



ORACLE

Peoplesoft On Oracle Cloud

Test Drive Using PeopleSoft Cloud Manager

PeopleSoft Cloud Manager Hands-on Lab

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1. Overview

In this hands on lab, you will be able to bring up and configure a Cloud Manager instance in your tenancy, and provision a new PeopleSoft environment.

The lab can be divided into two sessions. In the first session, you will be able to –

1. Review the pre-requisites and set up your workstation/laptop (Section: Requirements)
2. Review VM shapes available in your account/tenancy (Appendix A)
3. Download and run the automation package to configure your tenancy, and deploy Cloud Manager (Section: Prepare OCI tenancy and set up Cloud Manager). The automation will –
 - a. Create a user
 - b. Create a group
 - c. Create a compartment
 - d. Create a OCI policy,
 - e. Create network resources – VCN and subnets
 - f. Subscribe to the Cloud Manager Marketplace image
 - g. Create Cloud Manager instance
 - h. Bootstrap install Cloud Manager application
4. Configure Cloud Manager Settings (Section: Configure Cloud Manager)
5. Create a File System for Download Repository
6. Subscribe to PeopleSoft Download Channels (Section: Subscribe to download channels)

Review Appendix C for details on the resources created by deployment automation. This session should take about 90 minutes approximately. The last step, when you subscribe to download channels, time taken for downloads to complete depends on network speed and the number of subscribed download channels. If only one application channel and one PeopleTools channel with only the latest patch is subscribed, then downloads should complete in about 60 to 90 minutes depending on the download speed.

In session two, which should take you approximately 60 to 75 minutes, you will be able to create a Topology, an Environment Template and provision a new PeopleSoft environment.

2. Requirements

Time: 10 mins

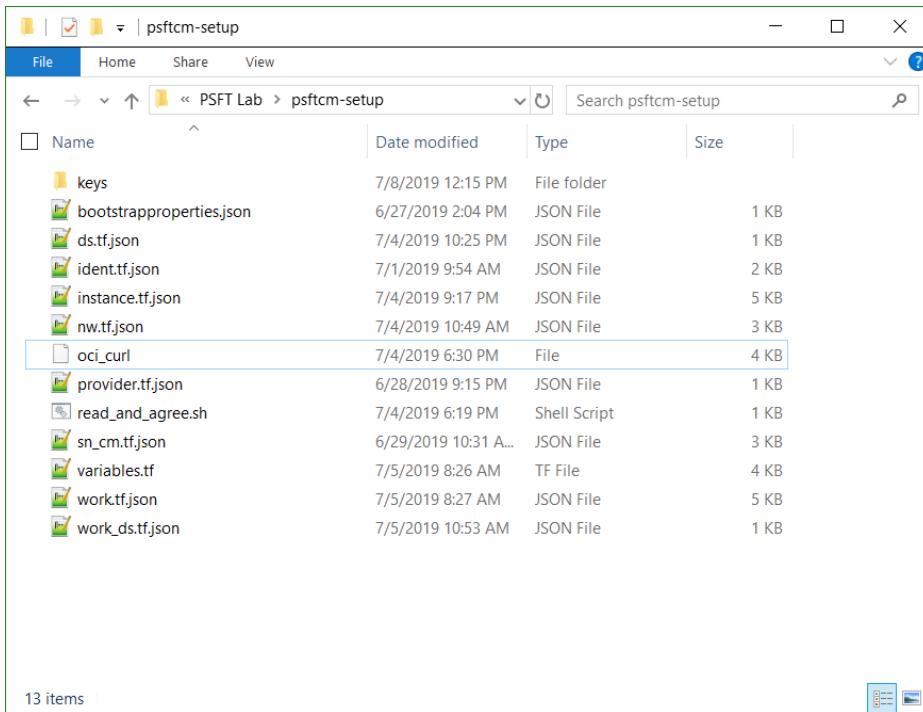
1. User already has a tenancy with Administrator user access.
2. My Oracle Support credentials
3. Minimum resources in Home region of the tenancy
 - a. 4 x VM shapes (VM.Standard2.2 or VM.Standard2.1, VM.StandardE2.2 or VM.StandardE2.1)
 - b. 1 TB block storage
4. User brings their own Windows workstation/laptop to access OCI console, PSFT Cloud Manager and provisioned instances.
5. User has access to a Windows workstation/laptop with the following installed:
 - a. Git Bash for Windows - <https://git-scm.com/download/win>
 - b. A web browser to connect to OCI web console and Cloud Manager PIA – Firefox or Chrome recommended.
 - c. User must have admin privileges on windows laptop to update the ETC/Hosts file to be able to add URL/IP address for PSFT Cloud Manager

3. Prepare OCI tenancy and set up Cloud Manager

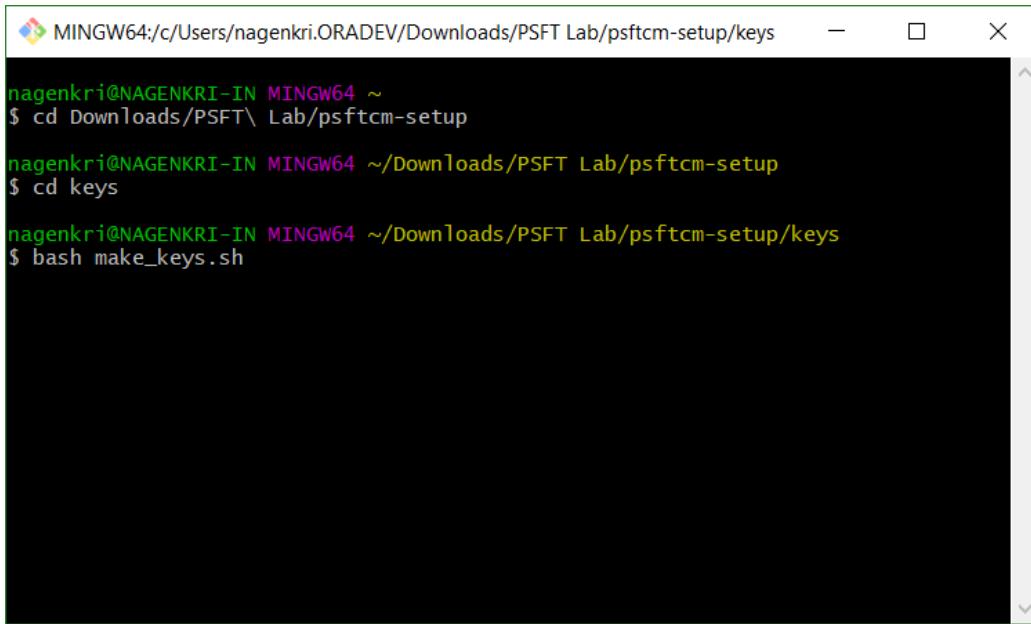
Follow the steps outlined below to configure your tenancy.

Time: 80 mins

1. Ensure Git Bash is installed on your laptop/workstation.
2. Download automation scripts bundle ‘psftcm-setup-3.0.zip’ - [DOWNLOAD](#)
3. Extract psftcm-setup-3.0.zip to a new folder on the laptop/workstation. Let’s call it ‘psftcm setup-3.0’. Below are the contents in the zip file.

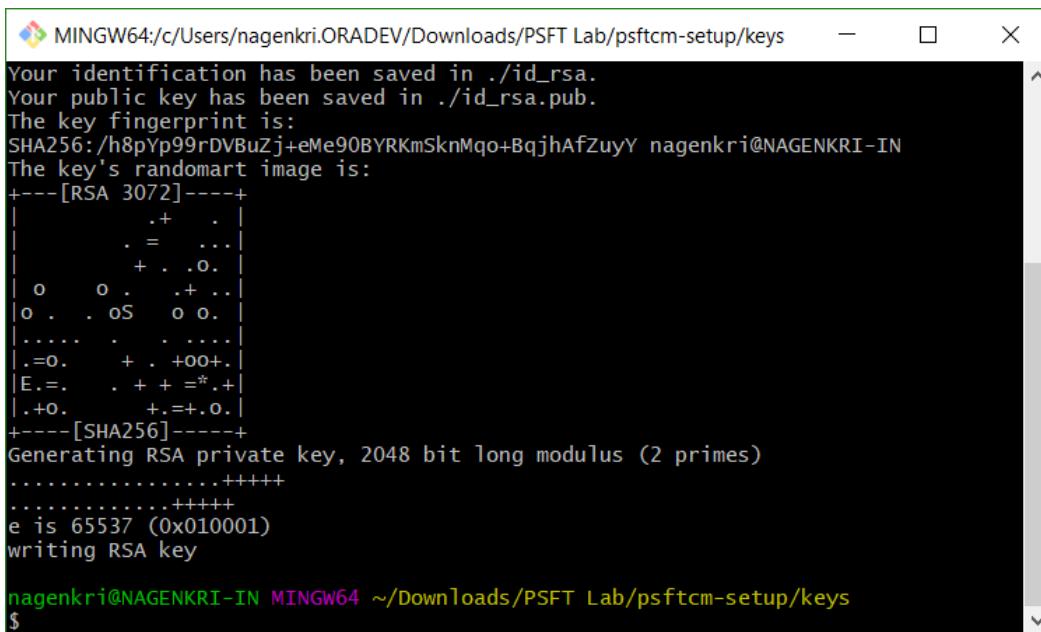


4. Launch Git Bash for Windows command line and navigate to the newly extracted folder – ‘psftcm setup-3.0’.
5. Change directory to “keys” folder, under the extracted folder



```
nagenkri@NAGENKRI-IN MINGW64 ~
$ cd Downloads/PSFT\ Lab/psftcm-setup
nagenkri@NAGENKRI-IN MINGW64 ~/Downloads/PSFT Lab/psftcm-setup
$ cd keys
nagenkri@NAGENKRI-IN MINGW64 ~/Downloads/PSFT Lab/psftcm-setup/keys
$ bash make_keys.sh
```

6. Run the script "bash make_keys.sh"

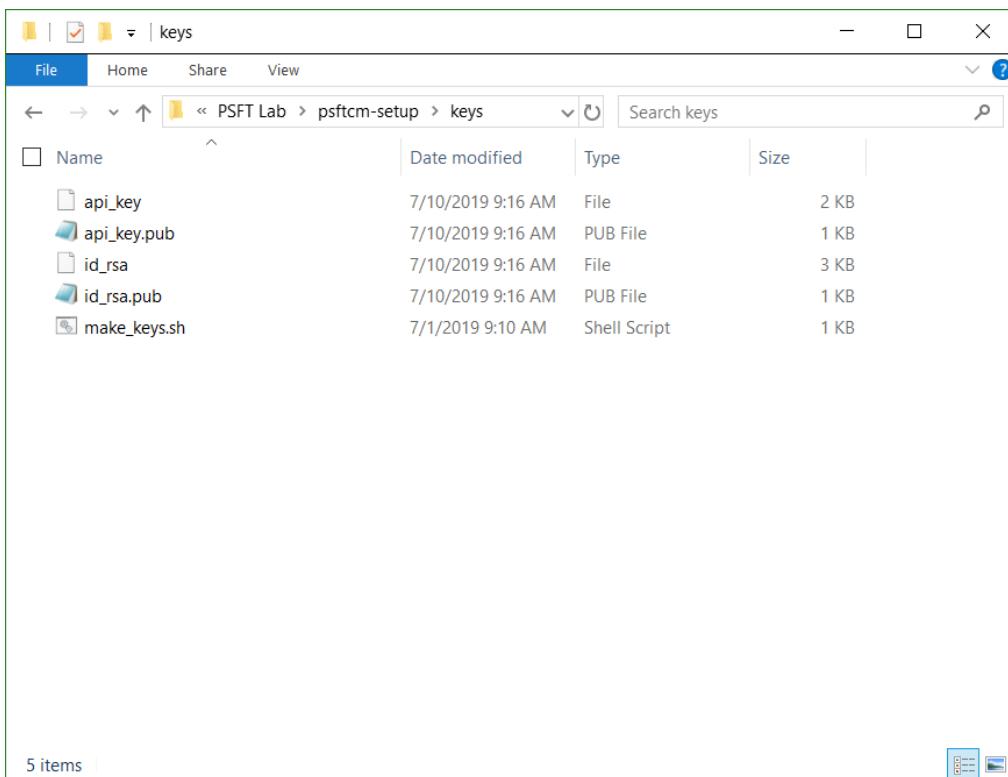


```
Your identification has been saved in ./id_rsa.
Your public key has been saved in ./id_rsa.pub.
The key fingerprint is:
SHA256:/h8pYp99rDVBUZj+eMe90BYRKmSknMqo+BqjhAfZuyY nagenkri@NAGENKRI-IN
The key's randomart image is:
+---[RSA 3072]---+
| .+ . |
| . = ... |
| + . .o. |
| o o . .+ .. |
| o . .oS o o. |
| ..... . . .... |
| .=o. + . +oo+. |
| E=. . ++ =*.+ |
| ..o. +.=+.o. |
+---[SHA256]---+
Generating RSA private key, 2048 bit long modulus (2 primes)
.....+++++
.....+++++
e is 65537 (0x010001)
writing RSA key

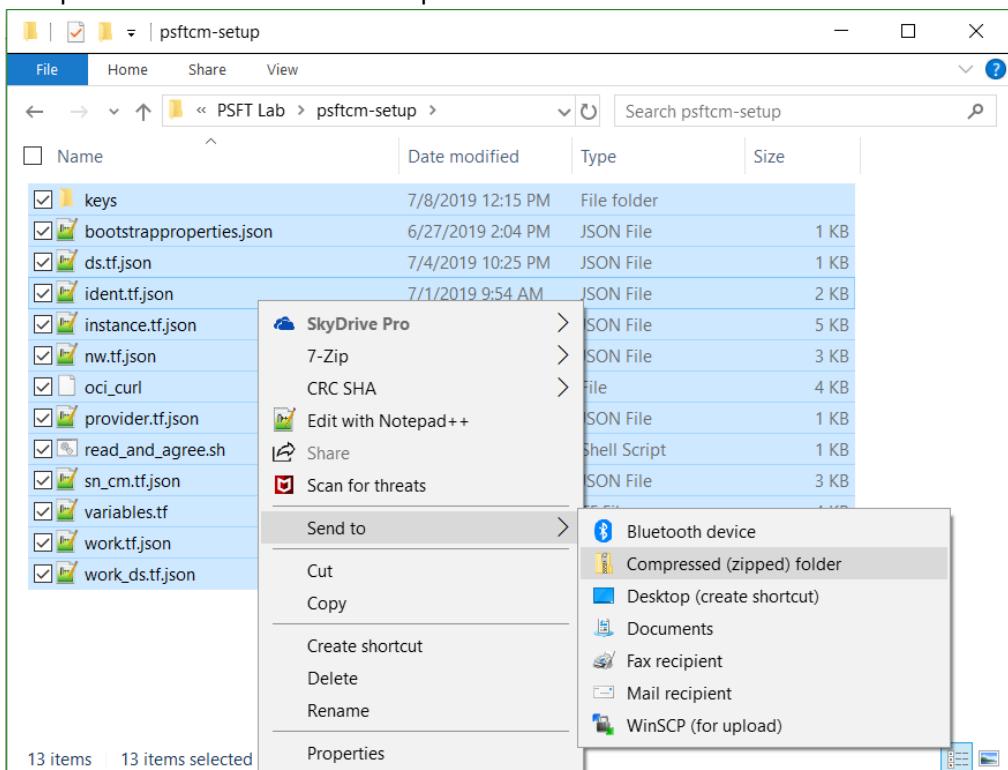
nagenkri@NAGENKRI-IN MINGW64 ~/Downloads/PSFT Lab/psftcm-setup/keys
$
```

