VxRail™ SolVe Generator

Solution for Validating your engagement

T o p i c
VxRail Software Upgrade Procedures
S e l e c t i o n s
Select the VxRail Appliance Model: VxRail P570/P570F Select the Installed VxRail Software Version: v7.0.132 Select the Target VxRail Software Version: v7.0.350 Select your current VxRail Configuration: VxRail Cluster - non-vSAN Stretched Cluster Is VMware Horizon VDI Installed?: No

Generated: March 30, 2022 7:28 AM GMT

R E P O R T   P R O B L E M S

If you find any errors in this procedure or have comments regarding this application, send email to
SolVeFeedback@dell.com

Contents

Dell Technologies Confidential Information   **version: 4.6.1.5**

Preliminary Activity Tasks

This section may contain tasks that you must complete before performing this procedure.

Read, understand, and perform these tasks

1. Table 1 lists tasks, cautions, warnings, notes, and/or knowledgebase (KB) solutions that you need to be aware of before performing this activity. Read, understand, and when necessary perform any tasks contained in this table and any tasks contained in any associated knowledgebase solution.

<table>
<tr><td>Table 1</td><td>List of cautions, warnings, notes, and/or KB solutions related to this activity</td></tr>
</table>

523973: VxRail: BOSS Card not detected in iDRAC or M.2 device reports failure causing volume degraded

2. This is a link to the top trending service topics. These topics may or not be related to this activity. This is merely a proactive attempt to make you aware of any KB articles that may be associated with this product.

Note: There may not be any top trending service topics for this product at any given time.

VxRail Appliance Top Service Topics

*IMPORTANT: Please confirm whether a customer is using RecoverPoint for Virtual Machines (RP4VM) in the VxRail cluster, prior to upgrading VxRail. RP4VM **must** be upgraded prior to upgrading VxRail to prevent a DRU/DU issue on the VxRail cluster!*

Note: It is highly advisable to monitor node reboots through IDRAC/BMC interfaces to detect boot related issues.

Data-in-Place upgrade solution from v7.0.x to v7.0.3xx

Summary:

This procedure describes the steps required to perform a data-in-place upgrade on a VxRail Appliance from v7.0.x to v7.0.3xx. See the VxRail 7.0.x Release Notes in SolVe for upgrade paths and other important upgrade-related information.

<u>Notes</u>:

- Starting with VxRail 7.0.350, VxRail systems use Dell Technologies next-generation consolidated connectivity solution to connect to the Dell cloud. This solution allows VxRail to establish a direct connection using a connectivity agent that runs within VxRail or using the secure connect gateway 5.0. VxRail 7.0.350 does not support Secure Remote Services for connectivity. Before upgrading to VxRail 7.0.350, review the following details regarding your connectivity configuration:

    o If you are connected to a secure connect gateway, verify that the minimum gateway version is 5.00.07.10.

    o If you are connected to a customer-managed Secure Remote Services gateway, upgrade to a secure connect gateway before upgrading to VxRail 7.0.350.

    o For VxRail-managed Secure Remote Services configurations, VxRail performs a seamless internal Secure Remote Services upgrade to establish a direct connection during the VxRail upgrade process. This may require an update to the firewall.

    Before you upgrade to VxRail 7.0.350, see KB 000196945 and the *Secure Remote Services 3.52 Upgrade to Secure Connect Gateway Supplement Documentation* for more information.

- If upgrading VxRail cluster that is configured with customer-managed VMware vCenter Server from VxRail 7.0.240, 7.0.241, or 7.0.300 to VxRail 7.0.320 and later, ensure that all ESXi hosts are upgraded to 7.0 Update 3c and later, before upgrading customer-supplied VMware vCenter Server to 7.0 Update 3c and later. For more information, see KB 000195322.
This is a change from the standard procedure of upgrading customer-managed VMware vCenter Server prior to upgrading VxRail ESXi hosts with LCM. If the customer-managed VMware vCenter Server is upgraded to 7.0 U3c first, the VMware precheck will block the ESXi upgrade during VxRail LCM process.

- Internet upgrade to VxRail 7.0.320 fails with 'Error downloading upgrade bundle xxx from website'. Before upgrading via the internet, see KB 000196149.

- There is a critical issue in VMware ESXi 7.0 U3 that impacts a small subset of VxRail configurations with an external storage connection. For VxRail configurations with external storage connection, see VMware KB 86100 before you upgrade to VxRail software version 7.0.3xx. See the VMware ESXi 7.0 Update 3a Release Notes for more detail.

- If the VxRail Manager SSL certificate has been changed, see KB 000158410 (How to prevent vCenter plug-in issue caused by VxRail Manager SSL certificate mismatch) before proceeding with the upgrade.

- Internet upgrades from VxRail 7.0.130 or 7.0.131 to VxRail 7.0.3xx are not supported. Only local upgrades are supported for these releases.

Prerequisites:

- If this VxRail Cluster is joining an External vCenter, check the *VxRail and External vCenter Interoperability Matrix*: KB 000157682. Ensure that the External vCenter is running a supported version. Set Cluster Health Monitoring to Muted mode in the VxRail Manager UI before upgrading external vCenter to avoid false alerts.

Materials Required:

Ensure that the following passwords are available:

- VxRail Manager Root
- vCenter Administrator
- vCenter Root
- ESXi Node Root
- iDRAC/BMC (aka Baseboard Management Controller (if configured)

VxVerify detects issues which could cause complications or failures during VxRail LCM upgrades. Download the VxVerify tool per the instructions in KB 000021527.

There is no need to load the software composite file locally when performing an Internet-connected upgrade. The upgrade file is automatically downloaded from Dell.

If you will not have Internet connection, download the following file(s) from dell.com/support/ and make it locally available.

Upgrade Composite Bundle File name (Choose 1 of the following 4 scenarios):

Note: In Composite bundle download page, record the checksum values under **File Name** section, and validate them after the bundle has been downloaded to your local client.

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1. **Full bundle for Internal or External vCenter**

    - VXRAIL_COMPOSITE-7.0.3xx-xxx_for_7.0.x.zip

    Note: For VxRail 7.0.000, choose VXRAIL_COMPOSITE-7.0.3xx-xxx_for_7.0.000.zip.

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2. **Slim Bundle for External vCenter only**: This composite file does not include the Internal vCenter files, which reduces the overall file size.

    - VXRAIL_COMPOSITE-SLIM-7.0.3xx-xxx_for_7.0.x.zip

    Note: For VxRail 7.0.000, choose VXRAIL_COMPOSITE-SLIM-7.0.3xx-xxx_for_7.0.000.zip (for clusters with external vCenter only)

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3. **Multi Files for Internal vCenter.** Download the following nine files. These files are for 7.0.130 or later clusters with Internal vCenter. These smaller files allow for easier downloading in low-bandwidth scenarios.

