Troubleshoot Intersight Hyperflex Installation

Contents

Introduction

This document describes common troubleshoot scenarios for Hyperflex cluster deployment through Intersight.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Intersight
- Hyperflex Cluster Deployment

Components Used

This document is not restricted to specific software and hardware versions.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is

live, ensure that you understand the potential impact of any command.

Background Information

The Intersight installer workflow follows the task presented in the chart to deploy a hyperflex cluster:

Task Name	Definition
PreparePreClusterInfoTask	Generates configuration files that contain the information required to deploy the cluster (for exa configuration file path, software YAML file).
ServerConfigurationVaildationTask	Validates the UCS server configuration to ensure has the required hardware and firmware configura (for example. disk size/PID validation, correct NIC and so on.)
PreConfigurationValidationTask	Validates network configuration before the server configuration starts (for example, DNS, NTP, vCe reachability, duplicate IP check)
PrepareLocalImageRepoTask	Downloads software images (controller VM OVA, packages) to the local image store. This task is o included in the workflow if it is run in the connecte appliance environment.
ServerConfigurationTask	Performs required configuration on the UCS serv For FI-attached deployments, this involves the cre and association of the service profiles.
HypervisorEsxConfigurationTask	Configures the network portion on the hypervisor. includes the use of Serial Over Lan to add the up to the management vSwitch and configures the IF address, hostname, and DNS/NTP configuration.
PreDeployValidationTask	Performs validations before the cluster deployme starts. Validations include network reachability ch and verification that the nodes are not already pa another cluster.
PrepareHypervisorDeploymentTask	prepares the hypervisor for controller Virtual Macl (VM) configuration. Obtains host information from and ensures proper OS parameters are set.
HypervisorNetworkingTask	Configures the network portion on the ESXi host. Includes the configuration of the different vSwitches/Port Groups on the host that are requir for the cluster to operate.
HypervisorSoftwareUpdateTask	Updates software on the hypervisor, which consis

	the required VIBs on the host if necessary.
HypervisorDatastoreTask	Creates the datastore for the controller VM, if req
DeployHyperflexControllerVm	Deploys the storage controller OVA on the hyperv if required.
ConfigVmTask	Configures the network portion on the controller V which includes the configuration of the required parameters and the data/management networks.
DeploySoftwareVmTask	Installs HXDP packages on the controller VMs.
CollectNodeInfoTask	Collects node info such as UUID and IPs.
CollectInventoryDataTask	Sends inventory data to controller VMs.
CreateClusterValidationTask	Performs validations to ensure that the controller ready to join the cluster. Includes MTU checks an verifies storage services are ready.
CreateClusterTask	Creates the storage cluster and takes the controll VM to join all of the nodes together in the cluster.
PostInstallHostConfig	Configures host after the cluster is deployed. Inclu the ESXi password change to the new password supplied in the Hyperflex Cluster Profile.
PostInstallStorageControllerVmConfig	Configures controller VMs after the cluster is depl include the controller VM password change to the password supplied in the Hyperflex Cluster Profile
ClusterAutoClaimTask	Claims the HyperFlex cluster to the Intersight use account.

Problem

Here are the common errors that you can find in the cluster deployment:

Validation errors/warning:

- Duplicate IPs (error on the same fabric interconnect, warning if overlap globally)
- 2 Node Cluster creation
- 2 for Replication factor chosen (Data Replication Factor of 3 is recommended)

Runtime validation:

- DNS, NTP not reachable
- vCenter is not reachable or incorrect credentials
- Mgmt IP addresses already in use

Deployment errors:

- Same Data VLANs for two different clusters in the same L2 domain (Uplink switch)
- Cross-over link
- ESXi IP configuration failure (due to incorrect ESXi credential)

