



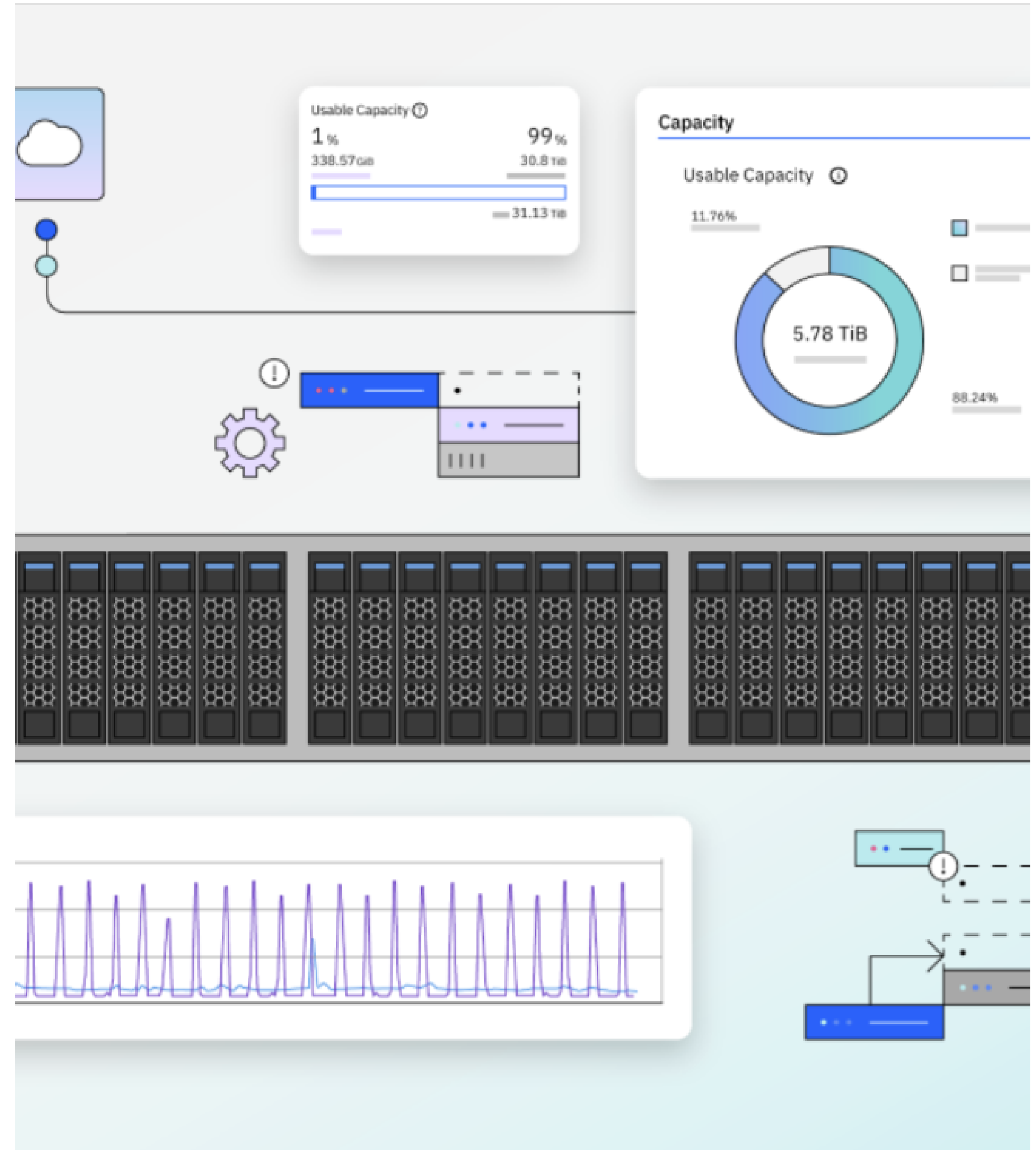
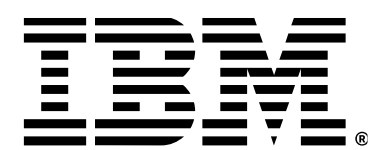
FlashSystem grid, Storage Partitions, Snapshots