    - VXRAIL_COMPOSITE_7.0.3xx-xxx_Core_for_7.0.x_Part001_of_003.zip
    - VXRAIL_COMPOSITE_7.0.3xx-xxx_Core_for_7.0.x_Part002_of_003.zip
    - VXRAIL_COMPOSITE_7.0.3xx-xxx_Core_for_7.0.x_Part003_of_003.zip

- VXRAIL_COMPOSITE_7.0.3xx-xxx_InstallerMetadata_for_7.0.x.zip
- VXRAIL_COMPOSITE_7.0.3xx-xxx_Installer_for_7.0.x.zip
- VXRAIL_COMPOSITE_7.0.3xx-xxx_InternalVC_for_7.0.x_Part001_of_004.zip
- VXRAIL_COMPOSITE_7.0.3xx-xxx_InternalVC_for_7.0.x_Part002_of_004.zip
- VXRAIL_COMPOSITE_7.0.3xx-xxx_InternalVC_for_7.0.x_Part003_of_004.zip
- VXRAIL_COMPOSITE_7.0.3xx-xxx_InternalVC_for_7.0.x_Part004_of_004.zip

4. **Multi Files for External vCenter.** Download the following five files. These are for 7.0.130 or later clusters with External vCenter only. These smaller files allow for easier downloading in low-bandwidth scenarios.

- VXRAIL_COMPOSITE_7.0.3xx-xxx_Core_for_7.0.x_Part001_of_003.zip
- VXRAIL_COMPOSITE_7.0.3xx-xxx_Core_for_7.0.x_Part002_of_003.zip
- VXRAIL_COMPOSITE_7.0.3xx-xxx_Core_for_7.0.x_Part003_of_003.zip
- VXRAIL_COMPOSITE_7.0.3xx-xxx_InstallerMetadata_for_7.0.x.zip
- VXRAIL_COMPOSITE_7.0.3xx-xxx_Installer_for_7.0.x.zip

Procedure:

Note: Screenshots in this document might differ depending on the VxRail version you are running. In most cases, screenshots reflect later versions.

1. [   ]   Run the VxVerify tool. Follow the instructions available in KB 000021527.

2. [   ]   Log in to vCenter Server using HTLM5 Client with administrative privileges.

3. [   ]   Ensure that the VxRail appliance is in a healthy state. Address any issues found before starting the upgrade process.

   a. Go to Home > Hosts and Clusters > *VxRail-Cluster.*

   b. Select Monitor > Issues and Alarms > All issues.

   c. Verify the VxRail cluster health status.

4. [   ]   Confirm that VxRail appliance is currently running a version that is upgradable to v7.0.3xx.

   a. Go to **Home** > **Hosts and Clusters** > *VxRail-Cluster.*

   b. Click **Configure > VxRail > System**.
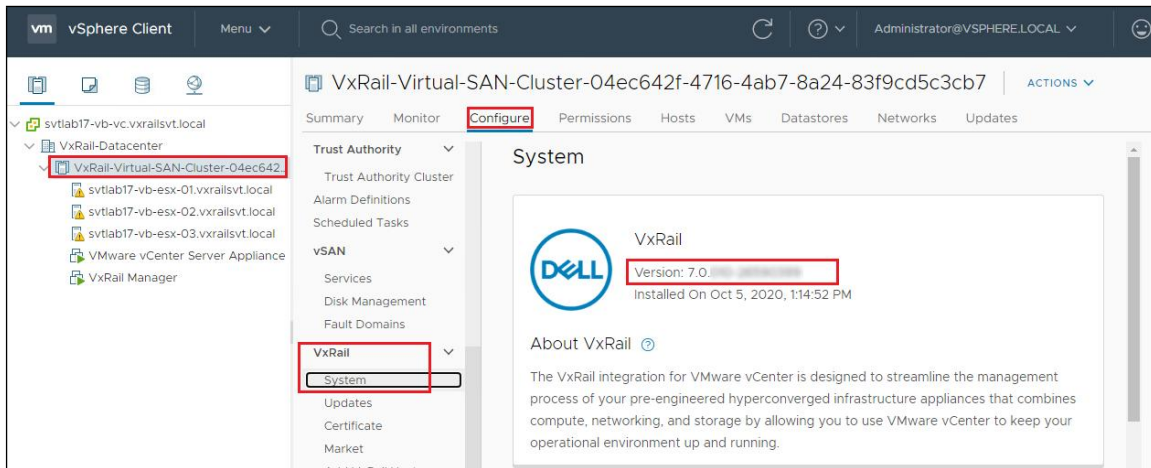
Figure 1   Review the version.

Note: Starting with VxRail release 7.0.24x, vLCM can be enabled on VxRail Cluster from VxRail provided UI. You can then upgrade a vSphere component of VxRail Cluster based on vLCM. If you are going to use vLCM in VxRail upgrade, see **Appendix A.**

VxRail Cluster Upgrade

Task 1:   [Optional] Configure alarm definition for email notification

If email notification is needed during LCM upgrade, follow KB 000019243.

Email notification will be sent out during the following stages:

- When the cluster starts to perform an LCM upgrade
- For each node
  - When the node starts upgrade
  - When the node completes upgrade
  - During any node upgrade failure
- When the cluster completes LCM upgrade

Task 2:   Take a snapshot of all the service VMs

- VxRail Manager VM
- VMware vCenter Server Appliance VM (if using embedded)
- VMware vRealize Log Insight VM (if using VxRail deployed syslog)
- SRS VE VM (if call home is enabled and using VxRail Manager deployed SRS)