Solution

Based on the task that fails and the error encountered, you can perform the actions suggested:
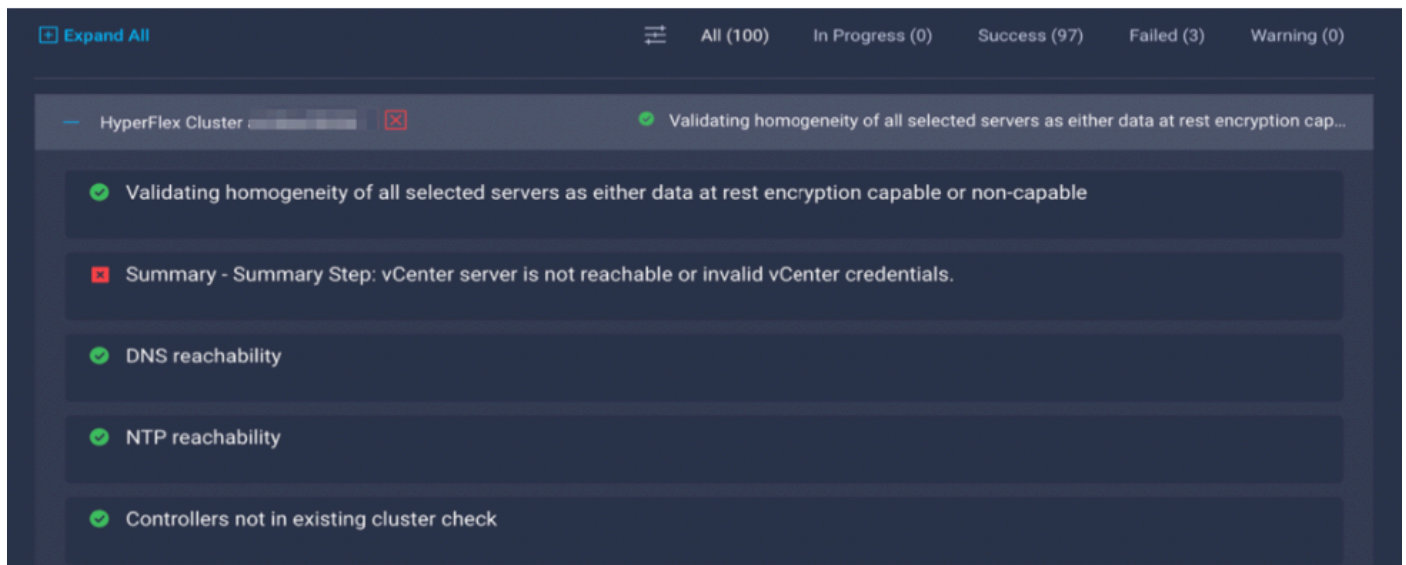
DNS/NTP Not Reachable

```
Validator_NTP_List, Status Code: 9 (FAILED), Message: There are no reachable NTP servers from list
```
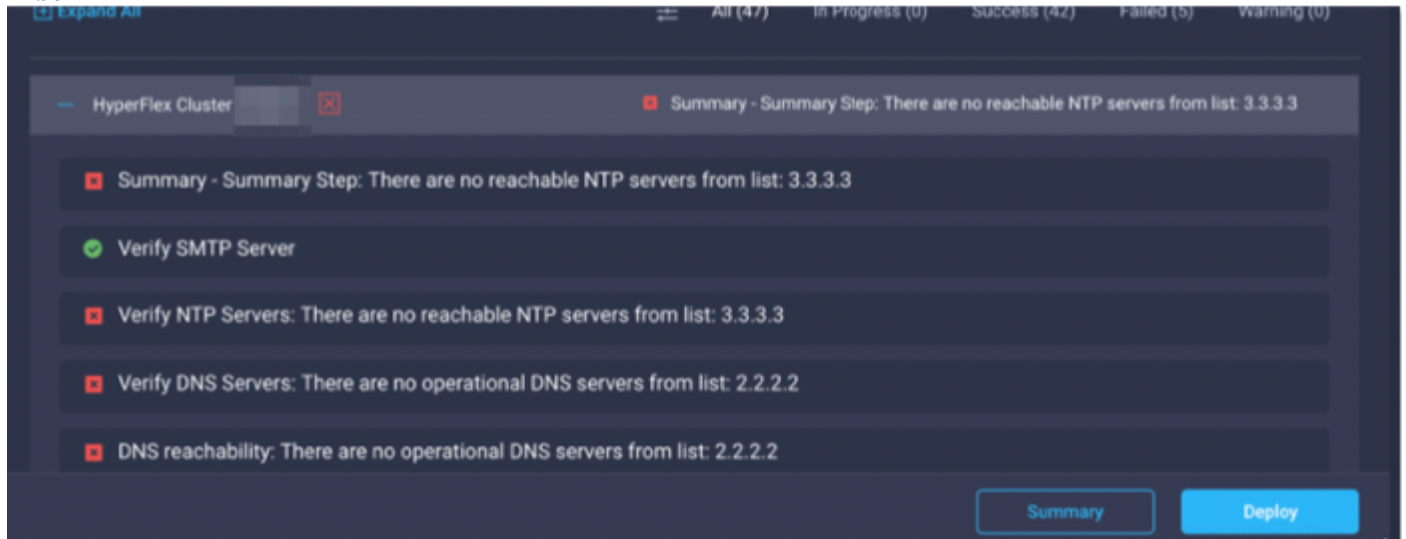