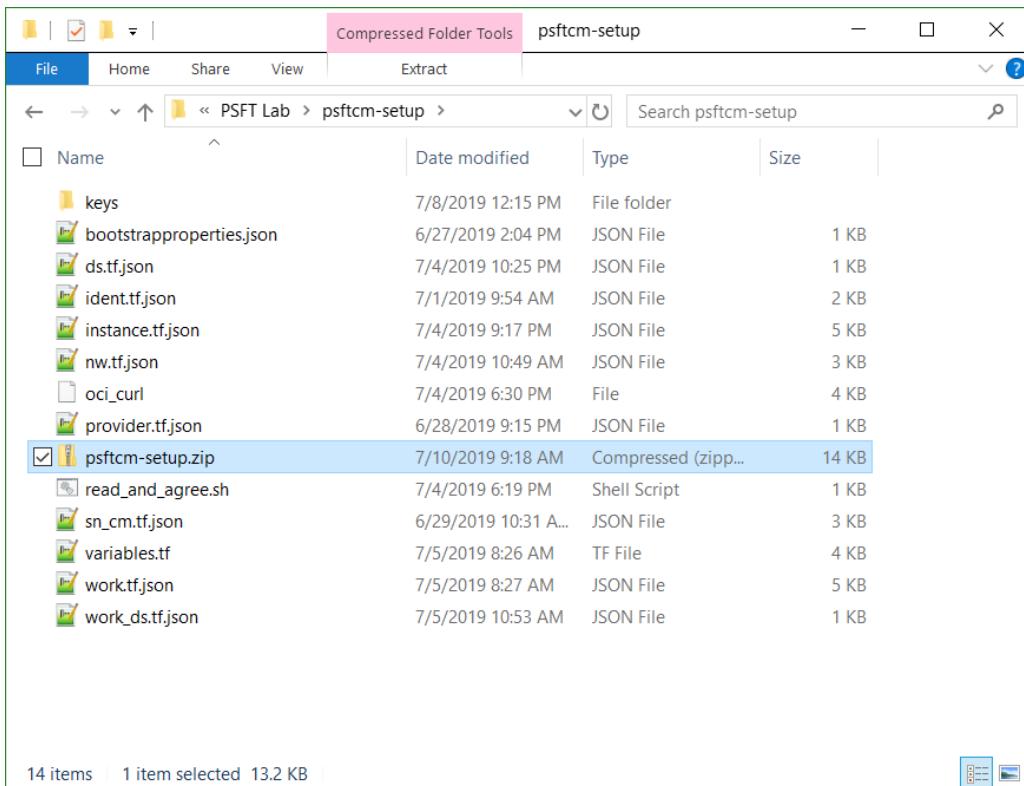
7. Below set of key files are generated. There are two sets of keys –
 - I. API Signing keys – **api_key** and **api_key.pub**
 - II. SSH key pair – **id_rsa** and **id_rsa.pub**

These Keys are necessary for you to be able to securely connect into your PeopleSoft Cloud Tenancy



8. Zip the contents in the extracted folder into a new zip file. Let's call it 'psftcm-setup.zip'. Note – The zip file should be created as shown below. Select all files → right-click → Send to → Compressed folder. Rename the zip file.





9. In a browser, launch the OCI console and navigate to Resource Manager →Stacks. Refer [Appendix A](#) for details on how to get OCI console URL.
10. Add a new stack by uploading the newly created psftcm-setup.zip file.

Create Stack [Help](#)

1 Stack Information

SELECT A TERRAFORM CONFIGURATION (.ZIP) FILE TO UPLOAD [i](#)

Drop a .zip file here or [Browse](#)

psftcm-setup.zip

WORKING DIRECTORY

The root folder is being used as the working directory.

NAME OPTIONAL

psftcm-setup-2

DESCRIPTION OPTIONAL

[Next](#) [Cancel](#)

- 11.** Click Next. You have to select an Availability Domain. For the other variables, the default values should work in most cases. Configure variables only if required. If your tenancy has a different set of shapes, or they are allocated across different ADs, only then update the values. Otherwise, the defaults should work.

The screenshot shows the Oracle Cloud 'Edit Stack' interface. The top navigation bar includes the Oracle Cloud logo and a search bar. The main page title is 'Edit Stack'. On the left, a vertical navigation menu lists three steps: 'Stack Information' (with a checkmark), 'Configure Variables' (highlighted with a blue circle and the number 2), and 'Review' (with a grey circle and the number 3). The central content area is titled 'Cloud Manager Instance Details'. It contains three input fields: 'AVAILABILITY DOMAIN' with the value 'evQs:PHX-AD-1', 'SHAPE' with the value 'VM.Standard.E2.1', and 'API PRIVATE KEY PASSPHRASE' (OPTIONAL) which is empty. Below these fields is a note: 'Your API private key passphrase. It can contain letters, numbers and the characters ~@#%^*-_=+{}():;/?'. At the bottom of the page are three buttons: 'Back', 'Next' (highlighted in blue), and 'Cancel'.

Below table summarizes the inputs in Configure Variables page. (Please Note: If these values are not prefilled than you have not zipped up your psft_cm.zip file correctly as described in Step 8. Please make sure you create the zip file within the directory you are zipping up.)

Attribute	Value
AVAILABILITY DOMAIN	Availability Domain for CM instance and for provisioning PSFT environment
PRIVATE_KEY_PASSWD	-
SHAPE	VM.Standard2.2 (Modify in case your tenancy does not have this shape)
DB CONNECT PASSWORD	peop1e
ACCESS PASSWORD	SYSAD123
DB ADMIN PASSWORD	Passw0rd#
CLOUD MANAGER ADMINISTRATOR PASSWORD	Passw0rd
INTEGRATION GATEWAY USER PASSWORD	Passw0rd

WEBLOGIC ADMINISTRATOR USER PASSWORD	Passw0rd
WEB PROFILE USER PASSWORD	PTWEBSERVER
DOMAIN CONNECT PASSWORD	Passw0rd123

12. Click Next and review your inputs.

Stack Information

- Name: psftcm-setup-2
- Description: ...ckp5mq
- Compartment: ...ckp5mq

Variables

- region: us-ashburn-1
- tenancy_ocid: ...ckp5mq

Back Create Cancel

13. Click Create. This will add a new stack and open the stack details page.

14. On the stack details page, under “Terraform Actions”, click Plan.

psftcm-setup-2

Edit Stack Move Stack Terraform Actions Delete Stack

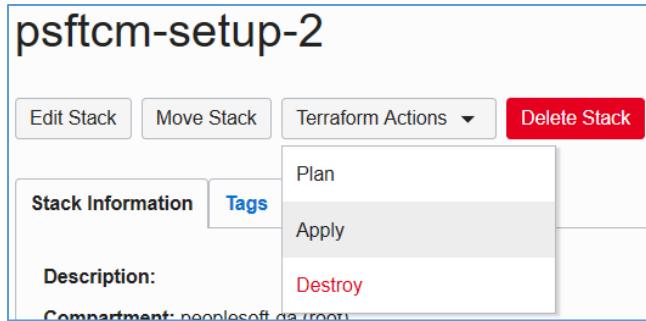
Stack Information Tags

Description:
Compartment: ...ckp5mq

Terraform Actions

- Plan
- Apply
- Destroy

15. After the Plan completes successfully, run Terraform Apply.



16. Terraform Apply job is a long running process. After it completes, the output from this job will have the IP address and PIA URL of CM instance. To obtain those details, click on the Job name.

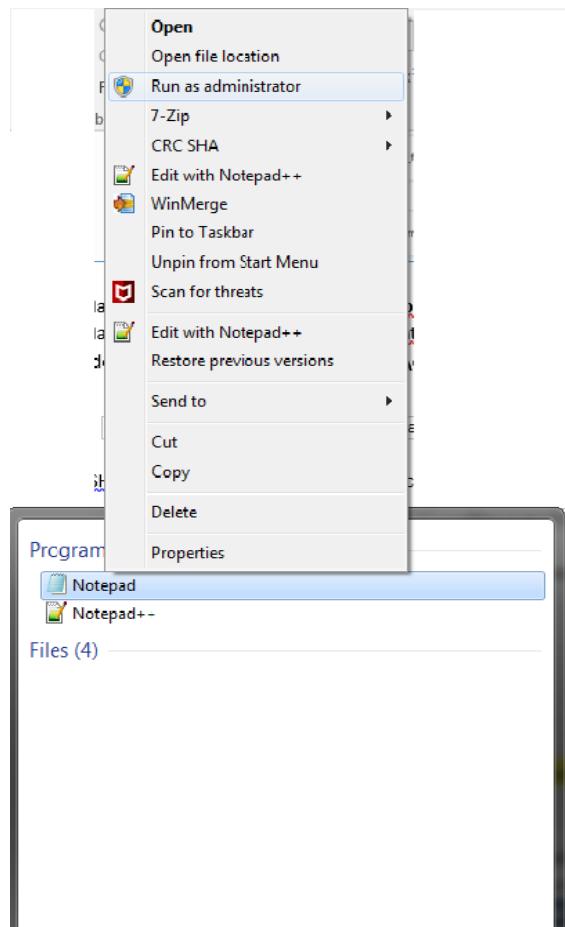
Resources		Jobs				
	Jobs	Name	Type	State	Start Time	End Time
Variables	apply-job-20190705121221	apply-job-20190705121221	Apply	● Succeeded	7/5/2019, 12:12:23 PM	7/5/2019, 12:20:54 PM
Work Requests						

17. On the job details page, click on Output link under Resources.

Resources		Outputs	
	Logs	Key	Value
Variables		CM_http_url	http://labcm.cm.labnet.oraclevcn.com:8000
Associated Resources		CM_https_url	https://labcm.cm.labnet.oraclevcn.com:8443
Outputs		CM_private_ip	10.0.6.2
View State		CM_public_ip	129.146.173.56
		Windows_2016_Platform_Image_for_CM	...ron5on7a Show Copy

18. Make a note of the **Windows_2016_Platform_Image_for_CM** value. This OCID will be required in the next section.
19. Make a note of **CM_public_ip** and **CM_http_url**.
20. Add an entry to **C:\Windows\System32\drivers\etc\hosts** entry on your laptop/workstation as shown below. Use the hostname value for attribute **CM_http_url**.

