

Classification: Restricted

National Data Center

e-GOV Cloud-EVS (Elastic Volume Service)

Allocating disk (EVS (Elastic Volume Service)) to a particular ECS
from E-GOV cloud console



Bangladesh Computer Council
Information and Communication Technology Division

CENTOS

Disk Assign Procedure:

Login to eGocCloud with your username and password in below method :



Now go to **ECS** Menu to check the target ECS

Elastic Cloud Server ⓘ + Apply for ECS

You are advised to install the password resetting plug-in so that you can conveniently reset the password if required. To determine whether to install the plug-in and obtain the address and method for downloading the plug-in, click [here](#).

You can apply for 63 more ECSs with 104 CPUs and 140 GB memory.

Export List Tags Management Operation ▾

All statuses ▾ Name ▾ Fuzzy Search 🔍 Search by Tag ▾ ⌂ ⚙

<input type="checkbox"/>	Name	Status	Flavor	Image	IP Address	EIP	AZ	Expires	Creator	MAC Address	Operation
<input type="checkbox"/>	0110-TEST-APP01	Running	2 vCPUs 4 GB	template_NDC_...	172.16.229.151...	103.48.19.159	NDC	Never	NDC_Prod_Prj_...	fa:16:3e:01:d0:...	Remote Login Mo

Then go to **EVS** Menu and **Disk** sub-Menu

HUAWEI CLOUD Stack Dhaka My Center VDC Project Center Console Favorites 中文(简体) ⓘ

Cloud Server Console

Dashboard Elastic Cloud Server Elastic Volume Service **Disk** Snapshot Image Management Service

Elastic Volume Service ⓘ + Apply for EVS Disk

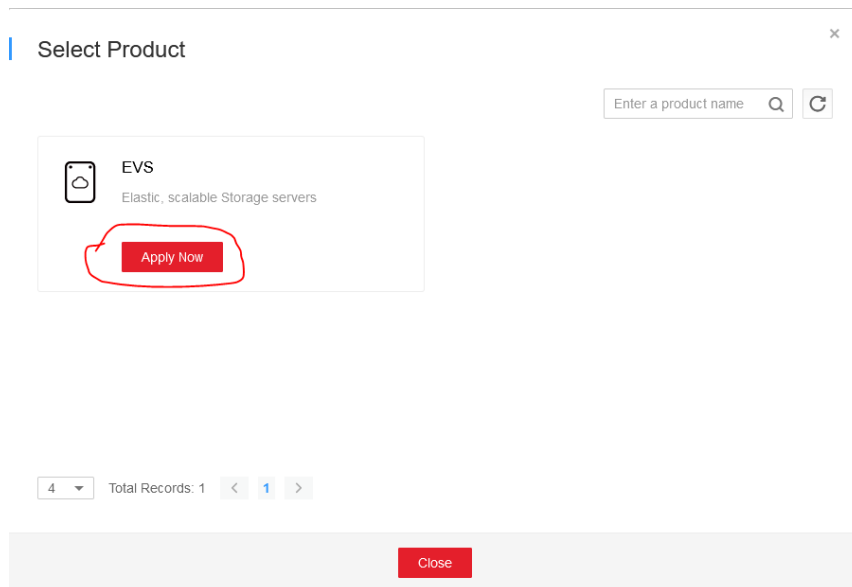
You can create 619 more disks totaling 4,689 GB storage.

Extend Delete

All statuses ▾ Name ▾ Fuzzy search 🔍 ⌂ ⚙

<input type="checkbox"/>	Name	Status	Shar...	Capaci...	Disk Type	Disk properties	Created	Expires	AZ	Attaching Infor...	Operation
✓ <input type="checkbox"/>	0110-TEST-DISK3-Volumn-3	In-use	No	50	SAS	Data disk	Jan 25, 2021 11:00:29	Never	NDC	0110-TEST-APP01 ECS	Attach Detach More ▾
✓ <input type="checkbox"/>	0110-Disk2-volume-2	In-use	No	50	SAS	Data disk	Jan 24, 2021 17:25:41	Never	NDC	0110-TEST-APP01 ECS	Attach Detach More ▾
✓ <input type="checkbox"/>	0110-TEST-APP01-volum...	In-use	No	50	SAS	System disk	Jan 24, 2021 17:17:57	Never	NDC	0110-TEST-APP01 ECS	Attach Detach More ▾

From **EVS** > **Disk** Menu Click for **Apply for EVS Disk** and then click **EVS Apply Now** option



In the EVS Main Menu Page Select **SAS** disk, **Capacity(GB)**: 10 (example) provide **Disk Name** : 0110-Test-APP01-Disk4-Volumn4 . Then click ok like below screenshot.

AZ NDC

Data Source: **Do not specify** Create from snapshot Create from disk Create from image

Disk: **Data disk** System disk

Disk Type

If you need to create a disk type, contact the administrator to create it on Service OM. If '-' is displayed after a feature, it indicates that the feature is not configured when the disk type is created. If you need to configure this feature, contact the administrator.

Disk Type	Conf...	SmartTier	Deduplication and ...	IOPS Upper Limit	Bandwidth Upper Limit (MB/s)
<input type="radio"/> Special_Purpose...	--	Initial Allocation Policy Relocation policy	-- Deduplication -- -- Compression --	IOPS Upper Limit/GB -- Max IOPS Upper Limit -- Min IOPS Upper Limit --	Bandwidth Upper Limit/GB -- Max Bandwidth Upper Limit -- Min Bandwidth Upper Limit --
<input checked="" type="radio"/> SAS	--	Initial Allocation Policy Relocation policy	-- Deduplication -- -- Compression --	IOPS Upper Limit/GB -- Max IOPS Upper Limit -- Min IOPS Upper Limit --	Bandwidth Upper Limit/GB -- Max Bandwidth Upper Limit -- Min Bandwidth Upper Limit --

Capacity (GB): The remaining capacity is 4689 GB. Contact the administrator if you want to apply for more quota.

IOPS Upper Limit of the Disk: --
Bandwidth Upper Limit of the Disk (MB/s): --

Device Type : **VBD** SCSI

Disk Sharing : **Disable** Enable

Disk Name :

Quantity: You can create 619 more disks. Only 100 disk can be created at one time. Contact the administrator if you want to apply for more quota.

Required Duration: **Unlimited** 1 year Custom

Then it'll assign(**Creating**) disk from EVS as below screenshot -

The screenshot shows the Elastic Volume Service (EVS) console. On the left is the Cloud Server Console sidebar with 'Disk' selected. The main area displays a table of disks. The first disk, '0110-TEST-APP01-Disk-4-v...', has a status of 'Creating' (highlighted with a red box). The second disk, '0110-TEST-DISK3-Volum-3', has a status of 'In-use'.

Name	Status	Share...	Capacity	Disk Type	Disk properties	Created	Expires	AZ	Attaching Inform...	Operation
0110-TEST-APP01-Disk-4-v...	Creating	No	10	SAS	Data disk	Jan 25, 2021 11:20:07	Never	NDC	--	Attach Detach More
0110-TEST-DISK3-Volum-3	In-use	No	50	SAS	Data disk	Jan 25, 2021 11:00:29	Never	NDC	0110-TEST-APP01 ECS	Attach Detach More

After successfully assigning disk Status will be shown as **Available** then click **Attach** sub-menu to mount the new disk

The screenshot shows the EVS console with the same disk table. The first disk's status is now 'Available' (highlighted with a red box). The 'Attach' button in the 'Operation' column is also highlighted with a red box.

Name	Status	Share...	Capacity	Disk Type	Disk properties	Created	Expires	AZ	Attaching Inform...	Operation
0110-TEST-APP01-Disk-4-v...	Available	No	10	SAS	Data disk	Jan 25, 2021 11:20:07	Never	NDC	--	Attach Detach More
0110-TEST-DISK3-Volum-3	In-use	No	50	SAS	Data disk	Jan 25, 2021 11:00:29	Never	NDC	0110-TEST-APP01 ECS	Attach Detach More

To mount the disk you can any one of the following 2 steps:

Option -1 . Specific Mount Point select: **No** then Select ECS **0110-TEST-APP01**(example) where you want to mount the new disk then Mount Point **Data Disk**

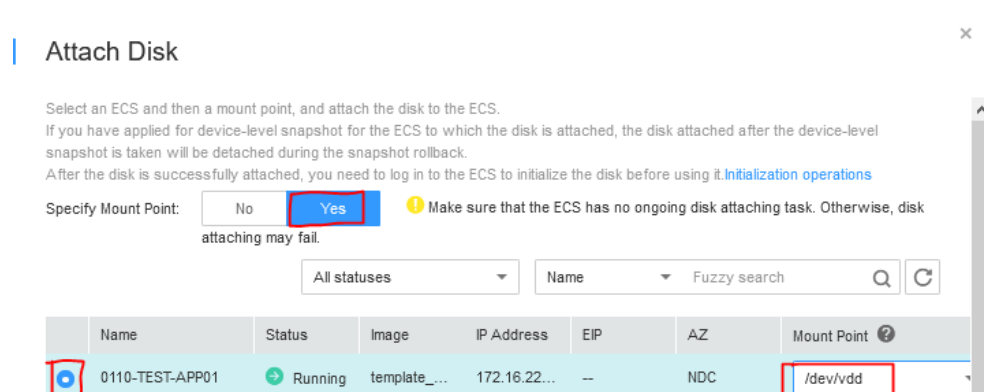
The 'Attach Disk' dialog box is shown. Under 'Specify Mount Point:', the 'No' button is selected (highlighted with a red box). Below, a table lists available ECS instances. The first instance, '0110-TEST-APP01', is selected (radio button highlighted with a red box). Its 'Mount Point' is set to 'Data disk' (highlighted with a red box).

Select an ECS and then a mount point, and attach the disk to the ECS.
If you have applied for device-level snapshot for the ECS to which the disk is attached, the disk attached after the device-level snapshot is taken will be detached during the snapshot rollback.
After the disk is successfully attached, you need to log in to the ECS to initialize the disk before using it. [Initialization operations](#)

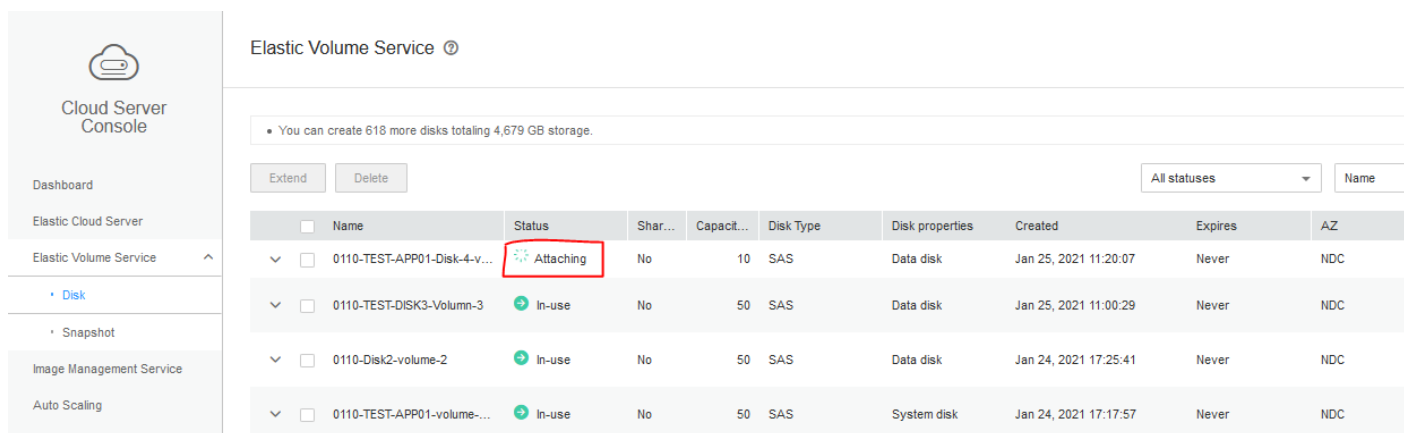
Specify Mount Point: ☒ No ☐ Yes

Name	Status	Image	IP Address	EIP	AZ	Mount Point
0110-TEST-APP01	Running	template_...	172.16.22...	--	NDC	Data disk

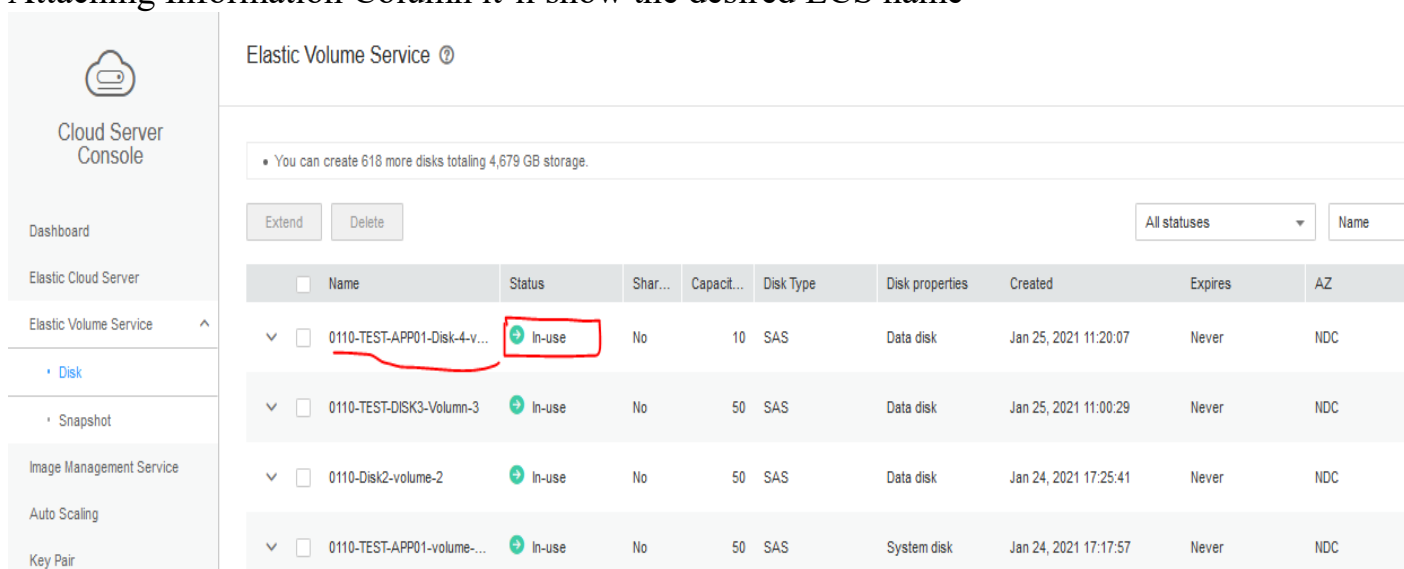
Option -2 . Specific Mount Point select: **Yes** then Select ECS **0110-TEST-APP01**(example) where you want to mount the new disk then Mount Point **/dev/vdx**



