

Day 2 Operations of Cisco VIM Unified Management

The following topic guides you the details about the Day 2 Operations of Cisco VIM Unified Management.

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Shutting Down Cisco VIM Unified Management

To stop the Cisco VIM Unified Management Container services, shut down Cisco UCS VIM Unified Management by running the **systemctl stop service** command.

- **Step 1** Log in to a server in which the Unified Management container is running.
- **Step 2** Stop the Unified Management service by running the following command from the Shell window:

systemctl stop docker-insight

a) Check the status of Unified Management Container by running the following command: **docker ps -a | grep** insight.

STATUS

Up 6 seconds

b) Check the status of the service by running the following command:

systemctl staus docker-insight

The following information is displayed

```
Docker-insight.service - Insight Docker Service
Loaded: loaded (/usr/lib/systemd/system/docker-insight.service; enabled; vendor preset: disabled)
Active: inactive (dead) since <Date and Time since it was last active>
```

Restarting Cisco VIM Unified Management

- **Step 1** Log In to the server in which the Unified Management container was stopped.
- **Step 2** Restart the Unified Management service by running the following command from the shell window:

```
systemctl restart docker-insight
```

a) Check the status of Unified Management container by running the following command: docker ps -a | grep insight.

```
STATUS
Up 6 seconds
```

b) Check the status of the service by running the following command:

```
systemctl status docker-insight
```

The following output is displayed:

```
Docker-insight.service - Insight Docker Service
Loaded: loaded (/usr/lib/systemd/system/docker-insight.service; enabled; vendor preset: disabled)
Active: active (running) since <Date and Time when it got active.>
```

Restoring VIM Unified Management

Cisco VIM Unified Management can be restored to its previous running state which existed at the time of backup.



Note

It is not recommended to run the Unified Management on the node on which restore operation is performed.

Step 1 Re-image the Unified Management management node with the ISO version with which you want to restore the node, and with the same IP address that is used before the failure of the node.

Note Skip Step 1 if re-image is done with the ISO during management node restore. Unified Management restore can also be performed without re-image with ISO. Uninstall the Unified Management through bootstrap_insight.py and then restoring it by following below mentioned steps but this needs to be only done when you face issues with Unified Management and not in case of management node failure.

Step 2 Navigate to /var/cisco/insight_backup/ directory at the remote server where the backup directory was copied during the backup operation.

- Step 3 Copy the backup file to the /var/cisco/insight_backup/ directory of the re-imaged management node. For example, to copy the backup directory from the remote host 20.0.0.5 to the management node /var/cisco/insight_backup/directory, execute the following command sequence: rsync -e ssh -go -rtvpx --numeric-ids root@20.0.0.5:/var/cisco/insight_backup/backup_2017-01-09_14-04-38 /var/cisco/insight_backup.
- **Step 4** In /var/cisco/insight backup/backup <date-time> directory, execute the following command:

```
# ./insight restore -h
insight_restore : Cisco VIM Insight Restore Script
Usage: ./insight restore
       : Enable verbose mode
-h
        : To display this help message
  # ./insight restore
  This will initiate an Insight install with the backed up data.
VIM Insight restore logs are at: /var/log/insight/<bootstrap insight <date> <time>.log
Management Node Validations!
| Rule | Status | Error |
+----+
| Check Kernel Version | PASS | None |
               | PASS | None |
| Check Docker Version
| Check Boot Partition Settings | PASS | None |
| Check RHEL Pkgs Install State | PASS | None |
+----+
Insight standalone Input Validations!
+----+---+----+
| Rule | Status| Error |
+----+
| Duplicate key check In Insight Setup Data | PASS | None |
| Check registry connectivity
                             PASS | None |
                          | PASS | None |
| Check Email server for Insight
Setting up Insight, Kindly wait!!!
Cisco VIM Insight Installed successfully!
+----+
| Description | Status | Details |
+-----
| VIM Insight UI URL | PASS | https://<br/>br api:9000> |
| VIM UI Admin Email ID | PASS | Check for info @: <abs path of insight setup data.yaml> |
```

bootstrap_insight.py from the mentioned workspace for performing any actions from here on.

Step 5 Run the following command, to verify Unified Management status after the restore operation.

Reconfiguring VIM Unified Management

UM reconfigure action provides you with three major functionalities:

- 1. Reconfigure Unified Management TLS Certificate.
- 2. Switch from Self Signed TLS Certificate to third-party TLS Certificate.
- 3. Reconfigure Unified Management MySQL Database Password.



Note

Unified Managment reconfiguration is not allowed after an update as the update is an intermediate stage between rollback and commit.

Reconfiguring Unified Management TLS Certificate

As the Unified Management web-service is protected by TLS, hence reconfigure action provides flexibility to change the existing TLS Certificate. As there were two approaches to configure it, there are also two approaches to change it.