IBM EMEA Storage T3, Bratislava, April 14th – 16th 2026

Thomas Vogel, Senior SME Storage Virtualize EMEA

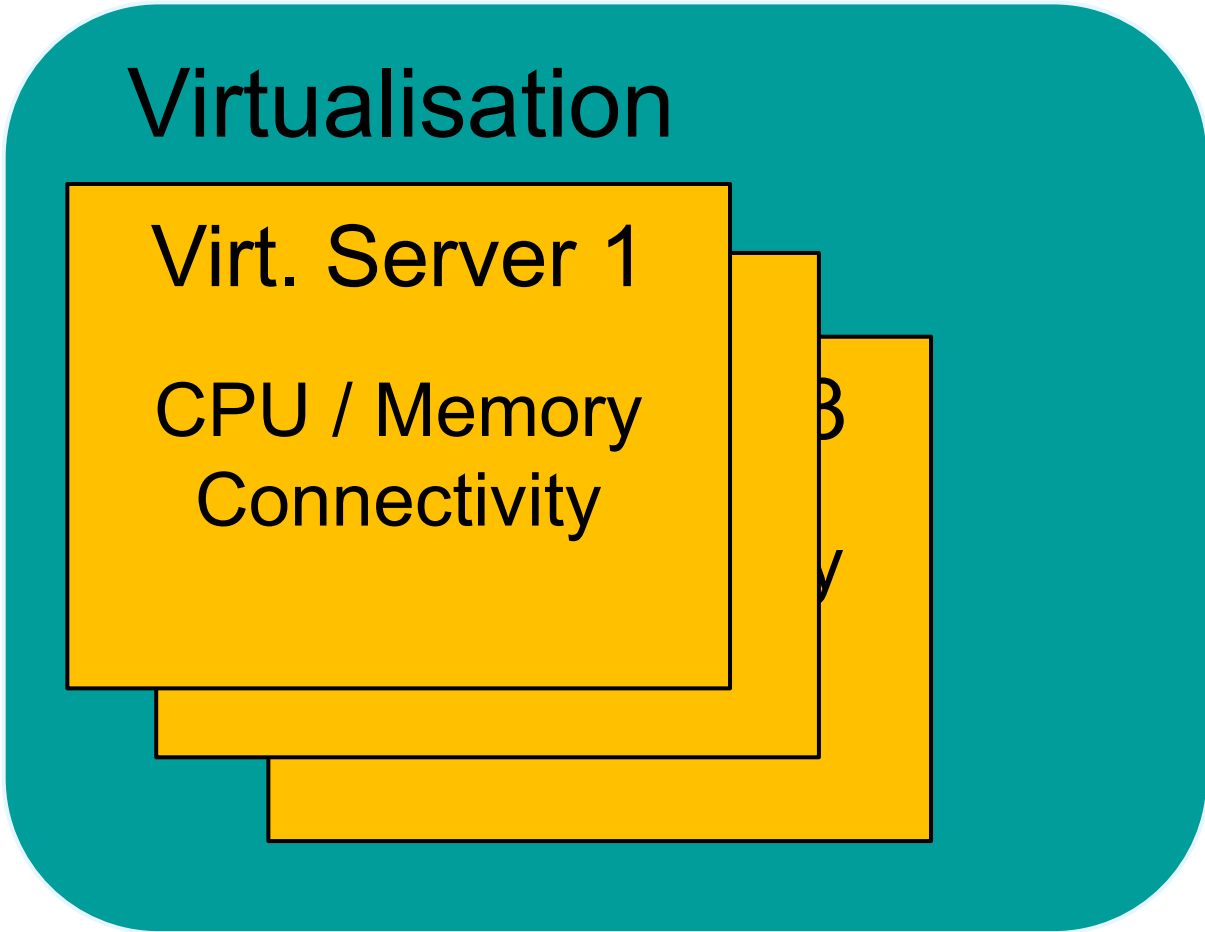
IBM FlashSystems

FlashSystem grid

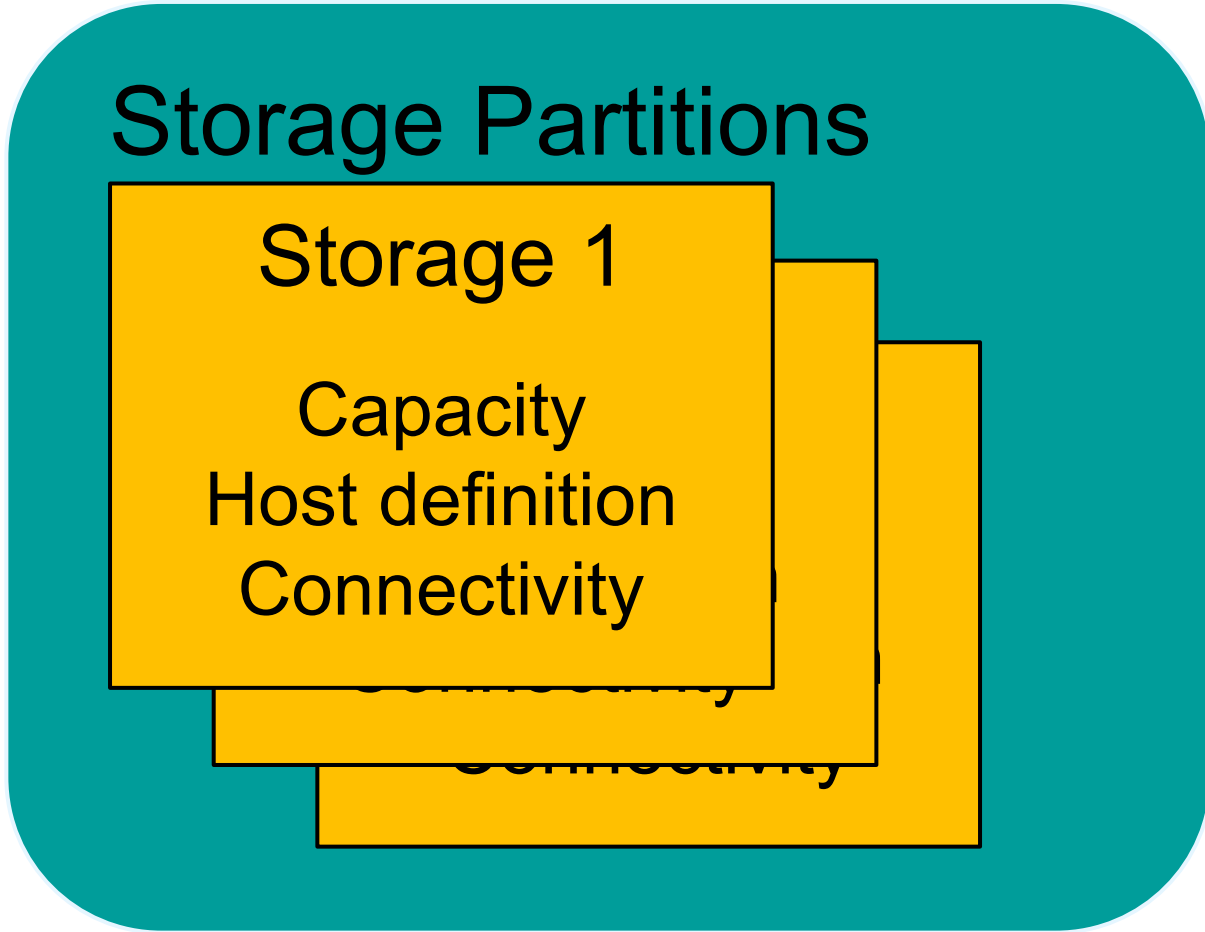


Storage Partition Concept

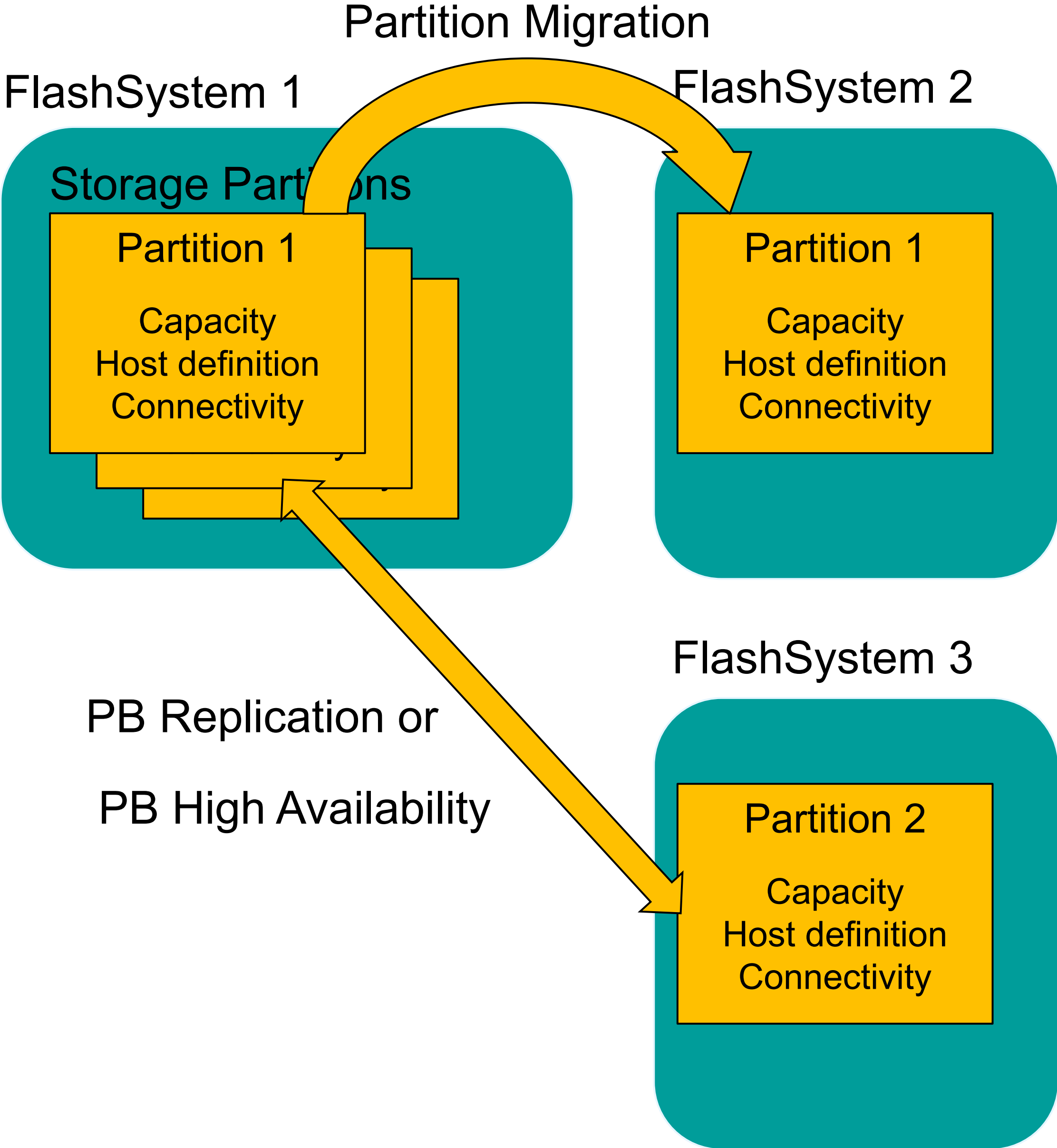
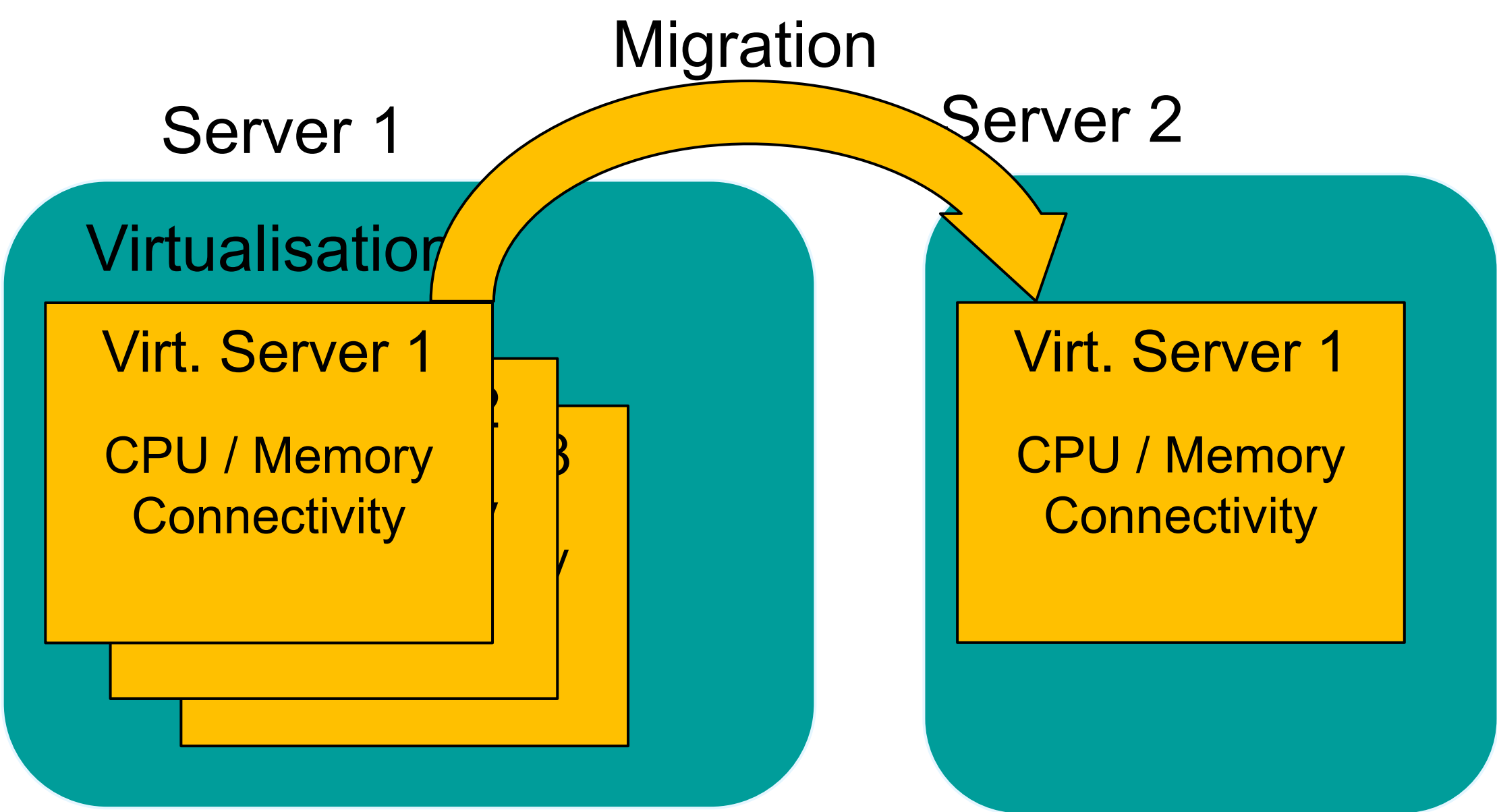
Physical Server 1