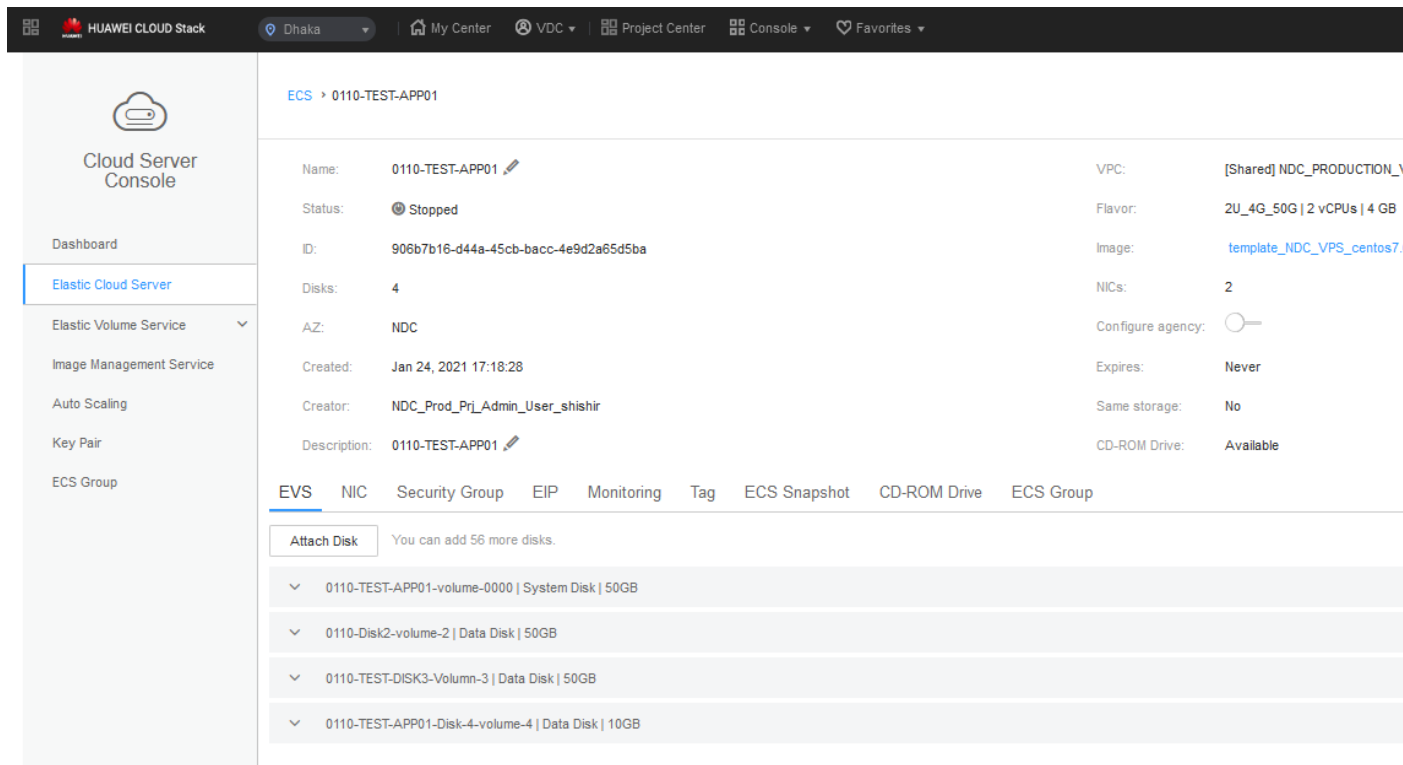
After mounting the disk in ECS OS status will show **Attaching**



After mounting the disk in ECS OS the disk status will show **In-use** and in Attaching Information Column it'll show the desired ECS name



After successfully creating or attaching disk you can check it from ECS like below method:



Then login to server via putty by using SSH protocol and input username([root](#)) and password ([Enter Your PaSSWoRD](#))

```
root@0110-test-app01:~  
login as: root  
root@103.48.19.159's password:   
Last login: Mon Jan 25 10:57:14 2021 from 172.21.12.129  
[root@0110-test-app01 ~]# lsblk  
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT  
sr0          11:0    1 1024M  0 rom  
vda          252:0    0   50G  0 disk  
├─vda1       252:1    0    1G  0 part /boot  
└─vda2       252:2    0   49G  0 part  
   └─vg_ndc-root 253:0    0   11G  0 lvm /  
      └─vg_ndc-swap 253:1    0    4G  0 lvm [SWAP]  
        └─vg_ndc-home 253:2    0    1G  0 lvm /home  
          └─vg_ndc-var 253:3    0    2G  0 lvm /var  
            └─vg_ndc-tmp 253:4    0    1G  0 lvm /tmp  
vdb          252:16   0   50G  0 disk  
├─vdb1       252:17   0    1G  0 part  
└─vdb2       252:18   0   49G  0 part  
vdc          252:32   0   50G  0 disk  
vdd          252:48   0   10G  0 disk  
[root@0110-test-app01 ~]#
```

****After applying new disk in EVS, you may follow below procedure to create or assign the disk in new or existing mount point like below procedure .**

- At first, Check the availability of new disk with below command.

```
[root@0110-test-app01 ~]# lsblk
NAME      MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
part
vdc       252:32  0   50G  0 disk
vdd       252:48  0   10G  0 disk
```

- Now partition the disk /dev/vdd (This name may be different for your server) using fdisk command as shown.
- Use `n` to create the partition and save the changes with `w` command.

```
[root@0110-test-app01 ~]# fdisk /dev/vdd
Welcome to fdisk (util-linux 2.23.2).
```

Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Device does not contain a recognized partition table
Building a new DOS disklabel with disk identifier 0x12421872.

```
Command (m for help): n
Partition type:
  p   primary (0 primary, 0 extended, 4 free)
  e   extended
Select (default p): p
Partition number (1-4, default 1): 1
First sector (2048-20971519, default 2048):
Using default value 2048
Last sector, +sectors or +size{K,M,G} (2048-20971519, default 20971519): +9G
Partition 1 of type Linux and of size 9 GiB is set
```

```
Command (m for help): t
Selected partition 1
Hex code (type L to list all codes): 8e
Changed type of partition 'Linux' to 'Linux LVM'
```

```
Command (m for help): w
The partition table has been altered!
```

Calling ioctl() to re-read partition table.
Syncing disks.

After partitioning, use the following command to verify the partitions.

```
[root@0110-test-app01 ~]# fdisk -l
[root@0110-test-app01 ~]# lsblk
NAME      MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
vdd       252:48  0   10G  0 disk
└─vdd1    252:49  0    9G  0 part
```

Check Physical Volume (PV).

```
[root@0110-test-app01 ~]# pvs
PV      VG      Fmt Attr PSize  PFree
/dev/vda2  vg_ndc lvm2 a--  <49.00g 30.00g
```

Create Physical Volume (PV).

```
[root@0110-test-app01 ~]# pvcreate /dev/vdd1
```

```
[root@0110-test-app01 ~]# vgs
```

```
VG   #PV #LV #SN Attr   VSize  VFree
vg_ndc 1  5  0 wz--n- <49.00g 30.00g
```

```
[root@0110-test-app01 ~]# vgextend vg_ndc /dev/vdd1
```

```
Physical volume "/dev/vdd1" successfully created.
Volume group "vg_ndc" successfully extended
```

```
[root@0110-test-app01 ~]# vgs
```

```
VG   #PV #LV #SN Attr   VSize  VFree
vg_ndc 2  5  0 wz--n- 57.99g <39.00g
```

```
[root@0110-test-app01 ~]# lvdisplay
```

```
--- Logical volume ---
```

```
LV Path          /dev/vg_ndc/tmp
LV Name           tmp
VG Name           vg_ndc
LV UUID           Zjqggf-dGyA-1FIA-CtCM-uG7n-EOwz-BT5J7h
LV Write Access   read/write
LV Creation host, time localhost, 2021-01-11 12:28:07 +0600
LV Status         available
# open            1
LV Size           1.00 GiB
Current LE        256
Segments          1
Allocation         inherit
Read ahead sectors auto
- currently set to 8192
Block device      253:4
```

```
[root@0110-test-app01 ~]# lvextend -L +9G /dev/vg_ndc/tmp
```

```
Size of logical volume vg_ndc/tmp changed from 1.00 GiB (256 extents) to 10.00 GiB (2560 extents).
Logical volume vg_ndc/tmp successfully resized.
```

```
[root@0110-test-app01 ~]# resize2fs /dev/vg_ndc/tmp
```

```
resize2fs 1.42.9 (28-Dec-2013)
```

```
Filesystem at /dev/vg_ndc/tmp is mounted on /tmp; on-line resizing required
old_desc_blocks = 1, new_desc_blocks = 2
The filesystem on /dev/vg_ndc/tmp is now 2621440 blocks long.
```

UbuntuOS

****During ECS creation if you take more 20GB it'll not show in the partition. For this reason, use below method to extend pv size using below method.**

For below case we've assign 100GB disk for ECS System disk .

```
[root@0111-test-app02 ~]# lsblk
```

```
NAME                                MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
loop0                              7:0    0 71.3M  1 loop /snap/lxd/16099
loop1                              7:1    0   55M  1 loop /snap/core18/1880
loop2                              7:2    0 55.4M  1 loop /snap/core18/1932
loop3                              7:3    0   31M  1 loop /snap/snapd/9721
loop4                              7:4    0 29.9M  1 loop /snap/snapd/8542
loop5                              7:5    0 67.8M  1 loop /snap/lxd/18150
sda                                8:0    0   30G  0 disk
├─sda1                             8:1    0    1M  0 part
├─sda2                             8:2    0    1G  0 part /boot
└─sda3                             8:3    0   29G  0 part
```



```
└─vg_ubuntu_20-lv--root 253:0 0 16G 0 lvm /
└─vg_ubuntu_20-lv--home 253:1 0 3G 0 lvm /home
└─vg_ubuntu_20-lv--var 253:2 0 3G 0 lvm /var
└─vg_ubuntu_20-lv--tmp 253:3 0 3G 0 lvm /tmp
└─vg_ubuntu_20-lv--swap 253:4 0 4G 0 lvm [SWAP]
sr0              11:0 1 1024M 0 rom
```

[root@0111-test-app02 ~]# parted /dev/sda

GNU Parted 3.3

Using /dev/sda

Welcome to GNU Parted! Type 'help' to view a list of commands.

(parted) print

Warning: Not all of the space available to /dev/sda appears to be used, you can fix the GPT to use all of the space (an extra 146800640 blocks) or continue with the current setting?

Fix/Ignore? **Fix**

Model: QEMU QEMU HARDDISK (scsi)

Disk /dev/sda: 107GB

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

Partition Table: gpt

Disk Flags:

Number	Start	End	Size	File system	Name	Flags
1	1049kB	2097kB	1049kB		bios_grub	
2	2097kB	1076MB	1074MB	ext4		
3	1076MB	32.2GB	31.1GB			

(parted) resize

resize resizepart

(parted) resizepart 3

End? [32.2GB]? **106GB**

(parted) print

Model: QEMU QEMU HARDDISK (scsi)

Disk /dev/sda: 107GB

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

Partition Table: gpt

Disk Flags:

Number	Start	End	Size	File system	Name	Flags
1	1049kB	2097kB	1049kB		bios_grub	
2	2097kB	1076MB	1074MB	ext4		
3	1076MB	106GB	105GB			

(parted)

(parted) q

Information: You may need to update /etc/fstab.