Action: Check the IP, if incorrect modify the policy and restart the workflow.
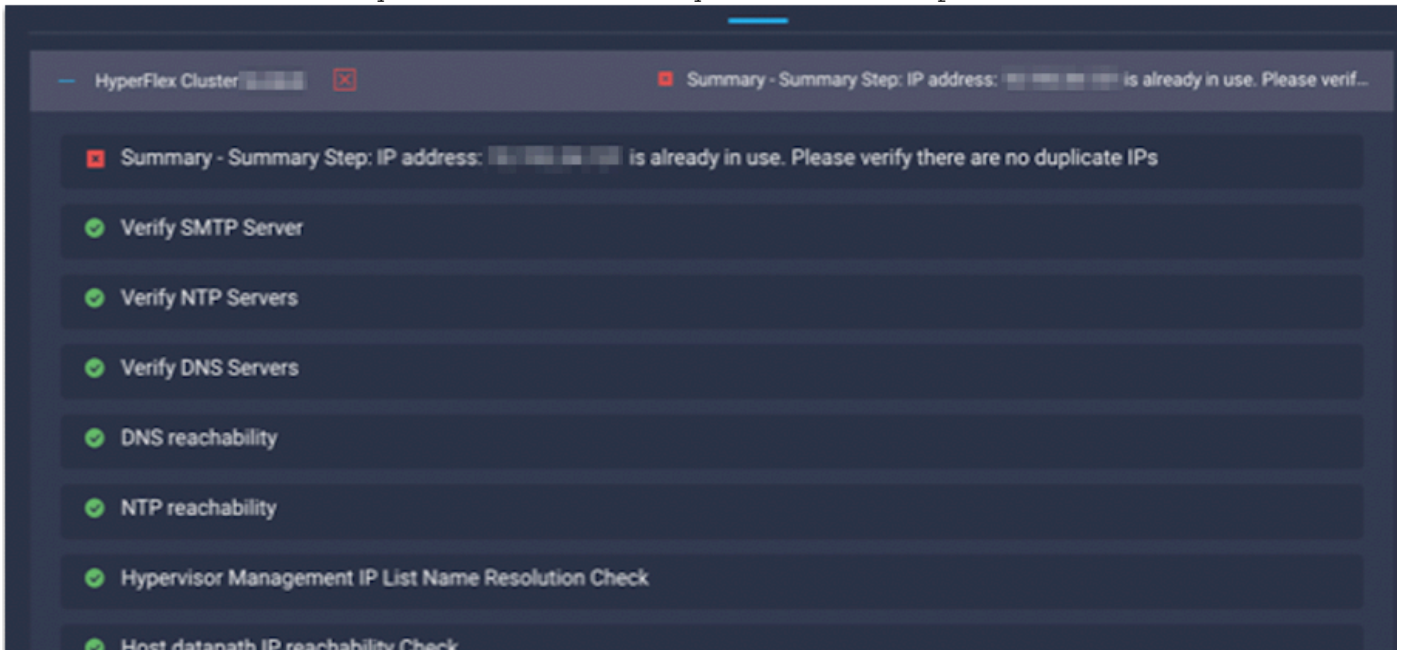
vCenter Not Reachable

```
"vCenter reachability and credential check : vCenter server is not reachable or invalid vCenter credentials."
```


Action: Check the vCenter IP/ credentials, if it is incorrect modify the policy and restart the workflow.

Duplicate IP

```
"IP address x.x.x.x already in use. Please verify there are no duplicate IPs."
```
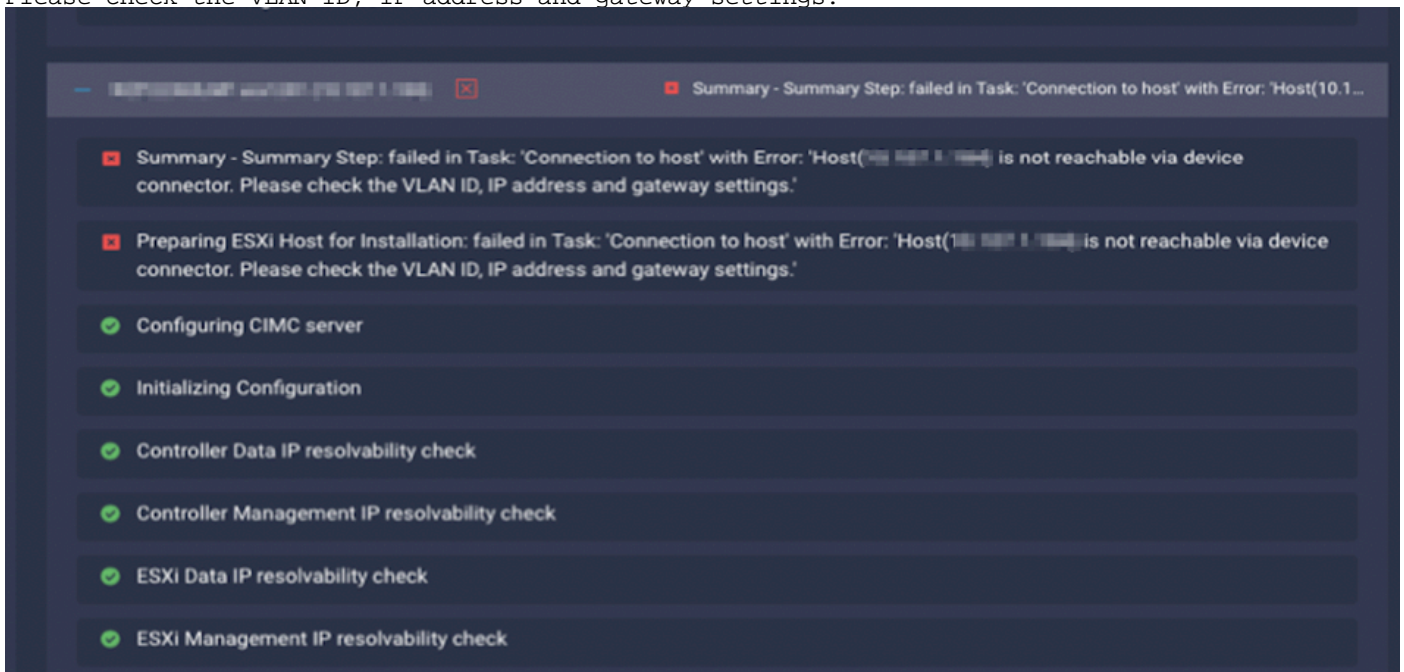

Action: Check if the IP is in use already, if so modify the policy and restart the workflow.

Connection to Host Failed

```
failed in Task: 'Connection to host' with Error: 'Host(x.x.x.x) is not reachable via device
connector.
Please check the VLAN ID, IP address and gateway settings.'
```


Action: Check the VLAN/ IP/ Gateway, if it is incorrect modify the policy and restart the workflow.

Auto Claim Failed

```
"failed to claim the HyperFlex device connector.
```

```
This cluster requires continued connectivity to Intersight to ensure Fault Tolerance is
maintained.
The cluster cannot tolerate failures until this step is completed. Please check the cluster
connectivity to Intersight and perform a manual claim. "
```
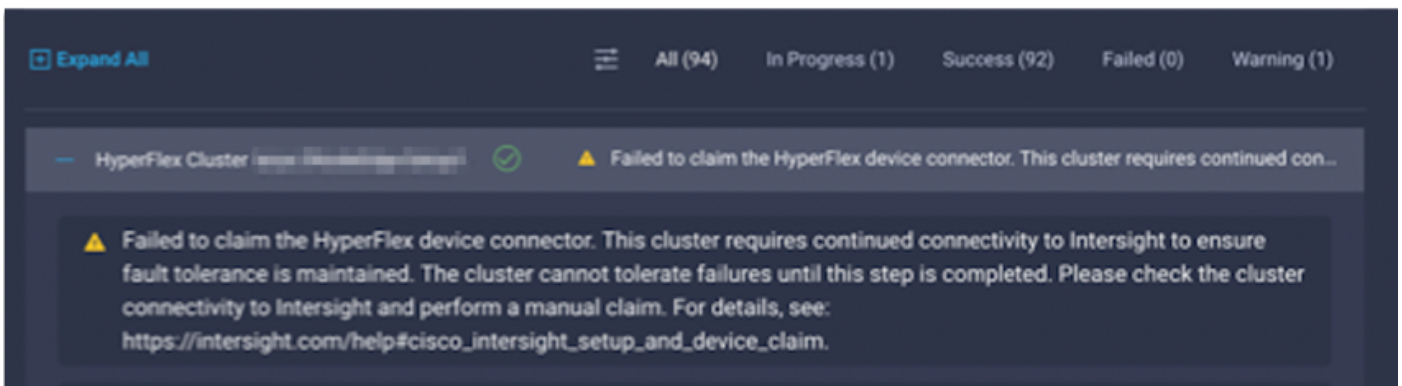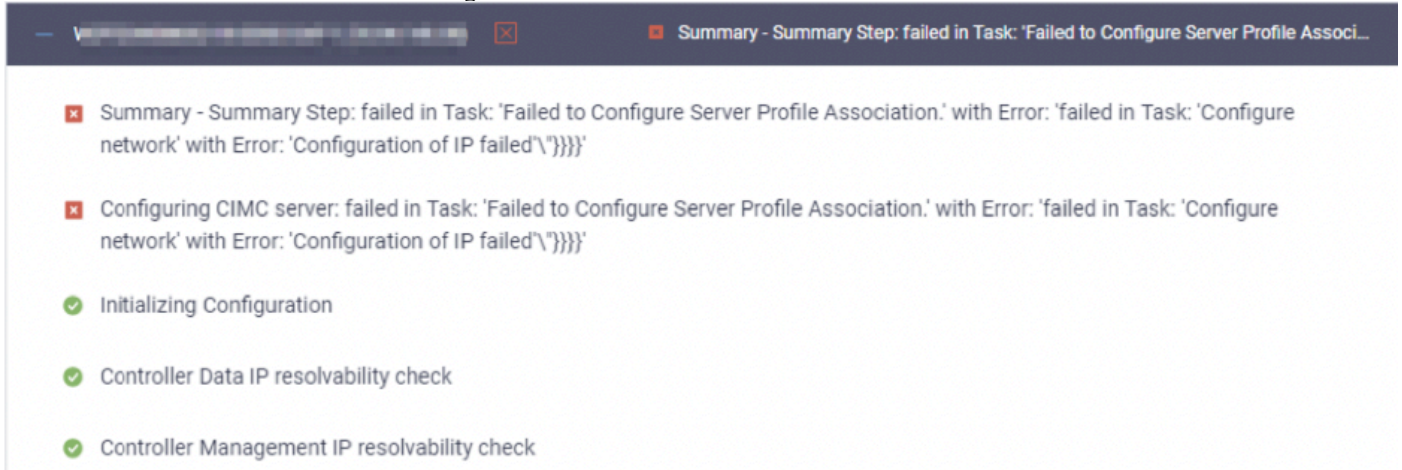

Action: Claim the HyperFlex cluster outlined in the device claim procedure and restart the
workflow.

