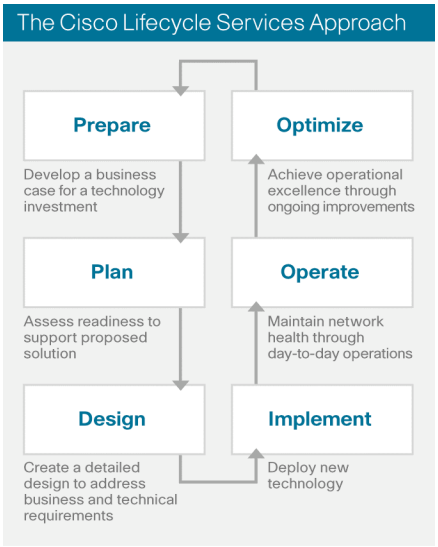
Cisco Services for IPTV

Cisco® Services for IPTV help service providers efficiently launch IPTV services while mitigating risk and providing service assurance.



The unique Cisco Lifecycle approach to services defines the requisite activities at each phase of the network lifecycle to help ensure service excellence. With a collaborative delivery methodology that joins the forces of Cisco, our skilled network of partners, and our customers, we achieve the best results.

Opportunity

The media services landscape is changing rapidly. Service providers must deliver a versatile user experience that offers rich, personalized, on-demand multimedia services. However, to achieve this vision, they must transform from being traditional providers of access-based services into all-inclusive experience providers that can offer voice, video, data, and mobility—or “quad-play”—services anywhere, any time. For service providers, becoming experience providers will create new revenue streams, increase their value to subscribers, and reduce customer turnover.

Challenge

At the core of this transformation is the ability to successfully deliver video entertainment over IP networks. IPTV is a strategic application in the service provider's portfolio of consumer entertainment, communication, and online services. This makes IPTV a primary element for delivering an enhanced, integrated customer experience.

There are many challenges in delivering video services. On the business front, service differentiation and time to market are critical to success. To reach those goals, you must achieve and maintain quality of service, build an open system so that third-party applications can be deployed easily, and achieve the necessary scale. Also, last-mile delivery constraints, which effectively limit the viability of offering some bandwidth-intensive services, should be carefully considered along with the operational challenges, including standard network operations, provisioning, security, customer care, and billing issues.

Cisco has extensive experience preparing, planning, designing, implementing, operating, and optimizing end-to-end IPTV networks. Cisco provides these services through an IPTV-specific system integration methodology that combines Cisco expertise in designing and implementing some of the world’s largest IP networks with the 50 years of experience integrating video infrastructure and subscriber systems compiled by Scientific Atlanta, a Cisco company. The services are customizable, so you can select the offerings that complement your in-house expertise and offer solutions for every phase of the Cisco Lifecycle Services approach. The result is a cost-effective, end-to-end infrastructure that brings new services to market faster, meets your customer needs, and can adapt to new technologies and market requirements while providing service assurance.

Solution

Cisco Services are used across the lifecycle phases to design and deploy flexible, end-to-end IPTV solutions that are ready to evolve and help you stay competitive in a changing marketplace. These services integrate your video subsystems, IP transport network, and operations support system solutions to create a comprehensive offering that is aligned with your business and technical requirements, system architecture, and project plans.

Prepare services:

- Video readiness assessment
- Operational assessment
- Signal survey
- Site survey

Plan, design, and implement services:

- Solution requirements workshop
- Planning and design workshop
- Proof of concept
- Integration services

Operate and optimize services:

- Video quality monitoring
- SP Base
- Software Application Support

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Video Readiness Assessment

Efficient, cost-effective IPTV delivery requires an IP transport network with the features and performance to provide scalable and reliable service. The video readiness assessment (VRA) service systematically assesses and benchmarks the IP network to identify gaps between your existing infrastructure and your IPTV requirements.

Cisco performs the VRA through the following steps:

1. Investigate current network architecture, target service definitions, marketing plans, and market characteristics by analyzing documents and conducting interviews.
2. Collect selected configuration and performance data using data collection tools.
3. Analyze the collected information and compare the results against your business and technical objectives and against Cisco's leading practices for IPTV transport networks.
4. Provide a report summarizing observations and recommendations.

Operational Assessment

To effectively deploy a scalable video solution, service providers should understand how the installation will affect business processes and subscriber interactions before making significant investments.

The operational assessment identifies gaps early in the video launch process by providing a systematic, operational review of the business processes related to customer acquisition, order fulfillment, service assurance, retention, and nonpay disconnect.

The deliverable is a comprehensive report with recommendations about making the operational systems and processes more efficient.

Signal Survey

Antenna location is critical to video reception quality, an important factor in providing an enhanced subscriber experience.

The signal survey helps you determine prior to implementation whether the location of your proposed antenna farm will provide the best possible reception for video service delivery.

The survey includes a detailed signal and interference report for all off-air, digital television, and satellite signals, as well as a recommended site configuration.

Site Survey

Equally important is the location of the site for housing all the equipment. Having to change the sites later can be costly and cause significant delays in launching the service.

The site survey determines the suitability of the proposed headend building and identifies required facility modifications.

The site survey report includes a detailed floor plan; power plus heating, ventilation, and air conditioning (HVAC) requirements; and access and egress requirements.

Solution Requirements Workshop

Creating a documented, validated, and prioritized definition of your business and technical requirements before you develop an IPTV system architecture can reduce the need for costly rework. This definition should identify and validate required technologies and features for a high-level design that meets service delivery, availability, capacity, and security needs.

The solution requirements workshop (SRW) is a joint activity led by Cisco to systematically collect end-to-end solution requirements and reconcile that information across multiple stakeholders. This creates a common understanding of the project scope across organizations, designers, equipment providers, and system integrators and helps align the system architecture with business requirements.

The SRW deliverable is a completed solutions requirement document (SRD).

Planning and Design Workshop

The business requirements need to be mapped into an IPTV system design so you can define an end-to-end architecture that meets business and technical objectives.

The planning and design workshop (PDW) is a step-by-step process to design the network using the SRD, as well as information such as system architecture and topology, availability and security requirements, the current network environment, and the site survey.

The deliverable is a high-level design (HLD) document created with templates and other resources that take advantage of Cisco’s accumulated experience with the end-to-end IPTV infrastructure and with each subsystem.

Proof-of-Concept Lab

The proof-of-concept (POC) lab lets you cost-effectively assess a proposed architecture with specific subsystems and product choices in the flexible, controlled environment of Cisco IP Next-Generation Network (IP NGN) Experience Centers. This lab environment accommodates typical design scenarios that include third-party equipment. Evaluating the robustness of an end-to-end IPTV design in a Cisco IP NGN Experience Center can accelerate a successful IPTV deployment with a small initial investment.

Proof-of-concept tests verify requirements compliance and validate the proposed deployment architecture. Tests include:

- Basic functionality
- Service coexistence
- Multicast
- Quality of service
- Resiliency

The deliverable for this service is a POC report.

Integration Services

Cisco integration services combine the IPTV methodologies of Cisco and Scientific Atlanta with proven processes and industry practices to effectively integrate IPTV systems. Based on your in-house expertise, you can select subsystem integration or end-to-end system integration services.

The following integration services are available:

- Project engagement establishes a program management office for program control and communication processes, mobilizes a team of engineers, and assigns a project manager. Cisco representatives also work collaboratively with third-party engineering and management personnel to create detailed program plans and surveys. The deliverables for this service are the creation and execution of an integrated program plan that includes information such as milestones, schedules, team work packages, and change management.
- Systems validation thoroughly tests an end-to-end IPTV system that is constructed according to the HLD. The system verification test (SVT) validates that a system release meets the requirements detailed in the SRD.
- First office application launches and implements a market trial with selected customers and evaluates the system and IPTV services performance. The service uses the trial to complete integration, develop and refine operational processes, train the support team, and prepare for the market roll-out.
- Market roll-out completes the build-out of operational capability and implements any required infrastructure upgrades or migrations and subscriber migrations.

Video Quality Monitoring

Video delivery covers a very large domain, from content acquisition to delivery to the end customer. In case of a failure, time to resolution is extremely important.