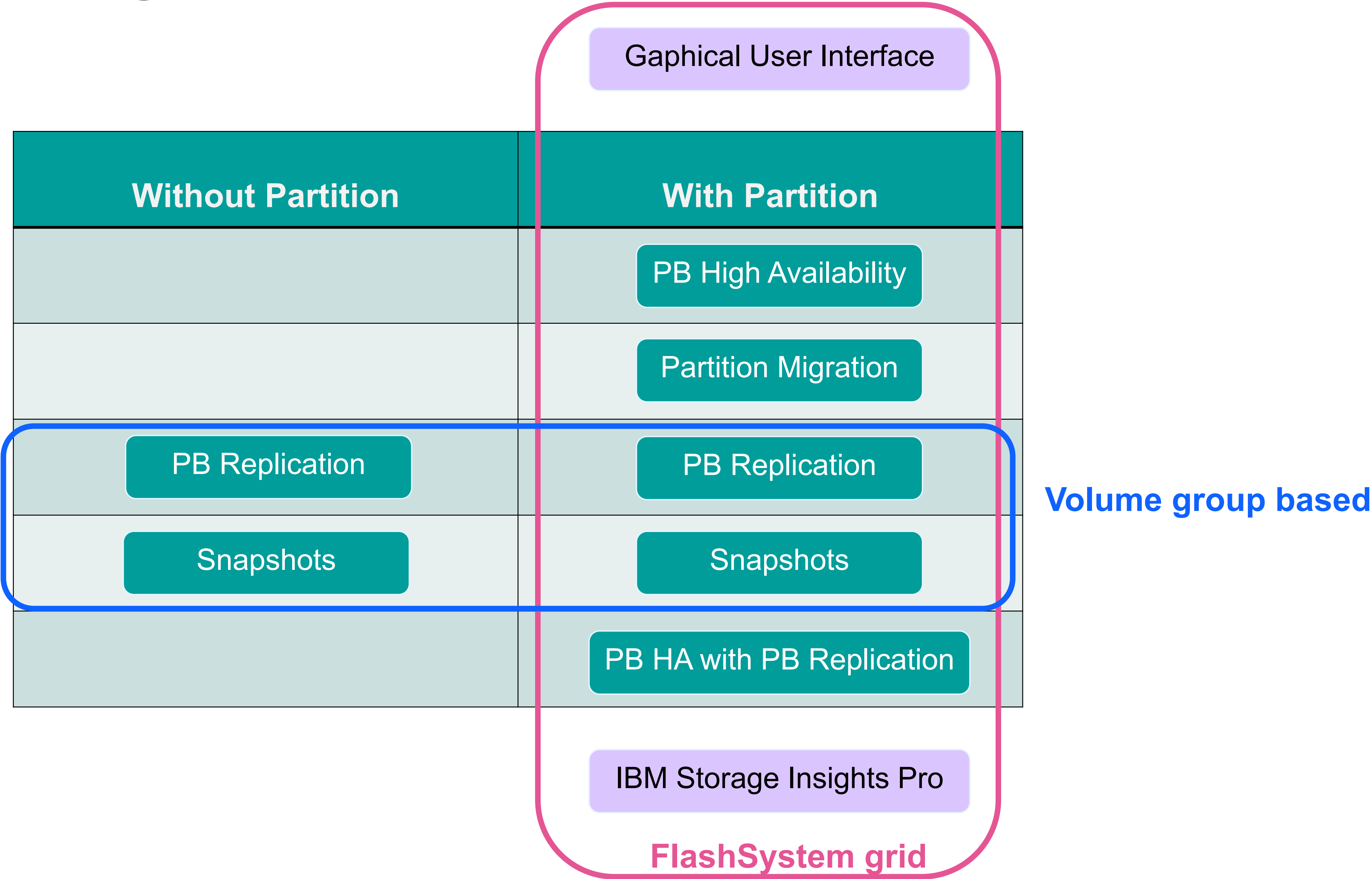
FlashSystem 1



Storage Partition Concept

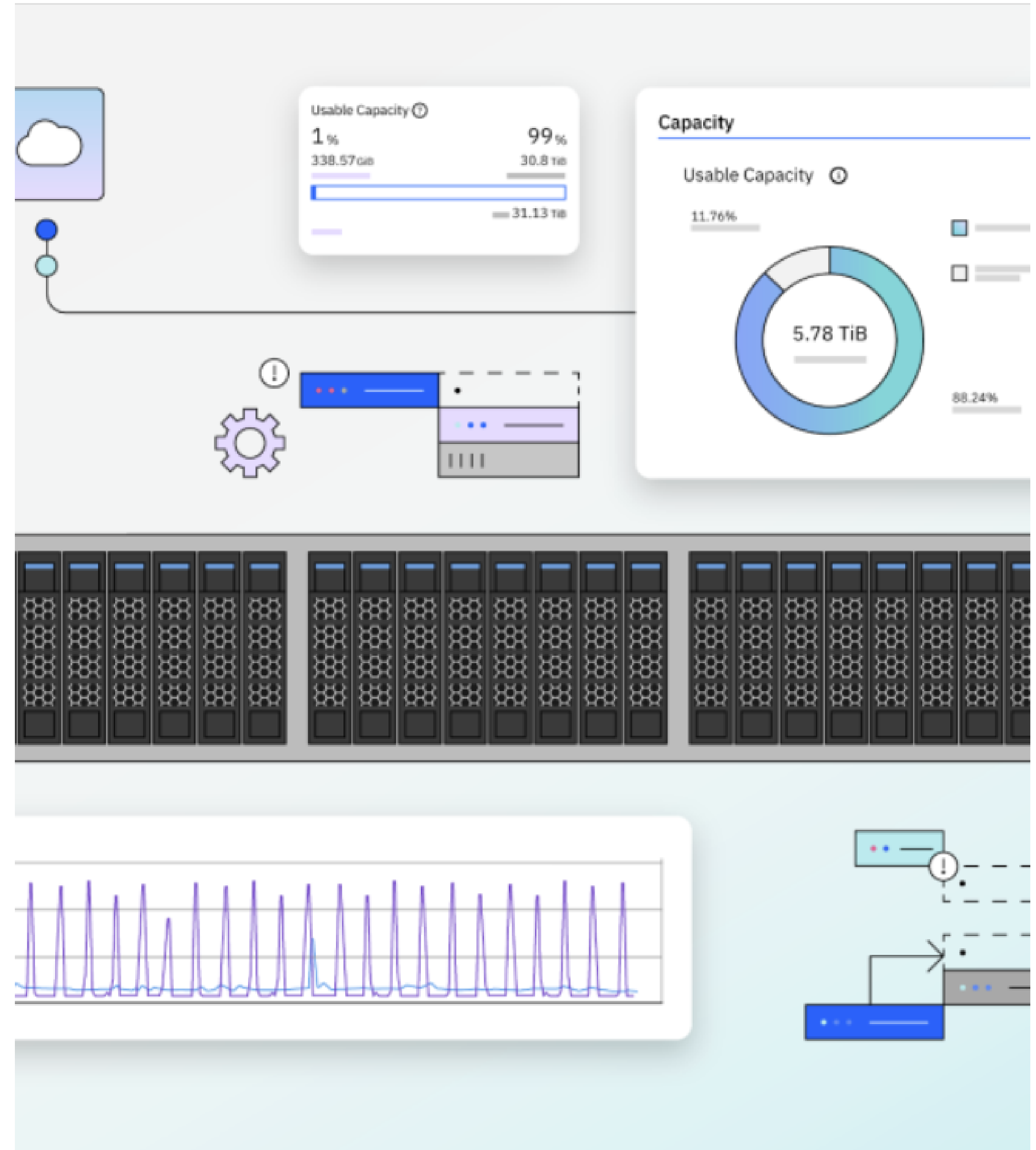


FlashSystem grid, Copy Functions, Partitions



IBM FlashSystems

Storage Partitions



Storage Partition

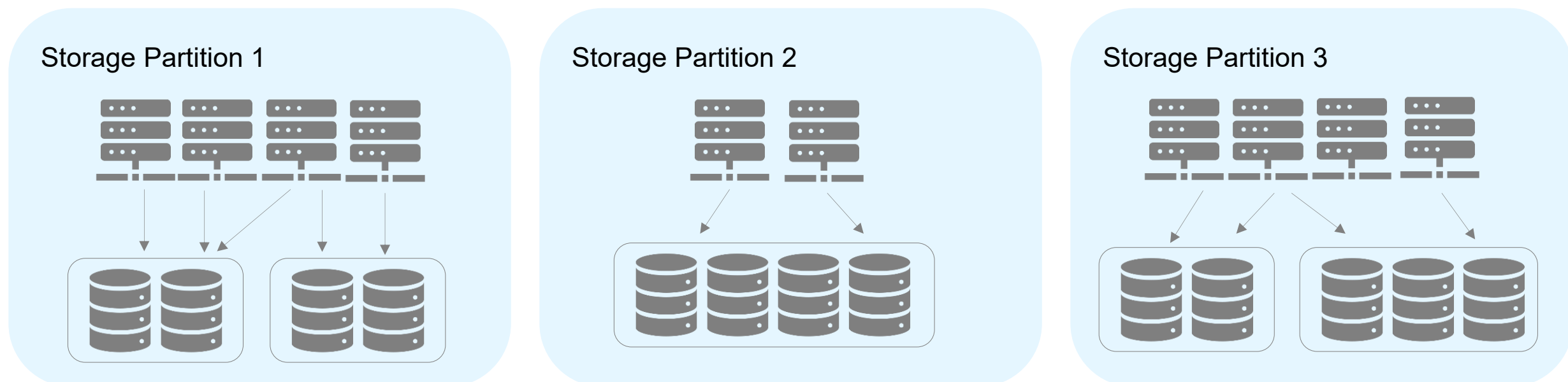
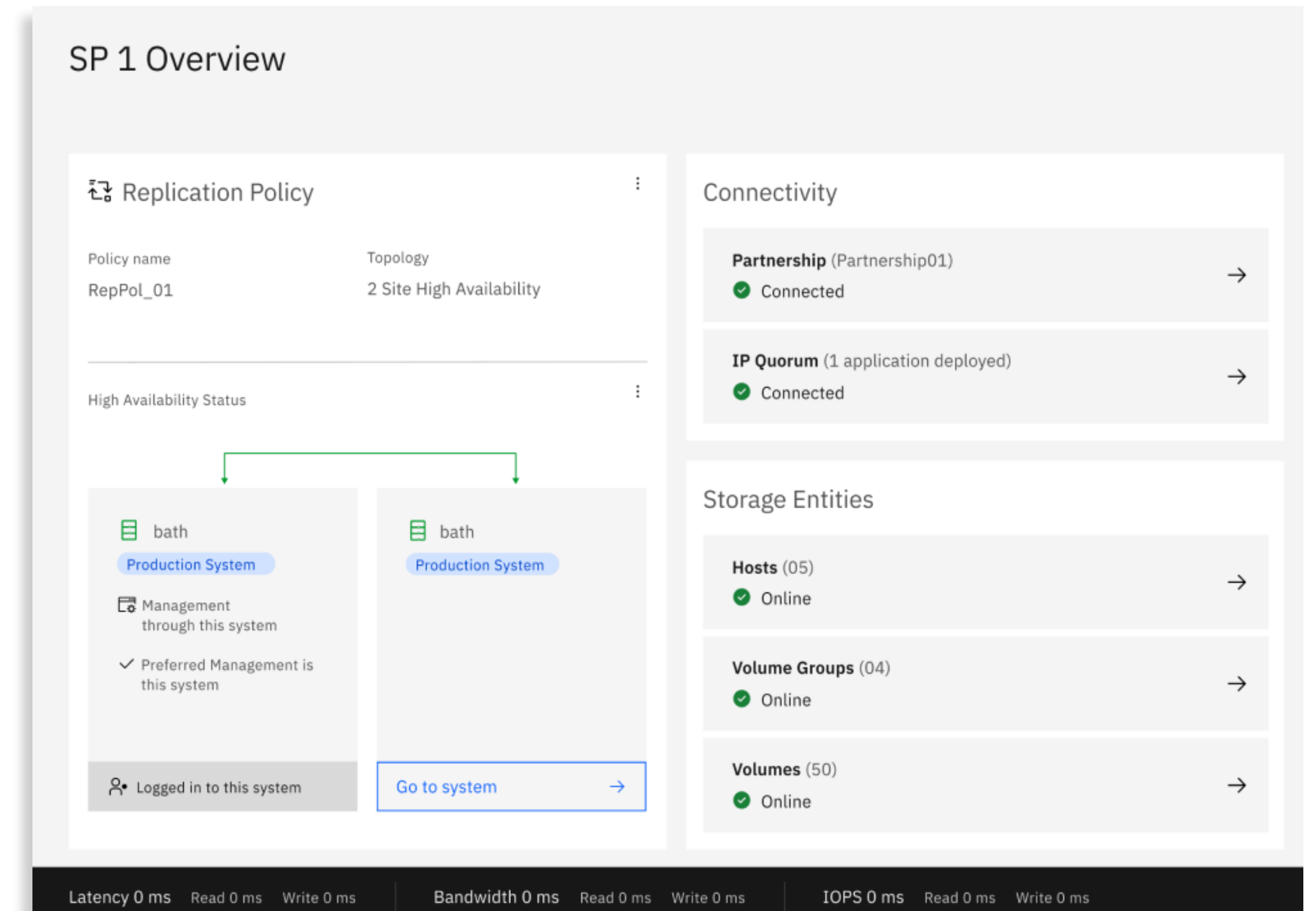
Storage partitions are management constructs that contain

- volume groups, volumes,
- host (ports) and mappings.

