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Lab Overview - HOL-1834-CMP - vRealize Suite Lifecycle Manager
Lab Guidance

Note: It will take more than 90 minutes to complete this lab. You should expect to only finish 2-3 of the modules during your time. The modules are independent of each other so you can start at the beginning of any module and proceed from there. You can use the Table of Contents to access any module of your choosing.

The Table of Contents can be accessed in the upper right-hand corner of the Lab Manual.

You will explore how to use vRealize Suite Lifecycle Manager to create and manage an environment consisting of several of the vRealize Suite solutions.

Lab Module List:

- **Module 1 - Introduction to vRealize Suite Lifecycle Manager** (30 minutes) (Basic) Walk through the installation of vRealize Suite Lifecycle Manager, and the process of creating an environment including managed deployments of vRealize Suite components.
- **Module 2 - Using vRealize Suite Lifecycle Manager to Manage the vRealize Suite** (30 minutes) (Basic) Navigate the vRealize Suite Lifecycle Manager interface and manage an existing vRealize Suite component.
- **Module 3 - Using vRealize Suite Lifecycle Manager to Upgrade vRealize Suite Components** (30 minutes) (Basic) Perform an upgrade of an existing vRealize Suite component using vRealize Suite Lifecycle Manager.
- **Module 4 - Using the vRealize Suite Lifecycle Manager Marketplace** (30 minutes) (Advanced) Explore the vRealize Suite Lifecycle Manager Marketplace for extensions to vRealize Suite components and install extensions directly.
- **Module 5 - Using vRealize Suite Lifecycle Manager to Manage Configuration Drift** (30 minutes) (Advanced) Capture a snapshot of an existing environment configuration, and correct configuration drift of vRealize Suite components using vRealize Suite Lifecycle Manager.

Lab Captains:

- **Module 1 - Jarrett Blandin, Senior Systems Engineer, USA, and Ed Bontempo, Senior Systems Engineer, USA**
- **Module 2 - Jarrett Blandin, Senior Systems Engineer, USA, and Ed Bontempo, Senior Systems Engineer, USA**
- **Module 3 - Jarrett Blandin, Senior Systems Engineer, USA, and Ed Bontempo, Senior Systems Engineer, USA**
- **Module 4 - Jarrett Blandin, Senior Systems Engineer, USA, and Ed Bontempo, Senior Systems Engineer, USA**
- **Module 5 - Jarrett Blandin, Senior Systems Engineer, USA, and Ed Bontempo, Senior Systems Engineer, USA**
This lab manual can be downloaded from the Hands-on Labs Document site found here:

http://docs.hol.vmware.com

This lab may be available in other languages. To set your language preference and have a localized manual deployed with your lab, you may utilize this document to help guide you through the process:


**Introduction to the Scenario**

Rainpole Systems is an electronics manufacturer located in Palo Alto, CA. Rainpole designs and manufactures electronic devices for use in everything from aircraft instrumentation to home automation. Rainpole wishes to leverage the vRealize Suite as a cloud management platform for their global data center environment, but does not wish to incur the overhead of managing multiple vRealize Suite components individually.

Rainpole Systems intends to leverage vRealize Suite Lifecycle Manager in order to manage multiple vRealize Suite components holistically. Starting with Rainpole's development data center in Palo Alto, California, Rainpole's data center administrators plan to deploy vRealize Log Insight, vRealize Operations, and vRealize Automation in a single environment managed by vRealize Suite Lifecycle Manager, and then adapt this design to QV and production environments.

Since Rainpole's cloud administrators have already deployed vRealize Automation in the development data center, the data center administrators would prefer to bring this existing installation under management along with the new deployments of vRealize Log Insight and vRealize Operations. With vRealize Suite Lifecycle Manager managing all three vRealize Suite components in this data center, Rainpole's administrators can simplify the upgrade process, manage configuration drift in order to ensure proper functionality, and deploy add-ons to each component through the Marketplace.

You will take on the role of a Rainpole data center administrator in this lab exercise in order to experience how vRealize Suite Lifecycle Manager can streamline and enhance management of the vRealize Suite.
Location of the Main Console

1. The area in the RED box contains the Main Console. The Lab Manual is on the tab to the Right of the Main Console.
2. A particular lab may have additional consoles found on separate tabs in the upper left. You will be directed to open another specific console if needed.
3. Your lab starts with 90 minutes on the timer. The lab can not be saved. All your work must be done during the lab session. But you can click the EXTEND to increase your time. If you are at a VMware event, you can extend your lab time twice, for up to 30 minutes. Each click gives you an additional 15 minutes. Outside of VMware events, you can extend your lab time up to 9 hours and 30 minutes. Each click gives you an additional hour.

