

Install CentOS7.2 and configure LVM on ARM system

Configuration preparing:

An ARM structure system

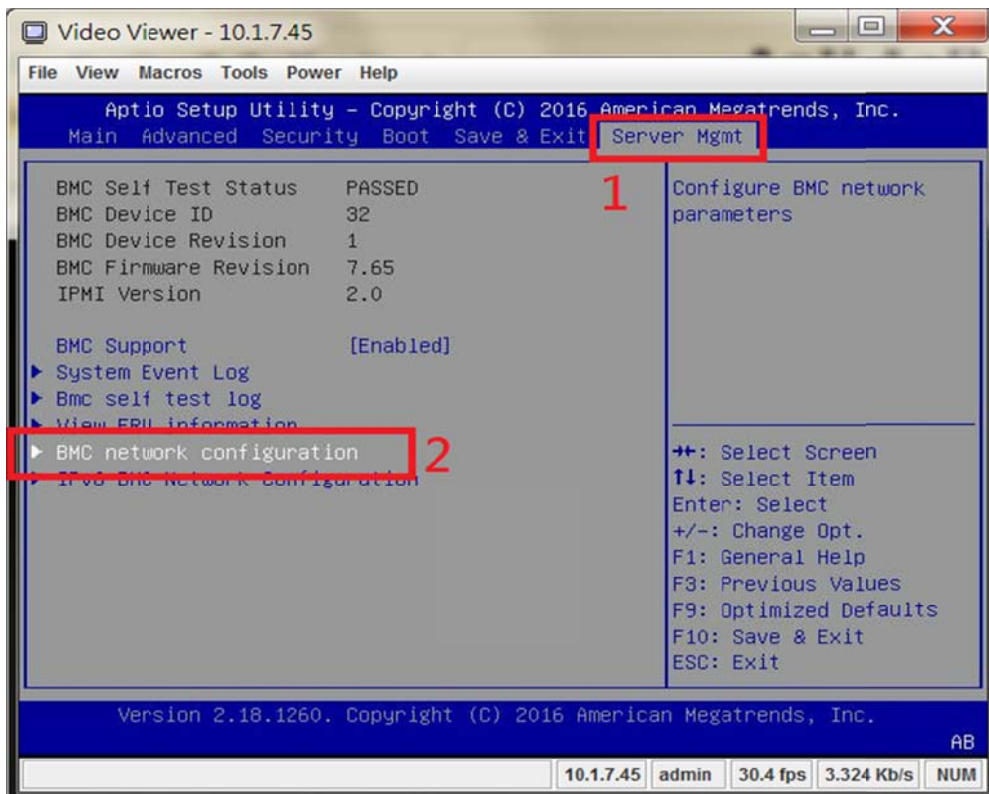
Installation ISO file

CentOS 7.2:

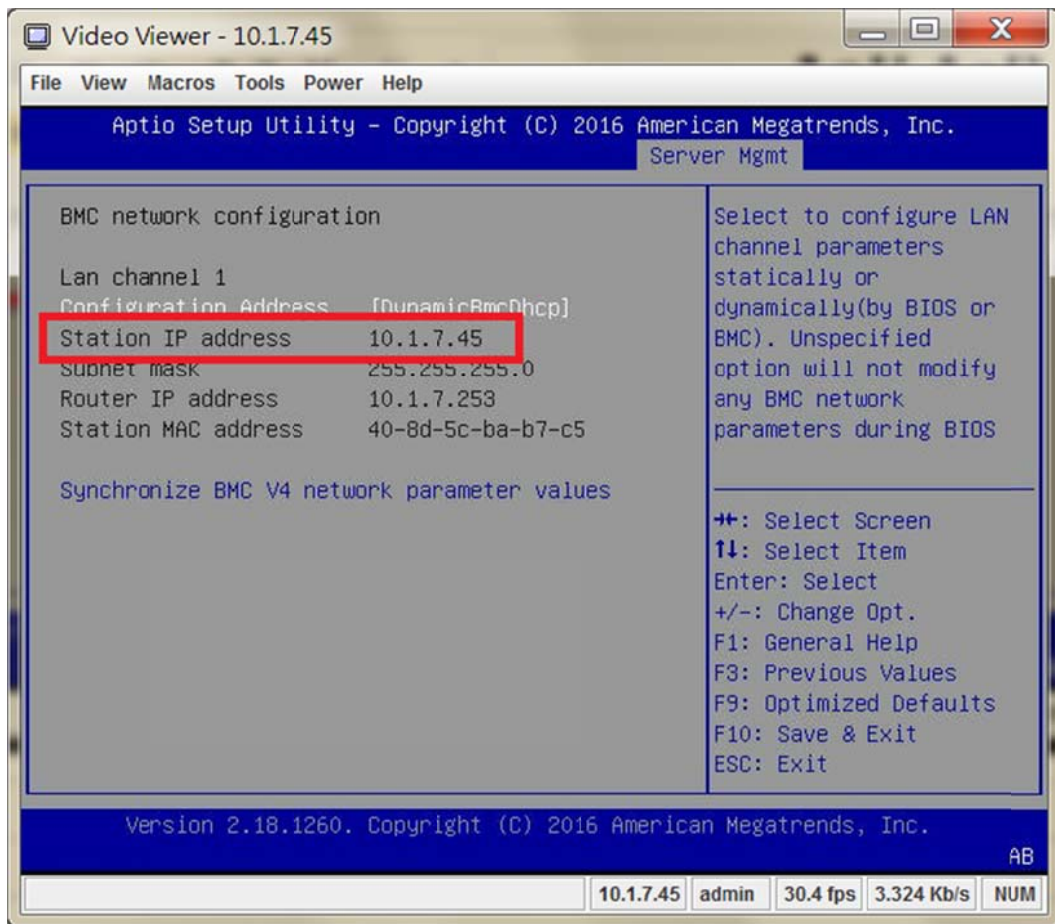
1. Check the BMC IP via VGA screen(or BMC iKVM)



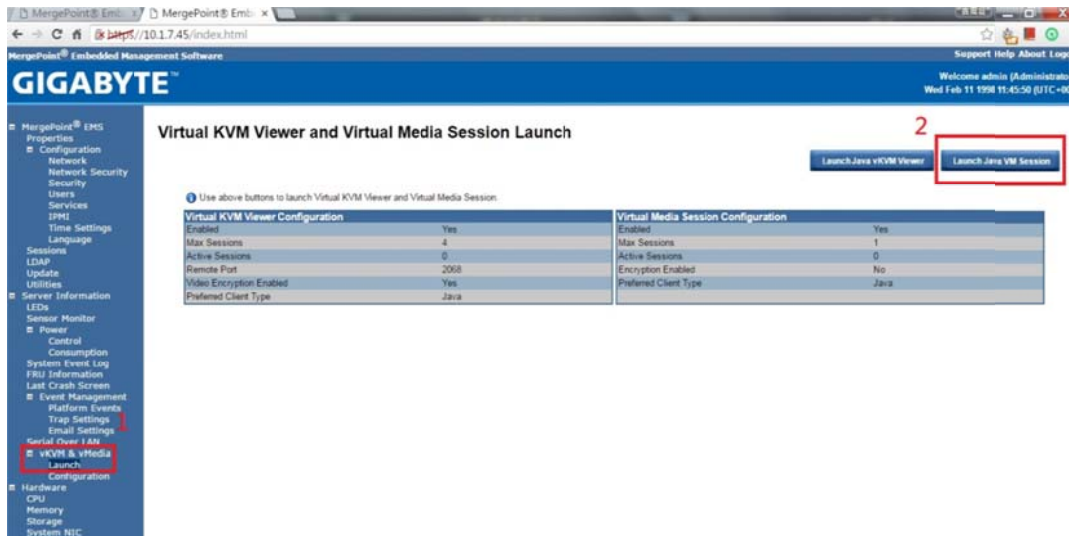
If used serial console only, enter the BIOS setup by press hotkey [Esc]