I. Open Windows Search “Notepad”. Right Click on Notepad and open as Administrator.



- II. Go to File → Open → **C:\Windows\System32\drivers\etc\hosts**, and append below entry

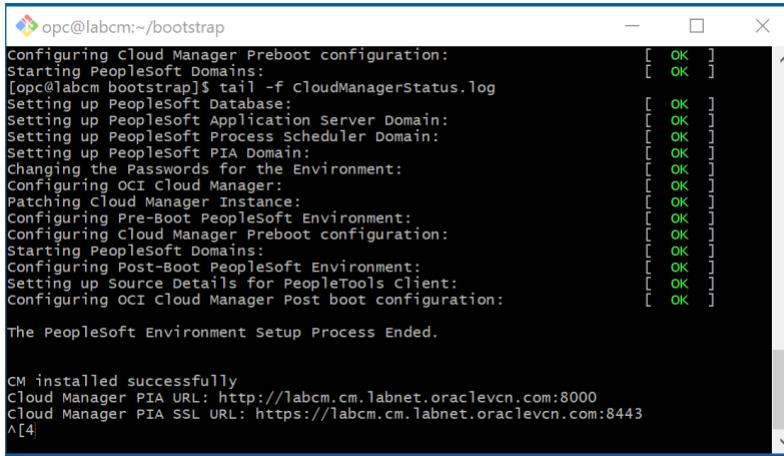
```
129.213.145.213 labcm.cm.labnet.oraclevcn.com
```

21. SSH into Cloud Manager instance to check status of deployment. Monitor Cloud Manager bootstrap installation using below command.

Please Note that the Plan Deployment take up to an hour.

Refer Appendix B for details on how to SSH into Cloud Manager instance.

```
$ tail -f /home/opc/bootstrap/CloudManagerStatus.log
```



```
opc@labcm:~/bootstrap
Configuring Cloud Manager Preboot configuration: [ OK ]
Starting PeopleSoft Domains: [ OK ]
[opc@labcm bootstrap]$ tail -f cloudManagerStatus.log
Setting up Peoplesoft Database: [ OK ]
Setting up Peoplesoft Application Server Domain: [ OK ]
Setting up Peoplesoft Process Scheduler Domain: [ OK ]
Setting up PeopleSoft PIA Domain: [ OK ]
Changing the Passwords for the Environment: [ OK ]
Configuring OCI Cloud Manager: [ OK ]
Patching Cloud Manager Instance: [ OK ]
Configuring Pre-Boot PeopleSoft Environment: [ OK ]
Configuring Cloud Manager Preboot configuration: [ OK ]
Starting PeopleSoft Domains: [ OK ]
Configuring Post-Boot PeopleSoft Environment: [ OK ]
Setting up Source Details for PeopleTools Client: [ OK ]
Configuring OCI Cloud Manager Post boot configuration: [ OK ]

The PeopleSoft Environment Setup Process Ended.

CM installed successfully
Cloud Manager PIA URL: http://labcm.cm.labnet.oraclevcn.com:8000
Cloud Manager PIA SSL URL: https://labcm.cm.labnet.oraclevcn.com:8443
^[[4]
```

22. While Cloud Manager is being installed, review Associated Resources for the list of all resources created by automation. Refer [Appendix D](#) for more details.

23. After Cloud Manager bootstrap is complete, the CloudManagerStatus.log will show the following messages.

```
The PeopleSoft Environment Setup Process Ended.

CM installed successfully
Cloud Manager PIA URL: http://labcm.cm.labnet.oraclevcn.com:8000
Cloud Manager PIA SSL URL: https://labcm.cm.labnet.oraclevcn.com:8443
```

24. Launch a browser to access your Cloud Manager PIA URL (CM_http_url) –
<http://labcm.cm.labnet.oraclevcn.com:8000>
To login, use the username CLADM and password that was provided for input parameter OPR_PWD.

4. Configure Cloud Manager

Time: 20 mins

Configure Cloud Manager Settings:

1. Navigate to Cloud Manager Dashboard | Cloud Manager Settings | Cloud Manager Settings
2. Update My Oracle Support (MOS) Credentials. This is required to download DPKs and PRPs automatically.

The screenshot shows the 'Cloud Manager Settings' page. On the left, there's a sidebar with 'Cloud Manager Settings' and links for Infrastructure Settings, File Server, Manage PUM Connections, Manage Updates, and Logs. The main content area is titled 'My Oracle Support(MOS) Credentials'. It contains instructions about PeopleSoft Cloud Manager enabling users to download PeopleSoft Application Maintenance and PeopleTools Patches directly from MOS. It requires creating an Oracle Single SignOn (SSO) account and registering at least one support identifier (SI) with MOS. It also mentions that use of MOS is subject to its terms of use and Oracle Privacy Policy. There are fields for 'User ID' (nagendra.krishnappa@oracle.com), 'Password' (four dots), and 'Url' (https://updates.oracle.com). Below this, there's a 'PeopleSoft Credentials' section with 'REST Services' and 'User Credentials' subsections. Further down are sections for 'Lift & Shift Container' (Container Name: psft_las), 'Cobol License', and 'Server Express'.

3. Navigate to Infrastructure Settings and update Operating System Images. For Linux, enable "Marketplace Image" radio button and choose the latest version from the displayed list.

For Windows image, use the value of "Windows_2016_Platform_Image_for_CM" displayed earlier in the Outputs section of the stack.

Cloud Manager

Infrastructure Settings

Cloud Manager Settings

Infrastructure Settings

File Server

Manage PUM Connections

Manage Updates

Logs

User Name psftadmin_Lab

User OCID ocid1.user.oc1..aaaaaaaa7qrotcza2ouolv2mmt7372qtsv5i3

API Signing Public Key /home/psadm2/psft/data/cloud/ocihome/keys/oci_api_key_publ

Fingerprint 6a:ec:aff1:50:f7:e3:d7:86:78:73:de:d3:f0:2a:d2

API Signing Private Key /home/psadm2/psft/data/cloud/ocihome/keys/oci_api_key.pem

API Signing Prv Key Passphrase ██████████

API Version and Region

API Version 20160918

Home Region us-phoenix-1

Deployment Region us-phoenix-1

Operating System Images

Linux Image

Marketplace Image YES

Image Version OCI_X86_64_PSFTBASE_OI_6.10_01

Image OCID ocid1.image.oc1..aaaaaaaa6zck2znchippgxmj5y5pslzbxjqynqe !

Image Name

Windows Image

Image OCID aaaaaaaaaatt3vcpa7kkogul7zbvnxjfsgwzptmbx7n7qqqrk62skronE !

Image Name

4. Click 'Save' to save the configuration.
5. Click 'Refresh OCI Metadata' button on top of the page and wait for few minutes
6. Next, navigate to File Server tab. Accept the defaults. For Mount Target, type "lab"

Cloud Manager

File Server

Cloud Manager Settings

Infrastructure Settings

File Server

Manage PUM Connections

Manage Updates

Logs

Use existing file system NO

File System Name labcm.cm.labnet.oraclevcn.com

Export //labcm.cm.labnet.oraclevcn.com-export

Use existing Mount Target No

Mount Target lab

Fss Status Not Configured

7. Click Create. This action will create a file server in a few minutes.
8. Wait until the file server status shows 'FSS Configured', and then the system is ready for downloads.

Fss Status FSS Configured

5. Subscribe to download channels

Time: Depends upon download speed and number of subscribed channels. Around 60 mins for this example.

1. Navigate to Cloud Manager Dashboard → Repository → Download Subscriptions
2. Go to the Unsubscribed tab
3. On a download channel of your choice, click on related actions menu and click Subscribe. E.g, HCM_92_Linux. Monitor the Logs page to check for progress.

The screenshot shows the 'Download Subscriptions' page in the Cloud Manager. The 'Unsubscribed' tab is selected. A context menu is open over the 'HCM_92_Linux' row, with the 'Subscribe' option highlighted. The table lists various download subscriptions with columns for Channel Name, Description, Status, Latest Updates, Product, Release, Platform, and Source.

Channel Name	Description	Status	Latest Updates	Product	Release	Platform	Source
CRM_92_Linux	PeopleSoft CRM 9.2 Linux	Subscribed	0	CRM	9.2	Linux	MOS
CS_92_Linux	PeopleSoft CS 9.2 Linux	Subscribed	0	CS	9.2	Linux	MOS
ELM_92_Linux	PeopleSoft ELM 9.2 Linux	Subscribed	0	ELM	9.2	Linux	MOS
FSCM_92_Linux	PeopleSoft FSCM 9.2 Linux	Unsubscribed	0	FSCM	9.2	Linux	MOS
HCM_92_Linux	PeopleSoft HCM 9.2 Linux	Unsubscribed	0	HCM	9.2	Linux	MOS
IH_91_Linux	PeopleSoft IH 9.1 Linux	Subscribed	0	IH	9.1	Linux	MOS

6. Review and update a Topology

Time: 10 mins

1. Navigate to Dashboard | Topology | PUM Fulltier topology. This topology will be used to create a new environment.

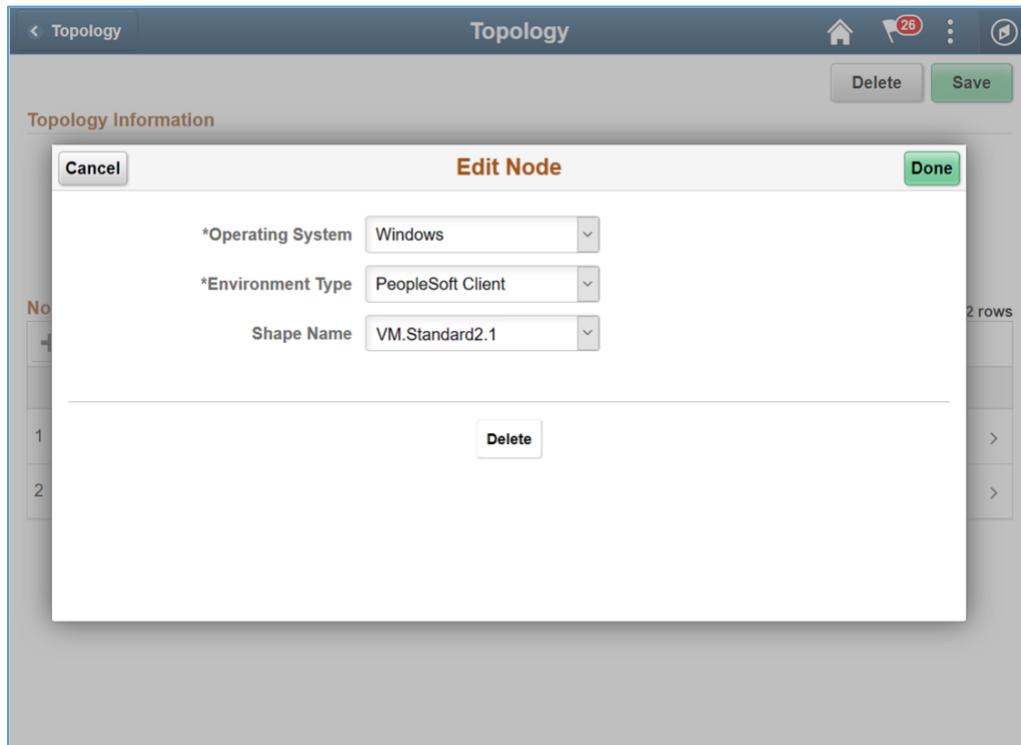
The screenshot shows the 'Topology' interface with the title 'Topology'. At the top right are 'Delete' and 'Save' buttons. Below the title is a section titled 'Topology Information' with fields for 'Topology Name' (PUM Fulltier) and 'Description' (Full-tier topology with one Linux node and one Windows Client). A table titled 'Nodes' lists two rows: '1 Full Tier' (Environment Type: Full Tier, Shape Name: Linux, Operating System: Linux, Disk Space(GB): 100) and '2 PeopleSoft Client' (Environment Type: PeopleSoft Client, Shape Name: Windows, Operating System: Windows, Disk Space(GB): 30).

Environment Type	Shape Name	Operating System	Disk Space(GB)
1 Full Tier		Linux	100
2 PeopleSoft Client		Windows	30

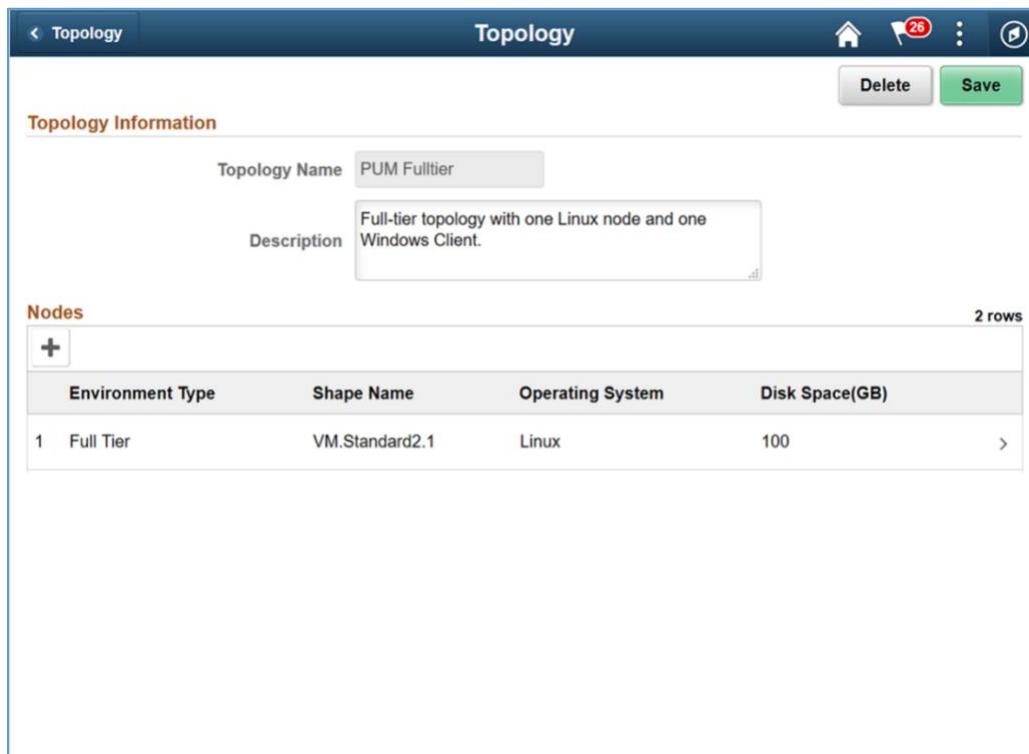
2. Review the nodes and update the Shapes. Click Full Tier node and select a shape that is available in your AD 2. In this case, select VM.Standard2.1 or VM.Standard2.2. Review the available shapes in your AD as explained in [Appendix A](#).