Alternate Methods of Keyboard Data Entry

During this module, you will input text into the Main Console. Besides directly typing it in, there are two very helpful methods of entering data which make it easier to enter complex data.
Click and Drag Lab Manual Content Into Console Active Window

You can also click and drag text and Command Line Interface (CLI) commands directly from the Lab Manual into the active window in the Main Console.

Accessing the Online International Keyboard

You can also use the Online International Keyboard found in the Main Console.

1. Click on the Keyboard Icon found on the Windows Quick Launch Task Bar.
Click once in active console window

In this example, you will use the Online Keyboard to enter the "@" sign used in email addresses. The "@" sign is Shift-2 on US keyboard layouts.

1. Click once in the active console window.
2. Click on the **Shift** key.

Click on the @ key

1. Click on the "@" key.

Notice the @ sign entered in the active console window.
Activation Prompt or Watermark

When you first start your lab, you may notice a watermark on the desktop indicating that Windows is not activated.

One of the major benefits of virtualization is that virtual machines can be moved and run on any platform. The Hands-on Labs utilizes this benefit and we are able to run the labs out of multiple datacenters. However, these datacenters may not have identical processors, which triggers a Microsoft activation check through the Internet.

Rest assured, VMware and the Hands-on Labs are in full compliance with Microsoft licensing requirements. The lab that you are using is a self-contained pod and does not have full access to the Internet, which is required for Windows to verify the activation. Without full access to the Internet, this automated process fails and you see this watermark.

This cosmetic issue has no effect on your lab.

Look at the lower right portion of the screen
Please check to see that your lab is finished all the startup routines and is ready for you to start. If you see anything other than "Ready", please wait a few minutes. If after 5 minutes your lab has not changed to "Ready", please ask for assistance.
Module 1 - Introduction to vRealize Suite Lifecycle Manager (30 minutes)
Introduction

As Rainpole Systems begins to incorporate components of the vRealize Suite into their data center management processes, they will use vRealize Suite Lifecycle Manager to manage deployment and updates to these components.

Rainpole's data center admins will begin by deploying vRealize Operations and vRealize Log Insight in the Rainpole development environment, located in a data center in Palo Alto, California. In order to simplify this process, Rainpole's data center admins will begin by deploying and configuring vRealize Suite Lifecycle Manager.

In this lab exercise, you will walk through the initial configuration of vRealize Suite Lifecycle Manager, including downloading installation media for other vRealize Suite components, configuration of a data center, and creation of an environment consisting of new deployments of vRealize Operations and vRealize Log Insight.
Introducing vRealize Suite Lifecycle Manager

In this exercise, you will learn more about vRealize Suite Lifecycle Manager and how it can be used to simplify operation of various vRealize Suite components.

What is vRealize Suite Lifecycle Manager?

vRealize Suite Lifecycle Manager is a new component of the vRealize Suite 2017. By starting with vRealize Suite Lifecycle Manager, organizations can quickly deploy various components of the vRealize Suite cloud management platform in order to meet their needs.

In addition to streamlining and simplifying the deployment process, vRealize Suite Lifecycle Manager also allows for one-click upgrades and patching of managed components, installation of extensions via an online marketplace, and configuration drift detection and remediation.

Configuration settings of environments created within vRealize Suite Lifecycle Manager can be saved in JSON format as well. This allows for quick duplication of existing environments (for example, development and production instances,) all of which can be managed from a single deployment of vRealize Suite Lifecycle Manager.
vRealize Suite Lifecycle Manager Benefits

- **Rapid Installation**: Environments can be deployed with a customized set of vRealize Suite components, or a solution of pre-configured components to maximize time to value.
- **Easy Ongoing Management**: Health monitoring and configuration drift management options simplify ongoing management of vRealize Suite components.
- **One-Click Upgrade**: Upgrades to components within an environment are available through the user interface. This process includes validation checks and options for pre-upgrade snapshots.
- **Best Practice Implementation**: Easy alignment with VMware recommended reference architecture and VMware Validated Designs (VVD) through pre-defined settings.

vRealize Suite Lifecycle Manager Concepts

- **Data Center**: A location consisting of one or more vCenter Servers. Data Centers will be displayed on the world map in the Data Centers view, and vCenter Servers in each data center can be categorized for management systems, general workloads, or a combination of the two.
- **Environment**: A grouping of one or more vRealize Suite components (including vRealize Operations, vRealize Automation, vRealize Log Insight, and vRealize Business) managed by vRealize Suite Lifecycle Manager. Environments can consist of newly deployed components (deployed by vRealize Suite Lifecycle Manager upon environment creation,) existing deployments of vRealize Suite components (discovered automatically by vRealize Suite Lifecycle Manager,) or a combination of both.
Installing vRealize Suite Lifecycle Manager and Creating an Environment

This part of the lab is presented as a Hands-on Labs Interactive Simulation. This will allow you to experience steps which are too time-consuming or resource intensive to do live in the lab environment. In this simulation, you can use the software interface as if you are interacting with a live environment.