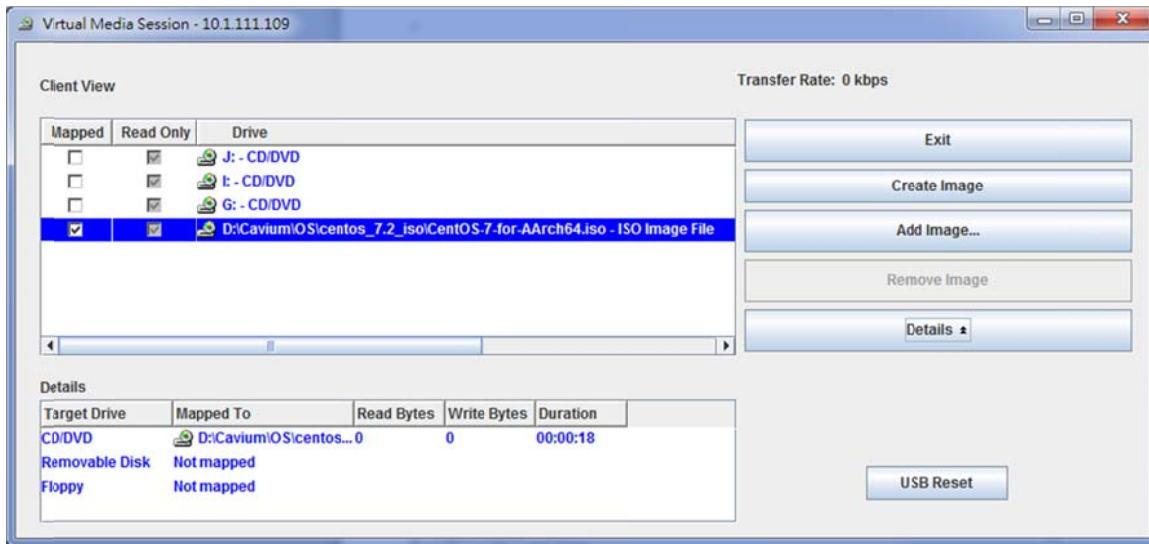
Check the BMC IP in [Server Mgmt] page



2. Use BMC web management page to lunch the Java VM Session.

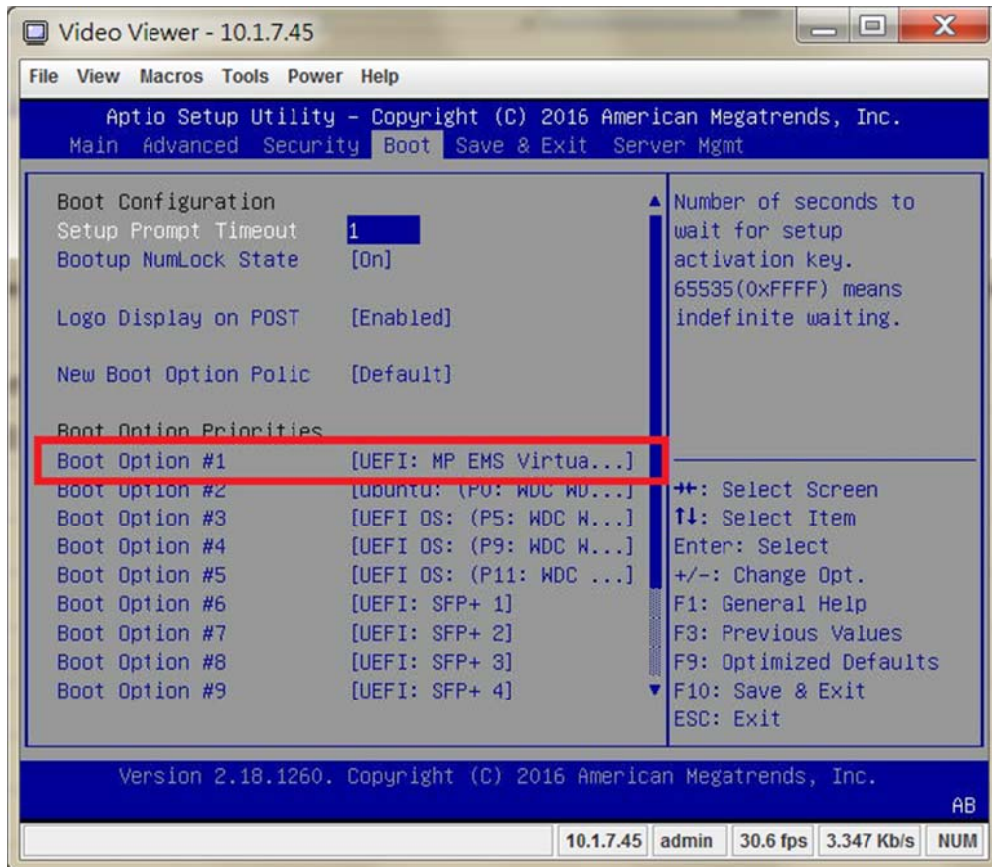


Add Image by select the CentOS7.2 ISO file, mapping it as CD\DVD



Reboot system

BIOS detect the mapping CD\DVD device as [UEFI: MP Virtual Media] or Press F10 to select boot device



GIGABYTE™

BMC IP : 10.1.111.109 Please Wait...

A2

Please select boot device:

UEFI: SFP+ 4: 1C:1B:0D:02:F3:B3
UEFI: QSFP+ 1: 1C:1B:0D:02:F3:B4
UEFI: QSFP+ 2: 1C:1B:0D:02:F3:B8
UEFI: QSFP+ 3: 1C:1B:0D:02:F3:BC
UEFI: Built-in EFI Shell
UEFI: Network card: 20:6A:8A:97:45:68
UEFI OS: (P1: TOSHIBA MK5076GSX)
CentOS Linux AltArch: (P0: ST9120822AS)
CentOS: (P0: ST9120822AS)
UEFI OS: (P0: ST9120822AS)
UEFI: MP EMS Virtual Media 0326
Enter Setup

↑ and ↓ to move selection
ENTER to select boot device
ESC to boot using defaults

B4

3. Install CentOS7.2 as below step by step:

```
PXE Install ARM64 CentOS7
Install CentOS Linux 7
Test this media & install CentOS Linux 7
Troubleshooting -->
```

Use the ▲ and ▼ keys to change the selection.
Press 'e' to edit the selected item, or 'c' for a command prompt.
The selected entry will be started automatically in 51s.

- a. The ARM default output is RS232 console, If You need to continue the VGA screen, please modify the grub and add the "text console=tty1 115200n8 ---" by press "e" to edit

```
setparams 'Install CentOS Linux 7'

