		
CEF:Version	CEF:0	CEF Header	--STATIC--	N/A
DeviceVendor	${deviceVendor}	The product vendor, RSA	-	N/A
DeviceProduct	${deviceProduct}	The product family. This is always Security Analytics Audit.	product	Transient
DeviceVersion	${deviceVersion}	Host/Service version	version	Transient
Signature ID	${category}	Identifier of the audit event. It specifies the the category of the audit event.	event.type	None
Name	${operation}	Description of the event	event.desc	None

CEF Field	String	Description	SA Meta Keys	Index in Log Decoder
Severity	${severity}	Severity of the audit event	severity	Transient
Extensions				
deviceExternalId	${deviceExternalId}	Unique ID of the host or service generating the audit event	hardware.id	Transient
deviceFacility	${deviceFacility}	Syslog facility used when writing the event to syslog daemon. For example, authpriv.	cs.devfacility	Custom
deviceProcessName	${deviceProcessName}	Name of the executable corresponding to dvcpid	process	None
dpt	${destinationPort}	Destination Port	ip.dstport	None
dst	${destinationAddress}	Destination IP Address	ip.dst	None
dvcpid	${deviceProcessId}	ID of the process generating the event, which is the process ID of the Security Analytics service	process.id	Transient

CEF Field	String	Description	SA Meta Keys	Index in Log Decoder
msg	${text}	Free text, extra information, or actual description for the event	msg	Transient
outcome	${outcome}	Outcome of the operation performed corresponding to the audit event	result	Transient
proto	${transportProtocol}	Network protocol used	protocol	Transient
requestClientApplication	${userAgent}	Browser detail of the user accessing the page	user.agent	Transient
rt	${timestamp}	Time at which the event is reported	event.time	None
sourceServiceName	${sourceService}	The service that is responsible for generating this event	service.name	Transient
spt	${sourcePort}	Source Port	ip.srcport	Transient

CEF Field	String	Description	SA Meta Keys	Index in Log Decoder
spriv	${userRole}	User role permissions assignment. For example: admin.owner, appliance.manage, connections.manage, everyone, logs.manage, services.manage, storedproc.execute, storedproc.manage, sys.manage, users.manage	privilege	Transient
src	${sourceAddress}	Source IP Address	ip.src	None
suser	${identity}	Identity of the logged on user responsible for generating the audit event	user.dst	None
Custom Extensions				
deviceService	${deviceService}	Service responsible for generating the event	cs.devservice	Custom

CEF Field	String	Description	SA Meta Keys	Index in Log Decoder
parameters	${parameters}	API and Operation parameters, which capture specific parameters about a query	index	Transient
paramKey	${key}	A configuration item key. It is the config param for which the audit event is captured. For example: /sys/config/stat.interval	cs.key	Custom
paramValue	${value}	A configuration value. It is the value captured during the update.	cs.value	Custom

CEF Field	String	Description	SA Meta Keys	Index in Log Decoder
userGroup	${userGroup}	Role assignment. For example: Administrators, Analysts, MalwareAnalysts, Malware_Analysts, Operators, PRIVILEGED_CONNECTION_AUTHORITY, SOC_Managers	group	None
referrerURL	${referrerUrl}	The parent URL that refers to the current URL	url	Transient
sessionId	${sessionId}	Session or connection identifier	log.session.id	Transient

Note: Use all of the extensions in the following format:
`deviceProcessName=${deviceProcessName} outcome=${outcome}`
Include a `<space>` between a value and a tagname.

By default, all meta keys are not indexed. In the above table, the **Index in Log Decoder** column shows the state of the `flags` keyword (Transient, None, and Custom). If a key is set to `Transient`, it is parsed but not stored in the database. If it is set to `None`, it is indexed and stored in the database. A key listed as "Custom" does not exist in the table-map.xml file and, therefore, it is not stored or parsed at all.

"Maintain the Table Map Files" provides instructions for verifying and updating the table mappings. "Edit a Service Index File" provides information on updating the custom index file on the Concentrator.

Supported Global Audit Logging Meta Key Variables

This topic describes the meta key variables that Security Analytics global audit logging supports.

Security Analytics provides predefined global audit logging templates that you can use for your global audit logging configurations. For third-party syslog servers, you can define your own template format (CEF or non-CEF) using supported meta key variables.

Procedures related to this table are described in Define a Template for Global Audit Logging and Configure Global Audit Logging.

Supported Global Audit Logging Meta Key Variables

The following table describes the meta key variables that Security Analytics global audit logging supports. Use these values to create a custom audit logging template for a third-party syslog server.

Variable	Description
${category}	Identifier of the audit event. It specifies the the category of the audit event.
${destinationAddress}	Destination IP Address
${destinationPort}	Destination Port
${deviceExternalId}	Unique ID of the service generating the audit event
${deviceFacility}	Syslog facility used when writing the event to syslog daemon. For example, authpriv.
${deviceProcessId}	ID of the process generating the event, which is the process ID of the Security Analytics service
${deviceProcessName}	Name of the executable corresponding to dvcpid
${deviceProduct}	The product family. This is always Security Analytics Audit.
${deviceService}	Service responsible for generating the event

Variable	Description
${deviceVendor}	The product vendor, RSA
${deviceVersion}	Host/Service version
${identity}	Identity of the logged on user responsible for generating the audit event
${key}	A configuration item key. It is the config param for which the audit event is captured.
${operation}	Description of the event
${outcome}	Outcome of the operation performed corresponding to the audit event
${parameters}	API and Operation parameters, which capture specific parameters about a query
${referrerUrl}	The parent URL that refers to the current URL
${sessionId}	Session or connection identifier
${severity}	Severity of the audit event
${sourceAddress}	Source IP Address
${sourcePort}	Source Port
${sourceService}	The service that is responsible for generating this event
${text}	Free text, extra information, or actual description for the event
${timestamp}	Time at which the event is reported
${transportProtocol}	Network protocol used
${userAgent}	Browser detail of the user accessing the page
${userGroup}	Role assignment

Variable	Description
${userRole}	User role permissions assignment
${value}	A configuration value. It is the value captured during the update

Global Audit Logging Operation Reference

This topic lists message types being logged by the various Security Analytics components. Most messages plainly state the operation being logged; when necessary the meaning of the message is explained.

After you create a global audit logging configuration, audit logs automatically go to the external syslog system in the format specified in the selected audit logging template. The message types being logged by the various Security Analytics components are shown in the following tables.

CARLOS

The following table lists the operations logged by CARLOS.

Serial #	Operation Name	Meaning
1	SetProviderConfiguration	A new notification server (for example, SMTP server) was added or updated
2	SetInstanceConfiguration	A new notification type (for example, email destination) was added or updated
3	SetTemplateDefinition	A new template was added or updated
4	RemoveProviderConfiguration	A notification server was removed
5	RemoveInstanceConfiguration	A notification type was removed
6	RemoveTemplateDefinition	A template definition was removed
7	Commit	A configuration bean change was committed
8	Set	A JMX property value was set via Security Analytics Explore view

ESA

The following table lists the operations logged by the Event Stream Analysis (ESA).

Serial #	Operation Name	Meaning
9	SetSourceRequest	A concentrator was added or updated to ESA as source
10	RemoveSourceRequest	A concentrator was removed from ESA as source
11	SetEplModule	An EPL module was deployed or updated to ESA
12	RemoveEplModule	An EPL module was removed from ESA
13	SetEnrichmentSourceRequest	An ESA enrichment source was added/updated
14	RemoveEnrichmentSourceRequest	An ESA enrichment source was removed
15	SetDatabaseReference	An enrichment database reference was made to ESA
16	UpdateEnrichmentData	Data rows added to an ESA enrichment source
17	SetEnrichmentConnection	A connection was made between an EPL module and an enrichment source
18	RemoveEnrichmentConnection	A connection between an EPL module and an enrichment source was removed

Serial #	Operation Name	Meaning
19	DisableTrialModule	ESA Trial rules were disabled

Investigation

The following table lists the operations logged by Investigations.

Serial #	Operation Name	Meaning
1	VisualizePreferences	Operations related to Informer Visualization Request.
2	ParallelCoordinates	Operations related to Loading of Co-Ordinate View Navigation.
3	TimeLine	Operations related to Loading of Timeline View Navigation.
4	ExteralQuery	Operation when a Direct Query is fired via URL.
5	PrintView	Operations to open Investigation in Print View.
6	submitExtractFiles	Operation to submit a Request to Extract files from Sessions.
7	submitExtractLogs	Operation to submit a Request to Extract Logs from Sessions.
8	submitExtractPcap	Operation to submit a Request to Extract Sessions from Sessions.
9	DataScienceDrill	Operation to investigate from Data Science Report.
10	breadCrumbs	Operation to access the Query Breadcumbs.

Serial #	Operation Name	Meaning
11	Create	Operation when a new Investigation Q uery is being saved as a predicate to be used for URL Integration.
12	userPredicates	Operation to access Recent Q ueries of a user.
13	chartDefaultMetas	Operation to access last used Meta for generating Coordinate Chart.
14	defaultDevice	Operation to access the Default Investigation Device.
15	deleteDefaultDevice	Operation to delete the Default Investigation Device.
16	chartPreferences	Operation to edit an Investigation Navigation Chart Parameters such as Height.
17	devicePreferences	Operation to save the preferences about the Investigation Device such asTime Range, Profile, Meta Groups etc.
18	topValues	Operation to get the Top Values for Metas. Normally called from Top Values Dashlet.
19	MetaLanguages	Operation to read the Meta Languages from a Device.
20	MetaGroups	Operations related to Investigation Meta Groups.

Serial #	Operation Name	Meaning
21	DefaultMetaKeys	Operations related to Investigation Default Meta Keys.
22	UpdateDefaultMetaKeys	Operations to update Investigation Default Meta Keys.
23	UpdateMetaGroup	Operations to update Investigation Meta Groups.
24	ApplyMetaGroup	Operations to use Investigation Meta Groups.
25	DeactivateMetaGroup	Operations to reset Investigation Meta Groups in UI.
26	DeleteMetaGroup	Operations to remove Investigation Meta Group.
27	DeleteMetaGroups	Operations to remove multiple Investigation Meta Groups.
28	ImportMetaGroups	Operations to import Investigation Meta Groups.
29	ExportMetaGroup	Operations to export multiple Investigation Meta Groups.
30	GeoMap	Operation to access the Geo Map View of Investigation.
31	deleteEndpointCache	Operation to clear Reconstruction Cache of a Device.
32	delete	Operation to delete Alert Templates.
33	CustomColumnGroup	Operation to apply or read Custom Column Group.

Serial #	Operation Name	Meaning
34	Import	Operations related to Import of Column Group or Profiles.
35	Export	Operations related to Export of Column Group or Profiles.
36	SaveProfile	Operation to save an Investigation Profile.
37	ApplyProfile	Operation to apply an Investigation Profile.
38	DeactivateProfile	Operation to deactivate an Investigation Profile.
39	DeleteProfile	Operation to delete an Investigation Profile.
40	DeleteProfiles	Operation to delete multiple Investigation Profiles.

Reporting Engine

The following table lists the operations logged by the Reporting Engine.

Serial #	Operation Name	Meaning
1	TEMPLATE	For all operations related to template
2	CHART	For all operations related to chart
3	REPORT	For all operations related to report
4	RULE	For all operations related to rule
5	IMAGE	For all operations related to Logo Images used in Reports.

Serial #	Operation Name	Meaning
6	LIST	For all operations related to list
7	ALERT	For all operations related to alert
8	CONFIG	For all operations related to configuration change
9	SCHEDULE	For all operations related to schedule
10	ROLE	For all operations related to role/authorization
11	BATCH_JOB	For all operations related to batch jobs
12	SCHEDULER	For all operations related to scheduler
13	QUERYPROCESSOR	For all operations related to queryprocessor
14	FORMATTER	For all operations related to formatter
15	OUTPUTACTION	For all operations related to outputaction
16	STATUSMANAGER	For all operations related to statusmanager
17	BATCH_RUNDEF	For all operations related to batch rundef
18	CHARTGROUP	For all operations related to chart group
19	REPORTGROUP	For all operations related to report group

Serial #	Operation Name	Meaning
20	RULEGROUP	For all operations related to rule group
21	LISTGROUP	For all operations related to list group
22	DISKSPACE	For all operations related to disk space

W arehouse Connector

The following table lists the operations logged by the Warehouse Connector.

Serial #	Operation Name	Meaning
1	LockBox Password Create	Operation to create LockBox Password.
2	LockBox Password Update	Operation to update LockBox Password.
3	LockBox Password Refresh	Operation to refresh LockBox Password.
4	Adding Stream	Operation to add a Stream.
5	Adding Source	Operation to add a Source.
6	Adding Destination	Operation to add a Destination.
7	Removing	Operation to remove a Source, Stream, or Destination.
8	Changing Password	Operation to change the Password.
9	Updating Source	Operation to update a Source.
10	Adding Source to Stream	Operation to add a Source to a Stream.

Serial #	Operation Name	Meaning
11	Deleting Source from Stream	Operation to delete a Source from a Stream.
12	Setting Destination to Stream	Operation to set a Destination to a Stream.
13	Finalizing Stream	Operation to finalize a Stream and initiate the aggregation.
14	Stopping Stream	Operation to stop a Stream.
15	Starting Stream	Operation to start a Stream.
16	Reloading Stream	Operation to reload a Stream.

Health & W ellness

The following table lists the operations logged by Health & Wellness.

Serial #	Operation Name	Meaning
1	SavePolicyRequest	Operation while adding or modifying a Policy.
2	RemovePolicyRequest	Operation while removing a Policy.

Security Analytics Core Services

The following table lists the operations logged by Security Analytics Core Services.

Serial #	Operation Name	Meaning
1	FILE-Command	Operation to list, retrieve and delete files from approved directories on this device.
2	SERVICE-Start	Service started

Serial #	Operation Name	Meaning
3	SERVICE-Stop	Service stopped
4	REDIRECT-Syslog	Operation for syslog forwarding.
5	ADD-Monitor	Issuing a filesystem monitor operation
6	DELETE-Monitor	Issuing a filesystem monitor deletion operation
7	SHUTDOW N-Service/shutdown.service	Shutting down appliance service
8	REBOOT-Service	Restarting appliance service
9	CONFIGURE-Network	Issuing Network Configuration change
10	SET-NTP	Issuing NTP set operation
11	STOP-NTP	Issuing NTP stop operation
12	NTP-Timesync	Issuing NTP time sync operation
13	SET-SNMP	Issuing SNMP set
14	UPGRADE/upgrade	Issuing upgrade operation
15	create.collection	Operation to create an empty collection.
16	restore	Issuing restore
17	session.aggregation	Issuing aggregation start/stop
18	add.device	Adding a device for aggregation
19	edit.device	Editing a device used for aggregation
20	delete.device	Deleting a device used for aggregation
21	capture.start	Starting capture operation

Serial #	Operation Name	Meaning
22	capture.stop	Stopping capture operation
23	select.interface	Selecting capture interface
24	export	Operation to export packets or sessions.
25	reload	Issuing a parser reload
26	schema	Issuing a schema request for loaded parsers
27	upload/file.upload	Issuing file upload
28	notify	Issuing feed notify
29	delete	Issuing file deletion
30	edit.config	Configuration change operation
31	parsers.transforms	Perform a language key transformation
32	data.reset	Data reset operation
33	timeout	REST request timeout
34	cancel	Cancel a running query
35	timeroll	Operation to delete the database files that exceed a given limit.
36	dump	Operation to dump information out of the database in nwd formatted files.
37	session.wipe	Issuing a session wipe operation
38	REPLACE-Rule	Issuing a rule replace operation
39	MERGE-Rule	Issuing a rule merge operation

Serial #	Operation Name	Meaning
40	ERASE-Rule	Issuing deletion of a set of all rules
41	ADD-Rule	Issuing a rule addition operation
42	DELETE-Rule	Issuing deletion of a set of rules
43	sdk.info	Issuing SDK summary info.
44	sdk.session	Issuing SDK session info.
45	sdk.language	Issuing SDK language
46	sdk.aliases	Issuing SDK alias request
47	sdk.transform	Issuing SDK transformation request
48	sdk.search	Issuing session content search request
49	sdk.cache	Operation related to session content cache
50	sdk.content	Issuing session content request
51	check.authorization	Operation to check user roles for permissions to execute an operation.
52	close.connection	Issuing a connection close operation
53	handshake	Issuing an SSL handshake
54	logon/login	Operation to login from SA to the other services, mostly to privileged users.
55	STOREDPROCOP	Issuing file upload cancel/start
56	ADD-Task	Added scheduled task
57	DELETE-Task	Deleted scheduled task

Serial #	Operation Name	Meaning
58	logoff	Issuing logout operation
59	list.cacerts	Issuing list trusted CA certificate operation
60	delete.cacerts	Issuing delete trusted CA certificate operation
61	add.cacerts	Issuing addition of trusted CA certificate operation
62	restart.command	Issuing restart command line option
63	delete.file/file.delete	Operation to delete system configuration files.
64	update.file/file.update	Operation to update system configuration file.
65	create.file	Issuing file creation operation
66	query	Issue a database query
67	unlock	Issuing unlock user account operation
68	user.add	Operation to create user accounts on individual devices.
69	user.delete	Operation to delete a user on individual devices.
70	group.create	Operation to add a new group to the system.
71	user.remove	Remove a user account from a group
72	group.delete	Delete a group from the /users/groups tree

Serial #	Operation Name	Meaning
73	add.user	Issuing add user command to collection
74	delete.user	Issuing delete user command to collection
75	remove.user	Removing an user from collection
76	collection.open	Issuing an open command for a collection
77	collection.close	Issuing a close command for a collection
78	collection.delete	Issuing collection deletion command
79	reingest.start	Operation to start reingesting of packet data in collection.
80	feed.notify	Issuing a feed notify command
81	collect	Issuing a collect command
82	collect.start	Issuing a data collection start
83	collection.global	Issuing import parser command
84	parser.reload	Issuing parser reload command
85	reingest	Operation to reingest packet data in collection.
86	collection.create	Issuing a create collection command
87	collection.restore	Issuing a restore collection command
88	collection.clone	Issuing a clone collection command
89	parser.reload	Issuing parser reload command

Serial #	Operation Name	Meaning
90	sdk.query	Performs a query against the meta database
91	sdk.msearch	Search for pattern matches in many sessions or packets
92	sdk.values	Performs a value count query and returns the matching values for a report
93	sdk.timeline	Returns the count of sessions/size/packets in discrete time intervals

Malware Analysis

The following table lists the operations logged by the Malware Analysis (MA) component.

Serial #	Operation Name	Meaning
1	GetDashBoardSummaryRequest	Get dashboard analysis statistics
2	GetFileScoreSummaryRequest	Get aggregated file scores by score type and risk level
3	CountEventsAndFilesRequest	Get count of events and files over a time frame
4	GetAvVendorDetectionRequest	Get AV vendor analysis results
5	GetAVVendorsRequest	Get list of AV Vendors supported
6	SetInstalledAVVendors	Request Update list of installed AV Vendors in config

Serial #	Operation Name	Meaning
7	CountEventByCriteriaRequest	Count events by criteria
8	FindEventByIdRequest	Get event by id
9	FindEventByCriteriaRequest	Get event by criteria
10	DeleteEventRequest	Delete event
11	CommentOnEventRequest	Add comment to event
12	ReSubmitEventRequest	Resubmit event for analysis
13	FindEventScoreByIdRequest	Get event score by event id
14	FindEventScoreByCriteriaRequest	Get event score by criteria
15	FindMetaByIdRequest	Get meta by id
16	FindMetaByCriteriaRequest	Get meta by criteria
17	FindMetaValueByCriteriaRequest	Get meta value by criteria
18	CountByDistinctMetaValueRequest	Count distinct meta values
19	CountByMetaNameAndValueWithDate RangeIntervalRequest	Count meta and values with interval for charting
20	CountByValueAndAverageOverallScore Request	Count meta and map to overall scores for events
21	CountByValueAndAverageGroupScore Request	Count meta and map to group scores for events
22	CountFileEntryByCriteriaRequest	Count files by criteria
23	FindFileEntryByIdRequest	Get file by id
24	FindFileEntryByCriteriaRequest	Get file by criteria
25	ReSubmitFileEntryRequest	Resubmit file for analysis
26	FileDownloadRequest	Download file from repository
27	FileUploadRequest	Upload file for analysis

Serial #	Operation Name	Meaning
28	FindFileScoreByIdRequest	Get file score by id
29	FindFileScoreByCriteriaRequest	Get file score by criteria
30	FindHashValueByIdRequest	Get whitelist/blacklist Hash value by id
31	FindHashValueByCriteriaRequest	Get whitelist/blacklist Hash value by criteria
32	AddHashValueRequest	Add whitelist/blacklist Hash value
33	UpdateHashValueRequest	Update whitelist/blacklist Hash value
34	DeleteHashValueRequest	Delete whitelist/blacklist Hash value
35	FindHashValueByMd5Request	Find whitelist/blacklist Hash value by md5
36	AddHashValueInFileRequest	Add File to repository as well as hash value
37	GetDefaultRulesRequest	Get default IOC Rules configuration
38	ResetToDefaultRulesRequest	Reset IOC Rules configuration to default
39	GetAllOverrideRulesRequest	Get IOC Rules user created override configuration
40	FindOverrideRuleByIdRequest	Find IOC override rule by id
41	AddOverrideRuleRequest	Add IOC override rule
42	UpdateOverrideRuleRequest	Update IOC override rule
43	DeleteOverrideRuleRequest	Delete IOC override rule

Serial #	Operation Name	Meaning
44	SubmitOnDemandNextGenRequest	Submit new ondemand nextgen scan
45	FindOnDemandJobEntryByIdRequest	Get ondemand job entity by id
46	FindOnDemandJ obEntryByCriteria Request	Get ondemand job entity by criteria
47	GetOnDemandJobInfoRequest	Get ondemand job reference entity by id
48	GetOnDemandDefaultConfiguration	Request Get ondemand default configuration
49	CancelOnDemandJobRequest	Cancel ondemand job in progress
50	DeleteOnDemandJ obRequest	Delete ondemand job
51	ReSubmitOnDemandJobRequest	Resubmit ondemand job
52	SubscriptionRequest	Subscribe to MA Cloud communication
53	UnSubscribeRequest	Unsubscribe from MA Cloud communication
54	GetTopEventInfluencesRequest	Get Top N event influences
55	GetServerInfoRequest	Get server info, such as server time
56	DataResetRequest	Reset database
57	OnDemandJobStatusNotification	Report ondemandjob progress to subscribers
58	LicenseStatusNotification	Report license status - num samples analyzed
59	DataResetNotification	Report that data was reset

Serial #	Operation Name	Meaning
60	GetIocSummaryRequest	Get IOC rules aggregated by event/file scores
61	FindAlertTemplatesByCriteriaRequest	Get rabbitmq alert templates by criteria
62	SaveAlertTemplateRequest	Update alert template
63	DeleteAlertTemplateRequest	Delete alert template
64	GetJobStatusRequest	Get in progress job analysis thread status
65	GetEventTypeCountSummaryRequest	Get event analysis counts by date chart
66	Logon	Logon to the MA Service
67	Modified	Modifying config changes
68	GetNextGenSummaryRequest	Get nextgen dashboard summary statistics

Security Analytics U ser Interface

The following table lists the operations logged by the Security Analytics User Interface component.

Serial #	Operation Name	Meaning
1	uploadTrialLicense	Upload Trial License
2	LicenseEntitle	Entitle License
3	LicenseDeactivation	Deactivate License
4	ExpiredLicense	License Expired
5	LicenseOutOfComplianceAcknowledgement	EULA Acknowledgement
6	resetLicense	Reset License

Serial #	Operation Name	Meaning
7	usageDateExport	License data usage - csv/pdf
8	refreshLicense	Refresh LLS license
9	LicenseOutOfCompliance	Out of Compliance
10	OOTBEntitlementOutOfCompliance	OOTB Trial license Out of Compliance
11	OOTBEntitlementFirstLoginTimeModified	OOTB time modified
12	OOTBEntitlementFileDeleted	OOTB File deleted
13	OOTBEntitlementDataTampering	OOTB data tampering
14	uploadOfflineResponse	Upload offline response
15	offlineDownloadCapRequest	Download offline request
16	movePerpetualToMetered	Move Service-based license to Metered
17	moveMeteredToPerpetual	Mover Metered to Service-based license
18	mapServiceLicense	Map Service to Real license
19	delete	Operation to delete Alert Templates.
20	HttpRequest	Operation for Audit Logging of the accessed URL.
21	Page Accessed	Operation for Audit Logging of the accessed page.
22	Navigate	Operation to navigate to the accessed page.

