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.

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


 -v          : 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 |
| 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 Validations!
+-------------------------------------------+--------+-------+
| Rule          | Status| Error |
+-------------------------------------------+--------+-------+
| 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 |
+-------------------------------------------+--------+-------+

Setting up Insight, Kindly wait!!!
Cisco VIM Insight Installed successfully!
+----------------------+------------+----------------------------------------------------+
| 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 Autobackup Service Info!
+-----------------------+--------+----------------------------------------------+
| Description           | Status | Details                                      |
+-----------------------+--------+----------------------------------------------+
| VIM Insight Autobackup | PASS   | [ACTIVE]: Running 'insight-autobackup.service' |
+-----------------------+--------+----------------------------------------------+

VIM Insight restore successfully completed!

Done with VIM Insight restore!
VIM Insight restore logs are at: /var/log/insight/bootstrap_insight/

As the summary table describes, your VIM Insight workspace is restored and hence you need to use
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.

```
# cd /root/<insight_ws>
# ./bootstrap_insight.py –a install-status
                    Cisco VIM Insight Install Status!
+----------------------+-----------+-----------------------------------------------+
| Description          | Status    | Details                                       |
+----------------------+--------+-----------------------------------------------+
| VIM Insight Setup    | PASS | Success                                          |
| VIM Insight Version  | PASS | <release_tag>                                    |
| VIM Insight UI URL   | PASS | https://<br_api:9000>                            |
| VIM Insight Container | PASS | insight_<tag_id>                                |
| VIM Mariadb Container | PASS | mariadb_<tag_id>                                |
| VIM Insight Autobackup| PASS      | [ACTIVE]: Running 'insight-autobackup.service'|
| VIM Insight Workspace | PASS | /root/installer-<tag_id>/insight              |
+----------------------+--------+-----------------------------------------------+
```

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 |
+-------------------------------------------+--------+-------+
| 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  |
+-------------------------------------------+-------+-------+

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 @: <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.
```

Reconfiguring Self Signed TLS Certificate

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
--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 |
+--------------------------------+-------+-------+
```

```
| 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      | 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 |
+-------------------------------------------+--------+-------+
```

```
| 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  |
+------------------------------------------+-------+-------+

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.
```

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
+-----------------------------+--------+-------+
| 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        | 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  |
+---------------------------------------------+--------+-------+

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 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
+-----------------------------+--------+-------+
| 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 |
```

```
+------------------------------------------+--------+-------+
| 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  |
+------------------------------------------+--------+-------+

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/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.

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

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

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   | 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  |
+----------------------------------------+--------+-------+
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/"

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      | 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  |
+-------------------------------------------+--------+-------+
```

```
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 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_MEMBER: This key can be reconfigured to set new attribute used on LDAP server for defining user-group association.

- 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.

- LDAP_ROLE_MEMBER: This key can be reconfigured to set new attribute used on LDAP server for defining user-role/group-role association.

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>

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    | 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 LDAP connectivity                 | PASS   | None  |
| 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>

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      | 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 LDAP connectivity                   | PASS   | None  |
| 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.
```

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_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>
```

Adding and Reconfiguring UM Administrators

Cisco VIM UM supports management of the UM Administrators whose access to the management node can be authenticated through an external LDAP server. For the users to obtain sudo access, you need to manually add the root user or any user with root privileges to the wheel group in the external LDAP server. Also, you must enable the pod with external TLS. To enable UM administrators with LDAP authentication, perform the following steps:

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

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

```
UM_LDAP_ADMINS:
  - domain_name: corp_ldap2             # Required
    ldap_uri: "ldaps://172.29.84.231"   # Required For multiple ldap server pass comma separated
value.
    ldap_search_base: "dc=cisco,dc=com"  # Required
    ldap_schema: rfc2307                 # Optional
    ldap_user_object_class: posixAccount # optional
    ldap_user_uid_number: uidNumber      # Optional
    ldap_user_gid_number: uidNumber      # Optional
    ldap_group_member: memberUid         # Optional
    ldap_default_bind_dn: "<string>"     # Optional
    ldap_default_authtok: "<string>"     # Optional
    ldap_default_authtok_type: "<string>" # Optional (password|obfuscated_password)
    ldap_group_search_base: "<string>"   # Optional
    ldap_user_search_base: "<string>"    # Optional
    access_provider: "<string>"          # Optional
    simple_allow_groups: "<string>"      # Optional
    ldap_cert_path: "<cert_path>"        # Required
    ldap_id_use_start_tls: <boolean>     # Optional
    ldap_tls_reqcert: "<string>"         # Optional (never|allow|try|demand)
    chpass_provider: "<string>"          # Optional (ldap|krb5|ad|none)
```

Note Multiple entries of the LDAP domain are allowed. For each entry, only domain_name and ldap_uri info are mandatory. Ensure that the ldap_uri is secured over ldaps. As part of reconfiguration, you can add new domain_name, but cannot change the domain_name once it is configured.

