



ObjectMatrix

MatrixStore 10GigE Enterprise Installation Quick Steps

April 2014

1 Required Hardware

To setup a MatrixStore Enterprise cluster you need the following components supplied by Object Matrix Ltd:

- A minimum of three MatrixStore Enterprise nodes.
- Two 8 port 10 Gigabit switches. These switches are for internal traffic only. No configuration needed.
- Two DAC cables to link the internal switches.
- Two 10 Gigabit Ethernet cables per node for internal traffic
- One 1 Gigabit Ethernet cable per node for IPMI network
- Two power cables per MatrixStore node and one cable per switch.

And the following components supplied by the customer:

- One or two 10 Gigabit switches for external traffic.
- Two SFP+ cables per node for external traffic
- Standard 19inch server rack (**NOT broadcast rack**).
Node's dimensions:
 - 2U: L: 67.5cm with disks and faceplate, W: 48.26 cm, H: 9cm
 - 4U: L: 67.5cm with disks and faceplate, W: 48.26 cm, H: 18cm
- Power to supply peaks of 545 Watts per node (during boot).

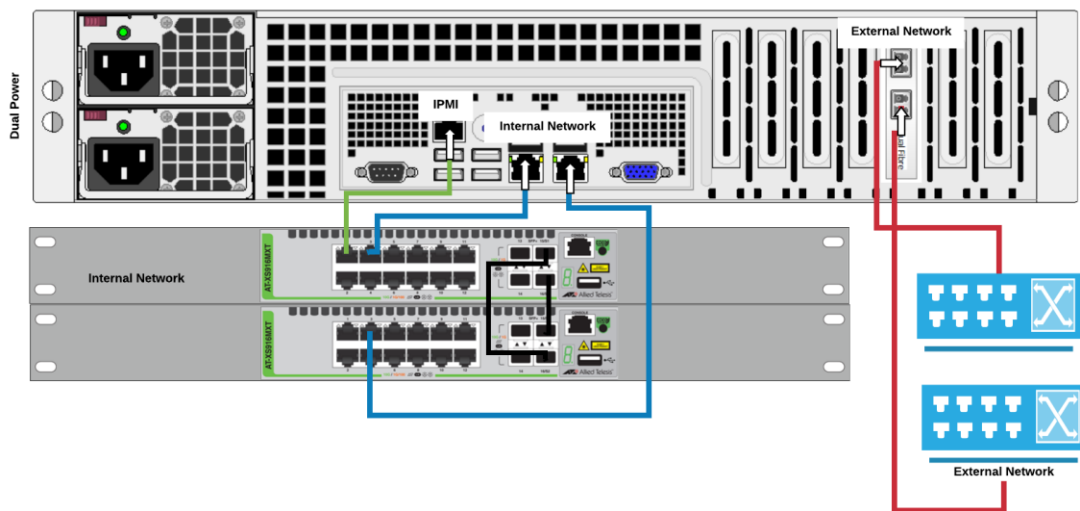
2 Network Connectivity

First setup the internal switches. Internal switches are joined together. Connect them using two free 10Gbit ports using the provided DAC cables.

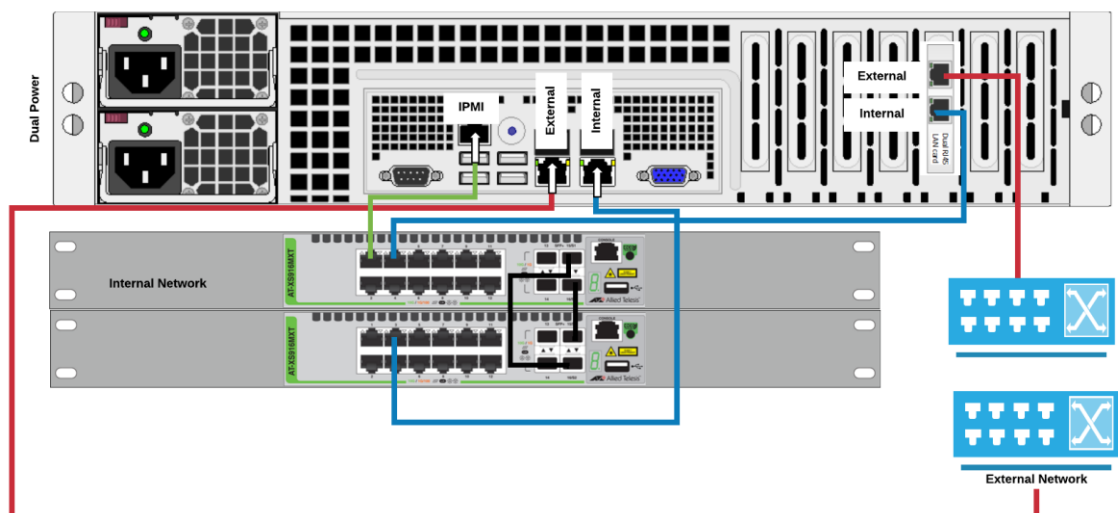
Each node has three RJ45 Gigabit Ethernet network interfaces. One reserved for IPMI control and the remaining two are for MatrixStore internal traffic.

Plug the 10 Gigabit cables to the internal and external switches and shown in the following picture.

Nodes with Fibre NICs for the external network



Nodes with RJ45 NICs for the external network



Network Connectivity

3 Connection to Power

First, connect the internal switches to power.

Connect power cables to the nodes without powering them on. Orange lights should be seen at the back of the nodes. You can see where power is located in the picture above.

4 Power the Nodes

It is recommended to power on the nodes one at a time, powering the node labelled 'node1' first.

Wait 5 seconds and power on the next node in the sequence. Repeat this until all nodes are powered on.

5 Verify

1. Check the power LED at the front of the nodes are green.
2. Check the NIC lights for 10 Gb. The LEDs on the nodes should show green lights for 10 Gigabit connections. Yellow lights on the Gigabit ports indicate 1Gbit links, no lights indicate 100Mbit, both are likely to indicate a problem.
3. Use the supplied "MatrixStore Admin" application to check connectivity. Instructions for the Admin tool can be found at the Help submenu.

Launch the application, enter the IP addresses and right-click "Test Connection".

If the output shows any timeout messages please contact Object Matrix Ltd.

NOTE: ping command does not work with MatrixStore nodes

6 Create a Vault

Use the supplied "MatrixStore Admin" application to administer your MatrixStore cluster.

Launch the application, select the IP addresses introduced in the previous step and enter the cluster password as indicated in the MatrixStore Administration Tool User Guide. Follow the troubleshooting instructions in the user guide if it is not possible to connect to the cluster.

Once connected, create a MatrixStore Vault. This creates a user file containing user credentials to perform actions against the vault. This 'Vault File' can be imported into any of the MatrixStore data access applications.

7 Data Access Applications

You can now launch and use DropSpot and MXFS (Matrix File System). MXFS only works with updateable vaults.

Import the user Vault file into the applications and start to archive your content.

It is recommended to read and follow the instructions in the user manuals provided.