1. Click here to open the interactive simulation. It will open in a new browser window or tab.
2. When finished, click the “Return to the lab” link to continue with this lab.

The lab continues to run in the background. If the lab goes into standby mode, you can resume it after completing the module.
Conclusion

In this module, you learned about vRealize Suite Lifecycle Manager. In addition, you observed the initial configuration process and the creation of a new environment consisting of new deployments of vRealize Operations as well as vRealize Log Insight.

You've finished Module 1

Congratulations on completing Module 1.

If you are looking for additional information on vRealize Suite Lifecycle Manager, try one of these:

- Go to [http://bit.ly/2mLiPjy](http://bit.ly/2mLiPjy)
- Or use your smart device to scan the QRC Code.

Proceed to any module below which interests you most.

- **Module 2 - Using vRealize Suite Lifecycle Manager to Manage the vRealize Suite** (30 minutes) (Basic) Navigate the vRealize Suite Lifecycle Manager interface, and manage an existing vRealize Suite component.
- **Module 3 - Using vRealize Suite Lifecycle Manager to Upgrade vRealize Suite Components** (30 minutes) (Basic) Perform an upgrade of an existing vRealize Suite component using vRealize Suite Lifecycle Manager.
- **Module 4 - Using the vRealize Suite Lifecycle Manager Marketplace** (30 minutes) (Advanced) Explore the vRealize Suite Lifecycle Manager Marketplace for extensions to vRealize Suite components, and install extensions directly.
- **Module 5 - Using vRealize Suite Lifecycle Manager to Manage Configuration Drift** (30 minutes) (Advanced) Capture a snapshot of an existing environment configuration, and correct configuration drift of vRealize Suite components using vRealize Suite Lifecycle Manager.
How to End Lab

To end your lab click on the END button.
Module 2 - Using vRealize Suite Lifecycle Manager to Manage the vRealize Suite (30 minutes)
Introduction to Lab Scenario

As Rainpole Systems begins to incorporate components of the vRealize Suite into their data center management processes, they will use vRealize Suite Lifecycle Manager to manage deployment and updates to these components.

With the Rainpole Dev data center in Palo Alto defined, and an environment created consisting of new deployments of vRealize Log Insight and vRealize Operations, Rainpole is able to manage these components holistically. However, in the Rainpole Dev data center, Rainpole's virtual admins have already installed vRealize Automation and have made progress in automating IT processes.

In this lab exercise, you will add the existing vRealize Automation deployment to the Rainpole Dev environment created in the previous module. Doing so will allow vRealize Suite Lifecycle Manager to maintain and update vRealize Automation along with the Log Insight and Operations components deployed during the creation of the environment itself.
Navigating the vRealize Suite Lifecycle Manager Interface

In this exercise, you will discover the primary components of the vRealize Suite Lifecycle Manager user interface.

Open Chrome Browser

1. Click the Chrome icon in the Windows Quick Launch Task Bar. If the browser window is already open following completion of the previous module, open a new tab in the browser instead (not shown.)
Navigate to vRealize Suite Lifecycle Manager and Log In

1. Click the **vRealize Suite Lifecycle Manager** bookmark
2. Log in to vRealize Suite Lifecycle Manager as **admin@localhost** with the password **VMware1!**
3. Click **LOG IN**
vRealize Suite Lifecycle Management Home Screen

Upon logging in, the Home screen will be displayed. Specific sections of the user interface are available on the left, including:

- **Home**: return to this screen
- **Create Environment**: configure a new environment managed by vRealize Suite Lifecycle Manager, consisting of one or more vRealize Suite components
- **Manage Data Centers**: define data centers in multiple geographical locations, and manage vCenter Servers in each location
- **Requests**: view running and previously completed requests
- **Marketplace**: view extensions to vRealize Suite components, including Log Insight content packs and vRealize Operations dashboards
- **Settings**: modify vRealize Suite Lifecycle Manager global settings

Next, you will review each section of the interface in more detail.

1. Click the **Manage Environments** pane to view environments managed by vRealize Suite Lifecycle Manager
In the Manage Environments section, you can view and modify existing environments managed by vRealize Suite Lifecycle Manager.