    linux /images/pxeboot/vmlinuz console=ttyAMA0,115200n8 earlycon=pl011,\
0x87e024000000 inst.stage2=hd:LABEL=CentOS-7-for-AArch64 ro text console=tty1 \
115200n8 ---
    initrd /images/pxeboot/initrd.img
```

Press Ctrl-x to start, Ctrl-c for a command prompt or Escape to
discard edits and return to the menu. Pressing Tab lists possible
completions.

- b. Installation menu


```
Starting installer, one moment...
find_file: stat /proc/device-tree/chosen/bootpath, No such file or directory
anaconda 21.48.22.56-1 for CentOS Linux AltArch 7 started.
 * installation log files are stored in /tmp during the installation
 * shell is available on TTY2
 * when reporting a bug add logs from /tmp as separate text/plain attachments
00:02:08 Not asking for UNC because we don't have a network
=====
Installation

1) [x] Language settings                2) [!] Timezone settings
   (English (United States))           (Timezone is not set.)
3) [!] Installation source              4) [!] Software selection
   (Processing...)                     (Processing...)
5) [!] Installation Destination         6) [x] Kdump
   (No disks selected)                 (Kdump is enabled)
7) [ ] Network configuration            8) [!] Root password
   (Not connected)                     (Password is not set.)
9) [!] User creation
   (No user will be created)

Please make your choice from above ['q' to quit ; 'b' to begin installation ;
'r' to refresh]: _
```