[root@0111-test-app02 ~]# df -h

Filesystem	Size	Used	Avail	Use%	Mounted on
udev	16G	0	16G	0%	/dev
tmpfs	3.2G	1.2M	3.2G	1%	/run
/dev/mapper/vg_ubuntu_20-lv--root	16G	5.7G	9.2G	39%	/
tmpfs	16G	0	16G	0%	/dev/shm
tmpfs	5.0M	0	5.0M	0%	/run/lock
tmpfs	16G	0	16G	0%	/sys/fs/cgroup
/dev/sda2	976M	197M	712M	22%	/boot
/dev/mapper/vg_ubuntu_20-lv--home	2.9G	9.1M	2.8G	1%	/home
/dev/mapper/vg_ubuntu_20-lv--var	2.9G	989M	1.8G	36%	/var
/dev/mapper/vg_ubuntu_20-lv--tmp	2.9G	9.1M	2.8G	1%	/tmp

```

/dev/loop0          56M  56M   0 100% /snap/core18/1932
/dev/loop1          30M  30M   0 100% /snap/snapd/8542
/dev/loop2          55M  55M   0 100% /snap/core18/1880
/dev/loop3          72M  72M   0 100% /snap/lxd/16099
/dev/loop4          68M  68M   0 100% /snap/lxd/18150
/dev/loop5          31M  31M   0 100% /snap/snapd/9721
tmpfs               3.2G   0 3.2G   0% /run/user/0

```

```
[root@0111-test-app02 ~]# pvresize /dev/sda3
```

```
Physical volume "/dev/sda3" changed
```

```
1 physical volume(s) resized or updated / 0 physical volume(s) not resized
```

```
[root@0111-test-app02 ~]# pvs
```

```

PV      VG      Fmt Attr PSize PFree
/dev/sda3 vg_ubuntu_20 lvm2 a-- 97.71g <68.72g

```

```
[root@0111-test-app02 ~]# vgs
```

```

VG      #PV #LV #SN Attr   VSize VFree
vg_ubuntu_20 1  5  0 wz--n- 97.71g <68.72g

```

```
[root@0111-test-app02 ~]# lvs
```

```

LV      VG      Attr   LSize   Pool Origin Data%  Meta%  Move Log Cpy% Sync Convert
lv-home vg_ubuntu_20 -wi-ao---- 3.00g
lv-root vg_ubuntu_20 -wi-ao---- <16.00g
lv-swap vg_ubuntu_20 -wi-ao---- 4.00g
lv-tmp  vg_ubuntu_20 -wi-ao---- 3.00g
lv-var  vg_ubuntu_20 -wi-ao---- 3.00g

```

****After applying new disk in EVS, you may follow below procedure to create or assign the disk in new or existing mount point like below procedure .**

```
[root@0111-test-app02 ~]# lsblk
```

```

NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
sr0          11:0    1 1024M  0 rom
vda          252:0    0   50G  0 disk
├─vda1       252:1    0    1G  0 part /boot
├─vda2       252:2    0   49G  0 part
│   └─vg_ndc-root 253:0    0   11G  0 lvm /
│       └─vg_ndc-swap 253:1    0    4G  0 lvm [SWAP]
│           └─vg_ndc-home 253:2    0    1G  0 lvm /home
│               └─vg_ndc-var 253:3    0    2G  0 lvm /var
│                   └─vg_ndc-tmp 253:4    0    1G  0 lvm /tmp
vdb          252:16   0   50G  0 disk
├─vdb1       252:17   0    1G  0 part
├─vdb2       252:18   0   49G  0 part
vdc          252:32   0   50G  0 disk
vdd          252:48   0   10G  0 disk

```

```
[root@0111-test-app02 ~]# fdisk /dev/vdd
```

```
Welcome to fdisk (util-linux 2.23.2).
```

Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Device does not contain a recognized partition table
Building a new DOS disklabel with disk identifier 0x12421872.

```
Command (m for help): n
```

```
Partition type:
```

```

p primary (0 primary, 0 extended, 4 free)
e extended

```

```
Select (default p): p
```

```
Partition number (1-4, default 1): 1
```

```
First sector (2048-20971519, default 2048):
```

Using default value 2048

Last sector, +sectors or +size{K,M,G} (2048-20971519, default 20971519): **+9G**

Partition 1 of type Linux and of size 9 GiB is set

Command (m for help): **t**

Selected partition 1

Hex code (type L to list all codes): **8e**

Changed type of partition 'Linux' to 'Linux LVM'

Command (m for help): **w**

The partition table has been altered!

Calling ioctl() to re-read partition table.

Syncing disks.

[root@0111-test-app02 ~]# lsblk

NAME	MAJ:MIN	RM	SIZE	RO	TYPE	MOUNTPOINT
sr0	11:0	1	1024M	0	rom	
vda	252:0	0	50G	0	disk	
└─vda1	252:1	0	1G	0	part	/boot
└─vda2	252:2	0	49G	0	part	
└─vg_ndc-root	253:0	0	11G	0	lvm	/
└─vg_ndc-swap	253:1	0	4G	0	lvm	[SWAP]
└─vg_ndc-home	253:2	0	1G	0	lvm	/home
└─vg_ndc-var	253:3	0	2G	0	lvm	/var
└─vg_ndc-tmp	253:4	0	1G	0	lvm	/tmp
vdb	252:16	0	50G	0	disk	
└─vdb1	252:17	0	1G	0	part	
└─vdb2	252:18	0	49G	0	part	
vdc	252:32	0	50G	0	disk	
vdd	252:48	0	10G	0	disk	
└─vdd1	252:49	0	9G	0	part	

[root@0111-test-app02 ~]# pvs

PV	VG	Fmt	Attr	PSize	PFree
/dev/vda2	vg_ndc	lvm2	a--	<49.00g	30.00g

[root@0111-test-app02 ~]# vgs

VG	#PV	#LV	#SN	Attr	VSize	VFree
vg_ndc	1	5	0	wz--n-	<49.00g	30.00g

[root@0111-test-app02 ~]# vgextend vg_ndc /dev/vdd1

Physical volume "/dev/vdd1" successfully created.

Volume group "vg_ndc" successfully extended

[root@0111-test-app02 ~]# vgs

VG	#PV	#LV	#SN	Attr	VSize	VFree
vg_ndc	2	5	0	wz--n-	57.99g	39.00g

[root@0111-test-app02 ~]# lvdisplay

--- Logical volume ---

LV Path	/dev/vg_ndc/root
LV Name	root
VG Name	vg_ndc
LV UUID	SK5MGc-XYc8-3ufu-qlSM-64J4-F6dx-JYti3k
LV Write Access	read/write
LV Creation host, time	localhost, 2021-01-11 12:28:04 +0600
LV Status	available
# open	1
LV Size	<11.00 GiB
Current LE	2815
Segments	1

Allocation inherit
Read ahead sectors auto
- currently set to 8192
Block device 253:0

--- Logical volume ---

LV Path /dev/vg_ndc/swap
LV Name swap
VG Name vg_ndc
LV UUID ItNDJL-nmON-czDy-mkyu-s2cs-y1pi-04KLz1
LV Write Access read/write
LV Creation host, time localhost, 2021-01-11 12:28:06 +0600
LV Status available
open 2
LV Size 4.00 GiB
Current LE 1024
Segments 1
Allocation inherit
Read ahead sectors auto
- currently set to 8192
Block device 253:1

--- Logical volume ---

LV Path /dev/vg_ndc/home
LV Name home
VG Name vg_ndc
LV UUID cz5wgi-DZcG-PiNf-ubCu-KuXY-pRW1-XDAscP
LV Write Access read/write
LV Creation host, time localhost, 2021-01-11 12:28:06 +0600
LV Status available
open 1
LV Size 1.00 GiB
Current LE 256
Segments 1
Allocation inherit
Read ahead sectors auto
- currently set to 8192
Block device 253:2

--- Logical volume ---

LV Path /dev/vg_ndc/var
LV Name var
VG Name vg_ndc
LV UUID 0C4d6E-9aEg-tVzG-VUcW-Ocd5-DeMQ-nzpbYe
LV Write Access read/write
LV Creation host, time localhost, 2021-01-11 12:28:07 +0600
LV Status available
open 1
LV Size 2.00 GiB
Current LE 512
Segments 1
Allocation inherit
Read ahead sectors auto
- currently set to 8192
Block device 253:3

--- Logical volume ---

LV Path /dev/vg_ndc/tmp
LV Name tmp
VG Name vg_ndc

LV UUID Zjqggf-dGyA-1FIA-CtCM-uG7n-EOwz-BT5J7h
LV Write Access read/write
LV Creation host, time localhost, 2021-01-11 12:28:07 +0600
LV Status available
open 1
LV Size 1.00 GiB
Current LE 256
Segments 1
Allocation inherit
Read ahead sectors auto
- currently set to 8192
Block device 253:4

```
[root@0111-test-app02 ~]# lvextend -L +9G /dev/vg_ndc/tmp
```

Size of logical volume vg_ndc/tmp changed from 1.00 GiB (256 extents) to 10.00 GiB (2560 extents).

Logical volume vg_ndc/tmp successfully resized.

```
[root@0111-test-app02 ~]# resize2fs /dev/vg_ndc/tmp
```

resize2fs 1.42.9 (28-Dec-2013)

Filesystem at /dev/vg_ndc/tmp is mounted on /tmp; on-line resizing required

old_desc_blocks = 1, new_desc_blocks = 2

The filesystem on /dev/vg_ndc/tmp is now 2621440 blocks long.

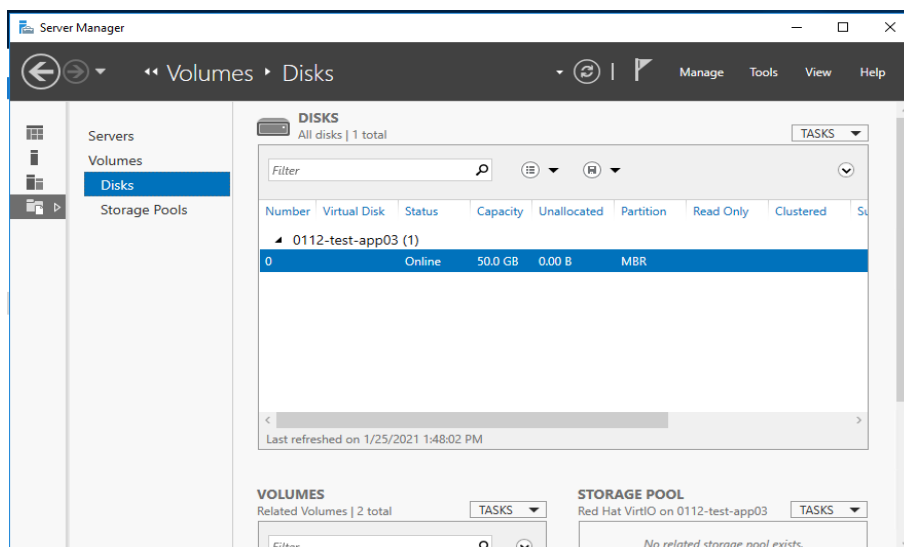
Window Server OS

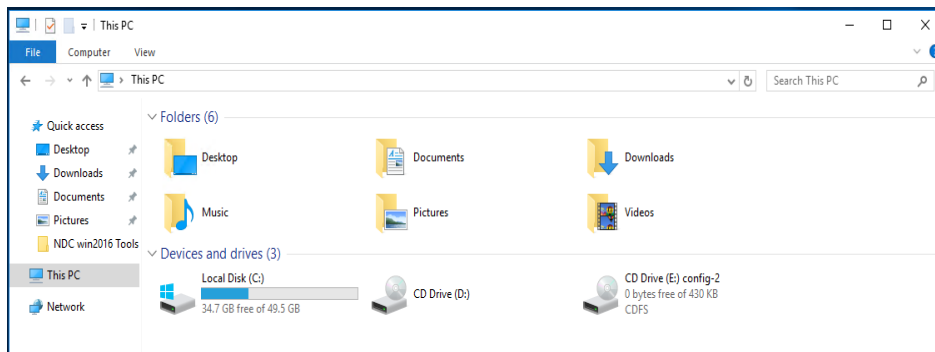
There are 2 ways to increase the storage size in windows ECS:

1. By expanding any existing drive (Like c drive)
2. By adding new disk and allocate that disk as a new drive

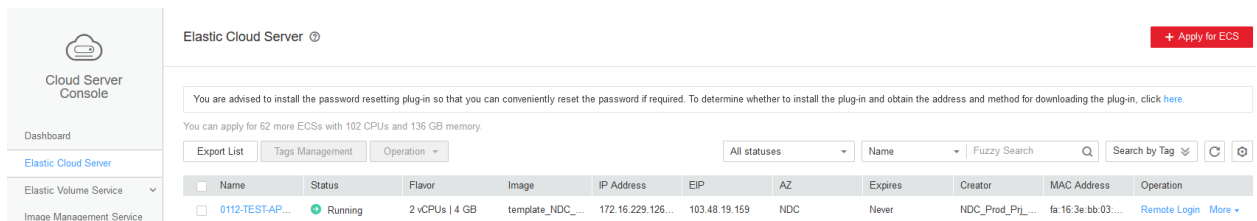
For the first case (expanding a drive), once allocated it will not be detachable. For 2nd case (Adding new disk), it will be detachable. Before detaching please remove / take backup of data. Please allocate as per your requirement.

After creating ECS check the system disk from Server Manager and This PC

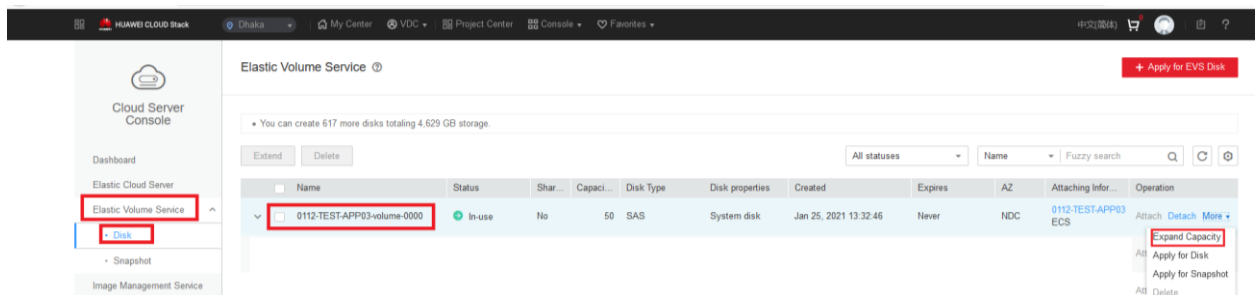




Login to eGovCloud portal by using browser and go to **ECS** and check the ECS **Name**



After that go to **EVS** > **Disk** select the EVS for selected ECS Name and click to **Expand Capacity** existing **C:/** drive



In the selected page **Add Capacity(GB)** : 30 (example) which will added with **C:/** drive and after expansion it'll be 80GB and then click **Next** for **Apply Now**

Expand Capacity ⓘ

Go Back To EVS

1 Specify Details

2 Confirm Specifications

3 Finish

Configuration

Disk Name0112-TEST-APP03-volume-0000

Disk ID0a78494d-d9dd-4114-ad8a-4fc9f0c886e0

StatusIn-use

AZNDC

Disk TypeSAS

ShareableNo

Device TypeVBD

Current Capacity (GB)50

Add Capacity (GB)

−

30

+

You can add 4629 GB more capacity.