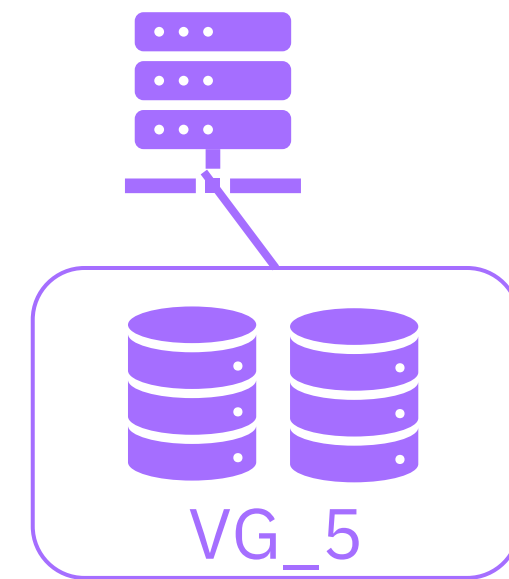
Volume groups, volumes, hosts and mappings can all be managed within individual storage partitions.

Storage partitions are used to

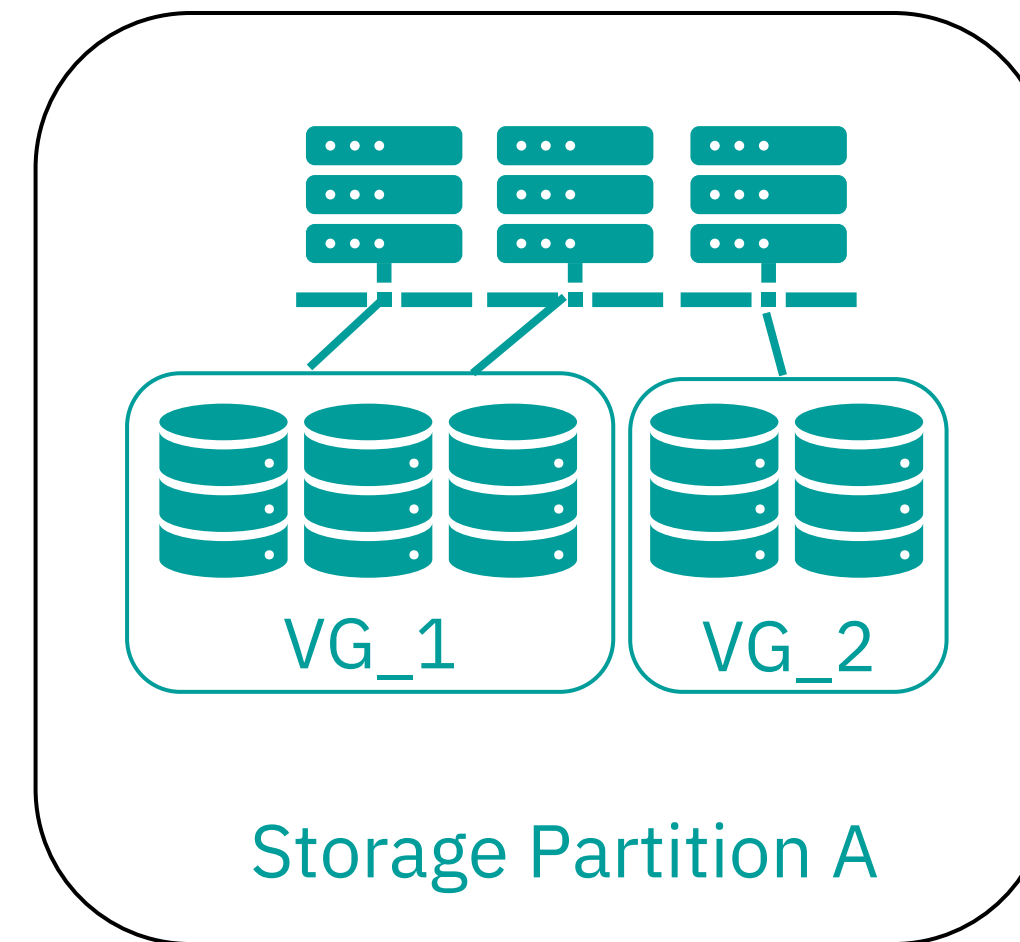
- Configure **Policy-Based High Availability**
- Manage **Partition Mobility**
- Configure **Policy-Based Replication** (optional)



