

How to Attach an EBS Volume with an AWS EC2 Windows Instance

Amazon EBS volumes provide a scalable storage service, which persists independently of the instance life. A user can attach an EBS volume to an EC2 instance. It is mandatory that both the volume as well as the instance be in the same availability zone. The user can assign a maximum of 16 EBS volumes to an instance.

A user has to specify the device name while attaching an EBS volume to an EC2 instance. When a volume is attached to a Windows instance, it is recommended to format the device and mount it as a drive.

1. Go to the AWS Console and select the EC2 Service. From the EC2 dashboard, Click on the 'Running Instances'.

The screenshot displays the AWS Management Console for the EC2 service. On the left sidebar, the 'INSTANCES' section is expanded, and 'Instances' is highlighted with a red box. The main content area is divided into three panels: 'Getting Started', 'Service Health', and 'My Resources'. The 'My Resources' panel shows a summary of EC2 resources in the region, with '1 Running Instance' highlighted in a red box. The 'Service Health' panel shows the status of the Amazon EC2 service and its availability zones.

EC2 Dashboard

- Events
- INSTANCES
 - Instances**
 - Spot Requests
 - Reserved Instances
- IMAGES
 - AMIs
 - Bundle Tasks
- ELASTIC BLOCK STORAGE
 - Volumes
 - Snapshots
- NETWORK & SECURITY
 - Security Groups
 - Elastic IPs
 - Placement Groups
 - Load Balancers
 - Key Pairs
 - Network Interfaces

Getting Started

To start using Amazon EC2 you will want to launch a virtual server, known as an Amazon EC2 instance.

[Launch Instance](#)

Note: Your instances will launch in the region.

Service Health

Service Status

Current Status	Details
✓ Amazon EC2 (US West - Oregon)	Service is operating normally

[View complete service health details](#)

Availability Zone Status

Current Status	Details
✓ us-west-2a	Availability zone is operating normally
✓ us-west-2b	Availability zone is operating normally
✓ us-west-2c	Availability zone is operating normally

My Resources

You are using the following Amazon EC2 resources in the region:

1 Running Instance	0 Elastic IPs
1 EBS Volume	2 EBS Snapshots
2 Key Pairs	0 Load Balancers
0 Placement Groups	1 Security Group

Events

✓ US West (Oregon): No events

Related Links

- Getting Started Guide
- Documentation
- All EC2 Resources
- Find software on AWS Marketplace
- Forums
- Feedback
- Report an Issue

2. Launch a Windows instance.

Launch Instance

Actions

Viewing:

Running Instances

All Instance Types

Search

1 to 1 of 1 Instances

<input checked="" type="checkbox"/>	Name	Instance	AMI ID	Root Device	Type	State	Status Checks	Alarm Status	Monitoring	Security Group
<input checked="" type="checkbox"/>	Windows Instance	i-caca71f8	ami-167af226	ebs	t1.micro	running	2/2 checks	none	basic	default

3. Go to Volumes and check the currently attached volume information. Create an additional volume in the same zone where the instance is running.

<input type="checkbox"/>	empty	vol-852eb2bc	8 GiB	standard	snap-921bb2b4	2013-01-25T12:59:45	us-west-2a	in-use	none	i-44de6576 (Te
<input checked="" type="checkbox"/>	empty	vol-bcb72885	20 GiB	standard	--	2013-01-25T18:11:12	us-west-2b	available	none	
<input type="checkbox"/>	empty	vol-fe23bfc7	30 GiB	standard	snap-94f7a8b2	2013-01-25T13:48:23	us-west-2b	in-use	none	i-caca71f8 (Wii

4. Select the volume to be attached. From the “Actions” menu, select “Attach Volume”.

Create Volume

Actions

Viewing:

All Volume

Delete Volume

Attach Volume

Detach Volume

Force Detach

Create Snapshot

Change Auto-Enable IO Setting

	Name	Vol	me Type	Snapshot	Created	Zone	State
<input type="checkbox"/>	empty		ard	snap-921bb2b4	2013-01-25T12:59:45	us-west-2a	in-use
<input checked="" type="checkbox"/>	empty		ard	--	2013-01-25T13:59:34	us-west-2b	available
<input type="checkbox"/>	empty		ard	snap-94f7a8b2	2013-01-25T13:48:23	us-west-2b	in-use

5. AWS will ask for the EC2 instance, where the EBS volume will be attached. The device name should also be provided.

Click on “Yes, Attach”.

