Create Fedora 27 Server Golden Image

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Version 1.0, September, 2017

This document describes the following steps required for Golden Image creation:

1.0   Create temporary Server Profile and assign to node

2.0   Boot the node and install Fedora 27 Server

3.0   Login to OS and configure Networking and Multipathing

4.0   Capture the Golden Image

5.0   Unassign and delete temporary Server Profile

1.0 Create temporary Server Profile and assign to node

Connect to Synergy OneView, login as Administrator, and identify a node that is not in use. Create a new profile with OS Deployment Plan "HPE - Foundation 1.0 - create empty OS Volume" and change size to 20480 (20GB) as shown below:

Create Server Profile   General ⌄

General

Name	install_fedora27
Server profile template	none ✕ 🔍
Description	
Server hardware	Katniss, bay 7 ✕ 🔍
Server hardware type	SY 480 Gen9 1
Enclosure group	EG01
Affinity	Device bay ⌄

OS Deployment

To define OS deployment settings, select an enclosure group configured for OS deployment.

OS deployment plan	HPE - Foundation 1.0 - create empty OS Volume-2017-03 ✕ 🔍

Deployment Settings	Setting	Value
	VolumeSize	20480 ⌄ MiB

A connection to the deployment network will automatically be included in the profile. Click to add another connection, using a network set that has external access. This will enable the node to reach the network during the installation and after it boots.

Add Connection

General

Name	ether-A
Function type	Ethernet ˅
Network	CentOS Net Set ✕ 🔍
Port	Auto ✕ 🔍
Requested bandwidth (Gb/s)	10 ⌃⌄
Requested virtual functions	⦿ None
	○ Custom
	○ Auto
Boot	Not bootable ˅
	☐ Use user-specified IDs

Add   **Add +**   **Cancel**

Create Server Profile   Firmware ˅

Firmware

Connections

ID	Name	Network	Port	Boot	
1	Deployment Network A	is3-depl-range vlan906	Mezzanine 3:1-a	iSCSI primary	✏
	Type	Ethernet			
	MAC address	Auto			
	Requested bandwidth	2.5 Gb/s			
	Initiator name	*pending assignment*			
	Initiator IP address	*pending assignment*			
	OS volume	*pending assignment*			
	Target name	*pending assignment*			
	Target LUN	*pending assignment*			
	Target IP address	*pending assignment*			
2	ether-A	CentOS Net Set (network set)	Auto	Not bootable	✏ ✕
	Type	Ethernet			
	MAC address	Auto			
	Requested virtual functions	None			
	Requested bandwidth	10 Gb/s			

Add Connection

Add Connection: CentOS Net Set   **Create**   **Create +**   **Cancel**

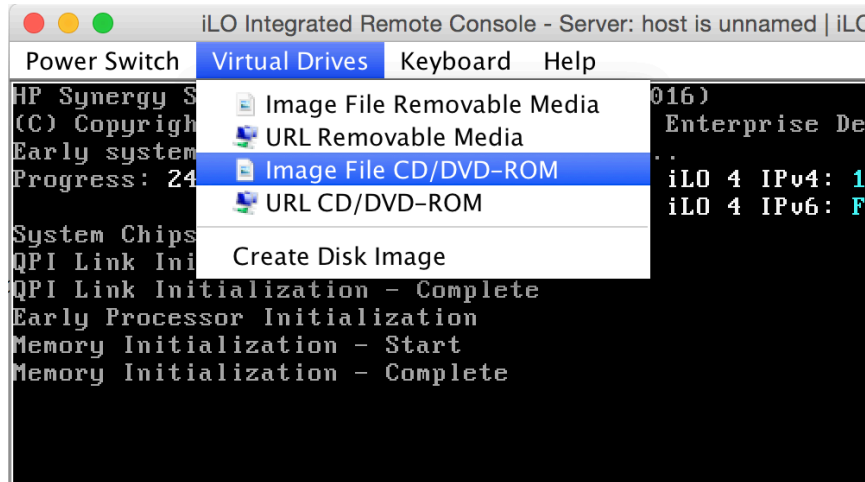Click "Create" to apply the profile to the node.

