

## EMC IPTV Solution for Media Content Management



Service provider companies worldwide are facing challenging times in their quest to grow their businesses. As some of their traditional business slows or even declines, they are looking to develop new services that can provide additional revenues and create new and/or expanded customer bases. One of those opportunities is in the rapidly emerging area of IPTV. But while IPTV opens the door for a wide range of new services (movies, gaming, interactive video, personalized services, etc.), it also presents a variety of challenges. Service providers realize that success means understanding and dealing with all the components of the media content value chain. Therefore, they will look to business partners who understand how content flows from creation to consumption; and from how content is acquired to how it is protected, stored, managed, and distributed to end users. EMC understands those processes and provides solutions for making service providers successful with their IPTV objectives.

EMC provides a range of business-building advantages for the growing market for IPTV services. Our information management platforms and software deliver the flexibility, scalability, content management, dependability, and performance that bring EMC® industry leadership to digital content management.

Partnering with EMC enables service providers to:

- Develop and optimize new sources of revenue
- Accelerate time-to-market for a broad range of services such as:
  - Broadcast IPTV
  - Video-on-Demand (VOD)
  - Network-based Personal Video Recorder (nPVR)
- Implement gaming, e-mail, entertainment, and other value-add, content-based services
- Pursue bundled service opportunities that grow market share and improve customer loyalty
- Implement a common infrastructure that facilitates development, deployment, and management of new services
- Deliver voice, data, and video services strategic to achieving business development objectives

### **Creating and managing high-value services**

A key phrase for most service providers is “quality of the user experience” because user experience will be the key differentiator among competitors in the IPTV marketplace. Consumers want easy-to-use, intuitive interfaces. They want flexibility in the choices they can make ranging from games to live broadcasting or video-on-demand. And they want superior service and dependability.

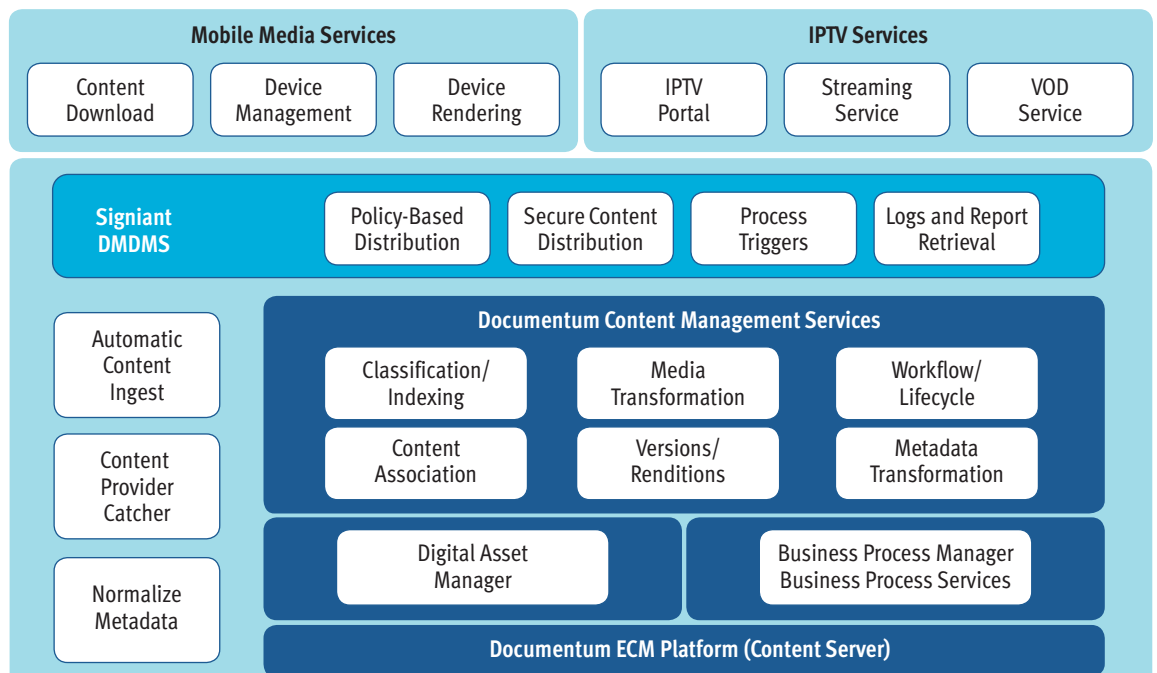
IPTV involves content creators, content providers, aggregators, and other vendors involved in the networks used to deliver broadcast programs. Service providers are challenged to manage both the network and the content-delivery process to satisfy customer expectations for dependable, quality viewing, while also guaranteeing that service levels are met for tracking content delivery, providing security, and insuring digital rights management (DRM), among others. Support for these service deliveries is business-critical.

**Support issues include:**

- Provisioning new customers quickly and accurately
- Network management—finding and quickly resolving faults (or better yet, learning how to detect and anticipate faults and apply corrective measures)
- Handling the complexities and nuances of a detailed workflow system
- Managing and protecting assets that belong to someone else

The EMC IPTV solution offering is one of several solutions that comprise EMC’s Framework for Digital Media (EFDM) and is supported by a reference architecture and foundation EMC technologies. EFDM supports the distribution and management of high volumes of content streams throughout their lifecycles from ingestion to delivery at the customer premises. To meet all the complexities of a satisfactory user experience, the service provider needs to determine the kind of infrastructure, architecture, and suppliers they need to support their delivery of IPTV service. EMC platforms, software, and services support not only support the storage layer, but also provide significant value to the asset management and network layers. In addition, EMC provides connections to the server and middleware layers within the IPTV infrastructure ecosystem.