Video quality monitoring lets you monitor video streams and quickly identify and resolve problems concerning video quality or the end-to-end IP network. This service uses Cisco Multicast Manager and network-based probes to measure video metrics. The metrics are based on industry standards such as the media delivery index (MDI). The IPTV solution requires an understanding of multicast,

network flow behavior, Cisco Multicast Manager, probe placement methodology, and MDI-based alarm thresholds. Cisco Services are available to help you in these areas.

The deliverables for this service are an HLD document and a deployment guide for ongoing monitoring.

Cisco SP Base

Designed specifically for service providers, Cisco SP Base Service complements your internal resources with the expertise you need to maintain network availability. This service can also reduce risks for systems running mission-critical applications by delivering:

- Ongoing Cisco operating system software updates that let you efficiently evolve your network infrastructure to meet changing business needs
- Rapid hardware and Cisco OS software technical problem resolution with 24-hour global Cisco Technical Assistance Center (TAC) access to an extensive team of expert technical engineers online or by telephone
- Knowledge transfer of Cisco expertise to enhance internal technical skill levels
- Advance hardware replacement to reduce the risk of network downtime
- Registered access to an array of powerful online tools, so you can address common network problems more quickly
- 24-hour access to comprehensive technical information and numerous configuration, installation, troubleshooting, and service request management tools

Software Application Support

Cisco Software Application Support Services enhance the performance of Cisco application software to protect technology investments and support high business productivity.

Cisco Software Application Support (SAS) includes the following services:

- Minor and maintenance application releases
- Timely resolution of technical issues with 24-hour access to support
- Access to the Cisco.com knowledge base to build in-house expertise

Cisco Software Application Support plus Upgrades (SASU) includes all SAS support services plus major application upgrades.

Benefits

Cisco Services for IPTV help you identify and address crucial technical and business issues before you expend time and resources creating an IPTV solution. As a result, you get a cost-effective, end-to-end infrastructure that meets your customers' needs and has the flexibility to adapt to new technologies and market requirements. Cisco Services for IPTV help you to:

- Mitigate potential risks by analyzing the ability of your existing IP network and operational systems to carry video traffic and by identifying and deploying necessary upgrades early in the process
- Deliver quality by helping ensure that the design addresses implementation issues such as the per-customer bandwidth requirements needed to support bundled voice, video, and data services

- Support interoperability between vendors and provide thorough, end-to-end integration testing for multiple network elements, including video headend, middleware, IP transport, distribution, set-top box solutions
- Accelerate the successful implementation of your converged network by using Cisco methodology for deploying the Cisco IPTV solution
- Lower operating costs and improve staff productivity by increasing the knowledge base of your operations staff to support the Cisco IPTV solution

Why Cisco Services

Cisco is a globally recognized name in networking, with extensive experience in delivering IP Next-Generation Network (IP NGN) solutions. Cisco Services deliver comprehensive support encompassing the service provider's network lifecycle. Through a lifecycle approach to services, Cisco has developed consistent and proven methodologies to help service providers successfully deploy and operationalize their IP NGNs.

Cisco Services bring together primary capabilities such as people, processes, tools, labs, and partners to help aid success of your network and service transformation. These services are customized to your needs and are delivered through an extensive global support infrastructure, which includes our award-winning TAC, Advanced Services resources, centers of excellence, IP NGN Experience Centers, and ecosystem partners. Through this partnership with the Cisco service organization, you have access to an extremely large collection of certified IP experts with experience in managing large systems and network integration projects, globally.

With specialized tools, knowledge, methodologies, best practices, and a collaborative delivery model that combines Cisco's expertise with our partners' and customers' capabilities, we strive to achieve the best results. By using Cisco Services, you mitigate risks, accelerate your time to market for new services, contribute in lowering your cost, improve your customer experience through service assurance, and maximize the value of your investment.

Availability

Cisco Services for IPTV are available globally. Terms may vary by region.

For More Information

For more information about Cisco Services for IPTV, contact your local Cisco account representative.

Cisco Services.
Making Networks Work.
Better Together.

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Cisco Systems, Inc.
San Jose, CA

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
Singapore

Europe Headquarters
Cisco Systems International BV
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Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at **www.cisco.com/go/offices.**

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