Dashboard Settings

Intersight Virtual Appliance Settings

You can monitor the appliance status, back up and restore data, upgrade the appliance software, configure network settings, add users and groups, and more on the Intersight Virtual Appliance **Settings** page.

Settings Option	Description
GENERAL > **Account Details**	View account details such as account name, account ID, access link, license type, default idle timeout, maximum number of concurrent sessions per user, and default session timeout. You can also configure account settings such as default idle timeout, default session timeout, and maximum number of concurrent sessions per user For more information, see Configuring Account Settings, on page 11.
GENERAL > **Access Details**	Displays the details of the user including the name, account name, email ID, role, idle timeout, session timeout, maximum concurrent sessions per user, login time, a brief description of the role, and a table view of the users and their privileges that is displayed in the bottom pane of this page.
GENERAL > **Appliance**	View the status of the appliance connection, view details including the appliance Health, Hostname, Version number, Deployment Size, and Data Collection policy. A list of the connected Nodes displays the IP address, Status, Gateway, and Netmask for the connected nodes. You can also view the Alarms on the connected nodes.
GENERAL > **Backup**	Create a full state backup of the appliance and save the image on a remote server. You can also schedule a backup from this page. For detailed instructions, see Create Backup and Scheduling Backup. You can recover the appliance configuration from a backup file using the instructions in Recovering Intersight Connected Virtual Appliance and Recovering Intersight Private Virtual Appliance.
GENERAL > **Banner Message**	View the configuration details of the banner message. When enabled, the configured banner message will be displayed before the user login screen. For more information, see Configuring a Banner Message for Displaying Before the Login Screen, on page 12.
GENERAL > **Software**	View details of the current software version of the appliance, including the version number, the installed components, messages about the installation, and the Fingerprint of the installed software. For more information about updating the Intersight Virtual Appliance software, see Updating the Intersight Virtual Appliance Software.

Settings Option	Description
General > **Device Connector**	**Note** This setting is applicable only for Connected Virtual Appliance deployments. View the status of the appliance connection to Intersight, the Access Mode, Device ID, and the Claim Code. From the **Settings** Menu in the Device Connector window, you can add an **HTTPS Proxy**. For more information, see Cloud Connection for Intersight Connected Virtual Appliance, on page 10.
NETWORKING > **DNS**	Configure DNS settings and add IPv4 DNS Server Addresses and Alternate IPv4 addresses of the DNS Servers. For more information, see Configuring DNS , on page 13.
NETWORKING > **NTP**	Configure NTP servers as well as edit existing NTP server settings. For more information, see Configuring NTP , on page 13.
NETWORKING > **External Syslog**	Configure the External Syslog settings including enabling and disabling sending audit logs and information of alarms to the external syslog servers. For more information, see Configuring External Syslog, on page 14.
AUTHENTICATION > **LDAP/AD**	Create and configure the settings for LDAP servers, DNS parameters, Binding methods, Search parameters, and Group Authorization preferences. For more information, see Configuring LDAP Settings , on page 18.
AUTHENTICATION > **Single Sign-On**	Set up Single Sign-on (SSO) authentication. SSO enables you to use a single set of credentials to log in to multiple applications. With SSO authentication, you can log in to Intersight with your corporate credentials instead of your Cisco ID. For more information about Single Sign-On in Intersight, see Single Sign-On with Intersight Virtual Appliance, on page 19.
AUTHENTICATION > **Certificates**	Add a trusted certificate to verify TLS communication with the LDAP or HTTPS server. You can generate a Certificate Signing request or Generate a Self-Signed Certificate. For more information, see Certificates, on page 20.
AUTHENTICATION > **Local Users**	View details of the current password policy configuration or configure a new password policy. For more information, see Configuring Password Policy for Local Users, on page 23.

Settings Option	Description
ACCESS & PERMISSIONS > **Users**	View the users or add new users to allow access to Intersight using their email, specify identity provider and permission settings. For more information, see Adding a User, on page 25.
ACCESS & PERMISSIONS > **Groups**	View the user **Groups** or add a new group for Single Sign-On or LDAP-based authentication. For more information, see Adding a Group, on page 27.
ACCESS & PERMISSIONS > **Roles**	View the existing roles or create a custom role and assign privileges. For more information, see Adding a Role.
ACCESS & PERMISSIONS > **Organizations**	View the list of organizations or create a new organization to manage access to your logical and physical resources. For more information, see Adding an Organization
API > **API Keys**	View a list of the existing API Keys in the account or generate a new API Key. For more information, see API Keys.
OAuth2 Tokens	View a list of OAuth2 tokens and the details of the Apps and the associated targets.

Intersight Virtual Appliance Monitoring

Intersight Virtual Appliance provides an overview of the appliance and health status and displays alarms when predefined limits are exceeded or when a threshold is raised.

In the appliance UI, from the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **GENERAL** > **Appliance** to view the following details under **Appliance**:

- **Health**—Overall status of the appliance
- **Hostname**—Your FQDN or hostname
- **Version**—Installed version of the appliance software
- **Deployment Size**—Appliance deployment size. For detailed information about Deployment size, see Supported Configuration Limits for Intersight Virtual Appliance
- **Node**—A table view of the list of appliance nodes in Cisco Intersight Virtual Appliance. You can search for a specific node by the IP Address, Operational Status, Gateway, or Netmask. You can view the alarms on the right pane and filter them by their severity.

Intersight Virtual Appliance monitors certain critical parameters and raises alarms when predefined limits are exceeded or when a threshold is raised. The appliance currently reports system-level and node-level alarms. The following table shows the alarm levels and their descriptions:

Table 1: Alarms in Intersight Virtual Appliance

Level	Component	Description	Comments
System	Node	A node is down	One alarm per node
System	Node	A node is not ready for service deployment.	One alarm per node
Node	CPU Usage	CPU usage above threshold	One alarm per node. Threshold: 75%
Node	Memory Usage	Memory usage above threshold	One alarm per node. Threshold: 75%
Node	File System Disk Usage	File System disk usage above threshold	One alarm per file system. Threshold: 75%
System	Number of service instances running	Number of service instances running less than expected	One alarm for any service down
System	Number of service instances ready	Number of service instances ready less than expected	One alarm for any service down
System	Web certificate	Warning: Web certificate expires within 120 days Critical: Web certificate expires within 90 days	One alarm per appliance
System	Device certificate	Warning: Device certificate expires within120 days Critical: Device certificate expires within 90 days	One alarm per appliance
System	Appliance Backup	Warning: An Intersight Appliance backup has not been created within the past week. Please schedule or create a new backup.	One alarm per appliance
System	Appliance Backup	Critical: The most recent Intersight Appliance backup failed. Please schedule or create another backup.	One alarm per appliance

Level	Component	Description	Comments
System	Cloud Connectivity	Warning: Connection to Intersight cloud has been down for more than 30 days Critical: Connection to Intersight cloud has been down for more than 60 days Highly Critical: Connection to Intersight cloud has been down for more than 90 days;claiming new devices is not permitted until connection is restored.	One alarm per appliance
Node	Network Link Connectivity	Warning: The latency between cluster nodes is greater than 10ms	One alarm per link per node

Note Cisco UCS C-Series server-related faults such as power supply and fan failures are not forwarded by Intersight Virtual Appliance to an external syslog server. Please configure the external syslog server on the UCS C-Series CIMC side to handle the forwarding of the UCS C-Series events and faults.

Backing Up Data

Backing up of Cisco Intersight Virtual Appliance regularly is essential. Without regular backups, there is no automatic way to reconstruct the configuration settings and recreating the profiles and policies. You can perform a regular backup once a day using a scheduled backup or create backup on demand if there is a data loss or corruption event. Cisco Intersight Virtual Appliance enables you to take a full state backup of the data in the appliance and store it in a remote server. If there is a total site failure or other disaster recovery scenarios, the restore capability enables you to do a full state system restore from the backed-up system data.

