MediaMaster™ Video On Demand System
District-Wide Media Delivery Server   MM-8600

Specifications

Height:	4U
Width:	19 inch rack
Depth:	21 in
Weight:	50 lbs*
Power:	200 W idle; 250 W loaded* UPS required

Description

The MediaMaster MM-8600 is our top-line server intended for video on demand and multicast video service applications on a typical K-12 school district WAN or on a typical university campus.

This server is based on the MM-8400, trading capacity in the disk storage array for speed, as is needed for highly parallel district I/O patterns. Options A-C, F, and P are highly recommended in this configuration. Dual CPUs are standard on the MM-8600.

Base features shared with the MM-8200 and MM-8400 are:

- Video-on-demand title playback; titles may be locally uploaded, recorded via the optional MediaRecorder (MM-1138) feature, or added via content libraries such as Discovery Education
- Control the classroom displays via Ethernet, RS-232 or IR
- Page arbitrary classrooms, whether singly, by zone, or all-call
- Automatic events with the optional Playlist (MM-1160) software
- Access locally-originated camera cart (MM-1581) and legacy video sources (e.g. VHS and DVD) via IPTV
- Direct the tuning of cable, satellite, OTA, and IPTV channels
- Integrate with the PrestoVideo (MM-1142) presentation and digital signage server; playout to MM-127*x* and MM-177*x* STBs
- Integrate with the MM Live Internet broadcast and VoD service
- Integrate with the school's legacy media library (e.g. Blu-ray)

Sites may use our built-in user management system or integrate with an existing LDAP server such as Microsoft's Active Directory, allowing centralized user and role management.

The server enclosure has locking doors with washable air filters and ball bearing fans. Power is cTUVus, TUV, and Energy Star certified.

Included Software

- Core server software
- Single building license for MediaController (MM-1150) and MM Administrator (MM-1185)

Included Hardware

- Dual CPUs
- NVMe SSD for system software and the DBMS
- 4-10 hot-swap He-filled datacenter 3.5 in HDDs
- Dual 10GBase-T copper Ethernet; gigabit capable
- 1GBase-T IPMI port

Optional Software

- MM Playlist (MM-1160)
- PrestoVideo (MM-1142)
- MediaRecorder (MM-1138)
- MM Live (MM-2564)

Optional Features

- Hot swap power supplies
- Hot spare drives
- 10 Gbit/sec SFP+ fiber connectors

Optional Features

MediaMaster part number MM-8600-DG represents the stock configuration of the server. Add or replace the following suffix codes to that to indicate optional features:

Code	Feature
A-D	CPU type: A=fastest, D=best value; no E option in this line
F	SFP+ 10 Gbit/sec fiber alternative to option code "G"; customer provides transcievers
G	10GBase-T Ethernet (stock configuration)
P	Dual hot-swap power supplies
S	Hot spare drive in the video storage array; SS=two spares, SSS=three spares, etc.
T, Q	Three- and four-way mirroring in the video storage array (default is simple 2-way mirrors)

Video Array Configuration Options

The stock configuration uses 4 to 10 hard disks arranged in 2-, 3-, or 4-way mirrors for greater speed than with the MM-8400's parity redundancy configuration, at a cost in total capacity. (The MM-8400's option **X** is a standard feature in the MM-8600.)

The number of drives used for a given configuration is generally 8, 9, or 10, depending on which of these evenly divides the capacity suffix. For example, an MM-8600-DG-48 is an 8-drive configuration consisting of 6 TB drives arranged in 2-way mirrors, so the available array capacity is 4×6 TB $= 24$ TB. You would have room for up to two spare drives (**SS**) in this setup.

To work another example, an MM-8600-DGST-54 would also use 6 TB drives, but they'd be arranged in three sets of 3-way mirrors plus a hot spare, giving 18 TB of available space.

The four-way mirror option (**Q**) gives the highest levels of read I/O at a sharp cost to total capacity.

CPU Configuration Options

The standard CPU (option **D**) is sufficient to keep both 10 Gbit/sec network pipes full, with room left over for other operations. However, if the server will also be serving a heavy processing load, such as frequent large transcodes, we recommend upgrading to one of the faster CPU options, **A-C**. Consult with ETR technical staff to determine the necessary processor level for the expected load.

Footnotes

*   Server weight and fully-loaded power ratings depend on server configuration. Given values are for a single typical configuration, but each specific configuration may vary.

†   Parity RAID configurations are possible, but are only recommended for MM-8400 and below.