1. Note the existing **Rainpole Dev** environment. This environment includes vRealize Log Insight and vRealize Operations, as deployed in Module 1. Click here to review the environment creation process. Additional environment management functionality will be covered in later modules.
2. Click **Manage Data Centers** to proceed to the next section.
In the Manage Data Centers section, you can view and define data centers globally, and configure vCenter servers in each data center location for vRealize Suite Lifecycle Manager to integrate with.

1. Note the existing data center, which was defined in module 1. Mouse over the data center icon to view the data center name and location.
2. Click **Requests** to proceed to the next section.
Requests

Previously completed and currently running requests can be viewed in the Requests section. Additional information on specific requests can be viewed by clicking on the entry in the State column.

1. Click **Marketplace** to proceed to the next section.
The vRealize Suite Lifecycle Manager marketplace allows administrators to download and install additional enhancements to vRealize Suite components. Components include vRealize Log Insight Content Packs, vRealize Operations management packs, and more. The Marketplace will be covered in additional detail in Module 4.

1. Click **Settings** to proceed to the next section.
The Settings section allows for modification of various vRealize Suite Lifecycle Manager configuration, including:

- **Common Configuration**: Settings specific to the vRealize Suite Lifecycle Manager appliance.
- **OVA Configuration**: Source for virtual appliance files for vRealize Suite component installation and upgrades. These files can be stored locally on the vRealize Suite Lifecycle Manager appliance, on a local NFS share, or downloaded directly from your My VMware account.
- **Identity Manager**: Define a new Identity Manager appliance used by vRealize Suite Lifecycle Manager for component integration, or leverage an existing Identity Manager appliance.
- **My VMware**: Define My VMware credentials. These credentials will be used by vRealize Suite Lifecycle Manager to download vRealize Suite component installation and upgrade media, and to manage available vRealize Suite licenses.
- **Logs**: Manage vRealize Suite Lifecycle Manager log data, or download logs for troubleshooting.
- **Update**: Check for and install updates to vRealize Suite Lifecycle Manager.
- **Generate Certificate**: Manage the certificate used by vRealize Suite Lifecycle Manager in newly created environments.
- **Proxy**: Configure a proxy server for use with vRealize Suite Lifecycle Manager.
Continue to Manage Environments Section

After reviewing the available settings in the Settings section, proceed to the Manage Environments section for the next section of this lab exercise.

1. Click **Manage Environments** to proceed
Adding existing vRealize Automation solution to vRealize Suite Lifecycle Manager Environment

In this exercise, you will add an existing vRealize Automation solution to the Rainpole Dev environment created in Module 1. This will allow vRealize Suite Lifecycle Manager to manage the vRealize Automation solution in addition to the vRealize Log Insight and vRealize Operations components deployed during environment creation.

Add to Existing Environment
Existing vRealize Suite components can be added to an already created environment within vRealize Suite Lifecycle Manager.

1. Click the **3 vertical dots** to open the environment menu for the Rainpole Dev environment.
2. Click **+ Add Products** to add to the environment.

### Add Products

1. Click and drag the **scrollbar** on the right to scroll to the bottom of the screen.
2. Uncheck the Join the **VMware Customer Experience Improvement Program** checkbox to disable data collection, as this is not necessary in this lab environment.
3. Check the box in the upper right of the section labeled **vRealize Automation** to enable it.
4. Change the installation option from the default of New Install to **Import**. This will also enable auto detection of the vRealize Automation environment, as shown in the screenshot.
5. Click **Create Environment** to proceed.
Configure vRealize Automation Parameters

1. Click the scrollbar to the right of the Products section to view all available properties for vRealize Automation.

2. Enter properties for the existing vRealize Automation installation as follows (Note: these properties are case sensitive):

   - vRA Root Password: **VMware1!**
   - vRA Default Administrator Password: **VMware1!**
   - vRA Tenant User Name: **administrator**
   - vRA Primary Node FQDN: **vra-01a.corp.local**
   - IaaS Username: **CORP\Administrator**
   - vRA Tenant Name: **vsphere.local**
   - vRA Tenant Password: **VMware1!**
   - IaaS Password: **VMware1!**

3. Click **Next** to proceed.
View Summary and Submit Request

In the Summary section, you can review the information entered and submit the request.

1. Click **Submit** to submit the request to add vRealize Automation to the Rainpole Dev environment.
2. Click **Requests** from the menu on the left to proceed to the Requests section to view the request in progress.
1. Click the **INPROGRESS** icon in the State column of the ADD_PRODUCT request to view the request in progress.
Verify Request Completion

The request will complete within 1-2 minutes.