Capacity After Expansion (GB)80

IOPS Upper Limit of the Disk--

Bandwidth Upper Limit of the Disk (MB/s)--

After disk capacity expansion is complete, you need to log in to the ECS to initialize the expanded capacity.

Initialization operations

Configuration Fee ₹1.11 BDT/h

Next

Expand Capacity ⓘ

Go Back To EVS

☒ Specify Details

2 Confirm Specifications

3 Finish

Resource Details

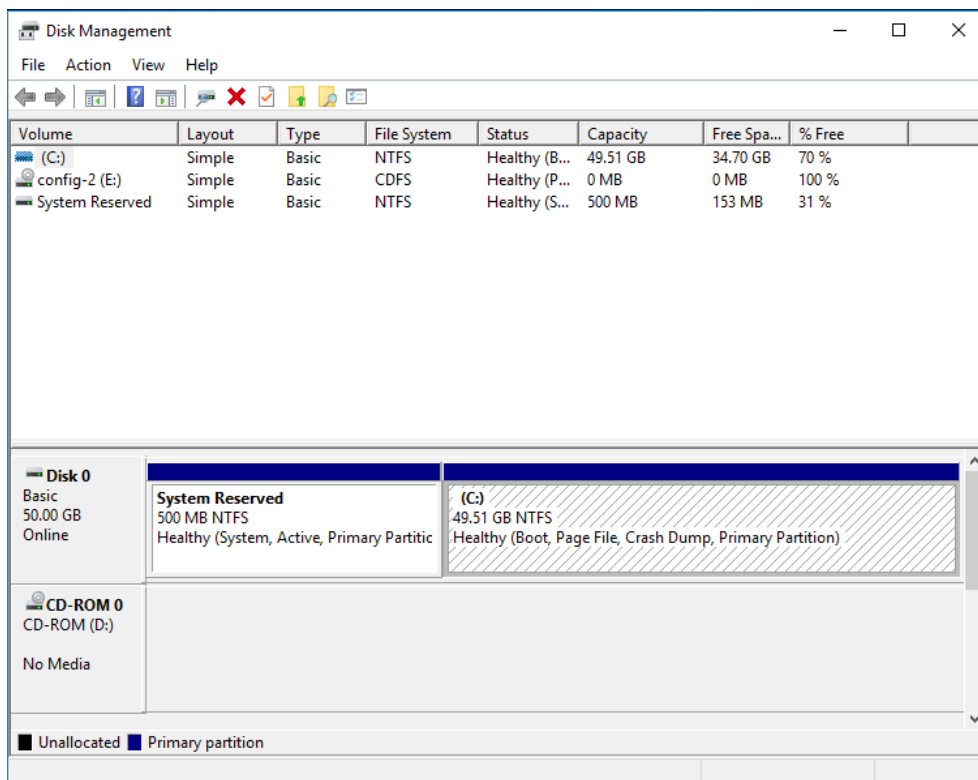
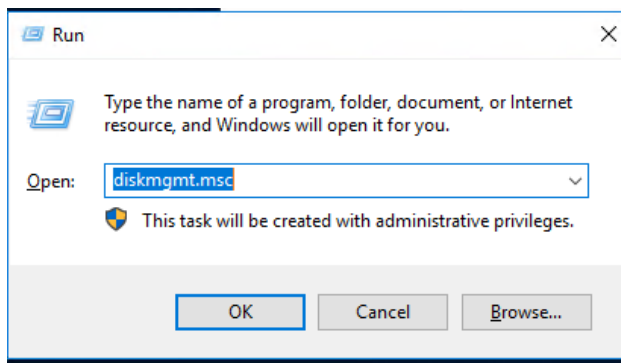
Type	Specifications	Unit Price
Disk	Disk Name	0112-TEST-APP03-volume-0000
	Disk ID	0a78494d-d9dd-4114-ad8a-4fc9f0c886e0
	Status	In-use
	AZ	NDC
	Disk Type	SAS
	Shareable	No
	Device Type	VBD
	Current Capacity (GB)	50
	Add Capacity (GB)	30
	IOPS Upper Limit of the Disk	--
	Bandwidth Upper Limit of the Disk (MB/s)	--
		₹1.11 BDT/h

Configuration Fee ₹1.11 BDT/h

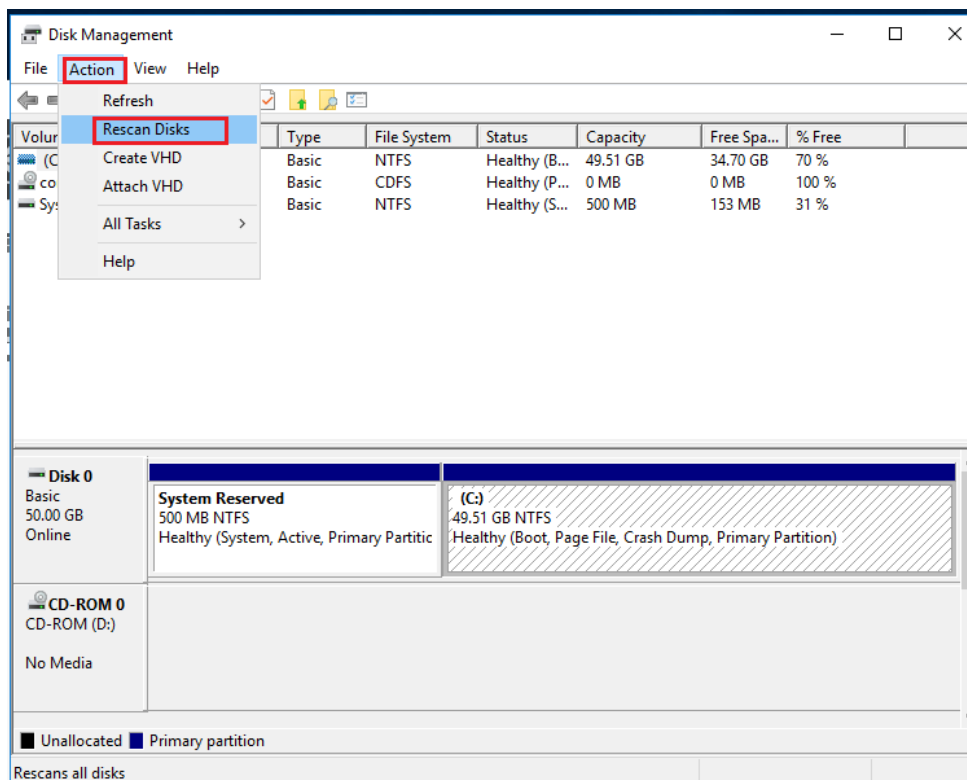
Back

Apply Now

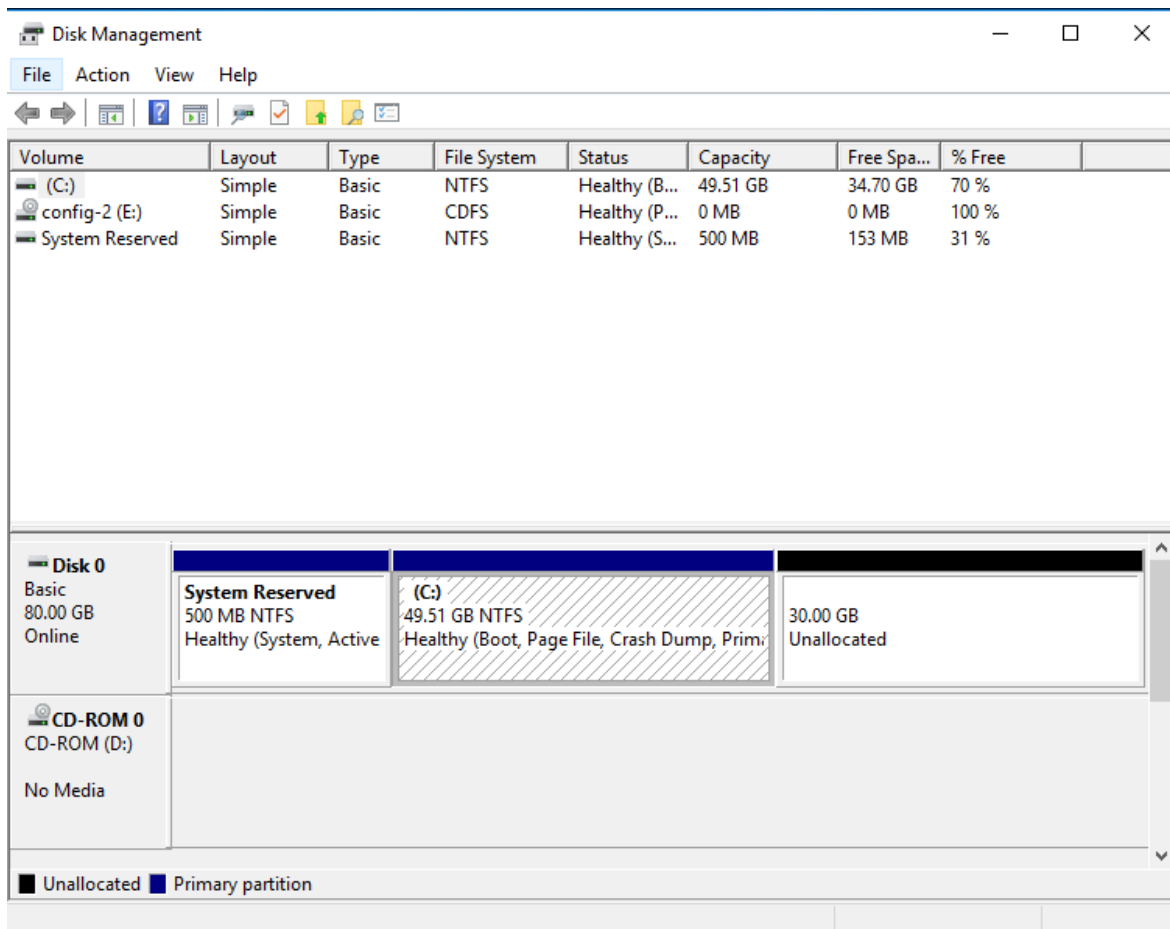
Go to run from Windows Button and type diskmgmt.msc