Failed to Configure Server Profile Association

```
failed in Task: 'Failed to Configure Server Profile Association
```
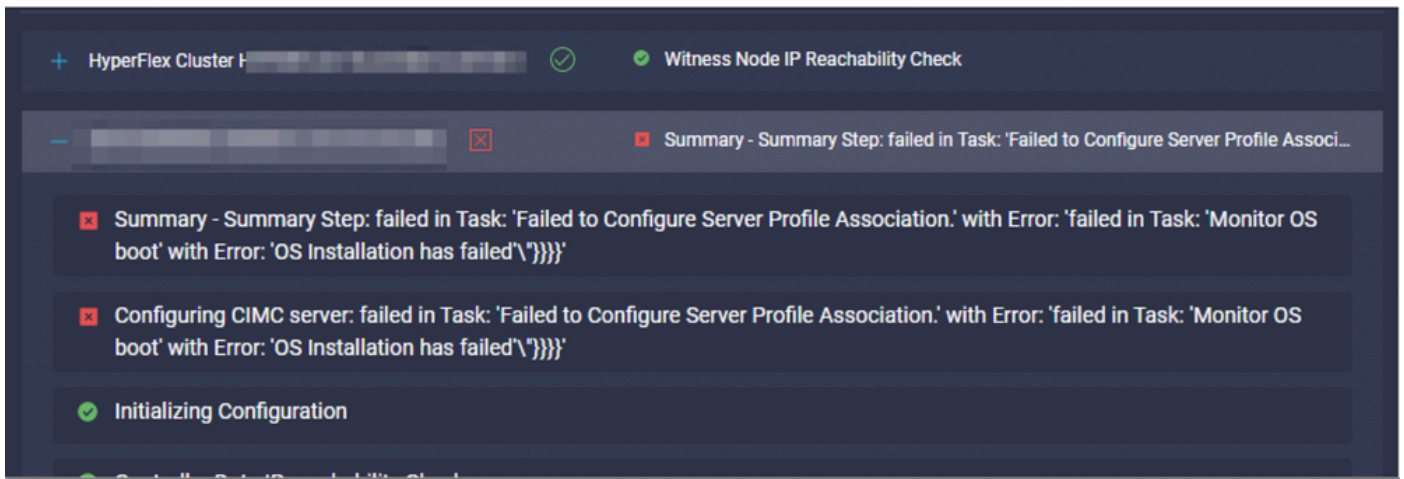

Action:

ESXi IP configuration is done through console access via CIMC Serial Over LAN. Sometimes
CIMC SoL fails to get the console into the log in prompt. Check the CIMC Console to ESXi via
KVM and reset CIMC and restart the workflow.

Failed in Task: Monitor OS Boot

```
Configuring CIMC server: failed in Task: 'Failed to Configure Server Profile Association.' with
Error: 'failed in Task: 'Monitor OS boot' with Error: 'OS Installation has failed'\"}}}}'
```
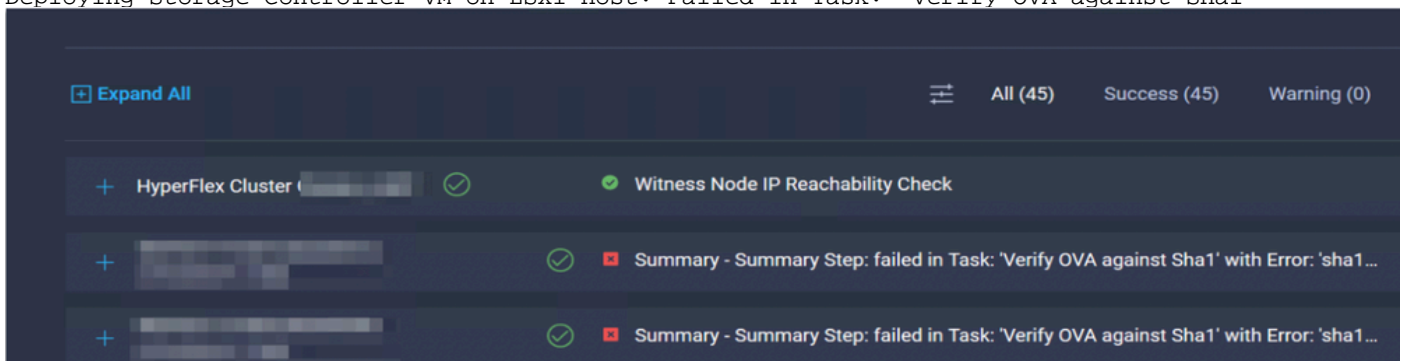
Action:

- Ensure that the ESXi root password is correct
- For first-time installation, ensure to check the **factory default password**.
- For re-install, ensure to uncheck the **factory default password**.
- Check for SoL access failure.
- Check if the device connector disconnected during OS boot.

