

Omneon Spectrum™

MEDIA SERVER SOLUTIONS FOR BROADCAST AND VIDEO

The Omneon Spectrum media server system is the industry's most scalable, reliable, cost-effective video server and storage infrastructure for television production, playout, and archive applications - a solution that's transforming the economics of broadcasting for television operations worldwide.

Media server solutions from Omneon enable broadcasters to migrate from analog to digital, from tape to disk, from standard definition to high definition and from single to multi-channel operations. By combining its expertise in broadcast with the best practices of information technology, Omneon delivers cost-effective and flexible networked media servers that meet the demanding requirements of broadcast environments. Omneon Spectrum media servers incorporate an open and advanced architecture providing facilities with a scalable common server and storage infrastructure.

Smart Scalability™: Redefining Flexibility

Many server systems claim to be flexible, but when the time comes to add storage or new channels, getting what you need more than likely means exchanging hardware rather than adding to it - an expensive and disruptive process.



Omneon Spectrum media servers are designed with Smart Scalability ensuring that your investment is always protected. Virtually every function of the system is independently scalable, so you're never locked into a system that doesn't fit your needs. Because of Smart Scalability your initial system configuration precisely matches your requirements, your system grows in smart manageable increments as your needs change, and you can easily add to your original system as new data, audio, and video formats become available.



> BENEFITS

Reliability

Choose different levels of redundancy to meet your specific needs. Select from fully mirrored redundant systems to a N+1 strategy. All Omneon systems incorporate built-in resiliency which ensures maximum uptime, even when a component fails.

Freedom to Choose

Choose the applications you prefer and gain workflow efficiency from broad application compatibility. Built around open standards, Omneon systems enable best-of-breed solution deployment for automation, production and archiving.

Scalability

Grow your operations with ease from a single channel system (tens of hours of storage) to a large multi-channel system (thousands of hours of storage). Independently scale storage, channels, bandwidth and redundancy in smart, cost-effective increments.

> Find More Online

<http://www.omneon.com/solutions>

In many cases, these upgrades and additions can be performed on your system without taking it off the air.

The Omneon Spectrum media server's open platform approach protects your investment even further by enabling broadcasters to easily add new services to an existing operation.

With support for both SD and HD broadcast formats, Omneon systems allow broadcasters to deploy a media server for SD channels and add HD operations at any point in the future. HD channels can utilize an existing Omneon server and storage investment, eliminating duplicate storage costs and minimizing disruption to on-air operations. You want the most out of your investment with the least barriers and headaches. No other solution comes close.

An Open Platform for Today and Tomorrow

The Omneon Spectrum media server system leverages industry-standard formats and protocols to enable the broadest range of applications, giving broadcasters the freedom to choose best-of-breed applications for an end-to-end solution. With support for leading well-known tools, operations staff can quickly begin to take advantage of a shared storage infrastructure. Departments can share

files at the same time and deliver content directly from storage to target applications without having to convert formats. For some applications media is manipulated in place on the server, eliminating the need to move large content files over the network.

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HD in Any Format

The Smart Scalability of the Omneon Spectrum media server lets you integrate HD into your operations the way you want to without being locked in to proprietary technology. Omneon lets you leverage cameras, VTRs, codecs, and converters in flexible configurations to complete the entire production workflow from collaborative editing to on-air playout.

When it comes to the expensive quality-sensitive operation of HD encoding only Omneon enables a best-of-breed approach.

You are free to choose either your existing HD encoder or a variety of off-the-shelf encoders to match your quality requirements.

This flexibility allows you to optimize your HD budget every step of the way.

Omneon Smart Scalability lets you store HD and SD on the same media server, enable synchronized HD and SD playout from a single timeline and enjoy the added convenience of supporting uncompressed 601, DVCPRO or MPEG content on the same server as your HD content.

Existing SD Omneon Spectrum media servers can easily add support for HDCAM, DVCPRO HD or HD MPEG. No proprietary file formats or disruptive upgrades are needed to incorporate HD into any Omneon media server.

