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# Managing Custom Images on OCI

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# Module Objectives

Managing custom images

Disaster considerations

Cross-region copy using Object Storage

# Which process and why?

- Import images
- Create custom images on OCI
- Use published images with User Data
- Market place image

Create VM

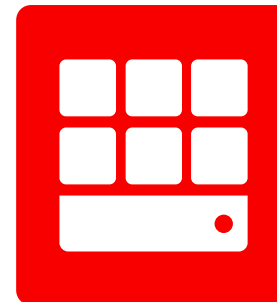
Browse All Images

Name your instance:

Platform Images Oracle Images Partner Images Custom Images Boot Volumes Image OCID

Trusted third-party images published by Oracle partners.

App Name	Publisher	Price
<input type="checkbox"/> A10 vThunder Application Delivery Controller - BYOL	A10 Networks Inc.	BYOL
<input type="checkbox"/> Altair PBS Professional	Altair Engineering, Inc.	BYOL
<input type="checkbox"/> Check Point CloudGuard IaaS - Security Gateway	Check Point	BYOL
<input type="checkbox"/> CloudGuard IaaS Next-Gen Firewall with Threat Prevention and SandBlast - BYOL	Check Point	BYOL
<input type="checkbox"/> CloudGuard IaaS Security Management - BYOL	Check Point	BYOL
<input type="checkbox"/> Digital Defense Virtual Scanning Appliance	Digital Defense Inc.	Free
<input type="checkbox"/> Falcon Deploy - Community Edition	Falcon Deploy	Free
<input type="checkbox"/> FortiAnalyzer Centralized Logging/Reporting (BYOL)	Fortinet, Inc.	BYOL