Attach Volume

Cancel

Volume:

vol-bcb72885 in us-west-2b

Instances:

i-caca71f8 - Windows Instance (running) in us-west-2b

Device:

xvdf

Windows Devices: xvdf through xvdp

Cancel

Yes, Attach

6. The volume will be attached to the instance and the instance information will be displayed in the volume attachment information.

<input type="checkbox"/>	empty	vol-852eb2bc	8 GiB	standard	snap-921bb2b4	2013-01-25T12:59:45	us-west-2a		in-use	none	i-44de6576 (Test):/dev/sc
<input type="checkbox"/>	empty	vol-fe23bfc7	30 GiB	standard	snap-94f7a8b2	2013-01-25T13:48:23	us-west-2b		in-use	none	i-caca71f8 (Windows Inst
<input checked="" type="checkbox"/>	empty	vol-bcb72885	20 GiB	standard	--	2013-01-25T18:11:12	us-west-2b		in-use	none	i-caca71f8 (Windows Inst

7. When the user checks the instance information, as explained in step#2, the two devices will be displayed. The newly attached device is shown as xvdf.

<input checked="" type="checkbox"/>	Name	Instance	AMI ID	Root Device	Type	State	Status Checks	Alarm Status	Monitoring	Security t
<input checked="" type="checkbox"/>	Windows Instance	i-caca71f8	ami-167af226	ebs	t1.micro	running	Loading...	none	basic	default

RAM Disk ID:

-

Key Pair Name:

Monitoring:

basic

Elastic IP:

-

Root Device Type:

ebs

IAM Role:

-

EBS Optimized:

false

Block Devices:

sda1

xvdf

Platform:

windows

Kernel ID:

-

AMI Launch Index:

0

Root Device:

sda1

Tenancy:

default

Lifecycle:

normal

8. When the user clicks on the xvdf device, the device information will be displayed.

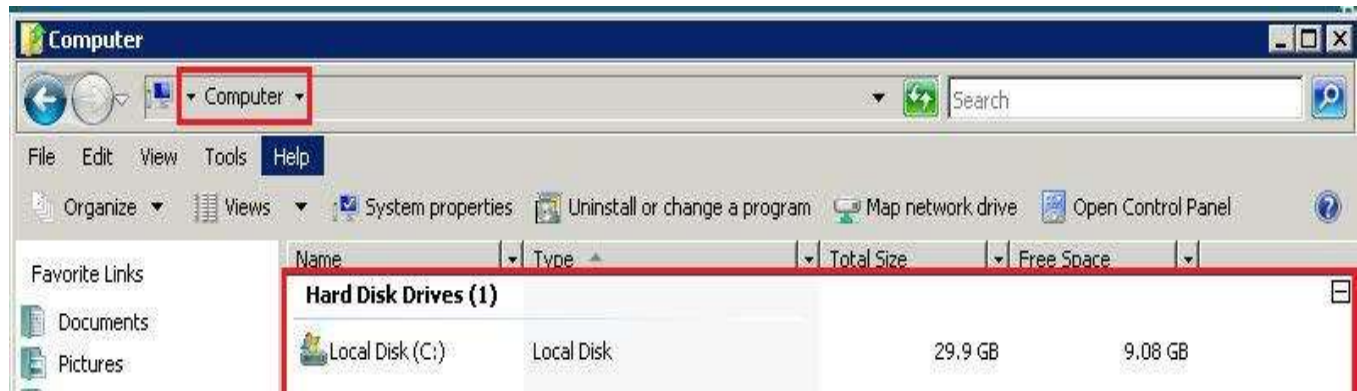


9. The user is required to format the attached device before using it.

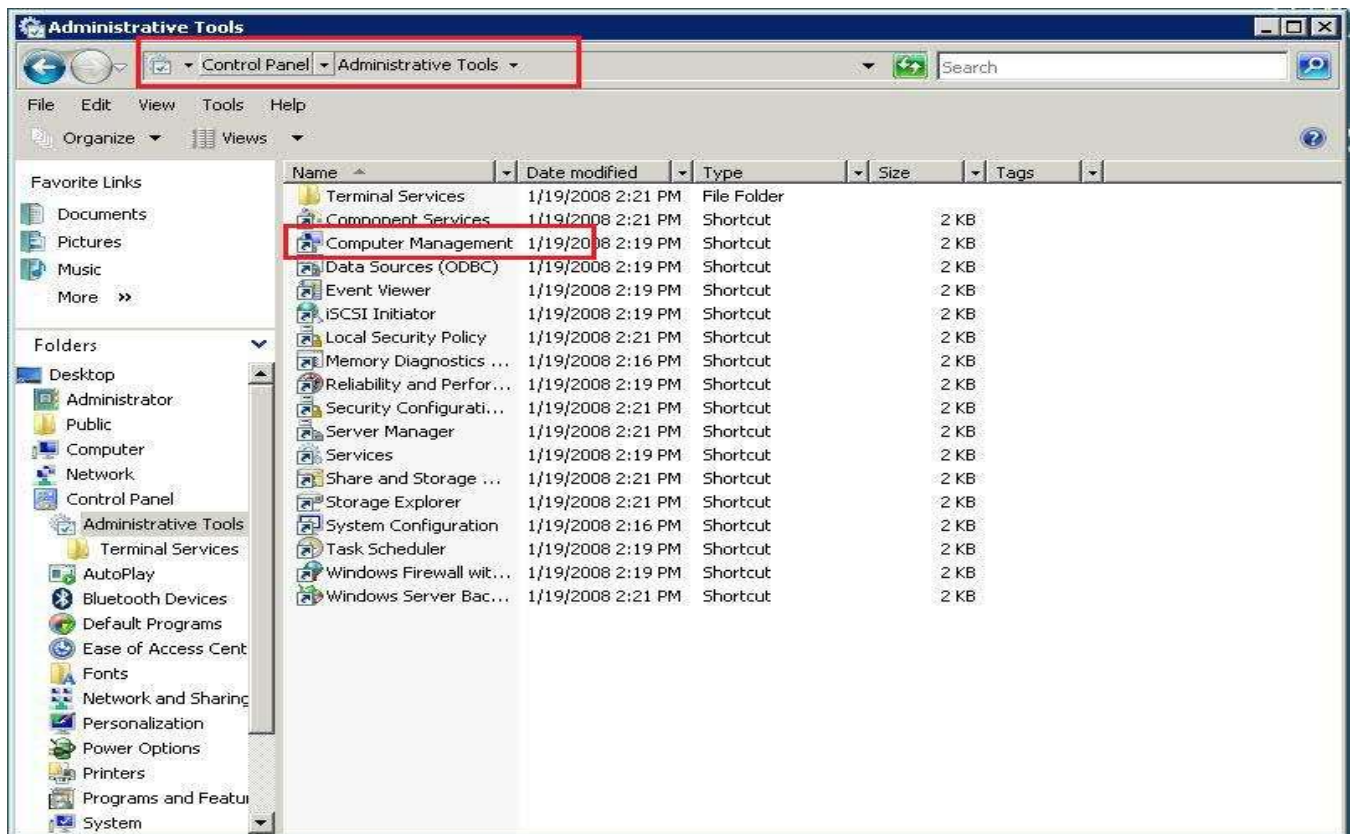
The Amazon Elastic Block Store (Amazon EBS) offers persistent storage for the Amazon EC2 instances. We saw that an EBS volume can be attached to AWS Windows instance for vertical scalability.