1. [   ] Log in to the vSphere Web Client.
2. [   ] Go to **Hosts and Clusters.**
3. [   ] Take a snapshot of a service VM. Right-click **VxRail Manager > Snapshots > Take Snapshot.**
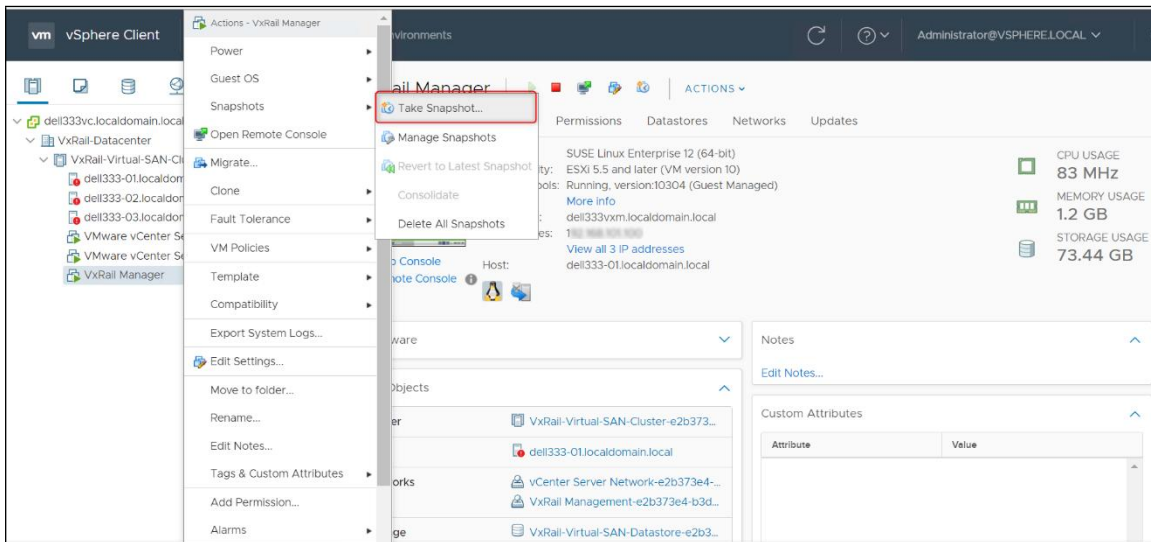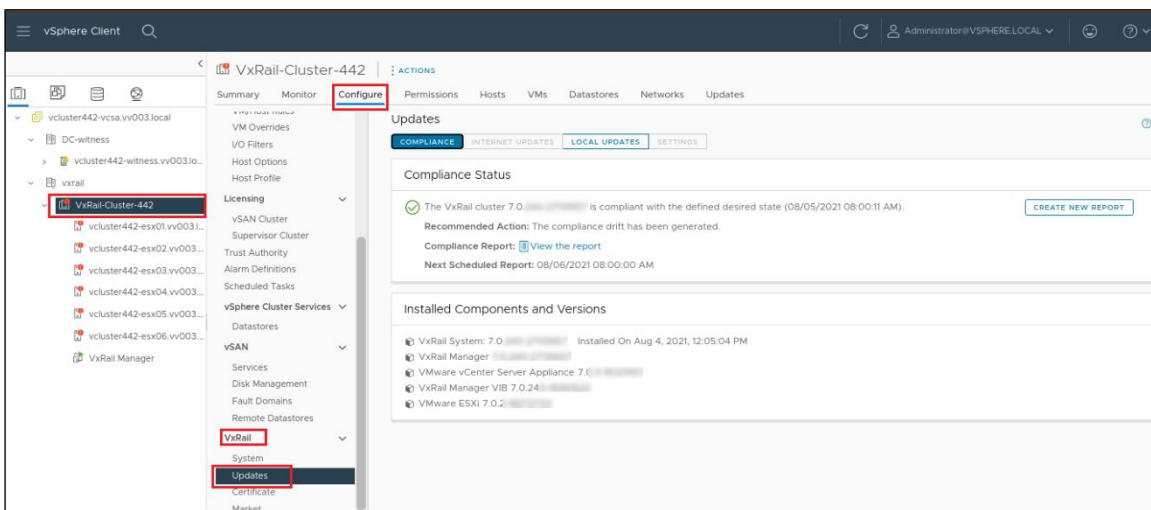
Figure 2   Take snapshot of service VM.

4. [   ] Enter a snapshot name and click **OK**.

5. [   ] Repeat Steps 2 and 3 for each of the remaining service VMs.

Task 3:   Upgrade from v7.0.x to v7.0.3xx

1. [   ] Click **VxRail Cluster > Configure > VxRail > Updates**.

Figure 3   Configure VxRail updates.

2. [   ] If the cluster is not Internet-enabled, skip to Step 7 to perform the **LOCAL UPDATES** option.

3. [   ] If connected to the Internet, select the **INTERNET UPDATES** tab to automatically get the required file.
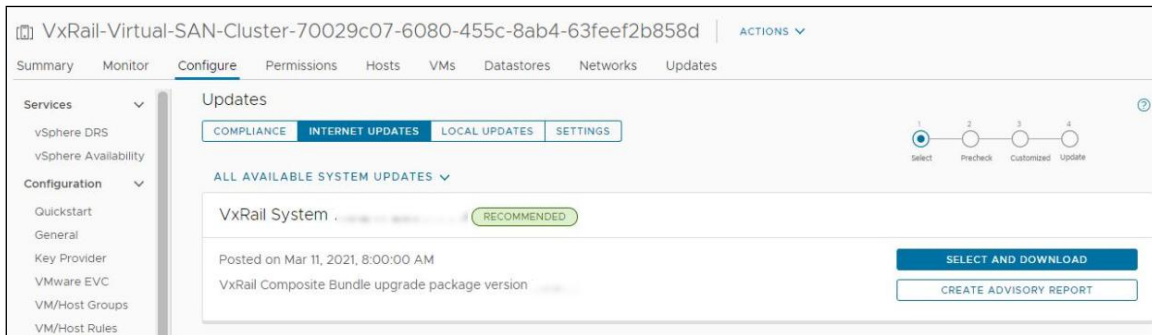
Figure 4   Internet Updates tab.

4. [   ] [Optional in v7.0.24x] Click **CREATE ADVISORY REPORT** to generate the advisory report, review the component upgrade content before starting the upgrade process.
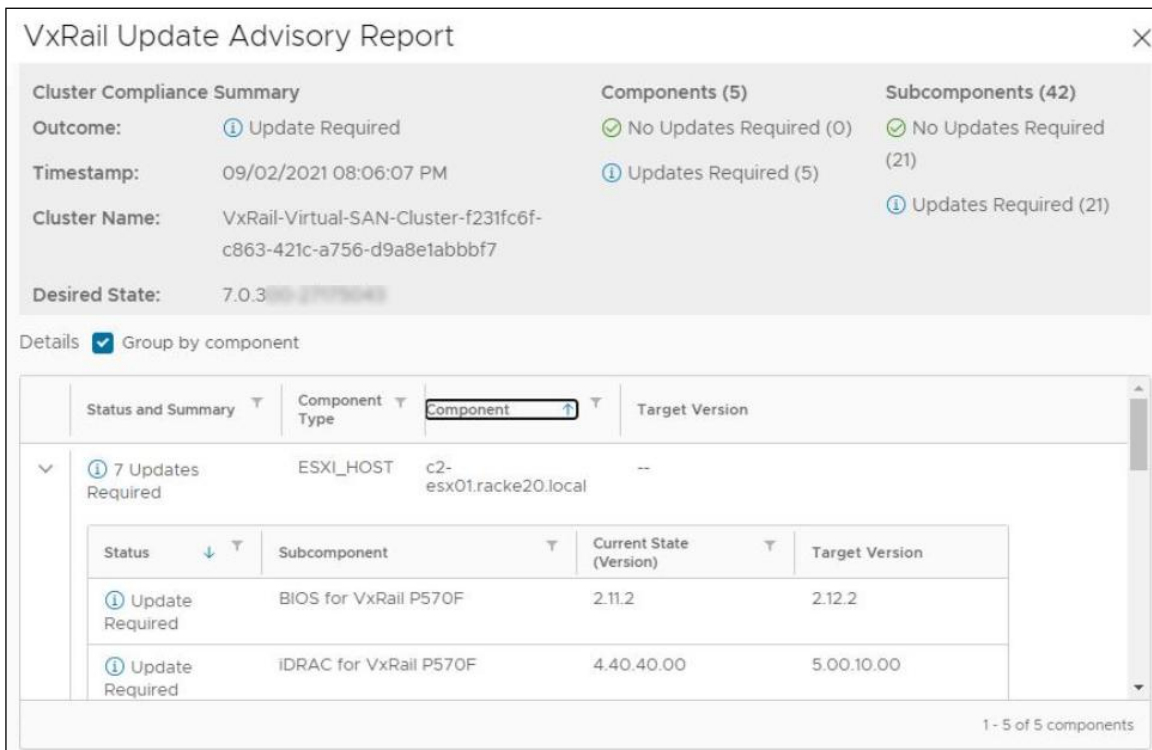
Figure 5   Update Advisory report

5. [   ] If the support account is not already set, enter your Support username and password, then select **INTERNET UPDATES** again after the account is configured.