Reconfiguring Third-party TLS Certificate

If you had provided your own TLS Certificate before Insight Installation through PEM_PATH key in insight setup data.yaml, then perform the following steps to reconfigure it.

- **Step 1** Enter the command:# cd <path insight setup data.yaml>
- Step 2 Open the insight_setup_data.yaml file using the command # vi insight_setup_data.yaml
- Step 3 Edit the insight_setup_data.yaml to change the value of PEM_PATH and/or SSL_CERT_CHAIN_FILE key to point to the path of your new valid TLS/Cert Chain File Certificate. Then, save the file.

For example:

```
PEM_PATH: "/root/new_tls.pem"
SSL CERT CHAIN FILE: "/root/new ssl.crt"
```

Step 4 Enter the following commands:

```
# cd <insight ws>
        # ./bootstrap insight.py -a reconfigure -f <path to insight setup data.yaml>
   VIM Insight reconfigure logs are at: /var/log/insight/<bootstrap insight <date> <time>.log
        Perform the action. Continue (Y/N)y
Management node validation!
+----+
| Rule | Status | Error |
| Check Kernel Version | PASS | None |
| Check Docker Version | PASS | None |
| Check Management Node Tag | PASS | None |
| Check Bond Intf. Settings | PASS | None |
| Root Password Check | PASS | None |
| Check Boot Partition Settings | PASS | None |
| Check LV Swap Settings | PASS | None |
| Check Docker Pool Settings | PASS | None |
| Check Home Dir Partition | PASS | None |
| Check Root Dir Partition | PASS | None |
| Check /var Partition | PASS | None |
| Check LVM partition | PASS | None |
| Check RHEL Pkgs Install State | PASS | None |
Insight standalone input validation!
+----+
| Rule
                                  | Status | Error |
+----+
```

```
| Duplicate key check In Insight setup data | PASS | None
| Check registry connectivity
| Check Email server for Insight
                            | PASS | None |
                           | PASS | None |
WARNING!! reconfigure will have few secs of Outage for Insight!
Cisco VIM Insight Already Exists!
+-----+
| Description | Status | Details
+-----
| VIM Insight UI URL | PASS | https://<br_api:9000>
| VIM UI Admin Email ID | PASS | Check for info 0: <abs path of insight_setup_data.yaml> |
| VIM UI Admin Password | PASS | Check for info @ /opt/cisco/insight/secrets.yaml
| VIM Insight Workspace | PASS | /root/<insight ws>
     +-----
Cisco VIM Insight backup Info!
+-----
| Description | Status | Details
+------
| Insight backup Status | PASS | Backup done @
                   | /var/cisco/insight_backup/backup-<release_tag>-<date_time>
              1
+-----
Done with VIM Insight reconfigure!
VIM Insight reconfigure logs are at: "/var/log/insight/bootstrap insight/"
As the summary table describes Insight gets autobacked up after reconfigure at /var/cisco/insight backup
```

Reconfiguring Self Signed TLS Certificate

to preserve the latest state of Insight.

If you had created a new TLS Certificate through tls_insight_cert_gen.py before Unified Management Installation, follow the steps to reconfigure it.

Step 1 Run the following commands to reconfigure the self signed TLS certificate:

```
# cd <insight ws>
# ./tls insight cert gen.py -h
usage: tls insight cert gen.py [-h] [--overwrite] --file INSIGHTSETUPDATA
TLS cert generator Insight
optional arguments:
 -h, --help show this help message and exit
-overwrite, -o Overwrite Insight certificates if already present in openstack config directory
--overwrite, -o
--file INSIGHTSETUPDATA, -f INSIGHTSETUPDATA
Location of insight setup data.yaml
    # ./tls insight cert gen.py -f <path insight setup data.yaml> --overwrite
 This will overwrite the existing TLS certificate.
Management node validation
+----+
| Rule
                              |Status | Error |
+----+
```

Insight standalone input validation

+	+	++
Rule	Status	Error
		г
Insight standalone schema validation	PASS	None
Valid key check in Insight setup data	PASS	None
Duplicate key check In Insight setup data	PASS	None
CVIM/Insight workspace conflict check	PASS	None
Check registry connectivity	PASS	None
Check Email server for Insight	PASS	None
+	+	++

Generating a 4096 bit RSA private key

writing new private key to '../openstack-configs/insight.key'

Step 2 Use the following command, to run the bootstrap:

./bootstrap_insight.py -a reconfigure -f <path_to insight_setup_data.yaml>
VIM Insight reconfigure logs are at: /var/log/insight/<bootstrap insight <date> <time>.log

