

# SeaChange MediaServer FMS 1000

QuickSpec

## 100% Non-Volatile Flash Memory Solution for Diskless Edge Streaming, Stream Expansion, and Time-Shifted TV

SeaChange International delivers the industry's first flash memory-based streamer to drastically reduce the operational costs for on-demand service providers. With large capacity flash memory and high density streaming and ingest, the SeaChange® MediaServer FMS 1000 is designed to eliminate spinning hard disk drives from most parts of an operator's infrastructure. The FMS 1000 is the first product in the industry that completely decouples streaming from disk storage, enabling a new level of configuration flexibility and scalability.

### BENEFITS

**Reduced operational costs** – Operators have been burdened with the high operational costs associated with disk failures, disk replacements, and long disk rebuilds as well as high power consumption, thermal dissipation, space requirement, and noise. Compared to spinning hard disk drives, flash memory:

- has no moving parts
- is more than 100 times as reliable
- consumes 10 times less power

Combining flash memory with SeaChange's patented and widely deployed MediaCluster® technology, the FMS 1000 is the most reliable video server in the market today.

**Independent streaming and storage** – Because of its high cost, limited capacity, and volatility, DRAM (Dynamic Random Access Memory) does not eliminate hard disks from video servers. With 100 times the capacity and persistent flash memory, the FMS 1000 completely decouples streaming from disk storage. Operators have the freedom to co-locate flash streaming servers and disk storage or distribute them at geographically dispersed locations.

**High density** – The FMS 1000 comes in a compact 2RU package, capable of streaming at 3.75Gbps (1,000 SD MPEG-2 streams) and storing up to 660 hours of SD MPEG-2 content (using twenty-four 64GB flash drives).

**Integrated solution** – The FMS 1000 is fully compatible with SeaChange's widely-deployed video servers. SeaChange® Axiom® Core software automatically distributes hot content to the FMS 1000 based on asset popularity, leaving the majority of the content on disk-based video servers for storage and long tail streaming.

### USE CASES

**Diskless edge streaming** – The FMS 1000 enables an operator to deploy diskless streamers at the edge locations and thereby centralize storage and storage management at the head-end. SeaChange Axiom software automatically distributes hot content to the edge locations. With up to 4620 hours of persistent flash memory per MediaCluster, the FMS 1000 eliminates spinning disks from the edge locations and minimizes the network bandwidth consumption.

**Time-shifted TV** – With up to 4620 hours of flash memory per MediaCluster, the FMS 1000 is the ideal solution for time-shifted TV. In contrast to DRAM-based solutions, the FMS 1000 retains real-time ingested content in spite of server failures, a key requirement for every time-shifted TV application.

**Stream Expansion** – In situations where the current deployment provides a sufficient amount of storage, the FMS 1000 allows the operator to boost streaming capacity without adding disk storage. SeaChange Axiom software automatically distributes hot content to the FMS 1000 to provide the additional streaming capacity.



# Product Specifications

## STREAMER SPECIFICATION

- 2U rack-mountable chassis
- PCI Express server
- 1,000 SD MPEG-2 streams (four GigE streaming ports)
- 8x, 16x or 24x 64GB flash memory
- 220, 440 or 660 hours of SD MPEG-2 content with trick speeds
- Power:
  - Redundant 500W supplies
  - 110 or 220 VAC or -48v DC
  - Maximum power draw (startup) 410W
  - Normal power draw (operating) 400W
- Operating temperature: 10°C to 35°C (50°F to 95°F)
- Dimensions: 3.5"H x 17"W x 26.5"D
- Regulatory certifications: FCC class A, CE, CB, Safety 60950-1

## CLUSTER SPECIFICATION

- RAID 5 Clusters of 3 to 8 nodes
- 1,000 to 8,000 SD MPEG-2 streams
- 220 to 4620 hours (using 64GB flash memory) of SD MPEG-2 content with trick speeds
- N+1 fault resiliency (node level RAID 5)
- Automatic load balancing, and online expansion
- Dual redundant InfiniBand cluster interconnect

## SOFTWARE

- Supports SeaChange Axiom v3.5.3, v5.0 (or later)
- MPEG-2 SD and HD; H.264 SD and HD
- Support for SeaChange's patented smooth splicing technology for dynamic ad insertion
- Clear and pre-encrypted content
- Cluster Management GUI and command line interface
- System snapshot for upgrades, server replacements, and cluster expansions
- SNMP and alarms package



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