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**Managing the IPTV infrastructure**

At the front end of the IPTV service development process, carriers must determine how content is ingested into their networks. Since content can be received in a variety of ways, decisions around encoding (when and where) must be made based on such factors as where and when it is most cost-effective. EMC Documentum® Enterprise Content Management and Media Services applications can work with storage platforms and video servers to handle ingested content streams and metadata files.

Once ingested, the content needs to be protected—whether it’s stored in a central repository or at multiple edge locations. Protection includes business-critical backup and recovery strategies in the event that the content distribution or replication processes from core to edge fail. And—of critical importance to the content supplier—content protection planning extends to integration of the asset management layer with DRM applications to ensure that content isn’t redistributed in any unauthorized manner.

Further downstream, carriers need to ensure that their architecture for content delivery is both robust and cost-effective. On the back end, carriers’ CRM systems and billing functions must meet the growing options and service requirements of consumers to ensure that customer profiles are up-to-date, network service inventory databases are backed up and synchronized accurately, and billing records protected—all factors that could likely become competitive differentiators in the marketplace.

As on-demand content libraries expand and advertising insertion opportunities increase, customer and advertiser expectations for these services will also grow. Delivery of video content (both programs and advertising) over the Internet will require flexible server and storage architectures that can grow and scale separately to meet market expectations.

### **EMC IPTV overview**

EMC’s IPTV solution combines industry-leading technology components with proven EMC products and services. Partnering with other industry leaders enables EMC to provide best-of-breed solutions to meet service provider needs and expectations. The result is an open and flexible architecture that supports rapid service development and service assurance with high-quality, scalable, and secure digital content management. With an EMC IPTV solution, service providers can deliver a wide range of services that consumers are looking for now and form the foundation infrastructure for new service offerings that evolve as the marketplace matures. The use of EMC’s platforms and software integrated with our partners’ products and services allow carriers to:

- Provide multiple on-demand entertainment services and video over an IP-based network
- Deploy services within a centralized, hybrid, or distributed IT infrastructure
- Implement a common platform that supports both growth and diversity of services

An EMC IPTV solution represents a workflow, content repository, and automated distribution system designed to effectively manage the delivery of rich media content in an IP-based communications network environment. An EMC IPTV solution includes a wide range of EMC products and services:

- EMC Symmetrix®, CLARiiON®, or NAS storage systems that function as content repositories both in the core of the network and at regional head-ends and edge locations
- EMC Documentum Media Services and Enterprise Content Management software for handling large volumes of content assets and the automation of file transformation and publishing processes
- Signiant Digital Media Distribution Management Suite (DMDMS) content distribution software for policy-based, secure, and automated distribution of rich media content
- An EMC Smarts® IPTV solution that incorporates a portfolio of EMC offerings for network and service infrastructure management, Service Assurance and Business Impact Analysis

The solution offering from EMC is built to incorporate other technologies and components from IPTV industry vendors to provide a comprehensive end-to-end solution that enables service providers to deliver dependable, high-performance services. EMC’s solution can support:

- Third-party set-top boxes
- Network equipment
- Broadcast video applications and VOD servers
- IPTV electronic programming guide applications

## Benefit from EMC expertise in content and information lifecycle management

EMC's leadership in managing content throughout its lifecycle plays a significant role in the underlying structure that supports IPTV. By adopting an ILM strategy, service providers can achieve key business and financial advantages by integrating digital media delivery into their current and evolving business processes. ILM can address both the IT operational efficiency issues associated with management of IPTV content repositories and the service protection and revenue collection challenges it presents.

The ability to effectively manage, move, share, store, retrieve, archive, reuse, and selectively delete digital media content objects and program spots will ultimately accelerate business process workflows and response times in areas such as billing, revenue reconciliation, customer support, advertising, and media content distribution. Effectively managing these areas will correlate directly to service providers' ability to grow their IPTV services and remain competitive.

## Open, common framework

The benefits of building IPTV services on an open, common infrastructure means that service providers will have the flexibility to create scalable, efficient solutions that span and integrate the services domain, the network domain, and the IT domain within an organization. The result is improved control over operational functions, faster service development, lower TCO, and the opportunity to create a real competitive advantage. EMC has a proven framework that supports content management so that services can be defined, provisioned, deployed, and monitored effectively and efficiently.

## EMC Consulting services

Because of the ground-breaking nature of this developing market, it's important to recognize that "in-a-box" or turnkey IPTV solutions aren't realistic. Complex solutions require comprehensive approaches to assessment, planning, design, and implementation. EMC Consulting services for the Documentum, Smarts, and EMC software product lines work with integrators and service providers to provide assistance in all these areas. With a worldwide base of more than 4,000 professionals, EMC Consulting services has the expertise and industry knowledge to insure that a service provider's IPTV infrastructure can support the development and deployment of new services.

## EMC partners

EMC's approach to complex IPTV solutions leverages hardware, software, and services from our extensive portfolio and supplements those industry-leading technologies with technologies and offerings from key IPTV partners. Those partners include equipment manufacturers, application providers, and systems integrators around the globe.



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### Take the next step

With industry-leading storage hardware and software technologies and content management expertise, EMC adds significant value to telecommunications businesses. For more information on EMC's IPTV solutions, contact your local EMC representative or the local EMC sales office, or visit [www.EMC.com](http://www.EMC.com).