HOL-2479-01-ISM

Table of Contents

Lab Overview - HOL-2479-01-ISM - Google Cloud VMware Engine

Lab Description

This lab will provide insight into Google Cloud VMware Engine and multiple attached services. Through this lab, you will deploy a new private cloud, migrate workloads, provision additional storage, configure a load balancer, and back up your virtual machine workloads.

Google Cloud VMware Engine is a cloud service created through the partnership between Google Cloud and VMware that enables customers to run VMware applications in Google Cloud. To accomplish this, each private cloud is constructed with VMware vSphere, VMware NSX, and VMware vSAN, all running on dedicated Google Cloud bare-metal infrastructure.

Lab Guidance

Welcome! This lab is available for you to repeat as many times as you want. To start somewhere other than the beginning, use the Table of Contents in the upper right-hand corner of the Lab Manual or click on one of the modules below.

- **Module 1 - Google Cloud VMware Engine Deployment** (30 minutes) (Basic)
- **Module 2 - Leverage Terraform to Manage VMware Engine Lifecycle** (30 minutes) (Basic)
- **Module 3 - Google Cloud VMware Engine HCX Migration** (30 minutes) (Basic)
- **Module 4 - Expanding Datastore Options with Filestore and NetApp CVS** (30 minutes) (Basic)
- **Module 5 - Integrating VMware Engine Workloads with Google Cloud Network Services** (30 minutes) (Basic)
- **Module 6 - Protecting VMware Engine Workloads with Google Cloud Backup & DR** (30 Minutes) (Basic)

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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 view a localized manual deployed with your lab, utilize this document to guide you through the process:

http://docs.hol.vmware.com/announcements/nee-default-language.pdf

Module 1 - Google Cloud VMware Engine Deployment (30 minutes) Basic

Introduction

Google Cloud VMware Engine is a Google Cloud Service that runs alongside other Google Cloud platform services. Google Cloud VMware Engine is consumed using the same Google Cloud console as other native Google Cloud services, and provides users the same IAM, Networking, and Billing constructs to provide VMware workloads seamless access to other Google Cloud services.

Hands-on Labs Interactive Simulation: Google Cloud VMware Engine Deployment

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.

Click the button below to start the simulation!

[ICEMAN replace="isim" url="https://docs.hol.vmware.com/hol-isim/hol-2024/vlp-isim-player.htm?isim=HOL-2479-01_Module1.json"][/ICEMAN]

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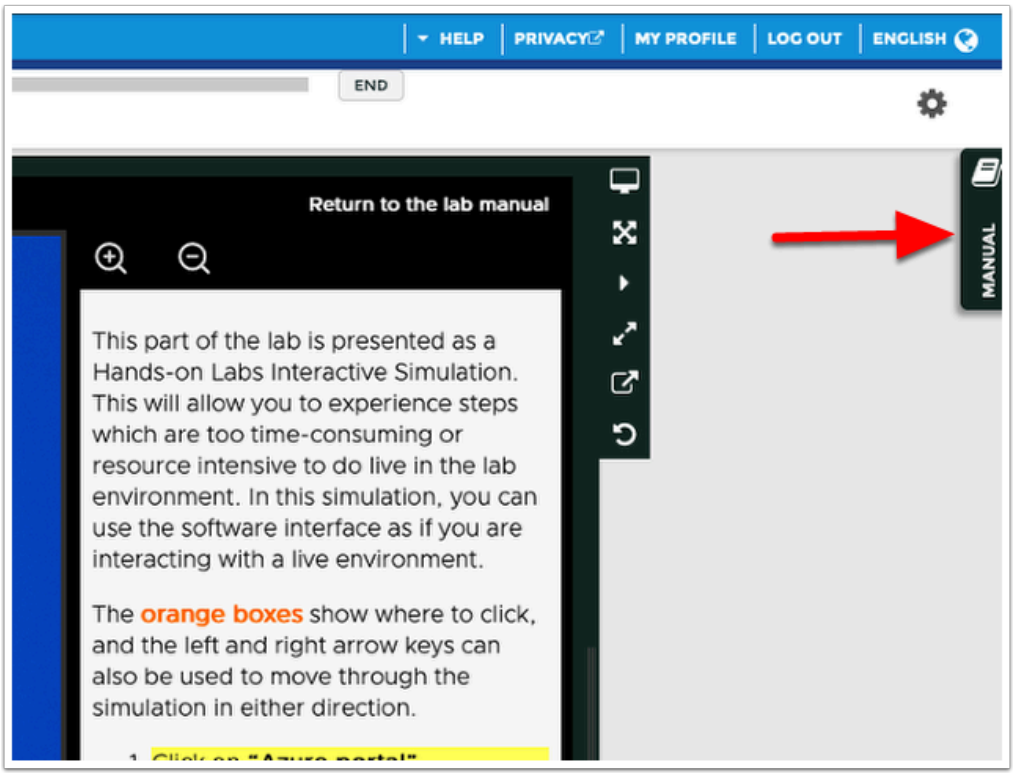