2.0 Boot the node and install Fedora 27 Server

Download Fedora 27 Server DVD ISO and save to a directory on your local system that is connected to Synergy OneView.
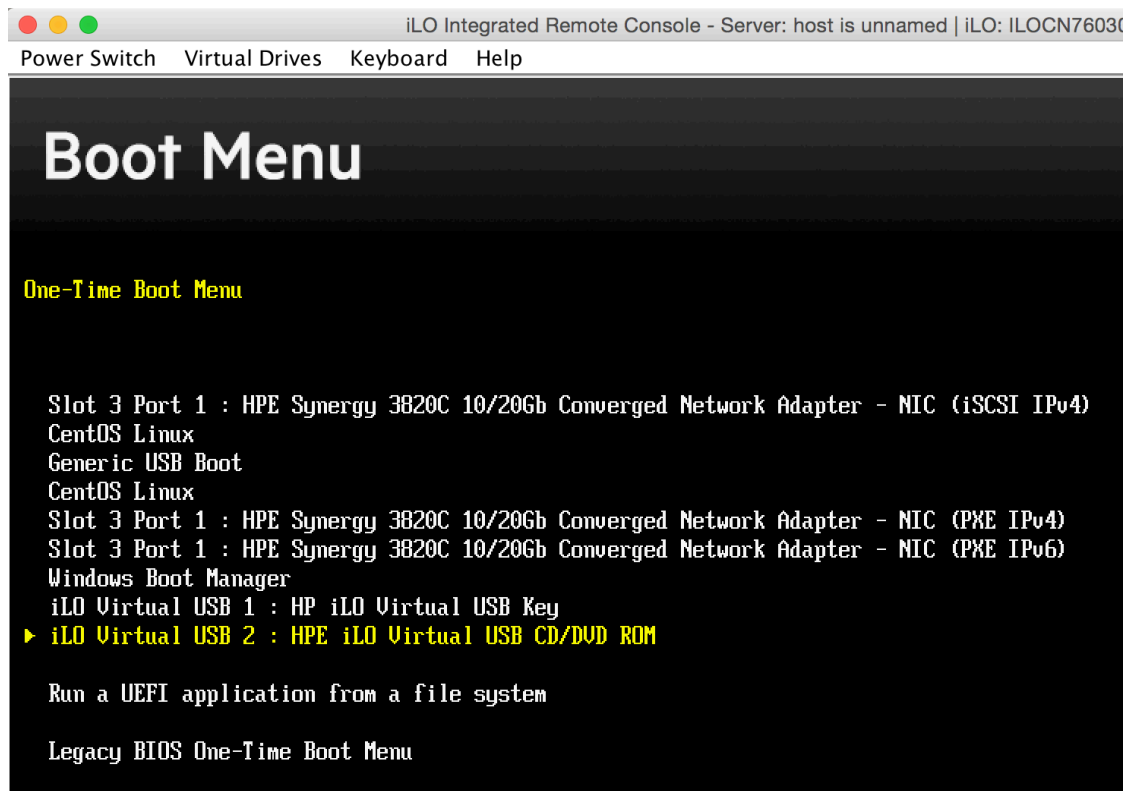
In OneView, select the new profile and click Actions → "Power On"

Click Actions → "Launch Console"

Map the "Image File CD/DVD-ROM" to the .iso on your local system

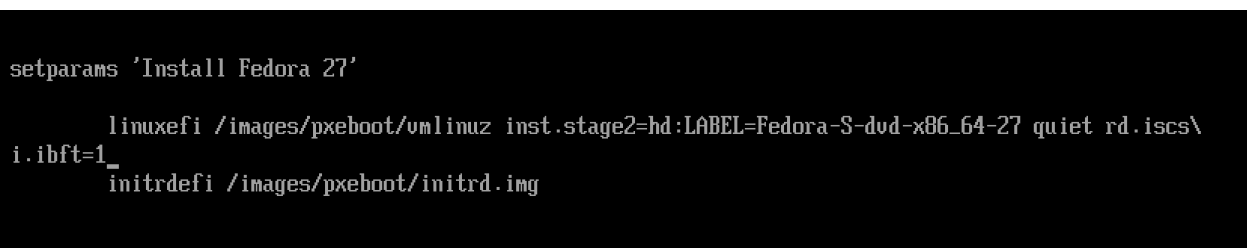Press F11 to access the boot menu and choose to boot from Virtual CD/DVD ROM

