# harmonic

# ProMedia® X Origin

## MULTISCREEN MEDIA SERVER

**ProMedia® X Origin offers service providers and content creators a flexible solution for preparing and delivering broadcast-quality video to consumers anywhere, at any time.**

As a next-generation multiscreen media server, the software-based ProMedia X Origin system offers a wide range of advanced tools for streaming video to all IP devices, including smart TVs, set-top boxes, PCs, tablets and smartphones. ProMedia X Origin fully integrates with Harmonic's IP video encoding and transcoding systems for live and file-based workflows, enabling a complete ecosystem for launching new revenue-generating multiscreen services.
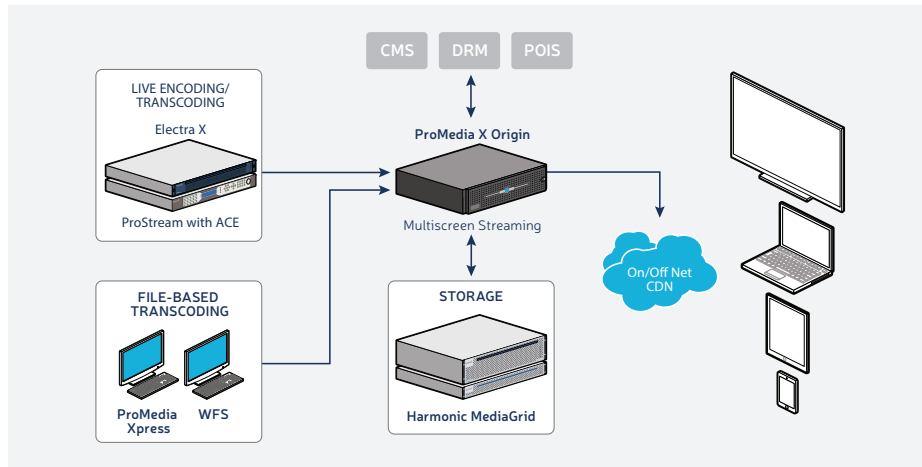
## Solution Benefits

- Serves as the cornerstone of a turnkey multiscreen solution that integrates a wide range of industry-leading suppliers

- Reduces configuration complexity by converging support for all multiscreen applications, formats and protocols into a single product

- Supports the full range of live streaming, video-on-demand (VOD) and time-shifted services, including catch-up TV, start-over TV and cloud DVR (cDVR)

- Enables multiscreen ad insertion, blackout management and content substitution capabilities

Highly scalable, ProMedia X Origin leverages Harmonic's expertise in multiscreen content preparation to offer programmers and service providers a carrier-grade HTTP streaming video server that minimizes rack space, simplifies workflows and optimizes return on investment. The flexible nature of ProMedia X Origin smooths an operator's transition into an IT-based infrastructure and cloud-based deployments. Running on standard COTS hardware, the system is architected to support most common and open interfaces. It offers easy interaction with a full spectrum of digital rights management (DRM) systems, and the ability to work with content/media asset management systems, various digital media players and leading content distribution networks (CDN) to shorten deployment time frames. These open interfaces give operators the ability to migrate and diversify ecosystem components with ease and confidence.

Integrated packaging-on-the-fly functionality on ProMedia X Origin allows multiple streams of H.264 and H.265 video to be selectively combined for any of the most popular HTTP adaptive bitrate protocols, including Apple® HTTP Live Streaming (HLS), Microsoft® Smooth Streaming and MPEG-DASH. High-quality SD, HD and Ultra HD services can then be delivered to all connected devices.

## HIGHLIGHTS

- All-in-one live, VOD and time-shift TV content preparation and origination solution

- Closed captioning and subtitle support

- Blackouts and slating control for different devices, time of day and regions

- Packaging-on-the-fly for seamless format migration, DRM integration and storage optimization

- Simple network architecture design with advanced caching and clustering

- Easy migration to new codecs, such as HEVC

- Centralized management via the Harmonic NMX Digital Service Manager

## Business Benefits

### Comprehensive Solution Offering

ProMedia X Origin integrates with the Electra™ X advanced media processors, the ProMedia Live real-time multiscreen encoder, ProStream® with ACE® stream processors and transcoders, and the Harmonic WFS™ file-based workflow engine to offer a complete multiscreen delivery solution.

### Superior Performance

ProMedia X Origin is optimized for integration with Harmonic MediaGrid shared storage, a high-throughput, highly scalable NAS system, providing a unified storage and delivery platform for video content targeted to multiple off-net and on-net devices. ProMedia X Origin and MediaGrid scale independently, so operators can add more Origin servers as their network grows and more MediaGrid storage as their content library grows.

### Packaging-on—the-Fly

ProMedia X Origin supports all major streaming protocol standards in use today and offers the flexibility of integrated, on-the-fly packaging to different formats from a single H.264 or H.265 source. This capability enables easy migration to new formats as they emerge, simplifies integration to multiple DRMs, optimizes storage, and helps reduce CDN expenditures.

### Ad Insertion and Blackout Management

To address the full spectrum of multiscreen ad insertion and blackout management workflows, ProMedia X Origin is optimized to work with a variety of leading third-party back-office ad monetization platforms and CableLabs-compliant event signaling and management (ESAM) servers. Our back-office system partners also include playlist manipulators with the ability to insert targeted ads into the ABR stream playlist. Together, these integrated systems provide a powerful solution for commercial insertion, program substitution and blackout on all connected devices.

### Centralized Management

The variety of equipment required in content preparation can introduce workflow complexity. The Harmonic NMX™ Digital Service Manager can centrally provision and control ProMedia X Origin, as well as other components in the broadcast and multiscreen workflow, to simplify deployment and the ongoing management of multiscreen services.

### Cost-Effective Scalability

Multiple ProMedia X servers can be combined for high-channel-count deployments to support hundreds of simultaneous streams. ProMedia X Origin also supports N+M redundant server configurations. High throughput is enabled with the addition of external MediaGrid storage.

### World-Class Service and Support

With many successful installations around the world, Harmonic has unique, extensive knowledge of video streaming and multiscreen environments, as well as unsurpassed expertise in managing live production networks. The company offers comprehensive service and support programs, including system design, service deployment, installation, integration and commissioning services, technical support and network maintenance. World-class service plans and a global network of flexible and responsive support professionals help ensure delivery of outstanding "anytime, anywhere, any device" customer experiences.

## Applications

- Live streaming
- VOD
- Catch-Up TV
- Start-Over TV
- cDVR

## Format Support

- Apple HLS
- Microsoft Smooth Streaming
- MPEG-DASH