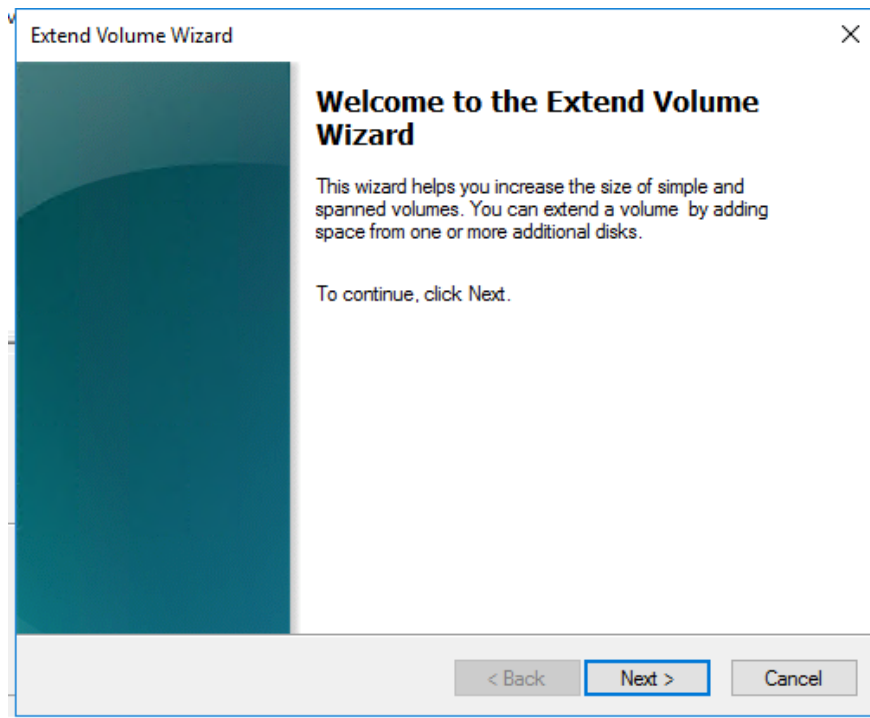
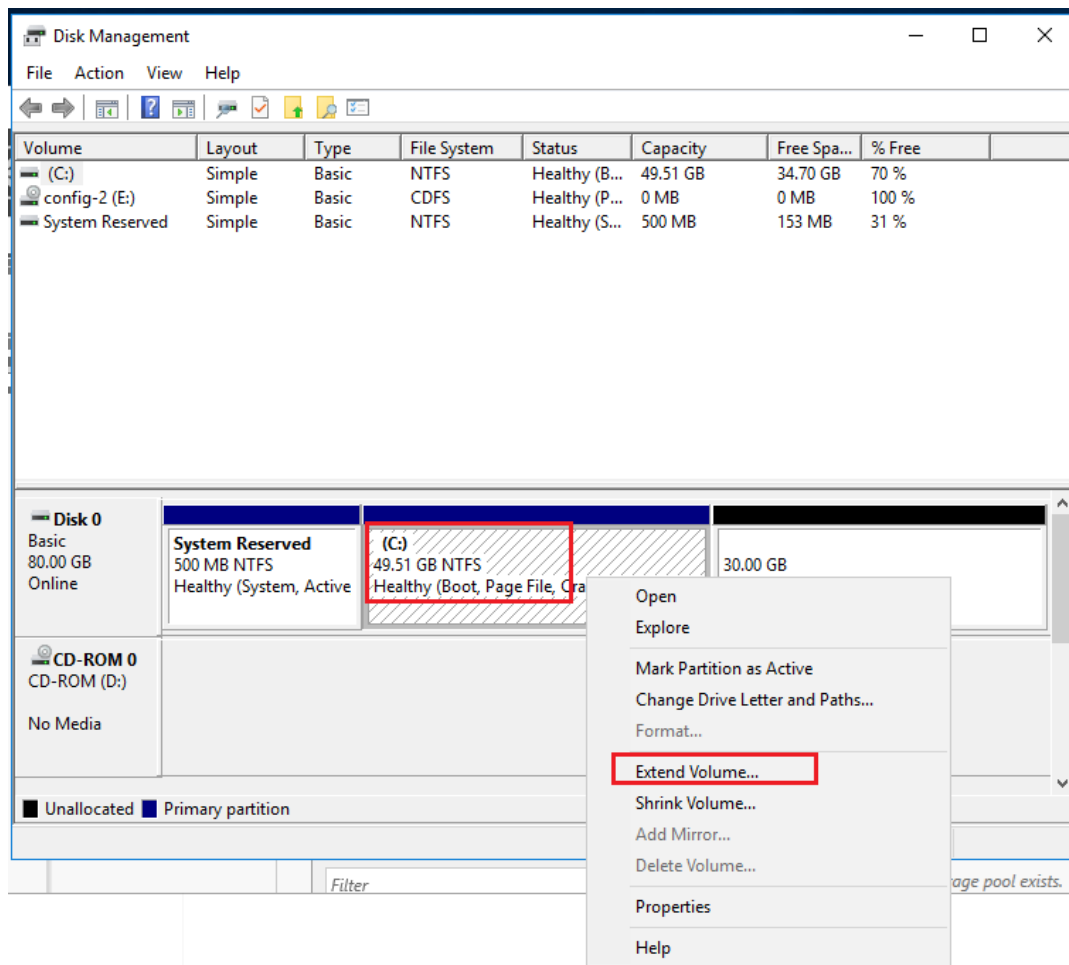
In Disk Management Console Go to [Action](#) > [Rescan Disks](#) to take effect in **C:** drive increment.



After successful rescan it'll show **Unallocated** space beside C: drive



To extend C: drive Right Click to [Extend Volume](#) > [Next](#) > Select New [Disk 0](#) > [Next](#) > [Finish](#)



Extend Volume Wizard

Select Disks

You can use space on one or more disks to extend the volume.

You can only extend the volume to the available space shown below because your disk cannot be converted to dynamic or the volume being extended is a boot or system volume.

Available:

Selected:

81417

30719

30719

< Back Next > Cancel

Extend Volume Wizard

Completing the Extend Volume Wizard

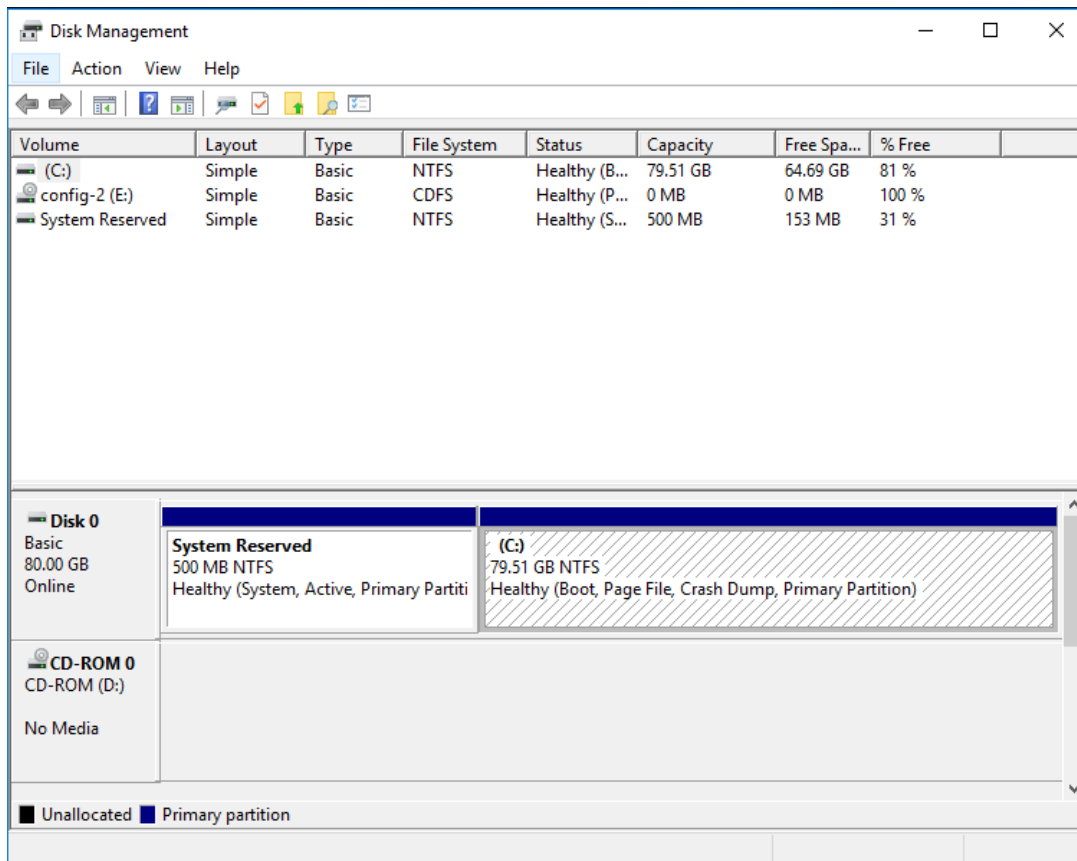
You selected the following settings:

Disk selected: Disk 0 (30719 MB)

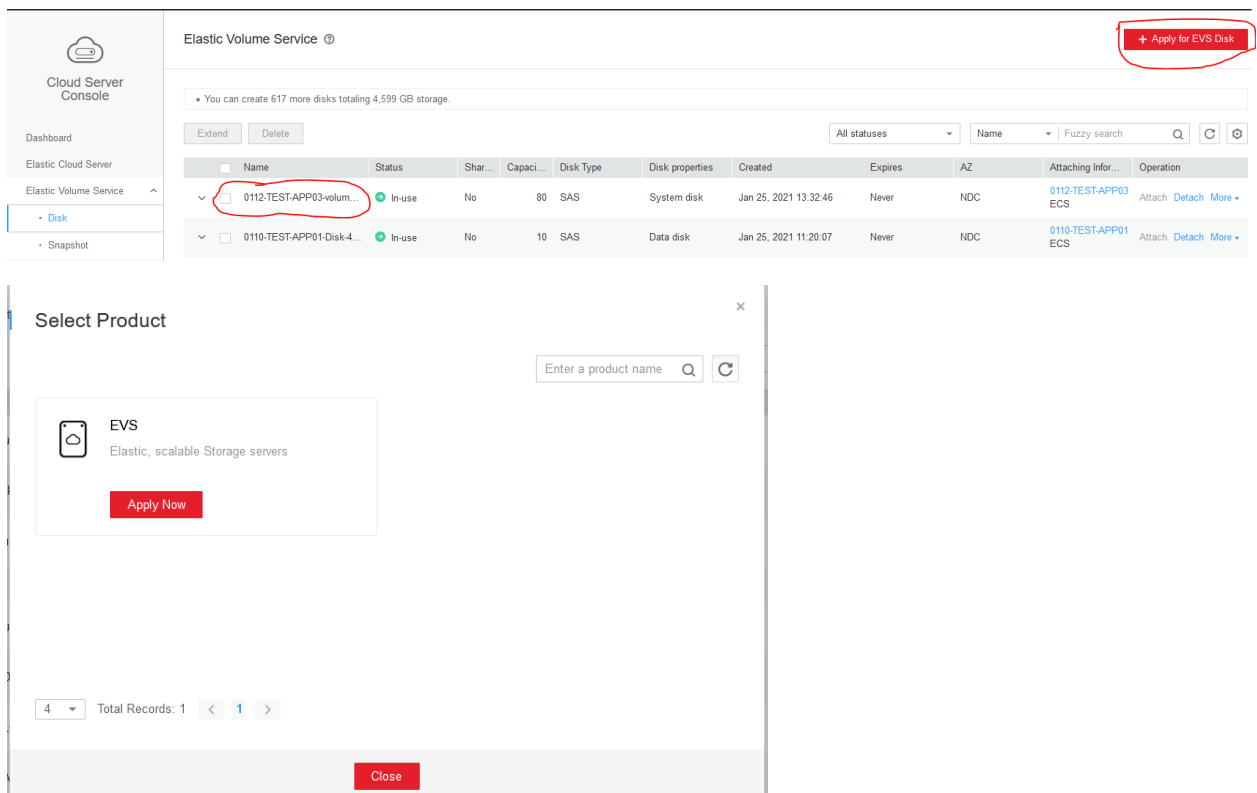
To close this wizard, click Finish.

< Back Finish Cancel

After successfully extension, please check the C: drive size



If you need to create another drive then use below sequential method to add new drive



1 Specify Details

2 Confirm Specifications

3 Finish

AZ ⓘ

NDC

Data Source

Do not specify

Create from snapshot

Create from disk

Create from image

Disk

Data disk

System disk

Disk Type

If you need to create a disk type, contact the administrator to create it on Service OM. If '--' is displayed after a feature, it indicates that the feature is not configured when the disk type is created. If you need to configure this feature, contact the administrator.

	Disk Type	Confi...	SmartTier	Deduplication and ...	IOPS Upper Limit	Bandwidth Upper Limit (MB/s)			
<input type="radio"/>	Special_Purpose...	--	Initial Allocation Policy Relocation policy	-- --	Deduplication Compression	-- --	IOPS Upper Limit/GB Max IOPS Upper Limit Min IOPS Upper Limit	-- -- --	Bandwidth Upper Limit/GB Max Bandwidth Upper Limit Min Bandwidth Upper Limit
<input checked="" type="radio"/>	SAS	--	Initial Allocation Policy Relocation policy	-- --	Deduplication Compression	-- --	IOPS Upper Limit/GB Max IOPS Upper Limit Min IOPS Upper Limit	-- -- --	Bandwidth Upper Limit/GB Max Bandwidth Upper Limit Min Bandwidth Upper Limit

Capacity (GB)

-

1

+

The remaining capacity is 4599 GB. Contact the administrator if you want to apply for more quota.

IOPS Upper Limit of the Disk: --

Bandwidth Upper Limit of the Disk (MB/s): --

Device Type ⓘ

VBD

SCSI

Disk Sharing ⓘ

Disable

Enable

Disk Name ⓘ

0112-TEST-Disk2-volume-2

Quantity

-

1

+

You can create 617 more disks. Only 100 disk can be created at one time. Contact the administrator if you want to apply for more quota.

Required Duration

Unlimited

1 year

Custom

Configuration Fee

₹0.01 BDT /h

Next

Apply for EVS Disk [Go Back To EVS](#)

Specify Details **2** Confirm Specifications **3** Finish

Type	Specifications	Required Duration	Quantity	Unit Price
Disk	Region	Dhaka		
	AZ	NDC		
	Data Source	Do not specify		
	Disk	Data disk		
	Image	--		
	Capacity (GB)	20		
	IOPS Upper Limit of the Disk	--	Unlimited	
	Bandwidth Upper Limit of the Disk (MB/s)	--		
	Disk Type	SAS		
	Device Type	VBD		
	Disk Sharing	No		
	Disk Name	0112-TEST-Disk2-volume-2		

Configuration Fee **৳0.28 BDT/h**

[Back](#) [Add to Cart](#) [Apply Now](#)

Cloud Server Console

Dashboard

Elastic Cloud Server

Elastic Volume Service

Elastic Volume Service

+ Apply for EVS Disk

You can create 616 more disks totaling 4,579 GB storage.

Extend Delete

All statuses Name Fuzzy search

Name	Status	Shar...	Capacit...	Disk Type	Disk properties	Created	Expires	AZ	Attaching Inform...	Operation
0112-TEST-Disk2-volume-2	Creating	No	20	SAS	Data disk	Jan 25, 2021 14:12:18	Never	NDC	--	Attach Detach More
0112-TEST-APP03-volume...	In-use	No	80	SAS	System disk	Jan 25, 2021 13:32:48	Never	NDC	0112-TEST-APP03 ECS	Attach Detach More

Cloud Server Console

Dashboard

Elastic Cloud Server

Elastic Volume Service

Elastic Volume Service

+ Apply for EVS Disk

You can create 616 more disks totaling 4,579 GB storage.