Serial #	Operation Name	Meaning
23	Events	Operation to view the accessed event page.
24	Recon	Operation for Event Reconstruction requested.
25	Services	Operation while reading the list of available devices for investigation.
26	Service	Operation for a List of devices requested to be investigated.
27	Collections	Operation to view the list of collections requested.
28	Profiles	Operation to apply a Profile.
29	ColumnGroups	Operation to apply or read Column Group.
30	ParallelCoordinates	Operations related to Loading of co-ordinate view navigation.
31	Timeline	Operations related to loading of timeline view navigation.
32	PrintView	Operations to open investigation in print view.
33	Preferences	Operations related to Informer Request.
34	import	Operations related to Import of Column Group or Profiles.

Serial #	Operation Name	Meaning
35	export	Operations related to Export of Column Group or Profiles.
36	Predicate	Operations related to Queries (Predicates) used for Investigation.
37	Languages	Operation for Language requested from a Device.
38	CancelLanguageLoad	Operation for Language Load Canceled from Navigate Page.
39	summary	Operation for a summary requested from a Device.
40	languages	Operation for a language requested from a device.
41	aliases	Operation for meta aliases requested from a device.
42	query	Operation for SDK Query requested from a device.
43	msearch	Operation for a meta search requested from a device.
44	nodeListing	Node Listing for a node requested from a Device.
45	content	SDK Content call requested from a Device for downloading a PCAP or Log.

Serial #	Operation Name	Meaning
46	Export Files	File Listing Requested for a Session in File View or Extraction jobs.
47	packets	Packets requested for sessions in Packet View or Extraction Jobs.
48	deleteEndpointCache	Operation to clear reconstruction cache of a device.
49	Logon	Operation for user to sign in to Security Analytics User Interface.
50	Logoff	Operation for user to sign out of Security Analytics User Interface.
51	defaultDevice	Operation to access the Default SA UI Device.
52	deleteDefaultDevice	Operation to delete the Default investigation device.
53	submitExtractFiles	Operation to submit a request to Extract files from Sessions.
54	submitExtractLogs	Operation to submit a Request to Extract Logs from Sessions.
55	submitExtractPcap	Operation to submit a Request to Extract Sessions from Sessions.

Serial #	Operation Name	Meaning
56	MetaGroup	Operations related to SA UI Meta Groups.
57	ExternalQuery	Operation when a Direct Query is fired via URL.
58	GeoMap	Operation to access the Geo Map View of Investigation.
59	SaveProfile	Operation to save an Investigation Profile.
60	ApplyProfile	Operation to apply an Investigation Profile.
61	DeleteProfile	Operation to apply an Investigation Profile.
62	DeactivateProfile	Operation to apply an Investigation Profile.
63	VisualizePreferences	Operations related to Informer Visualization Request.
64	ExportMetaGroup	Operations to export multiple SA UI Meta Groups.
65	userPredicates	Operations to export multiple SA UI Meta Groups.
66	FileView	Operation for reconstruction request for File View.
67	resource.update	Operation when Live Subscription State changes.

Incident Management

The following table lists the operations logged by the Incident Management component.

Serial #	Operation Name	Meaning
1	update	Update notification setting
2	update	Update integration settings configuration
3	delete	Delete Alerts
4	create	Create new incident
5	update	Update incident details
6	read	Read incident details
7	delete	Delete incidents
8	read	Read remediation tasks
9	delete	Delete Remediation tasks
10	update	Update remediation tasks
11	create	Create new rule
12	update	Update existing alert rule
13	reorder	Reorder priority of alert rules

Local Audit Log Locations

Security Analytics has global audit logging capabilities. When you configure global audit logging, audit logs from all Security Analytics components collect in a centralized system, which converts them into the required format and forwards them to a third-party syslog server or a Log Decoder.

To view audit logs from the individual services, you can look at the local audit log locations.The following table shows the local directory paths of the audit logs for the Security Analytics user interface and the various Security Analytics services.

Service/Module	Audit Log Location
Security Analytics User Interface (Security Analytics W eb Server)	The Security Analytics user interface sends audit logs to the following locations: • **/var/lib/netwitness/uax/logs/audit/audit.log** (human-readable format) • Syslog running on the local host (JSON format) The Security Analytics user interface uses the AUTH facility of syslog to write audit logs to syslog. You can only see audit logs in the first location (/var/lib/netwitness/uax/logs/audit/audit.log).
Security Analytics Core Services (Decoder, Log Decoder, Concentrator, Broker, and Archiver), Log Collector, W arehouse Connector, W orkbench, and IPDB Extractor	The Security Analytics Core services and similar services send audit logs to Syslog running on the local host. Path: **/var/log/secure** (JSON format) Security Analytics Core services use the AUTHPRIV facility of syslog to write audit logs to syslog.

Service/Module	Audit Log Location
Reporting Engine, Malware Analysis, Incident Management, and Event Stream Analysis (ESA)	These services send audit logs to the following locations: • **<application home directory>/logs/audit/audit.log** (human-readable format) • Syslog running on the local host (JSON format) The following are the audit log locations of these services: Reporting Engine: **/home/rsasoc/rsa/soc/reporting-engine/logs/audit/audit.log** Incident Management: **/opt/rsa/im/logs/audit/audit.log** Malware Analysis: **/var/lib/netwitness/rsamalware/spectrum/logs/audit/audit.log** Event Stream Analysis: **/opt/rsa/esa/logs/audit/audit.log** These services use the AUTH facility of syslog to write audit logs to syslog. You can only see audit logs in the first location (<application home directory>/logs/audit/audit.log).
Health & Wellness, Event Source Management (ESM), and Appliance and Service Grouping (ASG)	These Services send audit logs to the following locations: • **/opt/rsa/sms/logs/audit/audit.log** (human-readable format) • Syslog running on the local host (JSON format) These services use the AUTH facility of syslog to write audit logs to syslog. You can only see audit logs in the first location (/opt/rsa/sms/logs/audit/audit.log).

Global Notifications Panel

This topic introduces the features of the Administration System view > Global Notifications panel for configuring notification settings. Global Notifications configurations define notifications settings for Event Source Management (ESM), Health and Wellness, Global Audit Logging, Event Stream Analysis (ESA), and Incident Management.

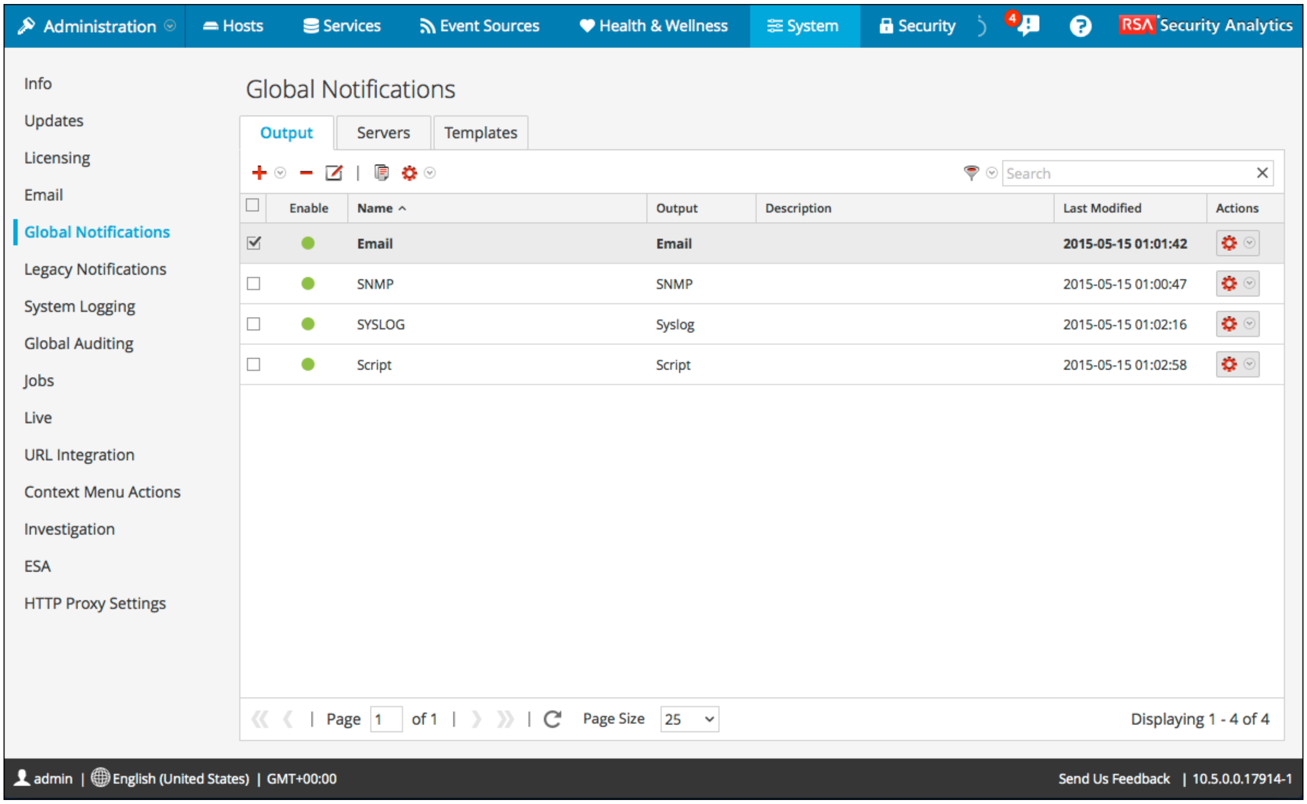
In the Global Notifications panel, you can configure the following global notification settings:

- Notification Outputs
- Notification Servers
- Templates

Procedures related to notifications are described in Configure Notification Servers, Configure Notification Outputs, and Configure Templates for Notifications.

To access the Notifications configuration panel:

1. In the **Security Analytics** menu, select **Administration > System**.
2. In the options panel, select **Global Notifications.**



☐	Enable	Name	Output	Description	Last Modified	Actions
☑	●	**Email**	**Email**		**2015-05-15 01:01:42**	
☐	●	SNMP	SNMP		2015-05-15 01:00:47	
☐	●	SYSLOG	Syslog		2015-05-15 01:02:16	
☐	●	Script	Script		2015-05-15 01:02:58	

Features

The Global Notifications panel has three tabs: Output, Servers, and Templates.

Feature	Description
Output tab	This tab enables you to configure notification outputs. See Output Tab for more information.
Servers tab	This tab enables you to configure notification servers. See Servers Tab for more information.
Templates tab	This tab enables you to configure notification templates. See Templates Tab for more information.

This table describes the columns in the grid for Notification Outputs and Notification Servers.

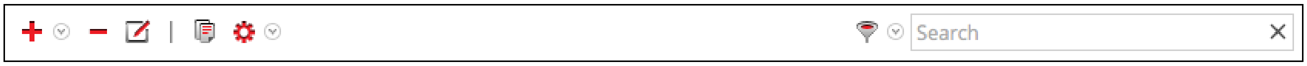
Column	Description
□	Selects a row for an action in the toolbar. Clicking the checkbox in the column title selects or deselects all rows in the grid.
Enable	Indicates whether the configuration is enabled. A solid colored green circle indicates that a configuration is enabled. A blank white circle indicates that a configuration is not enabled.
Name	A name that identifies or labels the configuration.
Output	The configuration output. The outputs are Email, SNMP, Syslog, and Script.
Description	A brief description about the configuration.
Last Modified	Shows the date and time of the last configuration change.
Actions	Provides an Actions menu ⚙ ⌄ for the selected configuration with actions that can be taken on the configuration. The Actions menu enables you to delete, edit, duplicate, and export the configuration.

This table describes the columns in the grid for Notification Templates.

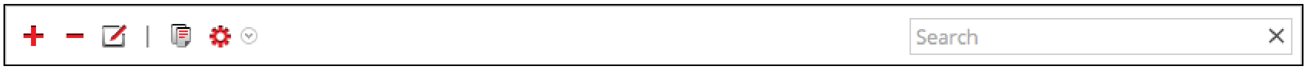
Column	Description
□	Selects a row for an action in the toolbar. Clicking the checkbox in the column title selects or deselects all rows in the grid.
Name	A name that identifies or labels the template.
Template Type	The type of template. The types are Audit Logging, Event Stream Analysis, Event Source Monitoring, and Health Alarms.
Description	A brief description about the template.
Actions	Provides an Actions menu ⚙ for the selected configuration with actions that can be taken on the template. The Actions menu enables you to delete, edit, duplicate, and export the template.

Global Notifications Panel Toolbar

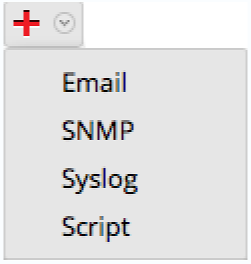
The Global Notifications panel toolbar is at the top of the Output, Servers, and Templates tabs. The following figure shows the toolbar on the Output and Servers tabs.



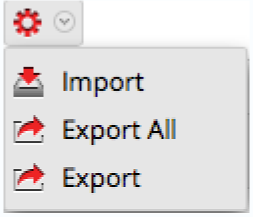
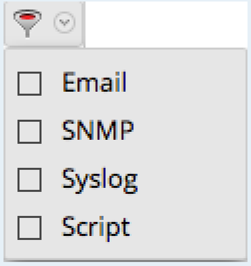
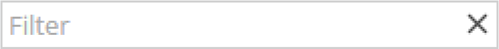
The following figure shows the toolbar on the Templates tab.



The following table describes the features of the Global Notifications panel toolbar.

Feature	Description
+ 	Adds a notification server on the Servers tab, adds a notification output (notification) on the Output tab, and adds a notification template on the Templates tab. On the Servers and Output tabs, you can select to configure Email, SNMP, Syslog, and Script notification settings.

Feature	Description
−	Removes a selected notification configuration. You cannot delete notification servers and notification types that are associated with global audit log configurations. If you attempt to delete a notification output (notification) being used by alerts, you will receive a warning confirmation message that the alerts using the notification will not function properly. The message shows the number of alerts in use. You can also delete a configuration by selecting a configuration and then in the Actions column, selecting ⚙ ⌄ > Delete.
✎	Edits a selected notification configuration. You can also edit a configuration by selecting a configuration and then in the Actions column, selecting ⚙ ⌄ > Edit.
⧉	Duplicates a selected notification configuration. You can also duplicate a configuration by selecting a configuration and then in the Actions column, selecting ⚙ ⌄ > Duplicate.

Feature	Description
	Displays the following options: • **Import**: Imports a notification server, type, or template. For example, on the Servers tab, you can import a notification server configuration. • **Export All**: Exports all of the configurations. For example, if you are on the Servers tab, you can export all of the notification server configurations. • **Export**: Exports a selected configuration. You can also export a configuration by selecting a configuration and then in the Actions column, selecting ⚙ > Export.
	Filters by Email, SNMP, Syslog, or Script.
	Searches configurations in the grid.

Define Notification Server Dialogs

This topic describes the Define Notification Server dialogs used to configure the settings of the various types of notification servers. You configure notification servers in the Administration > System > Notifications > Servers tab.

Notifications are used by a variety of components in Security Analytics, such as Event Stream Analysis (ESA), Incident Management, and Global Audit Logging. Notification settings are called Notification Servers. In the Servers tab of the Administration System view Notifications panel, you can create multiple Notification Server configurations.

You can configure the following types of notification server settings in Security Analytics:

- Email
- SNMP
- Syslog
- Script

For Global Audit Logging, you can only use Syslog Notification Servers.

Procedures related to notification servers are described in Configure Notification Servers.

To access the Define Notification Server dialogs:

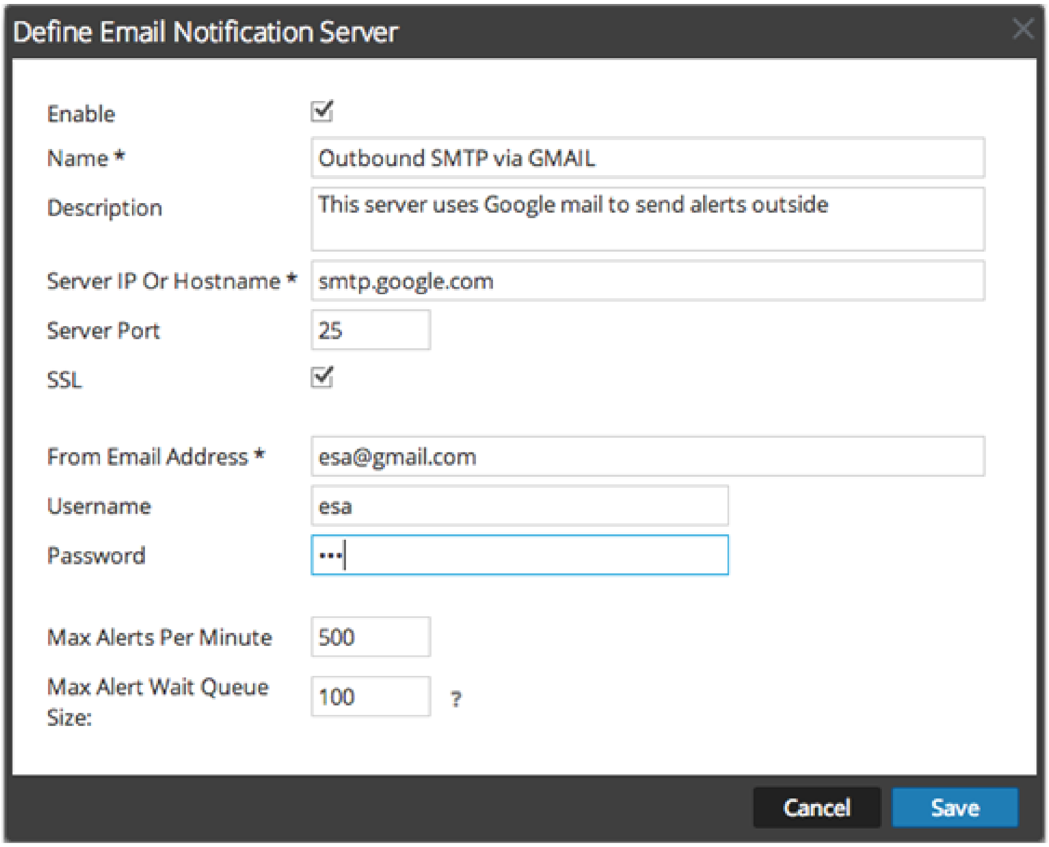
1. In the **Security Analytics** menu, select **Administration > System**.
2. In the left navigation panel, select **Notifications**.
3. In the **Notifications Servers** panel, click + and then select a type of notification server (Email, SNMP, Syslog, or Script)
   The Define Notification Server dialog is displayed for your selection.

There are four notification server dialogs, which allow you to configure notification servers.

Email

Email notification servers enable you to configure email server settings to send alert notifications.

The following figure shows the Define Email Notification Server dialog.



Define Email Notification Server

Enable ☑

Name * Outbound SMTP via GMAIL

Description This server uses Google mail to send alerts outside

Server IP Or Hostname * smtp.google.com

Server Port 25

SSL ☑

From Email Address * esa@gmail.com

Username esa

Password •••

Max Alerts Per Minute 500

Max Alert Wait Queue Size: 100

The following table lists the various parameters that you need to define for the email notification servers.

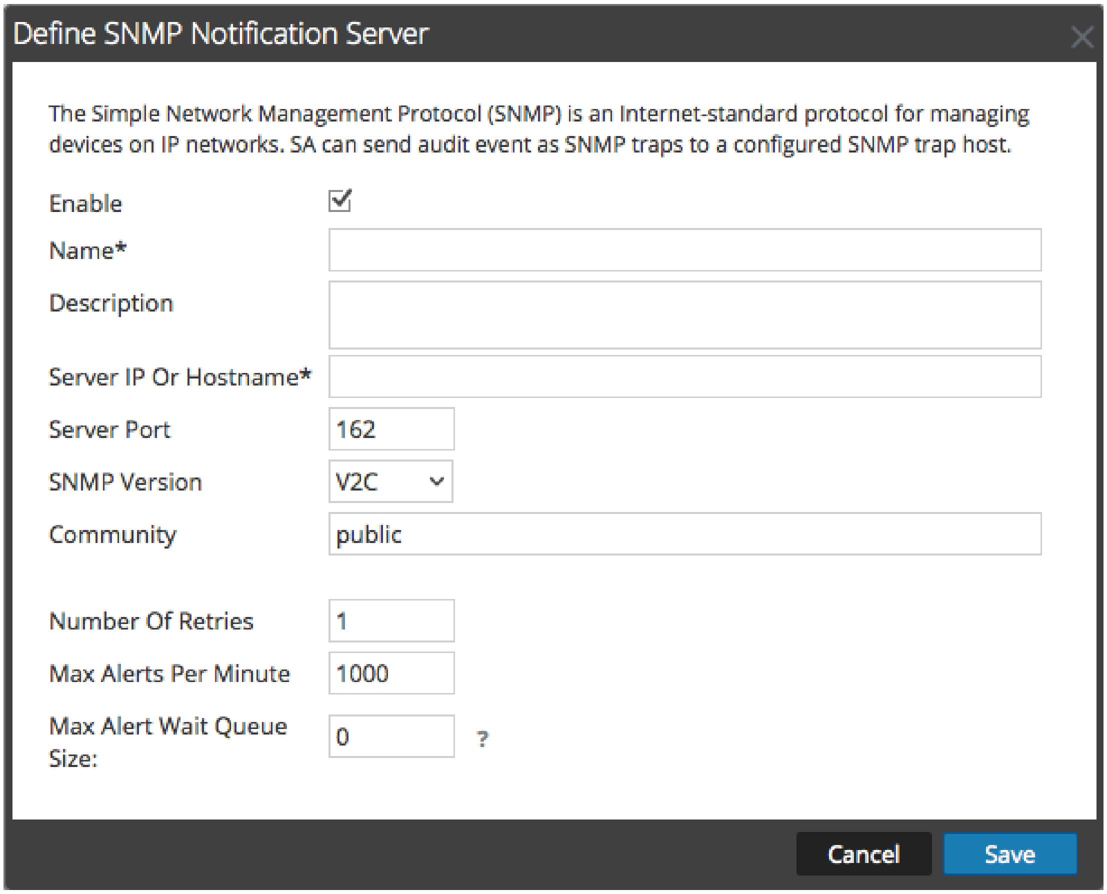
Parameters	Description
Enable	Select to enable the notification server.
Name	A name to identify or label the notification server.
Description	A brief description about the notification server.
Server IP Or Hostname	Hostname of the email server. For ESM/SMS and ESA notifications, you must specify only the hostname/FQ DN.
Server Port	The server port.
SSL	Select the option if you want the communication to happen through SSL.

Parameters	Description
From EMail Address	Email account from which you want to send email notifications.
Username	Username for logging into the email account if the SMTP server requires user authentication to relay emails successfully.
Password	User password for logging into the email account if the SMTP server requires user authentication to relay emails successfully.
Max Alerts Per Minute	Describes the maximum number of alerts per minute.
Max Alert W ait Q ueue Size	Describes the maximum number of alerts to be queued before they are dropped.

SNMP

SNMP notification servers enable you to configure SNMP trap host settings as a notification server to send alert notifications.

The following figure shows the Define SNMP Notification Server dialog.



Define SNMP Notification Server

The Simple Network Management Protocol (SNMP) is an Internet-standard protocol for managing devices on IP networks. SA can send audit event as SNMP traps to a configured SNMP trap host.

Enable	☑
Name*	
Description	
Server IP Or Hostname*	
Server Port	162
SNMP Version	V2C
Community	public
Number Of Retries	1
Max Alerts Per Minute	1000
Max Alert Wait Queue Size:	0

The following table lists the various parameters that you need to define for the SNMP notification servers.

Parameters	Description
Enable	Select to enable the notification server.
Name	A name to identify or label the notification server.
Description	A brief description about the notification server.
Server IP Or Hostname	SNMP trap host IP address or hostname.
Server Port	Listening port number on the SNMP trap host.

<table>
<tr><th>Parameters</th><th>Description</th></tr>
<tr><td>SNMP Version</td><td>SNMP version. The following are the options:
• V1
• V2C
• V3
If you select SNMP Version 3 (v3), the following parameters are displayed:
<table>
<tr><th>Parameters</th><th>Description</th></tr>
<tr><td>Notification Type</td><td>Based on the notification type a SNMP messages are sent each time an alert is generated.
The following notification types are supported:
• Inform - Inform is acknowledged trap. The sender gets an acknowledgement from the receiver.
• Trap - Trap is unacknowledged notification</td></tr>
<tr><td>Authoritative Engine ID
(This optioin is availabe only for notification type TRAP)</td><td>An identifier which is used to identify the agents. Authoritative engine ID along with the username is used to uniquely identify the agent.</td></tr>
<tr><td>Security Level</td><td>Define the security level. The following are the options:
• Unauthenticated and Unencrypted
• Authenticated and Unencrypted
• Authenticated and Encrypted</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Para-meters</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><td>Auth Protocol
(This option is available only for security level Authenticated and Unencrypted and Authenticated and Encrypted)</td><td>Authentication protocol which is used to validate a user before providing an access to the server. The options are:
• SHA
• MD5</td></tr>
<tr><td>Auth Key
(This option is available only for security level Authenticated and Unencrypted and Authenticated and Encrypted)</td><td>A password that you want to use for authentication.</td></tr>
<tr><td>Privacy Protocol
(This option is available only for security level Authenticated and Encrypted)</td><td>Privacy protocol is an encryption technique for data communication.
<b>Note:</b> The Privacy Protocol AES is only supported.</td></tr>
<tr><td>Private Key
(This option is avaliable only for security level Authenticated and Encrypted)</td><td>A password that you want to use for encryption.</td></tr>
</table>
</td></tr>
<tr><td>Community</td><td>Community string used to authenticate on the SNMP trap host. The default value is <b>pub lic</b>.</td></tr>
<tr><td>Number of Retries</td><td>Number of retries for the trap.</td></tr>
</table>

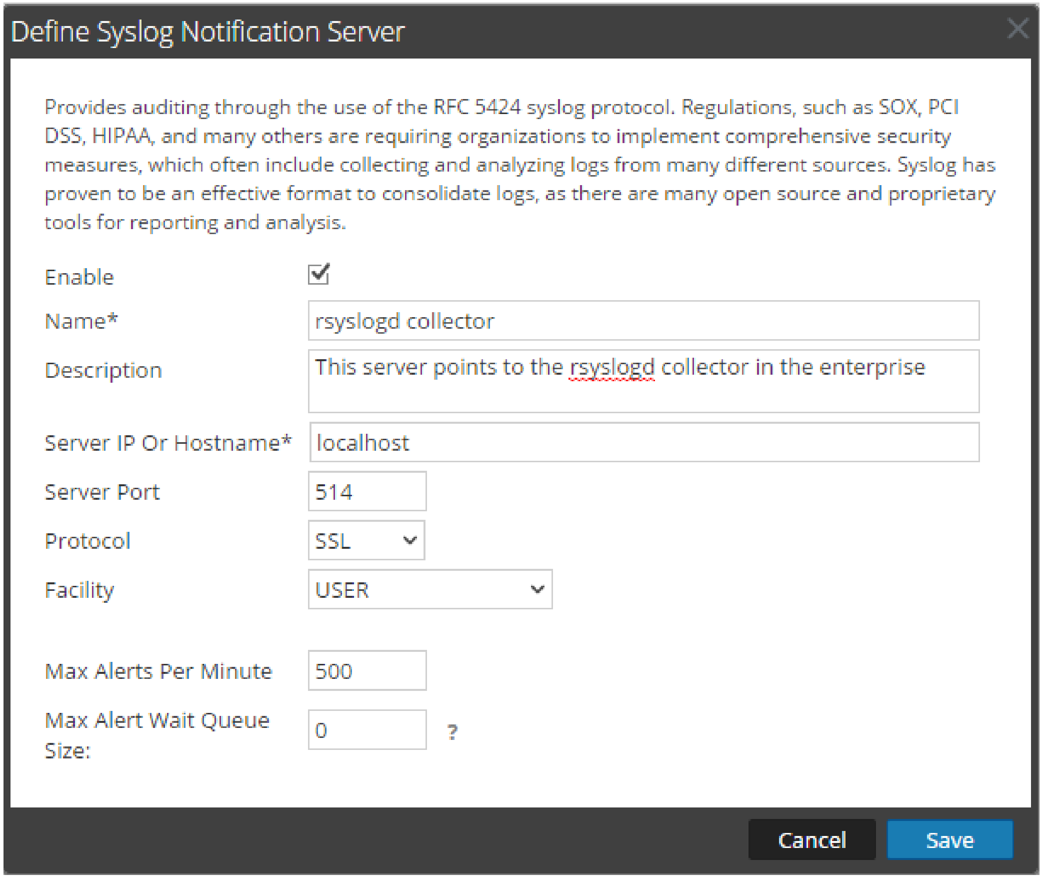
Parameters	Description
Max Alerts Per Minute	Maximum number of alerts per minute.
Max Alert W ait Q ueue Size	Maximum number of alerts to be queued before they are dropped.

Syslog

Syslog notification servers allow you to configure Syslog settings as a notification server to send notifications. When enabled, Syslog provides auditing through the use of the RFC 5424 Syslog protocol. Syslog has proven to be an effective format to consolidate logs, as there are many open source and proprietary tools for reporting and analysis.

You cannot disable notification servers associated with global audit logging configurations.

The following figure shows the Define Syslog Notification Server dialog.



Define Syslog Notification Server

Provides auditing through the use of the RFC 5424 syslog protocol. Regulations, such as SOX, PCI DSS, HIPAA, and many others are requiring organizations to implement comprehensive security measures, which often include collecting and analyzing logs from many different sources. Syslog has proven to be an effective format to consolidate logs, as there are many open source and proprietary tools for reporting and analysis.

Enable	☑
Name*	rsyslogd collector
Description	This server points to the rsyslogd collector in the enterprise
Server IP Or Hostname*	localhost
Server Port	514
Protocol	SSL
Facility	USER
Max Alerts Per Minute	500
Max Alert Wait Queue Size:	0

The following table lists the various parameters that you need to define for the Syslog notification servers.

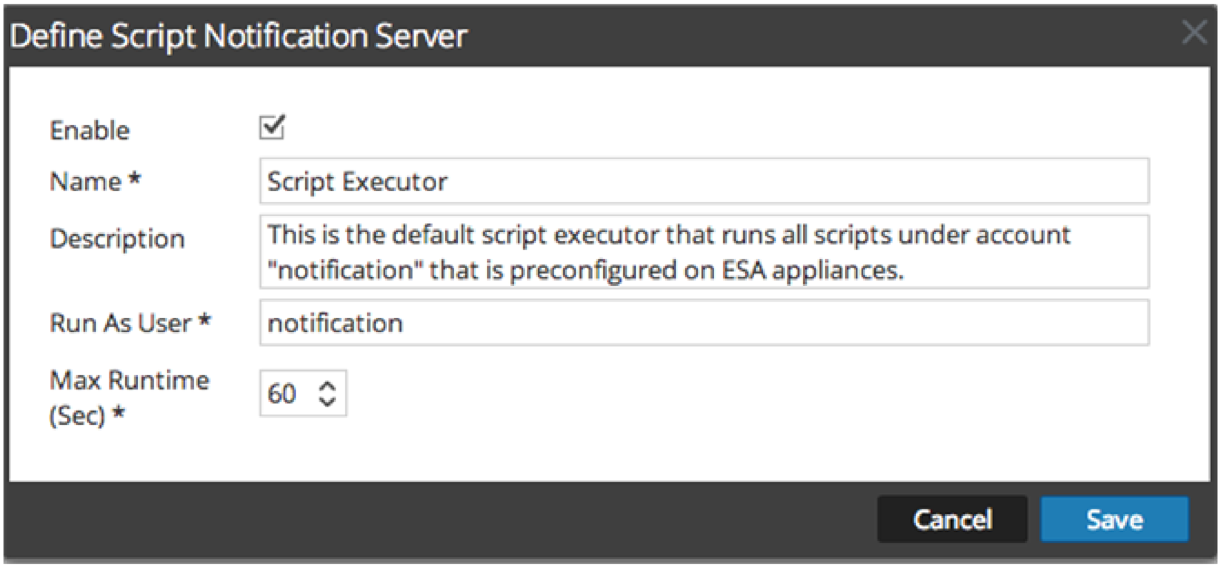
Parameters	Description
Enable	Select to enable the notification server.
Name	A name to identify or label the notification server.
Description	A brief description about the notification server.
Server IP Or Hostname	The hostname of the host where the target Syslog process is running.
Server Port	The port number where the target Syslog process is listening.
Protocol	The protocol to be used to transfer the Syslog files.

Parameters	Description
Facility	The designated Syslog facility to use for all outgoing messages. It is used to specify what type of program is logging the message. Some possible values are KERN, USER, MAIL, and DAEMON. This lets the configuration file specify that messages from different facilities will be handled differently.
Max Alerts Per Minute	Maximum number of alerts per minute. This field is not used for Global Audit Logging.
Max Alert W ait Q ueue Size	Maximum number of alerts to be queued before they are dropped. This field is not used for Global Audit Logging.

Script

Script notification servers enable you to configure Script as a Notification Server.

The following figure shows the Define Script Notification Server dialog.



Define Script Notification Server

Enable ☑

Name * Script Executor

Description This is the default script executor that runs all scripts under account "notification" that is preconfigured on ESA appliances.

Run As User * notification

Max Runtime (Sec) * 60

The following table lists the various parameters that you need to define for the Script notification servers.

Parameters	Description
Enable	Select to enable the notification server.
Name	A name to identify or label the notification server.
Description	A brief description about the notification server.
Run As User	Name of the user identity under which the script is executed. The default user identity is **notification**. For ESA, you cannot set this to anything else unless you have created the account on the ESA host.
Max Runtime (Sec)	The maximum time (in seconds) the script is allowed to run.

Define Notification Output Dialogs

This topic provides descriptions of the various notification output dialogs. You configure notification outputs in the Administration > System > Notifications > Output tab. Notifications are basically the destinations used for sending notifications. For ESA, notifications enable you to define how you want to receive the ESA alerts. The following are the different notifications supported by Security Analytics:

- Email
- SNMP
- Syslog
- Script

Procedures related to notifications are described in Configure Notification Outputs.

To access the Define Notification dialogs:

1. In the **Security Analytics** menu, select **Administration > System**.
2. In the options panel, select **Global Notifications**.
3. On the **Output** tab, click + and then select a notification output (Email, SNMP, Syslog, or Script)

   The Define Notification dialog is displayed for your selection.

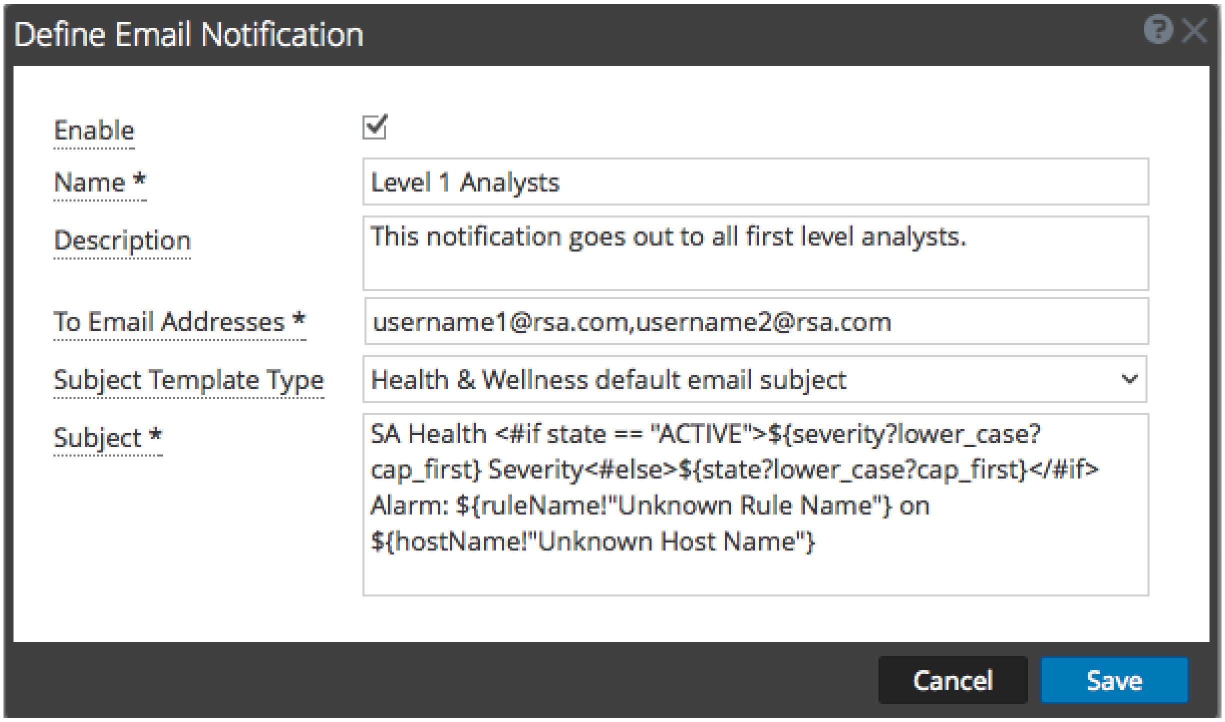
Features

There are four notification dialogs, which allow you to configure notification outputs.

Email

Email notifications enable you to define the destination email address to which you can send the alerts. It also enables you to add a custom description in the subject of the email and also to define multiple destination email addresses.

The following figure shows the Define Email Notification dialog.



Enable	☑
Name *	Level 1 Analysts
Description	This notification goes out to all first level analysts.
To Email Addresses *	username1@rsa.com,username2@rsa.com
Subject Template Type	Health & Wellness default email subject
Subject *	SA Health <#if state == "ACTIVE">${severity?lower_case?cap_first} Severity<#else>${state?lower_case?cap_first}</#if> Alarm: ${ruleName!"Unknown Rule Name"} on ${hostName!"Unknown Host Name"}

The following table lists the various parameters that you need to define for the email notifications.

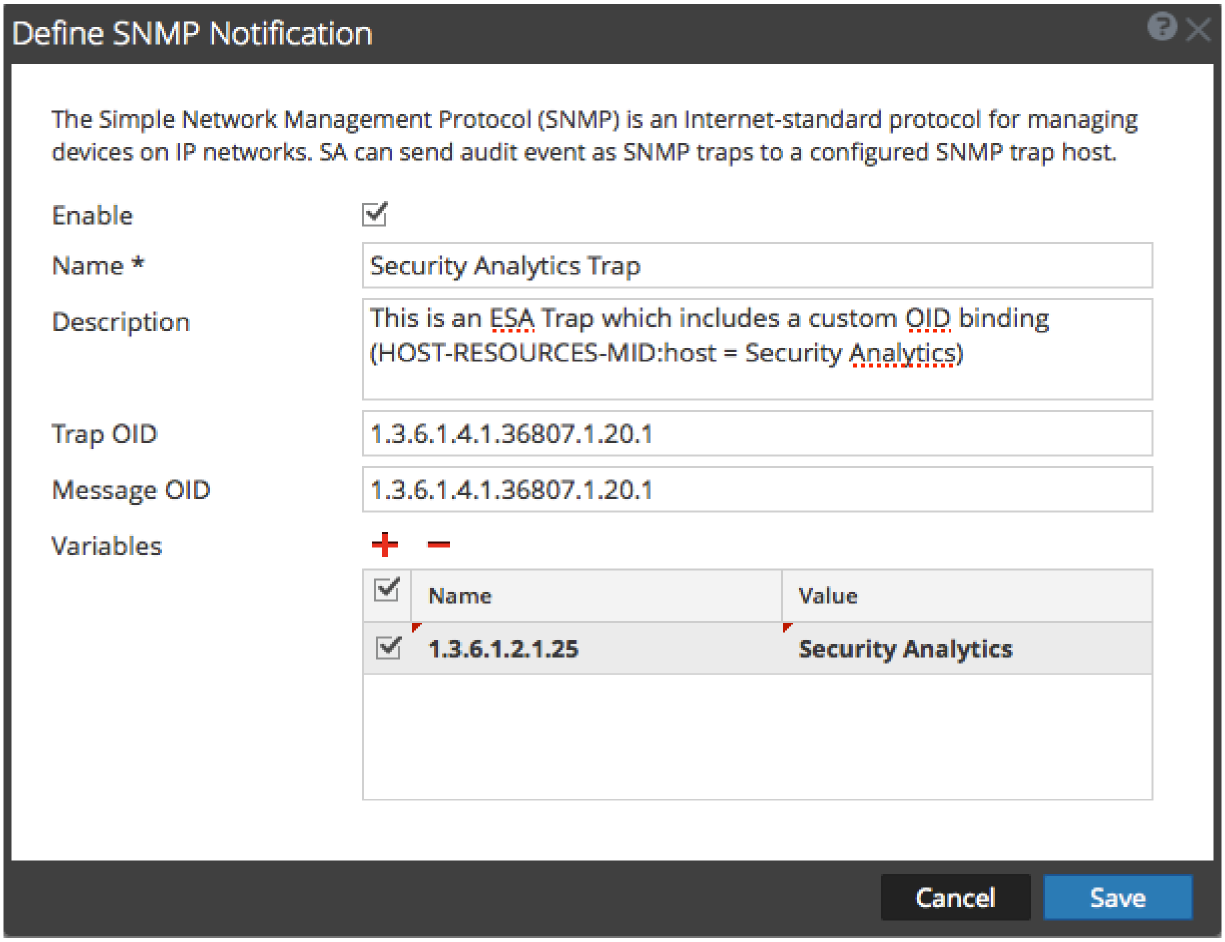
Parameter	Description
Enable	Select to enable the notification.
Name	A name to identify or label the notification.
Description	A brief description about the notification.
To Email Addresses	Describes the destination email address to which the alert needs to be sent. **Note:** You can define multiple email addresses.
Subject Template Type	Lists available templates for creating a subject. W hen you choose a template, the Subject field is automatically filled in with the code for your chosen template.

Parameter	Description
Subject	Custom description about the triggered alert. This information is automatically filled in if you choose one of the predefined templates from the Subject Template Type drop-down menu. **Note:** To provide a custom subject, please refer to Include the Default Email Subject Line topic in the *System Maintenance Guide*.

SNMP

SNMP notifications enable you to define the SNMP settings to send alert notifications.

The following figure shows the Define SNMP Notification dialog.



Define SNMP Notification

The Simple Network Management Protocol (SNMP) is an Internet-standard protocol for managing devices on IP networks. SA can send audit event as SNMP traps to a configured SNMP trap host.

Enable	☑
Name *	Security Analytics Trap
Description	This is an ESA Trap which includes a custom OID binding (HOST-RESOURCES-MID:host = Security Analytics)
Trap OID	1.3.6.1.4.1.36807.1.20.1
Message OID	1.3.6.1.4.1.36807.1.20.1
Variables	+ −

☑	Name	Value
☑	1.3.6.1.2.1.25	Security Analytics

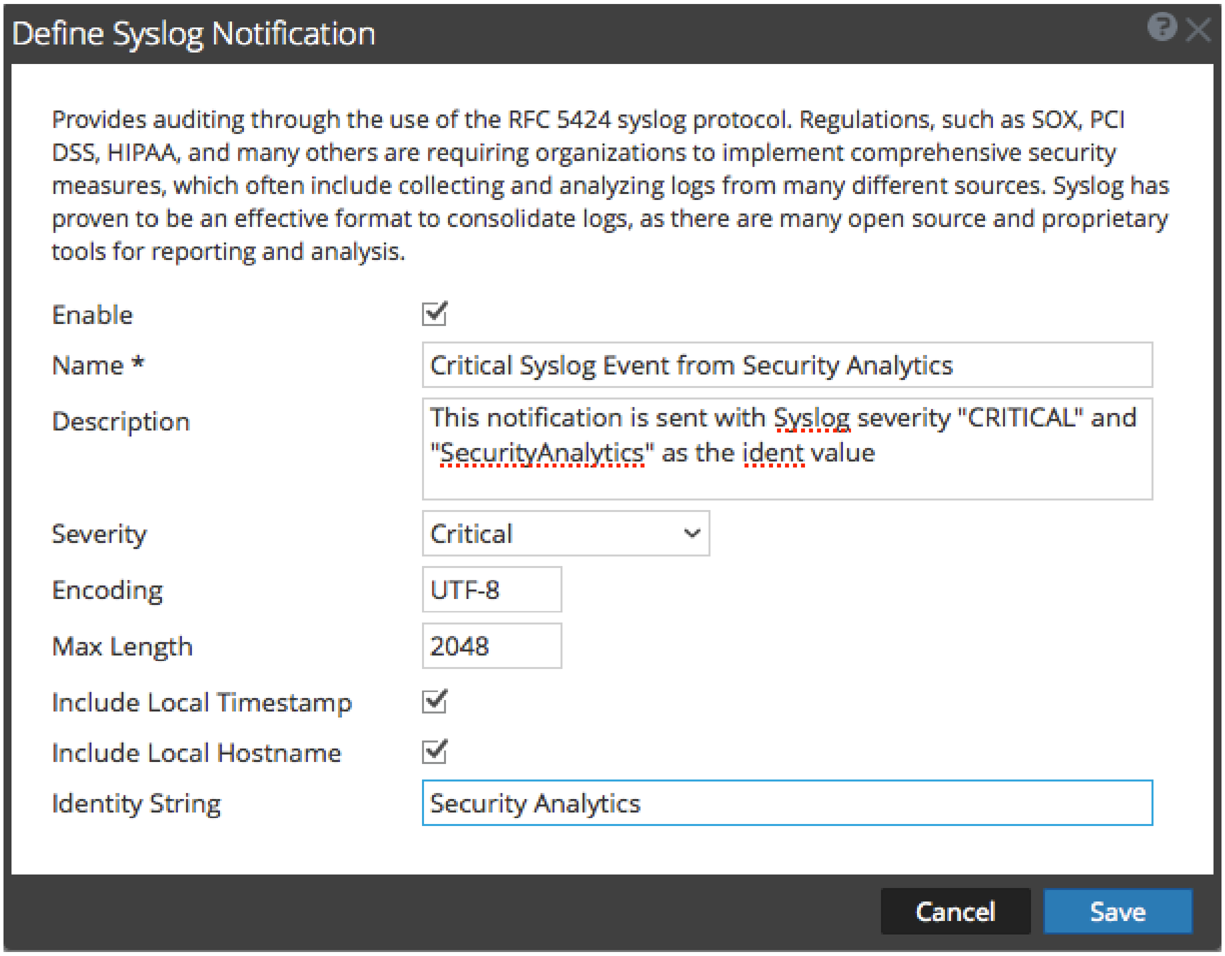
The following table lists the various parameters that you need to define for the SNMP notifications.

Parameter	Description
Enable	Select to enable the notification.
Name	A name to identify or label the notification.
Description	A brief description about the notification.
Trap OID	The object ID for the SNMP trap on the trap host that receives the event. The default value is **1.3.6.1.4.1.36807.1.20.1**. This value is a hierarchical name that represents the system that generates the trap. 1.3.6.1.4.1 is the common prefix for all enterprises and 36807.1.20.1 identifies Security Analytics.
Message OID	The message object identifier for the SNMP trap.
Variables	Additional information that should be included within the trap. It is a variable that is a name value pair.

Syslog

Syslog notifications enable you to define the Syslog settings to send alert notifications.

The following figure shows the Define Syslog Notification dialog.



Define Syslog Notification

Provides auditing through the use of the RFC 5424 syslog protocol. Regulations, such as SOX, PCI DSS, HIPAA, and many others are requiring organizations to implement comprehensive security measures, which often include collecting and analyzing logs from many different sources. Syslog has proven to be an effective format to consolidate logs, as there are many open source and proprietary tools for reporting and analysis.

Enable	☑
Name *	Critical Syslog Event from Security Analytics
Description	This notification is sent with Syslog severity "CRITICAL" and "SecurityAnalytics" as the ident value
Severity	Critical
Encoding	UTF-8
Max Length	2048
Include Local Timestamp	☑
Include Local Hostname	☑
Identity String	Security Analytics

The following table lists the various parameters that you need to define for the Syslog notifications.

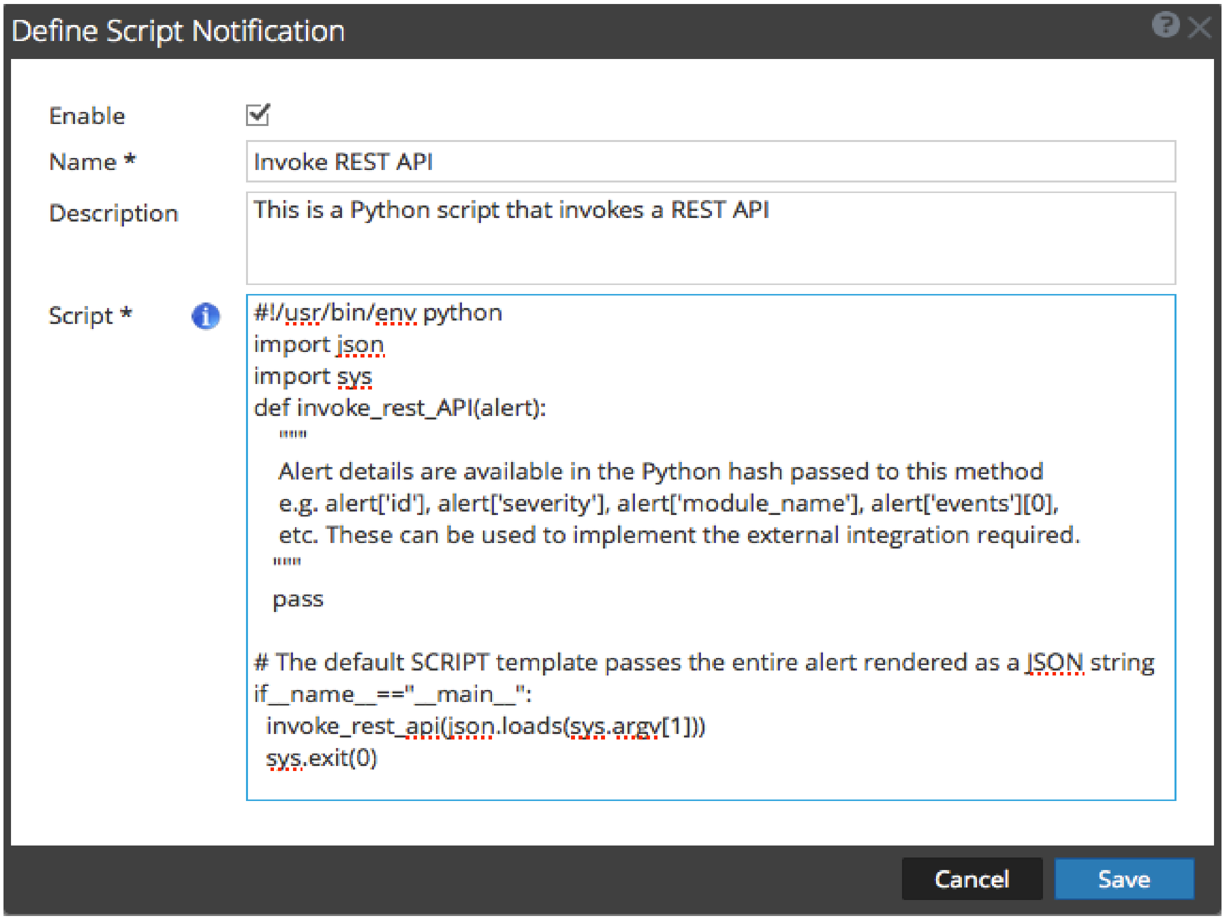
Parameter	Description
Enable	Select to enable the notification.
Name	A name to identify or label the notification.
Description	A brief description about the notification.
Severity	Defines the severity of the alert.
Encoding	Defines the encoding format. In some environments where no regular character sets are used (for example, Japanese characters), this field will help selecting the right encoding of the characters.

Parameter	Description
Max Length	The maximum length of a Syslog message in bytes. The default value is **2048**. Messages that exceed the maximum length are truncated when the **Truncate overly large syslog messages** checkbox is selected, which is found in Administration > System > Legacy Notifications. Legacy Notifications Configuration Panel provides additional information.
Include Local Timestamp	Select to include the local timestamp in messages.
Include Local Hostname	Select to include the local hostname in Syslog messages.
Identity String	An identity string to be prefixed to each Syslog alert. If the string is blank, no identity string is prefixed to the outgoing Syslog alerts. You can use this to identify the alerts from ESA.

Script

Script notifications enable you to define the Script that executes in response to the alert. You can use any script for ESA notifications.

The following figure shows the Define Script Notification dialog.



Enable ☑

Name * Invoke REST API

Description This is a Python script that invokes a REST API

Script *

```
#!/usr/bin/env python
import json
import sys
def invoke_rest_API(alert):
    """
    Alert details are available in the Python hash passed to this method
    e.g. alert['id'], alert['severity'], alert['module_name'], alert['events'][0],
    etc. These can be used to implement the external integration required.
   """
   pass

# The default SCRIPT template passes the entire alert rendered as a JSON string
if__name__=="__main__":
  invoke_rest_api(json.loads(sys.argv[1]))
  sys.exit(0)
```

The following table lists the various parameters that you need to define for the Script notifications.

Parameter	Description
Enable	Select to enable the notification.
Name	A name to identify or label the notification.
Description	A brief description about the notification.
Script	Defines the script.

Define Notification Template Dialog

In the Global Notifications panel, you can configure global notification settings for Notification Servers, Notification Outputs, and Notification Templates. On the Templates tab, you configure the templates for various notifications. The notification template defines the format and message fields of the notifications. You can select a default template or you can use the Define Template dialog to configure and edit templates.

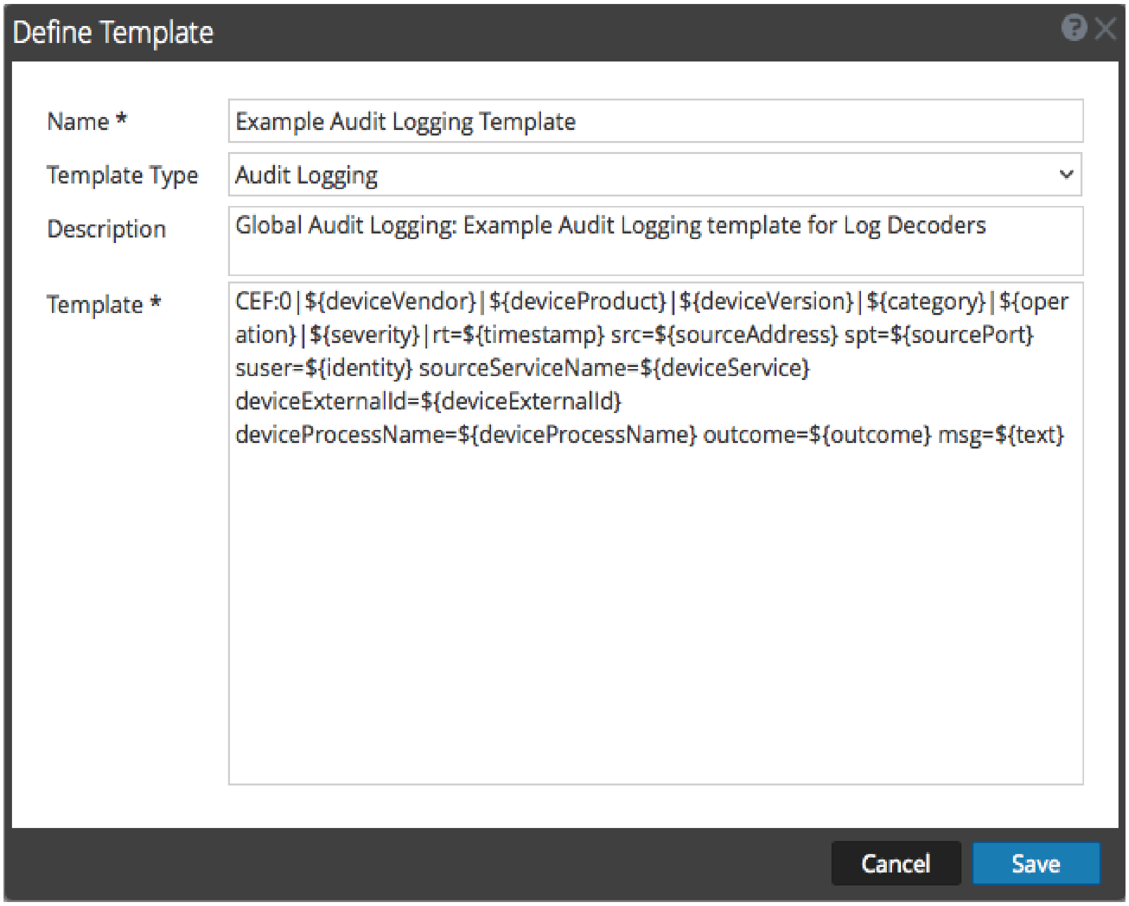
You can define the following template types:

- Audit Logging
- Event Stream Analysis
- Event Source Monitoring
- Health Alarms

Procedures related to notification templates are described in Configure Templates for Notifications.

To access the Define Template dialog:

1. In the **Security Analytics** menu, select **Administration** > **System**.
2. In the left navigation panel, select **Notifications**.
3. In the **Notifications Configurations** panel, click +, or select a configuration and click ✎.
   The **Define Template** dialog is displayed.



Define Template

Name * Example Audit Logging Template

Template Type Audit Logging

Description Global Audit Logging: Example Audit Logging template for Log Decoders

Template *

```
CEF:0|${deviceVendor}|${deviceProduct}|${deviceVersion}|${category}|${oper
ation}|${severity}|rt=${timestamp} src=${sourceAddress} spt=${sourcePort}
suser=${identity} sourceServiceName=${deviceService}
deviceExternalId=${deviceExternalId}
deviceProcessName=${deviceProcessName} outcome=${outcome} msg=${text}
```

Features

The following table describes the features in the Define Template dialog.

Field	Description
Name	Type a unique name for the notification template.
Template Type	Select the type of template that you want to create: • **Audit Logging**: Use this template for Global Audit Logging. • **Event Stream Analysis**: Use this template type for ESA alert notifications. • **Event Source Monitoring**: Use this template type for ESM notifications. • **Health Alarms**: Use this template type for Health and Wellness notifications.

Field	Description
Description	Add a description for the template. For example, if you create a notification template for Log Decoders to use for Global Audit Logging, you could mention that information in the description.
Template	Specify the format for the template. Define a Template for Global Audit Logging provides instructions on how to define an audit logging template to use for Global Audit Logging. To define a template for Event Stream Analysis (ESA), see Define a Template for ESA Alert Notifications.

Output Tab

This topic describes the components of the Global Notifications > Output tab. This tab enables you to configure notification outputs. Global Notifications configurations define notifications settings for Event Source Management (ESM), Health and Wellness, Global Audit Logging, Event Stream Analysis (ESA), and Incident Management.

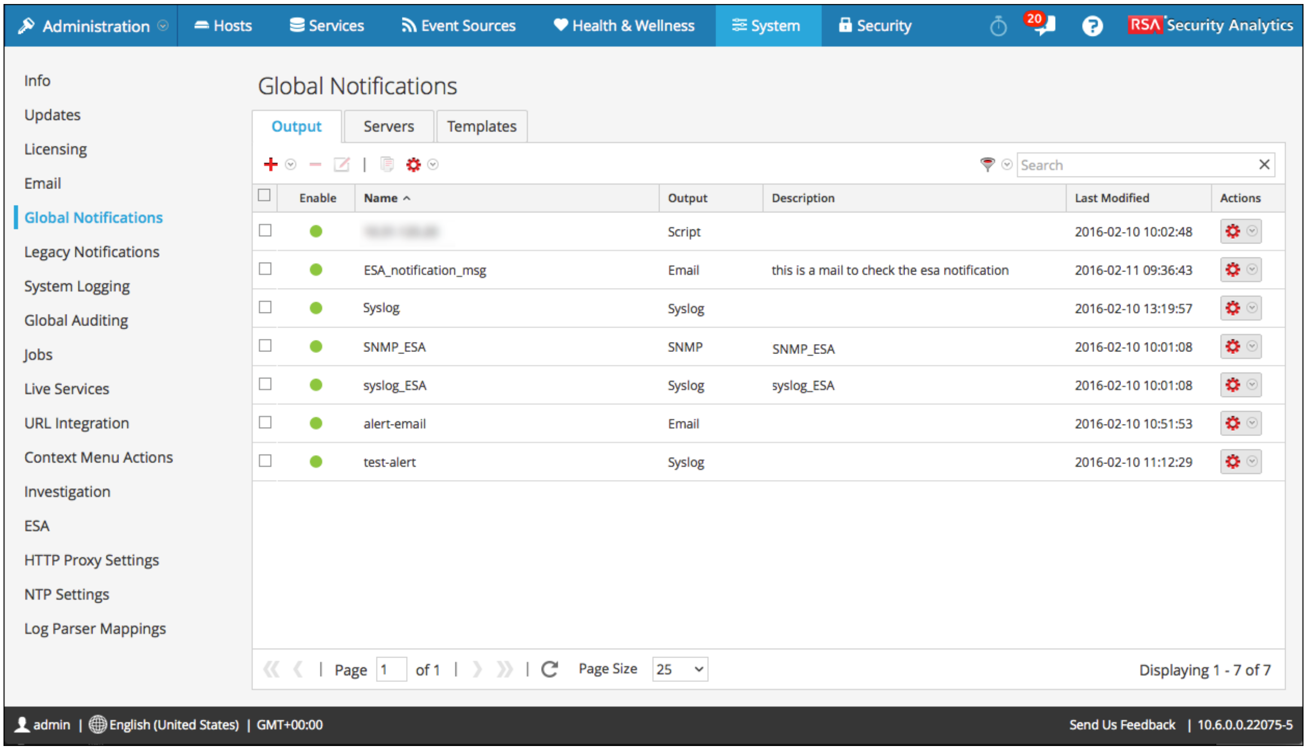
Notification O utput configurations define email addresses and subject lines, SNMP trap OID settings, syslog output settings, and script code.

Notifications are the destinations configured for the alert notifications that are sent by ESA service. You can configure the following as destinations using the Output tab:

- Email
- SNMP
- Syslog
- Script

Note: You do not need to configure the Output tab for Global Audit Logging. For detailed steps, see Configure Global Audit Logging.

The following figure shows the Global Notifications > Output tab:



Global Notifications

□	Enable	Name	Output	Description	Last Modified	Actions
□	●	[redacted]	Script		2016-02-10 10:02:48	⚙
□	●	ESA_notification_msg	Email	this is a mail to check the esa notification	2016-02-11 09:36:43	⚙
□	●	Syslog	Syslog		2016-02-10 13:19:57	⚙
□	●	SNMP_ESA	SNMP	SNMP_ESA	2016-02-10 10:01:08	⚙
□	●	syslog_ESA	Syslog	syslog_ESA	2016-02-10 10:01:08	⚙
□	●	alert-email	Email		2016-02-10 10:51:53	⚙
□	●	test-alert	Syslog		2016-02-10 11:12:29	⚙

Displaying 1 - 7 of 7

On the Output tab, you can perform the following:

- Configure the Email settings as notification.
- Configure SNMP settings as notification.
- Configure Syslog settings as notification.
- Configure a Script as notification.

For detailed instructions, see Configure Notification Outputs.

Servers Tab

This topic describes the components of the Global Notifications > Servers tab. This tab enables you to configure notification servers. Global Notifications configurations define notifications settings for Event Source Management (ESM), Health and Wellness, Global Audit Logging, Event Stream Analysis (ESA), and Incident Management.

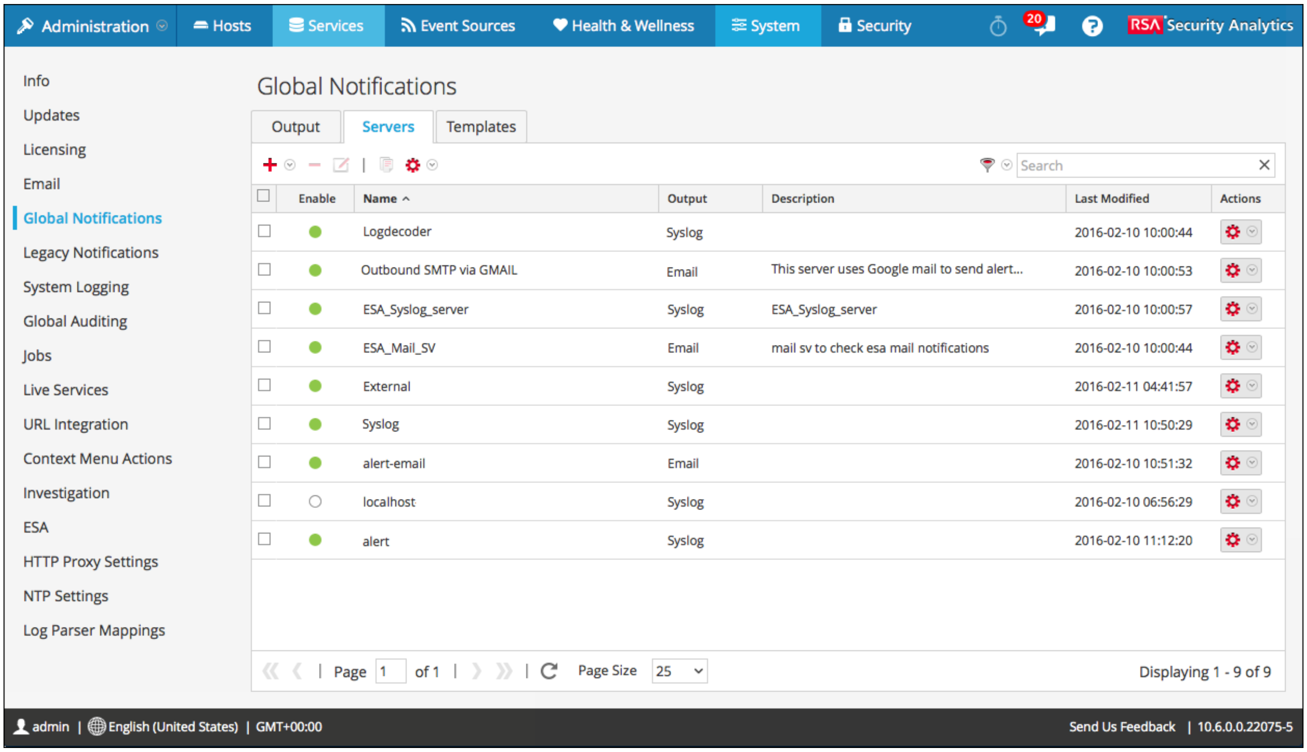
You configure **Notification Servers** in the Servers tab. On the Servers tab, you add the servers from which you want to receive notifications from the system. For Global Audit Logging, define Log Decoders as Syslog Notification Servers.

Event Stream Analysis can send notifications to users through email, SNMP, or Syslog when an alert is triggered on the ESA service. These alert notification senders are called Notification Servers. You can configure multiple notification settings and use them while defining an ESA rule, for example, you can configure multiple mail servers or Syslog servers and use the settings while defining an ESA rule.

You configure the following notification server settings in the Servers tab:

- Email
- SNMP
- Syslog
- Script

The following figure shows the Global Notifications > Servers tab.



Global Notifications

□	Enable	Name	Output	Description	Last Modified	Actions
□	●	Logdecoder	Syslog		2016-02-10 10:00:44	
□	●	Outbound SMTP via GMAIL	Email	This server uses Google mail to send alert...	2016-02-10 10:00:53	
□	●	ESA_Syslog_server	Syslog	ESA_Syslog_server	2016-02-10 10:00:57	
□	●	ESA_Mail_SV	Email	mail sv to check esa mail notifications	2016-02-10 10:00:44	
□	●	External	Syslog		2016-02-11 04:41:57	
□	●	Syslog	Syslog		2016-02-11 10:50:29	
□	●	alert-email	Email		2016-02-10 10:51:32	
□	○	localhost	Syslog		2016-02-10 06:56:29	
□	●	alert	Syslog		2016-02-10 11:12:20	

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On the Servers tab you can perform the following:

- Configure the Email settings as a notification server.
- Configure SNMP settings as a notification server.
- Configure Syslog settings as a notification server.
- Configure a Script as a notification server.

For detailed instructions, see Configure Notification Servers.

Templates Tab

The Notification Templates tab enables you to configure notification templates. Global Notifications configurations define notifications settings for Event Source Management (ESM), Health and Wellness, Global Audit Logging, Event Stream Analysis (ESA), and Incident Management. Notification templates define the format and message fields of the notifications.

You can configure the following template types using the Templates tab:

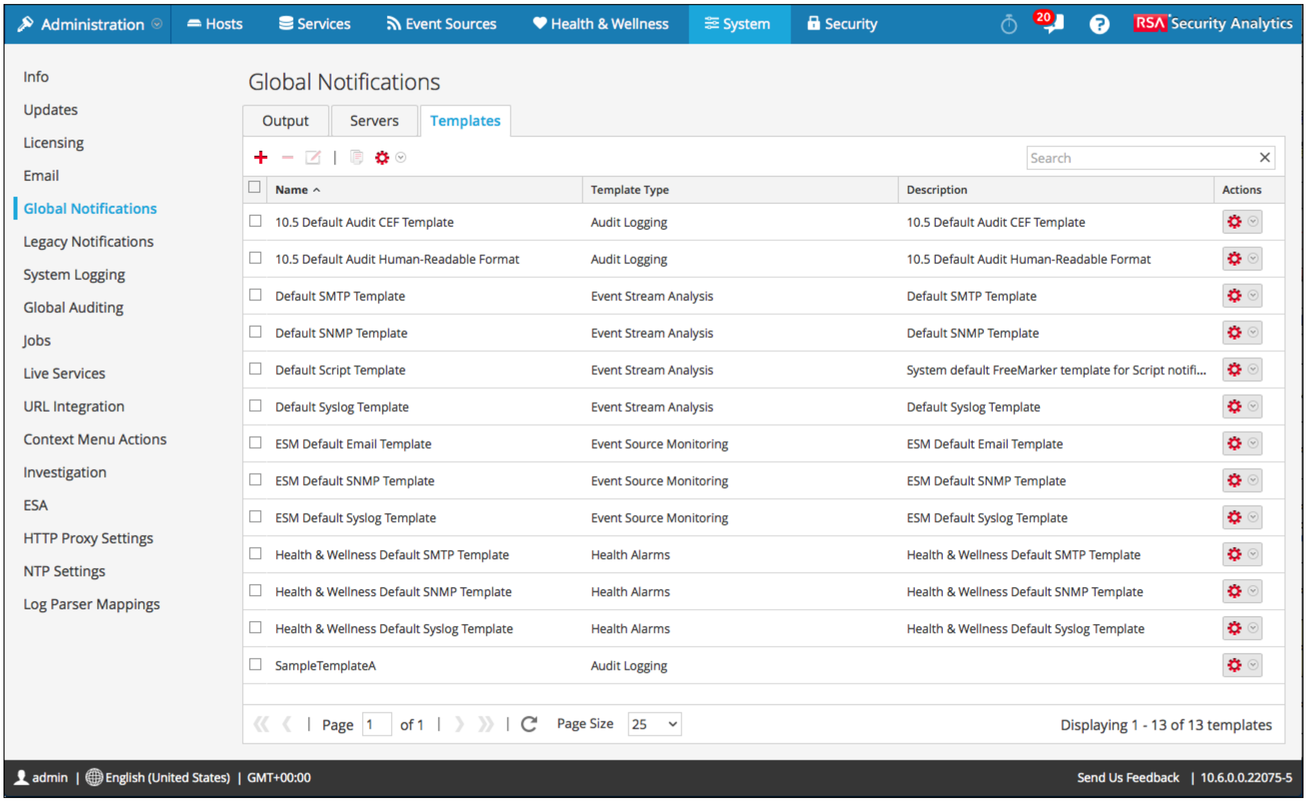
- Audit Logging
- Event Stream Analysis
- Event Source Monitoring
- Health Alarms

You can select a default template or you can configure templates for Email, SNMP, Syslog, and Script, depending on the template type. For Event Stream Analysis (ESA) templates, you can configure Email, SNMP, Syslog, and Script. For Audit Logging templates, you can configure Syslog.

Event Stream Analysis templates are not specific to any type of alert notifications, that is, the same template can be used for all types of notifications.

When upgrading from Security Analytics 10.4, all existing notification templates migrate to the Event Stream Analysis template type.

The following figure shows the Templates tab.



Global Notifications

Name	Template Type	Description	Actions
10.5 Default Audit CEF Template	Audit Logging	10.5 Default Audit CEF Template	
10.5 Default Audit Human-Readable Format	Audit Logging	10.5 Default Audit Human-Readable Format	
Default SMTP Template	Event Stream Analysis	Default SMTP Template	
Default SNMP Template	Event Stream Analysis	Default SNMP Template	
Default Script Template	Event Stream Analysis	System default FreeMarker template for Script notifi...	
Default Syslog Template	Event Stream Analysis	Default Syslog Template	
ESM Default Email Template	Event Source Monitoring	ESM Default Email Template	
ESM Default SNMP Template	Event Source Monitoring	ESM Default SNMP Template	
ESM Default Syslog Template	Event Source Monitoring	ESM Default Syslog Template	
Health & Wellness Default SMTP Template	Health Alarms	Health & Wellness Default SMTP Template	
Health & Wellness Default SNMP Template	Health Alarms	Health & Wellness Default SNMP Template	
Health & Wellness Default Syslog Template	Health Alarms	Health & Wellness Default Syslog Template	
SampleTemplateA	Audit Logging		

Displaying 1 - 13 of 13 templates

Using the Templates tab, you can perform the following:

- Create a template
- Delete a template
- Edit a template
- Duplicate a template
- Import templates
- Export templates

For detailed instructions, see Configure Templates for Notifications.

H TTP Proxy Settings Panel

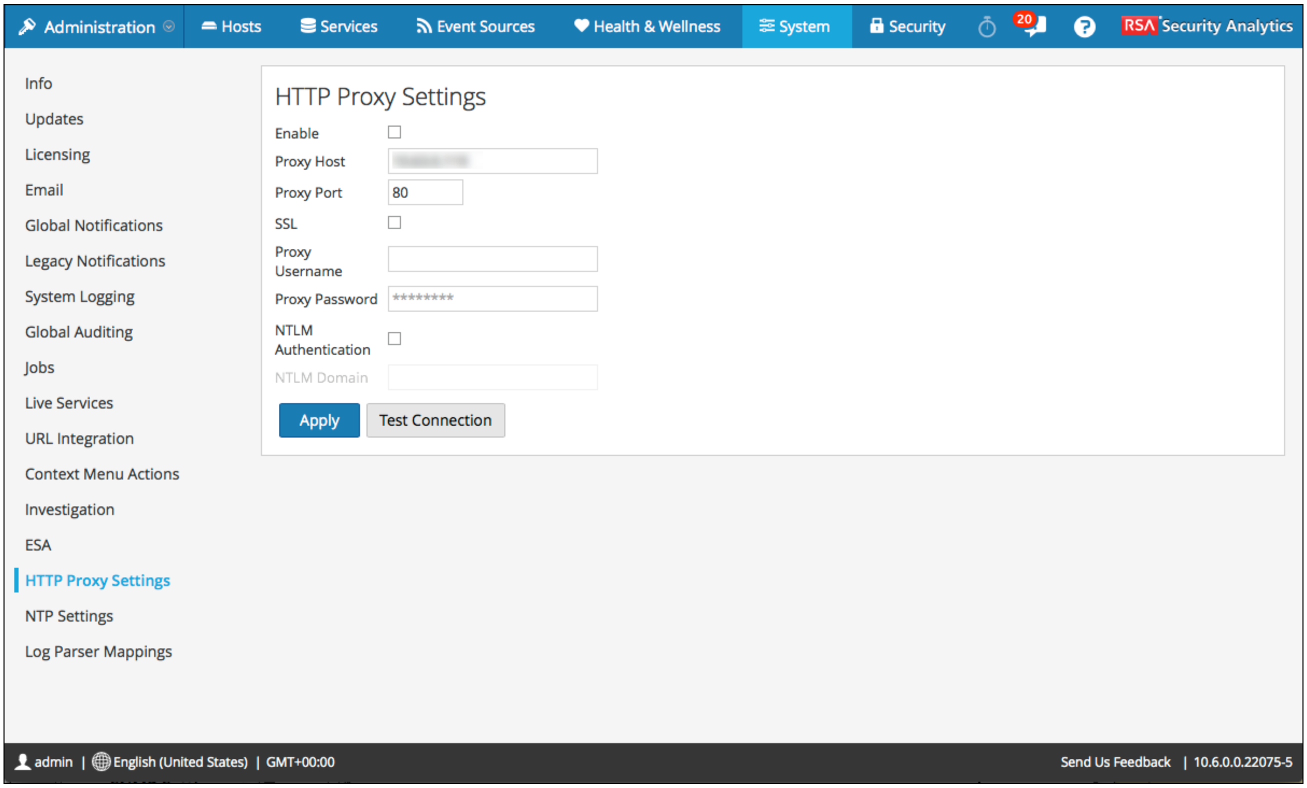
This topic introduces the proxy support features of the Administration System view > HTTP Proxy Settings panel.

Note: Proxy support is only for HTTP and HTTPS proxies and not SOCKS5.

The HTTP Proxy Settings panel provides a user interface for configuring a proxy for use across Security Analytics modules and services. The Proxy Settings set up a proxy to be used wherever a proxy is needed in Security Analytics. The settings in this panel override any proxy settings configured for an individual service such as Malware Analysis or Live.

To access this view:

1. In the Security Analytics menu, select **Administration > System**.
2. In the options panel, select **HTTP Proxy Settings**.



HTTP Proxy Settings

Enable	□
Proxy Host	[redacted]
Proxy Port	80
SSL	□
Proxy Username	
Proxy Password	********
NTLM Authentication	□
NTLM Domain	

Features

This table describes the features in the Proxy Settings section.

Feature	Description
Use Proxy	Enable the system proxy configuration for use in Security Analytics.
Proxy Host	The hostname for the proxy host.
Proxy Port	The port used for communication on the proxy host.
Proxy Username	(Optional) The user name used to log on to the proxy host if the proxy requires authentication.
Proxy Password	(Optional) The user password used to log on to the proxy host if the proxy requires authentication.
Use NTLM Authentication	Use NT LAN Manager authentication and session security protocols.
NTLM Domain	The name of NTLM domain.
Use SSL	(Optional) Enable communication using SSL.
Apply	Applies any changes made, and they become effective immediately.

Email Configuration Panel

This topic provides information about email configuration settings in the System View > Email Configuration panel. RSA Security Analytics sends notifications to users via email about various system events. To be able to configure these email notifications, you must first configure the SMTP email server (See Configure Email Server and Notification Account).

The Email Configuration panel provides a way to:

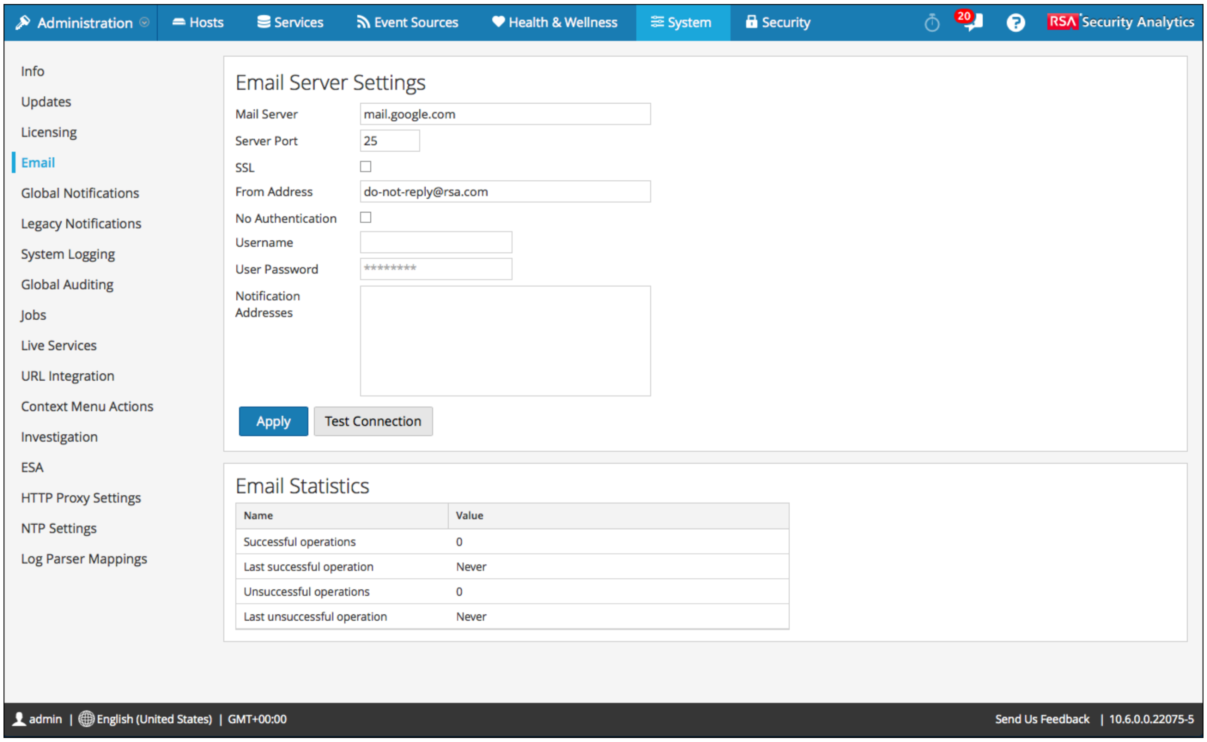
- Configure the email server.
- Set up an email account to receive notifications.
- View statistics on email operations.

To access the Email Configuration Panel:

1. In the Security Analytics menu, select **Administration > System**.

   The Administration System view is displayed.

2. In the options panel, select **Email**.



Email Server Settings

Mail Server: mail.google.com

Server Port: 25

SSL □

From Address: do-not-reply@rsa.com

No Authentication □

Username:

User Password: ********

Notification Addresses:

Email Statistics

Name	Value
Successful operations	0
Last successful operation	Never
Unsuccessful operations	0
Last unsuccessful operation	Never

Features

The **Email Configuration** panel has two sections: **Email Server Settings** and **Email Statistics**.

Email Server Settings

In the **Email Server Settings** section, you configure the following parameters.

Feature	Description
Mail server	The email server name. The default value is **mail.google.com**.
Server port	The server port used to send and receive emails. The default value is **25**.
Use SSL	The preference for SSL use in communications between the email server and Security Analytics. The default value is to not use SSL (unchecked).
From address	The address that appears in all emails from Security Analytics. The default from address for emails is **do-not-reply@rsa.com**.
Username	The username to access the email server. The default value is **blank**.
User password	The user password to access the email server. The default value is **blank**.
Test connection	Tests the connection to the email server.
Apply	Applies the email configuration to this instance of Security Analytics.

Email Statistics

The Email Statistics section provides feedback on the number of successful and failed email operations as well as the time of the last successful and unsuccessful email operation. For each statistic the name of the statistic and the value is displayed.

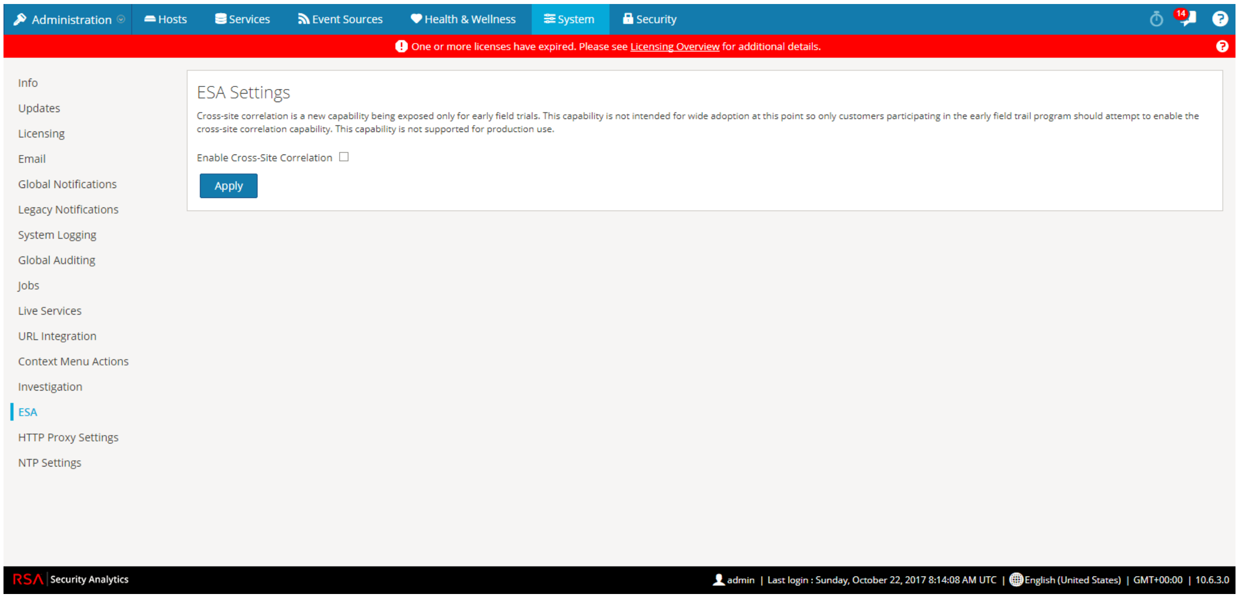
ESA Settings Panel

This topic introduces the ESA settings panel where you enable and disable cross-site correlation. Cross-site correlation is a new capability being exposed only for early field trials. This capability is not intended for wide adoption.

> **Caution:** Only customers participating in the early field trial program should attempt to enable the cross-site correlation capability. This capability is not supported for production use.

To access the ESA Settings panel:

1. In the **Security Analytics** menu, select **Administration > System**.
2. In the options panel, select **ESA**.



One or more licenses have expired. Please see Licensing Overview for additional details.

ESA Settings

Cross-site correlation is a new capability being exposed only for early field trials. This capability is not intended for wide adoption at this point so only customers participating in the early field trail program should attempt to enable the cross-site correlation capability. This capability is not supported for production use.

Enable Cross-Site Correlation ☐

Apply

admin | Last login : Sunday, October 22, 2017 8:14:08 AM UTC | English (United States) | GMT+00:00 | 10.6.3.0

Features

The features of the ESA Settings panel are:

- Enable Cross-Site Correlation checkbox: when checked enables cross-site correlation in ESA. When you add a deployment in Administration > Alerts > Configure, you can deploy the same rule set on multiple ESA services for centralized rules processing.
- Apply button: activates your selection.

Investigation Configuration Panel

This topic introduces the features of the System view > Investigation Configuration panel, which provides the user interface for Administrators to configure the system-wide settings that Security Analytics Investigation uses when analyzing data and reconstructing an event.

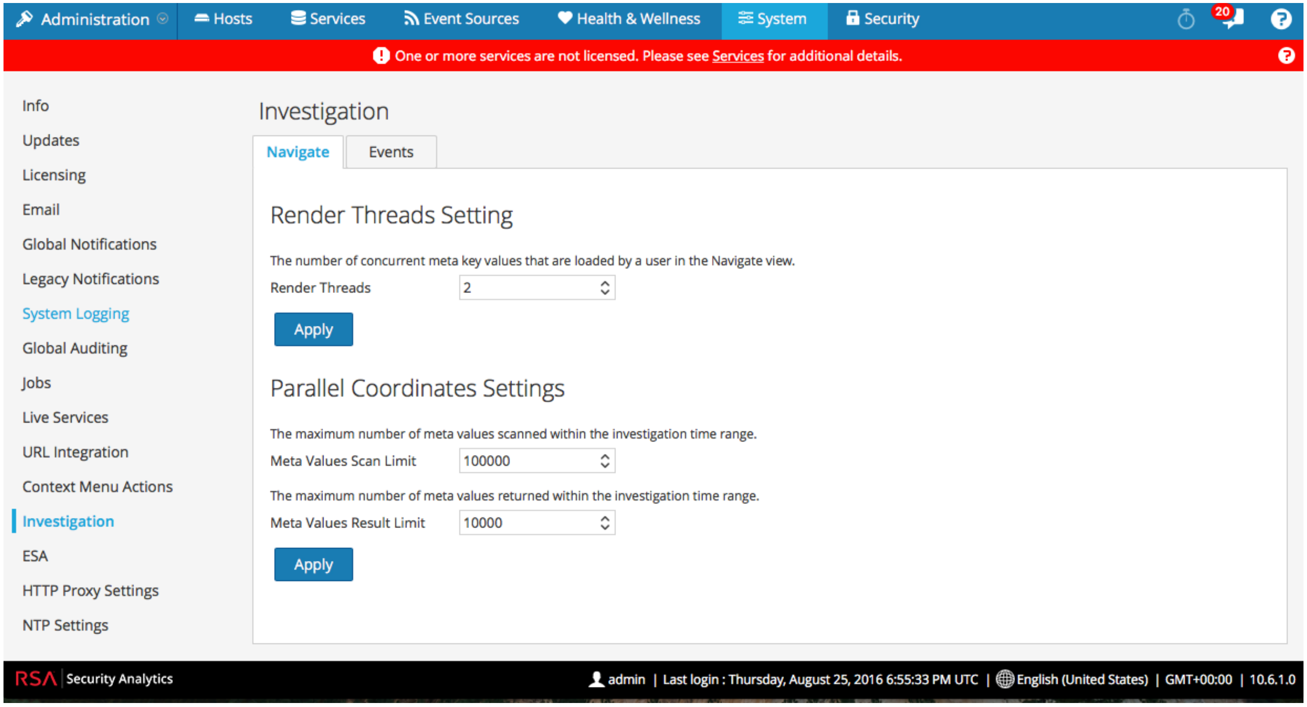
The Investigation Configuration settings allow an administrator to manage application performance for Investigation. As analysts analyze and reconstruct sessions that they are investigating, performance can be affected by operations that involve loading, searching, visualizing, and reconstructing large amounts of data.

Note: Analysts can also set individual preferences for Investigation in the Profiles view and in the Navigation view.

To access the Investigation Configuration panel:

1. In the **Security Analytics** menu, select **Administration > System.**
2. In the options panel, select **Investigation.**

The following figure shows the Navigate tab.



One or more services are not licensed. Please see Services for additional details.

Investigation

Render Threads Setting

The number of concurrent meta key values that are loaded by a user in the Navigate view.

Render Threads: 2

Parallel Coordinates Settings

The maximum number of meta values scanned within the investigation time range.

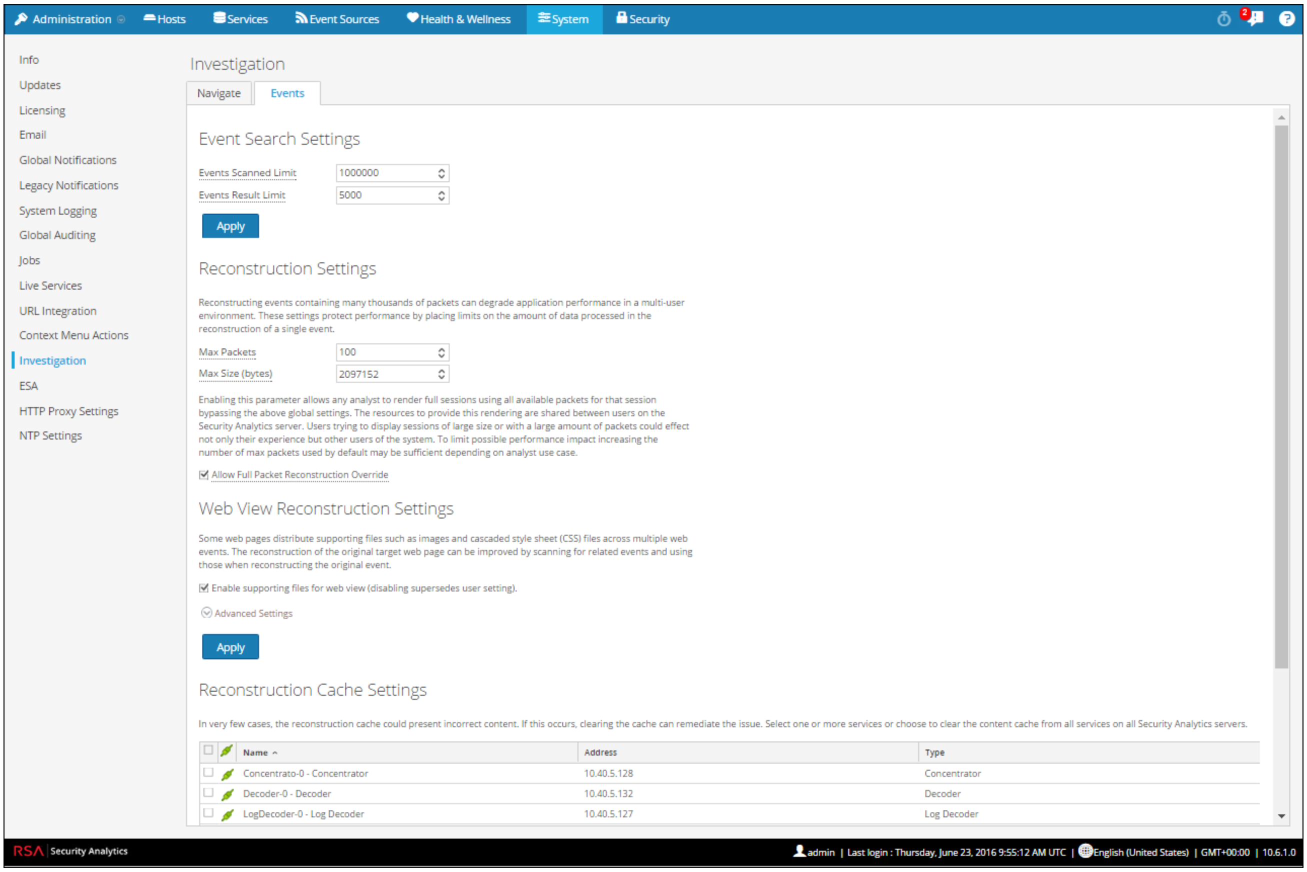
Meta Values Scan Limit: 100000

The maximum number of meta values returned within the investigation time range.

Meta Values Result Limit: 10000

admin | Last login : Thursday, August 25, 2016 6:55:33 PM UTC | English (United States) | GMT+00:00 | 10.6.1.0

The following figure shows the Events tab.



Investigation

Event Search Settings

Events Scanned Limit: 1000000

Events Result Limit: 5000

Reconstruction Settings

Reconstructing events containing many thousands of packets can degrade application performance in a multi-user environment. These settings protect performance by placing limits on the amount of data processed in the reconstruction of a single event.

Max Packets: 100

Max Size (bytes): 2097152

Enabling this parameter allows any analyst to render full sessions using all available packets for that session bypassing the above global settings. The resources to provide this rendering are shared between users on the Security Analytics server. Users trying to display sessions of large size or with a large amount of packets could effect not only their experience but other users of the system. To limit possible performance impact increasing the number of max packets used by default may be sufficient depending on analyst use case.