When grub menu appears, arrow-up to highlight "Install Fedora 27" and press "e" to edit

```
    Install Fedora 27
    Test this media & install Fedora 27
    Troubleshooting -->
```

Arrow-down to the "linuxefi" line and arrow-right to the end of the line. Type the following at the end of the line:
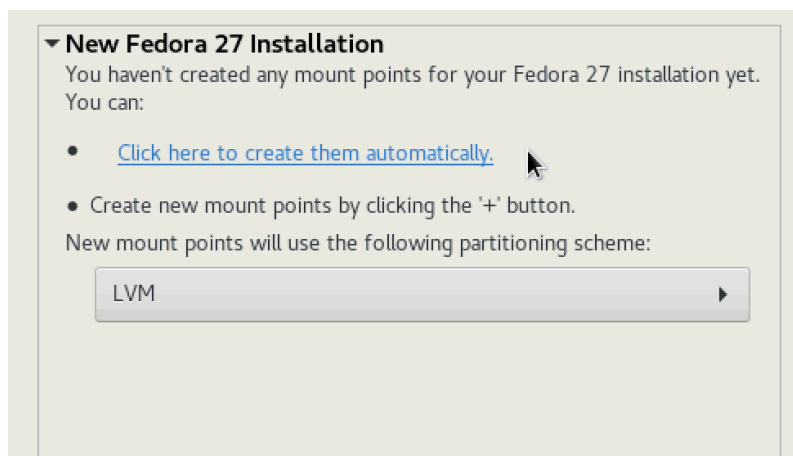
rd.iscsi.ibft=1

```
setparams 'Install Fedora 27'

        linuxefi /images/pxeboot/vmlinuz inst.stage2=hd:LABEL=Fedora-S-dvd-x86_64-27 quiet rd.iscs\
i.ibft=1_
        initrdefi /images/pxeboot/initrd.img
```

Press Ctrl-X to boot

Installation UI should open automatically

Choose language, timezone, and then click "Installation Destination"

The LEFTHAND iSCSIDisk should already be selected. Click "Custom" under Storage Configuration and click "Done"

Click to create partitions automatically.

▼ **New Fedora 27 Installation**
You haven't created any mount points for your Fedora 27 installation yet. You can:

-     Click here to create them automatically.
- Create new mount points by clicking the '+' button.

New mount points will use the following partitioning scheme:

LVM	▶

Click the / partition in the list and choose "ext4" from the File System pulldown (ext3 or ext4 filesystem type is required for Guestfish compatibility).

Click "Update Settings", then click "Done" and "Accept Changes".

Click "Begin Installation" and click to set the root password. Do not create any user accounts.

Click "Reboot" when installation is complete.

Click "Virtual Drives" in the console menu and deselect the Image File CD/DVD-ROM.

3.0 Login to OS and configure Networking and Multipathing

Login as root user (password was chosen during the installation)

Disable NetworkManager and enable network:

systemctl disable NetworkManager
systemctl enable network

The multipathing package should be installed by default.

Enable multipath, allow it to use user_friendly_names, as well as to find_multipaths

mpathconf --enable --user_friendly_names y --find_multipaths y --with_multipathd y

Multipathing configuration will be handled by the Build Plan Scripts and future DAS disks will be available to the OS as /dev/mapper/mpatha, /dev/mapper/mpathb, etc

4.0 Capture the Golden Image

Connect to the ImageStreamer UI

If you have not already done so, import and extract the HudsonAlpha Artifact Bundle.

Choose "OS Volumes" from the main menu.

Identify the OS Volume number that corresponds to the test profile that you created.

Choose "Golden Images" from the main menu.

Click "Create Golden Image" and select the appropriate OS Volume and "HudsonAlpha_Fedora27_capture" OS Build Plan.

Click "Create"

Fedora 27 Golden Image should now appear in the Golden Images list.

5.0   Unassign and delete temporary Server Profile

In OneView UI, click the temporary Server Profile and click Actions → "Power off"

Click "Edit" and pull-down "Server Hardware" to "Unassigned"

Click "OK"

Once the Server Profile has been unassigned, click Actions → "Delete"

You are now ready to create Deployment Plans.