

Prepare Hardware Mac Mini Cluster 6 Steps



Step 1 – Required Hardware

Mac Mini

Three Mac Minis is all you need. There is nothing extra to buy.

Switches

One 8 port un-managed 10/100/1000 switch is required. We recommend the Netgear GS608 ... it looks the part.

Cables

Four Cat5e double shielded cables (0.5m – 1m)

Step 2 – Rack the Hardware

Just stack them on your desk and turn them on!



Step 3 – Network Connectivity

As there is only one network interface on the Mac Mini you only need to connect the one cable to the switch. All internal and external traffic will use the same port.

It is recommended to connect the nodes bottom

up whereby the node (to be known as node 1) at the bottom of the rack is connected to 'port 1' on the switch.

Connect the next node in the rack (node 2) to 'port 2' on the switch and so on until all nodes are connected. Following this recommendation will assist when setting the IP addresses later in this process.





Step 4 – Configure

In order for the mac minis to reboot without manual intervention the following services need to be turned off:

Wireless

Wireless is not required. It needs to be turned off in order that the MatrixStore Setup Assistant application can successfully configure the node.

Turn off wireless (Airport) in the Network Setting section of System Preferences.



Bluetooth

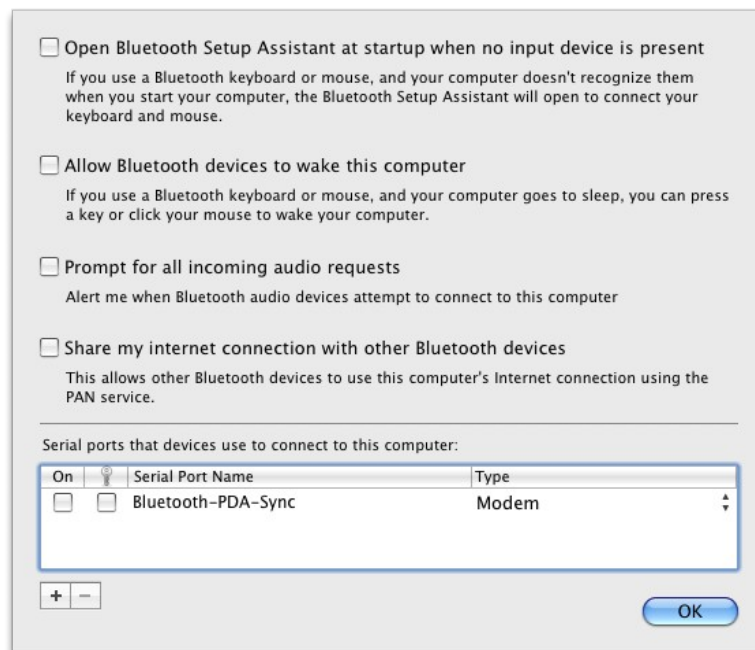
Bluetooth interferes with the Mac Mini when it is booting up. If it is not turned off then the Mac Mini will not boot if there are no attached input devices such as a mouse or a keyboard (which are not required in a MatrixStore cluster).

Turn off Bluetooth in the Bluetooth section of the System Preferences.

- With Bluetooth Power ticked click on the advanced button.



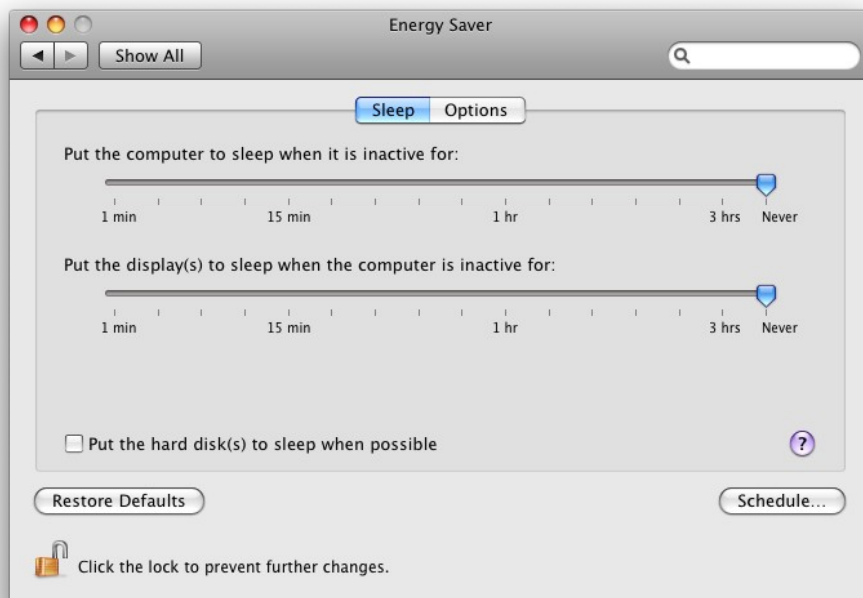
- Turn off all options



- click OK
- then turn off Bluetooth Power (shown in previous illustration)

Power Saving

Ensure the Mac Mini (disks etc) do not shutdown or go into standby mode.





Step 5 – Set IP Addresses

We highly recommend that the MatrixStore Mac Mini cluster is a standalone cluster connected through the local switch and not connected to your internal network.

Setting IP Addresses

Inline with the node ordering as described in the Network Connectivity section we recommend each node has an ip address that reflects its position in the rack. Ideally 'node 1' will have its IP addresses ending in '1'.

We therefore recommend the following schema for setting IP addresses:

IP Address Range	: 10.173.240.1 to 10.173.240.255
Subnet Mask	: 255.255.255.0

With the recommendation above in mind the nodes internal IP addresses would be:

- first node installed is given IP addresses 10.173.240.1
- the second node is given IP addresses 10.173.240.2
- and so on..



Step 6 – Verify

Please verify that each node is connected to both network and power. If the nodes are not correctly connected the installation process will not be possible. It is recommended to ensure each node in the cluster can be pinged!



Disclaimer Alert!!

This guide is intended to help people out who want to give MatrixStore a trial run without buying a bunch of Xserves.

As the Mac Mini does not have a raid card or any battery backup cache we do not support the Mac Mini platform being used to protect production data.