The screenshot shows the 'Edit Node' dialog box. It has 'Cancel' and 'Done' buttons at the top. The 'Edit Node' title is in the center. The form contains fields for 'Operating System' (Linux), 'Environment Type' (Full Tier), 'Shape Name' (VM.Standard2.1), and 'Disk Space(GB)' (100). Below the form is a 'Features' section with a 'Cobol' checkbox set to 'No'. At the bottom is a 'Delete' button.

3. Delete the Windows node from the topology. Click 'Delete' on the page shown below and save the topology.



4. When you are ready, Click Save. The topology should now look as shown below.



7. Create a new Environment Template

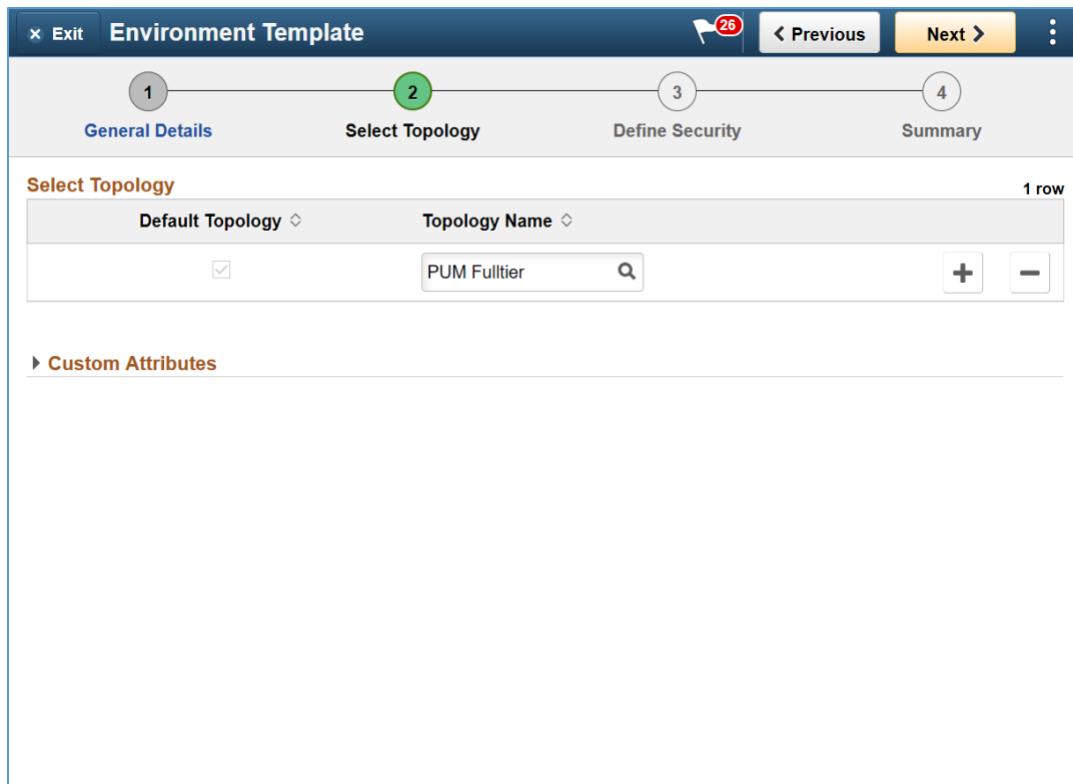
Time: 10 mins

1. Navigate to Dashboard | Environment Template. Click Add New Template button. Provide below details and click Next.

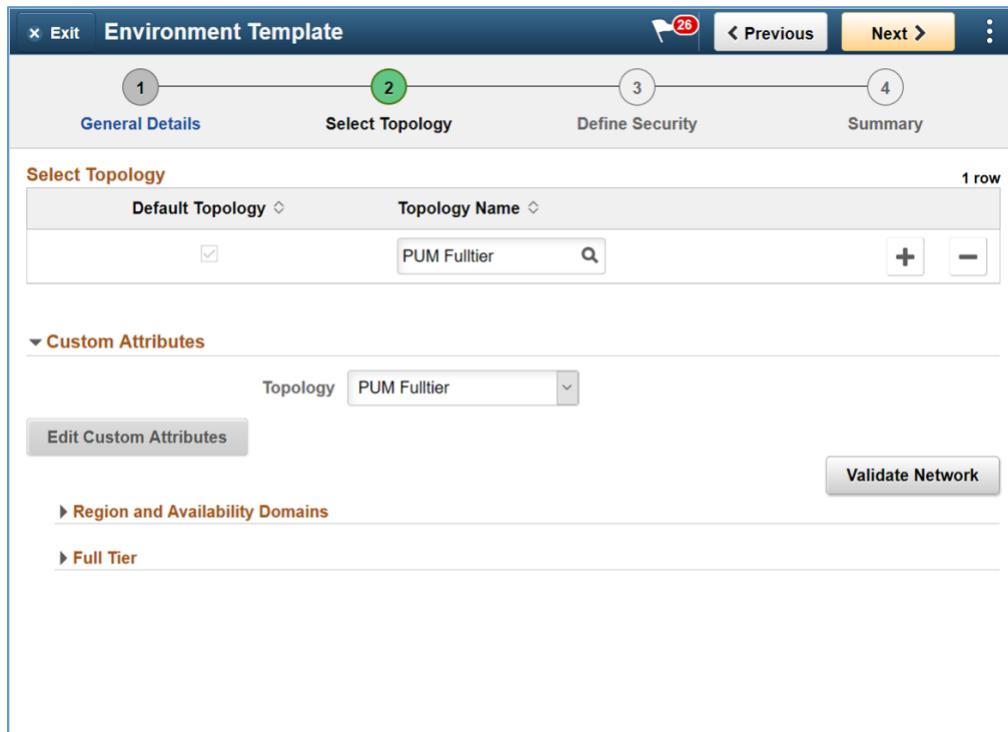
Name	MYPUM
Description	Test a PUM image
Database	Click on Search icon and select a downloaded DPK. For example. PEOPLESOFT HCM UPDATE IMAGE 9.2.030 - NATIVE OS

The screenshot shows the 'Environment Template' creation wizard. The top navigation bar includes 'Exit', the title 'Environment Template', a notifications icon with 26 messages, and 'Next >'. Below the title, a progress bar shows four steps: 1. General Details (highlighted in green), 2. Select Topology, 3. Define Security, and 4. Summary. The main content area is divided into sections: 'General Settings' (Name: MYPUM, Description: Test a PUM image), 'Select Database' (Database: PEOPLESOFT HCM UF), and 'Details' (Name: HCM, Platform: Linux, Release: 9.2, Version: 30). A 'Next >' button is located at the bottom right of the form.

2. On Select Topology page, click on search icon to search for a topology and select the PUM Fulltier topology.



3. Expand the Custom Attributes and select the PUM Fulltier topology and click Edit Custom Attributes.



4. Expand the Region and Availability Domains section. Select the Region and Availability Domain in which Cloud Manager instance is not deployed. Refer Appendix A to review tenancy service limits

and find the AD which has the required shape available for provisioning. In this exercise, for trial accounts, AD 2 should have the required shapes. Also refer to Appendix C for network topology.

The screenshot shows the Oracle Cloud Infrastructure Environment Template wizard. The current step is 'Select Topology' (step 2). The interface includes tabs for General Details, Select Topology, Define Security, and Summary. Below the tabs, there is an 'Edit Custom Attributes' button and a 'Validate Network' button. The 'Region and Availability Domains' section is expanded, showing the following configuration:

Setting	Value
1 Region	us-ashburn-1
2 Primary Availability Domain	evQs:US-ASHBURN-AD-2
3 Compartment	PSFT_Lab
4 Virtual Cloud Network	Labnet

Regional and Availability Domains

1	Region	us-ashburn-1
2	Primary Availability Domain	evQs:US-ASHBURN-AD-2 (Select an AD 2, where shapes are available for use)
3	Compartment	PSFT_Lab
4	Virtual Cloud Network	Labnet

5. Expand each of the sub-sections under Full Tier and PeopleSoft Client and provide inputs. The defaults for many parameters can be changed optionally.

Full Tier | General Settings

1	PeopleSoft Deployment Path	/u01/app/oracle/product
2	Database Access Id	SYSADM
3	Database Connect Id	people
4	Enable EM agent	No
5	Weblogic Administrator Username	system
6	Database Name	MYPUM
7	Gateway Administrator Username	administrator
8	Database Operator Id	PS
9	Database Server Port	1522
10	Database Type	SYS

11	Enable Multi Language	NO
12	Pre Provision Custom Script	-
13	Post Provision Custom Script	-

Full Tier | Subnet Settings

1	Subnet For Primary Instance	Select a subnet. E.g. envs
---	-----------------------------	----------------------------

Note – Since there is only one subnet, the ‘envs’ subnet is automatically chosen when AD2, PSFT_Lab compartment and labnet VCN is chosen in the earlier section.

Full Tier | Domain Settings | Web Server Settings

1	Number of Domains	1
2	Authentication Domain	default
3	HTTP PIA Port	8000
4	HTTPS PIA Port	8443

Full Tier | Domain Settings | Appserver Settings

1	Number of Domains	1
2	Number of App Server Instance (PSAPPSRV services) Per Domain	2
3	Number of Query Server Instances(PSQRYSRV services) Per Domain	1
4	Number of SQL Access App Server(PSSAMSRV services) Per Domain	1
5	Number of Jolt Listener(Jolt Handler) Per Domain	3
6	Jolt Port	9033
7	WSL Port	7000
8	Enable IB settings on first domain	YES
9	Number of App Server instance(PSAPPSRV services) for IB	2
10	Number of SQL Access App Server(PSSAMSRV services) for IB	1
11	Number of PSBRKHND instances for IB	1
12	Number of PSSUBHND instances for IB	1
13	Number of PSPUBHND instances for IB	1

Full Tier | Domain Settings | Process Scheduler Settings

1	Number of Domains	1
2	Number of App Engine Server Instances(PSAESRV services) Per Domain	2
3	Number of App Engine Server Instances(PSDSTSrv services) Per Domain	2

Full Tier | Domain Settings | Process Scheduler Server Definition Parameters

1	Application Engine	1
2	XML Publisher	1
3	COBOL SQL	1
4	Optimization Engine	1
5	SQR Process	1
6	SQR Report	1

7 Max Api Aware 1

Full Tier | Domain Settings | Advanced

None

6. Click Next to configure zone and role. Select options as shown below.

The screenshot shows the 'Environment Template' interface at the 'Define Security' step (step 3). The top navigation bar includes 'Exit', 'Environment Template', a notification badge (26), 'Previous', 'Next >', and a three-dot menu. Below the navigation is a progress bar with four steps: 1 General Details, 2 Select Topology, 3 Define Security (highlighted with a green circle), and 4 Summary. The main content area contains two sections: 'Assign Template to Zone(s)' and 'Assign Template to Role(s)'. Both sections have a header with a row count of '1 row' and a 'Zone Name' or 'Role Name' input field with a search icon. The 'Zone Name' section has one entry: '1 Test' with a '+' and '-' button. The 'Role Name' section has one entry: '1 PACL_CAD' with a '+' and '-' button.

7. Click Next. Review the page and click Submit to save the template.

The screenshot shows the 'Environment Template' interface at the 'Summary' step (step 4). The top navigation bar includes 'Exit', 'Environment Template', a notification badge (26), 'Previous', 'Submit' (highlighted in orange), and a three-dot menu. Below the navigation is a progress bar with four steps: 1 General Details, 2 Select Topology, 3 Define Security, and 4 Summary (highlighted with a green circle). The main content area is divided into sections: 'General Details' (Template Name: MYPUM, Description: Test a PUM image, Database: PEOPLESOF HCM UPDATE IMAGE 9.2.030 - NATIVE OS), 'Topology' (Selected topology: PUM Fulltier), and 'Security' (Selected Zone: Test, Selected Role: PACL_CAD, Auto-generate Passwords: No).

