

IPTV INFRASTRUCTURE SOLUTION

Cisco and IBM IPTV Infrastructure Solution: Helping You Speed Time-to-Market of End-to-End IPTV Solutions

IBM and Cisco: Two World-Class Industry Leaders—One Exceptional Alliance

Highlights:

- Speeds time-to-market of the IPTV infrastructure required for IPTV component of triple-play services
- Helps service providers win market share, reduce customer churn, and increase average revenue per user (ARPU)
- Eliminates multiple networks; establishes one comprehensive network capable of delivering IPTV, data, and voice simultaneously with outstanding quality of service and low total cost of ownership
- Supports transformation with leading systems integration and business consulting services
- Provides flexible and comprehensive financing



Making the Transformation from Service Provider to Experience Provider: IPTV Is Crucial

The media services landscape is changing dramatically. The days of delivering voice, video, and data services as distinct offerings, with each delivered over its own network, accessed using its own device, and billed as a single subscription, are over. Today, consumers demand the ability to access all types of content across all types of devices and expect a consistent, high-quality experience across all environments.

Service providers must make the transformation to become “experience providers.” The first step is delivering triple-play services—IPTV, data, and voice—all with quality, all on a single integrated bill.

At the core of the experience provider transformation is the ability to successfully deliver video entertainment over IP networks. Today’s experience providers must also deliver stunning picture quality and total service reliability, as well as a variety of next-generation video services.

The Challenge

To increase market share and generate new sources of revenue, service providers need to cost-effectively speed time to market of triple-play services, including IPTV. To make this transformation, however, you need to address both the technology and business process challenges associated with IPTV. As you know, delivery of the IPTV component adds levels of complexity that go beyond those required for traditional access services. You will need to effectively manage video bandwidth consumption;

determine how to address content management challenges such as content acquisition, negotiation, aggregation, protection, and distribution; implement new business systems; and maintain the customer quality of experience of all triple-play services across various devices. To accomplish this, your organization will require:

- A robust and comprehensive IPTV-ready infrastructure that extends from video headend to the connected home and is scalable and flexible to meet your future requirements
- Expert resources to drive and maintain the transformation to augment your in-house capabilities, with experience in technology transformation and business systems
- Financing assistance to support all aspects of the solution, including set-top boxes

The Solution

Cisco and IBM are collaborating to deliver an IPTV infrastructure solution that combines the Cisco Next-Generation IP Network Infrastructure with IBM's Converged Communication Services for IPTV Infrastructure, providing the end-to-end IPTV network infrastructure, and the consulting, integration and deployment services you need to deliver and maintain high-quality IPTV services to your subscribers.

Cisco's End-to-End Infrastructure

While many vendors are concentrating on providing only limited facets of triple-play service delivery, the Cisco IP Next-Generation Network (IP NGN) is designed to address *all* the complexities of multiservice, multidevice, and multitransport service delivery. Cisco provides complete end-to-end solutions. The combination of Cisco and Scientific Atlanta's (a Cisco company) long-standing expertise in IP and video networking and Linksys® (a division of Cisco) connected home capabilities positions Cisco as an ideal long-term provider of entertainment-grade service networks.

There are three primary steps that your organization will need to implement in order to enable enhanced video experiences for consumers: *define* the experience, *preserve* the experience, and *realize* the experience.

- **Define the experience:** First, you will want to define the experience that will differentiate you from your competitors. Defining the video experience encompasses many dimensions: for example, standard and high-definition content; choice of compression techniques; and variety of next-generation video services such as interactivity, video on demand (VoD), network PVR (nPVR), and targeted ad insertion. The Scientific Atlanta Video Headend and Cisco Content Delivery System are the primary solutions that can help enable your organization to define the experience.
- **Preserve the experience:** The next step is to preserve the video experience as video traffic transported across an IP infrastructure. Your organization will need an intelligent, video-aware, carrier-class IP network that can effectively preserve the video content and the experience all the way from the headend to the end-consumer device.

