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.

HergePoint [®] Embedded Hasa	gement Software			Support Help About Lo
GIGABY	ĨEĨ			Welcome admin (Administra Wed Feb 11 1991 11:45:50 (UTC+
MargePoint® EMS Properties Configuration Network Network Security Security Users Exercises	Virtual KVM Viewer and Vir	tual Media Session Launch		Laurch Jave vVVV Vewer
IPMI	Virtual KVM Viewer Configuration		Virtual Media Session Configuration	n
Time Settings	Enabled	Yes	Enabled	Yes
Canguage	Max Sessions	4	Max Sessions	1
LDAP	Active Sessions	0	Active Sessions	0
Update	Remote Port	2068	Encryption Enabled	No
Utilities	Video Encryption Enabled	Yes	Preferred Client Type	Java
Server Information	Preferred Client Type	Java	2 B	
CLOS Sensor Monitor E Power Consumption System Event Log FRU Information Last Crash Screen E Event Management Flatform Events Trap Settings Event Management Platform Events				

active view						Transfer Rate:	0 kbps	
Mapped Read	Only Drive]	Exit	
	J: - CD/DVD						2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	
	l: - CD/DVD						Create Image	
	G: - CD/DVD				0×1710-0403			
	D:\Cavium\OS\	centos_7.2_iso\C	entOS-7-for-A	Arch64.iso - I	SO Image File		Add Image	
						-	Details *	
(
etails								
etails arget Drive	Mapped To	Read Bytes	Write Bytes	Duration		1		
etails arget Drive D/DVD	Mapped To	Read Bytes	Write Bytes	Duration 00:00:18				
etails Farget Drive CD/DVD Removable Disk	Mapped To D:(Cavium)OS(cent Not mapped	Read Bytes	Write Bytes 0	Duration 00:00:18				

Reboot system

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

Video Viewer - 10.1.7.45					
File View Macros Tools Power Help Aptio Setup Utility – Copyright (C) 2016 American Megatrends, Inc. Main Advanced Security Boot Save & Exit Server Mgmt					
Boot Configuration 1 Setup Prompt Timeout 1 Bootup NumLock State [On] Logo Display on POST [Enabled] New Boot Option Polic [Default]					
Boot Option Priorities Boot Option #1 Boot Option #2 Boot Option #3 Boot Option #4 Boot Option #5 Boot Option #6 Boot Option #7 Boot Option #8 Boot Option #9	<pre>[UEFI: MP EMS Virtua] [UDUNTU: (PO: WDC WD] [UEFI OS: (P5: WDC W] [UEFI OS: (P9: WDC N] [UEFI OS: (P11: WDC] [UEFI: SFP+ 1] [UEFI: SFP+ 2] [UEFI: SFP+ 3] [UEFI: SFP+ 4]</pre>	<pre>++: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F3: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit</pre>			
Version 2.18.1260. Copyright (C) 2016 American Megatrends, Inc. AB 10.1.7.45 admin 30.6 fps 3.347 Kb/s NUM					

GIGABYTE[™]

BMC IP : 10.1.111.109 Please Wait...



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.
The selected entry will be started automatically in 51s
The selected entry will be started datematically in sis.

a. The ARM default output is RS232 console, If You need to contine 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=p1011,\ 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 \star when reporting a bug add logs from ${\rm /tmp}$ 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) [1] Installation source 4) [!] Software selection (Processing...) (Processing...) 5) [!] Installation Destination 6) [x] Kdump (No disks selected) (Kdump is enabled) 8) [!] Root password (Password is not set.) 7) [] Network configuration (Not connected) 9) [!] User creation (No user will be created) Please make your choice from above ['q' to quit | 'b' to begin installation | 'r' to refreshl: _