Extend Delete

All statuses Name Fuzzy search

Name	Status	Shar...	Capacit...	Disk Type	Disk properties	Created	Expires	AZ	Attaching Inform...	Operation
0112-TEST-Disk2-volume-2	Available	No	20	SAS	Data disk	Jan 25, 2021 14:12:18	Never	NDC	--	Attach Detach More
0112-TEST-APP03-volume...	In-use	No	80	SAS	System disk	Jan 25, 2021 13:32:48	Never	NDC	0112-TEST-APP03 ECS	Attach Detach More

To mount the new assigned disk there is 2 way .

- 1.) Specify Mount Point : **No** > **Select the ECS** and Mount Point : **Data Disk**
- 2.) Specify Mount Point : **Yes** > **Select the ECS** and Mount Point : **/dev/vdb**

Attach Disk

Select an ECS and then a mount point, and attach the disk to the ECS.

If you have applied for device-level snapshot for the ECS to which the disk is attached, the disk attached after the device-level snapshot is taken will be detached during the snapshot rollback.

After the disk is successfully attached, you need to log in to the ECS to initialize the disk before using it.[Initialization operations](#)

Specify Mount Point:

No

Yes

All statuses

Name

Fuzzy search

Q

C

	Name	Status	Image	IP Address	EIP	AZ	Mount Point ?
	0112-TES...	Running	template_...	172.16.22...	--	NDC	Data disk

Attach Disk

Select an ECS and then a mount point, and attach the disk to the ECS.

If you have applied for device-level snapshot for the ECS to which the disk is attached, the disk attached after the device-level snapshot is taken will be detached during the snapshot rollback.

After the disk is successfully attached, you need to log in to the ECS to initialize the disk before using it.[Initialization operations](#)

Specify Mount Point:

No

Yes

Make sure that the ECS has no ongoing disk attaching task. Otherwise, disk attaching may fail.

All statuses

Name

Fuzzy search

Q

C

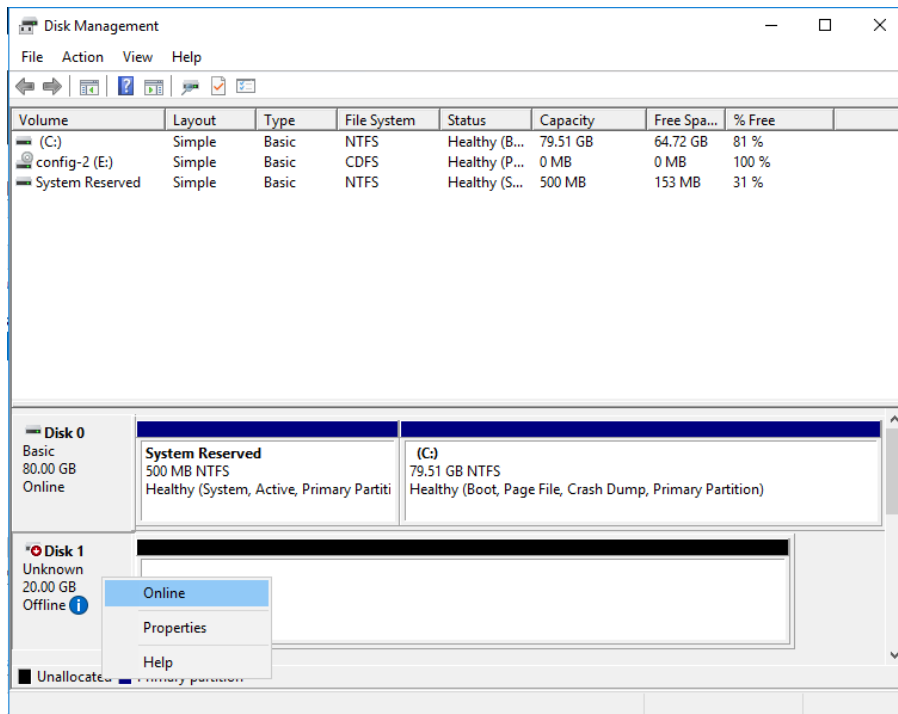
	Name	Status	Image	IP Address	EIP	AZ	Mount Point ?
	0112-TES...	Running	template_...	172.16.22...	--	NDC	/dev/vdb

After successfully mount the disk in a particular Mount Point check the Disk [status](#) from EVS

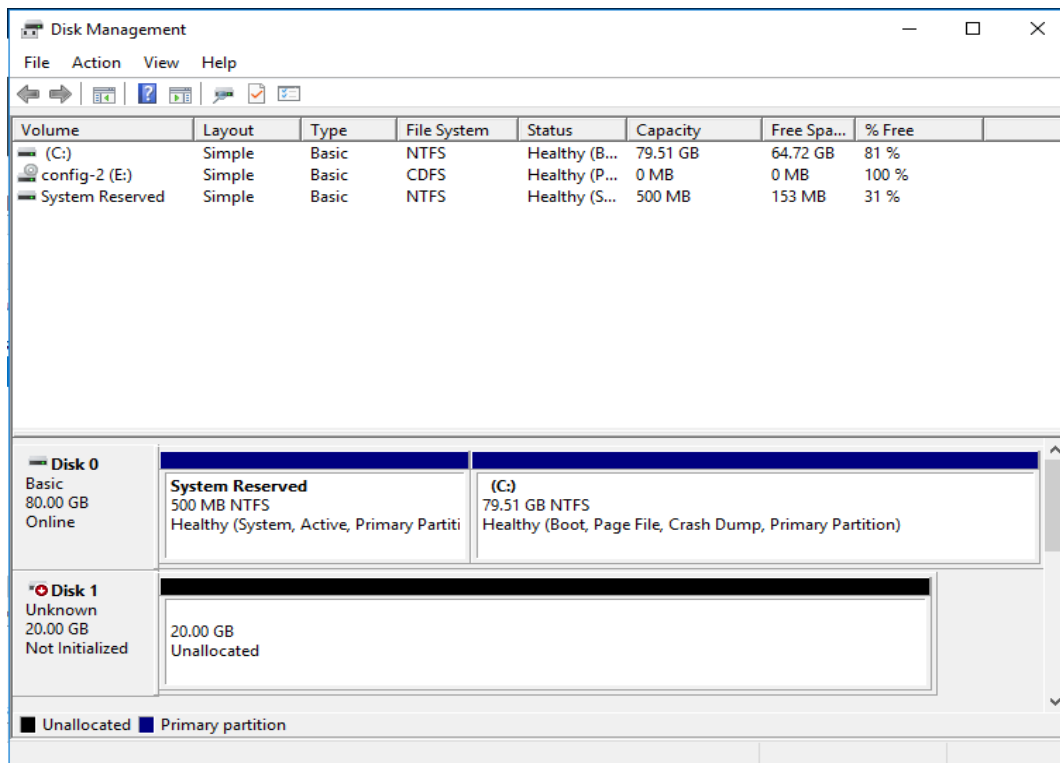
<div>Cloud Server Console</div> <div>Dashboard</div> <div>Elastic Cloud Server</div> <div>Elastic Volume Service</div> <div>Disk</div> <div>Snapshot</div>	<div>Elastic Volume Service</div> <div>You can create 616 more disks totaling 4,579 GB storage.</div> <div> <div>Extend</div> <div>Delete</div> </div> <div> <div>All statuses</div> <div>Name</div> <div>Fuzzy search</div> <div>Q</div> <div>C</div> <div></div> </div> <table> <thead> <tr> <th></th> <th>Name</th> <th>Status</th> <th>Shar...</th> <th>Capacit...</th> <th>Disk Type</th> <th>Disk properties</th> <th>Created</th> <th>Expires</th> <th>AZ</th> <th>Attaching Inform...</th> <th>Operation</th> </tr> </thead> <tbody> <tr> <td></td> <td>0112-TEST-Disk2-volume-2</td> <td>Attaching</td> <td>No</td> <td>20</td> <td>SAS</td> <td>Data disk</td> <td>Jan 25, 2021 14:12:18</td> <td>Never</td> <td>NDC</td> <td>--</td> <td>Attach Detach More</td> </tr> <tr> <td></td> <td>0112-TEST-APP03-volume-...</td> <td>In-use</td> <td>No</td> <td>80</td> <td>SAS</td> <td>System disk</td> <td>Jan 25, 2021 13:32:46</td> <td>Never</td> <td>NDC</td> <td>0112-TEST-APP03 ECS</td> <td>Attach Detach More</td> </tr> </tbody> </table>												Name	Status	Shar...	Capacit...	Disk Type	Disk properties	Created	Expires	AZ	Attaching Inform...	Operation		0112-TEST-Disk2-volume-2	Attaching	No	20	SAS	Data disk	Jan 25, 2021 14:12:18	Never	NDC	--	Attach Detach More		0112-TEST-APP03-volume-...	In-use	No	80	SAS	System disk	Jan 25, 2021 13:32:46	Never	NDC	0112-TEST-APP03 ECS	Attach Detach More
	Name	Status	Shar...	Capacit...	Disk Type	Disk properties	Created	Expires	AZ	Attaching Inform...	Operation																																				
	0112-TEST-Disk2-volume-2	Attaching	No	20	SAS	Data disk	Jan 25, 2021 14:12:18	Never	NDC	--	Attach Detach More																																				
	0112-TEST-APP03-volume-...	In-use	No	80	SAS	System disk	Jan 25, 2021 13:32:46	Never	NDC	0112-TEST-APP03 ECS	Attach Detach More																																				
<div>Elastic Volume Service</div> <div>You can create 616 more disks totaling 4,579 GB storage.</div> <div> <div>Extend</div> <div>Delete</div> </div> <div> <div>All statuses</div> <div>Name</div> <div>Fuzzy search</div> <div>Q</div> <div>C</div> <div></div> </div> <table> <thead> <tr> <th></th> <th>Name</th> <th>Status</th> <th>Shar...</th> <th>Capacit...</th> <th>Disk Type</th> <th>Disk properties</th> <th>Created</th> <th>Expires</th> <th>AZ</th> <th>Attaching Inform...</th> <th>Operation</th> </tr> </thead> <tbody> <tr> <td></td> <td>0112-TEST-Disk2-volume-2</td> <td>In-use</td> <td>No</td> <td>20</td> <td>SAS</td> <td>Data disk</td> <td>Jan 25, 2021 14:12:18</td> <td>Never</td> <td>NDC</td> <td>0112-TEST-APP03 ECS</td> <td>Attach Detach More</td> </tr> <tr> <td></td> <td>0112-TEST-APP03-volume-...</td> <td>In-use</td> <td>No</td> <td>80</td> <td>SAS</td> <td>System disk</td> <td>Jan 25, 2021 13:32:46</td> <td>Never</td> <td>NDC</td> <td>0112-TEST-APP03 ECS</td> <td>Attach Detach More</td> </tr> </tbody> </table>												Name	Status	Shar...	Capacit...	Disk Type	Disk properties	Created	Expires	AZ	Attaching Inform...	Operation		0112-TEST-Disk2-volume-2	In-use	No	20	SAS	Data disk	Jan 25, 2021 14:12:18	Never	NDC	0112-TEST-APP03 ECS	Attach Detach More		0112-TEST-APP03-volume-...	In-use	No	80	SAS	System disk	Jan 25, 2021 13:32:46	Never	NDC	0112-TEST-APP03 ECS	Attach Detach More	
	Name	Status	Shar...	Capacit...	Disk Type	Disk properties	Created	Expires	AZ	Attaching Inform...	Operation																																				
	0112-TEST-Disk2-volume-2	In-use	No	20	SAS	Data disk	Jan 25, 2021 14:12:18	Never	NDC	0112-TEST-APP03 ECS	Attach Detach More																																				
	0112-TEST-APP03-volume-...	In-use	No	80	SAS	System disk	Jan 25, 2021 13:32:46	Never	NDC	0112-TEST-APP03 ECS	Attach Detach More																																				

Then login to OS by using mstsc or Remote Login Management > go to [Disk Management](#)