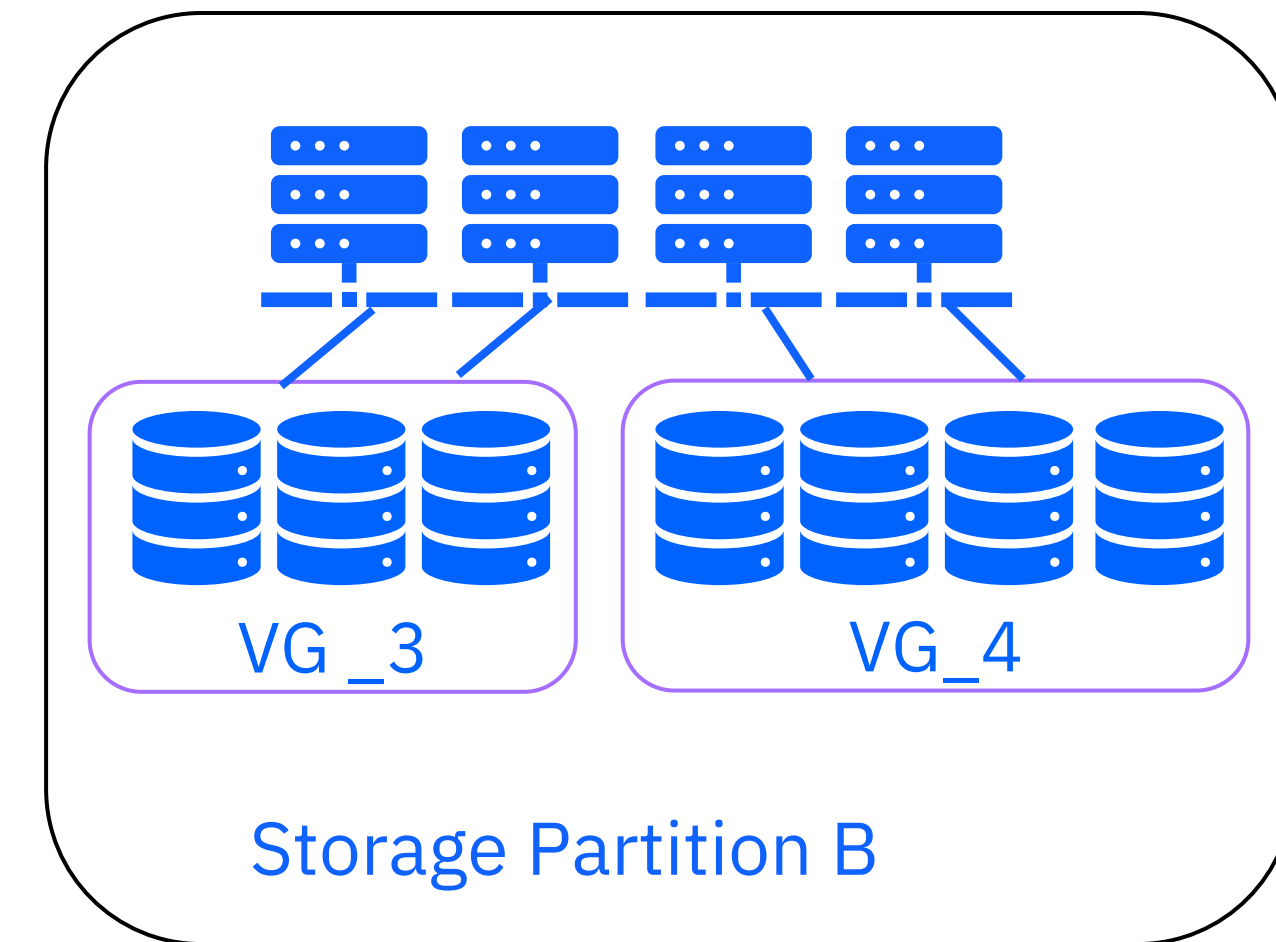
Storage Partitions



Without Partition



Storage Partition A

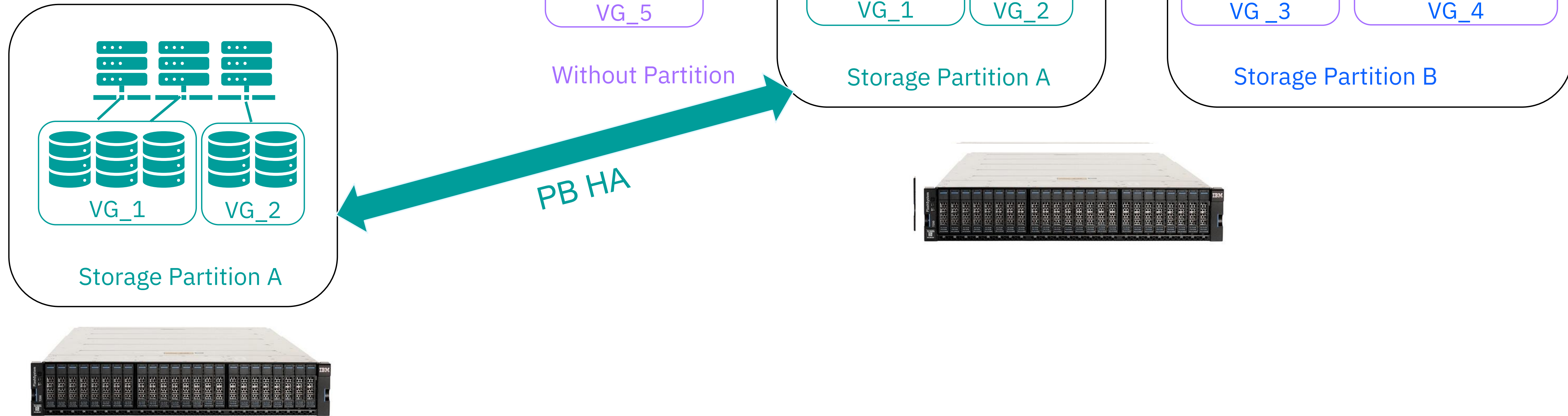


Storage Partition B



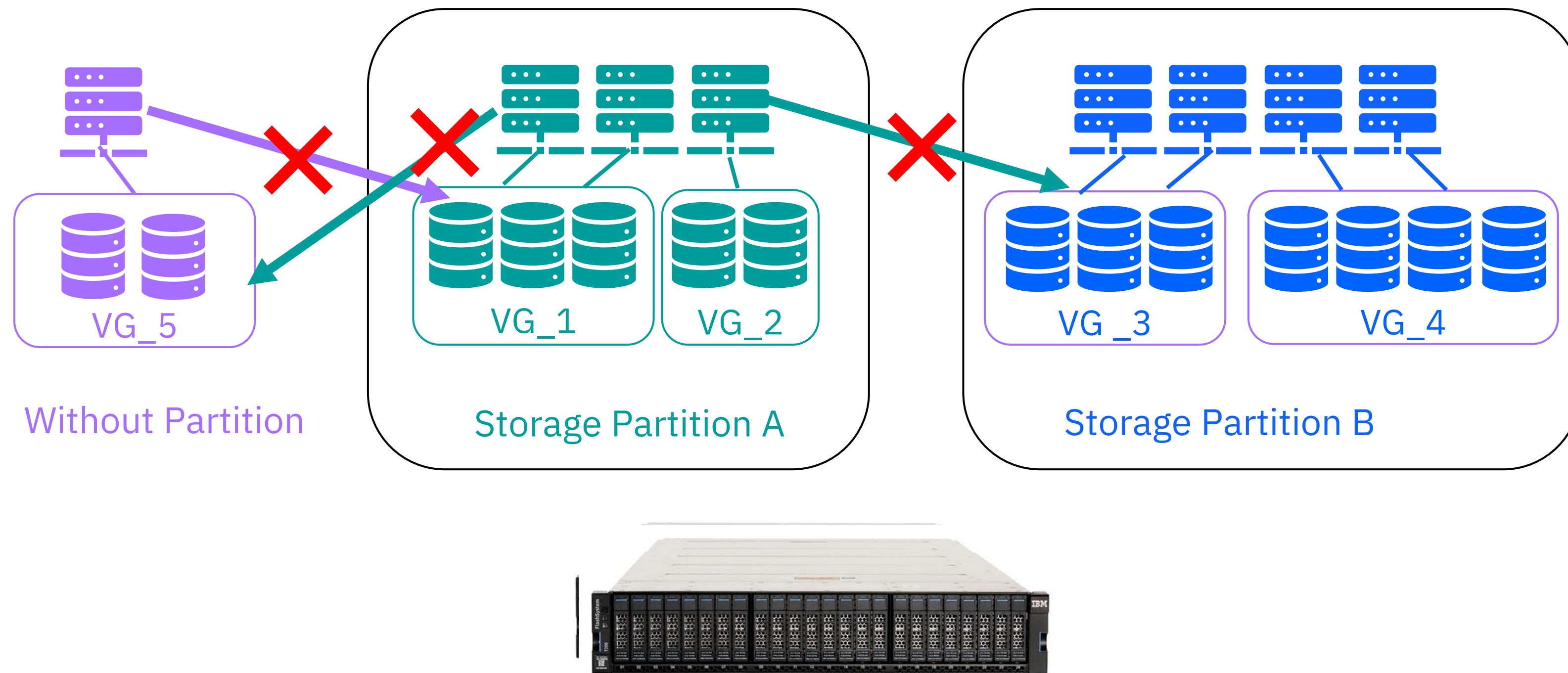
- Storage Partitions: partitions the system into disjoint sets of hosts, volume groups and volumes

Storage Partitions



- Partitions the system into disjoint sets of hosts, volume groups and volumes
- Storage partitions can be:
 - Configured to be highly available, automatically configuring on another storage system
 - Moved to another storage system