This demonstrates how to format an EBS volume attached to a Windows instance:

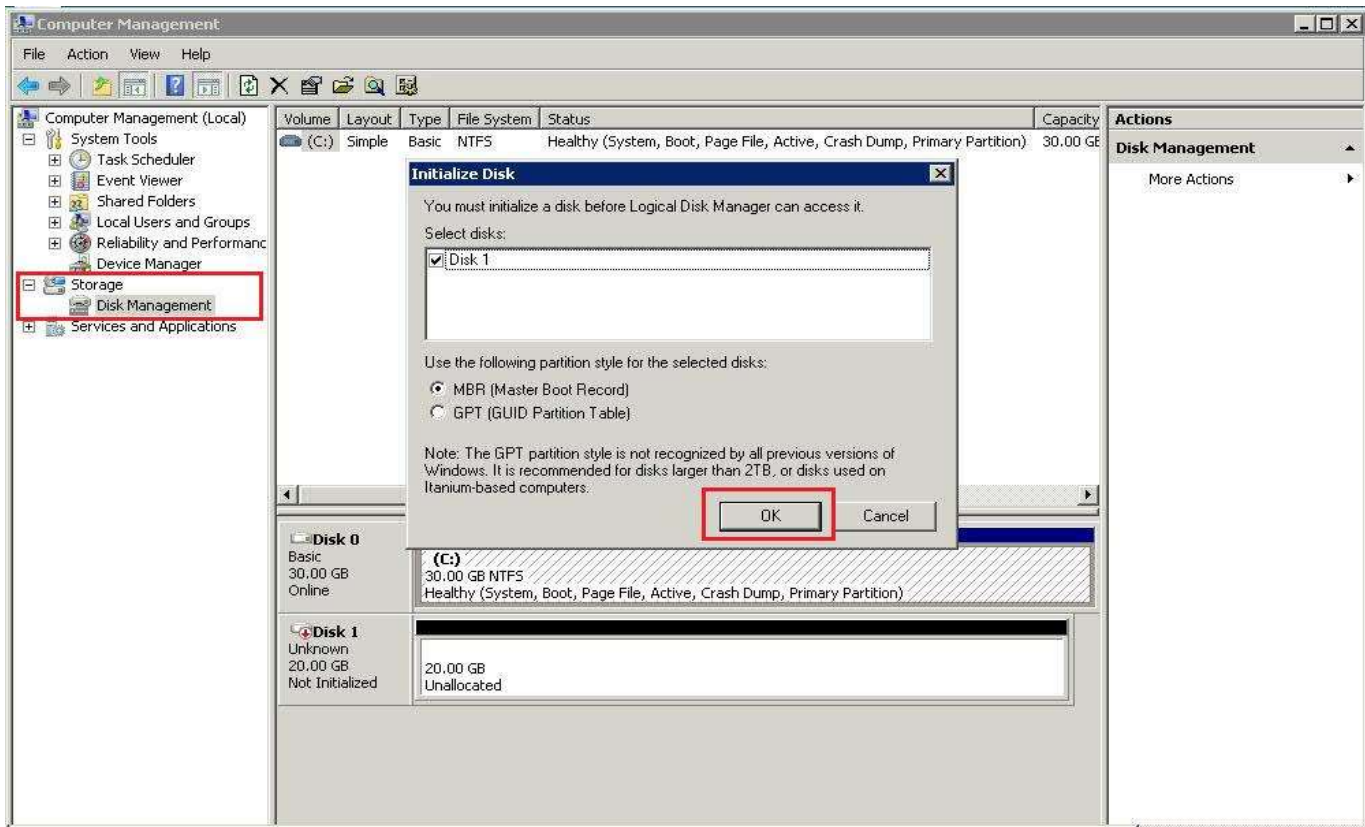
1. Create an EBS volume and attach it to Windows Instance.
2. Login to the Windows instance. Currently only one disk drive (C Drive) is available in the instance. The new device (volume), which is mounted, is still not available in the instance.