c. Set Timezone

```
Use numbers or type names directly [b to region list, q to quit]: b
=====
Timezone settings

Available regions
1) Africa                6) Atlantic              10) Pacific
2) America               7) Australia             11) US
3) Antarctica            8) Europe                12) Etc
4) Arctic                9) Indian
5) Asia

Please select the timezone.
Use numbers or type names directly [b to region list, q to quit]: 5
=====
Timezone settings

Available timezones in region Asia
1) Aden                  28) Hovd                 54) Pontianak
2) Almaty                29) Irkutsk              55) Pyongyang
3) Amman                 30) Jakarta              56) Qatar
4) Anadyr                31) Jayapura             57) Qyzylorda
5) Aqtau                 32) Jerusalem           58) Rangoon
6) Aqtobe                33) Kabul                59) Riyadh
7) Ashgabat              34) Kamchatka            60) Sakhalin
8) Baghdad               35) Karachi              61) Samarkand
9) Bahrain               36) Kathmandu            62) Seoul
10) Baku                  37) Khandyga             63) Shanghai
11) Bangkok               38) Kolkata              64) Singapore
12) Barnaul               39) Krasnoyarsk          65) Srednekolymsk
13) Beirut               40) Kuala_Lumpur         66) Taipei
14) Bishkek              41) Kuching              67) Tashkent
15) Brunei                42) Kuwait               68) Tbilisi
16) Chita                 43) Macau                69) Tehran
17) Choibalsan            44) Magadan              70) Thimphu
18) Colombo               45) Makassar             71) Tokyo
19) Damascus              46) Manila               72) Ulaanbaatar
20) Dhaka                 47) Muscat               73) Urumqi
21) Dili                  48) Nicosia              74) Ust-Nera
22) Dubai                 49) Novokuznetsk        75) Vientiane
Press ENTER to continue
23) Dushanbe              50) Novosibirsk          76) Vladivostok
24) Gaza                  51) Omsk                 77) Yakutsk
25) Hebron                52) Oral                 78) Yekaterinburg
26) Ho_Chi_Minh           53) Phnom_Penh           79) Yerevan
27) Hong_Kong

Please select the timezone.
Use numbers or type names directly [b to region list, q to quit]: 66
[anaconda] 1:main* 2:shell 3:log 4:storage-log 5:program-log
```

d. Software selection, must choose 9

```
=====
Installation

1) [x] Language settings                2) [x] Timezone settings
   (English (United States))           (Asia/Taipei timezone)
3) [x] Installation source              4) [!] Software selection
   (Local media)                       (Minimal Install)
5) [!] Installation Destination         6) [x] Kdump
   (No disks selected)                 (Kdump is enabled)
7) [ ] Network configuration            8) [!] Root password
   (Not connected)                     (Password is not set.)
9) [!] User creation
   (No user will be created)
Please make your choice from above ['q' to quit ; 'b' to begin installation ;
'r' to refresh]: 4
=====

Base environment
Software selection

Base environment

1) [x] Minimal Install                  6) [ ] Server with GUI
2) [ ] Compute Node                   7) [ ] GNOME Desktop
3) [ ] Infrastructure Server           8) [ ] KDE Plasma Workspaces
4) [ ] File and Print Server          9) [ ] Development and Creative Work
5) [ ] Basic Web Server                station
Please make your choice from above ['q' to quit ; 'c' to continue ;
'r' to refresh]: 9
=====
```