6. [   ] The required file will begin to download. When completed, skip to Step 11.

7. [   ] If the Cluster is not Internet-enabled, select **LOCAL UPDATES**.

8. [   ] Click **BROWSE** in versions earlier than 7.0.24x, or **CHOOSE** for 7.0.24x, or **SELECT UPDATE BUNDLE** under **Option 1: Update VxRail** for 7.0.300 or later:

9. [   ] In open file dialog, select the upgrade composite package files previously downloaded and saved locally, and then click **Open** or **Upload**.

Note: Starting with release 7.0.130, multi bundles are supported as one of the LCM upgrade bundle types. DO NOT rename any multi-part files, and ensure that all multi-part files are uploaded at the same time.

10. [   ] For multi bundles, select all the downloaded bundles and upload.

11. [   ] Monitor the upload progress in the UI. DO NOT navigate away from upload page before the uploading process is completed.

12. [   ] After a short delay, extraction and prechecking will begin automatically.
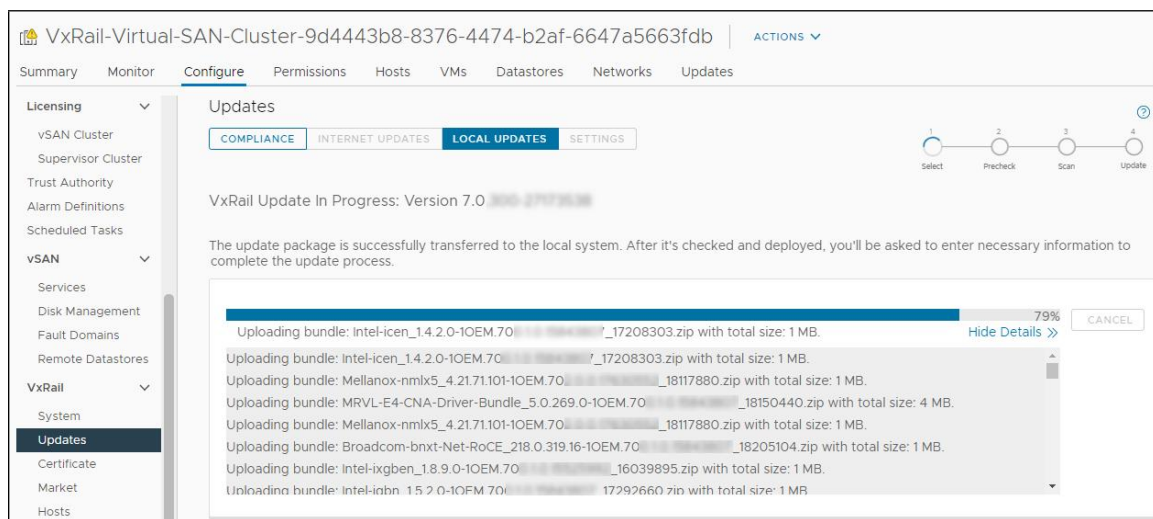
Figure 6   Extraction and prechecking progress.

13. [   ] [Optional] Run a precheck and identify issues before you apply the update.

a. Click **PRE-CHECK**.
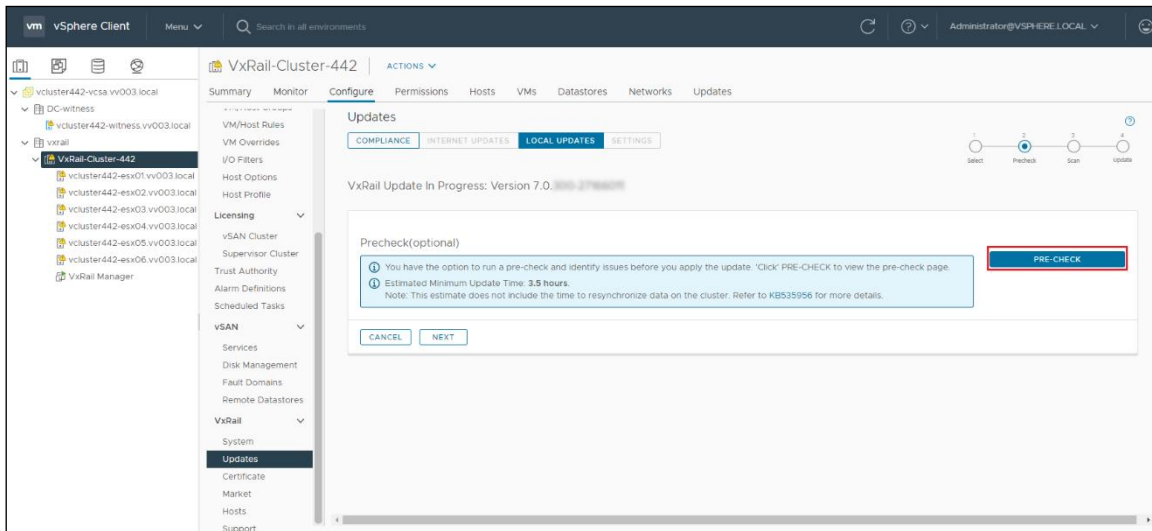
Figure 7   Precheck

b. Click the **RUN PRE-CHECK** to start the Precheck.

c. Enter the username and password as prompted. Input fields will differ depending on whether you are using an external vCenter or internal vCenter. Click **VALIDATE** to continue.

d. Review the credentials and click **CONFIRM**.

e. Monitor the precheck process.

f. Click **CLOSE PRE-CHECK**.

> **Note:** Steps 14, 15, and 16 are optional in v7.0.24x or later.

14. [   ] Click **Next** to go to the Change Report page.