The following options are available to backup data:

- **Create Backup**—Creates a full state backup of the data in Cisco Intersight Virtual Appliance on demand and saves the backed-up data on a remote server.
- **Schedule Backup**—Schedules a full state periodic backup of the data in the appliance based on the schedule and saves the backed-up data on a remote server.

Note There is no difference between a backup that is running on a multi-node appliance versus one that is running on a single-node appliance. The backup is done at the cluster level and not at the node level. The backup originates from one node, but there is no restriction on which node the backup originates from.

Create Backup

You can create a full state periodic backup of the Intersight Virtual Appliance and save the backed-up file on a remote server. To create a backup, do the following:

Step 1 Log into Intersight Virtual Appliance as a user with account administrator role.

Step 2 From the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **GENERAL** > **Backup**.

Step 3 Click **Create Backup**.

The **Backup** window displays.

Step 4 Enter the following details:

- **Protocol**—Communication protocol option used in the backup process. Intersight Virtual Appliance currently supports CIFS (Common Internet File System), SCP (Secure Copy Protocol) and SFTP (Secure File Transfer Protocol) for backup. Enter details of the remote server where you want to save the backed up data.
- **Remote Host**—The remote host for saving the backup files.
- **Remote Port**—Remote TCP port on the backup server (applicable only for SCP and SFTP).
- **Remote Path**—Directory where the backup files are saved.

  Note CIFS share names must contain alpha-numeric characters only and must conform to the regular expression such as _^(\w+)(/\w+)*/?$_. It cannot contain spaces. In addition, when specifying folders under the CIFS share, forward slash (/) must be used as a separator. For example, _backupshare/Intersight/Daily_ and _backupshare/Monthly_.

- **Filename**—Name of the backup file to restore.
- **Username**—Username for authenticating the backup client to the backup server.
- **Password**—Password for authenticating the backup client to the backup server.
- **Password Confirmation**—Reenter the password to complete validation.

Step 5 Click **Start Backup**.

Scheduling Backup

Schedule Backup enables you to schedule a periodic backup of the data in the Intersight Appliance. The Appliance can store three copies of the backup locally on the appliance.

Step 1 Log into Intersight Virtual Appliance as a user with account administrator role.

Step 2 From the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **GENERAL** > **Backup**.

Step 3 On the **Schedule Backup** window, enable **Use Backup Schedule**.

If you disable this option, you must enable the **Use Backup Schedule** option to schedule a backup.

Step 4 Provide the following details to complete creating the **Backup Schedule**.

- **Backup Schedule**
  - **Day of Week**—Specify the day in the week when you want to schedule a data backup.
  - **Time of Day**—Specify the time in the selected day when you want to schedule a data backup. The Time of Day follows the browser time of your session and displays your local time of the day.
- **Backup Destination**
  - **Protocol**—Communication protocol (CIFS/SCP/ STFP) used in the backup process.
  - **Remote Port**—Remote TCP port on the backup server (applicable only for SCP and SFTP).
- **Remote Host**—The remote host for saving the backup files.
- **Remote Path**—Directory location where the backup files are saved.

  Note CIFS share names must contain alpha-numeric characters only and must conform to the regular expression such as _^(\w+)(/\w+)*/?$_. It cannot contain spaces. In addition, when specifying folders under the CIFS share, forward slash (/) must be used as a separator. For example, *backupshare/Intersight/Daily* and *backupshare/Monthly*.

- **Filename**—Name of the backup file to restore
- **Username**—Username for authenticating the backup client to the backup server.
- **Password**—Password for authenticating the backup client to the backup server.
- **Password Confirmation**—Reenter the password
- **Backup Retention**—Number of backups to retain

  Click **Enable Backups Retention** to enter the number of backups to retain on the remote server. The default number is 15. You can enter a number from 1 to 100.

  Note In order for the backup retention limits to function properly while using the SCP protocol, ensure that the SFTP protocol is also enabled on your remote host.

  For more information regarding the various backup retention scenarios, see Backup Retention Scenarios.

Step 5 Click **Schedule Backup** to complete the process.

Backup Retention Scenarios

The following table describes the various backup retention scenarios and the expected outcomes.

Table 2: Backup Retention Scenarios

Backup Retention Scenarios	Expected Outcomes
You enable backup retention, allow backups to accrue, and then disable backup retention.	The backups taken under the retention policy will not be deleted.
You enable backup retention, allow backups to accrue, and then disable backup retention. Now, you re-enable backup retention again.	The backups taken when retention was originally enabled will not be affected. Only backups taken after retention has been re-enabled will be part of the retention policy.
You change the file path or hostname in the retention policy.	The backups taken before the change will not be affected. Only backups taken after the policy change will be part of the latest retention policy.
You increase the number of backups	Backups will continue to accumulate as part of the retention policy until the maximum number of backups is reached and then the oldest backup will be deleted.
You decrease the maximum number of backups from X to Y.	The older backups in the original retention policy will no longer be part of the policy. This means that the retention policy will be implemented only on the most recent backups for the number, Y. The backups before that will remain as-is. For example: Suppose you had a retention count of 5 and then you decrease the retention count to 3. In this case, the oldest 2 backups in the original retention policy will not be affected. Retention policy will be enabled only on the 3 backups.

-

Configuring Metrics Collection

Metrics collection within the Intersight Virtual Appliance is disabled by default. After you install or upgrade Intersight Virtual Appliance, to start metrics collection, you must enable metrics collection in the Intersight Virtual Appliance on the **Metrics** page.

In addition, the **Metrics** page displays the active server count along with the threshold limits for the Intersight Virtual Appliance.

Note Metrics collection can be enabled or disabled for the entire Intersight Virtual Appliance, not for individual devices.

To enable or disable metrics collection, do the following:

1. Log into **Intersight Virtual Appliance** as a user with the account administrator role.

2. From the **Service Selector** drop-down list, choose **System**, and navigate to **Settings > GENERAL > Metrics**.
3. Click **Configure**.
4. Use the **Enable Metrics** slider to enable or disable the metrics collection.

> **Note**
> - Enabling metrics collection results in the immediate triggering of metrics gathering from the endpoints.
> - Disabling metrics collection may result in a delay of up to one hour before the configuration changes are complete and the collection of metrics stops.

5. Click **Configure**.

Updating Intersight Intelligence for Intersight Connected Virtual Appliance

Intersight Connected Virtual Appliance allows you to update Intersight intelligence such as Hardware Compatibility List (HCL) as soon as it becomes available, independent of the appliance software upgrade schedule. Updates for HCL include the compatibility validation results and compliance status for server model, processor, firmware, adapters, operating system and drivers. For more information about HCL, see Compliance with Hardware Combability List (HCL).

Use the following instructions to update Intersight intelligence:

Step 1 Log into Intersight Virtual Appliance as a user with account administrator role.

Step 2 From the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **GENERAL** > **Software**.

Step 3 Click the pencil icon in the **Schedule** field.

The **Set Update Schedule** window displays.

Step 4 Select **Update Intersight Intelligence Immediately** and click **Save**.

Cloud Connection for Intersight Connected Virtual Appliance

Cisco Intersight Connected Virtual Appliance is connected to Cisco Intersight through an embedded device connector. The device connector provides a secure way for the connected targets to send information and receive control instructions from Cisco Intersight, using a secure Internet connection. You can view the following details of the connection to the Cloud and also configure the settings from the **Device Connector** page.

1. In the appliance UI, from the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **GENERAL** > **Device Connector**. The **Device Connector** window displays.

You can view details such as Device ID, Claim Code, Access Mode, and device connector status. For more information about configuring the device connector, status, and error conditions, see **Configuring Device Connector** in **Resources**.