e. Configure installation destination

```
=====
Installation

1) [x] Language settings                2) [x] Timezone settings
   (English (United States))           (Asia/Taipei timezone)
3) [!] Installation source              4) [!] Software selection
   (Processing...)                     (Processing...)
5) [!] Installation Destination         6) [x] Kdump
   (No disks selected)                 (Kdump is enabled)
7) [ ] Network configuration            8) [!] Root password
   (Not connected)                     (Password is not set.)
9) [!] User creation
   (No user will be created)
Please make your choice from above ['q' to quit ; 'b' to begin installation ;
'r' to refresh]: 5
=====

Probing storage...
Installation Destination

[ ] 1) ST9120822AS: 111.79 GiB (sda)
[ ] 2) TOSHIBA MK5076GS: 465.76 GiB (sdb)
[ ] 3) Select all

No disks selected; please select at least one disk to install to.

Please make your choice from above ['q' to quit ; 'c' to continue ;
'r' to refresh]: 3
[anaconda] 1:main* 2:shell 3:log 4:storage-log 5:program-log
```

```

=====
Partition Scheme Options

[ ] 1) Standard Partition
[ ] 2) Btrfs
[x] 3) LVM
[ ] 4) LVM Thin Provisioning

Select a partition scheme configuration.

Please make your choice from above ['q' to quit ; 'c' to continue ;
'r' to refresh]: c
Generating updated storage configuration
Checking storage configuration...
=====

```

f. Set root password

```

=====
Installation

1) [x] Language settings                2) [x] Timezone settings
   (English (United States))           (Asia/Taipei timezone)
3) [x] Installation source              4) [x] Software selection
   (Local media)                       (Development and Creative Works
5) [x] Installation Destination         tation)
   (Automatic partitioning selected)   6) [x] Kdump
6) [x] Kdump                           (Kdump is enabled)
7) [ ] Network configuration            8) [x] Root password
   (Not connected)                     (Password is set.)
9) [ ] User creation
   (No user will be created)

Please make your choice from above ['q' to quit ; 'b' to begin installation ;
'r' to refresh]: b
=====
Progress
Setting up the installation environment
.
[anaconda] 1:main* 2:shell 3:log 4:storage-log 5:program-log

```



```

=====
Installation

1) [x] Language settings                2) [x] Timezone settings
   (English (United States))           (Asia/Taipei timezone)
3) [x] Installation source              4) [x] Software selection
   (Local media)                       (Development and Creative Works
5) [x] Installation Destination         tation)
   (Automatic partitioning selecte     6) [x] Kdump
   d)                                  (Kdump is enabled)
7) [ ] Network configuration            8) [x] Root password
   (Not connected)                     (Password is set.)
9) [ ] User creation
   (No user will be created)

Please make your choice from above ['q' to quit ; 'b' to begin installation ;
'r' to refresh]: b
=====
=====
Progress
Setting up the installation environment
._
[anaconda] 1:main* 2:shell 3:log 4:storage-log 5:program-log

```

g. Press "b" to begin installation

```

=====
Installation

1) [x] Language settings                2) [x] Timezone settings
   (English (United States))           (Asia/Taipei timezone)
3) [x] Installation source              4) [x] Software selection
   (Local media)                       (Development and Creative Works
5) [x] Installation Destination         tation)
   (Automatic partitioning selecte     6) [x] Kdump
   d)                                  (Kdump is enabled)
7) [ ] Network configuration            8) [x] Root password
   (Not connected)                     (Password is set.)
9) [ ] User creation
   (No user will be created)

Please make your choice from above ['q' to quit ; 'b' to begin installation ;
'r' to refresh]: b
=====
=====
Progress
Setting up the installation environment
._
[anaconda] 1:main* 2:shell 3:log 4:storage-log 5:program-log

```

h. Finish installation and select boot kernel

```
CentOS Linux (4.2.0.bz2) 7 (AltArch)
CentOS Linux (4.2.0) 7 (AltArch)
CentOS Linux (4.2.0-0.27.el7.1.aarch64.debug) 7 (AltArch)
CentOS Linux (0-rescue-3a4c8f45826b4f0fbcabd3366f41fc2bd) 7 (AltArch)
```

Use the ▲ and ▼ keys to change the selection.
Press 'e' to edit the selected item, or 'c' for a command prompt.

i. License agreement

```
=====
License information

  1) Read the License Agreement

[x] 2) I accept the license agreement.

Please make your choice from above ['q' to quit ; 'c' to continue ;
'r' to refresh]:
```

j. Login

```
CentOS Linux 7 (AltArch)
Kernel 4.2.0 on an aarch64

localhost login:
```