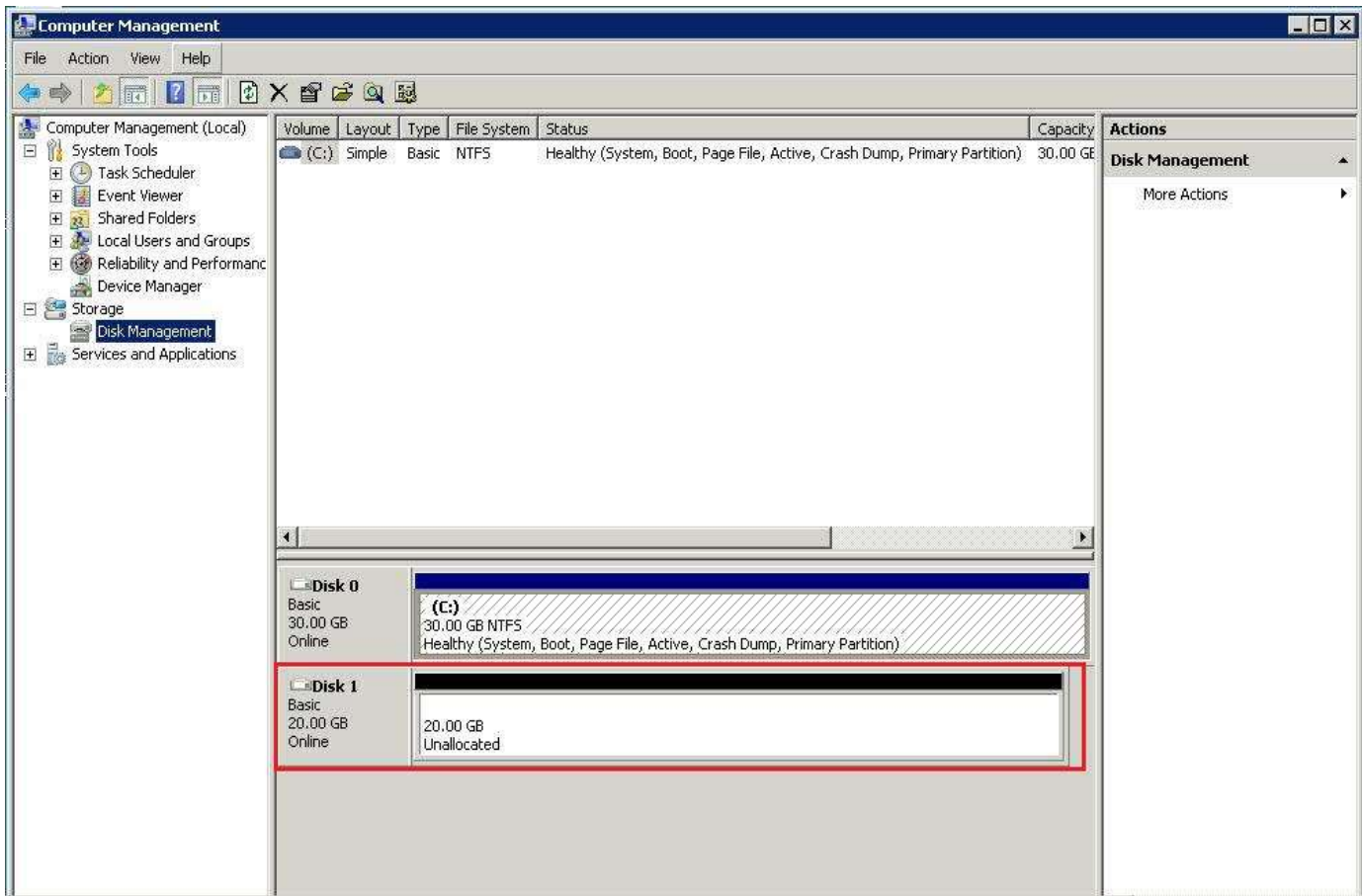
3. Go to the Control Panel -> Administrative Tools. Click on Computer Management.