Perform the action. Continue (Y/N)y

Management node validations

+	++
Rule	Status Error
+	++
Check Kernel Version	PASS None
Check Ansible Version	PASS None
Check Docker Version	PASS None
Check Management Node Tag	PASS None
Check Bond Intf. Settings	PASS None
Root Password Check	PASS None
Check Boot Partition Settings	PASS None
Check LV Swap Settings	PASS None
Check Docker Pool Settings	PASS None
Check Home Dir Partition	PASS None
Check Root Dir Partition	PASS None
Check /var Partition	PASS None
Check LVM partition	PASS None
Check RHEL Pkgs Install state	PASS None
+	++

Insight standalone input validation

+	+
Rule	Status Error
+	+

```
| Duplicate key check In Insight setup data | PASS | None
| PASS | None
| Check registry connectivity
| Check Email server for Insight
                              | PASS | None
+----+---+----+
WARNING!! Reconfiguration will have few secs of outage for Insight
Cisco VIM Insight Already Exists!
+----+
| Description | Status | Details
| VIM Insight UI URL | PASS | https://<br/>br api:9000>
| VIM UI Admin Email ID | PASS | Check for info 0: <abs path of insight_setup_data.yaml> |
                      | VIM UI Admin Password | PASS | Check for info @ /opt/cisco/insight/secrets.yaml | VIM Insight Workspace | PASS | /root/<insight_ws>
Cisco VIM Insight backup Info!
+-------
          | Status| Details
| Description
+-----
| Insight backup Status | PASS | Backup done @
                    | /var/cisco/insight_backup/insight_backup_<release_tag>_<date_time>|
Done with VIM Insight reconfigure!
VIM Insight reconfigure logs are at: "/var/log/insight/bootstrap insight/"
Insight gets autobacked up after reconfiguration at /var/cisco/insight backup, to preserve the latest
state of Insight.
```

Switch from Self Signed TLS Certificate to Third-party TLS Certificate

If you had created a new TLS certificate through tls_insight_cert_gen.py before Insight Installation and want to switch to your own TLS Certificate, then perform the following steps.



Note

You cannot switch from thrid-party TLS certificate to Self-signed TLS certificate.

Step 1 To switch from self-signed TLS certificate to third-party TLS certificate, open the insight_setup_data.yaml using the following command:

```
# cd <path insight_setup_data.yaml>
# vi insight setup data.yaml
```

Step 2 Edit the insight_setup_data.yaml to add PEM_PATH and SSL_CERT_CHAIN_FILE key to point to path of your new valid TLS and SSL_CERT_CHAIN certificate. Save the file after editing.

For example:

```
PEM_PATH: "/root/new_tls.pem"
SSL_CERT_CHAIN_FILE: "/root/new_ssl.crt"
```

Step 3 Following is the command to run the bootstrap:

```
# cd <insight_ws>
# ./bootstrap_insight.py -a reconfigure -f <path_to insight_setup_data.yaml>

VIM Insight reconfigure logs are at: /var/log/insight/<bootstrap_insight_<date>_<time>.log
Perform the action. Continue (Y/N)y
```

Management node validation

_		т.		т.	
	Rule		Status		Error
+	Check Kernel Version		PASS		None
i	Check Ansible Version	i	PASS	i	None
İ	Check Docker Version	İ	PASS	İ	None
	Check Management Node Tag		PASS		None
	Check Bond Intf. Settings		PASS		None
	Root Password Check		PASS		None
	Check Boot Partition Settings		PASS		None
	Check LV Swap Settings		PASS		None
	Check Docker Pool Settings		PASS		None
	Check Home Dir Partition		PASS		None
	Check Root Dir Partition		PASS		None
	Check /var Partition		PASS		None
	Check LVM partition		PASS		None
	Check RHEL Pkgs Install State		PASS		None

Insight standalone input validation

+		+	++	÷
	Rule	 Status	Error	
+	Insight standalone schema validation Valid key check in Insight setup data Duplicate key check In Insight setup data CVIM/Insight workspace conflict check Check registry connectivity Check Email server for Insight	PASS PASS PASS PASS PASS PASS	None None None None None None None None	
+		+	++	-

WARNING!! Reconfiguration will have few secs of outage for Insight!

Cisco VIM Insight Already Exists!

Cisco VIM Insight backup Info!

Reconfiguring Unified Management MySQL Database Password

There are two approaches to reconfigure the MySQL DB password:

- 1. System generated Unified Management DB password.
- 2. User supplied Unified Management DB password.