Step 2 To reconfigure the UM LDAP admin, run the following commands:

```
# 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.

Upgrade Scenarios

Following are the upgrade scenarios:

- Insight and mariadb containers gets updated to a new tag.

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

Update VIM UM with Internet Access from 3.2.x to 3.4.1

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 Create an empty directory for Insight workspace: insight-<tag_id>

Step 3 Copy that extracted directory `installer-<tag_ig>` inside `insight-<tag_id>`

Step 4 Update the VIM UM 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!
+-----------------------------+--------+-------+
| 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 |
+------------------------------------------+--------+-------+
| 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  |
+------------------------------------------+--------+-------+


Downloading Updated VIM Insight Artifacts, will take time!!!
```

```
Cisco VIM Insight update Info!
   +-------------------------------------+--------+------------------------------+
   | Description                         | Status | Details                      |
   +-------------------------------------+--------+------------------------------+
   | VIM Insight Container: insight_<new_tag> | PASS | Updated from insight_<old_tag>|
   | VIM Mariadb Container: mariadb_<new_tag> | PASS | Updated from mariadb_<old_tag>|
   +-------------------------------------+--------+------------------------------+
 Done with VIM Insight update!
 VIM Insight update logs are at: "/var/log/insight/bootstrap_insight/"
```

Step 5   Verify the Unified Management Update.

```
# ./bootstrap_insight.py -a update-status
Cisco VIM Insight Update Status!
+----------------------------------------+--------+-------------------------------+
| Description                            | Status | Details                       |
+----------------------------------------+--------+-------------------------------+
| VIM Insight Container: insight_<new_tag> | PASS  | Updated from insight_<old_tag> |
| VIM Mariadb Container: insight_<new_tag> | PASS  | Updated from mariadb_<old_tag> |
+----------------------------------------+--------+-------------------------------+
```

Upgrade VIM UM without Internet Access from 3.2.x to 3.4.2

Step 1   Copy the new installer tar ball to the Unified 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:

```
 # cd insight/
 # ./bootstrap_insight.py -a update

VIM Insight update logs are at: /var/log/insight/<bootstrap_insight_<date>_<time>.log
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 |
+------------------------------------------+-------+-------+
| 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  |
+------------------------------------------+-------+-------+

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>|
| VIM Insight Workspace                    | PASS  | /root/<new_insight_ws>        |
+------------------------------------------+-------+-------------------------------+
 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:

```
# ./bootstrap_insight.py -a update-status
Cisco VIM Insight Update Status!
+------------------------------------------+-------+-------------------------------+
| Description                              | Status | Details                       |
+------------------------------------------+-------+-------------------------------+
| VIM Insight Container: insight_<new_tag> | PASS  | Updated from insight_<old_tag> |
| VIM Mariadb Container: insight_<new_tag> | PASS  | Updated from mariadb_<old_tag> |
+------------------------------------------+-------+-------------------------------+
```

Upgrade Cisco VIM UM from 2.4.x to 3.4.2

Following are the steps to upgrade Cisco VIM Unified Management from 2.4.x to 3.4.2.

Step 1 Get the installer tar ball for 3.4.2 release. Extract the tar ball to get the new UM workspace by running the following command:

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

Step 2   Create an empty directory to take a backup of Cisco VIM UM node.

Step 3   Run Insight upgrade script with '-b'[backup] option:

```
# cd /root/installer_<tag_id>/tools
        # ./insight_upgrade.sh -b -d <path of backup directory>
```

Step 4   Copy the backup directory to the remote server. For example, to copy the backup directory `/var/cisco/insight_upgrade_backup/` from the management node to the remote host 20.0.0.5, execute the following command sequence:

```
rsync -e ssh -go -rtvpX --numeric-ids /var/cisco/insight_upgrade_backup/
root@20.0.0.5:/var/cisco/insight_upgrade_backup/
```

> **Note**   Ensure that the path `root@20.0.0.5:/var/cisco/insight_upgrade_backup/` is available at the remote location.

Step 5   Re-image the UM node with the 3.4.2 ISO release version and with the same IP address.

Step 6   Copy the backup directory from the remote server to the management node. For example, to copy the backup directory `/var/cisco/insight_upgrade_backup/` from remote host 20.0.0.5 to the management node, execute the following command sequence.