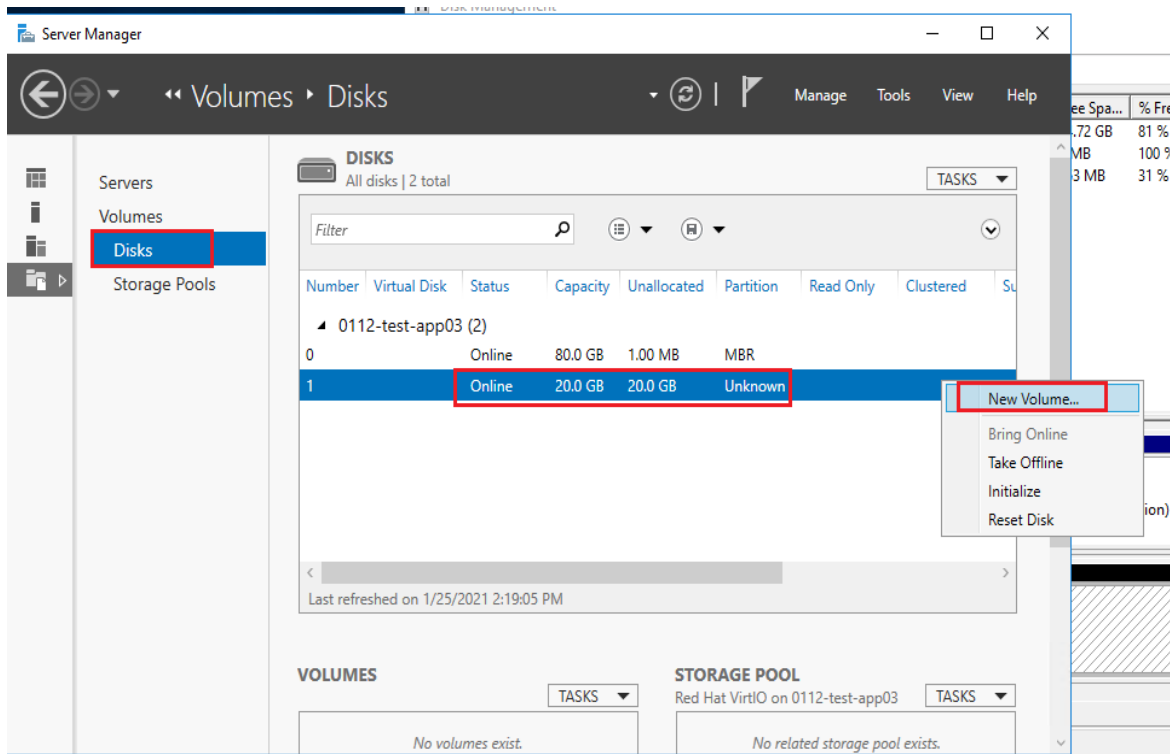
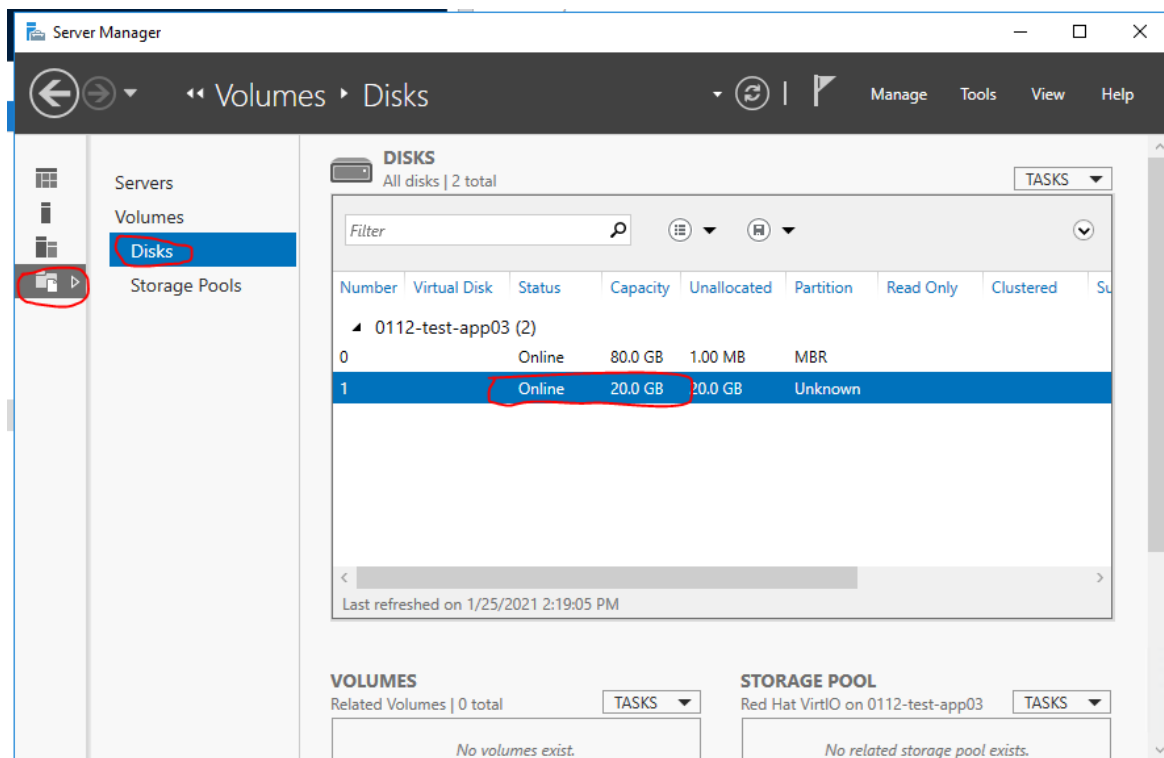
Then from [Disk Management](#) go to [Disk 1](#) and make it [Online](#) by click right button option in [Disk 1](#)

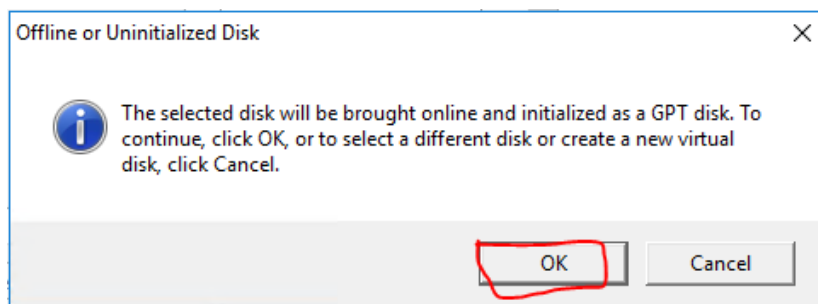
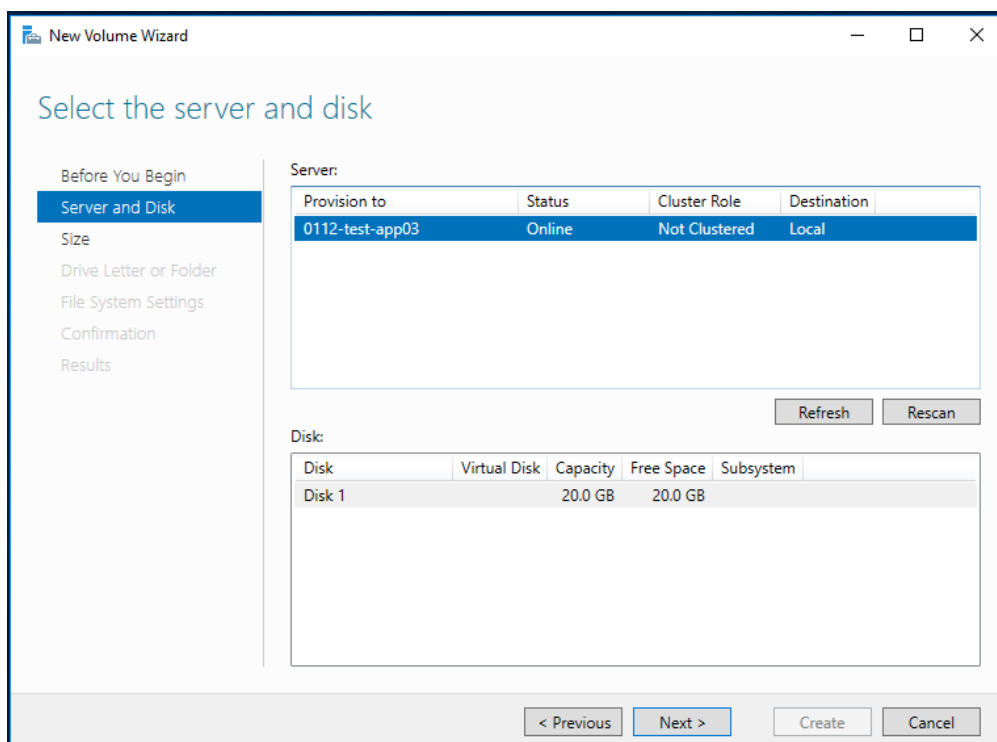
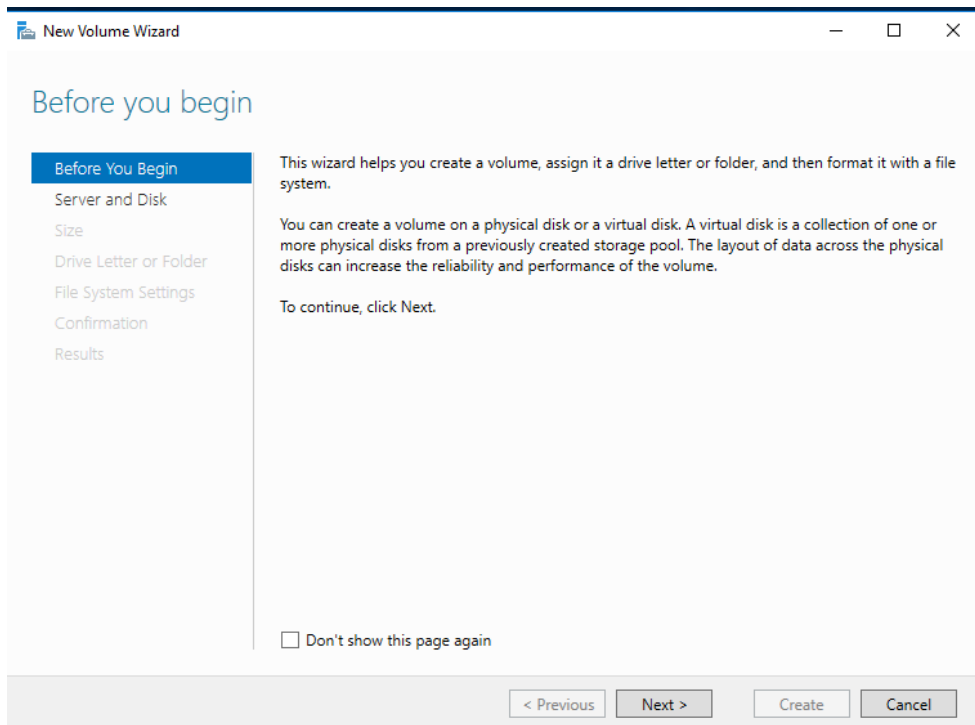


It'll show as Unallocated space like below :

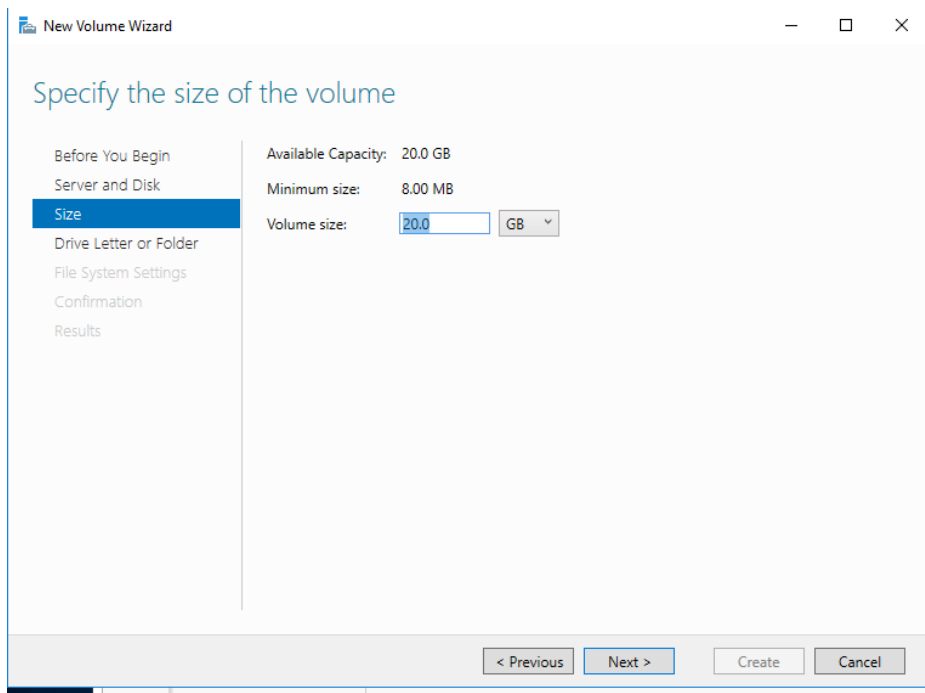


From [Server Manager](#) > [Disks](#) > [Disk 1](#) > [New Volume](#) > [Next](#) > [Rescan](#) > [Next](#) > [OK](#)





Assign new Disk Size 20GB (example case)



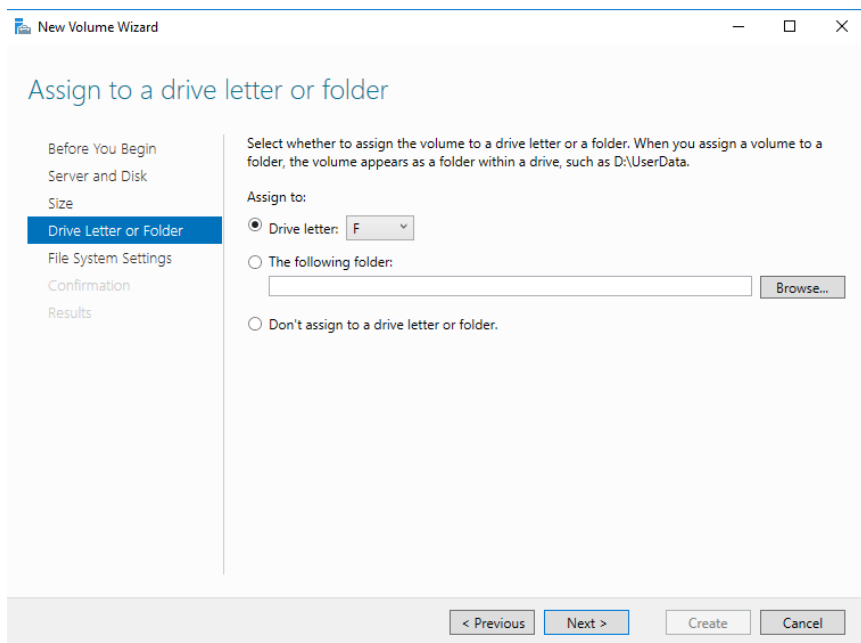
New Volume Wizard

Specify the size of the volume

Before You Begin
Server and Disk
Size
Drive Letter or Folder
File System Settings
Confirmation
Results

Available Capacity: 20.0 GB
Minimum size: 8.00 MB
Volume size: GB

< Previous Next > Create Cancel



New Volume Wizard

Assign to a drive letter or folder

Before You Begin
Server and Disk
Size
Drive Letter or Folder
File System Settings
Confirmation
Results

Select whether to assign the volume to a drive letter or a folder. When you assign a volume to a folder, the volume appears as a folder within a drive, such as D:\UserData.