System-generated Unified Management DB Password

Following are the steps to generate MySQL Unified Management DB password:

Step 1 To generate the Unified Management DB Password run the following command:

```
# cd <insight ws>
# ./bootstrap insight.py -a reconfigure -f <path to insight setup data.yaml> --regenerate secrets
VIM Insight reconfigure logs are at: /var/log/insight/<bootstrap insight <date> <time>.log
Perform the action. Continue (Y/N)y
Management node validation
                      | Status | Error |
+----+
| Check Boot Partition Settings | PASS | None |
| Check LV Swap Settings | PASS | None |
| Check Docker Pool Settings | PASS | None |
| Check RHEL Pkgs Install State | PASS | None |
Insight standalone input validation
                              | Status | Error |
| Rule
```

```
| Duplicate key check In Insight setup data | PASS | None |
| PASS
| Check registry connectivity
                                    | None
                              | PASS | None |
| Check Email server for Insight
WARNING!! reconfiguration will have few secs of Outage for Insight!
Cisco VIM Insight Already Exists!
| Description | Status | Details
+-----
| VIM Insight UI URL | PASS | https://<br/>opi:9000>
| VIM UI Admin Email ID | PASS | Check for info 0: <abs path of insight_setup_data.yaml> |
| VIM UI Admin Password | PASS | Check for info @ /opt/cisco/insight/secrets.yaml
| VIM Insight Workspace | PASS | /root/<insight ws>
Cisco VIM Insight backup Info!
| Description | Status | Details
+-----
| Insight backup Status | PASS | Backup done @
                     | /var/cisco/insight backup/backup-<release tag>-<date time>
               +-----
Done with VIM Insight reconfigure!
VIM Insight reconfigure logs are at: "/var/log/insight/bootstrap insight/"
As the summary table describes Insight gets autobacked up after reconfigure at /var/cisco/insight backup
to preserve the latest state of Insight.
```

Step 2 Verify the password change by running the following command:

```
# cat /opt/cisco/insight/secrets.yaml
DB ROOT PASSWORD: <new db password>
```

User-supplied Unified Management DB Password

Step 1 To provide your own MYSQL DB Password follow the below steps:

Note Your new DB password must contain alphanumeric characters and should be at least 8 characters long.

```
| Root Password Check
                | PASS | None | |
| Check Boot Partition Settings | PASS | None |
| PASS | None |
| Check LVM partition
| Check RHEL Pkgs Install State | PASS | None |
Insight standalone input validation
+----+
| Rule
                        | Status | Error |
+----+
| Duplicate key check In Insight setup data | PASS | None |
                            | None
+----+
WARNING!!Reconfiguration will have few secs of Outage for Insight!
Cisco VIM Insight Already Exists!
+-----
| Description
            | Status | Details
+-----+
| VIM Insight UI URL | PASS | https://<br_api:9000>
| VIM UI Admin Email ID | PASS | Check for info 0: <abs path of insight_setup_data.yaml> |
| VIM UI Admin Password | PASS | Check for info @ /opt/cisco/insight/secrets.yaml
| VIM Insight Workspace | PASS | /root/<insight ws>
     +-----
Cisco VIM Insight backup Info!
+-----
| Description
            | Status| Details
+------
| Insight backup Status | PASS | Backup done @
                | /var/cisco/insight_backup/insight_backup_<release_tag>_<date_time>|
            1
Done with VIM Insight reconfigure!
VIM Insight reconfigure logs are at: "/var/log/insight/bootstrap_insight/"
As the summary table describes Insight gets autobacked up after reconfigure at /var/cisco/insight backup
to preserve the latest state of Insight.
```

Step 2 Verify the password change by running the following command:

```
# cat /opt/cisco/insight/secrets.yaml
DB ROOT PASSWORD: <new db password>
```

Reconfiguring Unified Management SMTP Server

Unified Management requires a valid SMTP Server to send mails to users (Pod-Admin, UI-Admin, and regular users). If SMTP Server goes down, you can reconfigure it.

Following values can be reconfigured:

- INSIGHT_SMTP_SERVER
- INSIGHT EMAIL ALIAS PASSWORD (only needed for Authenticated SMTP server)
- INSIGHT EMAIL ALIAS
- INSIGHT_SMTP_PORT (optional, defaults to 25)

Step 1 Run the following command to reconfigure the SMTP server:

```
# cd <path insight_setup_data.yaml>
Open insight_setup_data.yaml file
# vi insight_setup_data.yaml
Edit the insight_setup_data.yaml to change value of INSIGHT_SMTP_SERVER key. Save the file after editing.
```

Step 2 Run the bootstrap command as follows:

```
# cd <insight_ws>
# ./bootstrap_insight.py -a reconfigure -f <path_to insight_setup_data.yaml>
VIM Insight reconfigure logs are at: /var/log/insight/<bootstrap_insight_<date>_<time>.log
Perform the action. Continue (Y/N)y
```

Management node validation

+	+	++
Rule	Status	Error
+	+	++
Check Kernel Version	PASS	None
Check Ansible Version	PASS	None
Check Docker Version	PASS	None
Check Management Node Tag	PASS	None
Check Bond Intf. Settings	PASS	None
Root Password Check	PASS	None
Check Boot Partition Settings	PASS	None
Check LV Swap Settings	PASS	None
Check Docker Pool Settings	PASS	None
Check Home Dir Partition	PASS	None
Check Root Dir Partition	PASS	None
Check /var Partition	PASS	None
Check LVM partition	PASS	None
Check RHEL Pkgs Install State	PASS	None
+	+	-++

Insight standalone input validation

Rule	+ Status +	++ Error
Insight standalone schema validation Valid key check in Insight setup data Duplicate key check In Insight setup data CVIM/Insight workspace conflict check Check registry connectivity Check Email server for Insight	PASS PASS PASS PASS PASS	None None None None None

WARNING!! Reconfiguration will have few secs of Outage for Insight! Cisco VIM Insight Already Exists! +-----| Description | Status | Details -----| VIM Insight UI URL | PASS | https://
br api:9000> | VIM UI Admin Email ID | PASS | Check for info @: <abs path of insight_setup_data.yaml> | $| \ \, \text{VIM UI Admin Password} \ \, | \ \, \text{PASS} \quad | \ \, \text{Check for info @ /opt/cisco/insight/secrets.yaml}$ | VIM Insight Workspace | PASS | /root/<insight ws> +-------Cisco VIM Insight backup Info! | Description | Status| Details _____ | Insight backup Status | PASS | Backup done @ | /var/cisco/insight_backup/insight_backup_<release_tag>_<date_time>| Done with VIM Insight reconfigure! VIM Insight reconfigure logs are at: "/var/log/insight/bootstrap insight/" Insight gets autobacked up after reconfiguration at /var/cisco/insight backup to preserve the latest state of Insight.

Reconfiguring Unified Management LDAP Server

Unified Management supports both LDAP and LDAP over SSL (LDAPS) for an Active Directory (AD) environment. If the LDAP server is down or if you need to change any of its configuration, execute Unified Management reconfigure acion.

Step 1 Reconfigure the LDAP(s) server:

a) Run the following command to open insight setup data.yaml file:

```
# cd <path insight_setup_data.yaml>
```

b) Edit the insight setup data.yaml, using the following command, to change the value of LDAP keys.

```
# vi insight_setup_data.yaml
```

LDAP keys are listed below:

- LDAP_MODE: This key can be reconfigured only to 'True', to allow the user to switch only from No-LDAP to LDAP, and not vice-versa.
- LDAP SERVER: This key is reconfigurable to switch to new LDAP server.
- LDAP_PORT: Reconfiguration of this key is allowed.
- LDAP ADMIN: Reconfiguration of this key is allowed.

- LDAP_ADMIN_PASSWORD: Reconfiguration of this key is allowed.
- LDAP_SECURE: This key can be reconfigured only to 'True', to allow the user to switch from non-secure LDAP to secure LDAP connection, and not vice-versa.
- LDAP_CERT_PATH: This key can be reconfigured, to switch from self-signed certificate to CA-signed certificate, and not vice-versa.
- LDAP USER ID ATTRIBUTE: This key can be reconfigured to point to new LDAP user id attribute.
- LDAP_GROUP_SEARCH_FILTER: This key be reconfigured to set new group search filter.
- LDAP_GROUP_USER_SEARCH_FILTER: This key can be reconfigured to set new group-user search filter.
- UM_ADMIN_GROUP: This key can be reconfigured to map LDAP role/group to Insight UM-Admin(s). This key is used when Insight authorization is via LDAP server.
- POD_ADMIN_GROUP: This key can be reconfigured to map LDAP role/group to Insight Pod-Admin(s). This key is used when Insight authorization is via LDAP server.
- POD_USER_GROUP: This key can be reconfigured to map LDAP role/group to Insight pod users with 'Full-pod-access'. This key is used, when Insight authorization is via LDAP server.
- READ_ONLY_POD_USER_GROUP: This key can be reconfigured to map LDAP role/group to Insight pod users with 'Read-only-access'. This key is used when Insight authorization is via LDAP server.
- c) Save the edited file.

| Insight standalone schema validation

Step 2 Run the bootstrap command

```
# cd <insight_ws>
# ./bootstrap insight.py -a reconfigure -f <path to insight setup data.yaml>
VIM Insight reconfigure logs are at: /var/log/insight/<bootstrap insight <date> <time>.log
Perform the action. Continue (Y/N)y
Management node validation
| Rule
                      | Status | Error | |
| Check Kernel Version | PASS | None |
| Check Boot Partition Settings | PASS | None |
| Check LV Swap Settings | PASS | None |
| Check RHEL Pkgs Install State | PASS | None |
     ______
Insight standalone input validation
l Rule
                              | Status | Error |
```

| PASS | None |

```
| Valid key check in Insight setup data | PASS | None
| Duplicate key check In Insight setup data | PASS | None
| Check registry connectivity
                              | PASS | None |
                              | PASS | None |
| Check LDAP connectivity
| Check Email server for Insight
                               | PASS | None |
+----+---+----+
WARNING!! Reconfiguration will have few secs of Outage for Insight!
Cisco VIM Insight Already Exists!
+-------
| Description | Status | Details
| VIM Insight UI URL | PASS | https://<br_api:9000>
| VIM UI Admin Email ID | PASS | Check for info @: <abs path of insight_setup_data.yaml> |
| VIM UI Admin Password | PASS | Check for info @ /opt/cisco/insight/secrets.yaml
| VIM Insight Workspace | PASS | /root/<insight ws>
Cisco VIM Insight backup Info!
+-----
| Description
               | Status| Details
+-----
| Insight backup Status | PASS | Backup done @
                     | /var/cisco/insight backup/insight backup <release tag> <date time>|
Done with VIM Insight reconfigure!
VIM Insight reconfigure logs are at: "/var/log/insight/bootstrap insight/"
Insight gets autobacked up after reconfiguration at /var/cisco/insight backup to preserve the latest
state of Insight.
```

Reconfiguring Unified Management Optional Features

Unified Management supports reconfiguration of optional features.

Step 1 Reconfigure the UM optional feature:

a) Run the following command to open insight setup data.yaml file.

```
# cd <path insight_setup_data.yaml>
```

b) Edit the insight_setup_data.yaml, using the following command, to change the value of optional feature keys

```
# vi insight_setup_data.yaml
```

Optional features keys are listed below:

- UM_ADMIN_AS_POD_ADMIN: When set to True, all UM-Admins are added as pod-users with **Full-Pod-Access** during pod registration.
- DISPLAY_ALL_POD_USERS: If set to True, a drop-down appears in the user-registration form with a list of all the users with pod-user permissions while adding a new pod-user.

c) Save the edited file

Step 2 Run the bootstrap command:

```
# cd <insight_ws>
# ./bootstrap_insight.py -a reconfigure -f <path_to insight_setup_data.yaml>
```

Management node validation

+	+	+
Rule	Status	Error
+	+	
Check Kernel Version	PASS	None
Check Ansible Version	PASS	None
Check Docker Version	PASS	None
Check Management Node Tag	PASS	None
Check Bond Intf. Settings	PASS	None
Root Password Check	PASS	None
Check Boot Partition Settings	PASS	None
Check LV Swap Settings	PASS	None
Check Docker Pool Settings	PASS	None
Check Home Dir Partition	PASS	None
Check Root Dir Partition	PASS	None
Check /var Partition	PASS	None
Check LVM partition	PASS	None
Check RHEL Pkgs Install State	PASS	None

Insight standalone input validation

Rule	Status	+ Error
Insight standalone schema validation Valid key check in Insight setup data Duplicate key check In Insight setup data CVIM/Insight workspace conflict check Check registry connectivity Check LDAP connectivity Check Email server for Insight	PASS PASS PASS PASS PASS PASS PASS PASS	None None None None None None None

WARNING!! Reconfiguration will have few secs of Outage for Insight

Cisco VIM Insight Already Exists!

+	+		+
Description	Status	Details	
VIM Insight UI URL VIM UI Admin Email ID		https:// <br_api:9000> Check for info @: <abs insight_setup_data.yaml="" of="" path=""></abs></br_api:9000>	[
VIM UI Admin Password VIM Insight Workspace +		Check for info @ /opt/cisco/insight/secrets.yaml /root/ <insight_ws></insight_ws>	

Cisco VIM Insight backup Info!

Done with VIM Insight reconfigure!

VIM Insight reconfigure logs are at: "/var/log/insight/bootstrap_insight/"

Insight gets autobacked up after reconfiguration at /var/cisco/insight_backup to preserve the latest state of Insight.

Step 3

c).

Adding and Reconfiguring VIM Administrators

Cisco VIM UM supports management of the VIM Administrators. VIM administrator can log into the unified management node through SSH or the console using the configured password. By configuring to one VIM admin account, administrators do not have to share credentials. Administrators have individual accountability.

To enable one or more VIM administrators, perform the following steps:

Step 1 Take a backup of the setupdata file and update the file manually with the configurations listed as below:

```
vim_admins:
    vim_admin_username: <username>
    vim_admin_password_hash: <sha512-password-hash>
    vim_admin_username: <username>
    vim_admin_password_hash: <sha512-password-hash>
    vim_admin_username: <username>
    vim_admin_username: <username>
    vim_admin_password_hash: <sha512-password-hash>

The value of password_hash must be in the standard sha512 format. # To generate the hash admin_password_hash should be the output from on the management node
# python -c "import crypt; print crypt.crypt('<plaintext password>')"
```

Step 2 Run the following reconfiguration commands:

```
# cd <insight_ws>
# ./bootstrap insight.py -a reconfigure -f <path to insight setup data.yaml>
```

Note Cisco VIM administrators can manage their own passwords using the Linux passwd command. You can add or remove Cisco VIM administrator through the reconfigure option, while the passwords for their existing accounts remain unchanged.

