Dell™ PowerVault™ 136T Storage Network Controller Recommendation

The Dell PowerVault 136T tape library may be connected to a storage area network by way of the optional Storage Network Controller (SNC) module. The SNC acts as a bridge between the SCSI and Fibre Channel protocols and provides additional management, security, and operational features unavailable in most native Fibre Channel libraries. Dell recommends using the 6101 SNC, sometimes referred to as the SNC2 or second generation SNC, for Fibre Channel connectivity. Using the 6101 SNC maximizes the performance of the PowerVault 136T Tape Library with LTO-3 drives in a Fibre Channel environment.

The 6101 SNC has double the performance of the 5101 SNC, the first generation SNC for the PowerVault 136T. The maximum throughput of the 6101 SNC is 400 MB/s, while the maximum performance of the 5101 SNC is rated at 200 MB/s.

LTO-3 drives have a native throughput performance of 80 MB/s. In environments that require higher throughput (i.e. >200 MB/sec), the 5101 SNC could limit the performance of the LTO-3 drives, particularly in library configurations with three or more drives. Dell strongly recommends using the 6101 SNC for Fibre Channel connectivity for PowerVault 136T configurations with three or more LTO-3 drives, where optimum performance is required.

The 5101 SNC can easily be identified by the orientation of the SCSI connectors, all four of which are in a single line. The SCSI connectors in the 6101 SNC are in a two-by-two configuration. The table below lists the specifications of both the 5101 SNC and 6101 SNC.

	5101 SNC	6101 SNC
General		
Overhead Processor	IBM® PowerPC® 405GP	IBM PowerPC 440GP
Data Bus	PCI	PCI-X
	66 MHz	133 MHz
Throughput	200 MB/s (max)	400 MB/s (max)
SCSI Channels		
Processor	Two LSI 53C1010 Dual channel configured as Ultra 2 SCSI controllers (four ports)	Two LSI 53C1030 Dual channel Ultra 320 SCSI controllers (four ports)
Connectors	Four VHDCI connectors (in line)	Four VHDCI connectors (two dual stacks)

December 2005

0HH824A00

	5101 SNC	6101 SNC
Term Power	Term Power (settable)	Term Power (settable)
SCSI	LVD	LVD
Fibre Channels		
Processor	Qlogic ISP2300 Dual 2Gbps FC Controller (two ports)	Qlogic ISP2312 Dual 2Gbps FC Controller (two ports)
Transceiver	GBIC	SFP
Serial Interface	External DB9	External DB9
	Null Modem	Null Modem
	RS232	RS232
Ethernet	One Port	Two Ports (only one port active)
	RJ45 Connector	RJ45 Connector
	10/100 Base T	10/100 Base T
	Activity Lights	Activity Lights
Cooling	Internal fan	Internal fan
Power	12V/2.5A	12V/2.5A
	5V/5A	5V/5A