15. [   ] [Optional] If there is any customized component (for example FC HBA driver or firmware) to be updated in your system:

   a. Click **CUSTOMIZE.**
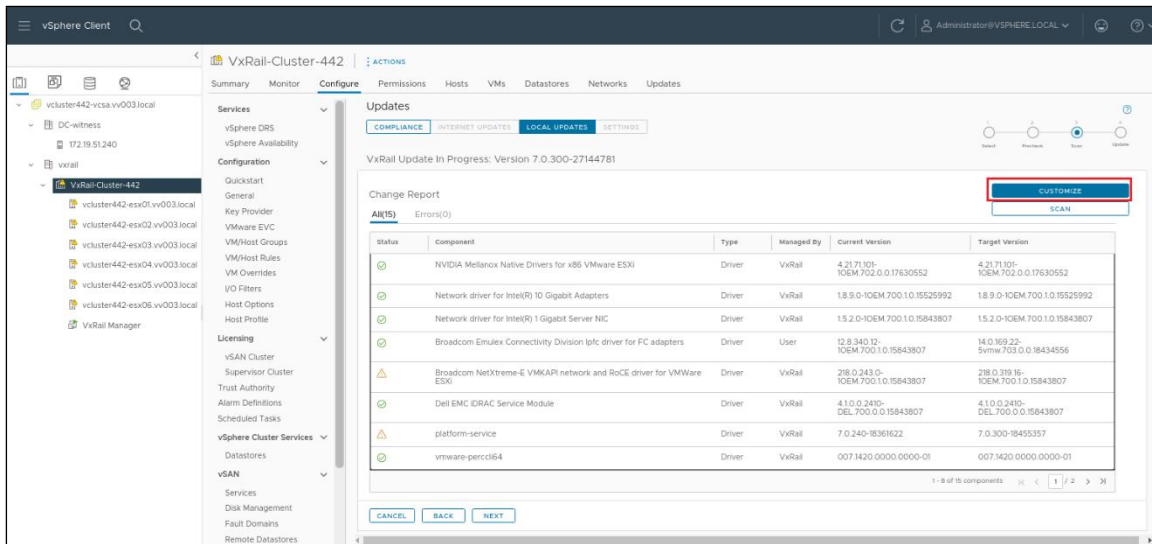
Figure 8   Customize.

b. Click the **upload** icon to update Customize driver or firmware if it exists in the VxRail Nodes or **ADD COMPONENT** to add a customize component.
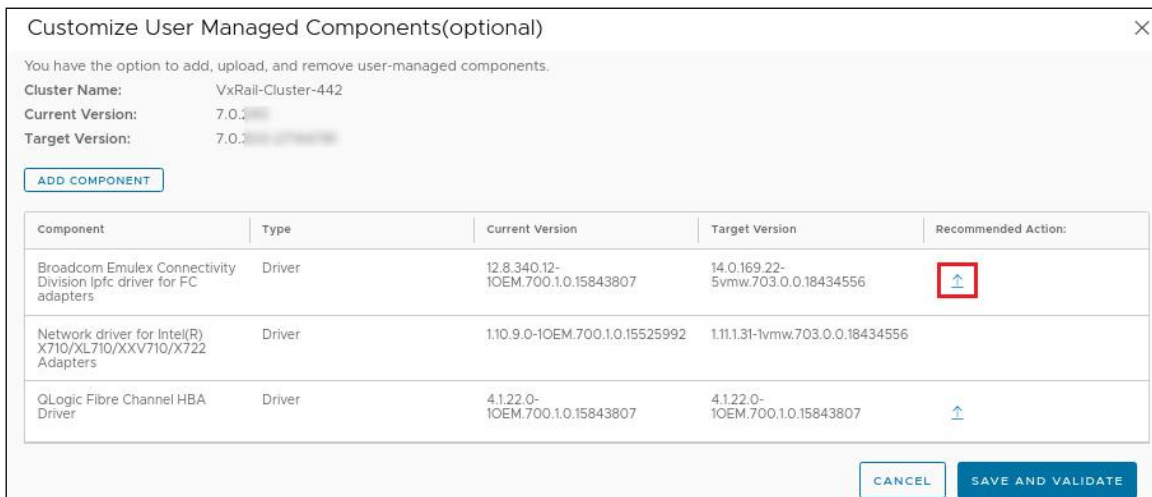
Figure 9   Click Save and Validate.

c. Click **SAVE AND VALIDATE** after the upload completes.

16. [   ] Review the change report, then Click **NEXT**.

17. [   ] Review the Upgrade Summary page, then Click **CONTINUE UPDATE** to start the upgrade.

18. [   ] Choose option **A** to immediately begin the update or option **B** to schedule the update for a later date and time:

    Option A: Select **Update Now** and click **NEXT**.

Figure 10   Update now.

**Option B**: Select **Schedule Update**, enter the date and time for the update to begin and click **NEXT**.

Figure 11   Schedule update.

19. [   ]   Enter the username and password as prompted. Input fields will differ depending on whether you are using an external vCenter or internal vCenter. Click **NEXT** to continue.

20. [   ]   After you have entered all the fields (multiple screens), click **FINISH** to start the update process.

21. [   ]   The upgrade progress can be monitored on the screen.

Note: If you are logged out of the VxRail Manager UI, you can relaunch it by selecting **VxRail Cluster > Configure > VxRail > Updates**.

22. [   ]   [Optional] Starting from VxRail release 7.0.24x, vLCM is integrated into VxRail. To monitor the vLCM upgrade progress, see **Appendix A** for more details.