8. Create Environment

Time: 50 mins

1. Navigate to Dashboard | Environments. Click Create Environment button.
2. Provide a unique environment name. Select the Template that was created in previous section – MYPUM. Expand all sections under Environment Attributes and provide all inputs. Use the table given below for quick and default values. Click Done to begin the environment provisioning process.

Monitor the deployment logs under Dashboard | Environments | <Environment> | Action Menu | Details | Logs

Create Environment

Cancel Done

Environment Name: mypum

Description: Test new PUM

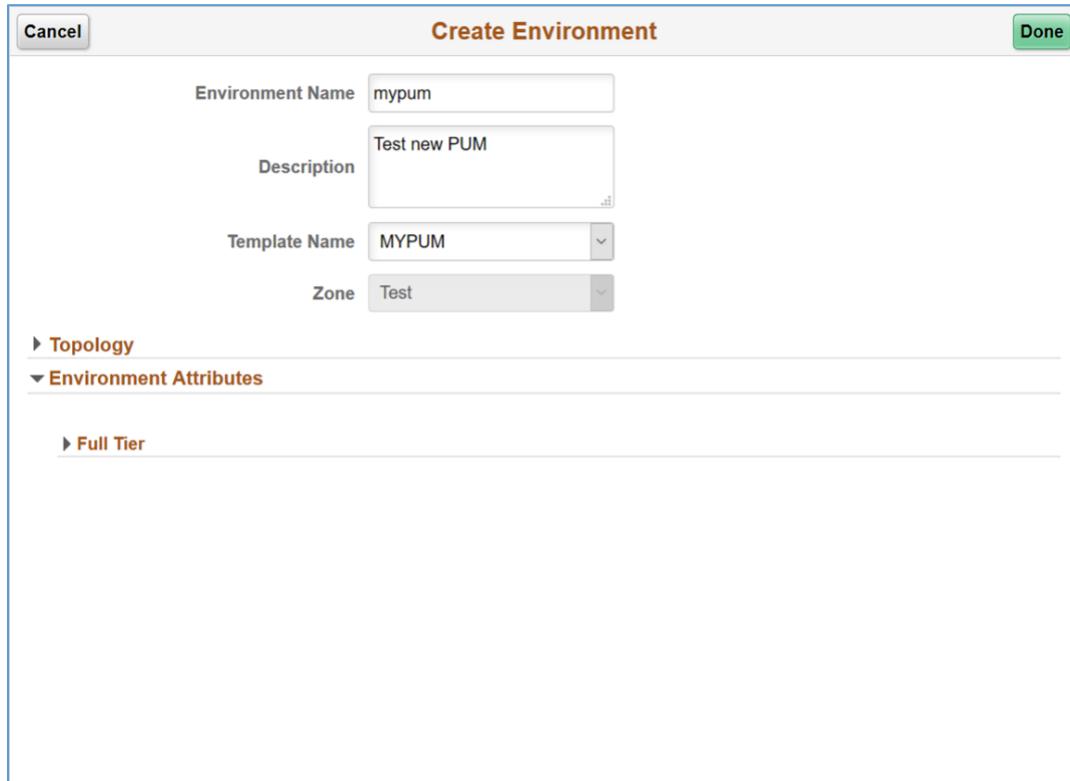
Template Name: MYPUM

Zone: Test

► Topology

▼ Environment Attributes

► Full Tier



Full Tier | Credentials

	Name	Value
1	Database Connect Id	people
2	Database Connect Password	Password1234
3	Weblogic Administrator Username	system
4	Weblogic Administrator Password	Password1234
5	Database Administrator Password	Password1234
6	Gateway Administrator Username	administrator
7	Gateway Administrator Password	Password1234
8	Database Operator Id	PS
9	Database Operator Password	PS
10	Web Profile Password for user PTWEB SERVER	Password1234
11	Database Access Id	SYSADM
12	Database Access Password	Password1234

Full Tier | General Settings

1	PeopleSoft Deployment Path	/u01/app/oracle/product
2	Database Access Id	SYSADM
3	Database Connect Id	people
4	Enable EM agent	No
5	Weblogic Administrator Username	system
6	Database Name	MYPUM
7	Gateway Administrator Username	administrator
8	Database Operator Id	PS
9	Database Server Port	1522
10	Database Type	SYS
11	Enable Multi Language	NO
12	Pre Provision Custom Script	-
13	Post Provision Custom Script	-

Full Tier | Domain Settings | Web Server Settings

1	Number of Domains	1
2	Authentication Domain	default
3	HTTP PIA Port	8000
4	HTTPS PIA Port	8443

Full Tier | Domain Settings | Appserver Settings

1	Number of Domains	1
2	Number of App Server Instance (PSAPPSSRV services) Per Domain	2
3	Number of Query Server Instances(PSQRYSRV services) Per Domain	1
4	Number of SQL Access App Server(PSSAMSRV services) Per Domain	1
5	Number of Jolt Listener(Jolt Handler) Per Domain	3
6	Jolt Port	9033
7	WSL Port	7000
8	Enable IB settings on first domain	YES
9	Number of App Server instance(PSAPPSSRV services) for IB	2
10	Number of SQL Access App Server(PSSAMSRV services) for IB	1
11	Number of PSBRKHND instances for IB	1
12	Number of PSSUBHND instances for IB	1
13	Number of PSPUBHND instances for IB	1

Full Tier | Domain Settings | Process Scheduler Settings

1	Number of Domains	1
2	Number of App Engine Server Instances(PSAESRV services) Per Domain	2
3	Number of App Engine Server Instances(PSDSTSrv services) Per Domain	2

Full Tier | Domain Settings | Process Scheduler Server Definition Parameters

1	Application Engine	1
2	XML Publisher	1
3	COBOL SQL	1
4	Optimization Engine	1
5	SQR Process	1
6	SQR Report	1
7	Max Api Aware	1

Full Tier | Domain Settings | Advanced

None

9. Additional Exercise – Provision Environments with Windows Clients

As a take home exercise, you can provision a PeopleSoft environment with a Windows client node. Follow the high level steps outlined below.

1. Remove the PUM topology from the Environment Template that was used to provision in the previous section – Refer step 2 in [Create a New Environment Template](#)
2. Edit the PUM topology and add a new Windows Client node. Select an available shape. Refer step 1 in [Review and Update a Topology](#). Hint - Click + to add a node.
3. Edit the Environment Template and re-add the PUM topology – Refer step 2 in [Create a New Environment Template](#). Hint - Search for PUM topology.
4. Configure the Custom Attributes of the topology in the template. Ensure to select the Availability Domain which has the required shapes – Refer Step 3 in [Create a New Environment Template](#)
5. Create a new Environment using the newly modified template – Refer [Create Environment](#).

Appendix A – OCI Account URL and Resources

The OCI Console URL will be as shown in the screenshot below. The standard format is – https://myservices-<account_name>.console.oraclecloud.com. In this example, the account name provided during account creation is ‘nkpsftcloud’. The URL will be <https://myservices-nkpsftcloud.console.oraclecloud.com>.

The screenshot shows the 'Enter Account Details' page. It includes fields for Account Type (set to Personal Use), Cloud Account Name (nkpsftcloud), Home Region (Ashburn), First Name (Nagendra), and Last Name (Krishnappa). A note at the bottom suggests picking a region closest to users.

Review the resources available in your tenancy. Navigate to Menu → Administration → Tenancy Details and review the service limits for Compute. Determine the number of VM shapes available in your tenancy.

The screenshot shows the 'Service Limits' page under the 'Resources' menu. The 'Service Limits' tab is selected. A sidebar lists categories: Block Volume, Compute, Database, File Storage, Networking, and Resource Manager. A note explains service limits and how to request increases.

When you sign up for Oracle Cloud Infrastructure, a set of service limits are configured for your tenancy. The service limit is the quota or allowance set on a resource. For example, your tenancy is allowed a maximum number of compute instances per Availability Domain. These limits are generally established with your Oracle sales representative when you purchase Oracle Cloud Infrastructure. If you did not establish limits with your Oracle sales representative, or, if you signed up through the Oracle Store, default or trial limits are set for your tenancy. You can request to have a service limit raised.

[Request a service limit increase](#)
[Learn more about service limits](#)

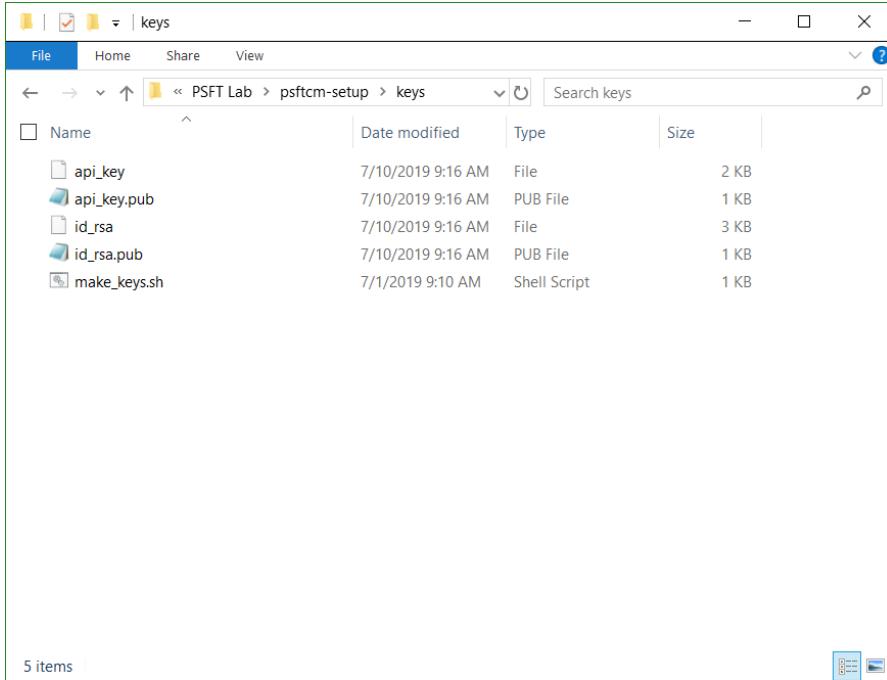
Your tenancy should have the following shapes.

Shape	AD-1	AD-2	AD-3
VM.Standard2.1	1	1	1
VM.Standard2.2	1	1	1
VM.Standard.E2.1	1	1	1
VM.Standard.E2.2	1	1	1

Appendix B – Accessing Cloud Manager using SSH

Steps to SSH into Cloud Manager instance.

1. SSH key pair required to access Cloud Manager instance was created in step 6 in [section 6](#).
 2. The SSH key pair will be under the folder named ‘keys’, in the same folder where the psftcm-setup.zip was extracted.



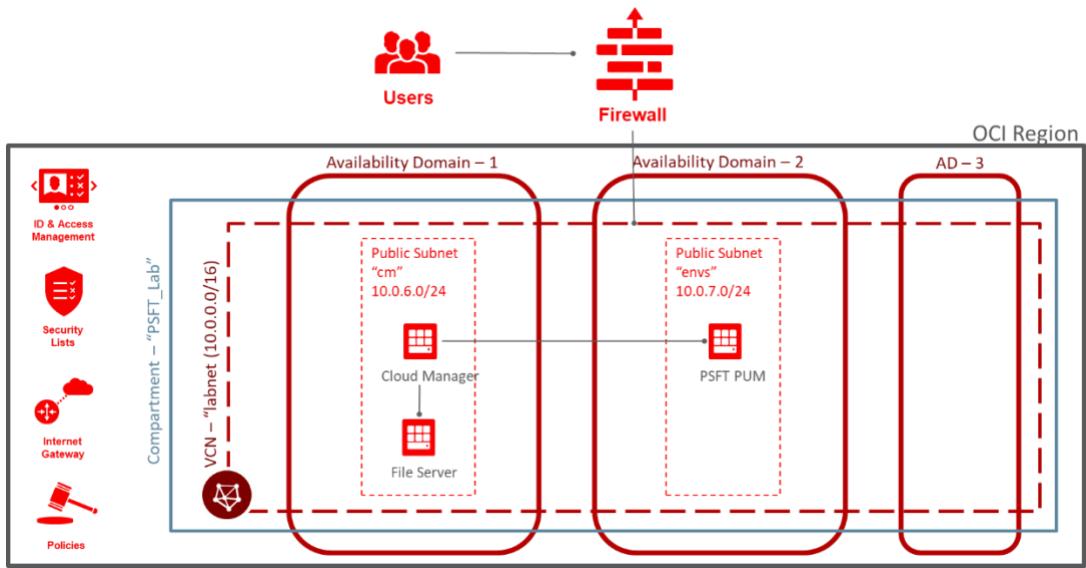
3. Launch Git Bash and navigate to the keys folder.
 4. Retrieve the Cloud Manager IP address. It was provided as output when the stack was applied.