☑ Allow Full Packet Reconstruction Override

Web View Reconstruction Settings

Some web pages distribute supporting files such as images and cascaded style sheet (CSS) files across multiple web events. The reconstruction of the original target web page can be improved by scanning for related events and using those when reconstructing the original event.

☑ Enable supporting files for web view (disabling supersedes user setting).

Advanced Settings

Reconstruction Cache Settings

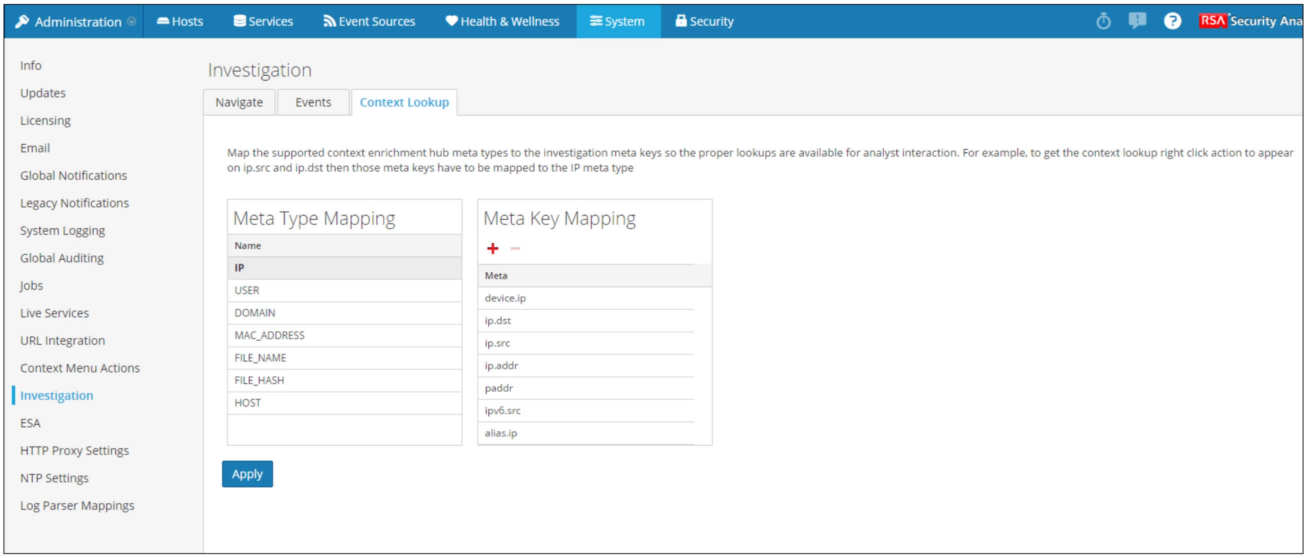
In very few cases, the reconstruction cache could present incorrect content. If this occurs, clearing the cache can remediate the issue. Select one or more services or choose to clear the content cache from all services on all Security Analytics servers.

☐	Name	Address	Type
☐	Concentrato-0 - Concentrator	10.40.5.128	Concentrator
☐	Decoder-0 - Decoder	10.40.5.132	Decoder
☐	LogDecoder-0 - Log Decoder	10.40.5.127	Log Decoder

admin | Last login : Thursday, June 23, 2016 9:55:12 AM UTC | English (United States) | GMT+00:00 | 10.6.1.0

Procedures associated with this panel are provided in Standard Procedures.

The following figure shows the Context Lookup tab.



Investigation

Map the supported context enrichment hub meta types to the investigation meta keys so the proper lookups are available for analyst interaction. For example, to get the context lookup right click action to appear on ip.src and ip.dst then those meta keys have to be mapped to the IP meta type

Meta Type Mapping

Name
IP
USER
DOMAIN
MAC_ADDRESS
FILE_NAME
FILE_HASH
HOST

Meta Key Mapping

Meta
device.ip
ip.dst
ip.src
ip.addr
paddr
ipv6.src
alias.ip

Procedures associated with this panel are provided in "Manage Meta Type and Meta Key Mapping" in the *Investigation and Malware Analysis Guide*.

Features

The Investigation Configuration panel has three tabs: Navigate, Events, and Context Lookup.

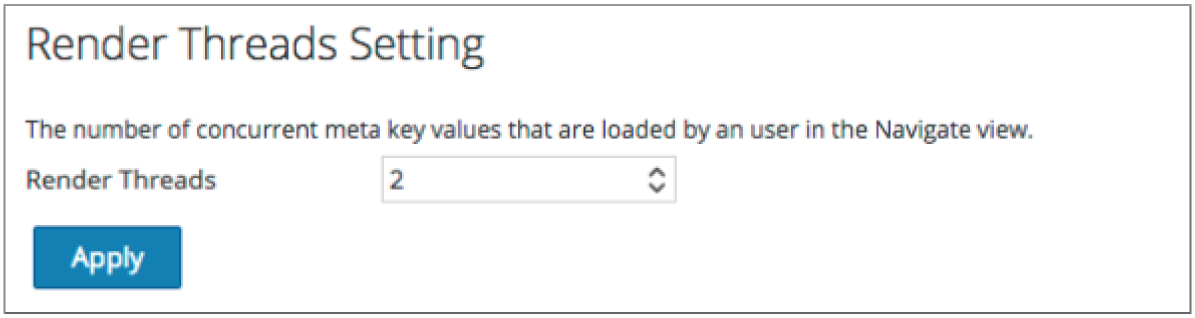
Though most fields in the tabs have a selection list with specific increments through the range of possible values, you can enter a value within the allowed range manually. An invalid entry is signaled by the field highlighted in red. When valid values are selected, clicking Apply in a given section puts the changes into effect immediately.

Navigate Tab

The Navigate tab has two sections: Render Threads Setting and Parallel Coordinates Settings.

Render Threads Setting

The Render Threads Setting is a selectable value between 1 and 20, which defines the number of concurrent (Values) loads in the Navigate view. The default value is 1.



Render Threads Setting

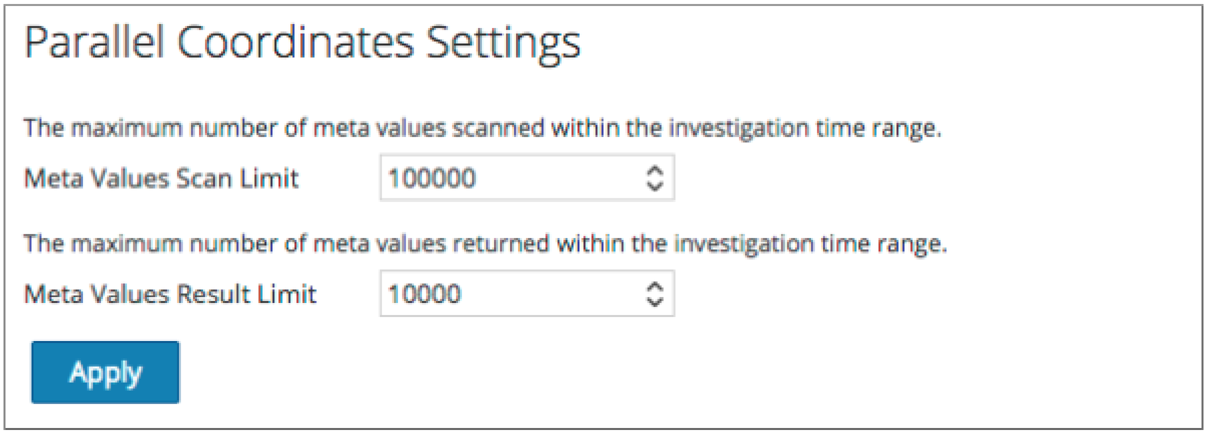
The number of concurrent meta key values that are loaded by an user in the Navigate view.

Render Threads: 2

Parallel Coordinates Settings

The Parallel Coordinates Settings apply to the Parallel Coordinates visualization in the Navigate view. There is a fixed limit on the amount of data that can be rendered as a parallel coordinates chart. In Security Analytics 10.5 the administrator can configure parallel coordinates limits here.

Note: For better performance, recommended settings are **Meta Values Scan Limit: 100000** and **Meta Values Result Limit: 1000-10000**.



Parallel Coordinates Settings

The maximum number of meta values scanned within the investigation time range.

Meta Values Scan Limit: 100000

The maximum number of meta values returned within the investigation time range.

Meta Values Result Limit: 10000

The following table describes the Parallel Coordinates Settings.

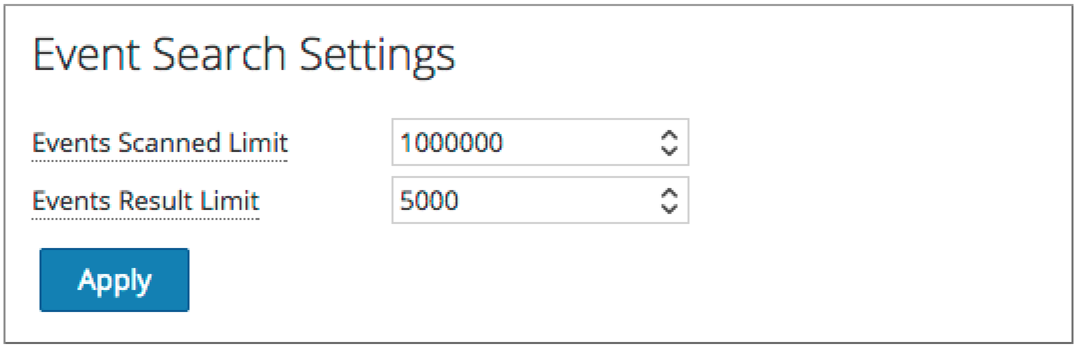
Parameter	Description
Meta Values Scan Limit	The maximum number of meta values scanned within the Investigation time range the analyst has selected in the Navigate view. Possible values are in the range of 1,000 to 10,000,000. The default value is 100,000.
Meta Values Result Limit	The maximum number of meta values returned within the Investigation time range the analyst has selected in the Navigate view. Possible values are in the range of 100 to 1,000,000,000. The default value is 10,000.

Events Tab

The Events tab provides configurable settings that affect the investigation of events. This tab has four sections: Event Search Settings, Reconstruction Settings, Web View Reconstruction Settings, and Reconstruction Cache Settings.

Event Search Settings

The Event Search Settings help to limit the number of events scanned when searching in the Events view.



Event Search Settings

Events Scanned Limit: 1000000

Events Result Limit: 5000

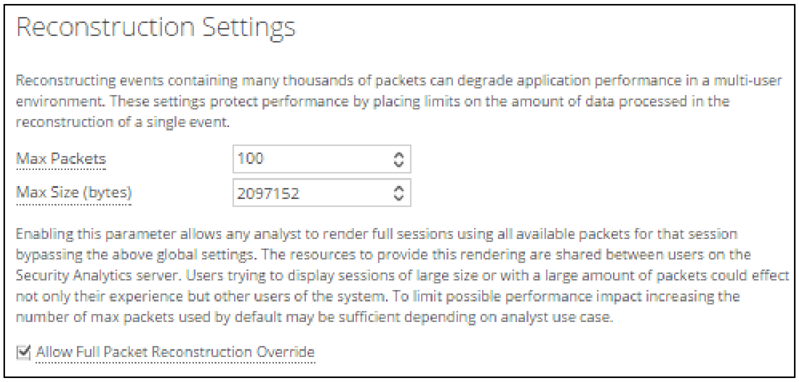
The following table describes the Event Search Settings.

Parameter	Description
Events Scanned Limit	The maximum number of events to scan when searching in the Events view.
Events Result Limit	The maximum number of results to return when searching in the Events view.

Reconstruction Settings

As analysts reconstruct sessions that they are investigating, some events can be very large and contain many thousands of source packets. Reconstructing these sessions, especially in a multi-user environment, can degrade application performance. The Reconstruction Settings allow an administrator to limit the number of packets and the size of a single event during reconstruction.

Note: An override to the Reconstruction Settings section is configurable for web views (under Web View Reconstruction Settings).



Reconstruction Settings

Reconstructing events containing many thousands of packets can degrade application performance in a multi-user environment. These settings protect performance by placing limits on the amount of data processed in the reconstruction of a single event.

Max Packets: 100

Max Size (bytes): 2097152

Enabling this parameter allows any analyst to render full sessions using all available packets for that session bypassing the above global settings. The resources to provide this rendering are shared between users on the Security Analytics server. Users trying to display sessions of large size or with a large amount of packets could effect not only their experience but other users of the system. To limit possible performance impact increasing the number of max packets used by default may be sufficient depending on analyst use case.

☑ Allow Full Packet Reconstruction Override

The following table describes the Reconstruction Settings features.

Parameter	Description
Maximum number of packets for a single event	This setting protects performance by placing a limit on the number of packets processed for a single event reconstruction. Possible values are in the range from 100 to 10,000 packets, using manual entry or increments of 100 from the selection list. The default value is 100 packets.

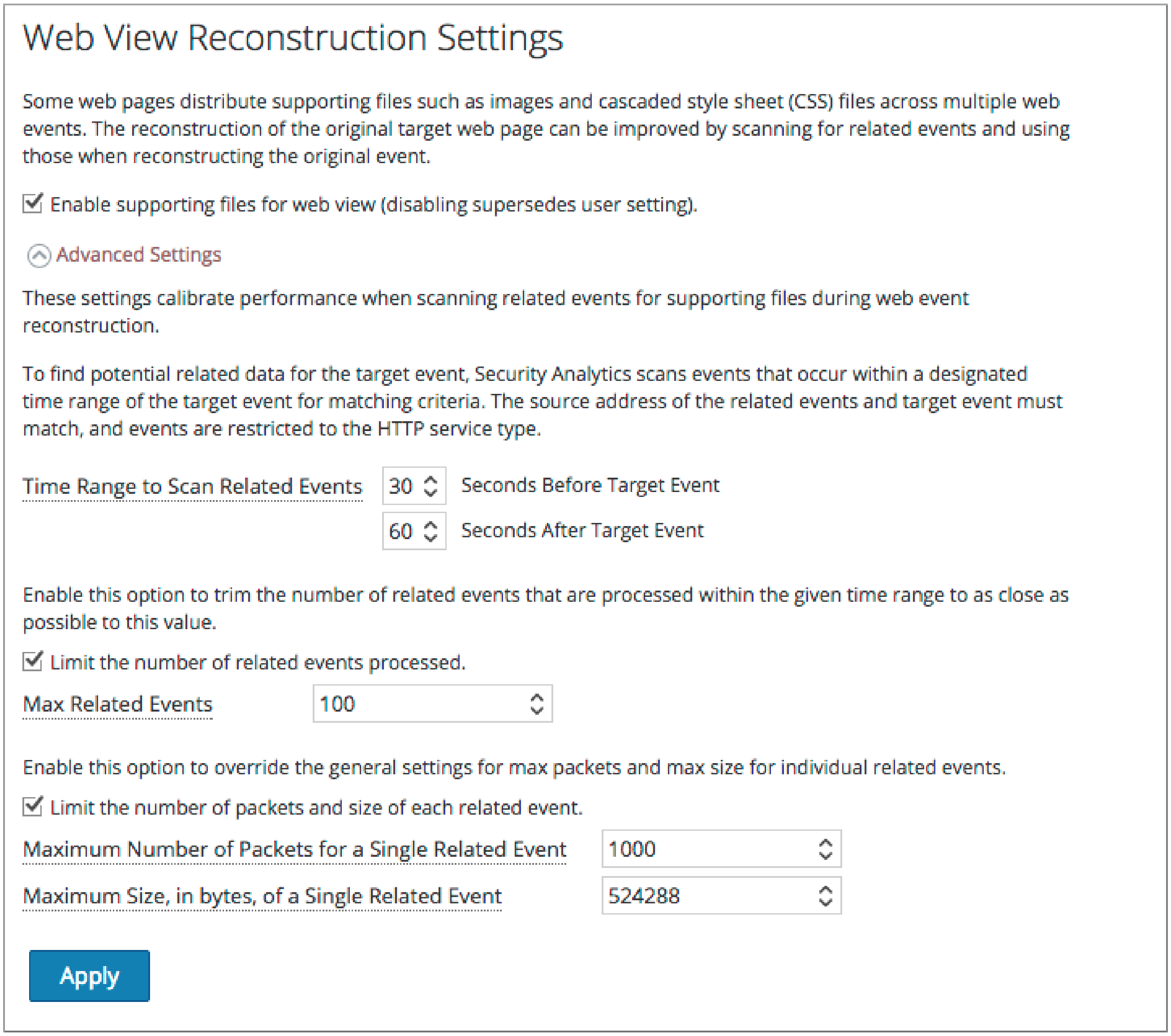
Parameter	Description
Maximum size, in bytes of a single event	This setting protects performance by placing a limit on the maximum size, in bytes, of a single event reconstruction. Possible values are in the range from 102,400 to 104,857,600 bytes, using manual entry or increments of 10,240 from the selection list. The default value is 2,097,152 bytes.
Allow Full Packet Reconstruction Override	When this checkbox is checked the analysts is provided with a Use More Packets button in the Reconstruction Panel. This enables the SA Server to regenerate events using all the packets available in the Event. **Note:** When you enable this feature (as an Administrator), you will get a confirmation message stating " You have enabled 'Full Packet Reconstruction' Feature. This setting might cause instability of system in case of rendering of large sessions. Do you want to still enable this feature?".

Web View Reconstruction Settings

The Web View Reconstruction Settings allow an administrator to configure settings that improve the reconstruction of a web view by scanning and reconstructing related events that contain the same supporting files. When Security Analytics is reconstructing a web view that spans multiple events, it is possible to improve the reconstruction of the target event by scanning and reconstructing related events that contain the same supporting files, such as images and cascaded style sheet (CSS) files.

- The only related events scanned are HTTP service type events with the same source address as the target event, and a time stamp within a specified time range before and after the target event.
- The maximum number of related events to scan is configurable.

Clicking on the Advanced Settings option displays all configurable settings in this section.



Web View Reconstruction Settings

Some web pages distribute supporting files such as images and cascaded style sheet (CSS) files across multiple web events. The reconstruction of the original target web page can be improved by scanning for related events and using those when reconstructing the original event.

☑ Enable supporting files for web view (disabling supersedes user setting).

These settings calibrate performance when scanning related events for supporting files during web event reconstruction.

To find potential related data for the target event, Security Analytics scans events that occur within a designated time range of the target event for matching criteria. The source address of the related events and target event must match, and events are restricted to the HTTP service type.

Time Range to Scan Related Events 30 Seconds Before Target Event

60 Seconds After Target Event

Enable this option to trim the number of related events that are processed within the given time range to as close as possible to this value.

☑ Limit the number of related events processed.

Max Related Events 100

Enable this option to override the general settings for max packets and max size for individual related events.

☑ Limit the number of packets and size of each related event.

Maximum Number of Packets for a Single Related Event 1000

Maximum Size, in bytes, of a Single Related Event 524288

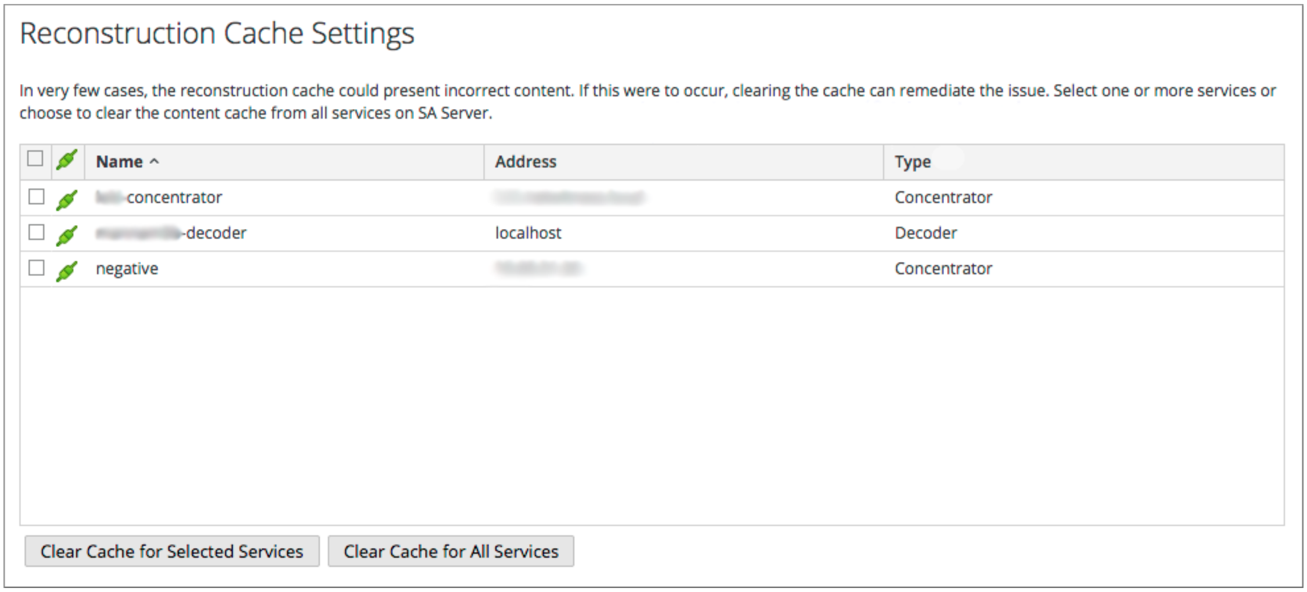
The following table describes the Web View Reconstruction Settings.

Parameter	Description
Enable supporting files for web view	This option determines how web views that have related data in other sessions are reconstructed. The default setting is enabled. When enabled, supporting files from related events can be used in the reconstruction of web views. Additional settings for calibrating the performance are enabled in this section, and Analysts have the option to enable CSS use in reconstructions. When disabled, supporting files from related events are not used and the setting for analysts to enable CSS use in reconstructions is disabled.
Time Range to Scan Related Events	Available when **Enable supporting files for web view** is checked. Configures the time range within which Security Analytics scans related events that are of the service type HTTP and have the same source address as the target event. This is a value between 0 and 60. • Seconds Before Target Event • Seconds After Target Event
Limit the number of related events processed	Allows configuration of the maximum number of related events that Security Analytics scans within the specified time range to discover supporting files for the target event. By default, this is disabled. When enabled, the Maximum Related Events field becomes active.

Parameter	Description
Max Related Events	When **Limit the number of events processed** is enabled, this field specifies the maximum number of related events that Security Analytics scans within the specified time range to discover supporting files for the target event. This is a selectable value between 10 and 1,000, using an increment of 100. The default value is 100.
Limit the number of packets and size of each related event	Overrides the general settings for the maximum number of packets and maximum size (in bytes) for individual related events.
Maximum Number of Packets for a Single Related Event	Possible values are in the range from 100 to 10,000 packets, using increments of 100 from the selection list. The default value is 100 packets.
Maximum Size, in Bytes, of a Single Related Event	Possible values are in the range from 102,400 to 104,857,600 bytes, using increments of 10,240 from the selection list. The default value is 524,288 bytes.

Reconstruction Cache Settings

In some cases, the reconstruction cache can present incorrect content; for this reason Security Analytics removes reconstructions that are older than a day from the cache. The cache is cleaned every day at midnight. Between the daily cache cleanings, certain actions may result in stale cache being used for a reconstruction, and if the need arises, administrators can manually clear cache for one or more services that are connected to the current Security Analytics server.



Reconstruction Cache Settings

In very few cases, the reconstruction cache could present incorrect content. If this were to occur, clearing the cache can remediate the issue. Select one or more services or choose to clear the content cache from all services on SA Server.

□		Name ^	Address	Type
□		[redacted]-concentrator	[redacted]	Concentrator
□		[redacted]-decoder	localhost	Decoder
□		negative	[redacted]	Concentrator

Clear Cache for Selected Services
Clear Cache for All Services

The following table describes the Reconstruction Cache Settings features.

Feature	Description
Selection box	Selection box in individual rows and in the title bar allow selection of one or more, or all services that need to have cache cleared manually.
Clear Cache for Selected Services	Clears the reconstruction cache for each selected service.
Clear Cache for All Services	Clears the reconstruction cache for all services.