2. Click **Settings** and configure the following settings.
   - **General**—Enable **Device Connector** so that you can claim the appliance and leverage the capabilities of Cisco Intersight, and select an Access Mode. If the Device Connector option is disabled, no communication is allowed to Cisco Intersight. Click **Save**.
   - **Proxy Configuration**
     - Enable **Enable Proxy**. Add the **Proxy Hostname** or **IP Address**, and the **Proxy Port**. The proxy port must be in the range from 1 and 65535.
     - Enable **Authentication** and add a Username and Password for Authenticated Proxy. The proxy setting is automatically reset after restore, and you must manually reset the appliance proxy.

       Click **Save**.
   - **Certificate Manager**—Import proxy certificates.

Alerts Based on Connection to Intersight

When connection to Intersight cloud is interrupted and the connectivity is not restored with in 90 days, target claim capability will be lost. Intersight Appliance features including Connected TAC, Firmware Upgrade, HyperFlex Cluster Deployment, and User Feedback that require connectivity to Intersight cloud may also be impacted until connectivity is restored. Upon re-establishing connectivity, you can resume target claim operations and use all other functionality as before.

Intersight raises these alarms and warnings to alert you about the impact of the disrupted connectivity:

- **Warning**—A warning is displayed the Intersight appliance UI to alert you about the operational status. This is displayed between 30-60 days of lost connectivity. During this period, there will be no disruption to the normal operations of the appliance and you can continue to claim and manage targets.
- **Fault**—A fault is displayed between 60-90 days and after 90 days of interrupted connectivity. Until 90 days of loss of connectivity, you can continue to claim and manage targets in the appliance. If connectivity is not restored after 90 days, target claim will be blocked. You must restore connectivity to claim targets and resume regular operations.

Configuring Account Settings

This task provides details on how to configure account settings in Intersight Virtual Appliance.

Step 1 Log into Intersight Virtual Appliance as a user with account administrator role.

Step 2 From the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **GENERAL** > **Account Details**.

You can view the details of the existing account settings.

Step 3 Click **Configure**.

The **Configure Account Settings** window displays.

Step 4 Update the following fields as needed.

- **Account Name**—Name of the account.
- **Default Idle Timeout (Seconds)**—Provide the idle timeout interval for the web session in seconds. The system default value is 18,000 seconds (5 hours).
- **Default Session Timeout (Seconds)**—Provide the session expiry duration in seconds. The system default is 57,600 (16 hours).
- **Maximum Concurrent Sessions per User (Sessions)**—Provide the maximum number of concurrent sessions allowed per user. The system default as well as the maximum number of concurrent sessions is 32.
- **Audit Logs Retention Period (Months)**—Provide the time-period for audit logs retention. The system default is 48 months. The allowed range is between 6 months and 48 months. The Audit logs deletion task is set to run on a daily basis at 6.00 AM UTC, and all the audit logs that meet the retention period set in this field will automatically start getting deleted at this time. Once deleted, audit logs cannot be retrieved.

Step 5 Click **Save**.

Configuring a Banner Message for Displaying Before the Login Screen

This task provides details on how to configure a banner message in Intersight Virtual Appliance. When enabled, the configured banner message will be displayed before the user login screen.

Step 1 Log into Intersight Virtual Appliance as a user with account administrator role.

Step 2 From the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **GENERALBanner Message**.

Step 3 Click **Configure**.

The **Configure Banner Message** window displays.

Step 4 Update the following fields.

- **Show banner message before login**—Enable this option.
- **Banner Title**—Enter a title for the banner message. The length of the title cannot exceed 128 characters.
- **Banner Content**—Enter the contents for the banner message. The content in this field has to be less than 2000 characters.

Step 5 Click **Save**.

The configured banner message content along with the title is displayed in the **Banner Message** preview window.

Configuring DNS

This procedure explains how to configure/**Edit** DNS settings in Cisco Intersight Virtual Appliance.

Step 1 Log into Cisco Intersight Virtual Appliance as a user with account administrator role.

Step 2 From the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **NETWORKING** > **DNS**.

The details of the existing DNS settings displays.

Step 3 Click **Edit DNS**. The **Configure DNS** window displays.

Step 4 Update the following properties.

- **Preferred IPv4 DNS Server**—Provide the IP address of the primary DNS server.
- **Alternate IPv4 DNS Server**—Provide the IP address of the secondary DNS server.

Step 5 Click **Save**.

Configuring NTP

It is mandatory to have at least one Network Time Protocol (NTP) configured in Cisco Intersight Virtual Appliance to enable synchronizing the time on the appliance with the NTP servers. The authentication schema for the NTP servers can be either unauthenticated or authenticated. You can add up to 4 unauthenticated NTP servers and 4 authenticated NTP servers during the initial setup of the appliance and edit them later, if necessary.

Use the information in the following task to configure a NTP server.

Step 1 Log into Cisco Intersight Virtual Appliance as a user with account administrator role.

Step 2 From the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **NETWORKING** > **NTP**.

The details of the existing NTP settings displays.

Step 3 Click **Configure**.

The **Configure NTP** window displays.

Step 4 Click **Add NTP Server**, to add a new NTP server.

a) Click **+**.
b) Enter a server hostname or an IP address for the **Server Name** and click **Save** to save the NTP server as an unauthenticated one.
c) Enable the **Enable NTP Authentication** button to add the NTP server as an authenticated one.

Enter the following information.

- **Server Name**—Server hostname or IP address
- **Symmetric Key Type**—Type of symmetric key to use for this server
- **Symmetric Key ID**—Positive integer that identifies a cryptographic key used to authenticate NTP messages

- **Symmetric Key Value**—Value of the symmetric key

d) Click **Save**.

To edit existing NTP server configurations, click **+** on any of the configured NTP servers, make your edits as needed, and save the edited configurations.

Configuring External Syslog

Intersight Virtual Appliance provides you the ability to configure up to five external syslog servers. When you enable external syslog in Intersight Virtual Appliance, you can export the following types of logs and alarms based on the details provided when configuring the external syslog.

- **Web Server Logs**—Web server access logs for all transactions involving user session activities.
- **Audit Logs**—Audit logs for events such as login, logout, created, modified, and deleted, that are displayed in the Audit Logs screen in Intersight Virtual Appliance.
- **Alarms** —All Intersight alarms including appliance alarms that provide alerts about a failure (fault) in the managed target or when a threshold has been crossed. For information about alarms in Intersight, see Alarms. For more information about alarms in Intersight Virtual Appliance, see the *Alarms in Intersight Virtual Appliance* table in Intersight Virtual Appliance Monitoring.

Attention

- In Intersight Virtual Appliance, you can use the TLS, UDP, and TCP protocols to provide secure communication to the external syslog server. However, it is strongly recommended that you use **only** TLS in your production environment.
- UCS C-Series server-related faults such as power supply and fan failures are not forwarded by Intersight Virtual Appliance to an external syslog server. Please configure the external syslog server on the UCS C-Series CIMC side to handle forwarding of the UCS C-Series events and faults.

To configure external syslog in Intersight Virtual Appliance, do the following:

Before you begin

Ensure that you have added the certificate for the external syslog server where you want to send the web server log, audit logs, and alarms in Intersight Virtual Appliance. This certificate is used to verify TLS communication with the external syslog server. For more information about how to add certificates, see Certificates, on page 20.

- If you plan on using FQDN in the **Hostname/IP Address** field while configuring the external syslog server, set up the certificate for the external syslog server with a proper FQDN entry in the Common Name or the DNS entry in the Subject Alternative Names. Enter this information in the **Hostname/IP Address** field while configuring the external syslog.
- If you plan on using either IPv4 or IPv6 address in the **Hostname/IP Address** field while configuring the external syslog server, set up the certificate for the external syslog server with the IP address in the

Common Name. Enter this information in the **Hostname/IP Address** field while configuring the external syslog.