Resources	Outputs	
	Key	Value
Logs	CM_http_url	http://labcm.cm.labnet.oraclevcn.com:8000
Variables	CM_https_url	https://labcm.cm.labnet.oraclevcn.com:8443
Associated Resources	CM_private_ip	10.0.6.2
Outputs	CM_public_ip	129.146.173.56
View State	Windows_2016_Platform_Image_for_CM	...ron5on7a Show Copy

5. SSH into the Cloud Manager instance using below command.

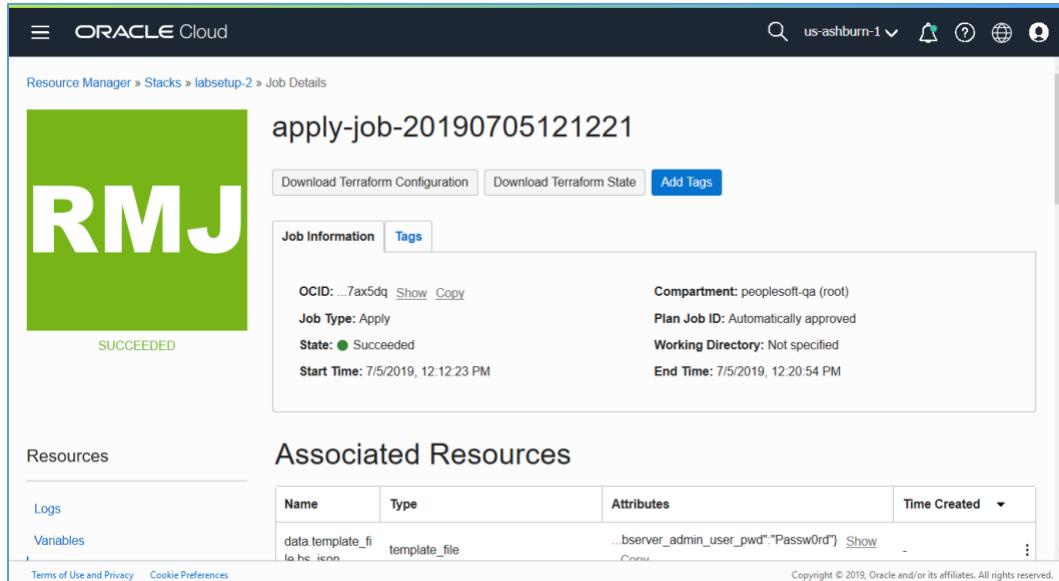
```
$ ssh -i id_rsa opc@129.213.145.213
```

Appendix C – Network layout



Appendix D – Deployed OCI Resources

The deployment automation (Resource Manager Stack) provisions numerous resources in the tenancy. To find the list of resources that were created, navigate to OCI console → Resource Manager → Stacks → <Stack> → Apply Job details. On this page, click Associated Resources under Resources.



Resource Manager » Stacks » labsetup-2 » Job Details

apply-job-20190705121221

SUCCEEDED

Job Information Tags

OCID: ...7ax5dq Show Copy Compartment: peoplesoft-qd (root)
Job Type: Apply Plan Job ID: Automatically approved
State: Succeeded Working Directory: Not specified
Start Time: 7/5/2019, 12:12:23 PM End Time: 7/5/2019, 12:20:54 PM

Resources Associated Resources

Name	Type	Attributes	Time Created
data.template_file_b.json	template_file	...bserver_admin_user_pwd": "Passw0rd"} Show Copy	-

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In this lab example, the Associated Resources show all the newly created resources.

Name	Type	Attributes	Time Created
data.oci_core_images.linux	oci_core_images	...,"operating_system_version":"6.10"} Show Copy	-
data.oci_core_images.windows	oci_core_images	...version":"Server 2012 R2 Standard"} Show Copy	-
cm	oci_core_subnet	...al_router_mac":"00:00:17:CB:77:95"} Show Copy	7/15/2019, 10:58:31 AM
data.oci_core_virtual_networks.t	oci_core_virtual_networks	...omain_name":"labnet.oraclevcn.com"} Show Copy	-
data.oci_identity_availability_domains.adlist	oci_identity_availability_domains	...7-15 05:28:30.663760208 +0000 UTC"} Show Copy	-
data.template_file.bs_json	template_file	...bserver_admin_user_pwd": "Passw0rd"} Show Copy	-
data.template_file.read_and_agree	template_file	...mlshxvg426ekskyuzefn2t5gobjdcctiq"} Show Copy	-
Default Route Table for labnet	oci_core_default_route_table	...2019-07-15 05:28:30.721 +0000 UTC"} Show Copy	7/15/2019, 10:58:30 AM

labcm	oci_core_instance	... "time_maintenance_reboot_due": ""} Show Copy	7/15/2019, 11:08:22 AM	:
workvm	oci_core_instance	... "time_maintenance_reboot_due": ""} Show Copy	7/15/2019, 10:58:32 AM	:
labnet_ig	oci_core_internet_gateway	... fk3kurtxyau7uez3fmoix5uhw2efduoaq"} Show Copy	7/15/2019, 10:58:31 AM	:
cm_sec	oci_core_security_list	... fk3kurtxyau7uez3fmoix5uhw2efduoaq"} Show Copy	7/15/2019, 10:58:31 AM	:
cm	oci_core_subnet	... al_router_mac": "00:00:17:CB:77:95"} Show Copy	7/15/2019, 10:58:31 AM	:
envs	oci_core_subnet	... al_router_mac": "00:00:17:CB:77:95"} Show Copy	7/15/2019, 10:58:31 AM	:
labnet	oci_core_virtual_network	... omain_name": "labnet.oraclevcn.com"} Show Copy	7/15/2019, 10:58:30 AM	:
oci_identity_api_key.labApiKey	oci_identity_api_key	... vh5caxbtbugm6y5txnjc75n7kem55fz4q"} Show Copy	7/15/2019, 10:58:23 AM	:
PSFT_Lab	oci_identity_compartment	... 2019-07-15 05:28:23.643 +0000 UTC"} Show Copy	7/15/2019, 10:58:23 AM	:
CMadmins_Lab	oci_identity_group	... 2019-07-15 05:28:23.364 +0000 UTC"} Show Copy	7/15/2019, 10:58:23 AM	:
policy_Lab	oci_identity_policy	... 2019-07-15 05:28:30.791 +0000 UTC"} Show Copy	7/15/2019, 10:58:30 AM	:
psftadmin_Lab	oci_identity_user	... 2019-07-15 05:28:23.492 +0000 UTC"} Show Copy	7/15/2019, 10:58:23 AM	:

Appendix E – Provisioning Windows Instances

In this lab exercise, Windows node was removed from the topology to keep the provisioning process short and simple. If you want to provision Windows instances as part of an environment at a later point in time, you can do so easily.

Appendix F –

IAM Practice - Identity and Access Management

Table of Contents

Overview

Pre-Requisites

Practice 1: Signing in to the Console

Practice 2: Managing Users, Groups and Policies to Control Access

Note: Some of the UIs might look a little different than the screen shots included in the instructions, but you can still use the instructions to complete the hands-on labs.

Overview

Oracle Cloud Infrastructure Identity and Access Management (IAM) Service lets you control who has access to your cloud resources. You control the types of access a group of users has and to which specific resources. The purpose of this lab is to give you an overview of the IAM Service components and an example scenario to help you understand how they work together.

Pre-Requisites

- Oracle Cloud Infrastructure account credentials (User, Password, and Tenant)
- To sign in to the Console, you need the following:
 - Tenant, User name and Password
 - URL for the Console: <https://oracle.com>
 - Oracle Cloud Infrastructure supports the latest versions of Google Chrome, Firefox and Internet Explorer 11

Practice-1: Signing in to the Console

Console Overview

In this practice, you sign in to the Oracle Cloud Infrastructure console using your credentials.

1. Open a supported browser and go to the Console URL: <https://oracle.com>.
2. Click on the portrait icon in the top-right section of the browser window, then click on the **Sign in to Cloud** link.



3. Enter the name of your tenancy (aka your account name, not your user name), then click on the **Next** button.

The screenshot shows a form for entering a cloud account name. At the top center is the 'ORACLE Cloud' logo. Below it is a text input field with the placeholder 'your tenancy name'. A large green 'Next' button is positioned below the input field. At the bottom left of the form, there is a link 'Forgot your cloud account name? Get help'. At the bottom right, there is another link 'Sign In using a Traditional Cloud Account'.

Cloud Account Name ?

your tenancy name

Next

Forgot your cloud account name? [Get help](#)

[Sign In using a Traditional Cloud Account](#)

4. Oracle Cloud Infrastructure is integrated with Identity Cloud Services, you will see a screen validating your Identity Provider. Enter your username and password. Click **Sign In**.



orosenatdpltoci02

Oracle Cloud Account Sign In

User Name

User name or email



Password

Password

Sign In

Need help signing in? [Click here](#)

Or sign in with



Oracle SSO

5. When you sign in to the Console, the dashboard is displayed.

The screenshot shows the Oracle Cloud interface. At the top, there's a navigation bar with the Oracle Cloud logo, a search icon, and "US East". Below the navigation bar, the page title is "Applications >".

Quick Actions

	2-6 mins		3-5 mins		3-5 mins
COMPUTE Create a VM instance		AUTONOMOUS TRANSACTION PROCESSING Create a database		AUTONOMOUS DATA WAREHOUSE Create a data warehouse	
	1-3 mins		2-6 mins		2-3 mins
NETWORKING Create a virtual cloud network		OBJECT STORAGE Store data		NETWORKING SOLUTIONS Create an IPsec VPN connection	

Solutions

	Deploy Oracle and third party software from our Marketplace		Evaluate the PeopleSoft Validated Solution Architecture		Migrate custom applications onto Oracle Cloud		Deploy a three-tier web application using Always Free resources.
Explore our new capability to deploy		Meet your business and technical		Learn the benefits and validated			

Practice-2: Creating Compartments

Compartments Overview

A compartment is a collection of cloud assets, like compute instances, load balancers, databases, etc. By default, a root compartment was created for you when you created your tenancy (ie when you registered for the trial account). It is possible to create everything in the root compartment, but Oracle recommends that you create sub-compartments to help manage your resources more efficiently.

1. From the menu, select Identity and Compartments. Click on the blue **Create Compartment** button to create a sub-compartment.



Identity

Compartments

[Users](#)[Groups](#)[Dynamic Groups](#)[Policies](#)[Compartments](#)[Federation](#)[Authentication Settings](#)[Create Compartment](#)

Name	Status	OCID
ocidemo2 (root)	● Active	...lm4sca
ManagedCompartmentForPaaS	● Active	...ymcdra

2. Name the compartment **Demo** and provide a short description. Be sure your root compartment is shown as the parent compartment. Press the blue **Create Compartment** button when ready.

Create Compartment

[help](#) [cancel](#)

NAME											
Demo											
DESCRIPTION											
This is our main compartment for the Test Drive											
PARENT COMPARTMENT											
ocidemo2 (root)		▼									
<p>Tagging is a metadata system that allows you to organize and track resources within your tenancy. Tags are composed of keys and values that can be attached to resources.</p> <p>Learn more about tagging</p> <table border="1"> <thead> <tr> <th>TAG NAMESPACE</th> <th>TAG KEY</th> <th>VALUE</th> </tr> </thead> <tbody> <tr> <td>None (add a free-form tag) ▾</td> <td></td> <td></td> </tr> <tr> <td colspan="3" style="text-align: right;">+ Additional Tag</td> </tr> </tbody> </table>			TAG NAMESPACE	TAG KEY	VALUE	None (add a free-form tag) ▾			+ Additional Tag		
TAG NAMESPACE	TAG KEY	VALUE									
None (add a free-form tag) ▾											
+ Additional Tag											
Create Compartment											

3. You have just created a compartment for all of your work in this Test Drive.

Practice-3: Managing Users, Groups and Policies to Control Access Security Overview

A user's permissions to access services comes from the *groups* to which they belong. The permissions for a group are defined by policies. Policies define what actions members of a group can perform, and in which compartments. Users can access services and perform operations based on the policies set for the groups of which they are members.

We'll create a user, a group, and a security policy to understand the concept.

1. Sign in to the console, on the **Menu** click **Identity**, then select **Groups**.
2. Click **Create Group**.
3. In the **Create Group** dialog box, enter the following:
 - **Name:** Enter a unique name for your group such as "oci-group" Note that the group name cannot contain spaces.

- **Description:** Enter a description (for example, “New group for oci users”).
- Click **Submit**.

Create Group [Help](#) [Cancel](#)

NAME No spaces. Only letters, numerals, hyphens, periods, or underscores.

DESCRIPTION

TAGS

Tagging is a metadata system that allows you to organize and track resources within your tenancy. Tags are composed of keys and values that can be attached to resources.

[Learn more about tagging](#)

TAG NAMESPACE	TAG KEY	VALUE
None (add a free-form tag) <input type="button" value="▼"/>	<input type="text"/>	<input type="text"/>
+ Additional Tag		

4. Your new group is displayed.

Identity » Groups » Group Details



oci-group

[Delete](#)
[Apply Tag\(s\)](#)

[Group Information](#) [Tags](#)

OCID: ...q3f3ta [Show](#) [Copy](#)
Created: Wed, 26 Sep 2018 16:30:18 GMT

Resources
Group Members
No Group Members

[Group Members \(0\)](#)

[Add User to Group](#)

There are no Members in this Group.

[Add User to Group](#)

5. Now, let's create a security policy that gives your group permissions in your assigned compartment. For example, create a policy that gives permission to compartment **Demo** to members or group oci-group:

a) On the **Menu** click **Identity**, and then click **Policies**.

b) On the left side, select **Demo** compartment.