1. Verify the status of the request - once complete, a green **COMPLETED** icon will show.
2. Click **Manage Environments** to proceed to the list of available environments.
Verify Request Completion (cont)

With the request complete, verify in the Manage Environments section that vRealize Automation has been successfully added to this environment.

1. Mouse over the **vRealize Automation icon** to display the listed 7.3.0 component now managed in the Rainpole Dev environment.

Note: You may need to refresh your browser for the vRealize Automation icon to appear.

With the request complete, the Rainpole Dev environment now includes the previously installed vRealize Automation component in addition to the vRealize Log Insight and vRealize Operations components deployed during environment creation. Rainpole's administrators are now able to leverage vRealize Suite Lifecycle Manager to maintain configuration of vRealize Automation and to upgrade it as needed, even though it was not deployed during creation of the environment.
Conclusion

In this module, you learned more about the vRealize Suite Lifecycle Manager user interface. In addition, through the Manage Environments section you were able to add an existing deployment of vRealize Automation to a vRealize Suite Lifecycle Manager environment, allowing you to simplify management of vRealize Automation.

You've finished Module 2

Congratulations on completing Module 2.

If you are looking for additional information on managing environments in vRealize Suite Lifecycle Manager, try one of these:

- Go to http://bit.ly/2DjaVS4
- Or use your smart device to scan the QRC Code.

Proceed to any module below which interests you most.

- **Module 1 - Introduction to vRealize Suite Lifecycle Manager** (30 minutes) (Basic) Walk through the installation of vRealize Suite Lifecycle Manager, and the process of creating an environment including managed deployments of vRealize Suite components.
- **Module 3 - Using vRealize Suite Lifecycle Manager to Upgrade vRealize Suite Components** (30 minutes) (Basic) Perform an upgrade of an existing vRealize Suite component using vRealize Suite Lifecycle Manager.
- **Module 4 - Using the vRealize Suite Lifecycle Manager Marketplace** (30 minutes) (Advanced) Explore the vRealize Suite Lifecycle Manager Marketplace for extensions to vRealize Suite components, and install extensions directly.
- **Module 5 - Using vRealize Suite Lifecycle Manager to Manage Configuration Drift** (30 minutes) (Advanced) Capture a snapshot of an existing environment configuration, and correct configuration drift of vRealize Suite components using vRealize Suite Lifecycle Manager.
How to End Lab

To end your lab click on the **END** button.
Module 3 - Using vRealize Suite Lifecycle Manager to Upgrade vRealize Suite Components (45 minutes)
Introduction to Lab Scenario

As Rainpole Systems begins to incorporate components of the vRealize Suite into their data center management processes, they will use vRealize Suite Lifecycle Manager to manage deployment and updates to these components.

In addition to deploying the vRealize Suite components during environment creation, vRealize Suite Lifecycle Manager allows for several Day 2 operations, including upgrades.

In this lab, as a Rainpole data center admin you will view available operations on the existing Rainpole Dev environment, and then leverage vRealize Suite Lifecycle Manager to upgrade vRealize Log Insight to a new version.
vRealize Suite Lifecycle Management Concepts

Environments in vRealize Suite Lifecycle Manager consist of one or more vRealize Suite components, including:

- vRealize Automation
- vRealize Business for Cloud
- vRealize Operations Manager
- vRealize Log Insight

Module 1 demonstrated the creation of a vRealize Suite Lifecycle Manager environment consisting of new deployments of vRealize Log Insight and vRealize Operations. During environment creation, both components were deployed automatically by vRealize Suite Lifecycle Manager. Click here to review the environment creation process in module 1.

Module 2 demonstrated adding an existing deployment of vRealize Automation to an environment defined in vRealize Suite Lifecycle Manager. This vRealize Automation instance was installed separately, but vRealize Suite Lifecycle Manager can still be used to manage the lifecycle in addition to the lifecycle of the solutions deployed automatically during environment creation. Click here to review the process for adding the existing vRealize Automation instance to the Rainpole Dev environment.

In addition to environment creation and adding existing vRealize Suite components to an environment, additional vRealize Suite Lifecycle Management concepts will be discussed in this module as well as subsequent modules.