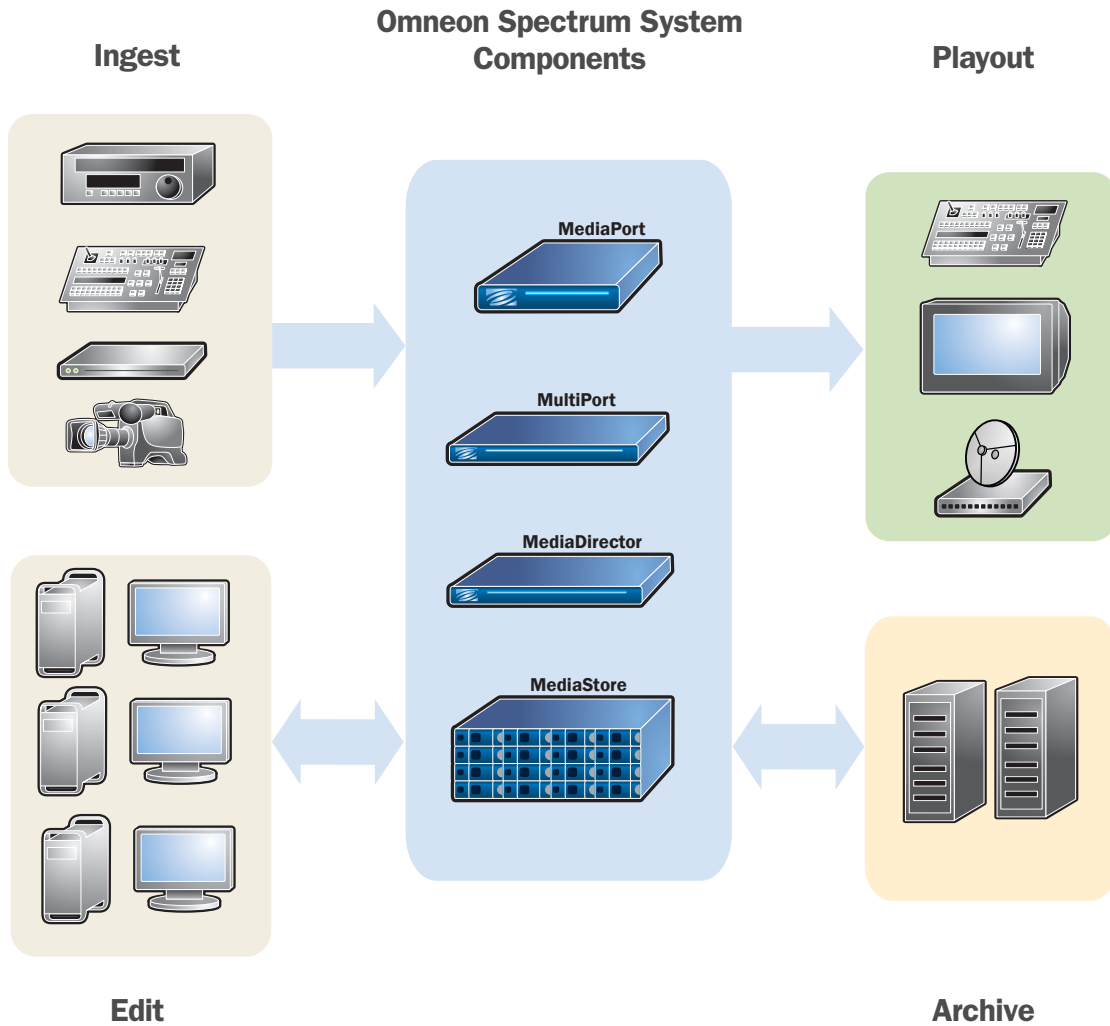
The Omneon Spectrum HD Media Server

INGEST: The Omneon Spectrum HD integrates HD MPEG ingest with MPEG transport stream demux in a single device. The MediaPort 4010 ingest module can de-multiplex a transport stream into independent video and audio elementary streams and maintain frame-accurate synchronization. It simplifies ingest workflow by eliminating the need for offline processing of MPEG transport streams and enables direct connect to backhaul distribution over DVB/ASI.

STORAGE: The Omneon Spectrum HD comes with a storage array which stores up to 45 hours of HD MPEG at 19Mb/s. The software RAID controller in the Omneon Spectrum provides fully protected, reliable storage scalability. Additional storage arrays can be easily added to expand system capacity.

PLAYOUT: The output module of the Omneon Spectrum HD provides dual independent HD MPEG output channels each with 16 channels of embedded audio. It supports the broadest range of MPEG bit rates - 19Mb/s to 78Mb/s and can frame accurately 4:2:2 or 4:2:0 material.

The Omneon Spectrum System Architecture



The key to the Omneon Spectrum is its unique modular design utilizing industry standard connectivity to create a highly configurable and reliable system. Multiple MediaDirector system units can be linked in a single installation to provide redundancy, increased channel count, increased storage capacity as well as increased network bandwidth. Additional storage and I/O components can be added quickly, easily and in many cases without taking the system offline.

To be kept up to date with all the latest Omneon developments, sign up for our newsletter at <http://www.omneon.com/update-me>.

Rock-Solid Reliability

Media servers are complex and incorporate a huge number of both moving and non-moving parts - all of which are susceptible to failure. The measure of reliability for a media server is not how rarely a component fails but rather what happens to the overall system when a component does fail.

Omneon Spectrum media server systems are designed specifically to eliminate all single points of potential failure. Omneon's built-in resiliency ensures that should a component fail for any reason the overall system continues to function.

Shared Storage

Leverage your storage investment across multiple applications and departments. Omneon's unique Extended File System provides simultaneous access to all media in a single shared file system by both real-time I/O and data networks. The combination of real-time interface access and direct file system access enables you to acquire, manage, edit and play-to-air from the same video server.

Ultra-Fast Network Connectivity

Access media files over networks - perfect for collaborative production, archiving applications and file-based content distribution. For editing applications built-in Gigabit Ethernet connectivity allows a highly efficient "edit-in-place" workflow that eliminates time-consuming media transfers.

Unprecedented Flexibility

Handle the industry's widest range of digital video formats simultaneously. Easily gain real-time, simultaneous access to content combined with the ability to intermix or add formats as needed.

Powerful Control With MediaTools Software

Omneon provides a full suite of powerful utilities to give you direct control over the media in your server. Manage recordings, playback and transfers either manually or automatically. View and extract single-channel program material from transport streams. Stack multiple audio tracks and automatically route them based on language.

Integrated Application Partnerships

The Omneon Partner Network ensures that industry-leading application developers have the latest tools and support to integrate with Omneon media servers, ensuring application compatibility and performance.

Total Support

We pay attention to every detail to ensure complete satisfaction: 24/7 phone support, online access for software updates and incident reports, remote connectivity to Omneon's Network Operations Center for diagnostics, and on-site installation and training. We cover everything so you're up and running fast, and you stay that way.

 For an Online Demo, Visit Demos on Demand™

<http://www.omneon.com/Demos-On-Demand>



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