Step 1 Log into Intersight Virtual Appliance as a user with account administrator role.

Step 2 From the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **NETWORKING** > **External Syslog**.

You can view the details of the existing external syslog settings.

Step 3 Click **Add External Syslog Server**.

The **Add External Syslog Server** window displays.

Step 4 Update the following fields as needed.

- **Enable External Syslog**—When enabled, the Web Server Access Logs, Audit Logs, and Alarms are sent to the configured external syslog server as per the configuration details provided in the **Hostname/IP Address**, **Port**, **Protocol**, and **Minimum Severity of Alarms to Report** fields. Note that the **Minimum Severity of Alarms to Report** field is applicable only for **Alarms**.
- **Web Server Access Logs**—When enabled, you will be able to export the web server access logs for all transactions involving user session activities.

  Note It is highly recommended that you do not enable this option as it will quickly overpopulate your log files. This option is mainly made available for customers that require the ability to export web server access logs.

- **Audit Logs**—When enabled, the audit logs for events such as login, logout, created, modified, and deleted, that are displayed on the Audit Logs screen are sent to the configured external syslog server.
- **Alarms**—When enabled, the Intersight alarms including appliance alarms that provide alerts about a failure (fault) in the managed target or when a threshold has been crossed are sent to the configured external syslog server.
- **Hostname/IP Address**—Enter either FQDN, an IPv4 address, or an IPv6 address. This information must match the details that you provided in the certificate for the external syslog server.
- **Port**—Port to use for the external syslog server
- **Protocol**—Select a protocol from the drop-down list. It is strongly recommended that you use **only** TLS in your production environment.
- **Minimum Severity of Alarms to Report (Applicable for Alarms Only)** —Select either Warning, Info, or Critical as the minimum severity level for alarms to get reported. When the alarms of selected severity and above are cleared at the endpoints, the notification for the same also gets exported to the external syslog server.

Step 5 Click **Add**.

Configuring SMTP Settings for Email Notifications

Networking systems and software frequently create alarms that indicate a concerning event or a trend has been detected. Email notifications automatically poll for recent alarms, determine their severity, and direct concerning ones to a user's email address based on a rule you create.

To configure email notifications in Intersight Virtual Appliance, perform the following two tasks:

- Configure Simple Mail Transfer Protocol (SMTP) settings
- Create notification rules

Configuring SMTP settings

To configure SMTP settings, perform the following steps:

1. Log into Intersight Virtual Appliance as a user with account administrator role.
2. From the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **NETWORKING** > **SMTP**.

   You can view the details of the existing SMTP settings. If this session is your first instance of configuring SMTP for email notifications, the appliance displays default or no values in the fields.
3. Click **Configure**.
4. Enable the SMTP toggle button to configure email notifications.
5. In the SMTP Server Address field, type the IP address or domain name of the server in your domain that sends email notifications.
6. In the SMTP Port list, type or select the port number of the server that performs the email notification forwarding.

   Port 25 is the standard SMTP Relay port. Ports 465 or 587 are secure mail routing ports. The value range for port selection is 1 through 65535, and the default is 25.
7. In the SMTP Sender Name field, type the email address of the user that sends email notifications.
8. (Optional) Enable the TLS toggle button.

   TLS is a form of authorization that provides security by verifying the certificate authority (CA) of the SMTP email server. To apply TLS security, select the CA you want to apply from the list in the TLS region.
9. (Optional) Enable the Authentication toggle button, if your SMTP server requires authentication, and provide the username and password used to authenticate to the SMTP server.
10. Click **Configure**.

Next, complete the steps for creating notification rules.

Creating Notification Rules

Notifications are based on a rule you set for incoming alarms.

To configure an email notification rule, perform the following steps:

1. In the appliance UI, from the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **GENERAL** > **Notifications**.

   You can view the notification rule list populated with the existing rules.

   Each rule is used as both a condition for notification generation (Alarms column) and a notification destination (Email column). If this session is your first time creating a notification rule for the email address set in the SMTP Sender Name in the Configure SMTP screen, no existing rules display in the list. The list displays the following columns:

   - **Name**—The name of the rule.
   - **Enabled**—The administrative state of the rule. A **Yes** setting indicates the rule is active, and will generate email notifications when the rule conditions are met. A **No** setting indicates the rule is inactive, and will not generate email notifications.
   - **Email**—The email address to which notifications will be sent.
   - **Alarms**—The required severity of an event for it to generate a notification.
   - **Last Updated**—The last time the notification was configured, either during a creation or an editing session. The timestamp is in the following format: <*day*>:<*hour*>:<*minute*>.

2. Click the **Add Rule** button in the upper right portion of the screen.

   The **Add Rule** screen displays.

3. To configure a rule, the **Enable Rule** toggle button MUST be enabled.

4. In the Name field, type a string of up to 32 characters that you want to be the name of the rule.

5. In the Email field, type an email address to which you want generated email notifications sent. Click the (+) icon to enter additional email addresses for other destinations.

Note You can create up to three email destinations for email notifications.

6. In the Severity region, select an urgency level of an alarm you want to be reached for a notification email to be sent.

   The urgency levels for alarms are Critical (the most urgent), Warning (second-least urgent), and Info (no urgency). You can select one or multiple urgency levels. In the case of multiple Severity settings, the least urgent level will be the one, when reached, that triggers an email notification to be sent.

7. Click **Add**.

   The following warning message displays.

```
WARNING! Email notifications may contain sensitive data. Ensure the emails
contain no typos and are approved to receive data.
```

8. Click **Continue**.

   Intersight returns to the Notifications screen displaying the new rule in the list.

Limitations

Note the following restrictions for configuring email notifications.

- You can configure up to three emails per rule.
- You can configure up to five rules per account.
- Events are collected in a sliding time window of 10 seconds. Intersight initially waits a 10-second period where it polls for alarms. If an alarm or multiple alarms are detected in this initial period, Intersight waits an additional 10-second period to detect alarms. If it detects alarms in this period, additional periods occur until no alarms are detected. Once an additional 10-second period elapses with no alarms detected, Intersight bundles the discovered alarms into an alarm group and sends an email containing the alarms to the specified address.
- An email address can be associated with up to 100 alarms and the number of emails sent depends on how large the alarm group is. If an alarm group contains more than 100 alarms, then an additional email is sent. Some events may generate 1,000 alarms. In that case, 10 emails are sent.

Configuring LDAP Settings

Intersight Virtual Appliance supports LDAP/AD based remote authentication. You can configure the appliance to authenticate a user login using LDAP. You can configure multiple LDAP domains and choose a domain for the login.

An LDAP user can log in to Intersight Virtual Appliance with email ID or username, and select the corresponding domain in which the LDAP user is configured. You can add up to 6 LDAP domains per Intersight Account. You can view the list of configured LDAP domains in **Settings icon** > **Settings** > **NETWORKING** > **LDAP/AD** table view. Watch this video to learn how to integrate your virtual appliance with the LDAP/AD services.

To set up LDAP authentication in Intersight Virtual Appliance, do the following:

Step 1 Log into Intersight Virtual Appliance as a user with account administrator role.

Step 2 From the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **NETWORKING** > **LDAP/AD**.

The **Configure LDAP** window displays.

Step 3 On the **Configure LDAP** page, add the corresponding details in the fields that are listed below, and click **Save**.