The screenshot shows the Oracle Cloud Identity interface. The top navigation bar says "ORACLE Cloud". The left sidebar under "Identity" has several options: "Users", "Groups", "Dynamic Groups", "Policies" (which is highlighted with a red box), "Compartments", "Federation", and "Authentication Settings". Below this is a section titled "List Scope" with a "COMPARTMENT" dropdown. The dropdown shows "Pick a compartment" and a search bar. Underneath is a list of compartments, with "Demo" highlighted by a red box. To the right of the sidebar is a main content area titled "Policies" with a sub-section "Select a Compartment" showing a diagram of a compartment structure with a "Compartment Filter" arrow. There is also a sidebar on the right with "Oracle Cloud Infrastructure uses" and "View and manage your resources: \$". A link "Learn more about Compartments" is also present.

NOTE: You may need to click on the + sign next to your main compartment name to be able to see the sub-compartment **Demo**. If you do, and you still don't see the sub-compartment, **Refresh your browser**. Sometimes your browser caches the compartment information and does not update its internal cache.

c) After you have selected the **Demo** compartment, click **Create Policy**.

d) Enter a unique **Name** for your policy (For example, "Policy-for-oci-group") **Note that the name can NOT contain spaces.**

e) Enter a **Description** (for example, "Policy for OCI Group").

f) Enter the following **Statement**:

Allow group oci-group to manage all-resources in compartment Demo

g) Click **Create**.

Create Policy [help](#) [cancel](#)

NAME
Policy-for-oci-group

DESCRIPTION
Policy for OCI Group

Policy Versioning

KEEP POLICY CURRENT
 USE VERSION DATE

Policy Statements

STATEMENT
Allow group oci-group to manage all-resources in compartment Demo

TAGS

Tagging is a metadata system that allows you to organize and track resources within your tenancy. Tags are composed of keys and values that can be attached to resources.

[Learn more about tagging](#)

TAG NAMESPACE	TAG KEY	VALUE
None (apply a free-form tag) <input type="button" value="▼"/>		

+ Additional Tag

Create

6. Create a New User

a) On the **Menu** click **Identity**, and then click **Users**.

b) Click **Create User**.

c) In the **New User** dialog box, enter the following:

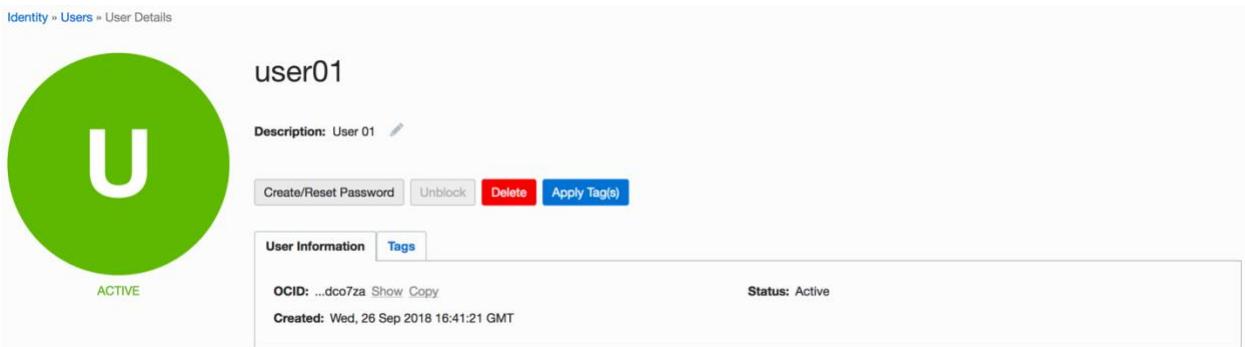
- **Name:** Enter a unique name or email address for the new user. I recommend using a personal email address to which you have access (GMail, Yahoo, etc). *This value is the user's login name for the Console and it must be unique across all other users in your tenancy.*
- **Description:** Enter a description. For example, New oci user.

Create User [help](#) [cancel](#)

NAME User01 <small>No spaces. Only letters, numerals, hyphens, periods, underscores, +, and @.</small>									
DESCRIPTION User 01									
EMAIL @yahoo.com <small>This email will be used for password recovery.</small>									
TAGS <p>Tagging is a metadata system that allows you to organize and track resources within your tenancy. Tags are composed of keys and values that can be attached to resources.</p> <p>Learn more about tagging</p> <table border="1"><thead><tr><th>TAG NAMESPACE</th><th>TAG KEY</th><th>VALUE</th></tr></thead><tbody><tr><td>None (apply a free-form tag ▾)</td><td></td><td></td></tr><tr><td></td><td></td><td>+ Additional Tag</td></tr></tbody></table> <p>Create</p>	TAG NAMESPACE	TAG KEY	VALUE	None (apply a free-form tag ▾)					+ Additional Tag
TAG NAMESPACE	TAG KEY	VALUE							
None (apply a free-form tag ▾)									
		+ Additional Tag							

d) Click **Create**.

7. Set a Temporary Password for the newly created User
 - a) From the list of users, click on **the user that you created** to display its details.
 - b) Click **Create/Reset Password**.



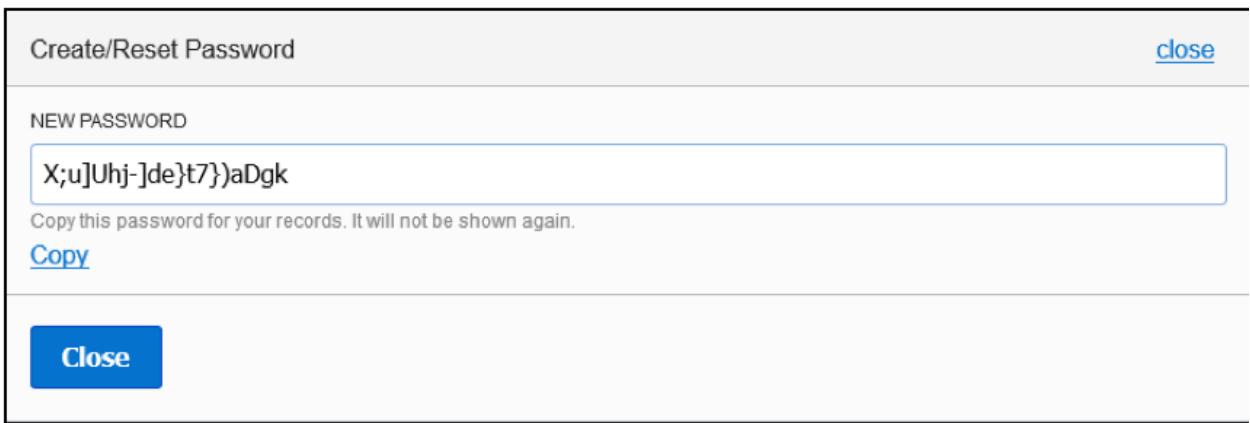
The screenshot shows the 'User Details' page for a user named 'user01'. At the top left is a large green circular icon containing a white letter 'U', with the word 'ACTIVE' below it. To the right of the icon is the user name 'user01' and a 'Description: User 01' field. Below these are several buttons: 'Create/Reset Password' (highlighted in blue), 'Unblock', 'Delete' (in red), and 'Apply Tag(s)'. A tab bar at the bottom includes 'User Information' (selected) and 'Tags'. At the bottom of the page, status information is displayed: 'OCID: ...dco7za' with 'Show' and 'Copy' links, and 'Status: Active'. The date 'Created: Wed, 26 Sep 2018 16:41:21 GMT' is also shown.

- c) In the dialog, click **Create/Reset Password**.



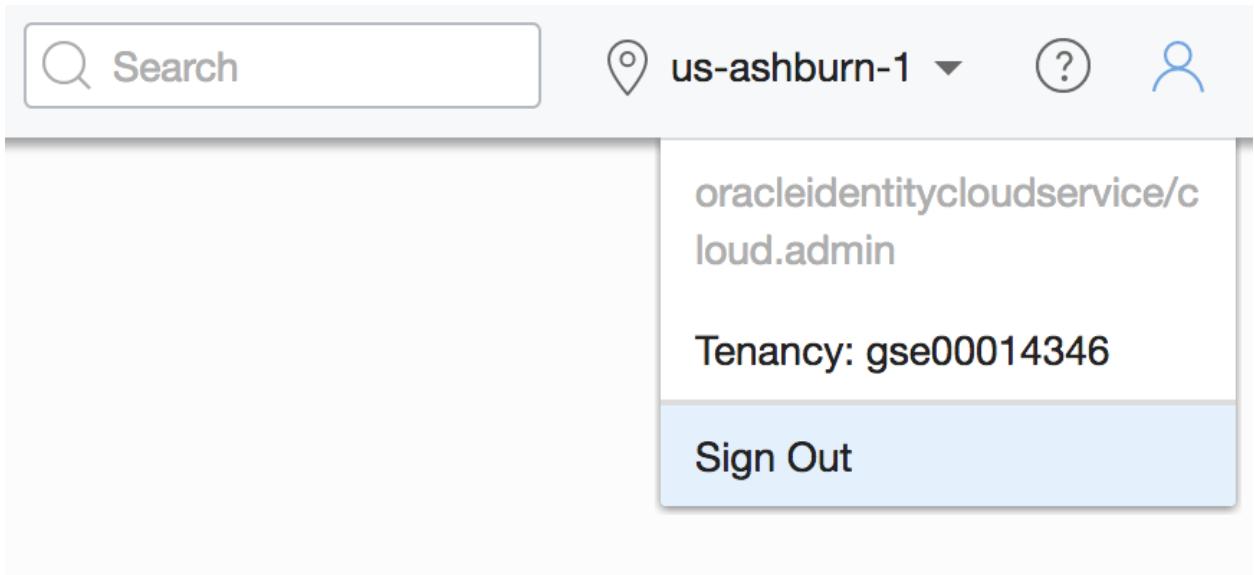
The screenshot shows a modal dialog titled 'Create/Reset Password'. It contains a message: 'This will create a new one-time password for the User.' Below the message is a large blue button labeled 'Create/Reset Password'. In the top right corner of the dialog, there is a link labeled 'cancel'.

- d) The new one-time password is displayed.



The screenshot shows a modal dialog titled 'Create/Reset Password'. It has a section labeled 'NEW PASSWORD' containing a text input field with the value 'X;u]Uhj-]de}t7})aDgk'. Below the input field is a note: 'Copy this password for your records. It will not be shown again.' with a 'Copy' link. At the bottom of the dialog is a blue 'Close' button. In the top right corner, there is a link labeled 'close'.

- e) Click the **Copy** link and then click **Close**. Make sure to copy this password to your notepad.
 - f) Click **Sign Out** from the user menu and log out of the admin user account completely.



8. Sign in as the new user using a different web browser or an incognito window.
 - a) Go to <https://oracle.com>.
 - b) Enter the Tenant name, if prompted.
 - c) This time, you will sign in using **local credentials box** with the user you created. Note that the user you created is not part of the Identity Cloud Services.
 - d) Enter the password that you copied.

Oracle Cloud Infrastructure i

The login is uncommon for federated accounts. If you have questions, please review the [FAQ](#) or contact your tenancy administrator.

USER NAME

PASSWORD

[Forgot password?](#)

Note: Since this is the first-time sign-in, the user will be prompted to change the temporary password, as shown in the screen capture.

e) Set the new password to *Welc0me2*bmcS*. Click **Save New Password**.

Change Your Password

You must change your password either because this is your first time signing in, your password was reset, or you opted to change it

Current Password
 ••••••••••••••••••••

New Password
 ••••••••••••

Confirm New Password
 ••••••••••••

Password requirements:

- ✓ Twelve or more characters
- ✓ At least one lowercase letter
- ✓ At least one uppercase letter
- ✓ At least one number
- ✓ At least one punctuation character
- ✗ Cannot match the account name

Save New Password

9. Verify user permissions

a) Go to the **Menu** click **Compute** and **Instances**.

b) Try to select any compartment from the left menu.

- c) The message “**You don’t have access to this compartment**” appears. This is normal as you did not add the user to the group where you associated the policy.

Sort by: **Created Date (Desc)**

Nothing here? Possible reasons:

- No resources exist in this Compartment, in this Region.
- You don't have access to view this resource in this Compartment.

Contact your administrator if you have questions about your access.

- d) Sign out of the Console.

10. Add User to a Group

- a) Sign in back with the **admin** account. b) From the **Users** list, click the user account that you just created (for example, `user01`) to go to the user details page.
- c) Under the **Resources** menu on the left, click **Groups**.
- d) Click **Add User to Group**.
- e) From the **GROUPS** drop-down list, select the **oci-group** that you created.

f) Click **Add**.

The screenshot shows the Oracle Cloud Infrastructure (OCI) console. On the left, there's a large circular profile picture with a 'U' and the word 'ACTIVE'. Below it, the 'Resources' sidebar lists 'API Keys (0)', 'Auth Tokens (0)', 'SMTP Credentials (0)', 'Amazon S3 Compatibility API Keys (0)', and 'Groups (0)' (which is selected). The main area is titled 'Groups' and shows a modal window titled 'Add User to Group'. Inside the modal, there's a dropdown menu labeled 'GROUPS' containing 'oci-group'. A blue 'Add' button is at the bottom right of the modal. Above the modal, the text 'Description: User 01' is visible. To the right of the modal, a message says 'This User is not a Member of any Groups.' with a blue 'Add User to Group' button.

g) Sign out of the Oracle Cloud website.