Assign to:

☒ Drive letter:

☐ The following folder:

☐ Don't assign to a drive letter or folder.

< Previous Next > Create Cancel

New Volume Wizard

Select file system settings

Before You Begin

Server and Disk

Size

Drive Letter or Folder

File System Settings

Confirmation

Results

File system: NTFS

Allocation unit size: Default

Volume label: New Volume

☐ Generate short file names (not recommended)

Short file names (8 characters with 3-character extensions) are required for some 16-bit applications running on client computers, but make file operations slower.

< Previous

Next >

Create

Cancel

New Volume Wizard

Confirm selections

Before You Begin

Server and Disk

Size

Drive Letter or Folder

File System Settings

Confirmation

Results

Confirm that the following are the correct settings, and then click Create.

VOLUME LOCATION

Server: 0112-test-app03

Disk: Disk 1

Free space: 20.0 GB

VOLUME PROPERTIES

Volume size: 20.0 GB

Drive letter or folder: F:\

Volume label: New Volume

FILE SYSTEM SETTINGS

File system: NTFS

Short file name creation: Disabled

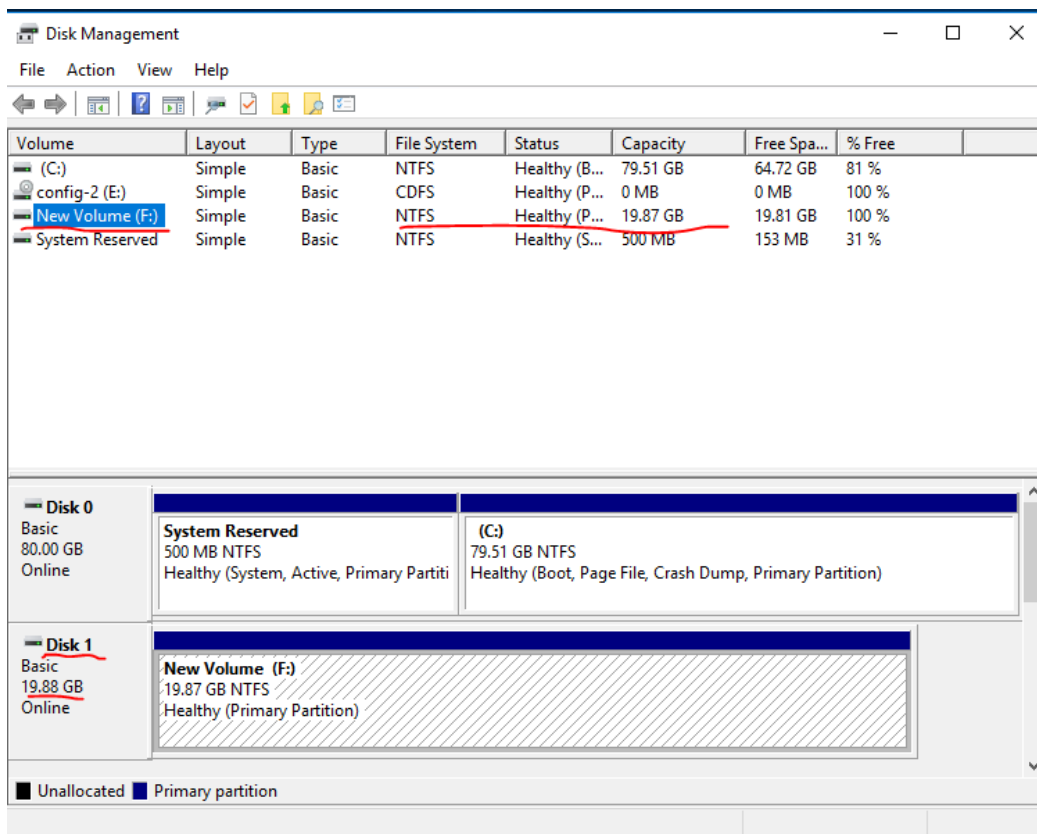
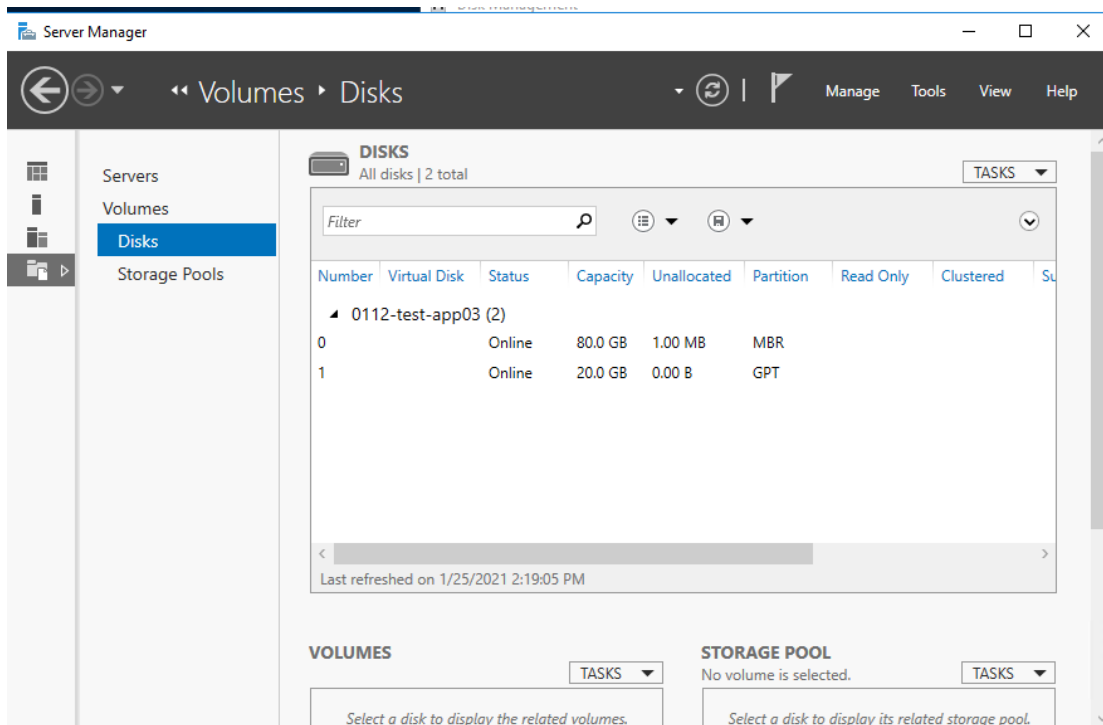
Allocation unit size: Default

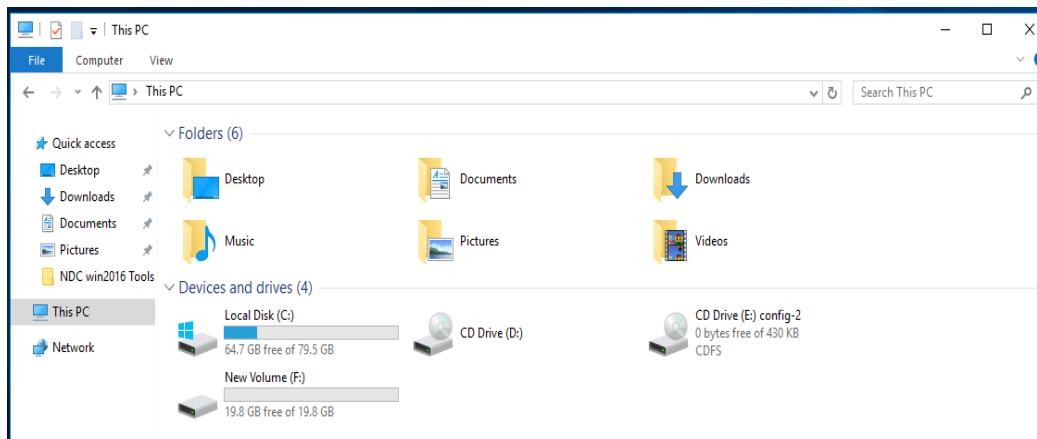
< Previous

Next >

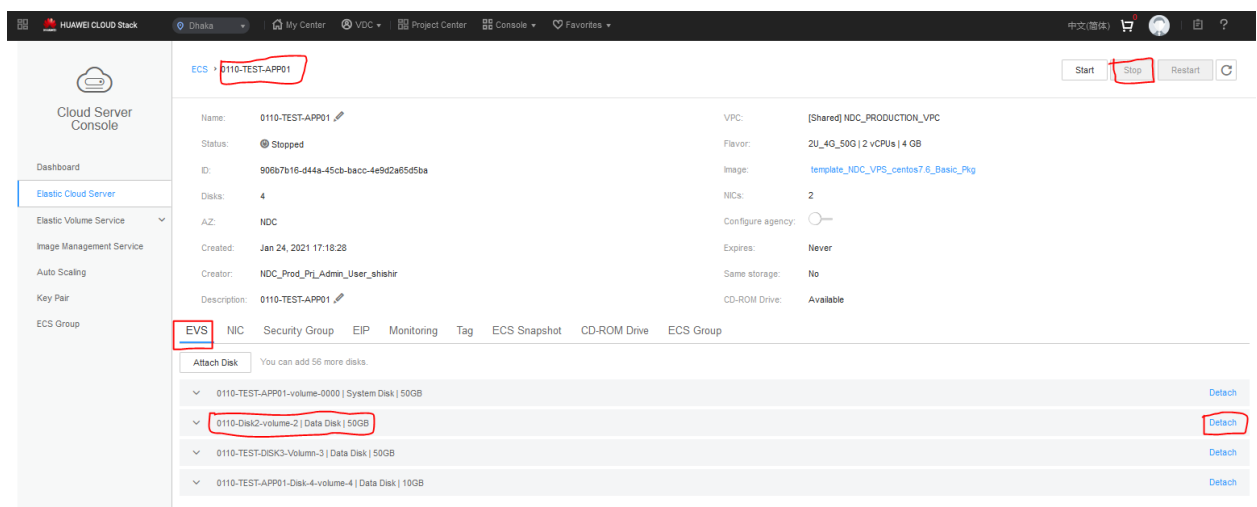
Create

Cancel





If you want to detach or remove any disk you need to unmount the Mount point from OS then stop the OS then can detach the disk like below screenshot:



Detach disk from ECS



Are you sure you want to detach this disk?

Name	Capacity (GB)	Type	Created	Status
0110-Disk2-vol...	50	SAS	Jan 24, 2021 1...	In-use

OK

Cancel

You can check the task from below method :

HUAWEI CLOUD Stack | Dhaka | My Center | VDC | Project Center | Console | Favorites

Cloud Server Console

Dashboard

Elastic Cloud Server

Elastic Volume Service

Snapshot

Image Management Service

Auto Scaling

Key Pair

Elastic Volume Service

+ Apply for EVS Disk

You can create 617 more disks totaling 4,629 GB storage.

Extend Delete

All statuses Name Fuzzy search

Name	Status	Shar...	Capacit...	Disk Type	Disk properties	Created	Expires	AZ	Attaching Inform...	Operation
0111-TEST-APP03-volume...	In-use	No	50	SAS	System disk	Jan 25, 2021 12:58:52	Never	NDC	0111-TEST-APP03 ECS	Attach Detach More
0110-TEST-APP01-Disk-4-v...	In-use	No	10	SAS	Data disk	Jan 25, 2021 11:20:07	Never	NDC	0110-TEST-APP01 ECS	Attach Detach More
0110-TEST-DISK3-Volum-3	In-use	No	50	SAS	Data disk	Jan 25, 2021 11:00:29	Never	NDC	0110-TEST-APP01 ECS	Attach Detach More
0110-Disk2-volume-2	Detaching	No	50	SAS	Data disk	Jan 24, 2021 17:25:41	Never	NDC	0110-TEST-APP01 ECS	Attach Detach More

After detachment when the disk is Available or free then you can delete it click below method :

HUAWEI CLOUD Stack | Dhaka | My Center | VDC | Project Center | Console | Favorites

Cloud Server Console

Dashboard

Elastic Cloud Server

Elastic Volume Service

Snapshot

Image Management Service

Auto Scaling

Key Pair

ECS Group

Elastic Volume Service

+ Apply for EVS Disk

You can create 617 more disks totaling 4,629 GB storage.

Extend Delete

All statuses Name Fuzzy search

Name	Status	Shar...	Capacit...	Disk Type	Disk properties	Created	Expires	AZ	Attaching Inform...	Operation
0111-TEST-APP03-volume...	In-use	No	50	SAS	System disk	Jan 25, 2021 12:58:52	Never	NDC	0111-TEST-APP03 ECS	Attach Detach More
0110-TEST-APP01-Disk-4-v...	In-use	No	10	SAS	Data disk	Jan 25, 2021 11:20:07	Never	NDC	0110-TEST-APP01 ECS	Attach Detach More
0110-TEST-DISK3-Volum-3	In-use	No	50	SAS	Data disk	Jan 25, 2021 11:00:29	Never	NDC	0110-TEST-APP01 ECS	Attach Detach More
0110-Disk2-volume-2	Available	No	50	SAS	System disk	Jan 24, 2021 17:25:41	Never	NDC	--	Attach Detach More
0110-TEST-APP01-volume...	In-use	No	50	SAS	System disk	Jan 24, 2021 17:17:57	Never	NDC	0110-TEST-APP01 ECS	Attach Detach More

Expand Capacity
Apply for Disk
Delete
Apply for Snapshot
Extend
Change Disk Type