NOTE: When you have completed the simulation, click on the Manual tab to open it and continue with the lab.

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Module 2 - Leverage Terraform to Manage VMware Engine Lifecycle (30 minutes) Basic

Introduction

Infrastructure as Code (IaC) is a powerful way to automate VMware Engine deployments. In this lab, you'll learn how to use Terraform to deploy and manage VMware Engine instances on Google Cloud. With Terraform, you can quickly and easily build, deploy, update, and delete your VMware Engine instances, all from the comfort of your own code editor.

Hands-on Labs Interactive Simulation: Leverage Terraform to Manage VMware Engine Lifecycle

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.

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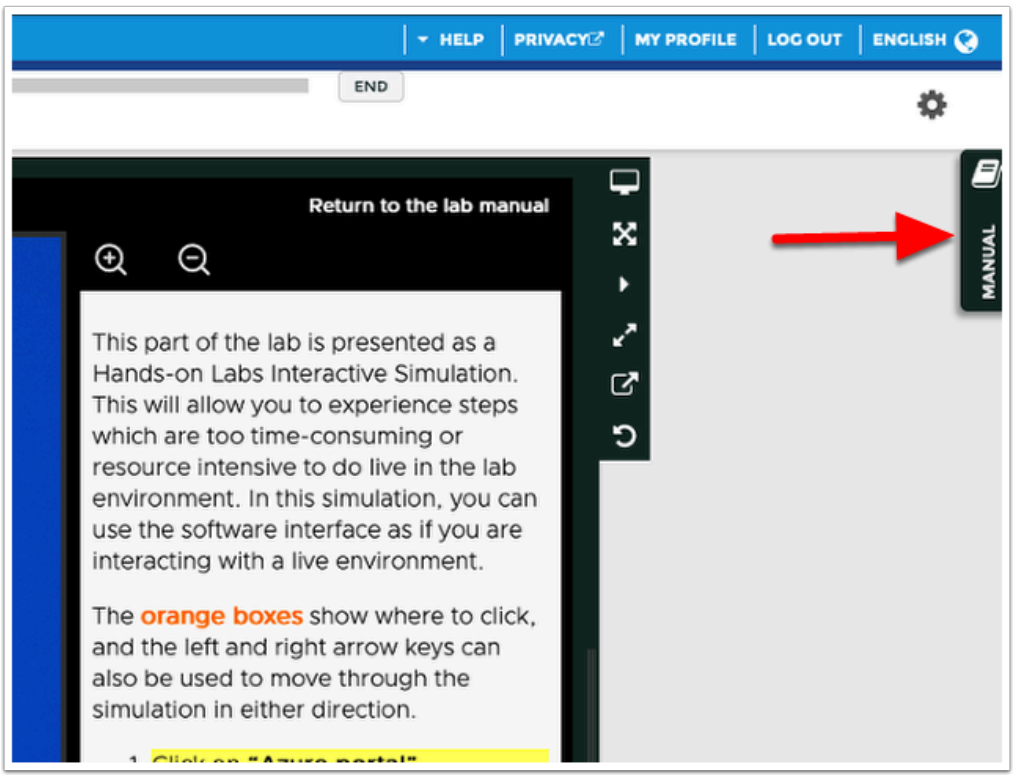

NOTE: When you have completed the simulation, click on the Manual tab to open it and continue with the lab.

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Module 3 - Google Cloud VMware Engine HCX Migration (30 minutes) Basic

Introduction

In this module, we will be deploying and configuring HCX on-premises to tie into the HCX and vCenter environment already deployed in Google Cloud VMware Engine.

The lab begins with us deploying the HCX connector on-premises, configuring HCX to connect to the local on premises vCenter, and having the plugin for HCX load into vCenter.