If this is a new install ensure that the password provided is not the default password (Cisco123), even after the **factory default password** radio button is checked.

The result of this action is that the installer is able to log in to the ESXi but is not able to set the password as the strength of the default password is weak

Failed in Task: Verify OVA against Sha1

```
Deploying Storage Controller VM on ESXi host: Failed in Task: "Verify OVA against Sha1"
```
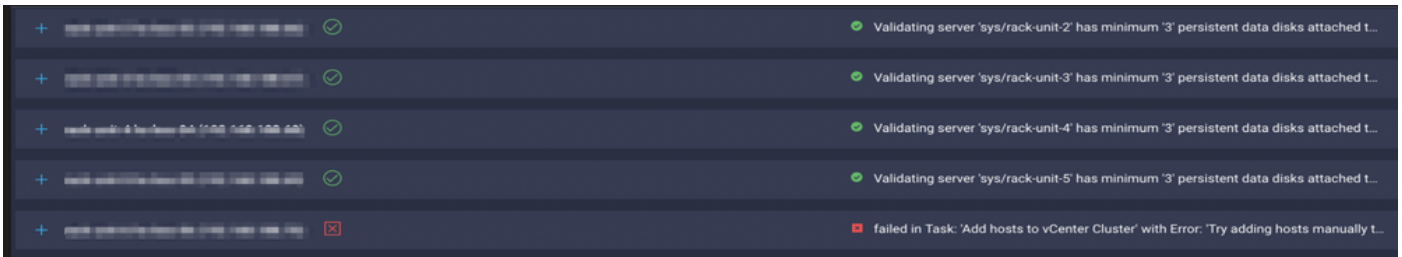

Action:

- Check if the ESXi does not have DNS configured.
- Check if the ESXi mgmt IP subnet is blocked for Intersight access.

Failed in Task: Add Host to vCenter Cluster

```
failed in Task: Add host to vCenter Cluster with Error: Try adding host manually to vCenter and
retry. failed to add the host x.x.x.x with 3 attempts
```
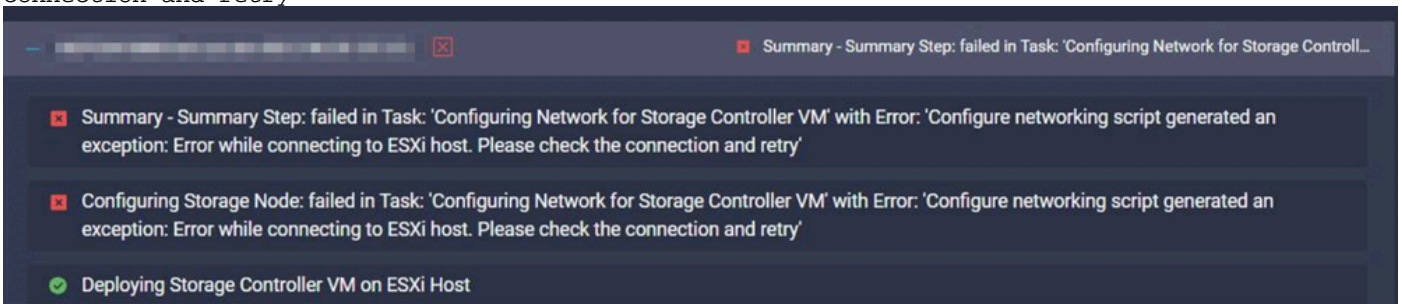
Action:

vCenter version must be higher or equal to all the hosts in the cluster. Upgrade vCenter to higher or equal to ESXi version or downgrade ESXi to a lower stable version.