- **Name**—Enter a name to easily identify the LDAP domain that you are configuring.
- **Base DN**—Enter a Base Distinguished Name (DN) for the server. For example, DC=Intersight, DC=com.
- **Bind DN**—Enter a DN used to authenticate against LDAP server and the password for the user.
- **Group Attribute**—Enter the Group member attribute to which an LDAP entry belongs. Cisco Intersight Virtual Appliance uses this Group attribute to map/assign Intersight roles to the user. The default value is **member** and you can change it from **Edit LDAP** settings.
- **Password**—Enter a DN password for the user.
- **Nested Group Search**—When enabled, an extended search runs through the chain of ancestry all the way to the root and returns all the groups and subgroups that each of the groups and subgroups belong to, recursively.

- **Enable Encryption**—You must enable Encryption to secure the communication over the LDAP server. If encryption is enabled, a trusted root certificate has to be added. For more information, see *Adding Certificates*.
    - In a future release, Intersight Virtual Appliance will be phasing out support for certificates signed with the SHA-1 hash functions. It is strongly recommended that you upgrade your certificates to use signature algorithms with hash functions that are stronger than SHA-1, such as SHA-256, SHA-384, or SHA-512.
    - Certificates created for the LDAP server must include Subject Alternative Names (SANs) since the use of Common Name has been deprecated. Certificates without SANs will fail verification, resulting in connectivity issues.
- In **Server**—Add an LDAP Server IP address or hostname. Cisco Intersight Virtual Appliance supports only one LDAP provider and port.

    Attention

    - LDAPS is supported on Port 636 and Port 3269. All other ports support LDAP on TLS.
    - **Intersight Virtual Appliance uses the email ID or username to log in an LDAP user**. If you want to use email ID to log in to the appliance, configure the mail attribute in the LDAP server. If you want to use the username, use the **sAMAccountName** configured for that user in the LDAP server.
    - **After you add the required details to configure LDAP settings, wait for the DeployApplianceLDAP workflow to complete before you add a User or Group to assign appropriate roles to LDAP users. You can check the status of the workflow in Requests. For more information, see Adding a User or** Adding a Group**.**
    - **If you are using the Intersight API to configure the Appliance LDAP login, ensure that the LDAP policies are tagged appliance.management:true. This is automatically done for the users configuring the LDAP under Settings.**

    After you add the required details to configure LDAP settings, wait for the **DeployApplianceLDAP** workflow to complete before you log in as an LDAP user. You can check the status of the workflow in **Requests**.
- In **Port**—Add the LDAP Server port.

Single Sign-On with Intersight Virtual Appliance

Single Sign-On (SSO) authentication enables you to use a single set of credentials to log in to multiple applications. With SSO authentication, you can log in to Intersight with your corporate credentials. Intersight supports SSO through SAML 2.0, and acts as a service provider (SP), and enables integration with Identity Providers (IdPs) for SSO authentication.

To set up SSO through the appliance, you must log in to Cisco Intersight Virtual Appliance as a user with administrator role, download the SP metadata, and register your Identity Provider (IdP) in the Intersight Virtual Appliance.

IdP Requirements

The IdP you add to Intersight must support SAML 2.0 and a service provider initiated SSO. The most commonly used IdPs have different instructions to complete the setup.

Note If you have a multi-node cluster setup for Intersight Virtual Appliance or if you are expanding from a single-node configuration to a multi-node cluster configuration, for some IdPs such as Okta you must manually configure the three SSOs, while for other IdPs such as ADFS you can directly import the xml file. For IdPs where the SSO configuration is a manual one, you must configure the three different SSO URLs specified in the metadata file downloaded from the appliance SSO screen. Once the three URLs are configured, you can proceed with the SSO login from any one of the three nodes.

Additional requirements for a multi-node cluster setup in appliance:

- SLO (Single Logout) is supported for a multi-node setup in appliance, but there is only one SLO endpoint. If the node specified in the SLO URL is down, then SLO will not work. In this case, you will only be logged out of Intersight.
- The IDP initiated SSO works only for the entity node.

For more information about setting up SSO with Intersight and examples of adding an Identity Provider, see, Single Sign On with Intersight. Click here to watch a video that shows how to enable Intersight Single Sign-On and set up a custom SAML 2.0 application in an external Identity Provider (IdP) with Intersight.

Certificates

To provide secure authentication to external targets (such as LDAP servers), you can add a third-party certificate from a trusted source that affirms the identity of your targets or add a self-signed certificate for secure **HTTPS** access of the appliance through the browser.

- In a future release, Intersight Virtual Appliance will be phasing out support for certificates signed with the SHA-1 hash functions. It is strongly recommended that you upgrade your certificates to use signature algorithms with hash functions that are stronger than SHA-1, such as SHA-256, SHA-384, or SHA-512.
- Certificates created for the LDAP server must include Subject Alternative Names (SANs) since the use of Common Name has been deprecated. Certificates without SANs will fail verification, resulting in connectivity issues.

Trusted Certificates

To provide secure authentication while connecting to external targets, you can add a third-party certificate from a trusted source or a self-signed certificate that affirms the identity of your targets. The third-party certificate is signed by the issuing trusted point, which can be a root certificate authority (CA), an intermediate CA, or a trust anchor that is part of a trust chain that leads to a root CA.

The **Trusted Certificates** table view that is accessible from **Systems** > **Settings** > **AUTHENTICATION** > **Certificates** >**Trusted** displays the list of certificates that you added in Intersight.

Add Certificate

The following task provides details on how to add trusted certificates in Intersight Virtual Appliance.

1. Log into Intersight Virtual Appliance as a user with account administrator role.
2. From the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **AUTHENTICATION** > **Certificates** > **Trusted**.

The following details about the Trusted Certificates are displayed in the table view:

- **Name**—Common name of the CA certificate
- **Issued By**—Certificate issuing authority
- **Usage**—Displays the number of targets using the certificate
- **Expires**—The expiry date of the certificate

3. Click **Add Certificate** to add a trusted certificate.
4. Click **Browse** to select the certificate that is stored in your system and click **Save**. After the certificate is successfully imported, it is displayed in the **Trusted Certificates** table view.

Important The trusted certificate that you want to import must be in base64 encoded X.509(PEM) format.

Adding SSL Certificates

To enable secure **HTTPS** access of the appliance through the browser, you can generate a Certificate Signing Request and import a certificate, or you can switch to a self-signed certificate. You can access these tasks by navigating to **System** > **Settings** > **AUTHENTICATION** > **Certificates** > **SSL** in the Intersight Virtual Appliance UI.

Note While migrating from a single-node deployment to a multi-node cluster configuration, if the SSL certificate is already generated on the single-node deployment, once the migration to the multi-node cluster configuration is complete and the cluster is in a **Healthy** state, then delete and regenerate the SSL certificate.

To create a Certificate Signing Request (CSR):

1. In the appliance UI, from the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **AUTHENTICATION** > **Certificates** > **SSL**.

   The following details about the **Current Certificate** are displayed:

   - **Name**—Common name of the CA certificate
   - **Added By**—User that added the certificate to the account
   - **Issued By**—Certificate issuing authority
   - **Expires**—Expiration date of the certificate

   Click **View All** to display the **View Certificate** window. In addition to the details listed above, you can also view these details about the certificate: Fingerprints, Country, Locality, Organization, Organizational Unit, and the details of the Issuer Name, Organization, Common Name, and the Signature Algorithm.

2. From the **Action** drop-down menu, select **Create CSR**.

   The **Create Certificate Signing Request** wizard displays. Enter the following details as required.

   - Organization—The legal name of your organization

- Organizational Unit—The subdivision of your organization that handles the certificate. For example HR, IT etc
- Locality—The city/town where your organization is located
- State—The state where your organization is located
- Country—The two-letter country code where your organization is located. For a complete list of the country codes, see ISO 3166
- Email Address—An email address used to contact your organization
- Modulus—Modulus of the RSA private key used to sign the CSR

3. Click **Create CSR**.

When you click **Create CSR**, a new Certificate Signing Request (CSR) is generated. You can select one of the following options:

- **Download CSR**—Allows you to download and store the CSR locally to use it to obtain a trusted certificate from a **Certificate Authority** (CA).