```
 rsync -e ssh -go -rtvpX --numeric-ids root@20.0.0.5:/var/cisco/insight_upgrade_backup/
/var/cisco/insight_upgrade_backup/.
```

> **Note**   • Ensure that the path `/var/cisco/insight_upgrade_backup/` is present on UM node.
>
>   • For installation with Internet access, skip Step 7 and Step 8.

Step 7   To download the new UM artifacts, follow the steps given in section **Preparing to Install Cisco NFVI on Management Nodes Without Internet Access** of *Cisco Virtualiuzed Infrastructure Manager Installation Guide*.

Step 8   Run Import artifacts:

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

Step 9   Run Insight upgrade with '-r'[restore] option:

```
# cd /root/installer_<tag_id>/tools
        # ./insight_upgrade.sh -r -d <path of backup directory>
```

Step 10   After successful execution of upgrade, use 'reconfigure' option of bootstrap_insight to enable new Insight features or 'install-status' to check Insight installation status:

```
# cd ../insight/
   # ./bootstrap_insight.py -a install-status
   # ./bootstrap_insight.py -a reconfigure -f <insight_setup_data.yaml>
```

Rollback VIM Unified Management

Cisco VIM Unified Management rollback feature allows you 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 UM workspace is the old workspace which you were using before the update.

Following are the steps to perform UM 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!
+------------------------------+--------+-------+
| 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      | 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  |
+-------------------------------------------+--------+-------+


VIM Insight rollback in progress, Kindly wait!!!
Cisco VIM Insight rollback Info!
+-------------------------------------------+--------+------------------------------+
| Description                               | Status | Details                      |
+-------------------------------------------+--------+------------------------------+
| VIM Insight UI URL                        | PASS   | https://<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:

```
# ./bootstrap_insight.py -a install-status
Cisco VIM Insight Install Status!
+-----------------------+--------+--------------------------------+
| Description           | Status | Details                        |
+-----------------------+--------+--------------------------------+
| VIM Insight Version   | PASS   | <release_tag>                  |
| VIM Insight UI URL    | PASS   | https://<br_api:9000>          |
| VIM Insight Container | PASS   | insight_<tag_id>               |
| VIM Mariadb Container | PASS   | mariadb_<tag_id>               |
| VIM Insight Workspace | PASS   | /root/<insight_ws>             |
+-----------------------+--------+--------------------------------+
```

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 is not deleted and retained 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:

```
# cd /root/<new_insight_ws>/Insight
# ./bootstrap_insight.py -a commit
VIM Insight commit logs are at: /var/log/insight/<bootstrap_insight_<date>_<time>.log
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  | PASS   | None  |
| Valid Key Check in Insight Setup Data | PASS   | None  |
| Duplicate Key Check In Insight Setup Data | PASS | None |
| CVIM/Insight workspace conflict       | PASS   | None  |
| Check registry connectivity           | PASS   | None  |
| Check Email server for Insight        | PASS   | None  |
+---------------------------------------+--------+-------+

VIM Insight commit in progress, Kindly wait!!!
Cisco VIM Insight commit Info!
+----------------------------------------+--------+-----------------------------------------+
| Description                            | Status | Details                                 |
+----------------------------------------+--------+-----------------------------------------+
| VIM Insight UI URL                     | PASS   | https://<br_api:9000>                   |
| VIM Insight Container: insight_<old_tag> | PASS | Old container: insight-<old_tag> removed> |
| VIM Mariadb Container: mariadb_<old_tag> | PASS | Old container: mariadb-<old_tag> removed> |
| VIM Insight Workspace                  | PASS   | /root/<old_insight_ws>                  |
+----------------------------------------+--------+-----------------------------------------+
Done with VIM Insight commit!
VIM Insight commit logs are at: "/var/log/insight/bootstrap_insight/"
```

Note   If update is done from 3.0.x to 3.4.2, the following warning message to reconfigure Insight is displayed.

Warning: Insight setup-data key 'UM_ADMIN_AS_POD_ADMIN' is deprecated from version 3.4.2 and Please 'reconfigure' using 'UM_ADMIN_WITH_FULL_POD_ACCESS' as a new name of the key

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

```
# ./bootstrap_insight.py –a install-status
Cisco VIM Insight Install Status!
+----------------------+--------+----------------------+
| Description          | Status | Details              |
+----------------------+--------+----------------------+
| VIM Insight Version  | PASS   | <release_tag>        |
| VIM Insight UI URL   | PASS   | https://<br_api:9000> |
| VIM Insight Container | PASS  | insight_<tag_id>     |
| VIM Mariadb Container | PASS  | mariadb_<tag_id>     |
| VIM Insight Workspace | PASS  | /root/<insight_ws>   |
+----------------------+--------+----------------------+
```

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.

```
[root@gg34-bn insight]# ./glance_image_copy.sh -h
glance_image_copy.sh  : Cisco Glance Images Validator
--------------------------------------------------
-d         : Input Glance Images Directory.
             Allowed Images Formats:
           - 'raw', 'qcow2', 'iso', 'ami', 'ari', 'aki', 'vhd', 'vhdx', 'vmdk', 'vdi',
```

```
 'ploop'
-h          : To display this help
```

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.