SeaChange® QuickSpec

SeaChange MediaLibrary X12100e™

Low-Cost, Fault-Resilient Digital Media Library

The SeaChange® MediaLibrary™ X12100e is a low-cost, fault-resilient digital media library. A breakthrough in scalability, MediaLibrary X12100e base nodes and expansion arrays can be combined to support a wide variety of storage configurations, ranging from 4.3TB single nodes to fully expanded 344TB 9-node clusters. Using low-cost SATA drives supported by SeaChange RAID$^{2®}$ clustered storage technology, the MediaLibrary X12100 achieves cost parity with commodity storage and provides unequalled fault resiliency while freeing users from the inefficiencies and complexities of mirrored storage.

MediaLibrary X12100e base nodes are the foundation of the system. Each base node includes 12 SATA drives and a media file server. Base nodes include one network accelerator card with Gigabit Ethernet I/O to support TCP/IP file transfer in excess of 200 Mb/s. An optional second network accelerator card may be added to increase the bandwidth of a node to 400 Mb/s.

The MediaLibrary X12100e also includes native Windows® Media streaming via the CPU network interface card and can deliver up to 750 WM9 streaming sessions per node.

The MediaLibrary X12100e can be scaled in two ways:

- By stacking up to 9 expansion arrays on a base node. Each expansion array includes 12 SATA drives. A fully configured node with all 9 expansion arrays puts 120 drives online. When base nodes are used in standalone configurations, media assets are RAID-5 protected.
- By interconnecting up to 9 base nodes using MediaCluster® technology. Note that all base nodes in a cluster must include the same number of expansion arrays. When 3 or more nodes are clustered, stored assets are protected by RAID^2 storage protection for maximum fault resilience.

At full capacity, a cluster of 9 base nodes with 9 expansion arrays on each base node puts 1080 400GB drives online, or over 344TB of RAID^2 protected storage.

The unique RAID^2 storage protection permits continued operation even when an entire node is off line. This not only protects on-going operations from system failures but also permits in-service maintenance, hot swapping of drives, system upgrades and the installation of additional base nodes and expansion arrays.

SeaChange MediaLibrary products are network-attached digital media libraries that provide the industry's highest level of fault-tolerance and are available in combinations of storage and I/O capacity to span the needs of the broadcast and content origination segments. Media file transfer is based upon Gigabit Ethernet technology, TCP/IP and CIFS protocols for fast, interoperable asset sharing schemes.

All MediaLibrary products use RAID^2 technology to provide inherent protection against storage and server failures. This approach eliminates the need for costly, inefficient mirrored storage arrays, duplicate file copies, redundant servers and expensive Fibre Channel hardware and licenses.

The MediaLibrary family includes systems that range from single nodes storing less than 730GB to expanded multinode clusters storing over 344TB of media assets. Product architecture allows in-service upgrades and maintenance and permits capacity to be expanded without interrupting operations.

MediaLibrary products provide guaranteed I/O bandwidth via TCP/IP-compliant Gigabit Ethernet ports. It supports a variety of standard file transfer protocols such as CIFS and FTP. This capability enables these products to satisfy real-time broadcast I/O requirements and to seamlessly connect to best-of-breed codecs, content preparation and asset browsing tools.

MediaLibrary products are designed for broadcasters and content providers who want to replace discrete islands of disk- or tape-based storage with a central media library that offers the performance of disk at a price approaching that of near-line storage.

CLUSTERED CONFIGURATION

- From 3 to 9 base nodes
- RAID² fault resilience
- Up to 9 expansion arrays per base node (all nodes in an array must include the same number of expansion arrays)
- CPU with 2 GigE NICs per base node
- One network accelerator card per base node, provides GigE I/O port for TCP/IP file transfer
- Optional second network accelerator card per node, provides GigE I/O port for TCP/IP file transfer

SINGLE NODE CONFIGURATION

- 1 base node
- RAID-5 fault resilience
- Up to 9 expansion arrays
- CPU with 2 GigE NICs
- One network accelerator card, provides GigE I/O port for TCP/IP file transfer
- Optional second network accelerator card, provides GigE I/O port for TCP/IP file transfer

BASE NODE CHASSIS SPECIFICATIONS

- 4RU chassis with CPU and 12-drive array
- SATA drives
- Network Connections: RJ-45 @ 10/100/1000 Ethernet (autosensing)
- 2 power supplies (1 primary, 1 redundant)
- 7" H x 19" W x 27" D
- Weight: 125 lbs
- Certification: UL, FCC Class A, CE

EXPANSION ARRAY CHASSIS SPECIFICATIONS

- 2RU chassis with 12-drive array
- SATA drives
- 2 power supplies (1 primary, 1 redundant)
- 3.5" H x 19" W x 27" D
- Weight: 125 lbs
- Certification: UL, FCC Class A, CE

CAPABILITIES

- Single-session file read or write at 80 Mb/s
- Multi-session file read or write at
  - 160 Mb/s with 1 network accelerator card
  - 240 Mb/s with 2 network accelerator cards
- Up to 15 simultaneous file transfer sessions per network accelerator card

ORDERING INFORMATION

Sales Order Number	Description
MLX12100eB	Base node with 12 x 400GB SATA drives
MLX12100eX	Expansion array with 12 x 400GB SATA drives
MLX12100eXC	Expansion array interface card (add one for 1st and 6th expansion arrays per base node)
MLX12100eFSI	Optional 2nd network accelerator card with GigE I/O port for CIFS-compatible file transfer
MLX12100eMCKIT	MediaCluster kit for 3 to 9 node clusters