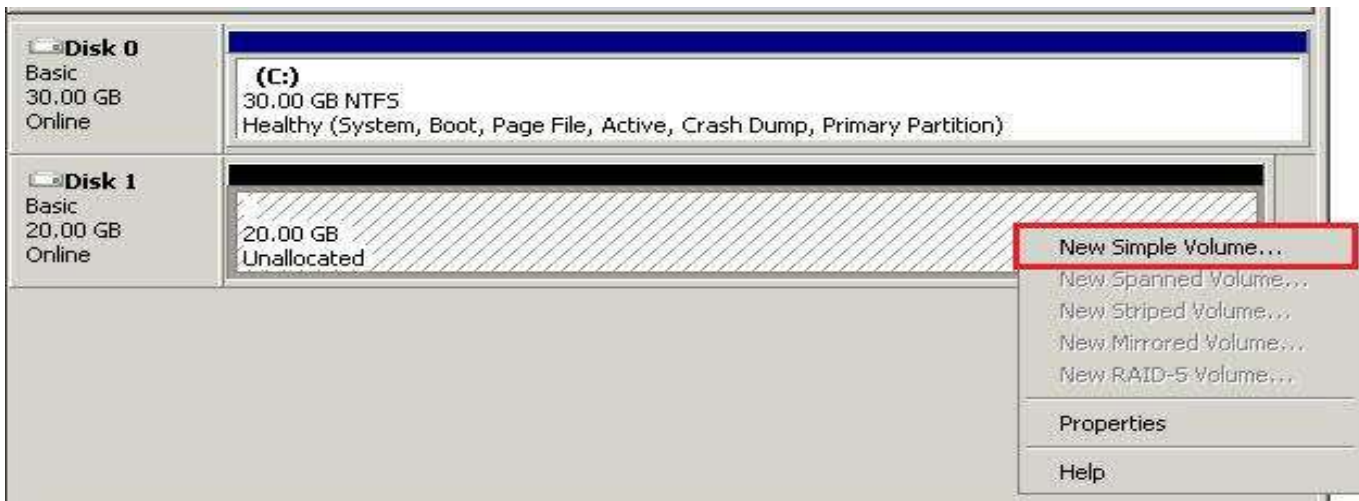
4. Click “Disk Storage”. If Windows asks to initialize the disk, click on the “OK” button.