Open Chrome Browser

1. Click the Chrome icon in the Windows Quick Launch Task Bar. (This step may be skipped if the browser window is already open from a previous module.)
Navigate to vRealize Suite Lifecycle Manager and Log In

1. Click the vRealize Suite Lifecycle Manager bookmark
2. Log in to vRealize Suite Lifecycle Manager as admin@localhost with the password VMware1!
3. Click LOG IN
View the Rainpole Dev Environment

1. Click **Manage Environments** on the left to view existing environments within vRealize Suite Lifecycle Manager.

View Environment Options

1. Click the **3 vertical dots** to open the environment menu.

Several options exist within a defined environment. These include:
• **Download Logs**: download log bundles for all vRealize Suite components in this environment, for support and troubleshooting. Product logs generated through this process are available on the vRealize Suite Lifecycle Manager appliance in the /data/support-bundle directory.

• **Delete Environment**: delete the defined environment. This process allows to keep the deployed vRealize Suite components or to delete them.

• **Export Configuration**: save the configuration used to define this environment, in JSON format. The exported configuration can be leveraged to quickly duplicate this environment as needed.

• **Configuration Drift**: track and manage the configuration of vRealize Suite components in this environment. Configuration drift will be covered in Module 5.

• **Organic Growth**: add existing vRealize Suite components to an environment, or expand existing components. Organic growth is covered in Module 2.

2. Click the 3 vertical dots once more to close the menu.

**View Details of Components Within Environment**

1. Click **VIEW DETAILS** to view more information on the individual vRealize Suite components in the Rainpole Dev environment.
View Details of Components Within Environment (Continued)

Note the installed vRealize Suite components within this environment. (Note: vRealize Automation may not be shown on this screen if you have skipped Module 2.)

For each component, you can view the current version, installation date, and additional details.

1. View additional detail on one of the installed vRealize Suite components in this environment by clicking **VIEW DETAILS**.
2. To return to the list of components in the Rainpole Dev environment, click the **RAINPOLE DEV** link in the navigation menu. (Note: the RAINPOLE DEV text will be a different color when viewing an individual component, but clicking on it will still return you to the list of components.)

This exercise is complete. In the next exercise, you will leverage vRealize Suite Lifecycle Manager to update the deployed vRealize Log Insight component.
Upgrade vRealize Log Insight using vRealize Suite Lifecycle Manager

In this exercise, you will upgrade vRealize Log Insight. Since Log Insight is managed by vRealize Suite Lifecycle Manager as part of the configured Rainpole Dev environment, the upgrade will be deployed and completed through the Lifecycle Manager interface.

View Current vRealize Log Insight Version in Rainpole Dev Environment

1. Verify the current version of vRealize Log Insight in the Rainpole Dev environment. This component was deployed at version 4.5.0, but Rainpole's data center admins have decided to update to the recently released 4.5.1.

(Note: if the Rainpole Dev components are not shown as above, click Manage Environments on the left, and in the Rainpole Dev pane click VIEW DETAILS to return to this screen. This is not shown in the screenshot.)
Initiate vRealize Log Insight Upgrade

1. Click the **3 vertical dots** in the vRealize Log Insight pane to open the menu.
2. Select **Upgrade** from the menu.
Select vRealize Log Insight Upgrade Options

1. For Product Version, verify that **4.5.1** is selected.
2. For Select Repository Type, select **vRealize Suite Lifecycle Manager Repository**. This will update the vRealize Lifecycle Repository URL value as well.

(Note: for this lab exercise, the vRealize Log Insight 4.5.1 upgrade file, in .pak format, has been downloaded and loaded onto the local repository within vRealize Suite Lifecycle Manager already. This can be verified in the OVA Configuration section of the Settings page. As with install media, upgrade media can be downloaded and configured in a local repository, or downloaded directly from My VMware using valid credentials.)

1. Click **Upgrade** to proceed with the upgrade.
Close Upgrade Window

Upon requesting the upgrade, the request will be submitted and the upgrade window will remain open.

1. Click Close to close the upgrade window.
View Status of Upgrade

1. Click **Requests** to go to the requests list.
2. Click **INPROGRESS** in the State column of the UPGRADE_PRODUCT request to view the status of the vRealize Log Insight upgrade.
1. Note the status of the upgrade. This status will auto-refresh periodically until the upgrade is complete.

(Note: this upgrade may take 15-20 minutes to complete, depending on the load within the lab environment. If the lab environment times out, it can be resumed and the upgrade will continue.)
When the upgrade is complete, the INPROGRESS icon at the bottom of the request will change to a green **COMPLETED** icon.

1. Verify successful completion of the vRealize Log Insight upgrade. 
2. Click **Manage Environments** to continue.
Verify vRealize Log Insight Upgrade

In the Manage Environments section, click VIEW DETAILS in the Rainpole Dev pane to view the specific vRealize Suite components within this environment (not shown.)

1. Verify that vRealize Log Insight is showing version 4.5.1. Note that the installation time is also updated to reflect the upgrade.

