



NAStorage

Administrator Guide

**How about the functionality of RAID group
inside NAStorage**

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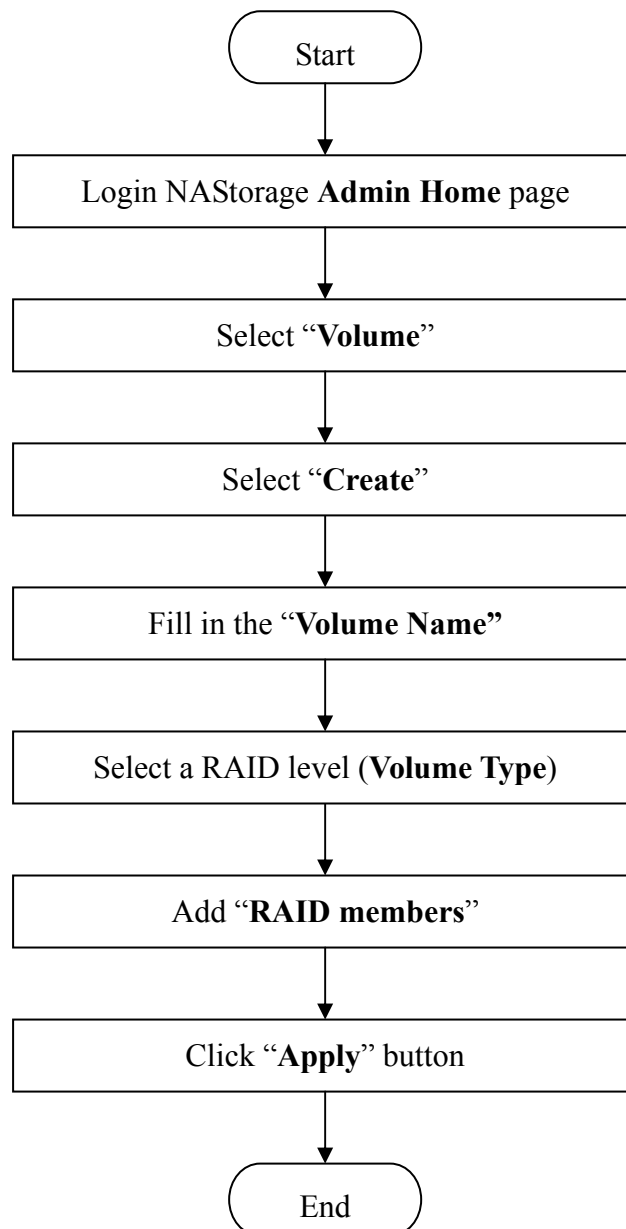
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What kind of RAID group does NASTorage can support?

NASTorage can support three kinds of RAID level for protect the precious data that stored in your NASTorage, they are RAID level 0, RAID level 1 and RAID level 5. You can create a suitable RAID group to protect your data that according to your requirement.

How to create a RAID group inside NASTorage?



How to create a RAID group inside NASTorage?

Create a RAID 0 Volume

RAID level 0 is disk striping only, which distribute data evenly over multiple disks for better performance. It does not provide safeguards against failure. When you want to create a RAID 0 Volume, you should have **at least two or more un-used disks**.

1. Enter NAS homepage **Volume--> Create** page.
2. Input the Volume Name and select Volume Type to RAID 0
3. Select or multi-select specific disk from **Free Disks** list to **Volume Members** list.
4. Click **Apply** to finish the process.

Free Disks:

Device	Location	Mode	Model Name	Capacity	Status
HDD1	CH1, Master	UDMA 5	MAXTOR 6L080J4	76GB	No-init
HDD2	CH1, Slave	UDMA 5	ExcelStor Techno..	39GB	No-init
HDD3	CH2, Master	UDMA 5	IC35L120AVVA07-0	118GB	No-init
HDD4	CH2, Slave	UDMA 5	WDC WD1200JB-00CRA1	114GB	No-init

New Volume Settings:

Volume Name:

Volume Type:

Select Volume Members

Free Disks: HDD3 - 118GB, HDD4 - 114GB

Volume Members: HDD1 - 76GB, HDD2 - 39GB

Buttons: >>, <<, Apply

1. Enter volume name and select the volume type

2. Select or multi-select the disk

3. Click the ">>" button to add selected disk(s) to Volume Members list

Volume View | **Device View**

List of Volumes:

Volume Name	Members	RAID Type	Free Space	Total Space	Status
RO	HDD1,2	RAID 0	115GB (100%)	115GB	Ready

Free Disks:

No Device

Device	Location	Mode	Model Name	Capacity	Status
HDD3	CH2, Master	UDMA 5	IC35L120AVVA07-0	118GB	No-init
HDD4	CH2, Slave	UDMA 5	WDC WD1200JB-00CRA1	114GB	No-init

After click Apply button you will see the new Volume appear in this page.