5. The new attached volume will be displayed as “Disk1”. It is still unallocated.

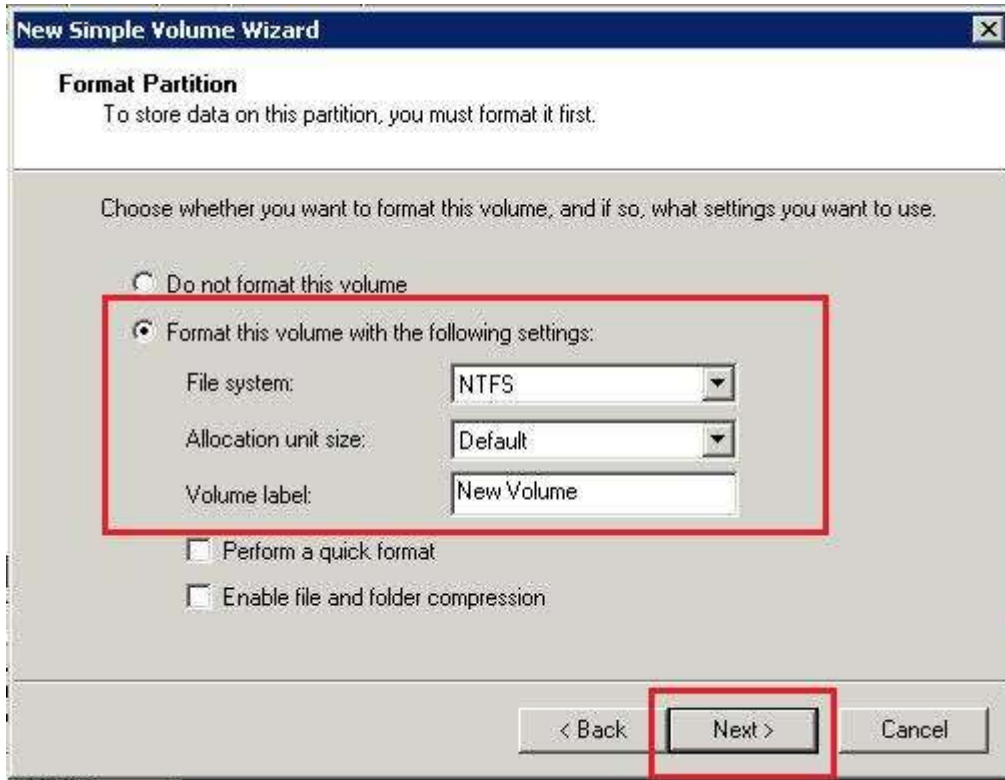
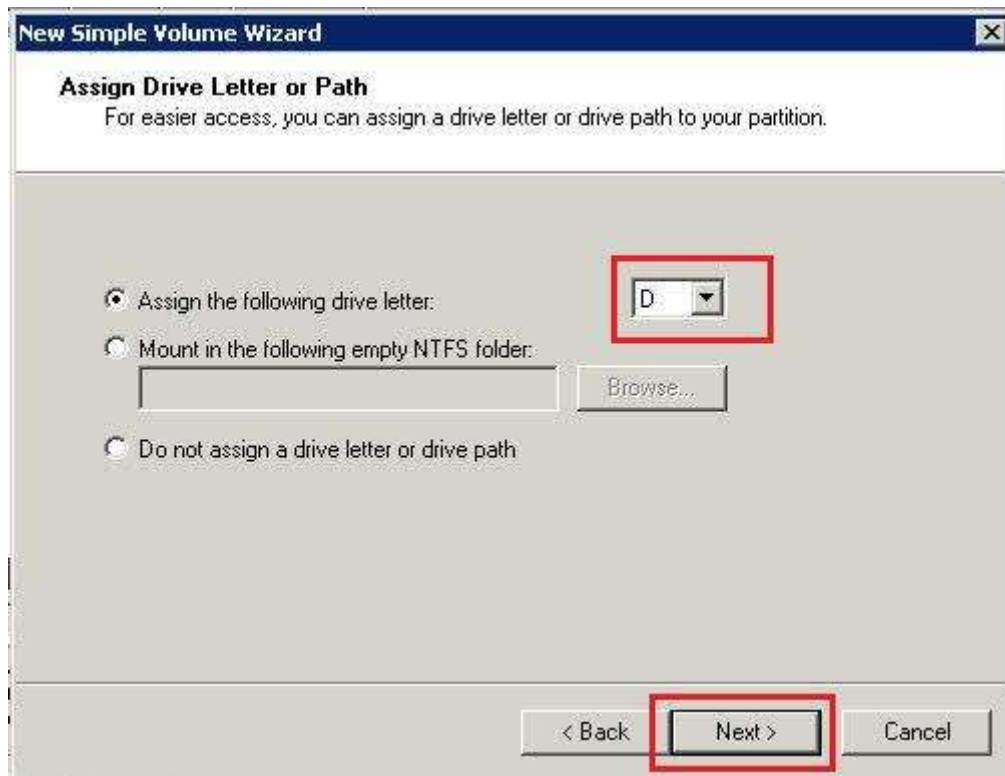