Once this is done, we will pair the on premises HCX instance with the cloud HCX instance. Then configure the appropriate network and compute profiles before we finally create the appropriate service mesh for this pairing. Once the service mesh is configured and set up, we will extend the on-premises network and migrate two workload VMs which are photon appliance VMs. Once the VMs have migrated to Google Cloud VMware Engine, we will swing this entire subnet to the cloud by un-extending the network but keeping the gateway in the cloud, and testing connectivity from our workload VMs to the gateway and to the internet.

Hands-on Labs Interactive Simulation: Google Cloud VMware Engine HCX Migration

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Click the button below to start the simulation!

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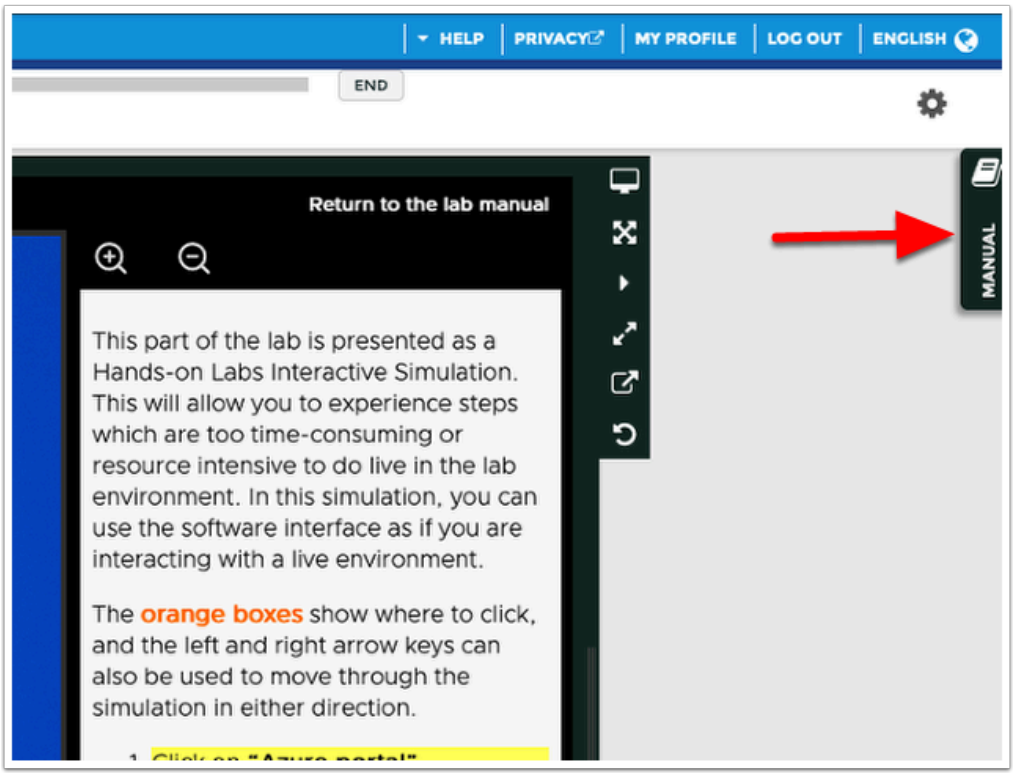

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Module 4 - Expanding Datastore Options with Filestore and NetApp CVS (30 minutes) Basic

Introduction

The purpose of this lab module is to review the process to deploy both a NetApp Cloud Volume Service (CVS) NFS share and a Filestore NFS volume as Datastores for running virtual machines.

Our main steps here are to configure both a NetApp CVS NFS volume and a Filestore instance. We will create a volume, peer our Netapp instance to VMware Engine and vice versa and verify we have our Netapp instance mounted on the ESXi hosts to deploy VMs to. We will perform similar steps for the Filestore datastore NFS instance as well.