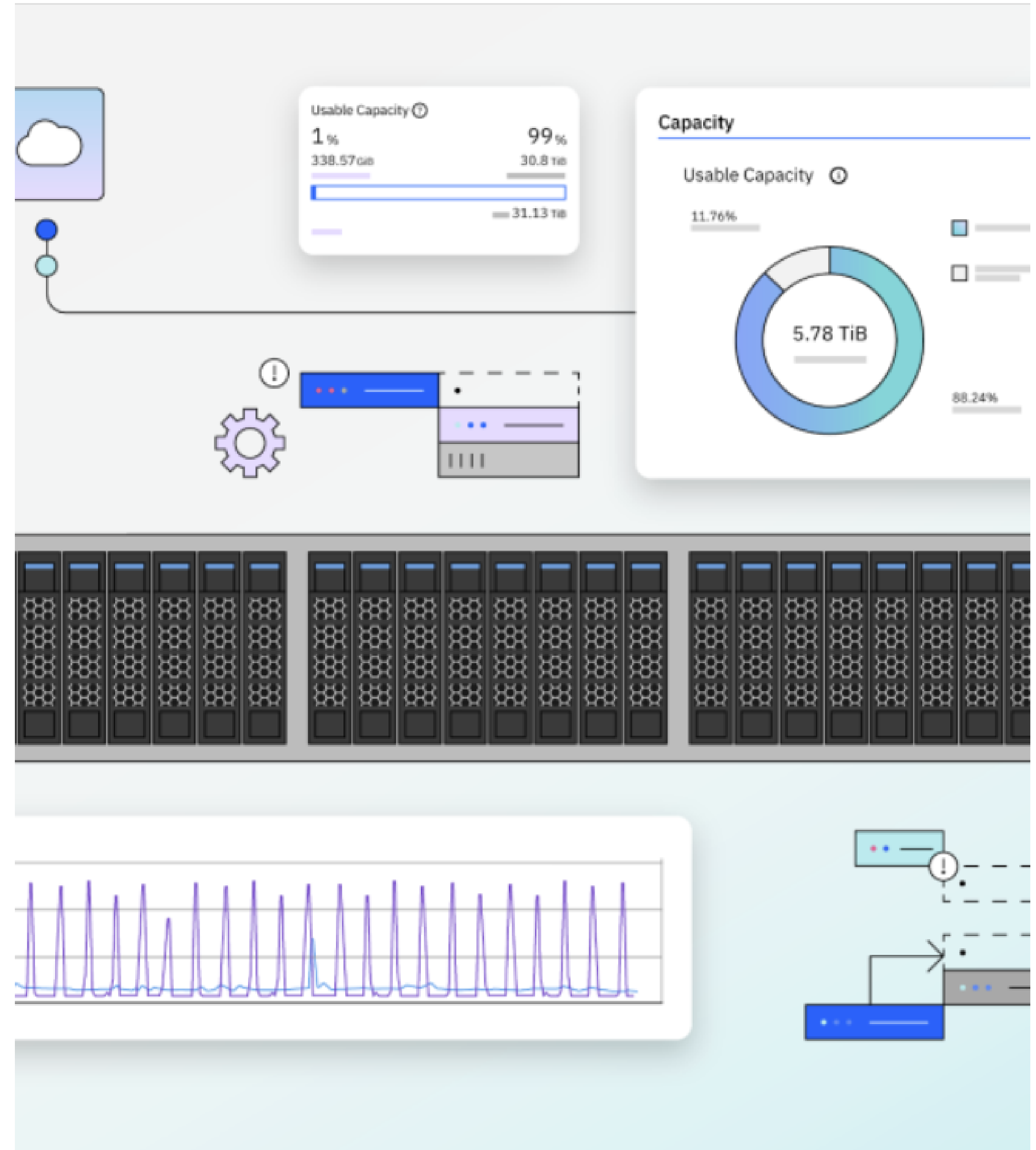
Storage Partitions – Volume access



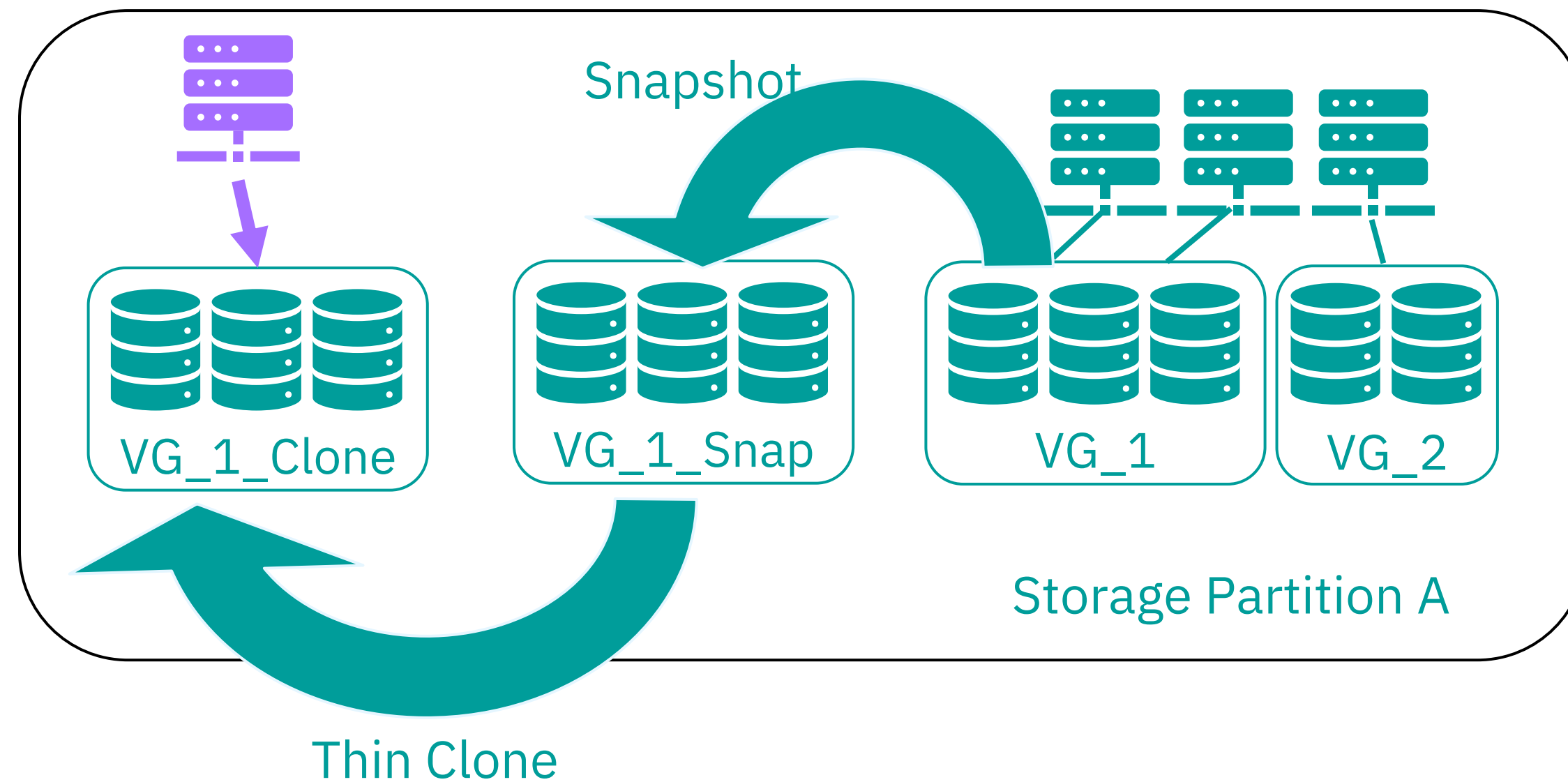
- Host can only access data within the same partition

IBM FlashSystems

Snapshots and Clones



Storage Partitions – Snapshots and Clones (1/4)



- Snapshots are created **within the same** partition
- Default: Snapshots are in the same pool as the Source VG, but can use child pool of the parent VG pool
- Clones are created in a new Volume group either
- Within the same partition, or

Create a thin clone

Creates a thin-clone copy of the selected **HA snapshot**. The new volumes are dependent on the source volumes, but can be mapped to hosts and modified.

Enter target volume group name

Clone_Part_1_VG_1

Select target pool

Pool0_Child_1

Choose partition placement for the volume group

Partition_01

Select what to copy ⓘ

☒ Volume group ☐ Subset of volumes

Part_1_VG_01

Source volume group

snapshot-3526A72...

4/2/2026 2:03 PM

Snapshot

Clone, 3 volumes

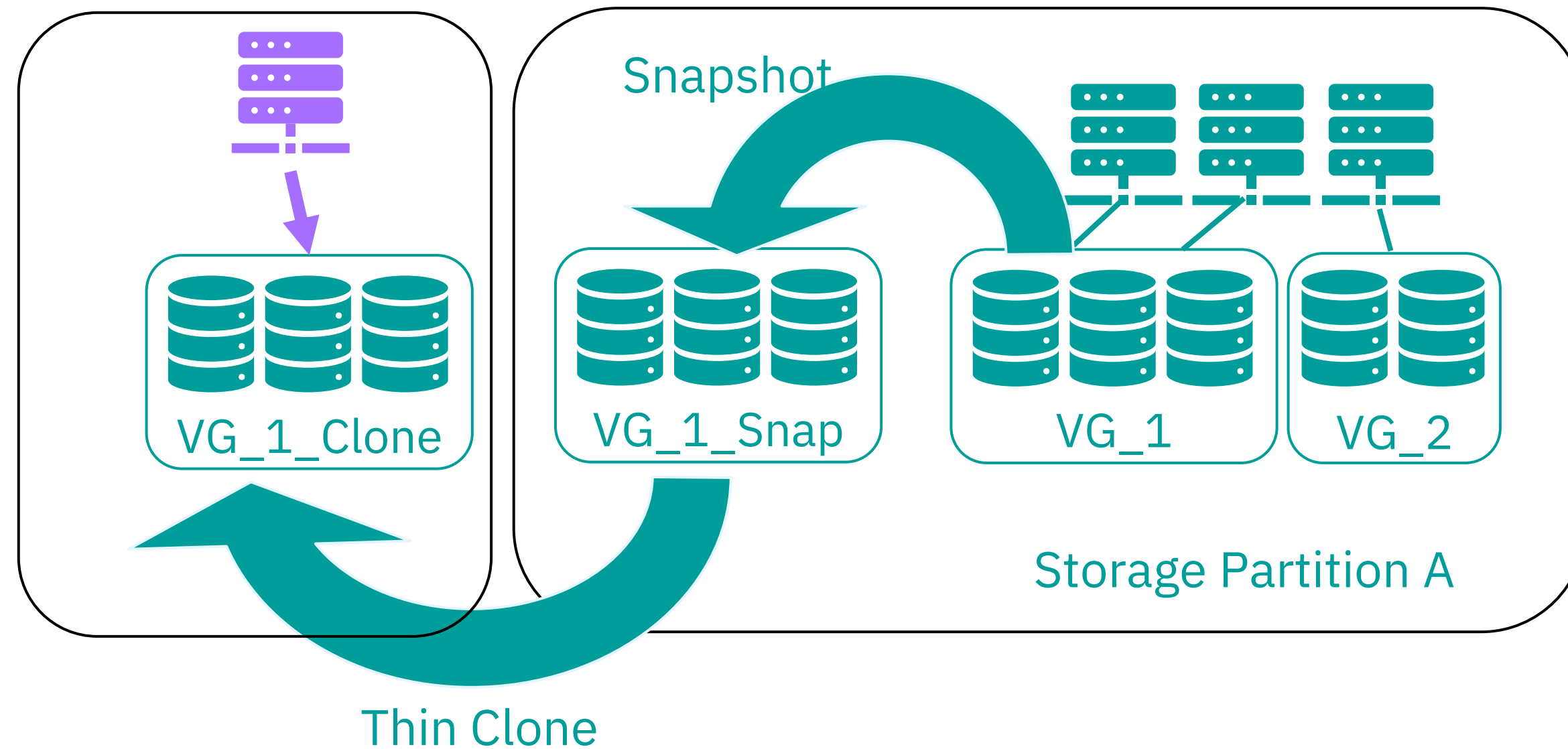
Clone_Part_1_VG_1

Target volume group

Cancel

Create Volume Group

Storage Partitions – Snapshots and Clones (2/4)



- Snapshots are created within the same partition
- Default: Snapshots are in the same pool as the Source VG, but can use child pool of the parent VG pool
- Clones are created in a new Volume group either
 - Within the same partition, or
 - Within another partition, or

Create a thin clone

Creates a thin-clone copy of the selected **HA snapshot**. The new volumes are dependent on the source volumes, but can be mapped to hosts and modified.

Enter target volume group name

Clone_Part_1_VG

Select target pool

Pool0_Child_1

Choose partition placement for the volume group

Partition_02

Partition_01 Partition_02

Outside any partition

Partition_02 ✓

Part_1_VG_01

Source volume group

snapshot-3526A72...
4/2/2026 2:03 PM
Snapshot

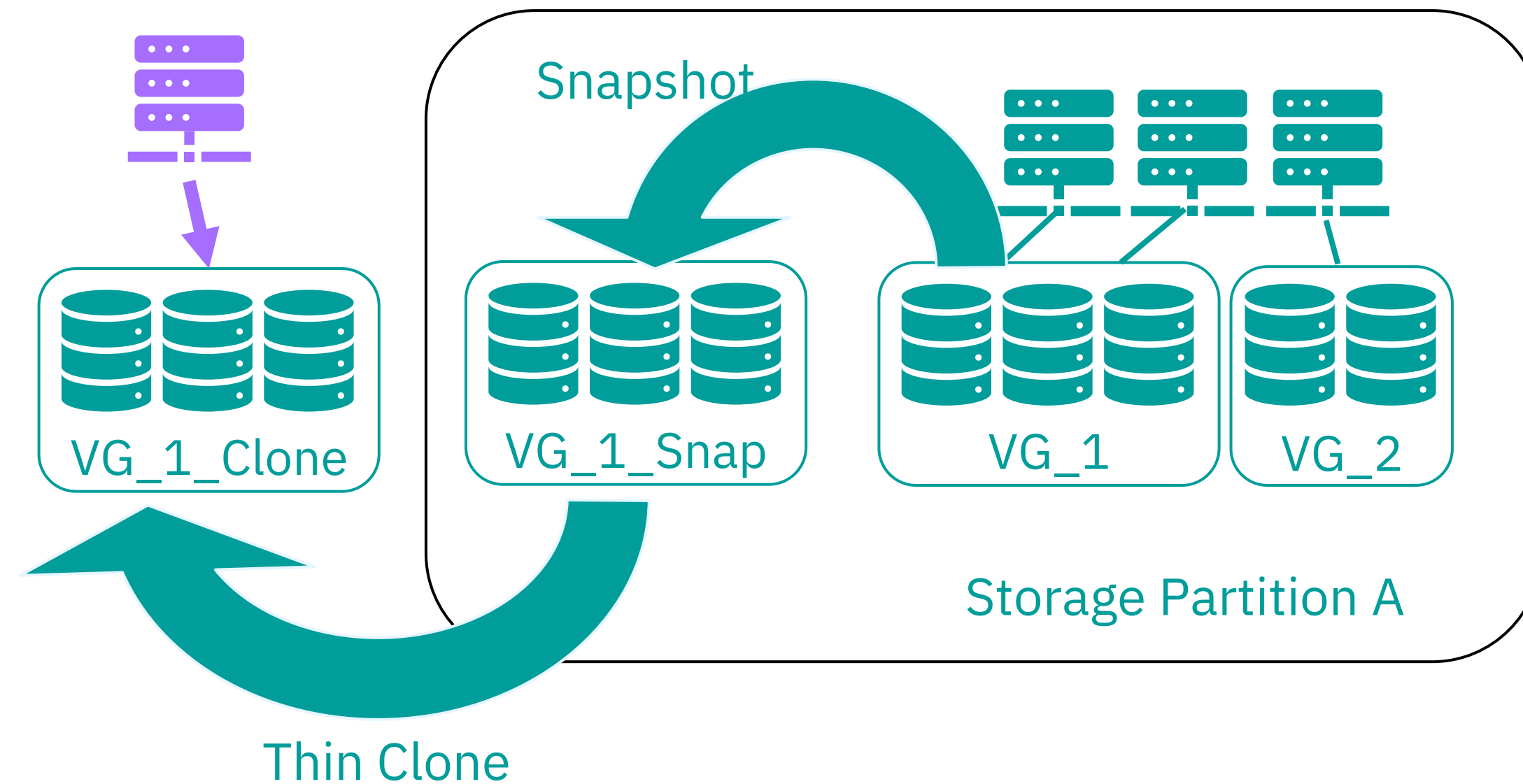
Clone, 3 volumes

Clone_Part_1_VG

Target volume group

Cancel Create Volume Group

Storage Partitions – Snapshots and Clones (3/4)



- Snapshots are created within the same partition
- Default: Snapshots are in the same pool as the Source VG, but can use child pool of the parent VG pool
- Clones are Thin Clones and created in a new Volume group either
 - Within the same partition, or
 - Within another partition, or
 - Outside a partition

Create a thin clone

Creates a thin-clone copy of the selected **HA snapshot**. The new volumes are dependent on the source volumes, but can be mapped to hosts and modified.