Note Use only the appliance FQDN in the Subject Alternative Names (SAN) field during the certificate-issue request process. Do not enter hostnames or IP addresses in the SAN field while obtaining a trusted certificate for Intersight Appliance and Intersight Assist from a Certificate Authority.

- **Delete CSR**—Delete the CSR if you do not want to use it to generate a trusted certificate.
- **Apply Certificate**—After the CA issues a certificate, click **Apply** to paste the contents of the certificate in the **Certificate** field in the **Apply Certificate** window. You can also click the **Upload** button and upload a certificate. Click **Apply** to complete the process. The CA-issued certificate can be in *.csr*, *.pem* or *.crt* format.

To switch to a self-signed certificate:

1. In the appliance UI, from the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **AUTHENTICATION** > **Certificates** > **SSL**.
2. From the **Action** drop-down menu, select **Switch to Self-Signed**.

   A popup window appears warning you that switching to self-signed certificates will take a few minutes.
3. Click **Apply** to proceed.

- Cisco recommends that you use CA signed certificates to access the appliance. The latest browsers may disable access to the appliance if self-signed certificates are used. Intersight Virtual Appliance provides the option to switch to self-signed certificate to extend the validity of the certificate, if the self-signed certificate provided by Cisco expires.
- When you choose to switch to a self-signed certificate, the current SSL certificate will be replaced by the newly generated self-signed certificate. You can verify if the new certificate is applied by clicking the lock or the warning icon preceding the URL in the address (location) bar of your browser. After the

refresh, you will be taken directly to the **Settings** > **Certificates** page without having to log into the appliance once again.

Configuring Password Policy for Local Users

This task provides details on how to configure password policy for local users in Intersight Virtual Appliance.

Step 1 Log into Intersight Virtual Appliance as a user with account administrator role.

Step 2 From the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **AUTHENTICATION** > **Local Users**.

You can view the details of the existing password policy.

Step 3 Click **Configure**.

The **Configure Local Users** window displays.

Step 4 Configure the password policy by updating the following password policy options as needed.

Password Policy Options	Allowed Range/Default Value
Minimum Length of Password	8-127 characters Default is 8
Minimum Number of Required Upper Case Characters	1-64 characters Default is 1
Minimum Number of Required Lower Case Characters	1-64 characters Default is 1
Minimum Number of Required Numeric Characters	1-64 characters Default is 1
Minimum Number of Special Characters	0-64 characters Default is 0 **Note** Special characters include punctuation and symbol characters.
Number of Previous Passwords Disallowed	0-10 Default is 0
Minimum Number of Characters Different From Previous Password	0-15 Default is 0 **Note** Differences from the previous password are verified based on the same character location within the specified password.

Password Policy Options	Allowed Range/Default Value
Minimum Days Allowed Between Password Changes	0-7 days Default is 0 **Note** If you specify a value of 0 for this password policy option, then the user is not limited on time between password changes.
Time Duration for Incorrect Login Attempts (Seconds)	300 - 3600 seconds (5 – 60 minutes) Default is 1800 seconds (30 minutes) Time duration is tracked for consecutive incorrect login attempts. Users will be locked out if they exceed the configured number of max incorrect login attempts during this duration. For more information about the lockout capability, see Locking Out Local Users Accounts.
Max Consecutive Incorrect Login Attempts Allowed	3 -10 Default is 5 Users will be locked out after exceeding the max consecutive incorrect login attempts allowed within the configured time duration.
Enable Lockout for Admin User	Default is false. Determines if the user lockout feature must be enabled for the local “admin” user. This option is always enabled for other local users. For more information about the lockout capability, see Locking Out Local Users Accounts.
Lockout Time Period (Seconds)	60 – 3600 seconds (1 – 60 minutes) Default is 900 (15 minutes) Duration, in seconds, during which a local user account will remain locked. The account is automatically unlocked after the configured lockout time period elapses.

Step 5 Click **Save**.

You can verify the password policy changes on the next password change.

Locking Out Local Users Accounts

Consecutive incorrect login attempts within a configured time duration are tracked for local users and the accounts will be locked out if they exceed the configured number of maximum incorrect login attempts during this duration. Once the local user account is locked, the Local User table displays a warning icon next to the user. The account is automatically unlocked after the configured lockout period elapses. The Account Administrator or the User Access Administrator can unlock the account by resetting the password, during the configured lockout period.

Note The lockout capability:

- Applies to only local users and does not apply to remote users.
- Applies to local "admin" user only if the setting is enabled.

Resetting the Password of Local Users

Account Administrators can reset the password of local users. User Access Administrators can also reset the password of local users except for users with the role of Account Administrator.

To reset the password of a local user:

1. Log into Intersight Virtual Appliance as a user with account administrator role.
2. From the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **ACCESS & PERMISSIONS** > **Users**.
3. Select the local user that you want to reset the password.
4. Click the pencil icon and change the password.
5. Click **Save**.

Attention When an Account Administrator resets the password for the local "admin" user, only the GUI password is changed. The SSH password of the local "admin" user remains unchanged. The local "admin" user must log into the appliance using the newly reset password. Once the local "admin" user is logged in, a prompt appears that mandates the local "admin" user to change the password, which then resets both the GUI and the SSH passwords.

Adding a User

Intersight Virtual Appliance allows you to override Group role assignments to users. On the **User** page, you can view a list of the Users added to an account. The list displays the **Name**, **Identity Provider**, **Email**, **Role**, and the **Last Login Time** for a user. You can add Remote Users as well as Local Users. Note that you can add up to 100 Local Users.

- Remote Users—authenticated via IDP (LDAP and SSO)
- Local Users—authenticated via Intersight Virtual Appliance

Attention You must be an Account Administrator or User Access Administrator to create a user or assign user roles.

Use these instructions to add a user in Intersight Virtual Appliance:

Step 1 Log into Cisco Intersight Virtual Appliance as a user with account administrator role.

Step 2 From the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **ACCESS & PERMISSIONS** > **Users**.

Step 3 In the **Add User** window, add the following details:

You have the option of adding a Remote User or a Local User. Note that you can add up to 100 Local Users.

To add a Remote User, enter the following details:

- **Identity Provider**—Select the Identity Provider that you want to add to this account. This can be any one of the Intersight validated Identity Providers. For more information, see **Validated Identity Providers** in the Supported Systems page in *<Your FQDN>/help*.

  If you add an LDAP user, you must add them under the appropriate Identity Provider (IDP). The name of the IDP will be the same as the LDAP Domain Name that you have configured in LDAP Settings.

- **User ID**—Enter a valid email ID or username used to register the account with the Identity Provider. **The username must be the same as the sAMAccountName that is configured on the LDAP server**. If you are using email to log in, ensure that the email ID is the same as configured in the mail attribute in the LDAP server.

- **Role**—You can assign one role for a remote user account. For more information, see Roles and Privileges.

To add a local user, enter the following details:

- **First Name**—First name of the local user
- **Last Name**—Last name of the local user
- **User ID**—Enter an email ID or username which is used by the local user to log into the appliance.
- **Password**—Enter a valid password as per the local user password policy.
- **Role**—You can assign multiple roles for a local user account. For more information, see Roles and Privileges.

Step 4 Click **Save** to add the new user to your account.

Attention The UserID and password that is entered while adding the new local user must be conveyed to the new local user directly as there is no mechanism currently in Intersight Virtual Appliance to automatically notify the login credentials to the new local user. Once the new local user logs in using these credentials, a prompt appears that mandates the new local user to change the password.

Local users can change their passwords any time by navigating to **Profile Menu** in the top right of the screen and then clicking **Change Password**.