Context Lookup Tab

The Context Lookup tab enables the administrator to configure the Investigation meta keys and meta type mapping. The administrator can add or remove meta keys found in Investigation to the list of meta types supported by Context Hub service. Procedures associated with this panel are provided in Manage Meta Type and Meta Key Mapping topic in the *Host and Service Configuration Guide*.

Features

The following table describes the features of the Context Lookup tab.

Feature	Description
+	Adds an meta key to the selected meta type supported by Context Hub.
−	Deletes the meta key from the selected meta type.
Apply	Saves the changes made to the Context Lookup tab.

Live Services Configuration Panel

This topic introduces the features of the System View > Live Services Configuration panel for setting up your Live account and the CMS server connection.

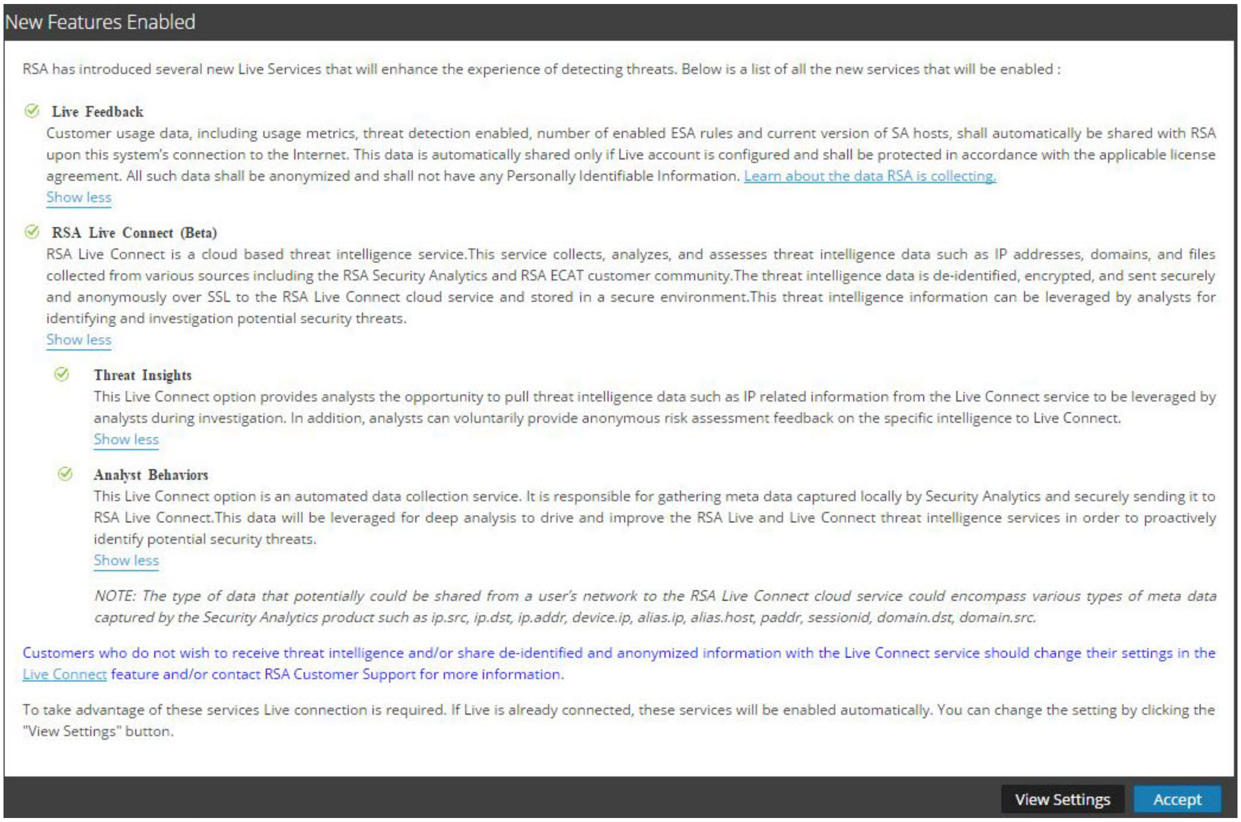
Live Account consists of two sections, namely RSA Live Status and Download Live Feedback Activity Log. You must **Sign In** by entering your Live Account credentials to access the Live Services. To activate your Live account for Security Analytics, please contact RSA Customer Care. When you have confirmation that your Live account has been set up, you can configure the CMS server connection as described in Configure Live Services Settings.

The Live Services panel provides the user interface for :

- The Live account
- The Live Content update schedule and preferences for notification of updates
- Participation in Live Feedback
- Sharing Live Content Usage Details
- RSA Live Connect (Beta)

New Features Enabled Dialog

When you log onto Security Analytics for the first time, you will be prompted with **New Features Enabled** dialog.



New Features Enabled

RSA has introduced several new Live Services that will enhance the experience of detecting threats. Below is a list of all the new services that will be enabled :

✓ **Live Feedback**

Customer usage data, including usage metrics, threat detection enabled, number of enabled ESA rules and current version of SA hosts, shall automatically be shared with RSA upon this system's connection to the Internet. This data is automatically shared only if Live account is configured and shall be protected in accordance with the applicable license agreement. All such data shall be anonymized and shall not have any Personally Identifiable Information. Learn about the data RSA is collecting.

Show less

✓ **RSA Live Connect (Beta)**

RSA Live Connect is a cloud based threat intelligence service.This service collects, analyzes, and assesses threat intelligence data such as IP addresses, domains, and files collected from various sources including the RSA Security Analytics and RSA ECAT customer community.The threat intelligence data is de-identified, encrypted, and sent securely and anonymously over SSL to the RSA Live Connect cloud service and stored in a secure environment.This threat intelligence information can be leveraged by analysts for identifying and investigation potential security threats.

Show less

✓ **Threat Insights**

This Live Connect option provides analysts the opportunity to pull threat intelligence data such as IP related information from the Live Connect service to be leveraged by analysts during investigation. In addition, analysts can voluntarily provide anonymous risk assessment feedback on the specific intelligence to Live Connect.

Show less

✓ **Analyst Behaviors**

This Live Connect option is an automated data collection service. It is responsible for gathering meta data captured locally by Security Analytics and securely sending it to RSA Live Connect.This data will be leveraged for deep analysis to drive and improve the RSA Live and Live Connect threat intelligence services in order to proactively identify potential security threats.

Show less

NOTE: The type of data that potentially could be shared from a user's network to the RSA Live Connect cloud service could encompass various types of meta data captured by the Security Analytics product such as ip.src, ip.dst, ip.addr, device.ip, alias.ip, alias.host, paddr, sessionid, domain.dst, domain.src.

Customers who do not wish to receive threat intelligence and/or share de-identified and anonymized information with the Live Connect service should change their settings in the Live Connect feature and/or contact RSA Customer Support for more information.

To take advantage of these services Live connection is required. If Live is already connected, these services will be enabled automatically. You can change the setting by clicking the "View Settings" button.

Feature	Description
Accept	Clicking Accept indicates that you agree to the following: • Participate in Live Feedback • Allow Security Analytics to send RSA the usage metrics and version of SA hosts about your environment to RSA, provided a Live Account is configured. • Receive threat intelligence data from Live Connect.
View Settings	Clicking **V iew Settings** redirects you to the Live Services UI to view the settings. If you have not configured the Live Account, a masked screen is displayed.

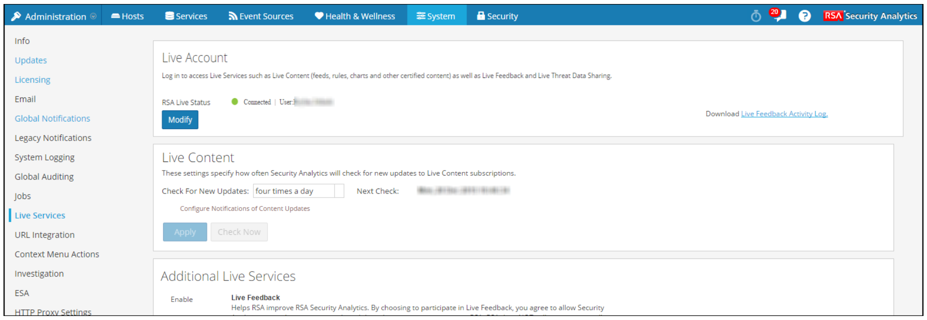
For information on Live Feedback, see Live Feedback Overview.

For information on Analyst Behaviors and Data Sharing, see the **Security Analytics Feedback and Data Sharing** topic in the *Live Services Management Guide*.

For information on Live Connect Threat Insights, see Configure Live Services Settings.

Live Services V iew

You access this view in the Security Analytics menu, **Administration > System > Live Services**.



Live Account

Log in to access Live Services such as Live Content (feeds, rules, charts and other certified content) as well as Live Feedback and Live Threat Data Sharing.

RSA Live Status ● Connected | User:[redacted]

Download Live Feedback Activity Log.

Live Content

These settings specify how often Security Analytics will check for new updates to Live Content subscriptions.

Check For New Updates: four times a day Next Check: [redacted]

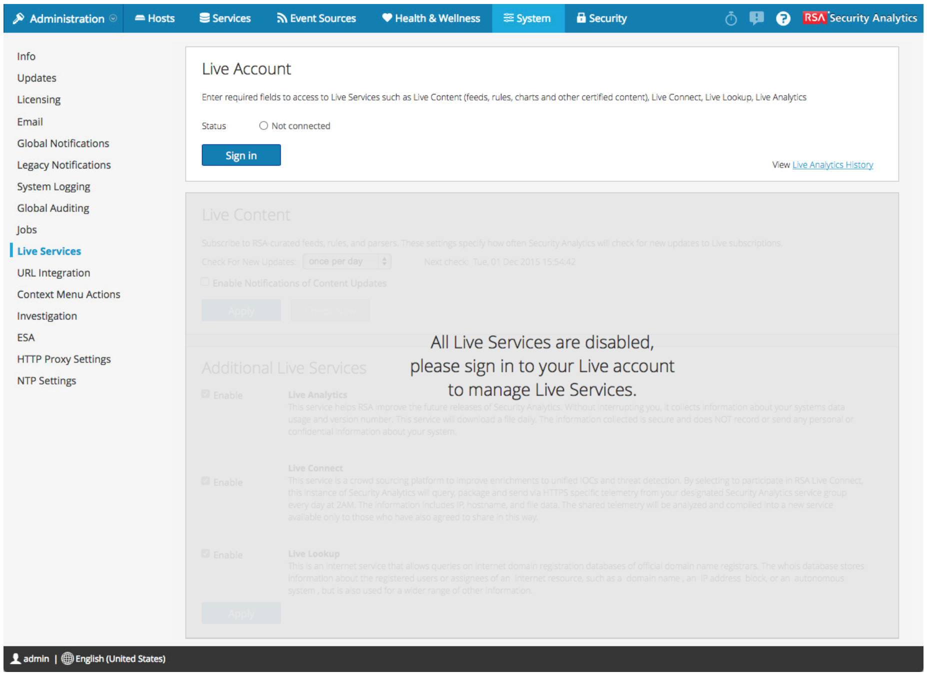
Configure Notifications of Content Updates

Additional Live Services

Enable Live Feedback

Helps RSA improve RSA Security Analytics. By choosing to participate in Live Feedback, you agree to allow Security

Note: If you are not signed in with your Live Account credentials, a masked screen is displayed.



Live Account

Enter required fields to access to Live Services such as Live Content (feeds, rules, charts and other certified content), Live Connect, Live Lookup, Live Analytics

Status ○ Not connected

View Live Analytics History

Live Content

Subscribe to RSA-curated feeds, rules, and parsers. These settings specify how often Security Analytics will check for new updates to Live subscriptions.

Check For New Updates: once per day Next check: Tue, 01 Dec 2015 15:54:42

□ Enable Notifications of Content Updates

All Live Services are disabled,
please sign in to your Live account
to manage Live Services.

Additional Live Services

☑ Enable **Live Analytics**
This service helps RSA improve the future releases of Security Analytics. Without interrupting you, it collects information about your systems data usage and version number. This service will download a file daily. The information collected is secure and does NOT record or send any personal or confidential information about your system.

☑ Enable **Live Connect**
This service is a crowd sourcing platform to improve enrichments to unified IOCs and threat detection. By selecting to participate in RSA Live Connect, this instance of Security Analytics will query, package and send via HTTPS specific telemetry from your designated Security Analytics service group every day at 2AM. The information includes IP, hostname, and file data. The shared telemetry will be analyzed and compiled into a new service available only to those who have also agreed to share in this way.

☑ Enable **Live Lookup**
This is an internet service that allows queries on internet domain registration databases of official domain name registrars. The whois database stores information about the registered users or assignees of an Internet resource, such as a domain name , an IP address block, or an autonomous system , but is also used for a wider range of other information.

Features

The Live Configuration panel has three sections: Live Account, Live Content, and Additional Live Services.

Live Account Section

In the **Live Account** section, you must enter the Live credentials. The information needed to set up the user's Live account consists of the Username, Password, and Live URL for the RSA Content Management System. This information is provided by Customer Care.

The following table describes the Live Account section features.

Feature	Description
Host	The Live URL for the Content Management System. The default value points to the RSA CMS at **cms.netwitness.com**.
Port	The communications port for Live to send requests to the Content Management System. The default value for this field is **443**, which is the communications port on the Content Management System.
SSL	Allows the user to communicate via SSL.
Username	The Live account user name as provided by RSA Customer Care.
Password	The Live account user password as provided by RSA Customer Care.
Test connection	Tests if the connection is successful or not.
Apply	Saves and applies the configuration.

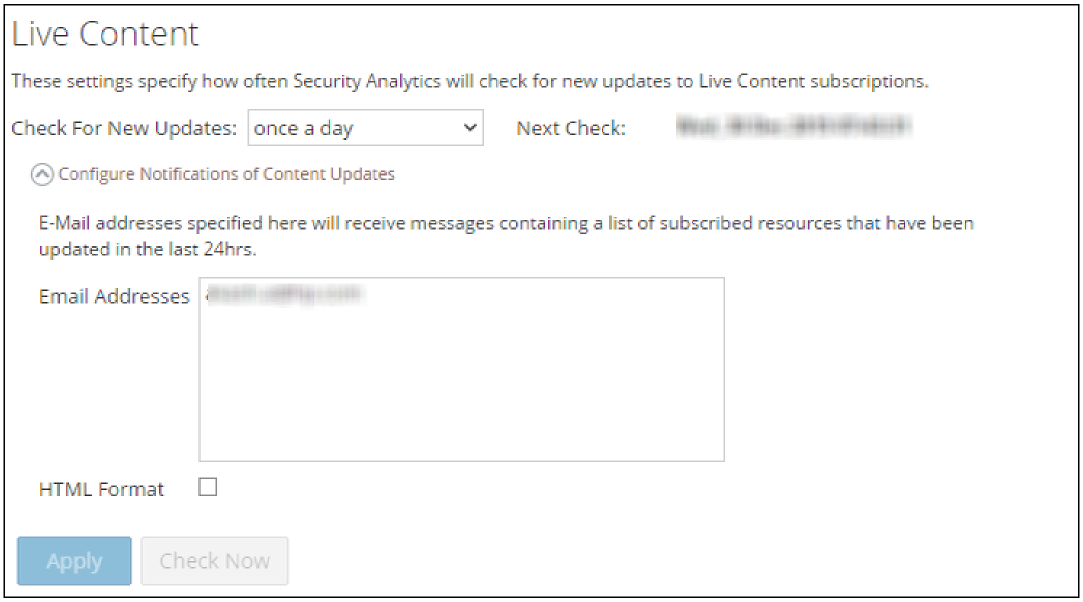
The Live Account section, provides an option to download and share the Live Feedback historical data by clicking Live Feedback Activity Log.

For more information about how to download historical data, see Upload Data to RSA for Live Feedback.

Live Content Section

You can configure the Live Content Synchronization interval and notification at which Security Analytics checks for new updates to Live Content:

Use the **Check for New Updates** field to change the interval. Select an interval from the drop-down list. The default value for this setting is **once a day**.



Live Content

These settings specify how often Security Analytics will check for new updates to Live Content subscriptions.

Check For New Updates: once a day Next Check: [redacted]

Configure Notifications of Content Updates

E-Mail addresses specified here will receive messages containing a list of subscribed resources that have been updated in the last 24hrs.

Email Addresses [redacted]

HTML Format □

The following table describes the Live Content features.

Feature	Description
Check for new updates	This setting dictates how often Security Analytics checks for new updates to Live Subscriptions and synchronizes subscribed resources and tags: • once a day • twice a day • four times a day • every hour • every other hour • every half hour The default value for this setting is once a day.
Next Check	Displays the time and date of the next scheduled Live synchronization based on the configured interval for checking.
Email Addresses	Email addresses specified here receive messages containing a list of subscribed resources that have been updated in the last 24 hours.

Feature	Description
HTML format	Specifies the format of email messages. - Checked = HTML - Not checked = text
Check Now	Instead of waiting for the next scheduled resource cycle, this option forces Live to begin immediate synchronization of the subscribed resources in this instance of Security Analytics. **Caution:** Use this feature with caution because synchronization can cause a parser reload if a Lua Parser or Flex Parser is deployed in the update cycle. This is acceptable once or twice a day, but a number of back-to-back parser reloads can cause packet loss at the Decoder. If this is the initial setup and you haven't configured Live resource subscriptions, do not Synchronize Now. Wait until you have configured subscriptions.
Apply	Applies the changed configuration to the subscription synchronization behavior. The changes become effective immediately. The **Next Live synchronization is scheduled for** field is updated if the time changed.

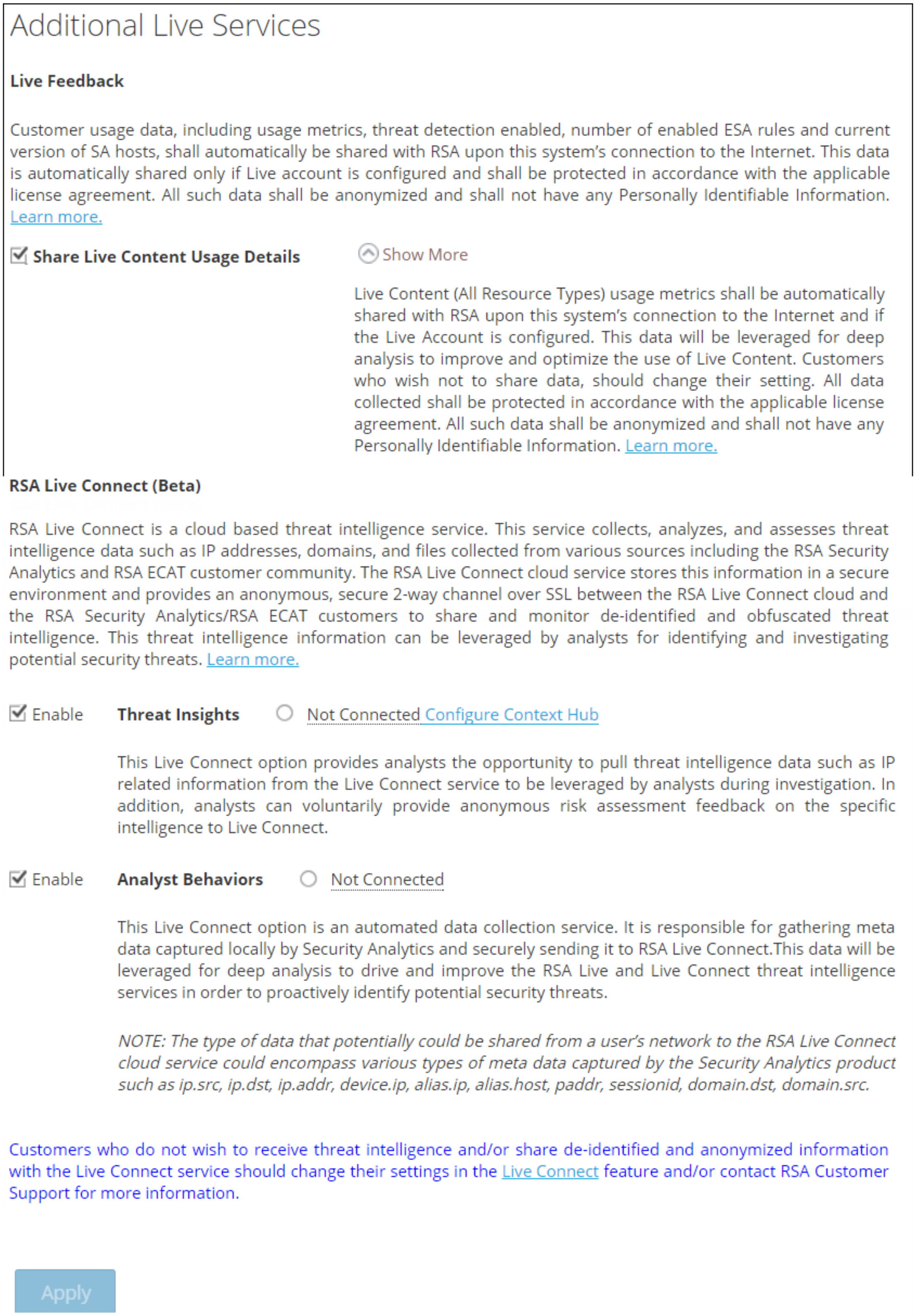
Force Immediate Synchronization

To force immediate synchronization, click **Check Now**. Security Analytics checks for updates in subscribed resources.

Instead of waiting for the next scheduled resource cycle, this option forces Live to begin immediate synchronization of the subscribed resources in this instance of Security Analytics. One use for this is to see the immediate impact of a configuration change. For example, a new service has been added, or new resources have been toggled for automatic deployment. The scheduled synchronization could take place hours later if Security Analytics Live is set to synchronize a few times a day.

Caution: Synchronization can cause a parser reload if a Flex Parser is deployed in the update cycle. This is acceptable once or twice a day, but a number of back-to-back parser reloads can cause packet loss at the Decoder. If this is the initial setup and you haven't configured Live resource subscriptions, do not Synchronize Now. Wait until you have configured subscriptions.

Additional Live Services



Additional Live Services

Live Feedback

Customer usage data, including usage metrics, threat detection enabled, number of enabled ESA rules and current version of SA hosts, shall automatically be shared with RSA upon this system's connection to the Internet. This data is automatically shared only if Live account is configured and shall be protected in accordance with the applicable license agreement. All such data shall be anonymized and shall not have any Personally Identifiable Information. Learn more.

☑ **Share Live Content Usage Details**

Live Content (All Resource Types) usage metrics shall be automatically shared with RSA upon this system's connection to the Internet and if the Live Account is configured. This data will be leveraged for deep analysis to improve and optimize the use of Live Content. Customers who wish not to share data, should change their setting. All data collected shall be protected in accordance with the applicable license agreement. All such data shall be anonymized and shall not have any Personally Identifiable Information. Learn more.

RSA Live Connect (Beta)

RSA Live Connect is a cloud based threat intelligence service. This service collects, analyzes, and assesses threat intelligence data such as IP addresses, domains, and files collected from various sources including the RSA Security Analytics and RSA ECAT customer community. The RSA Live Connect cloud service stores this information in a secure environment and provides an anonymous, secure 2-way channel over SSL between the RSA Live Connect cloud and the RSA Security Analytics/RSA ECAT customers to share and monitor de-identified and obfuscated threat intelligence. This threat intelligence information can be leveraged by analysts for identifying and investigating potential security threats. Learn more.

☑ Enable **Threat Insights** ○ Not Connected Configure Context Hub

This Live Connect option provides analysts the opportunity to pull threat intelligence data such as IP related information from the Live Connect service to be leveraged by analysts during investigation. In addition, analysts can voluntarily provide anonymous risk assessment feedback on the specific intelligence to Live Connect.

☑ Enable **Analyst Behaviors** ○ Not Connected

This Live Connect option is an automated data collection service. It is responsible for gathering meta data captured locally by Security Analytics and securely sending it to RSA Live Connect.This data will be leveraged for deep analysis to drive and improve the RSA Live and Live Connect threat intelligence services in order to proactively identify potential security threats.