Enabling Root Login Post UM Node Installation

To complement the management of VIM administrators, Cisco VIM supports an option to enable/disable root access at login. By default, this option is set to True. You can optionally disable this facility through reconfiguration.

Following are the steps to enable root login:

Step 1 Take a backup of the setupdata file and update the file manually with the configurations listed below:

permit_root_login: <True or False> # if set to false, one has to use su to drop down to root and
execute administrator functionalities.

Step 2 Run the following reconfiguration commands:

```
# cd <insight_ws>
# ./bootstrap_insight.py -a reconfigure -f <path_to insight_setup_data.yaml>
```

Enabling Banner During SSH Login

Cisco VIM supports enabling of banner during ssh login to the management node. To enable banner during login, perform the following steps:

Step 1 Take a backup of the setupdata file and update the file manually with the configuration listed below:

```
ssh_banner:
   <your Banner Text>
```

Step 2 Run the following commands for reconfiguration:

```
# cd <insight_ws>
# ./bootstrap_insight.py -a reconfigure -f <path_to insight_setup_data.yaml>
```

Update VIM Unified Management

VIM Unified Management update allows you to switch to a new Unified Management release.

The update action makes the old docker containers of Unified Management and mariadb in exit state, and brings up new ones with the new tag. The old containers and images are restored until you perform the **Commit** action.

Update is an intermediate action and allows you to do either a **Commit** action to settle for the current version or do a **Rollback** to revert back to the old version.

The old workspace is preserved, if you want to do a rollback to the previous version.

After an update:

- Your Unified Management workspace is set as the new workspace that you just extracted out of the tarball.
- Backup and reconfigure action are not allowed either from old or new Unified Management workspace.

Update Scenarios

Following are the update scenarios:

- Insight and mariadb containers gets updated to a new tag.
- Either insight or mariadb container gets updated to a new tag.

Update VIM Unified Management with Internet Access

Following are the steps to update VIM Unified Management:

Step 1 Get the new installer tar ball, which will be available after each release.

Extract the tar ball to get the new Unified Management workspace by running the following command:

```
# tar -xvzf mercury-installer.tar.gz
```

Step 2 Update the VIM Unified Management by running the following commands:

```
# cd /root/<new insight ws>/insight/
/bootstrap insight.py -a update
VIM Insight update logs are at: /var/log/insight/<bootstrap insight <date> <time>.log
Management Node validation!
                       | Status | Error |
+----+
| Check LV Swap Settings | PASS | None | | | | | | | | | | | | |
| Check Docker Pool Settings | PASS | None |
| Check Home Dir Partition | PASS | None | | Check Root Dir Partition | PASS | None | | Check /var Partition | PASS | None | | Check LVM partition | PASS | None |
| Check RHEL Pkgs Install State | PASS | None |
+----+
Insight standalone input validation
+----+
                            | Status | Error |
+----+
| Duplicate key check In Insight setup data | PASS | None
| \  \, {\tt CVIM/Insight workspace conflict check} \quad \  \, | \  \, {\tt PASS} \quad | \  \, {\tt None} \quad | \\
Downloading Updated VIM Insight Artifacts, will take time!!!
Cisco VIM Insight update Info!
```

| Status | Details

| Description

Step 3 Verify the Unified Management Update.

VIM Unified Management without Internet Access

Step 1 Copy the new installer tar ball to the Unified Management Management Node.

Extract the tar ball to get the new Unified Management workspace by running the following command:

```
# tar -xvzf mercury-installer.tar.gz
```

- **Step 2** To download the new Unified Management artifacts, follow the steps given in section Preparing to Install Cisco NFVI on Management Nodes Without Internet Access, of *Cisco VIM Install_Guide*.
- **Step 3** Run Import Artifacts:

```
# cd /root/installer_<tag_id>/tools
# ./import_artifacts.sh
This verifies that /var/cisco/artifacts on the management node has the following Insight artifacts,
along with the other components 'insight-K9.tar' and 'mariadb-app-K9.tar'.'
```