11. Verify user permissions when a user belongs to a specific group

a) Sign in with the local user01 account you created. Remember to use the latest password you assigned to this user.

b) Go to the **Menu** click **Compute** and **Instances**.

c) Select compartment **Demo** from the list of compartments on the left.

The screenshot shows the Oracle Cloud Infrastructure Compute Instances page. The left sidebar has 'Compute' selected, with 'Instances' also highlighted. Other options in the sidebar include 'Custom Images', 'Boot Volumes', and 'Boot Volume Backups'. Under 'List Scope', 'COMPARTMENT' is set to 'Demo'. The main area is titled 'Instances in Demo Compartment' and contains a 'Create Instance' button. A sorting dropdown says 'Sort by: Created Date (Desc)'. Below that, a message states 'There are no Instances in Demo that match the filter criteria.' with another 'Create Instance' button at the bottom right.

d) There is no message related to permissions and you are allowed to create new instances

- e) Go to the **Menu** click **Identity** and select **Groups**.
- f) The message "**You don't have access to these resources**" appears. This is expected, since your user has no permission to modify groups. (Note: You may instead get the "An unexpected error occurred" message instead. That is also fine.)
- g) Sign out.

Creating a new subnet

1. Navigate to Menu → Networking → Virtual Cloud Networks. Set the Compartment to ‘PSFT_Lab’. Click on the existing VCN “labnet”.

The screenshot shows the Oracle Cloud Infrastructure (OCI) interface for managing Virtual Cloud Networks (VCNs).
At the top, there's a large green hexagonal icon with the letters "VCN" in white. To its right, the name "labnet" is displayed. Below the icon, there are three buttons: "Move Resource", "Add Tags" (in blue), and "Terminate" (in red).
Underneath these buttons, there are two tabs: "VCN Information" (selected) and "Tags".
Key details shown under "VCN Information":

- CIDR Block: 10.0.0.0/16
- Compartment: PSFT_Lab
- Created: Mon, Jul 15, 2019, 5:28:30 AM UTC
- OCID: ...fdquoaq (with "Show" and "Copy" links)
- Default Route Table: Default Route Table for labnet
- DNS Domain Name: labnet.oraclevcn.com

On the left side, there's a sidebar titled "Resources" with the following items:

- Subnets (2) (selected)
- Route Tables (1)
- Internet Gateways (1)
- Dynamic Routing Gateways (0)
- Network Security Groups (0)
- Security Lists (2)
- DHCP Options (1)

The main content area is titled "Subnets in PSFT_Lab Compartment". It features a table with the following data:

Create Subnet				
Name	State	CIDR Block	Subnet Access	Created
sm	Available	10.0.6.0/24	Public (XJcm:US-ASHBURN-AD-1)	Mon, Jul 15, 2019, 5:28:31 AM UTC
envs	Available	10.0.7.0/24	Public (XJcm:US-ASHBURN-AD-2)	Mon, Jul 15, 2019, 5:28:31 AM UTC

Showing 2 Items < Page 1 >

2. Click on Create Subnet button to add a new subnet. Use default route table, and default DHCP options. Use 10.0.8.0/24 as the CIDR for subnet.

Create Subnet [help](#) [cancel](#)

If the Route Table, DHCP Options, or Security Lists are in a different Compartment than the Subnet, enable Compartment selection for those resources: [Click here](#)

NAME
MySubnet

SUBNET TYPE

REGIONAL (RECOMMENDED)
Instances in the subnet can be created in any availability domain in the region. Useful for high availability.

AVAILABILITY DOMAIN-SPECIFIC
Instances in the subnet can only be created in one availability domain in the region.

AVAILABILITY DOMAIN
XJcm:US-ASHBURN-AD-3

CIDR BLOCK
10.0.8.0/24
Specified IP addresses: 10.0.8.0-10.0.8.255 (256 IP addresses)

ROUTE TABLE
Default Route Table for labnet

SUBNET ACCESS

PRIVATE SUBNET
Prohibit public IP addresses for Instances in this Subnet

PUBLIC SUBNET
Allow public IP addresses for Instances in this Subnet

Attribute	Value
Name	MySubnet
Subnet Type	Availability Domain-specific
Availability Domain	AD 3
CIDR Block	10.0.8.0/24
Route Table	Default Route Table for labnet
Subnet Access	Public Subnet
DNS Resolution	Enable Use DNS hostnames in this SUBNET
Security List	Add two security lists using the button + Additional Security List as shown in below screenshot – 1. cm_sec 2. Default Security List for labnet

Security Lists

SECURITY LIST

cm_sec

SECURITY LIST

Default Security List for labnet

SECURITY LIST

Select a Security List

+ Additional Security List

3. Click Create Subnet. The newly created subnet will be as shown

MySubnet



Edit **Move Resource** **Add Tags** **Terminate**

Subnet Information	Tags
OCID: ...qokfoa Show Copy	Compartment: PSFT_Lab
CIDR Block: 10.0.8.0/24	DNS Domain Name: mysubnet... Show Copy
Virtual Router Mac Address: 00:00:17:CB:77:95	Subnet Access: Public Subnet
Subnet Type: Availability Domain-Specific	DHCP Options: Default DHCP Options for labnet
Availability Domain: XJcm:US-ASHBURN-AD-3	Route Table: Default Route Table for labnet

Resources

Security Lists (2)

Tag Filters [add](#) | [clear](#)

no tag filters applied

Security Lists

Add Security List			
Name	State	Compartment	Created
cm_sec	Available	PSFT_Lab	Mon, Jul 15, 2019, 5:28:31 AM UTC
Default Security List for labnet	Available	PSFT_Lab	Mon, Jul 15, 2019, 5:28:30 AM UTC

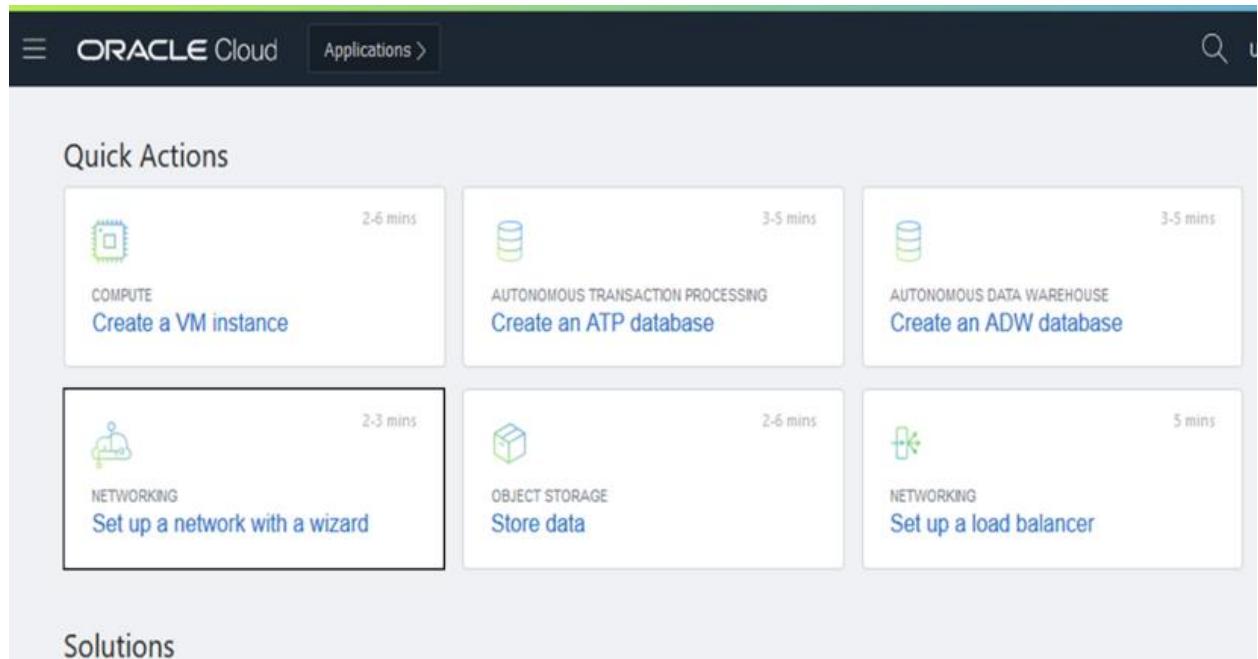
Showing 2 items [Page 1](#)

Appendix E.

Create Your VCN

To create a VCN on Oracle Cloud Infrastructure:

1. On the Oracle Cloud Infrastructure Console Home page, under the Quick Actions header, click on Set up a network with a wizard.



2. Select **VCN with Internet Connectivity**, and then click **Start Workflow**.

VCN with Internet Connectivity VCN with VPN Connect and Internet Connectivity

Creates a VCN with a public subnet that can be reached from the internet. Also creates a private subnet that can connect to the internet through a NAT gateway, and also privately connect to the Oracle Services Network.

Includes: VCN, public subnet, private subnet, internet gateway (IG), NAT gateway (NAT), service gateway (SG).

[Start Workflow](#)[Cancel](#)

3. Complete the following fields:

Field	Value
VCN NAME	OCI_HOL_VCN
COMPARTMENT	Choose the Demo compartment you created in the Identity Lab
VCN CIDR BLOCK	10.0.0.0/16
PUBLIC SUBNET CIDR BLOCK	10.0.2.0/24
PRIVATE SUBNET CIDR BLOCK	10.0.1.0/24
USE DNS HOSTNAMES IN THIS VCN	Checked

4. Your screen should look similar to the following:

Create a VCN with Internet Connectivity

1 Configuration
2 Review and Create

Configuration

Basic Information

VCN NAME *(i)*

COMPARTMENT *(i)*

User named Jeff Davies from JeffDavies/Demo

Configure VCN and Subnets

VCN CIDR BLOCK *(i)*

Example: 10.0.0.0/16
If you plan to peer this VCN with another VCN, the VCNs must not have overlapping CIDRs. [Learn more.](#)

PUBLIC SUBNET CIDR BLOCK *(i)*

Example: 10.0.0.0/24
The subnet CIDR blocks must not overlap.

PRIVATE SUBNET CIDR BLOCK *(i)*

Example: 10.0.1.0/24
The subnet CIDR blocks must not overlap.

DNS RESOLUTION

USE DNS HOSTNAMES IN THIS VCN
Required for instance hostname assignment if you plan to use VCN DNS or a third-party DNS. This choice cannot be changed after the VCN is created. [Learn more.](#)

5. [Previous](#) [Next](#) [Cancel](#)
6. Press the **Next** button at the bottom of the screen.

7. Review your settings to be sure they are correct.

Create a VCN with Internet Connectivity

Configuration

Review and Create

② Review and Create

Oracle Virtual Cloud Network (VCN)

Name: OCI_HOL_VCN
Compartment: Demo
Tags: VCN: VCN-2020-01-07T19:29:45
CIDR: 10.0.0.0/16
DNS Label: OCIHOLVCN
DNS Domain Name: OCIHOLVCN.oraclevcn.com

Subnets

Public Subnet

Subnet Name: Public Subnet-OCI_HOL_VCN
CIDR: 10.0.2.0/24
Security List Name: Default Security List for OCI_HOL_VCN
Route Table Name: Default Route Table for OCI_HOL_VCN
DNS Label: sub01071930250

Private Subnet

Subnet Name: Private Subnet-OCI_HOL_VCN
CIDR: 10.0.1.0/24
Security List Name: Security List for Private Subnet-OCI_HOL_VCN
Route Table Name: Route Table for Private Subnet-OCI_HOL_VCN
DNS Label: sub01071930251

Gateways

Name	Gateway Type	Used By
------	--------------	---------

Previous **Create** Cancel

8. Press the **Create** button to create the VCN. I will take a moment to create the VCN and a progress screen will keep you apprised of the workflow.

Create a VCN with Internet Connectivity

The screenshot shows the 'Created Virtual Cloud Network' page. At the top left, there are two tabs: 'Configuration' (selected) and 'Review and Create'. Below the tabs is a 'Creating Resources' section. A green box at the top of this section indicates 'Virtual Cloud Network creation complete'. Below this, a list of tasks is shown, each with a green checkmark and the word 'Done' next to it. The tasks are:

- » Create Virtual Cloud Network (1 resolved)
- » Create Subnets (2 resolved)
- » Create Internet Gateway (1 resolved)
- » Create NAT Gateway (1 resolved)
- » Create Service Gateway (1 resolved)
- » Create Route Table for Private Subnet (1 resolved)
- » Create Security List for Private Subnet (1 resolved)
- » Update Route Tables (2 resolved)
- » Update Private Subnet (1 resolved)

At the bottom of the page are two buttons: 'View Virtual Cloud Network' (blue) and 'Cancel' (gray).

9. Once you see that the creation is complete (see previous screenshot), click on the **View Virtual Cloud Network** button.

Summary

This VCN will contain all of the other assets that you will create during this set of labs. In real-world situations, you would create multiple VCNs based on their need for access (which ports to open) and who can access them.