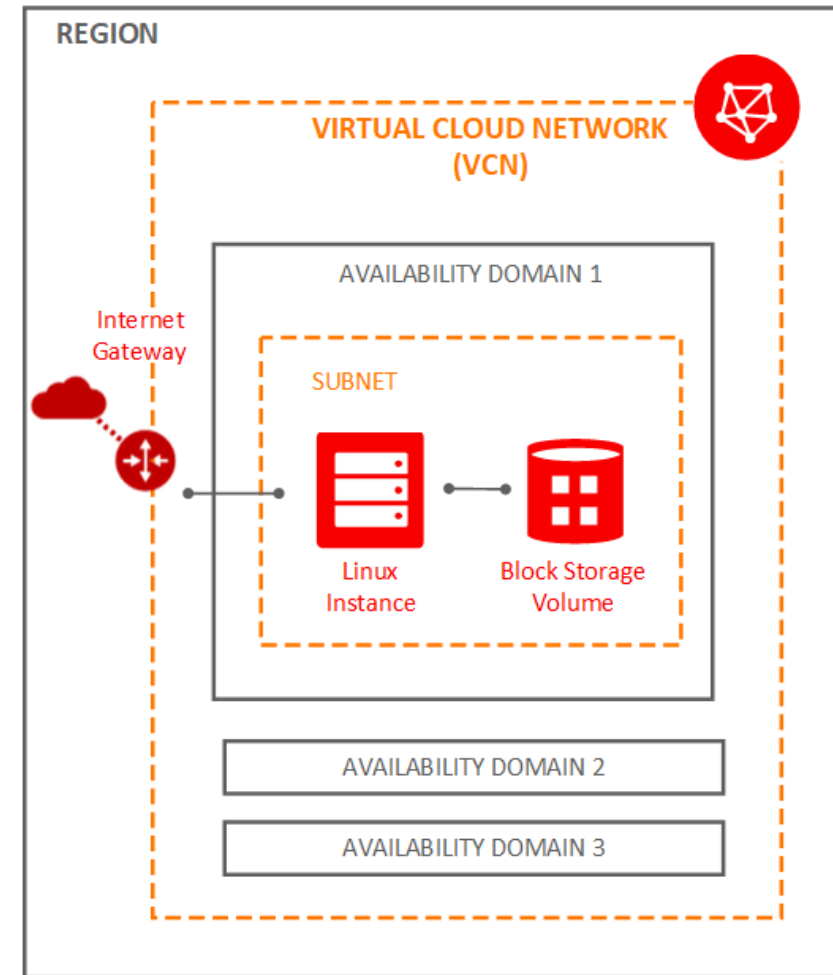
Virtual Machine

Custom Image



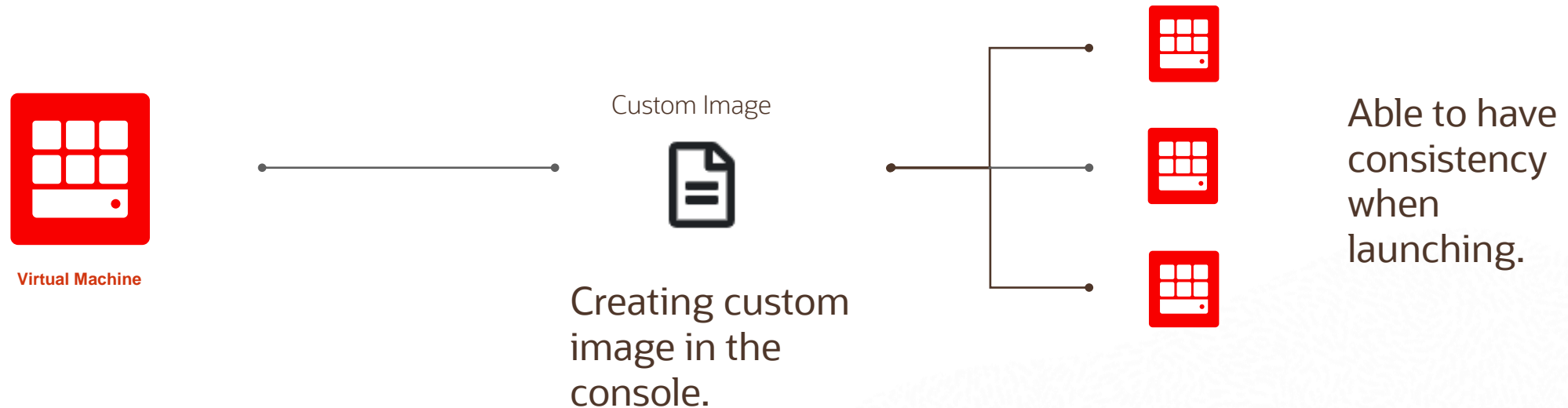
# Best practice for instance

- Security encryption in transit and at rest
- Locking down rules upon creation
  - SSH for linux
  - RDP for Windows
- Patching instance
  - Running update when created
  - Regular patching



# Managing custom images

- Custom Image = Boot Volume
- Secondary volumes managed separately (backup or clone block volumes)
- Instance Configuration can be used to connect image with block volume backups



# Custom image with User Data

- Launching instance
- Click on advanced options
- Add script to configure the instance

## User data

You can choose to specify a startup script that will run when your instance boots up or restarts. Startup scripts can be used to install software and updates, and to ensure that services are running within the virtual machine.

☒ Choose cloud-init script file ☐ Paste cloud-init script

Drop files here

Choose File

# User Data

## User data

You can choose to specify a startup script that will run when your instance boots up or restarts. Startup scripts can be used to install software and updates, and to ensure that services are running within the virtual machine.

☐ Choose cloud-init script file ☒ Paste cloud-init script

```
#!/bin/bash

touch /var/tmp/userdata.`date +%s`.start

yum -y install httpd
systemctl enable httpd.service
systemctl start httpd.service

echo '<h2 align=center>Hello, world! Welcome to WebServer</h2>' >> /var/www/html/index.html
echo '<br><br><table align=center border=1><tr><td><b>hostname: </b></td><td>' >> /var/www/html/index.html
hostname >> /var/www/html/index.html
echo '</td></tr><tr><td><b>os release: </b></td><td>' >> /var/www/html/index.html
cat /etc/os-release >> /var/www/html/index.html
echo '</td></tr><tr><td><b>network info: </b></td><td>' >> /var/www/html/index.html
ip addr show >> /var/www/html/index.html 2>&1
curl ifconfig.co >> /var/www/html/index.html
ifconfig -a | grep -ie flags -ie netmask >> /var/www/html/index.html
echo '</td></tr><tr><td><b>ifconfig.co: </b></td><td>' >> /var/www/html/index.html
curl ifconfig.co >> /var/www/html/index.html
echo '</td></tr></table>'

curl -s -w '%{http_code}\n' 'http://127.0.0.1:80' | tee -a /home/opc/httpptest.log

touch /var/tmp/userdata.`date +%s`.finish
```

## Example output from the instance creation

```
[opc@instance-20191202-1341 ~]$ curl 127.0.0.1
[<h2 align=center>Hello, world!  Welcome to WebServer</h2>
<br><br><table align=center border=1><tr><td><b>hostname: </b></td><td>
instance-20191202-1341
</td></tr><tr><td><b>os release: </b></td><td>
NAME="Oracle Linux Server"
VERSION="7.7"
ID="ol"
ID_LIKE="fedora"
VARIANT="Server"
VARIANT_ID="server"
VERSION_ID="7.7"
PRETTY_NAME="Oracle Linux Server 7.7"
ANSI_COLOR="0;31"
CPE_NAME="cpe:/o:oracle:linux:7:7:server"
HOME_URL="https://linux.oracle.com/"
BUG_REPORT_URL="https://bugzilla.oracle.com/"

ORACLE_BUGZILLA_PRODUCT="Oracle Linux 7"
ORACLE_BUGZILLA_PRODUCT_VERSION=7.7
ORACLE_SUPPORT_PRODUCT="Oracle Linux"
ORACLE_SUPPORT_PRODUCT_VERSION=7.7
</td></tr><tr><td><b>network info: </b></td><td>
129.146.161.136
ens3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 9000
        inet 192.168.10.4  netmask 255.255.255.0  broadcast 192.168.10.255
lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
</td></tr><tr><td><b>ifconfig.co: </b></td><td>
129.146.161.136
```



# Disaster considerations

- Cross-region copy of your instance/ custom image
  - Taking your current data and migrating to another region
- This can be done with Object Storage by using copy



# Knowledge Check

What is required in order to migrate custom image to another region?

- A. FastConnect from one region to region.
- B. Pre authenticated request for an object in the other region.
- C. Create an instance configuration that will launch the instance in a new region.
- D. Launch an instance in the new region to copy data.

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## Cloud Infrastructure

Try it out  
[oracle.com/cloud/free/](https://oracle.com/cloud/free/)