

Backup and Restore Prime Infrastructure Gen1 Appliance with USB Stick

Contents

[Introduction](#)

[Problem](#)

[Solution](#)

Introduction

This document describes how to take a backup from Prime Infrastructure (PI) Gen 1 Appliance externally with the use of a USB port of Appliance and vice-versa.

Problem

In many customer scenarios, the use of File Transfer Protocol/ Trivial File Transfer Protocol (**FTP/TFTP**) is restricted in their data centre and hence it is a big challenge for the customer to move the backup from PI to an external point with the help of any **FTP/TFTP** server. Since Appliance is a Linux based Server, it is very difficult to move backup from any other way to the external point because there could be a possibility for it to corrupt the backup at the time of improper transfer.

Solution

In order to overcome this situation, find an alternate solution to move the backup from Prime Server to USB Stick with the use of USB port of appliance. Another advantage is that it is much faster and helps reduce the time that it takes to copy by **FTP/TFTP/SFTP** and it will be very helpful to copy large data as well.

Backup from PI Gen1 Appliance to USB

Step 1. Insert a USB stick.

Step 2. Create a new partition supported **ext4** file system.

```
-bash-4.1# fdisk -l    n e l t 8 e w
-bash-4.1# partprobe
-bash-4.1# mkfs.ext4 /dev/sdb1
-bash-4.1# mkdir /media/usb-drive/
-bash-4.1# mount -t ext4 /dev/sdb1 /media/usb-drive/
-bash-4.1# umount /media/usb-drive
```

Step 3. Copy the backup from **defaultRepo** to the newly mounted file system.

Step 4. Validate the **md5** of the file in both the places.

Backup from USB to PI Gen1 Appliance

Step 1. Login into the PI.

```
pi/admin#
```

Step 2. Navigate to **shell**.

```
pi/admin# shell
```

```
Enter shell access password :
```

```
Starting bash shell ...
```

```
ade #
```

```
ade #
```

```
ade # sudo su -
```

```
-bash-4.1#
```

Step 3. View all Disk Partitions in PI.

```
-bash-4.1# fdisk -l
```

```
Disk /dev/sda: 897.0 GB, 896998047744 bytes
```

```
255 heads, 63 sectors/track, 109053 cylinders
```

```
Units = cylinders of 16065 * 512 = 8225280 bytes
```

```
Sector size (logical/physical): 512 bytes / 512 bytes
```

```
I/O size (minimum/optimal): 512 bytes / 512 bytes
```

```
Disk identifier: 0x000591be
```

Device	Boot	Start	End	Blocks	Id	System
/dev/sda1	*	1	64	512000	83	Linux
Partition 1 does not end on cylinder boundary.						
/dev/sda2		64	77	102400	83	Linux
Partition 2 does not end on cylinder boundary.						
/dev/sda3		77	109054	875359232	8e	Linux LVM

Disk /dev/mapper/smosvg-rootvol: 4194 MB, 4194304000 bytes
255 heads, 63 sectors/track, 509 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk identifier: 0x00000000

Disk /dev/mapper/smosvg-swapvol: 16.8 GB, 16777216000 bytes
255 heads, 63 sectors/track, 2039 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk identifier: 0x00000000

Disk /dev/mapper/smosvg-tmpvol: 2113 MB, 2113929216 bytes
255 heads, 63 sectors/track, 257 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk identifier: 0x00000000

Disk /dev/mapper/smosvg-usrvol: 7348 MB, 7348420608 bytes
255 heads, 63 sectors/track, 893 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk identifier: 0x00000000

Disk /dev/mapper/smosvg-varvol: 4194 MB, 4194304000 bytes
255 heads, 63 sectors/track, 509 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk identifier: 0x00000000