Hands-on Labs Interactive Simulation: Expanding Datastore Options with Filestore and NetApp CVS

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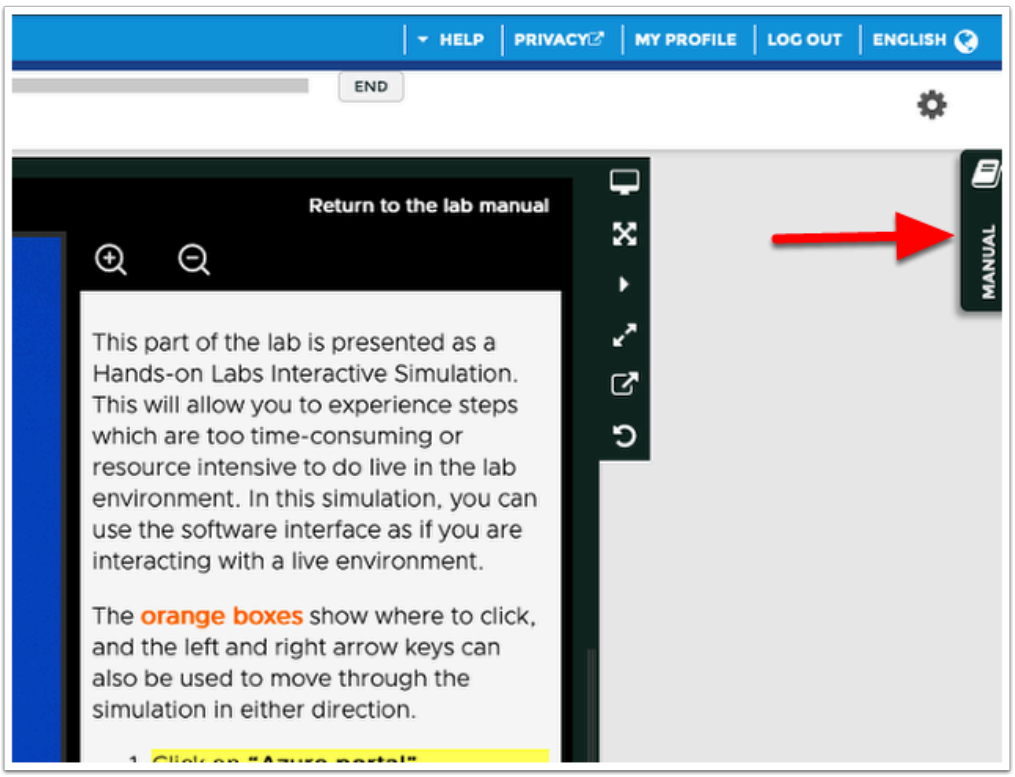

NOTE: When you have completed the simulation, click on the Manual tab to open it and continue with the lab.

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Module 5 - Integrating VMware Engine Workloads with Google Cloud Network Services (30 minutes) Basic

Introduction

One of the unique aspects of Google Cloud VMware Engine is its ability to integrate with the global Google Cloud network, in order to extend high value services to the applications located in VMware Engine, similar to what other Google Cloud services do (Kubernetes, Compute Engine, etc.), meaning that VMware Engine workloads are true first class objects in our Cloud.

In this module we will be leveraging Google Cloud load balancers to perform load balancing with workloads in Google Cloud VMware Engine.

Hands-on Labs Interactive Simulation: Integrating VMware Engine Workloads with Google Cloud Network Services

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.

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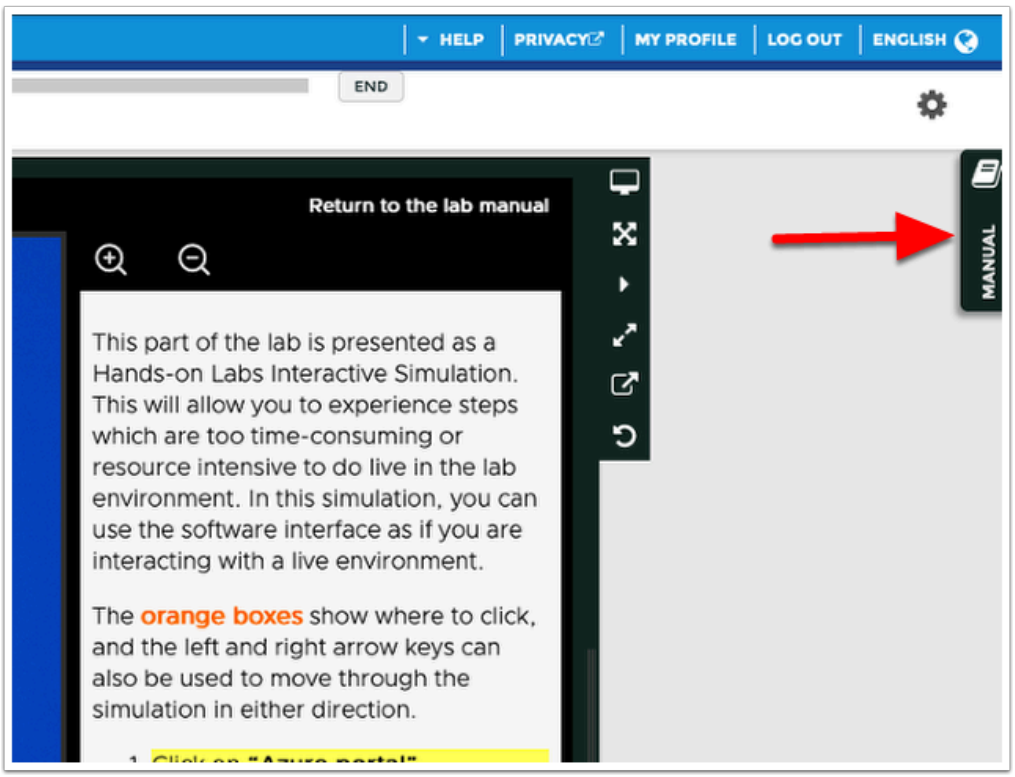