Step 4 Update the Unified Management by running the following command:

```
| Check Home Dir Partition | PASS | None | | Check Root Dir Partition | PASS | None | | Check /var Partition | PASS | None | | Check LVM partition | PASS | None |
| Check RHEL Pkgs Install State | PASS | None |
Insight standalone input validation
                                | Status | Error |
| Duplicate key check In Insight setup data | PASS | None |
| None
                                 | PASS | None
Updating VIM Insight, Kindly wait!!!
Cisco VIM Insight update Info!
| Description
                               | Status | Details
+----+
| VIM Insight UI URL
                            | PASS | https://<br_api:9000>
| VIM Insight Container: insight_<new_tag> | PASS | Updated from insight_<old_tag>| VIM Mariadb Container: mariadb_<new_tag> | PASS | Updated from mariadb_<old_tag>|
                         PASS | /root/<new insight ws>
| VIM Insight Workspace
+----+
Done with VIM Insight update!
VIM Insight update logs are at: "/var/log/insight/bootstrap insight/"
```

Step 5 Verify Unified Management update by running the following command:

Rollback VIM Unified Management

VIM Unified Management Rollback provides feature to revert to the old UM release which is used before the update.

Following are some of the key points:

- The rollback action removes the new docker containers of Unified Management and mariadb which is created after an update and bring up old ones with the old tag.
- The new workspace is used to update the operation later or the VIM may be running from it.

 After rollback, your Unified Management workspace is the old workspace which you were using before the update.

Following are the steps to perform Unified Management rollback:

Step 1 Run the following command to rollback VIM Unified Management:

```
# cd /root/<new insight ws>
# ./bootstrap_insight.py -a rollback
VIM Insight rollback logs are at: /var/log/insight/<bootstrap insight <date> <time>.log
Management node validation!
+----+
                    | Status | Error |
+----+
| Check Kernel Version | PASS | None | | | | | | | | | | | | |
| Check Boot Partition Settings | PASS | None |
| Check Home Dir Partition | PASS | None | | Check Root Dir Partition | PASS | None | | Check /var Partition | PASS | None | | Check LVM partition | PASS | None |
| Check LVM partition
                     | Check RHEL Pkgs Install State | PASS | None |
Insight standalone input validation
+----+
                         | Status | Error |
+----+
| Duplicate key check In Insight setup data | PASS
                                   | None
| CVIM/Insight workspace conflict check | PASS
                                   | None
| PASS | None |
+----+----+----+
VIM Insight rollback in progress, Kindly wait!!!
Cisco VIM Insight rollback Info!
| Description
                            | Status | Details
+----+
| VIM Insight UI URL | PASS | https://<br/>br api:9000>
| VIM Insight Container: insight_<old_tag> | PASS | Rollback from insight_<new_tag>|
| VIM Mariadb Container: mariadb_<old_tag> | PASS | Rollback from mariadb_<new tag>|
| VIM Insight Workspace
                           | PASS | /root/<old insight ws>
+-----
Done with VIM Insight rollback!
```

VIM Insight rollback logs are at: "/var/log/insight/bootstrap insight/"

Step 2 Verify the rollback status by running the following command:

Commit VIM Unified Management

VIM Insight commit supports for a new Insight release after an update.

Following are some of the key points:

- The old workspace will not be deleted and remain as it is.
- After the commit, your Unified Management workspace which has been used for the update is the new workspace.

Step 1 Run the following command to commit VIM Insight:

```
| Valid Key Check in Insight Setup Data | PASS | None |
| Duplicate Key Check In Insight Setup Data | PASS \;\; | None |
+----+
VIM Insight commit in progress, Kindly wait!!!
Cisco VIM Insight commit Info!
| Description
                    | Status | Details
+----+
| VIM Insight UI URL | PASS | https://<br/>br_api:9000>
| VIM Insight Container: insight <old tag> | PASS | Rollback from insight <new tag> |
| VIM Mariadb Container: mariadb_<old_tag> | PASS | Rollback from mariadb_<new_tag> |
| VIM Insight Workspace | PASS | /root/<old_insight_ws>
+----+
Done with VIM Insight commit!
VIM Insight commit logs are at: "/var/log/insight/bootstrap insight/"
```

Step 2 Verify the commit status by running the following command:

Uploading Glance Images

On Day0, all the Glance Images to be uploaded are kept in a folder. To view those images under **Pod Image Management**, copy those images using the glance image copy.sh script.

1. The glance image copy.sh script is available in the insight folder, same as the bootstrap insight.py level.

2. Use -d option, which represents the directory path of Glance Images to be uploaded, and copy the Glance Images by running the following command:

```
[root@gg34-bn insight]# ./glance_image_copy.sh -d /root/ImagesDir/
Copying /root/ImagesDir/mini.iso ...
Copying /root/ImagesDir/xenial-server-cloudimg-amd64-disk1.vmdk ...
```

```
Copying /root/ImagesDir/cirros-0.4.0-x86_64-disk.img ...
Copying /root/ImagesDir/CentOS-7-x86_64-GenericCloud-1905.raw ...
```

After copying images using the glance_image_copy.sh script, refresh Cisco VIM Unified Management appliance to view the Glance Images under Pod Image Management. Now, you can select multiple images and upload it.