NOTE: The type of data that potentially could be shared from a user's network to the RSA Live Connect cloud service could encompass various types of meta data captured by the Security Analytics product such as ip.src, ip.dst, ip.addr, device.ip, alias.ip, alias.host, paddr, sessionid, domain.dst, domain.src.

Customers who do not wish to receive threat intelligence and/or share de-identified and anonymized information with the Live Connect service should change their settings in the Live Connect feature and/or contact RSA Customer Support for more information.

Note: Click on Learn more to know more about the data RSA is collecting. For more information, see Live Feedback Overview.

The following tables describes the Additional Live Services features.

Feature	Description
Live Feedback	Lists the types of data RSA is collecting: • Product Name • Product Version • Product Instance • Activation Key • Details of each Component such as: • ID • Name • Version • Instance ID • Metrics for each component
Share Live Content Usage Details)	Enables Security Analytics to send anonymous, technical data about the content usage metrics to RSA. This option is enabled by default.
RSA Live Connect	Provides more information about Live Connect service and configuring Live Services.
Enable (Threat Insights)	Enables Threat Insights feature where Live Connect is added as a data source for Context Hub service and the analyst can pull threat intel data during investigation. Ensure that context hub is already configured before enabling this feature. This option is enabled by default (checked)
Enab le (Analyst Behaviors)	Enables Security Analytics to send anonymous, technical data about your environment to RSA. This option is enabled by default (checked)

Feature	Description
Apply	Applies the configured changes. The changes become effective immediately. **Note:** This option is applicable only for Threat Insights and Analyst Behaviors.

About Live Feedback Participation

When you participate in Live Feedback, it collects relevant information for further improvement. For information on Live Feedback, see Live Feedback Overview.

When you install Security Analytics, you will be prompted to participate in Live Feedback. For information, see .Configure Live Services Settings

If needed, you can manually download historical usage data and share it with RSA. For information on how to download historical usage data and share it with RSA, see Upload Data to RSA for Live Feedback.

NTP Settings Panel

This topic describes the Administration > System > NTP Settings panel. NTP is a protocol designed to synchronize the host machine clocks over a network. For more information on NTP see their home page (http://www.ntp.org/).

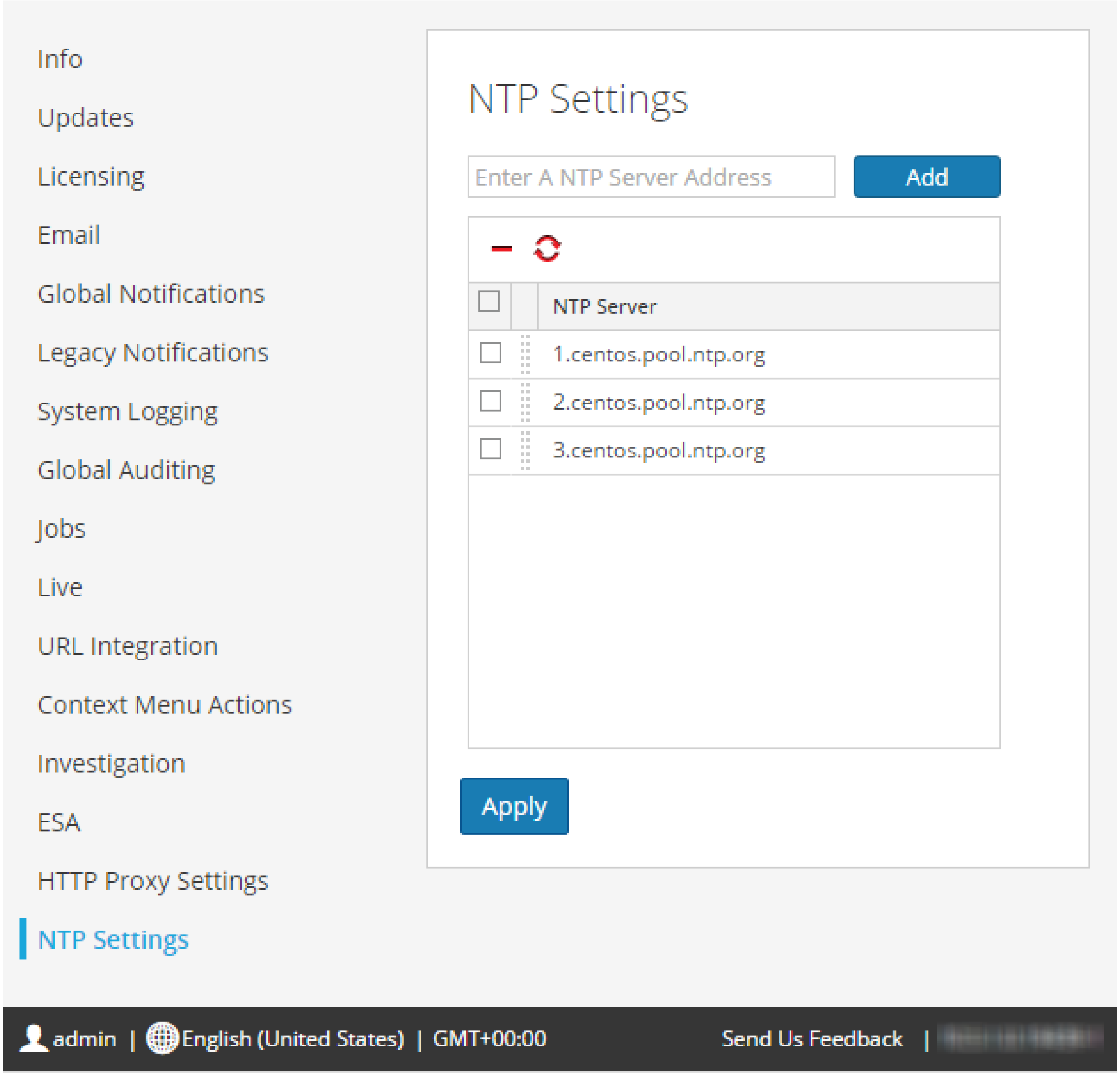
Note: Security Analytics core hosts must be able to communicate with the SA host with UDP port 123 for NTP time synchronization.

You use the **Administration** > **System** > **NTP Settings** view to configure one or more NTP servers. After you configure an NTP server, Security Analytics uses NTP to synchronize the host machine clocks. You configure multiple NTP servers for Fail Over purposes.

To access this view:

1. In the Security Analytics menu, select **Administration > System**.

2. In the options panel, select **NTP Settings**.



☐	NTP Server
☐	1.centos.pool.ntp.org
☐	2.centos.pool.ntp.org
☐	3.centos.pool.ntp.org

Features

This table describes the settings in the NTP Settings panel.

Setting	Description
	Enter the NTP Server IP Address or hostname.
Add	Adds the NTP server to Security Analytics.

Setting	Description
−	Delete the selected NTP server.
↺	Synchronizes the selected NTP server.
□	Selects the NTP server that you want to delete or synchronize.
NTP Server	NTP Server IP Address or hostname. If you click on an existing hostname, Security Analytics makes the hostname editable and displays the following command buttons: • **Update** - Applies your edits. • **Cancel** - Cancels your edits.
Apply	Applies the NTP server settings and synchronizes host machine clocks to NTP.

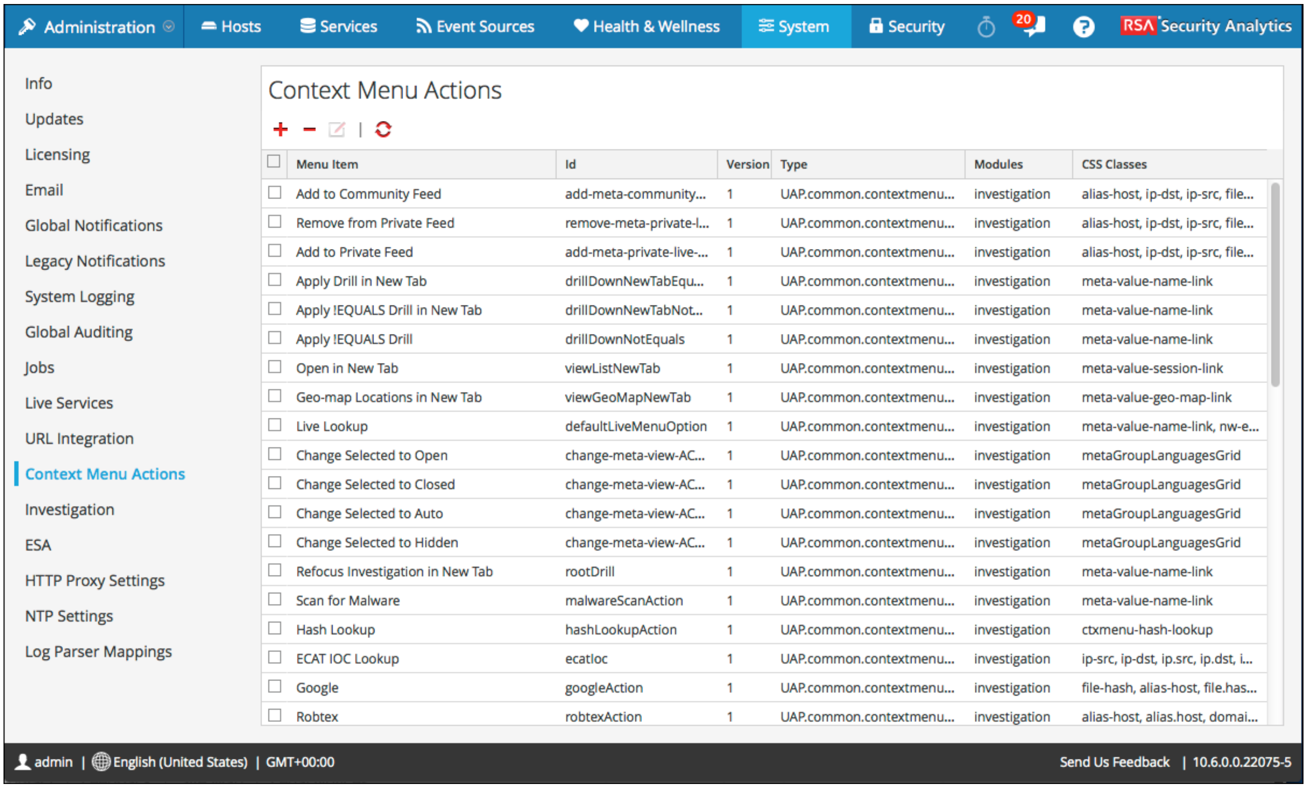
Context Menu Actions Panel

In the Context Menu Actions panel, Administrators can view built-in context menu actions, and add, edit, or delete custom context menu actions that appear as options in a context menu. The related procedure is provided in Add Custom Context Menu Actions.

To access this view:

1. In the **Security Analytics** menu, select **Administration > System.**
2. In the options panel, select **Context Menu Actions**.

The following figure is an example of the Context Menu Actions panel.



Context Menu Actions

□	Menu Item	Id	Version	Type	Modules	CSS Classes
□	Add to Community Feed	add-meta-community...	1	UAP.common.contextmenu...	investigation	alias-host, ip-dst, ip-src, file...
□	Remove from Private Feed	remove-meta-private-l...	1	UAP.common.contextmenu...	investigation	alias-host, ip-dst, ip-src, file...
□	Add to Private Feed	add-meta-private-live-...	1	UAP.common.contextmenu...	investigation	alias-host, ip-dst, ip-src, file...
□	Apply Drill in New Tab	drillDownNewTabEqu...	1	UAP.common.contextmenu...	investigation	meta-value-name-link
□	Apply !EQUALS Drill in New Tab	drillDownNewTabNot...	1	UAP.common.contextmenu...	investigation	meta-value-name-link
□	Apply !EQUALS Drill	drillDownNotEquals	1	UAP.common.contextmenu...	investigation	meta-value-name-link
□	Open in New Tab	viewListNewTab	1	UAP.common.contextmenu...	investigation	meta-value-session-link
□	Geo-map Locations in New Tab	viewGeoMapNewTab	1	UAP.common.contextmenu...	investigation	meta-value-geo-map-link
□	Live Lookup	defaultLiveMenuOption	1	UAP.common.contextmenu...	investigation	meta-value-name-link, nw-e...
□	Change Selected to Open	change-meta-view-AC...	1	UAP.common.contextmenu...	investigation	metaGroupLanguagesGrid
□	Change Selected to Closed	change-meta-view-AC...	1	UAP.common.contextmenu...	investigation	metaGroupLanguagesGrid
□	Change Selected to Auto	change-meta-view-AC...	1	UAP.common.contextmenu...	investigation	metaGroupLanguagesGrid
□	Change Selected to Hidden	change-meta-view-AC...	1	UAP.common.contextmenu...	investigation	metaGroupLanguagesGrid
□	Refocus Investigation in New Tab	rootDrill	1	UAP.common.contextmenu...	investigation	meta-value-name-link
□	Scan for Malware	malwareScanAction	1	UAP.common.contextmenu...	investigation	meta-value-name-link
□	Hash Lookup	hashLookupAction	1	UAP.common.contextmenu...	investigation	ctxmenu-hash-lookup
□	ECAT IOC Lookup	ecatIoc	1	UAP.common.contextmenu...	investigation	ip-src, ip-dst, ip.src, ip.dst, i...
□	Google	googleAction	1	UAP.common.contextmenu...	investigation	file-hash, alias-host, file.has...
□	Robtex	robtexAction	1	UAP.common.contextmenu...	investigation	alias-host, alias.host, domai...

Features

The Context Menu Actions panel has a grid and a toolbar. The following table describes the toolbar options and grid features.

Features	Description
+	Displays the Context Menu Configuration dialog, in which you can create a new context action.
⟳	Refreshes the list.
−	Deletes the selected context actions. Security Analytics does not request confirmation that you want to delete the action. The selected actions are immediately deleted with no opportunity to cancel.
✎	Displays the Edit Context Action dialog, in which you can edit an existing context action.
Menu Item	The menu item as it appears in the context menu. When creating a context menu action, the parameter is `displayName`. Here is a line of sample code: `"displayName": "User Agent String Lookup”`
ID	The unique ID for the context action. When creating a context menu action, the parameter is `id`. Here is a line of sample code: `"id": "UserAgentStringAction"`
Version	The version number of the context action. When creating a context menu action, the parameter is `version`. Here is a line of sample code: `"version": "1"`

Features	Description

Type	The type of context action.
	When creating a context menu action, the parameter is `type`. All Security Analytics context action types begin with this string:
	`UAP.common.contextmenu.actions.`
	The last part of the string identifies the menu within Security Analytics, for example, `URLContextAction` or `LivePostContextAction`.
	Here is a line of sample code:
	`"type": "UAP.common.contextmenu.actions.URLContextAction"`

Modules	The names of the modules in which the context action is available. Currently all built-in context menu actions are for the Investigation module.
	When creating a context menu action, the parameter is `modules`.
	Here is a line of sample code:
	`"modules": [`
	`        "investigation"`
	`    ],`

Module Classes	The CSS classes that identify the names of the module views in which the context action is available. Currently all built-in context menu actions are for the Investigation module and the non-meta key module classes are described in detail below.
	Here are a few lines of sample code:
	`"moduleClasses": [`
	`        "UAP.investigation.navigate.view.NavigationPanel”, <-- Enabled in Navigate pane-->`
	`       “UAP.investigation.events.view.EventGrid”`
	`    ],`

Features	Description

CSS Classes	The CSS classes to which the context menu action applies. The CSS classes define where the context menu shows up inside investigation when you right-click. W hen creating a context menu action, the parameter is `cssC lasses`.
	Here is a line of sample code:
	`"cssC lasses": [`
	`        “client”`
	`]`
	Most of the CSS Classes that you can add are meta keys. You can also add certain non-meta key CSS classes. See additional details and examples below.

CSS Classes and Examples

CSS classes can be meta keys and non-meta keys.

Meta K ey CSS Classes

One type of CSS class that you can add is meta keys. For meta keys that have a period, change the period to a dash when defining a CSS class. For example, the meta key `alias.host` becomes the CSS class `alias-host`. The meta key `ip.src` becomes the CSS class `ip-src`.

Non-Meta K ey CSS Classes

Built-in non-meta key CSS Classes are also available. The classes in the following table define actions and the part of the user interface where the action is available.

CSS Class	Type	Description
`meta-value-session-link`	Action	Open on meta session count number
`meta-value-name-link`	Action	Open on meta value name
`nw-event-value`	Action	Use for reconstruction context actions on meta value
`UAP.investigation.navigate.view.NavigationPanel`	User interface	Applies to Navigate view

CSS Class	Type	Description
UAP.investigation.events.view.EventGrid	User interface	Applies to Event View
UAP.investigation.reconstruction.view.content.ReconstructedEventDataGrid	User interface	Applies to Event Reconstruction View

Example

This is a commented example of a context menu action to validate the user agent from the Client Application (client) meta key. The comments are removed automatically once applied in the Administration System view. The new menu item is displayed after restarting the browser.

```
 {
     "displayName": "User Agent String Lookup”, <!-- What name shows
up in SA UI -->
     "cssClasses": [
         “client”  <!-- What meta key to launch from -->
     ],
     "description": "",
     "type": "UAP.common.contextmenu.actions.URLContextAction",
     "version": "1",
     "modules": [
         "investigation"
     ],
     "local": "false",
     "groupName": "externalLookupGroup”, <!-- What group to show link
in. Remove line to show in main list -->
     "urlFormat": "http://www.useragentstring.com/?uas={0}&getText=all”, <!--
The {0} gets replaced with whatever was right clicked on -->
     "disabled": "",
     "id": "UserAgentStringAction",
    "moduleClasses": [
         "UAP.investigation.navigate.view.NavigationPanel”, <-- Enabled
in Navigate pane-->
        “UAP.investigation.events.view.EventGrid” <-- Enabled in Event
View pane -->
     ],
     "openInNewTab": "true",
     "order": "15"
 }
```

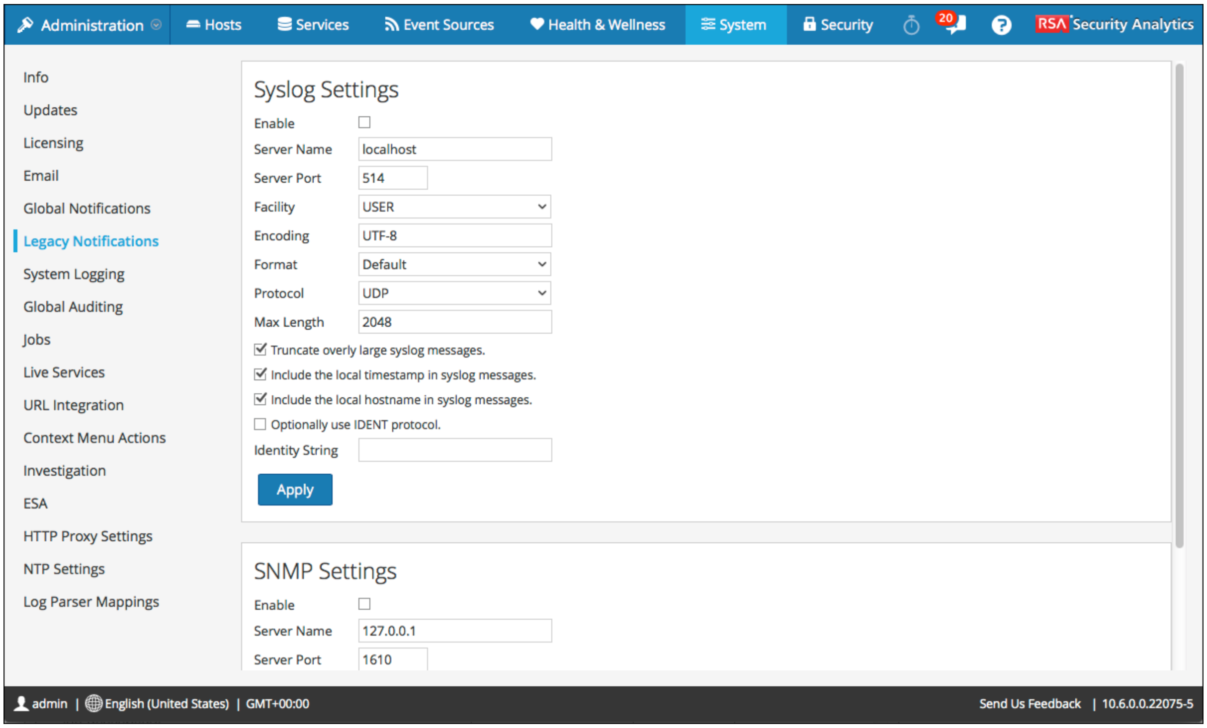
Legacy Notifications Configuration Panel

This topic introduces the Legacy Notifications Configuration panel. The Legacy Notifications Configuration panel provides the ability to configure syslog and SNMP notification settings. These configurations are used for Entitlement, legacy Event Source Management (ESM), Warehouse Connector monitoring, and Archiver monitoring.

Procedures related to these settings are described in Configure Syslog and SNMP Settings.

To access the Legacy Notifications Configuration panel:

1. In the **Security Analytics** menu, select **Administration** > **System**.
2. In the options panel, select **Legacy Notifications**.



Syslog Settings

Enable ☐

Server Name localhost

Server Port 514

Facility USER

Encoding UTF-8

Format Default

Protocol UDP

Max Length 2048

☑ Truncate overly large syslog messages.

☑ Include the local timestamp in syslog messages.

☑ Include the local hostname in syslog messages.

☐ Optionally use IDENT protocol.

Identity String

Apply

SNMP Settings

Enable ☐

Server Name 127.0.0.1

Server Port 1610

Features

The Legacy Notifications Configuration Panel consists of two sections: Syslog Settings and SNMP Settings.

Syslog Settings

The following table describes the available options for configuring syslog notifications for Entitlement, legacy Event Source Management (ESM), Warehouse Connector monitoring, and Archiver monitoring.

Feature	Description
Enable	Enables the syslog settings configured here.
Server Name	Specifies the host where the target syslog process is running.
Server port	Specifies the port where the target syslog process is listening.
Facility	Specifies the designated syslog facility to use for all outgoing messages. Possible values are KERN, USER, MAIL, DAEMON, AUTH, SYSLOG, LPR, NEW S, UUCP, CRON, AUTHPRIV, FTP, LOCAL1 through LOCAL7.
Encoding	Specifies the encoding to use for text in syslog messages, for example, UTF-8.
Format	Specifies the message format. Possible values are: Default, PCI DSS, or SEC.
Protocol	Specifies the communications protocol used when sending syslogs: UDP or TCP. By default, the UDP protocol is selected.
Max length	Specifies the maximum length in bytes of any syslog message. The default value is **2048**. Messages that exceed the maximum length are truncated when the **Truncate overly large syslog messages** checkbox is selected.
Truncate overly large syslog messages	W hen checked, any messages exceeding the maximum length are truncated.
Include the local timestamp in syslog messages	W hen checked, Security Analytics includes the local timestamp in messages.

Feature	Description
Include the local hostname in syslog messages	When checked, Security Analytics includes the local hostname in syslog messages.
Optionally use IDENT protocol	When checked, Security Analytics prepends the identity string to outgoing syslog alerts.
Identity string	This is an identity string to be prepended to each syslog alert. If the string is blank, no identity string is prepended to the outgoing syslog alerts. You can use this to identify the source of the alert. Users conventionally set it to the name of the program that sends the syslog message.
Apply	Applies the syslog configuration settings.

SNMP Settings

The following table describes the available options for configuring SNMP notifications for Entitlement, legacy Event Source Management (ESM), Warehouse Connector monitoring, and Archiver monitoring.

Feature	Description
Enable	Enables the SNMP settings configured here.
Server Name	Specifies the SNMP trap host.
Server port	Specifies the listening port on the SNMP trap host
SNMP version	Specifies the SNMP version, **v1** or **v2c**.
Trap OID	Specifies the object ID for the SNMP trap on the trap host that receives the audit event. The default value is **0.0.0.0.0.1**.
Community	Specifies the community string used to authenticate on the SNMP trap host, the default value is **public**.
Enable	Enables SNMP notifications as configured here.

Feature	Description
Apply	Applies the SNMP configuration settings.