Create a RAID 1 Volume

RAID level 1 uses disk mirroring, which provides 100% duplication of data. It offers high reliability, but doubles storage cost. If you want to create a RAID 1 Volume, you should have **at least two un-used disks**.

1. Enter NAS homepage **Volume--> Create** page.
2. Input the Volume Name and select Volume Type to RAID 1.
3. Select or multi-select specific disk from **Free Disks** list to **Volume Members** list.
4. Click **Apply** to finish the process.

Free Disks:

Device	Location	Mode	Model Name	Capacity	Status
HDD1	CH1,Master	UDMA 5	MAXTOR 6L080J4	76GB	No-init
HDD2	CH1,Slave	UDMA 5	ExcelStor Techno..	39GB	No-init
HDD3	CH2,Master	UDMA 5	IC35L120AVVA07-0	118GB	No-init
HDD4	CH2,Slave	UDMA 5	WDC WD1200JB-00CRA1	114GB	No-init

New Volume Settings:

Volume Name: R1

Volume Type: RAID 1

Select Volume Members

Free Disks	Volume Members
HDD3 - 118GB	HDD1 - 76GB
HDD4 - 114GB	HDD2 - 39GB

1. Enter volume name and select the volume type

2. Select or multi-select the disk

3. Click the ">>" button to add selected disk(s) to Volume Members list

After click Apply button you will see the new Volume appear in this page.

List of Volumes:

Volume Name	Members	RAID Type	Free Space	Total Space	Status
R1	HDD1,2	RAID 1	N/A	N/A	Create (09.9%)

Hot-spare Disks:

No Device

Free Disks:

Device	Location	Mode	Model Name
HDD3	CH2,Master	UDMA 5	IC35L120AVVA07-0
HDD4	CH2,Slave	UDMA 5	WDC WD1200JB-00CRA1

Please see the creating status until 100%(Ready), you just can configure the volume like as create share, create folder, set permission...etc.

Create a RAID 5 Volume

RAID level 5 distributes data and parity bits over multiple disks for both performance and fault tolerance. A RAID volume can still work when a hard disk fails. RAID level 5 uses **three or more hard disks**. Building a RAID-5 volume may take hours depending on capacity.

1. Enter NAS homepage **Volume--> Create** page.
2. Input the Volume Name and select Volume Type to RAID 5.
3. Select or multi-select specific disk from **Free Disks** list to **Volume Members** list.
4. Click **Apply** to finish the process.

The screenshot shows the 'Volume' management interface. At the top, there are tabs for 'Server', 'Network', 'Volume', 'Security', 'Event', 'Status', and 'Backup'. Below these are sub-tabs for 'Information', 'Create', 'Delete', 'Expand', and 'Maintenance'. The main content area is divided into several sections:

- Free Disks:** A table listing available disks with columns for Device, Location, Mode, Model Name, Capacity, and Status.

Device	Location	Mode	Model Name	Capacity	Status
HDD1	CH1, Master	UDMA 5	MAXTOR 6L080J4	76GB	No-init
HDD2	CH1, Slave	UDMA 5	ExcelStor Techno..	39GB	No-init
HDD3	CH2, Master	UDMA 5	IC35L120AVVA07-0	118GB	No-init
HDD4	CH2, Slave	UDMA 5	WDC HP...	114GB	No-init
- New Volume Settings:** A form where 'Volume Name' is set to 'R5' and 'Volume Type' is set to 'RAID 5'. A callout points to these fields with the text: "1. Enter volume name and select the volume type".
- Select Volume Members:** A dialog box with two lists: 'Free Disks' and 'Volume Members'. 'HDD4 - 114GB' is selected in the 'Free Disks' list. A callout points to this selection with the text: "2. Select or multi-select the disk". The '>>' button is highlighted, with a callout pointing to it: "3. Click the '>>' button to add selected disk(s) to Volume Members list".

The screenshot shows the 'Volume' management interface after the RAID 5 volume has been created. The 'Volume' tab is selected, and the 'Device View' button is visible. The main content area is divided into several sections:

- List of Volumes:** A table showing the newly created volume. A callout points to the row with the text: "After click Apply button you will see the new Volume appear in this page."

Volume Name	Members	RAID Type	Free Space	Total Space	Status
R5	HDD1, 2, 3	RAID 5	N/A	N/A	Create (03.6%)
- Hot-spare Disks:** A section showing 'No Device'.
- Free Disks:** A table listing the remaining free disks.

Device	Location	Mode	Model Name
HDD4	CH2, Slave	UDMA 5	WDC WD1200JB-00

A callout at the bottom right provides instructions: "Please see the creating status until 100%(Ready), you just can configure the volume like as create share, create folder, set permission...etc. **NOTE: The Building speed depends on volume capacity.**"