23. [   ]   When the upgrade completes, log in to vCenter Server using HTLM5 Client with administrator@vsphere.local and the vCenter password.
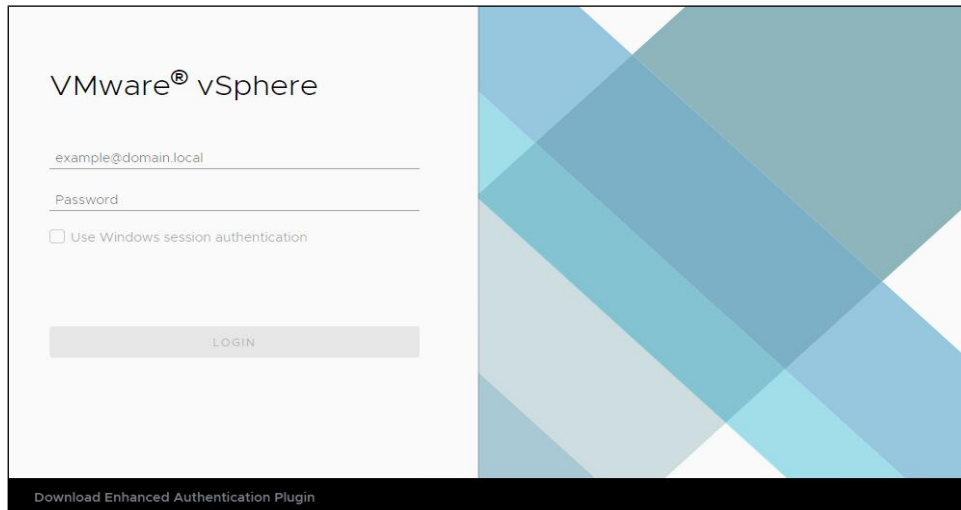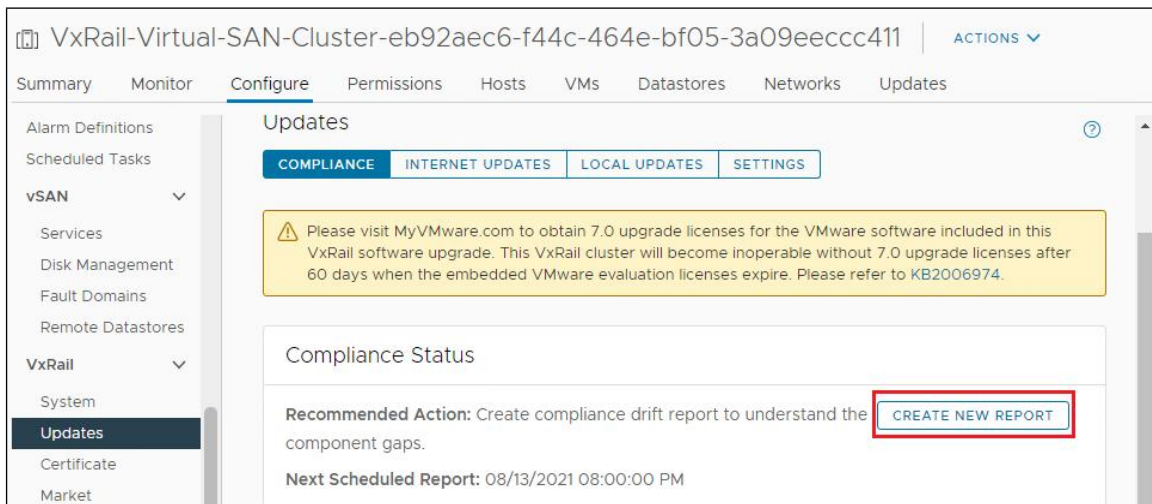
Figure 12   vCenter Server login.

24. [   ]   From the **Home** tab, select **Hosts and Clusters** and select the VxRail Cluster. Under the **Configure** tab, expand the **VxRail** selection and choose **Updates** to verify the VxRail component versions.
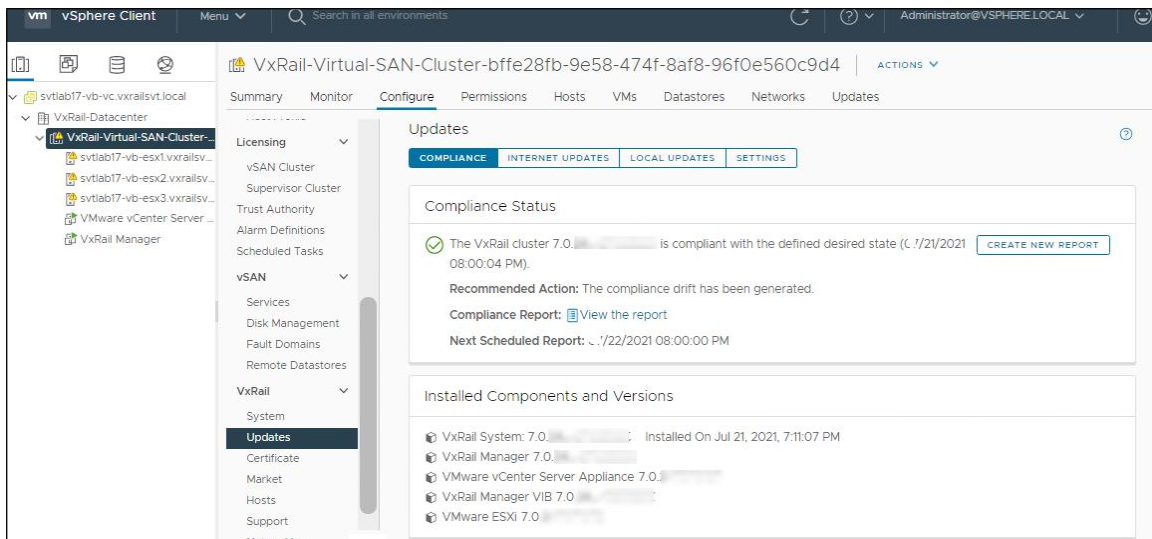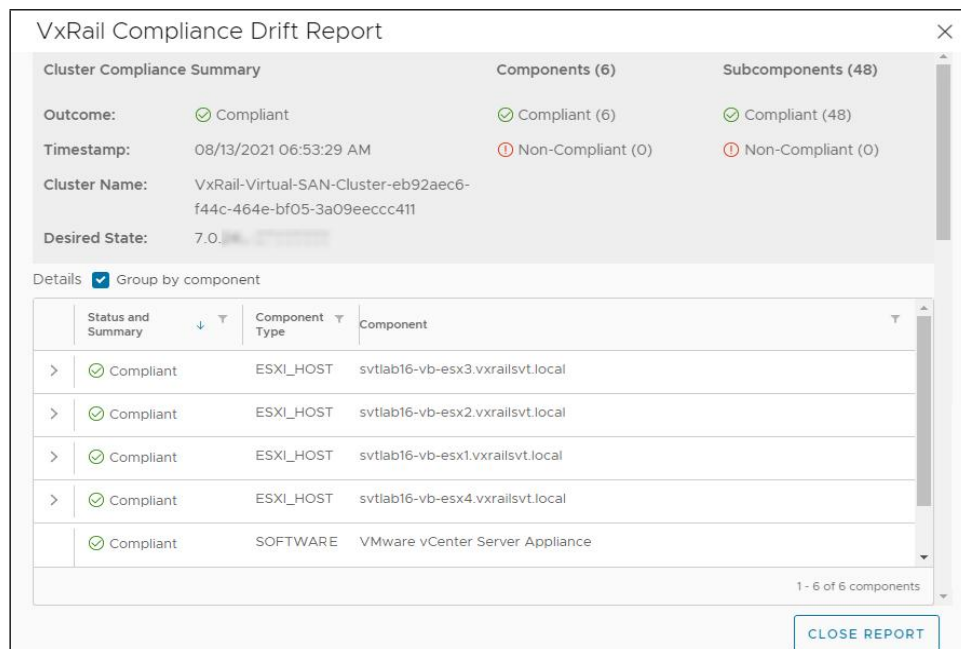

Figure 13   Verify component versions.

25. [   ]   Check compliance status. Click **CREATE NEW REPORT** to create a compliance drift report.

Figure 14   Create New Report

26. [   ]   Click **CREATE**.

27. [   ]   Click **View the report**.

28. [   ]   Review the report to ensure that there are no non-compliant components.

Figure 15   VxRail Compliance Drift Report

29. [   ]   Click the left arrow to expand the details of a component.