This exercise is complete.
Conclusion

In this module, you performed an update to vRealize Log Insight using vRealize Suite Lifecycle Manager.

You've finished Module 3

Congratulations on completing Module 3.

If you are looking for additional information on upgrading vRealize Suite products, try one of these:

- Or use your smart device to scan the QRC Code.

Proceed to any module below which interests you most.

- **Module 1 - Introduction to vRealize Suite Lifecycle Manager** (30 minutes) (Basic) Walk through the installation of vRealize Suite Lifecycle Manager, and the process of creating an environment including managed deployments of vRealize Suite components.
- **Module 2 - Using vRealize Suite Lifecycle Manager to Manage the vRealize Suite** (30 minutes) (Basic) Navigate the vRealize Suite Lifecycle Manager interface, and manage an existing vRealize Suite component.
- **Module 4 - Using the vRealize Suite Lifecycle Manager Marketplace** (30 minutes) (Advanced) Explore the vRealize Suite Lifecycle Manager Marketplace for extensions to vRealize Suite components, and install extensions directly.
- **Module 5 - Using vRealize Suite Lifecycle Manager to Manage Configuration Drift** (30 minutes) (Advanced) Capture a snapshot of an existing environment configuration, and correct configuration drift of vRealize Suite components using vRealize Suite Lifecycle Manager.
How to End Lab

To end your lab click on the **END** button.
Module 4 - Using the vRealize Suite Lifecycle Manager Marketplace (30 minutes)
Introduction to Lab Scenario

As Rainpole Systems begins to incorporate components of the vRealize Suite into their data center management processes, they will use vRealize Suite Lifecycle Manager to manage deployment and updates to these components.

In addition to managing the deployment of vRealize Suite components, vRealize Suite Lifecycle Manager integrates with the VMware Marketplace (also known as the VMware Solution Exchange) to download and install extensions to managed components. The VMware Marketplace provides access to content packs for vRealize Log Insight, management packs for vRealize Operations, plugins and blueprints for vRealize Automation, and more.

In this lab exercise, you will download a vRealize Log Insight content pack from the VMware Marketplace using vRealize Suite Lifecycle Manager, and install the content pack into the existing Rainpole Dev environment.
Using the vRealize Suite Lifecycle Manager Marketplace

This part of the lab is presented as a **Hands-on Labs Interactive Simulation**. This will allow you to experience steps which are too time-consuming or resource intensive to do live in the lab environment. In this simulation, you can use the software interface as if you are interacting with a live environment.

1. **Click here to open the interactive simulation.** It will open in a new browser window or tab.
2. When finished, click the “Return to the lab” link to continue with this lab.

The lab continues to run in the background. If the lab goes into standby mode, you can resume it after completing the module.
Conclusion

In this module, you leveraged vRealize Suite Lifecycle Manager to download a vRealize Suite component extension from the VMware Marketplace (in this case, a vRealize Log Insight content pack,) and install it automatically into the existing environment. With the available VMware Marketplace integration, vRealize Suite Lifecycle Manager provides additional extensibility and management of vRealize Suite components.

You've finished Module 4

Congratulations on completing Module 4.

If you are looking for additional information on, try one of these:

- Or use your smart device to scan the QRC Code.

Proceed to any module below which interests you most.

- **Module 1 - Introduction to vRealize Suite Lifecycle Manager** (30 minutes) (Basic) Walk through the installation of vRealize Suite Lifecycle Manager, and the process of creating an environment including managed deployments of vRealize Suite components.
- **Module 2 - Using vRealize Suite Lifecycle Manager to Manage the vRealize Suite** (30 minutes) (Basic) Navigate the vRealize Suite Lifecycle Manager interface, and manage an existing vRealize Suite component.
- **Module 3 - Using vRealize Suite Lifecycle Manager to Upgrade vRealize Suite Components** (30 minutes) (Basic) Perform an upgrade of an existing vRealize Suite component using vRealize Suite Lifecycle Manager.
- **Module 5 - Using vRealize Suite Lifecycle Manager to Manage Configuration Drift** (30 minutes) (Advanced) Capture a snapshot of an existing environment configuration, and correct configuration drift of vRealize Suite components using vRealize Suite Lifecycle Manager.
How to End Lab

To end your lab click on the **END** button.
Module 5 - Using vRealize Suite Lifecycle Manager to Manage Configuration Drift (30 minutes)
Introduction to Lab Scenario

As Rainpole Systems begins to incorporate components of the vRealize Suite into their data center management processes, they will use vRealize Suite Lifecycle Manager to manage deployment and updates to these components.