6. Right click on “Disk 1” and select “New Simple Volume”.

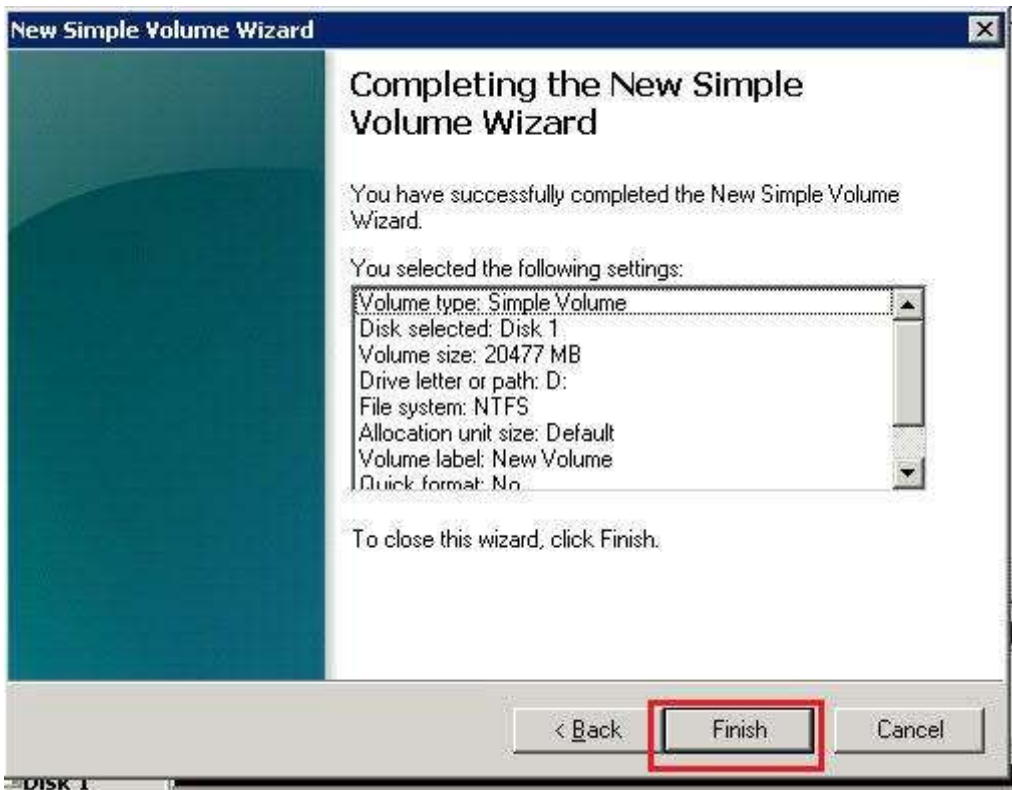


7. Windows will show the New Simple Volume Wizard. The user can select the default options or the options, such as the drive, and size as per requirement.

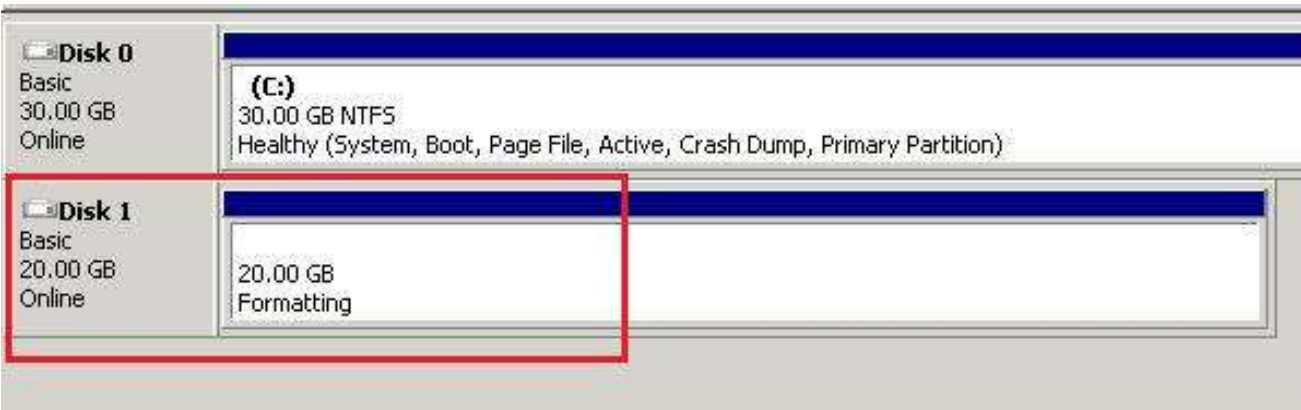




8. On completion of the above mentioned steps, the New Simple Volume Wizard will show the summary of all the steps for review. Click on the “Finish” button.



9. On completion of the above mentioned steps, the volume will be formatted.



10. The new volume will be available after formatting as “D Drive”.

Volume	Layout	Type	File System	Status	Capacity
(C:)	Simple	Basic	NTFS	Healthy (System, Boot, Page File, Active, Crash Dump, Primary Partition)	30.00 GB
(D:)	Simple	Basic	RAW	Healthy (Primary Partition)	20.00 GB

Disk 0 Basic 30.00 GB Online	(C:) 30.00 GB NTFS Healthy (System, Boot, Page File, Active, Crash Dump, Primary Partition)
Disk 1 Basic 20.00 GB Online	(D:) 20.00 GB RAW Healthy (Primary Partition)

11. The new device will now be available in the computer.

Hard Disk Drives (2)			
Local Disk (C:)	Local Disk	29.9 GB	9.08 GB
Local Disk (D:)	Local Disk	19.9 GB	19.9 GB