Adding a Group

A Group represents a collection of users with a specific role, permission, and privileges. You can create multiple user groups to assign common roles and privileges to a set of users. On the **Group** page, you can view a list of the Groups added to an account. The list displays the **Name**, **Identity Provider**, **Role,** and the **Group Name in Identity Provider**. Use these instructions to add a group:

Step 1 Log into Intersight Virtual Appliance as a user with account administrator role.

Step 2 From the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **ACCESS & PERMISSIONS** > **Groups**.

Step 3 Click the **Add Group** button at the top right. The **Add Group** window displays.

Step 4 In the **Add Group** window, add the following details:

- **Identity Provider**—Select the Identity Provider you want to add to this account. This can be any one of the Intersight validated Identity Providers. For more information, see **Validated Identity Providers** in the Supported Systems page in *<Your FQDN>/help*. You must select the appropriate LDAP domain for groups that would log in with their LDAP credentials.

- **Name**—Enter a name to identify the group in Intersight.

- **Group Name in Identity Provider**—Enter the user group name you have added in the Identity Provider. Group name must be in the LDAP distinguished name (DN) format. For example:

  ```
  cn=Finance,cn=Users,dc=example,dc=com
  ```

- **Role**—You can assign one of following System Defined roles to a user group as well as assign User Defined Roles.

  - **Account Administrator**—In this role, members of the group can claim targets, cross launch element managers, create profiles and policies, collect tech support bundles, and make configuration changes to the claimed targets or the account.

  - **Read-Only**—In this role, members of the group can view details, and status of the claimed targets within the account. However, you cannot make any configuration changes to the claimed targets or the account.

  - **Device Technician**—In this role, members of the group can claim a target in Intersight and view a list of the claimed targets in the Targets table view.

  - **Device Administrator**—In this role, members of the group can claim a target in Intersight, view a list of the claimed targets, and delete (unclaim) a target.

  - **Server Administrator**—In this role, members of the group can perform all server actions including firmware upgrade, collect tech support bundles, set server tags, create, edit, and deploy a server profile or policy, and view server details.

  - **HyperFlex Cluster Administrator**—In this role, members of the group can create, edit, and deploy a HyperFlex cluster profile, upgrade a cluster, set cluster tags, view cluster dashboard and summary, collect tech support bundles, monitor alarms, and launch and manage **HX Connect**.

  - **User Access Administrator**—In this role, members of the group can view account details, perform all User Access related actions, including adding a User, adding a Group, setting up Identity Providers and Single Sign-On, generate API keys related to the account.

Attention You must be an Account Administrator or User Access Administrator to create a group or assign user roles.

Step 5 Click **Save** to add the new group to the account.

Adding a Role

Creating a User Defined Role

In addition to the system-defined roles in Intersight, you can create a user-defined role. On the **Roles** page, you can view a list of the roles added to an account. This list displays the **Name**, **Type**, **Usage**, **Scope**, and a **Description** of the roles. Use these instructions to create a user-defined role:

Attention **Only users with Account Administrator or User Access Administrator privileges can create a user-defined role.**

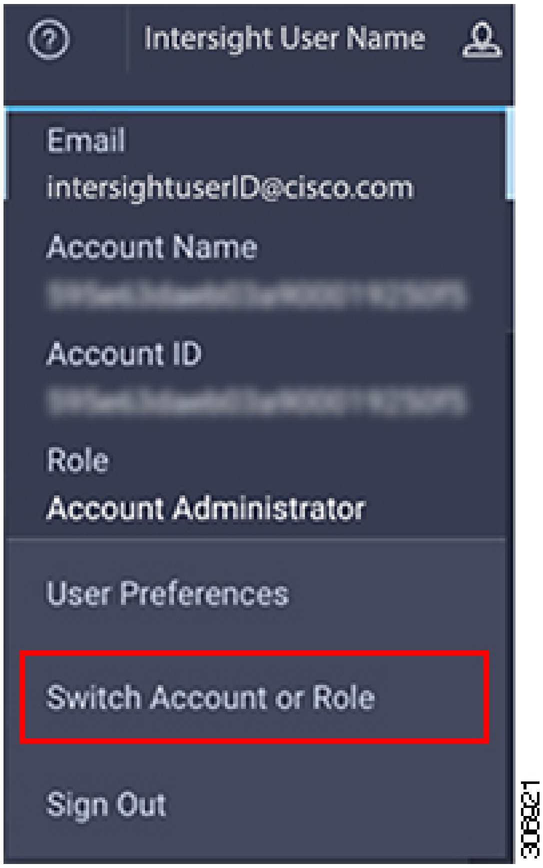
1. Log into Cisco Intersight.
2. From the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **ACCESS & PERMISSIONS** > **Roles**.
3. From **Roles**, click **Create Role**.
4. Enter a **Name** to identify the role in Intersight and a **Description** about the usage of the role.

   You can choose to retain the default account level settings for Session Timeout, Idle Timeout, and Concurrent Sessions, or you can choose to customize these settings.
5. Under **Session & Idle Timeout** settings, you can choose to do one of the following:
   - Enable **Use Account Default Settings**—This option is enabled by default. You can inherit the session timeout values from the Account level settings. The values will be used as the default settings during role creation. To check the account level Session Timeout and Idle Timeout details, navigate to the **Settings** icon > **Settings** > **General** > **Account Details**.
   - Disable **Use Account Default Settings**—You can disable this option to set values for the following fields at the Role level.
     - **Session Timeout (Seconds)** is the session expiry duration in seconds. The minimum value is 300 seconds and the maximum value is 31536000 seconds (1 year). The system default value is 57600 seconds.
     - **Idle Timeout (Seconds)** is the interval for the web session in seconds. When a session is not refreshed for this duration, the session is marked as idle and removed. The minimum value is 300 seconds and the maximum value is 18000 seconds (5 hours). The system default value is 1800 seconds.
     - **Maximum Number of Concurrent Sessions (Sessions)** is the number of concurrent sessions allowed in an account or permission. The minimum number of sessions is 1 and maximum number of sessions is 128. The default value is 128.
6. Click **Next**.

7. Select a **Scope** to delegate the user access to resources in the account. You can choose to give a user access to the entire account or restrict access to a selected organization.
   - **All**—User has access to all account resources. Add Privileges to assign roles to the user. The selected privileges will be applied to the entire account.
   - **Organization**—User has access to the specified organizations only. Select one or more **Organizations** from the drop-down list and **Add Privileges** to assign roles to the user. For more information on Privileges, see the **Roles** section.
8. Click **Create** to add the new User Defined Role to the account.

Switching an Account or Role

You can switch between accounts or roles in Cisco Intersight without logging out of the application. If you are logged into multiple accounts or roles, the **Profile** menu in the Intersight dashboard provides the option to **Switch Account or Role**.



Email
intersightuserID@cisco.com

Account Name
[redacted]

Account ID
[redacted]

Role
Account Administrator

Note

- The Switch Account or Role option is not available if you are authorized to access a single account, and have only one role mapped to that account.
- If you use the account URL to log in to Intersight, the **Switch Account and Role** option enables you to switch only between roles within the same account.
- At the time of switching, accounts are re-evaluated based on the attributes returned by the Identity Provider (IdP) after authentication. The users added to the account are also re-authenticated for their roles by the Identity Provider. Therefore, before you switch between accounts, if Intersight detects that there is a change in your account or role, it appears in the **Select Account and Role** list.
- For Intersight Virtual Appliance, you must configure LDAP or log in with SSO to view the Switch Account or Role option.

Use the following steps to switch accounts:

1. Navigate to **Profile** > **Switch Account or Role**. The **Select Account and Role** window displays.
2. In the **Select Account and Role** window, select the account (or role) that you want to switch to. You will be logged in to the new account.
3. To change the role, navigate to **Settings** > **ACCESS & PERMISSIONS** > **Users**, and select the user that you want to change the role for, and click the **Edit** icon.
4. In the **Edit User** window, select the role and click **Save**.