With the Rainpole Dev data center in Palo Alto defined, and an environment created consisting of new deployments of vRealize Log Insight and vRealize Operations, Rainpole is able to manage these components holistically. However, in the Rainpole Dev data center, Rainpole's virtual admins have already installed vRealize Automation and have made progress in automating IT processes.

In this lab exercise, your team has noticed that the vRealize Operations database is having data retention issues. You will use vRealize Suite Lifecycle Manager to determine the cause of this issue and fix it.
Verifying Configuration Drift of vRealize Suite Components

After receiving complaints of data retention issues in vRealize Operation Manager, you suspect that something has changed since the initial installation. You will now use vRealize Suite Lifecycle Manager to investigate the issue.

Open Chrome Browser

1. Click the **Chrome** icon in the Windows Quick Launch Task Bar. (This step may be skipped if the browser window is already open from a previous module.)
Navigate to vRealize Suite Lifecycle Manager and Log In

1. Click the vRealize Suite Lifecycle Manager bookmark
2. Log in to vRealize Suite Lifecycle Manager as admin@localhost with the password VMware1!
3. Click LOG IN
Navigate to Manage Environments

1. Select the cloud icon from the navigation menu on the left
2. Select **View Details** on the Rainpole Dev Environment
Navigate to the Configuration Drift Report

1. Select the Menu icon from the vRealize Operations component
2. Click **Show Report** to view the Configuration Drift Report

View the Report Summary

1. Note the ! in the Drift Status column indicating an issue
2. Select the **vRealize Operations Virtual Machine** parameter to drill down to the issue

Drill Down to the issue
1. Select the **vROPS PERSISTENCE Configuration** parameter to drill down further

**Note the issue**

1. Note that the database retention parameter has been changed from 432000 hours to 32000 hours. This would appear to be the cause of your issue.
2. Select **Remediate** to begin the process to correct this issue.
Remediate the Configuration Drift

Now that the issue has been identified, you will need to remediate the issue using vRealize Suite Lifecycle Manager.

Navigate to the issue

There may be multiple issues identified in a configuration drift report so you must specify which parameter needs to be corrected.

1. Select the vRealize Operation Virtual Machine configuration parameter

Navigate to the issue

1. Scroll Down
2. Select VROPS PERSISTENCE Configuration from the list
Navigate to the Retention Parameter

1. Scroll down until you see the red ! in the second column
2. Select the copy icon to copy the correct value to the current configuration

Note the corrected parameter

1. Note that the current configuration column now has the correct parameter from the baseline.

Remediate the issue

1. Scroll to the top of the page
2. Select **Remediate** to start the process

**Confirm the process**

Remediation may require the restart of certain services so be sure to follow company policies regarding change management.

1. Select **Yes** to continue

**Check the status of the request**

1. Select the **Requests** menu item to view the status of this request
2. This request may take some time to complete. Please move on to the next step to continue.

Note: If you were to go back to the Configuration Drift Report at this time it would still show that remediation is needed. The updates from the remediation you just performed will be shown after the next scheduled Drift Report generation interval. This interval can be set in Settings->System Settings->Configuration Drift Interval.
Conclusion

In this module, you used vRealize Suite Lifecycle Manager to fix a configuration drift issue in vRealize Operations.

You've finished Module 5

Congratulations on completing Module 5.

If you are looking for additional information on , try one of these:

• Go to http://bit.ly/2mlz8f1
• Or use your smart device to scan the QRC Code.

Proceed to any module below which interests you most.

• **Module 1 - Introduction to vRealize Suite Lifecycle Manager** (30 minutes) (Basic) Walk through the installation of vRealize Suite Lifecycle Manager, and the process of creating an environment including managed deployments of vRealize Suite components.

• **Module 2 - Using vRealize Suite Lifecycle Manager to Manage the vRealize Suite** (30 minutes) (Basic) Navigate the vRealize Suite Lifecycle Manager interface, and manage an existing vRealize Suite component.

• **Module 3 - Using vRealize Suite Lifecycle Manager to Upgrade vRealize Suite Components** (30 minutes) (Basic) Perform an upgrade of an existing vRealize Suite component using vRealize Suite Lifecycle Manager.

• **Module 4 - Using the vRealize Suite Lifecycle Manager Marketplace** (30 minutes) (Advanced) Explore the vRealize Suite Lifecycle Manager Marketplace for extensions to vRealize Suite components, and install extensions directly.

How to End Lab
To end your lab click on the **END** button.
Conclusion

Thank you for participating in the VMware Hands-on Labs. Be sure to visit http://hol.vmware.com/ to continue your lab experience online.

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