30. [   ]   Ensure that the VxRail appliance is in a healthy state.

a. Go to Home > Hosts and Clusters > *VxRail-Cluster*.
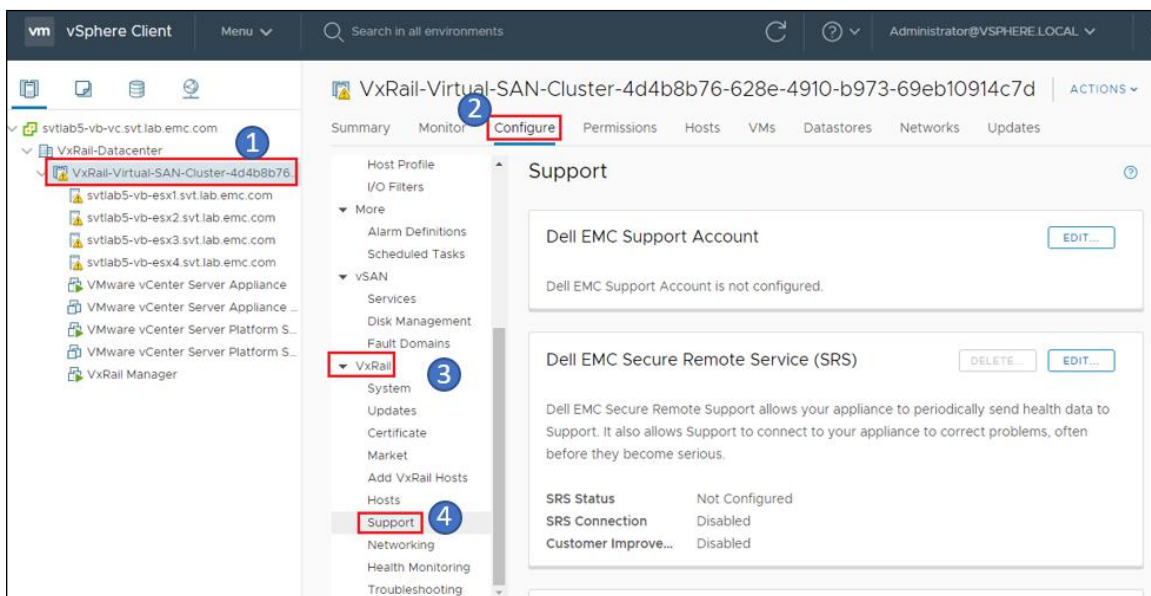
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b. Select **Monitor > Issues and Alarms > All Issues**.
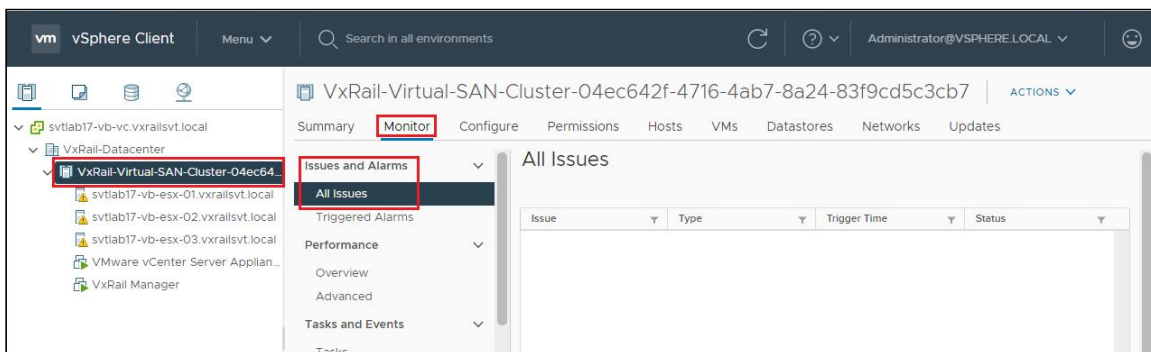
Figure 16   Monitor issues and alarms.

c. Verify the VxRail cluster health status.

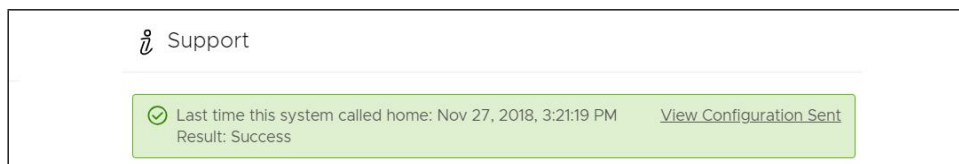31. [   ]   If SRS is enabled in your VxRail appliance, check the SRS status.

a. Go to **Home** > **Host and Clusters** > *VxRail-Cluster*.

b. Select **Configure** > **VxRail** > **Support**.

Figure 17   Support Page

c. In the **Support** section, check the last call home time.

Figure 18   Check Last heartbeat.

d. Open in browser: *https://<SRS VE IP>:9443*. Login with admin username and password. Ensure that SRS VE connectivity status is connected.

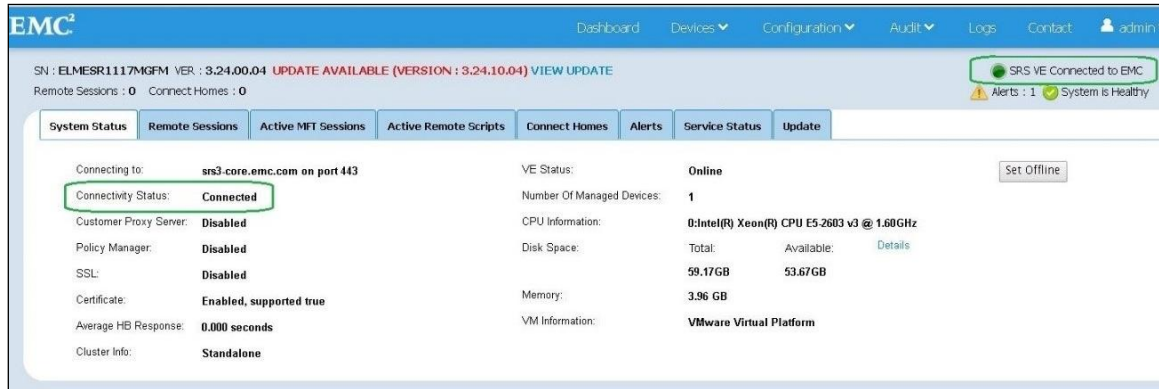Figure 19   Check the connectivity status.

e. If not connected, perform the following steps to correct the status.

    a. Go to **Home > Hosts and Clusters >** `VxRail-Cluster.`

    b. Select **Configure > VxRail > Support**.