Adding an Organization

Creating an Organization

On the **Organizations** page, you can view a list of organizations added to an account. This list displays the **Name**, **Memberships**, **Usage**, and **Description**. Use these instructions to add an organization:

Attention

Only users with Account Administrator privileges can create organizations. Users with User Access Administrator privileges cannot create organizations but can view them in the User Account and assign the organizations to roles.

1. Log into Cisco Intersight.
2. From the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **ACCESS & PERMISSIONS** > **Organizations**.
3. From **Organizations**, click **Create Organization**.
4. Enter a **Name** to identify the organization in Intersight and a **Description** about the usage of the organization.
5. Under **Memberships**, you can choose to assign access to all resources or restrict access to a selective group of resources. Select one of the following options for memberships:

- **Custom**—From the list of targets available in the account, select the required targets, to allocate a set of physical resources to the organization.

Important Profiles and Policies that are created within a custom organization are applicable only to the targets in the same organization.

- **All**—All the targets available in the account will be included in this organization.

6. Click **Create** to add the new organization to the account.

To learn more about Organizations and how to leverage them to support multi-tenancy in an account, see the Role Based Access Control under Resources in the Help Center or <*https://your fqdn.com*>/help.

Generating and Managing API Keys

An API key is used to register your application with Cisco Intersight.

Step 1 Log into Cisco Intersight Virtual Appliance as a user with account administrator role.

Step 2 From the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **API > API Keys**.

Step 3 In the **Generate New API Key** screen, enter the purpose for the API Key, and click **Generate**. The API Key ID and RSA Private Key are displayed.

Step 4 Save the private key information in a *.pem* file.

Note Make sure to save it in a location accessible from your scripts.

OAuth2 Tokens

You can view a list of OAuth2 tokens used by an application to access Intersight and the corresponding target details in the OAuth2 section under API.

Step 1 Log into Cisco Intersight Virtual Appliance as a user with account administrator role.

Step 2 From the **Service Selector** drop-down list, choose **System**, and navigate to **Settings** > **API** > **OAuth2 Tokens**.

A table view of the OAuth2 tokens with the Application Name that uses the tokens, the Device Model, Login and Expiration time, the Client IP address, the User Role, and the Email ID is displayed.

Device Connector Requirements

You can claim a target in Cisco Intersight Virtual Appliance through the embedded device connector. Before you claim a target, ensure that the device connector requirements are met. The following table lists the software compatibility and the supported device connector versions for Intersight Virtual Appliance:

Table 3: Device Connector Requirements

Component	Minimum software version for Connected Virtual Appliance	Minimum software version for Private Virtual Appliance	Supported Device Connector version	Minimum supported versions that include supported Device Connectors
Cisco UCS Manager	3.2(1)	4.0(2a)	1.0.9-2290	4.0(2a)
Cisco IMC Software	For M5 Servers: 3.1(3a) For M4 Servers: 3.0(4)	4.0(2d)	1.0.9-335	4.0(2d)
HyperFlex Connect and Data Platform	2.6	3.5(2a)	1.0.9-1335	3.5(2a)
CIsco UCS Director	6.7.2.0	6.7.2.0	1.0.9-911	6.7.2.0

Device Connector Upgrade

When the Device Connector on an endpoint is not at the compatible version, you can upgrade it in the following ways:

- Perform a complete firmware upgrade to the version that has the supported Device Connector. This process could involve updating your configuration settings.
- Manually upgrade the Device Connector. This option is supported only on Cisco UCS Manager. For more information, See Manual Upgrade of Device Connector (applicable only to Cisco UCS Fabric Interconnect).
- Cisco Intersight Virtual Appliance supports upgrading the device connector from the cloud. When the target claim process detects that the device connector at the endpoint is not at the compatible version, it triggers an upgrade of the device connector from Intersight cloud. To facilitate this upgrade, port 80 must be open between the appliance and the endpoint target. The HTTPS proxy running on port 80 requires that your firewall settings allow communication through port 80.

  Device Connector upgrade from Intersight cloud is optional. During the upgrade from the cloud, some target data (server inventory) from the appliance leaves your premise. When you choose this option the following data leaves your premises:

  - The endpoint target type - Cisco UCS Fabric Interconnect, Integrated Management Controller, Cisco HyperFlex System, Cisco UCS Director
  - The firmware version(s) of the endpoint
  - The serial number(s) of the endpoint target

- The IP address of the endpoint target
- The hostname of the endpoint target
- The endpoint device connector version and the public key

Attention Target claim could fail if the device connector is at an older version that does not support the appliance, and you have disabled the data collection option during the initial setup. This failure is caused due to details about the endpoint being required to leave the premises for the one time upgrade to work. To avoid a target claim failure, select the Enable Data Collection option temporarily or upgrade the device connector in the other methods mentioned above.

Manual Upgrade of Device Connector (applicable only to Cisco UCS Fabric Interconnect)

If you do not want to share the target data as part of the automatic device connector upgrade, you can choose to manually upgrade the device connector on a Cisco UCS Fabric Interconnect. Use these instructions to upgrade the device connector:

```
Log in to your UCS Fabric Interconnect as an admin user and run the following command:
UCS-A# connect local-mgmt
UCS-A(local-mgmt)# copy scp://username@10.100.100.100/filepath/filename.bin workspace:/
UCS-A(local-mgmt)# update-device-connector workspace:/filename.bin
Update Started
Updating Device Connector on local Fabric interconnect
Successfully updated device connector on local Fabric interconnect
UCS-A(local-mgmt)#
```

Data Collected from Intersight Connected Virtual Appliance

Cisco Intersight Connected Virtual Appliance works in a connected mode and requires connectivity to hosted Intersight services. You must register the appliance with Intersight to manage your UCS or HyperFlex infrastructure.

If you enable the option to allow collecting additional information, Intersight may collect other details about the managed systems, beyond what is listed in the table **Minimum Data Collected**. When any of the options under **Data Collection** in the **Security & Privacy** screen of the appliance UI is enabled, Cisco reserves the right to collect more data for diagnosis and proactive troubleshooting purposes.

The tables below list the details of the minimum data collected by Intersight:

Table 4: Minimum Data Collected

Component	Details of Data Collected
From Intersight Virtual Appliance	• The appliance ID (Serial Number) • The IP address of the appliance • The hostname of the appliance • The device connector version and public key on the appliance
Appliance Software Auto-Upgrade	Version of software components or the services running on the appliance
Appliance Health	• CPU usage • Memory usage • Disk usage • Service statistics
Licensing	Server count
Information about the endpoint target	• Serial number and PID (to support Connected TAC) • UCS Domain ID • Platform Type

Table 5: Data Collected During One time Device Connector Upgrade

Component	Details of Data Collected
From the endpoint target, only if the one time device connector upgrade is used	• The endpoint target type - Cisco UCS Fabric Interconnect, Integrated Management Controller, Cisco HyperFlex System • One or more firmware versions of the endpoint • The serial number of the endpoint target • The IP address of the endpoint target • The hostname of the endpoint target • The endpoint device connector version and the public key

For information about Proactive Support, see Proactive Support enabled through Intersight.

For detailed information about the Proactive Support workflow, supported faults, configuring the advanced options, setting tags, and caveats, see Proactive RMA for Intersight Connected Devices.

Tech Support Diagnostic File Collection

When you open a case with Cisco TAC, Intersight collects Tech Support diagnostic files to assist with an open support case. The data collected could include (but is not limited to) hardware telemetry, system configuration, and any other details which aid in active troubleshooting of the TAC case. Tech Support collection is allowed to occur regardless of data collection options you specify. However, this information is not collected arbitrarily, but only when you open a case against a system, requiring assistance with the system support.