Enter target volume group name

Clone_Part_1_VG_1

Select target pool

Pool0_Child_1

Choose partition placement for the volume group

Outside any partition

Select what to copy

☒ Volume group ☐ Subset of volumes

Part_1_VG_01

snapshot-3526A72...

4/2/2026 2:03 PM

Source volume group

Snapshot

Clone, 3 volumes

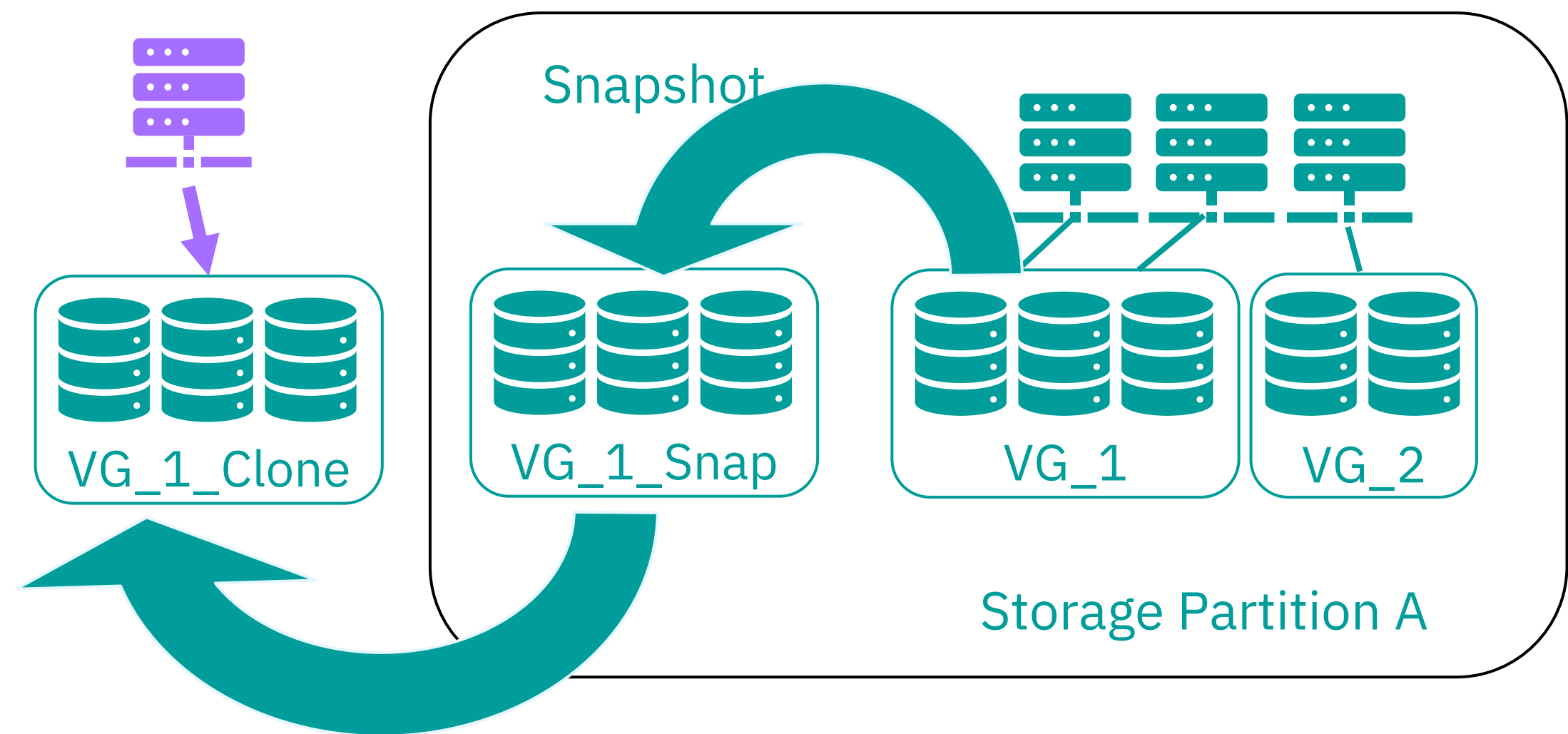
Clone_Part_1_VG_1

Target volume group

Cancel

Create Volume Group

Storage Partitions – Snapshots and Clones (4/4)



Thin Clone -> Clone

- Thin Clones can be migrated to Thick Clones

IBM FlashSystem 5200

FS5200-1

Storage partition: Partition_02 - Volume groups

Partition

Partition_02

Volume groups

Volumes

Volume mappings

Hosts

Host clusters

Replication policies

Snapshot policies

Exit storage partition

Volume Groups

Search table...

Create Volume Group

Name	Volume count	Snapshot Policy	Snapshot count	Owner Type	Threat detection
Part_2_VG_01	3	-	0	None	No
Source details					
Source volume group name		Part_1_VG_01	Source Snapshot		snapshot-3526A725-C3E9-5D7D-89
Time created/refreshed		Apr 02, 02:25 PM			