Disk /dev/mapper/smosvg-optvol: 716.3 GB, 716252905472 bytes

255 heads, 63 sectors/track, 87079 cylinders

Units = cylinders of 16065 * 512 = 8225280 bytes

Sector size (logical/physical): 512 bytes / 512 bytes

I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk identifier: 0x00000000

Disk /dev/mapper/smosvg-home: 134 MB, 134217728 bytes

255 heads, 63 sectors/track, 16 cylinders

Units = cylinders of 16065 * 512 = 8225280 bytes

Sector size (logical/physical): 512 bytes / 512 bytes

I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk identifier: 0x00000000

Disk /dev/mapper/smosvg-recvol: 134 MB, 134217728 bytes

255 heads, 63 sectors/track, 16 cylinders

Units = cylinders of 16065 * 512 = 8225280 bytes

Sector size (logical/physical): 512 bytes / 512 bytes

I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk identifier: 0x00000000

Disk /dev/mapper/smosvg-altrootvol: 134 MB, 134217728 bytes

255 heads, 63 sectors/track, 16 cylinders

Units = cylinders of 16065 * 512 = 8225280 bytes

Sector size (logical/physical): 512 bytes / 512 bytes

I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk identifier: 0x00000000

Disk /dev/mapper/smosvg-localdiskvol: 134.6 GB, 134553272320 bytes

255 heads, 63 sectors/track, 16358 cylinders

Units = cylinders of 16065 * 512 = 8225280 bytes

Sector size (logical/physical): 512 bytes / 512 bytes

I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk identifier: 0x00000000

Disk /dev/mapper/smosvg-storedatavol: 10.5 GB, 10502537216 bytes

255 heads, 63 sectors/track, 1276 cylinders

Units = cylinders of 16065 * 512 = 8225280 bytes

Sector size (logical/physical): 512 bytes / 512 bytes

I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk identifier: 0x00000000

Disk /dev/sdb: 62.1 GB, 62075699200 bytes

255 heads, 63 sectors/track, 7546 cylinders

Units = cylinders of 16065 * 512 = 8225280 bytes

Sector size (logical/physical): 512 bytes / 512 bytes

I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk identifier: 0xa5fe72c5

Device	Boot	Start	End	Blocks	Id	System
/dev/sdb1		1	7546	60613213+	8e	Linux LVM

Step 4. Create a new directory and mount it.

```
-bash-4.1# mkdir /media/usb-drive/
```

```
-bash-4.1# mount -t ext4 /dev/sdb1 /media/usb-drive/
```

```
-bash-4.1# ls -lv
```

```
total 60
```

```
-rw-----. 1 root root 8494 Aug 24 2018 anaconda-ks.cfg
```

```
drwxr-xr-x. 2 root root 4096 Aug 24 2018 bin
```

```
-rw-r--r--. 1 root root 18977 Aug 24 2018 install.log
```

```
-rw-r--r--. 1 root root 5646 Aug 24 2018 install.log.syslog
```

```
-rw-r--r--. 1 root root 5 Aug 24 2018 iso.ks.cfg
```

```
-rw-----. 1 root root 164 Aug 24 2018 ks-post.log
```

```
-rw-----. 1 root root 381 Aug 24 2018 ks-post-toinstall.log
```

```
-rw-rw-r--. 1 root root 120 Aug 23 17:47 test.log
```

```
-bash-4.1# cd /media/usb-drive/
```

```
-bash-4.1# pwd
```

```
/media/usb-drive
```

Step 5. Before you copy the backup, check the **md5** of backup from USB.

```
-bash-4.1# ls -lv
```

```
total 21197320
```

```
-rw-r--r--. 1 root root 21706033973 Jun 28 14:57 pi-180419-  
1332__VER3.1.0.0.132_BKSZ204G_CPU16_MEM3G_RAM15G_SWAP15G_APP_CK1589549125.tar.gpg
```

```
drwx-----. 2 root root          16384 Jun 28 14:29 lost+found
```

```
-bash-4.1#
```

```
-bash-4.1#
```

```
-bash-4.1# md5sum pi-180419-
```

```
1332__VER3.1.0.0.132_BKSZ204G_CPU16_MEM3G_RAM15G_SWAP15G_APP_CK1589549125.tar.gpg
```

```
44daa932e7ca10fafe480302f7a17b6a pi-180419-
```

```
1332__VER3.1.0.0.132_BKSZ204G_CPU16_MEM3G_RAM15G_SWAP15G_APP_CK1589549125.tar.gpg
```

```
-bash-4.1#
```

```
-bash-4.1#
```

Step 6. Copy the backup in **/localdisk/defaultRepo** folder.

```
-bash-4.1# cp pi-180419-
```

```
1332__VER3.1.0.0.132_BKSZ204G_CPU16_MEM3G_RAM15G_SWAP15G_APP_CK1589549125.tar.gpg  
/localdisk/defaultRepo/
```

```
-bash-4.1#
```

```
-bash-4.1#
```

```
-bash-4.1# cd /localdisk/defaultRepo/
```

```
-bash-4.1# ls -lv
```

```
total 21218032
```

```
-rw-r--r--. 1 root root 21706033973 Aug 23 18:56 pi-180419-  
1332__VER3.1.0.0.132_BKSZ204G_CPU16_MEM3G_RAM15G_SWAP15G_APP_CK1589549125.tar.gpg
```

```
-bash-4.1#
```

```
-bash-4.1#
```

Step 7. Verify the **md5** of copied backup with previous **md5**.

```
-bash-4.1# md5sum pi-180419-
```

```
1332__VER3.1.0.0.132_BKSZ204G_CPU16_MEM3G_RAM15G_SWAP15G_APP_CK1589549125.tar.gpg
```

```
44daa932e7ca10fafe480302f7a17b6a pi-180419-
```

```
1332__VER3.1.0.0.132_BKSZ204G_CPU16_MEM3G_RAM15G_SWAP15G_APP_CK1589549125.tar.gpg
```

```
-bash-4.1#
```

```
-bash-4.1#
```

Step 8. Unmount the directory.

```
-bash-4.1# umount /media/usb-drive
```

```
-bash-4.1#
```

```
-bash-4.1#
```

```
-bash-4.1#
```