NOTE: When you have completed the simulation, click on the Manual tab to open it and continue with the lab.

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Module 6 - Protecting VMware Engine Workloads with Google Cloud Backup & DR (30 Minutes) Basic

Introduction

This module will show you how to protect your VMware Engine workloads using Google Cloud Backup and DR (Disaster Recovery). You will learn how to create a backup policy, restore a backup, and test a restore. You will also learn how to configure Google Cloud Backup & DR for your VMware Engine workloads.

Hands-on Labs Interactive Simulation: Protecting VMware Engine Workloads with Google Cloud Backup & DR

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.

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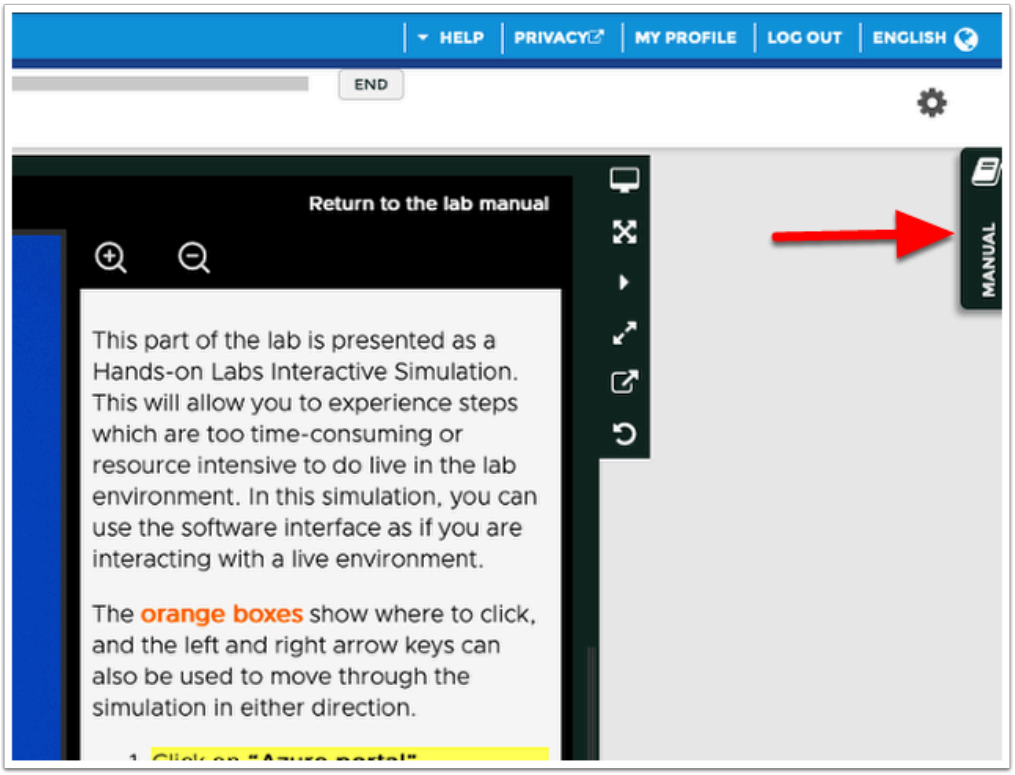

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