Failed in Task: Network Storage Controler VM Configuration Failed

```
failed in Task: 'Check Network for Storage Controller VM Configuration Result' with Error:
'Configure networking failed with error: Error while connecting to ESXi host. Please check the
connection and retry'
```


Action:

EXSI API server ocaccionally does not respond on time.

- Check the **hostd** service status to ensure is running.
- Reboot ESXi and retry the deployment.

Workflow Failed Due to MTU Issues

```
failed in Task: 'Verify Storage Cluster' with Error: 'id: 2 entityRef: id: x.x.x.x name: x.x.x
cluster message: Could not ping x.x.x.x with MTU 9000 during failover test.
    Verify the VLAN and MTU on the upstream switch is correct prior to continuing. severity:
warning'
```
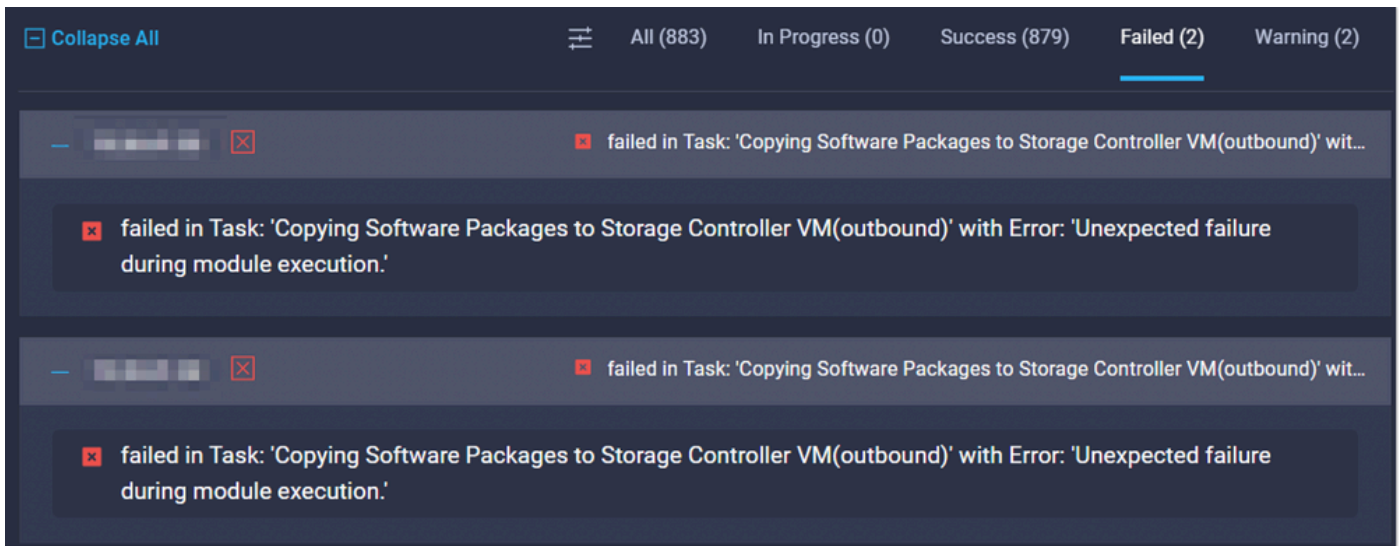Action:

The Jumbo frame is not enabled in all the paths, when the jumbo frame is enabled, MTU value 9216 must be configured in the uplink switch. Ensure the MTU is set to jumbo frames in all the paths and restart the workflow

Failed in Task: Copying Software Packages to Storage Controller VM

```
failed in Task: 'Copying Software Packages to Storage Controller VM(outbound)' with Error:
'Unexpected failure during module execution.
```

Action:

- Ensure there is network connectivity from SCVM to Intersight.
- Verify the required port are allowed in the network.
- Refer to the Pre-installation check links for network requirements.

Related Information

- **Hyperflex Installation Overview**
- **Hyperflex Installation Guides**
- **HX Data Platform Preinstall Checklist**
- **Technical Support & Documentation - Cisco Systems**