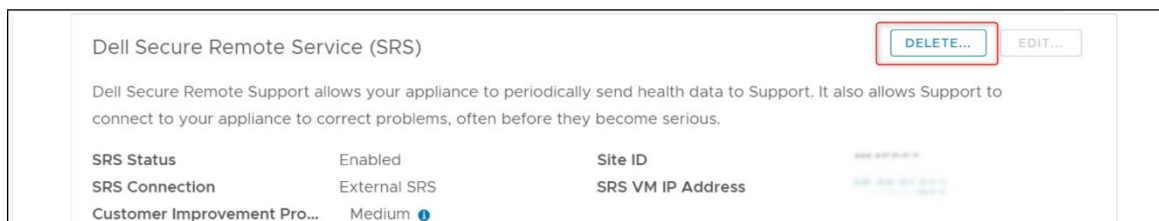   c. In the **SRS** section, click **DELETE.**

Figure 20   Delete SRS.

    d. After successful deletion, click **EDIT** to add it again.

Task 4:   Mystic Service account password change (optional)

To change the Mystic Service account password, perform the following:

a. Log in to vCenter Server using HTML5 Client with administrative privileges.

b. Go to **Home > Host and Clusters >** `VxRail-Cluster > VxRail Manager.`

c. Under the **Summary** tab, click **Launch Web Console**.

d. Login with root username and password.

Figure 21   VxRail Manager Console.

e. Run the following command to update the password:

# *passwd mystic*

a. Enter the new password as prompted.

b. Type **logout** to log out of VxRail Manager console.

Task 5:   Remove snapshots of the service Virtual Machines (optional)

Once the upgrade has completed successfully, remove all the snapshots created in the Take a snapshot of the service Virtual Machines section to prevent vSAN capacity utilization long term:

- VxRail Manager VM
- VMware vCenter Server Appliance VM (if using embedded)
- VMware vRealize Log Insight VM (if using VxRail deployed syslog)
- SRS VE VM (if call home is enabled and using VxRail Manager deployed SRS)

a. Go to **Hosts and Clusters >** *VxRail-Cluster*.
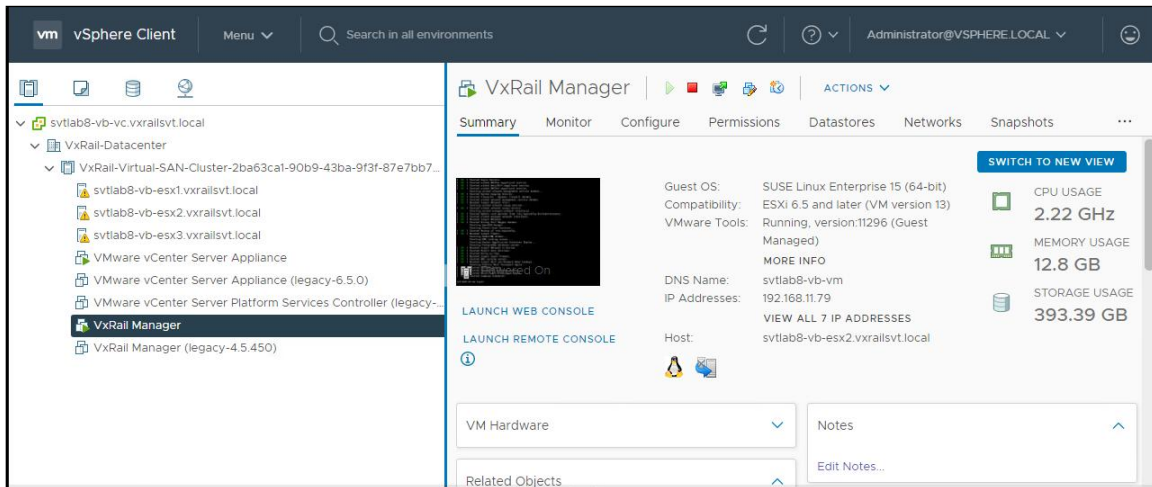
Figure 22   VxRail clusters.

b. Remove the snapshot of a service VM. Right-click **VxRail Manager > Snapshots > Manage Snapshots.**

c. Select a snapshot and click **Delete**.

d. Repeat Steps b and c for each of the remaining service VMs.

Appendix A: VxRail Upgrade with vLCM

Task 6:   Task 1: Enable vLCM using VxRail UI

Notes:

- If the VxRail cluster was upgraded from 4.5.x to 7.0.24x and later directly, vLCM enablement is not supported by default, see VxRail KB 000190895 to solve this issue.

- vLCM cannot be enabled on the following:

    - VxRail nodes which have GPU driver installed

    - VxRail 13G nodes.

    - A VxRail Cluster 7.0.24x with an external vCenter 7.0u3.

Starting with VxRail release 7.0.24x, vLCM can be enabled on VxRail Cluster from VxRail provided UI. Customer can then upgrade a vSphere component of VxRail Cluster based on vLCM.

To enable vLCM, see the Dell VxRail 7.0.x Administration Guide.

Task 7:   Task 2: Upgrade VxRail Cluster with vLCM

Once vLCM had been enabled on VxRail Cluster, VxRail upgrade will be backward compatible with the vLCM API for vSphere component upgrade as well as firmware.

The auto upgrade procedure is same as LCM upgrade, see the details in section Upgrade from v4.7.24x to v7.0.3xx.

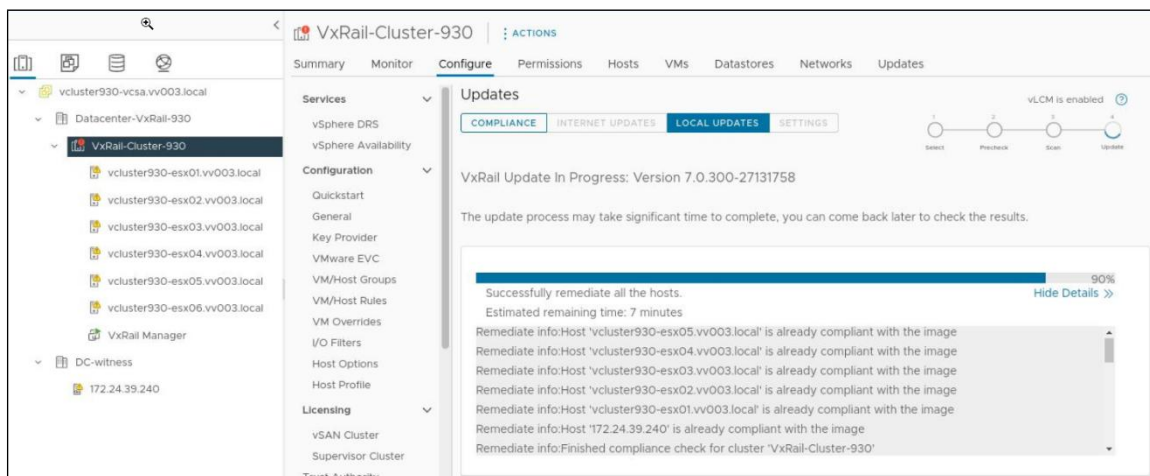During VxRail nodes upgrade, the vLCM upgrade status is exposed in the VxRail UI directly.

Figure 23   vLCM Upgrade Status.