

Outline of System Setup for Enterprise Erase Array

Minimum Server Specifications

These are the minimum suggested specifications for running Enterprise Erase Array 5.3:

- IBM-compatible PC with a Pentium processor or better (Dual Core Preferred)
- DVD Drive
- 2 Gb RAM
- 40 Gb HDD
- Network Interface Card
- Display
- Keyboard and Mouse
- USB Port
- Appropriate Host Bus Adaptor (SAS/FC/SCSI)

A Brief Guide to Selecting your Host Bus Adaptor & Cables

Once you have obtained the HDD expansion shelf/array you wish to erase (or just the specifications and model numbers) you should be able to identify it as Fiber Channel, SAS or SCSI and from the specifications you can gather the connection speed and interface type. Once you have these pieces of information in hand, you can find your required hardware and cables below.

Fiber Channel

Recommended Fiber Channel HBAs

2Gb/s (2/1Gbp/s)

<i>Manufacturer</i>	<i>P/N</i>	<i>Material Description</i>	<i>Bus Type</i>	<i>No. of Ports</i>
LSI	LSI7102XP-LC	2Gb/s Fiber Channel PCI-X Adapter	PCI-X	Single
LSI	LSI7202XP-LC	2Gb/s Fiber Channel PCI-X Adapter	PCI-X	Dual
Brocade	BRE041	2Gb/s Fiber Channel PCI-E Adapter	PCI Express x8	Single
Brocade	BRE042	2Gb/s Fiber Channel PCI-E Adapter	PCI Express x8	Dual
QLogic	QLA2340	2Gb/s Fiber Channel PCI-X Adapter	PCI-X	Single
QLogic	QLA2342	2Gb/s Fiber Channel PCI-X Adapter	PCI-X	Dual

(Recommended Fiber Channel HBAs – Cont.)

4Gb/s (4/2/1Gbp/s)

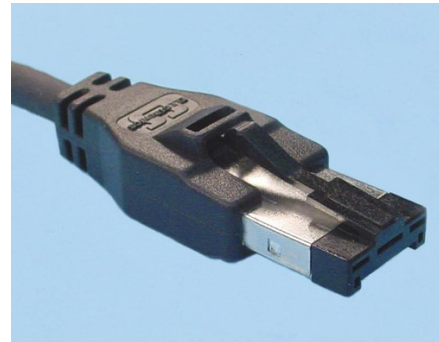
<i>Manufacturer</i>	<i>P/N</i>	<i>Material Description</i>	<i>Bus Type</i>	<i>No. of Ports</i>
LSI	LSI7104XP-LC	4Gb/s Fibre Channel PCI-X Adapter	PCI-X	Single
LSI	LSI7204XP-LC	4Gb/s Fibre Channel PCI-X Adapter	PCI-X	Dual
LSI	LSI7204EP-LC	4Gb/s Fibre Channel PCI-e Adapter	PCI Express x8	Dual
LSI	LSI7404XP-LC	4Gb/s Fibre Channel PCI-X Adapter	PCI-X	Quad
LSI	LSI7404EP-LC	4Gb/s Fibre Channel PCI-e Adapter	PCI Express x8	Quad

Selecting the Correct Interconnect Cable

There are a variety of Fiber ports in use for disk enclosures. The recommended cards above all have SFP ports, which means they are compatible with both copper cables and, with the addition of an SFP-LC transceiver, FC optical cables. To connect the HBA to the enclosure you just need an SFP to [cable type] cable rated to the correct speed. Example model numbers are given below, these are cables that we recommend and include as standard with our hardware kits.



DB9m – e.g. TMC SFP-DB09: 3 Meter, Passive



HSSDC – e.g. CS Electronics SFP-HSSDC/3m



HSSDC2 – e.g TMC SFP-HSSDC2: 3 Meter, Active

(Available in 2 or 4Gb/s)

SAS

Recommended Serial Attached SCSI HBAs

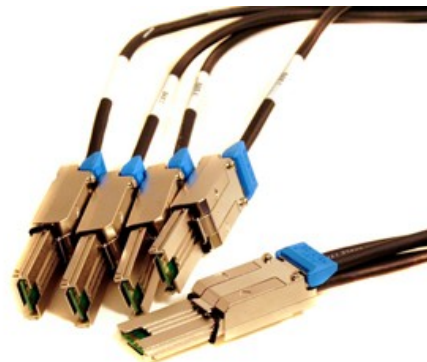
<i>Manufacturer</i>	<i>P/N</i>	<i>Material Description</i>	<i>Bus Type</i>	<i>No. of Ports</i>
LSI	LSI00138	3Gb/s Fibre Channel PCI-e Adapter	PCI Express x8	8 (2x4port)
LSI	SAS 3801X	3Gb/s Fibre Channel PCI-X Adapter	PCI-X	8 (2x4port)
LSI	SAS 31601E	3Gb/s Fibre Channel PCI-e Adapter	PCI Express x8	16 (4x4port)

Selecting the Correct Interconnect Cable

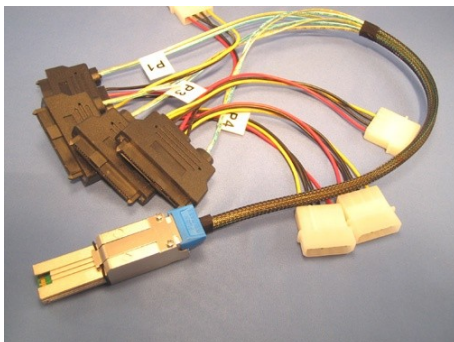
The most common of the SAS cables is the Mini SAS SFF-8088 4port to Mini SAS SFF-8088 4port cable rated to 3Gb/s and above. Breakout 4port to 4 x 1port cables are also available to connect to 4 enclosures at once without daisy-chaining (for example the TMC C5656X4-2M). Also, below there is an example of a 4port Mini SAS to SAS drive breakout so that you can connect SAS or SATA drives directly, without the need for a drive enclosure.



SFF-8088 Mini SAS Connection



SFF-8088 (four port) to 4x SFF-8088 (one port) - e.g. TMC C5656X4-2M



SFF-8088 (four port) to 4x 29pin SAS Drives – e.g. TMC C5629-2M

SCSI

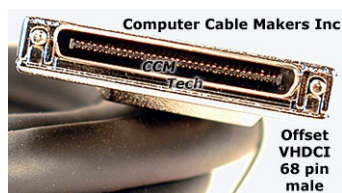
Recommended SCSI HBAs

We recommend the use of Adaptec SCSI adaptors, as these are what we use in our own hardware solutions. We can recommend the use of any of the Ultra160 or Ultra320 series adaptors, just choose one that fits your requirements (bus type and number of ports). Below are some examples, but by no means the entire range. See <http://www.adaptec.com/en-us/support/scsi/> for more.

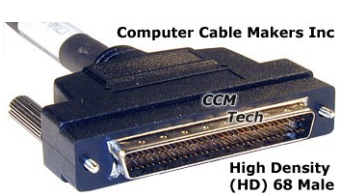
<i>Manufacturer</i>	<i>P/N</i>	<i>Material Description</i>	<i>Bus Type</i>	<i>No. of Ports</i>
Adaptec	29160	Ultra160 64-Bit PCI SCSI Adaptor	64-Bit PCI	1 ext.
Adaptec	39160	Ultra160 64-Bit PCI SCSI Adaptor	64-Bit PCI	2 ext.
Adaptec	39320D	Ultra320 64-Bit PCI-X SCSI Adaptor	64-Bit PCI-X	2 ext.

Selecting the Correct Interconnect Cable

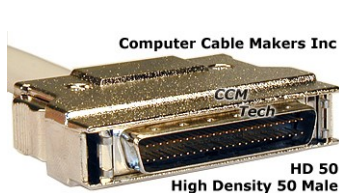
There are a variety of SCSI in use for disk enclosures. The recommended cards above all have 68-pin VHDCI external ports to connect to the SCSI target enclosures. To connect the HBA to the enclosure you just need an VHDCI to [cable type] cable rated to the correct speed. Examples of the connections are given below.



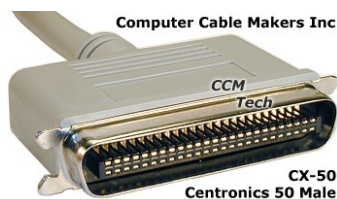
VHDCI – Host connection



HD-68 – Enclosure connect.



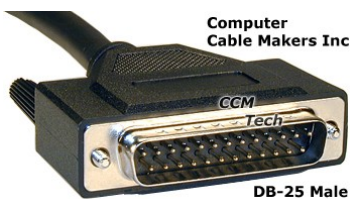
HD-50 Enclosure Connect.



CX-50– Enclosure connect.



DB-50 – Enclosure connect.



HD-25 – Enclosure connect.

Download & Installation of Software

1. Download Software ISO image
 - ⇒ Go to Tabernus Software Downloads webpage
www.tabernus.com/index.php?page=download
 - ⇒ Complete the short form. Select Enterprise Erase Array
2. Burn ISO image to DVD media.
3. Insert DVD and boot DVD on *Server* or *Host* System
4. Software will load from DVD. The Desktop environment appears, it is possible to test or demo in this mode. Choose to install to the internal hard drive, and follow the onscreen instructions – you will need to reboot during this procedure.

Before Proceeding:

NOTE: The demo software will erase 50% of any target drive. Do not target a hard drive that has data that needs to be kept intact.

1. Before booting the host server to erase drives, ensure your target drives or storage shelves are properly connected to the host server via data cables.

Note: Hard drive storage shelves should not be connected through a controller appliance. This will interfere with the software seeing the hard drives as a JBOD.

2. Turn on power to storage shelves containing the hard drives. Wait a minimum of 3 minutes for drives to cycle on and initialize.

Note: When performing operations on a multitude of hard drives, you should wait longer to allow all drives to cycle on, initialize, and mount.

3. From Desktop click, double click Enterprise Erase Array Icon.
4. Once Enterprise Erase Array is launched, you will be presented a GUI with all hard drives detected.
5. Select the target hard drive(s) and begin the erasure process.

Note: Refer to Enterprise Erase Array User Guide for detailed functions of software