Cisco layer -based, video-aware, intelligent IP NGN ServiceFlex architecture offers superior video-to-network linkages such as visual quality experience (VQE) and application intelligence to preserve the experience.
- **Realize the experience:** An outstanding video experience requires excellent solutions in the customer home to decode, decrypt, share, and display the content the way it was intended. Home networks and end-consumer devices are the consumer's gateway not only for video content, but also to realize the delivery of integrated media experiences. Scientific Atlanta and Linksys provide innovative products and technologies to realize the growing expectations of media consumers.

IBM's Converged Communications Services—IPTV Infrastructure Service

This service from IBM includes the consulting, integration, and deployment services that your organization will need to optimize network usage, establish competitive differentiation, and enter new service areas with comprehensive IPTV infrastructure solutions. Drawing on proven IBM Global Services methods, intellectual capital, and expertise in IPTV infrastructure technology, IBM can help you to develop a business case and implement an IPTV infrastructure solution customized to meet your immediate and long-term business objectives. Service components include:

- Solution definition workshop
- Network consulting
- Readiness assessment
- Network design assessment
- Network diagnostic assessment
- Network integration and deployment
- Digital video headend integration and deployment
- Middleware and video-on-demand integration and deployment

How it Works

IBM specialists will work with you to conduct three major solution delivery phases:

- **Assess and plan:** During this phase, IBM gathers detailed information that will drive the other phases of the engagement. Activities include:
 - Evaluating your existing environment and generating a report about the current environment
 - Gaining an understanding of your business objectives and current service delivery environment, identifying network performance and capacity issues, aligning business and IT objectives, and developing a requirements and solution strategy report
 - Providing transition recommendations

- **Design:** IBM develops a conceptual design to meet the requirements developed in the assess and plan phase. Activities include:
 - Developing the solution architecture, including components and operational features
 - Providing a high-level design that specifies the solution and network architecture
 - Creating a low-level design that specifies the solution design to the level of detail required for implementation
 - Producing a bill of materials and an implementation plan
 - Refining the transition initiatives required for successful implementation
- **Implement:** This phase involves two stages: *solution build* and *deployment*. In the *solution build* stage, IBM performs the tasks necessary to prepare your environment for implementation and can include:
 - Documenting the infrastructure and facilities plan
 - Developing detailed device configurations, installation procedures, and a network testing and certification plan
 - Performing site readiness survey
 - Performing facility upgrades
 - Procuring equipment
 - Staging and testing the solution
 - Establishing the support infrastructure
 - Providing core implementation, testing, and commissioning
 - Training support staff

During the *deployment* stage, if applicable, IBM conducts a controlled production pilot, which is a partial deployment of the solution primarily conducted as part of the risk mitigation plan. IBM then can fully implement the new solution in your production environment.

- **Managed services:** Managed services are available as a part of an outsourcing agreement on a limited basis.
- **Financing services:** IBM Global Finance provides end-to-end, flexible financing for all phases of the IPTV solution, including set-top box implementation.

Benefits

- *Service providers stand to gain increased competitive advantage and market share* and generate enhanced customer loyalty and increased average revenue per user (ARPU) through this IPTV infrastructure solution.
- *Service providers have the potential for reduced risk and faster time to market of IPTV services*, thanks to IBM's business consulting services and consistent, integrated approach to solution implementation.
 - Start-to-finish plan, design, implement, and support services from skilled IBM specialists worldwide
- *Cisco and IBM's IPTV end-to-end architecture delivers a highly integrated core set of the voice, data, and video services* required in a triple-play offering, including IPTV broadcast television, a dynamic interactive programming guide, and video on demand.

- *Elimination of multiple networks, sets of equipment, and management applications.*
- *Implementation of a single, leading, and comprehensive network infrastructure* that extends from video headend to the connected home and is designed for scalability and flexibility to support implementation of full converged services to the consumer in the future.
- *Attractive, comprehensive, and flexible financing services.*

For More Information

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