View details

Rename

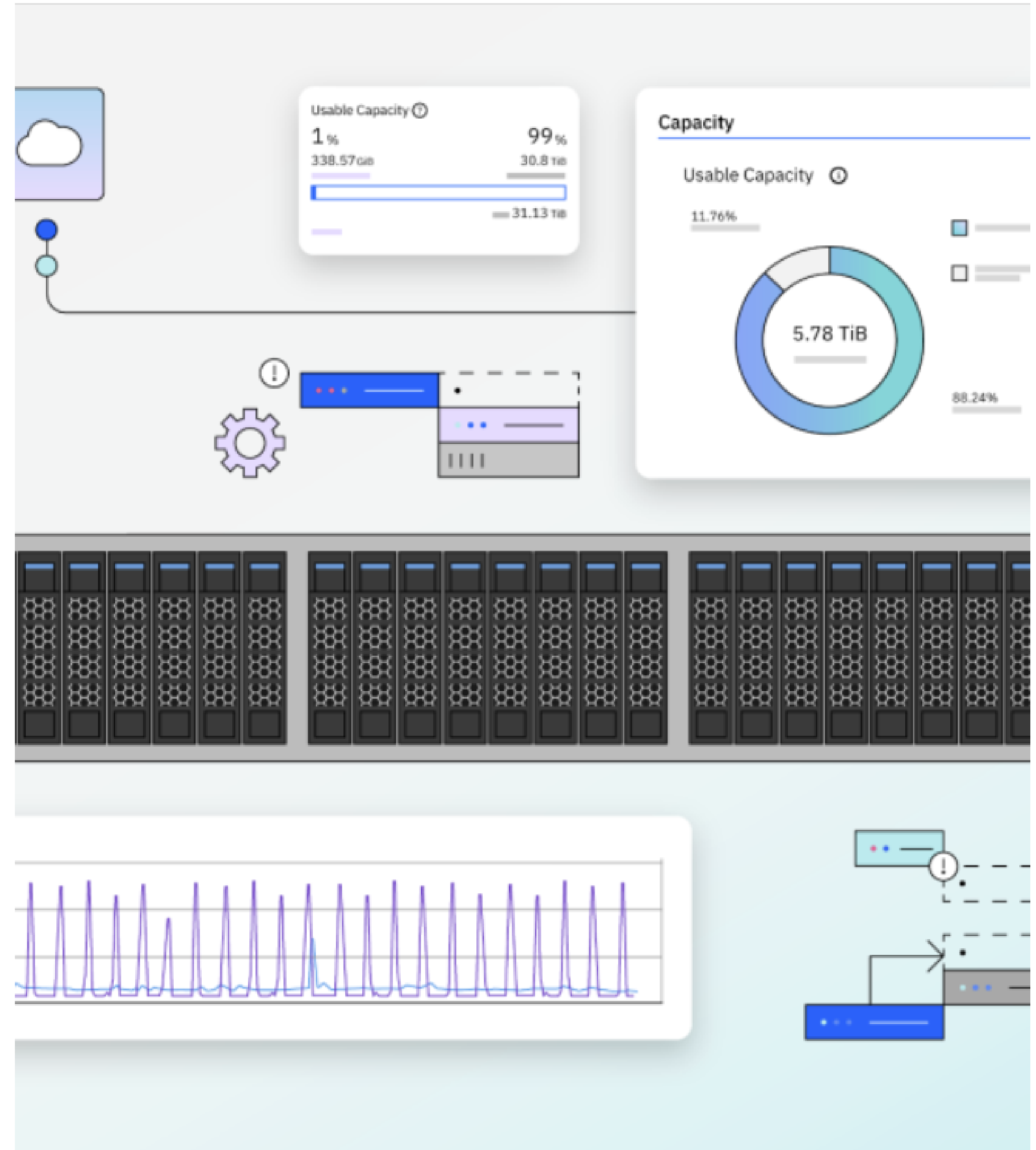
Delete

Refresh from snapshot

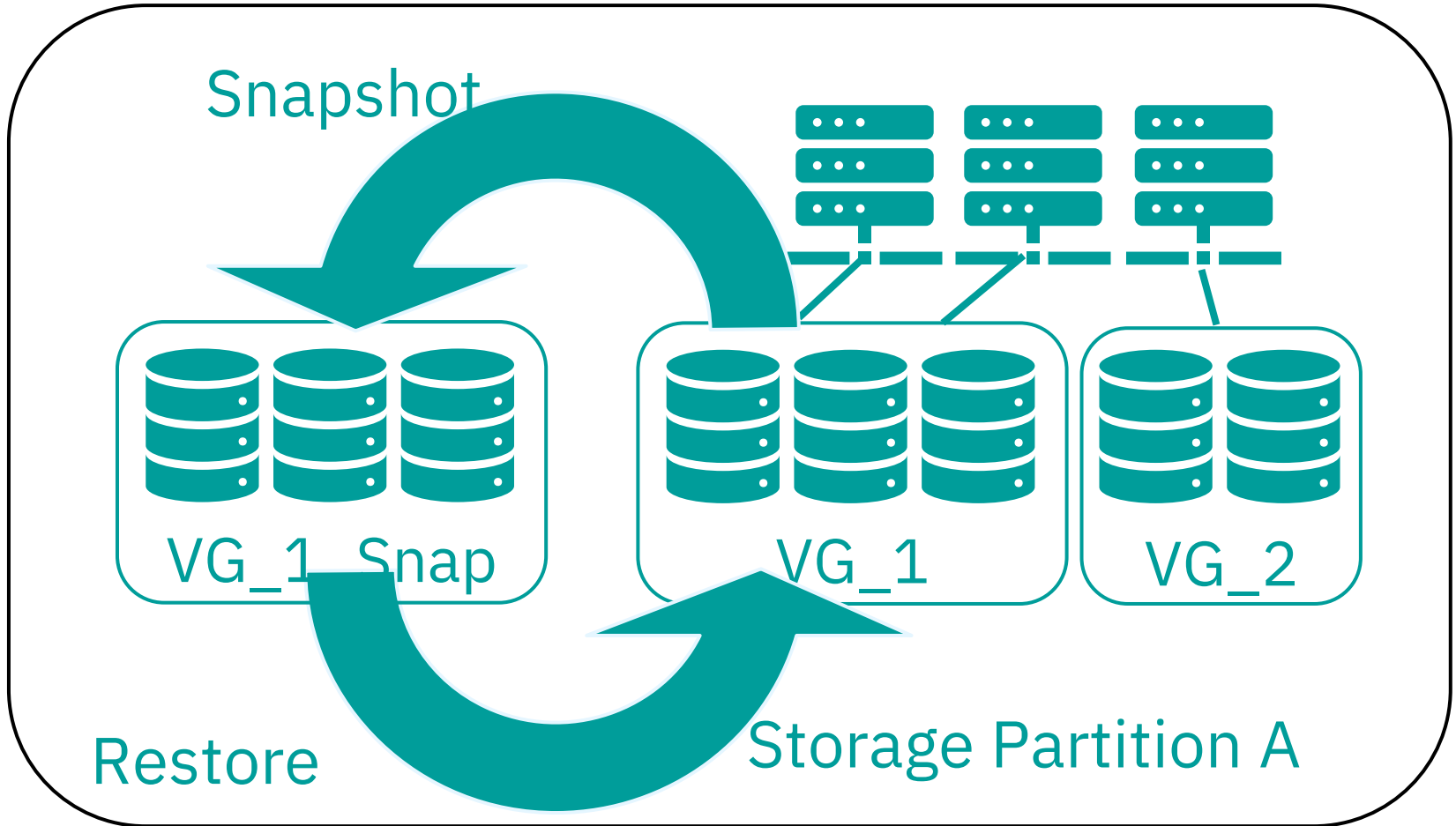
Convert thin clone to clone

IBM FlashSystems

Snapshot Restore



Storage Partitions – Snapshot Restore



- Restore are created within the same partition for
 - The Volume group or
 - A Subset of volumes

Restore

The restore operation overwrites the data of the target volume group with the data from snapshot **snapshot-3526A725-C3E9-5D7D-8974-602A6F61C340**.

Select what to restore ⓘ
☒ Volume group ☐ Subset of Volumes

snapshot-3526A725-...
4/2/2026 2:03 PM
Snapshot

Overwrite
Part_1_VG_01
volume group

Confirm the name of the target volume group
Volume group name

CancelRestore

Restore

The restore operation overwrites the data of the target volume from the volume group with the data from snapshot **snapshot-3526A725-C3E9-5D7D-8974-602A6F61C340**.

Select what to restore ⓘ
☐ Volume group ☒ Subset of Volumes

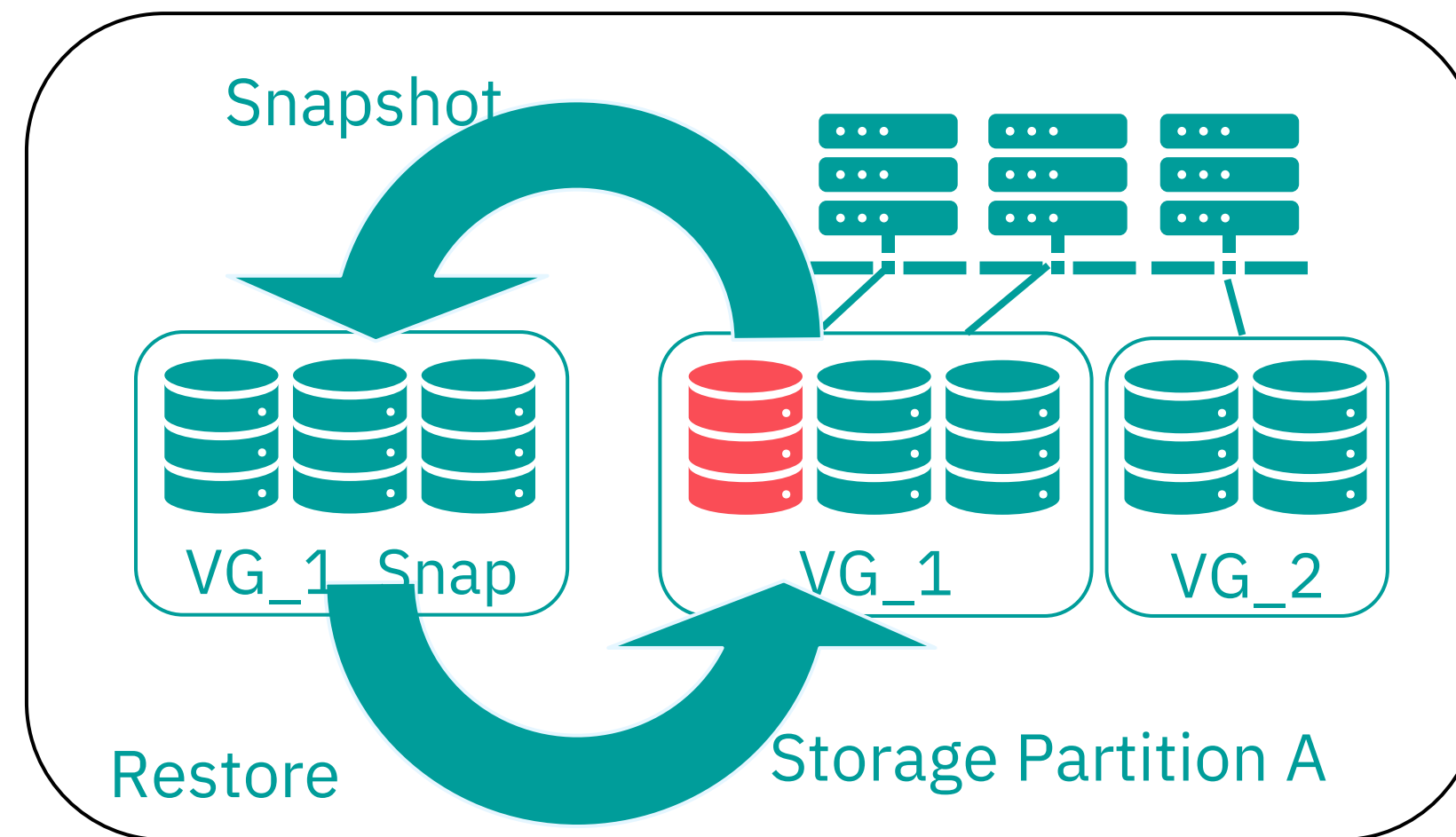
Select volumes to restore

Search

☐	Volume Name ↑	State	Capacity	Pool	Host Mappings	Protocol Type
☐	Part_1_Vol_1_1	✓ Online	50.00 GiB	Pool0_Child_1	Yes	SCSI
☐	Part_1_Vol_1_2	✓ Online	50.00 GiB	Pool0_Child_1	Yes	SCSI
☐	Part_1_Vol_1_3	✓ Online	50.00 GiB	Pool0_Child_1	Yes	SCSI

Items per page: 10 1–3 of 3 items 1 1 of 1 page

Storage Partitions – Snapshot Restore



- Restore are created within the same partition for
 - The Volume group or
 - A Subset of volumes
- Restore can not been done to a removed volume
 - -> Clone to a new Volume group is required
 - -> Additional effort required (f.e. host mapping)

Restore Failed

The attempted restore operation cannot be performed. A volume in the volume group has been added, removed or resized since the snapshot was taken. Either select individual volumes to be restored (excluding any that have been added or resized since the snapshot), or reverse the changes that have been made to the volume group, and then attempt the restore again.

[Learn more](#)

OK

PB HA – HA Snapshot

- **HA Snapshots:** Setting on storage partition level
 - Enabled: Snapshots are created at the same time on both systems
 - Required for easy Restore process
- Disabled: Snapshots are defined separately on each system
 - Snapshot only available at one site
 - For restore: Switch AMS to the system which contains the restore candidate

IBM FlashSystem 5200 | FS5200-1 | Storage partition: Partition_01

Partition

- Partition_01
- Volume groups
- Volumes
- Volume mappings
- Hosts
- Host clusters
- Replication policies
- Snapshot policies
- IP quorum
- Partnerships
- Exit storage partition

Partition_01

IP address: [Assign](#)
[Configure certificate](#)

[Manage partition](#)

Replication overview

Partition_01

HA problem

FS5200-1 (Logged in here) ↔ FS5200-2

Problem affecting high availability

[View unfixed alerts](#)

Storage components

- Hosts (1) →
 - Online
- Volume groups (3) →
- Volumes (6) →

Connectivity

- HA partnership (FS5200-2) →
 - Configured