c. Set Timezone

Use	numbers or type	e names direc	tly [b to regio	n list, q to	quit]: b
===					
I'1m	ezone settings				
Ava	ilable 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				
Ple	ase select the t	timezone.			
Use	numbers or type	e names direc	tly [b to regio	n list, q to	quit]: 5
===					
===					
Tim	ezone settings				
Ava	ilable timezones	s in region A	sia		
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)	Kabu I	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
1Z)	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
ZØ)	Dhaka	47)	Muscat	73)	Urumqi
21)	DILI	48)	Nicosia	74)	Ust-Nera
22)	Duba 1	49)	Novokuznetsk	75)	Vientiane
Pre	ss EMTER to cont	tinue		776	
23)	Dushanbe	501	Novosibirsk	76)	Vladivostok
24)	Gaza	51)	Umsk	(()	Yakutsk
25)	Hebron	52)	Ura I	78)	Yekaterinburg
201		53)	rnnom_Penn	79)	rerevan
27)	Hong_Kong				
rie	ase select the t	imezone.	and the act down		141. 66
use	numbers or type	: names direc	tly is to regio	n list, q to	quiti: 66
Lan	acondal 1:main*	2. Sne11 3:1	og 4:storage-l	og s:progra	m-100

d. Software selection, must choose 9

Installation	
1) [x] Language settings (English (United States))	2) [x] Timezone settings (Asia/Tainei timezone)
3) [x] Installation source	4) [!] Software selection
5) [1] Installation Destination	6) [x] Kdump
(No disks selected) 7) [] Network configuration	(Kdump is enabled) 8) [!] Root password
(Not connected) 9) [1] User creation	(Password is not set.)
(No user will be created) Please make your choice from above ['(r' to muit ! '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 3) [] Infrastructure Server	7) L J GNUME Desktop 8) [] KDE Plasma Worksnaces
4) [] File and Print Server	9) [] Development and Creative Work
5) [] Basic Web Server	station
'r' to refreshl: 9	f to quit i c to continue i
e. Configure installation destination	
Installation	
1) [x] Language settings	2) [x] Timezone settings
(English (United States)) 3) [†] Installation source	(Asia/Taipei timezone) 4) [†] Software selection
(Processing)	(Processing)
5) [1] Installation Destination	6) [x] Kdump
7) [] Network configuration	(kaump is enabled) 8) [1] Root nassword
(Not connected)	(Password is not set.)
9) [1] User creation	
Please make your choice from above ['q	' to quit ¦ 'b' to begin installation ¦
´r´ to refresh]: 5	
rrobing 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 leas	t one disk to install to.
Please make your choice from above ['q 'r' to refresh]: 3	' to quit 'c' to continue

<pre>[] 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 i 'c' to continue i 'r' to refresh]: c Generating updated storage configuration Checking storage configuration f. Set root password f. Set root pass</pre>	Partition Scheme Options	
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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	7) [] Network configuration (Not connected)	8) [x] Root password (Password is set.)
Progress Setting up the installation environment 	9) [] User creation (No user will be created) Please make your choice from above ['q' 'r' to refresh]: b	to quit 'b' to begin installation
	Progress Setting up the installation environment	

	====:	====	
Installation			
1) [x] Language settings (English (United States))	2)	[x]	Timezone settings (Asia/Taipei timezone)
3) [x] Installation source (Local media)	4)	[x]	Software selection (Development and Creative Works
5) [x] Installation Destination			tation)
(Automatic partitioning selecte d)	6)	[X]	Kdump (Kdump is enabled)
7) [] Network configuration	8)	[x]	Root password
9) [] User creation			(rassword is set.)
(No user will be created)			
Please make your choice from above ['q' 'r' to refresh]: b	to (quit	: 'b' to begin installation
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Progress			
Setting up the installation environment			
Lanacondal 1:main* 2:shell 3:log 4:stor	age-	log	5:program-log
g Press "b" to begin installation			
5. 11035 5 10 50511 1131010101			
Installation			
1) [x] Language settings (English (United States))	2)	[x]	Timezone settings (Asia/Taipei timezone)
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(Local media) 5) [x] Installation Destination			(Development and Creative Works tation)
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9) [] User creation			
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'r' to refreshl: b		1	
Progress			
Setting up the installation environment			
Tanacondal 1:main* 2:shell 3:log 4:stor	age-	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 (AltArc	:h)
CentOS Linux (O-re	escue-3a4c8f45826b4f0fbcbd3366f41fc2bc	l) 7 (AltArch)
lice the k and V ke	aus to change the selection	
Press 'e' to edit	the selected item or 'c' for a comma	nd prompt
TRESS E RO EUIR		and 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: