



## Service Overview

# Cisco Services for Cable Multiservice Operators

**Cisco® Services support cable multiservice operators (MSOs) in making the smooth transition to IP next-generation networks. With IP next-generation networks, cable MSOs can improve network efficiencies, enhance service creation capabilities, reduce total cost of ownership, and accelerate time to market for new “quad-play” services – high-speed data, voice, video, and mobility services.**

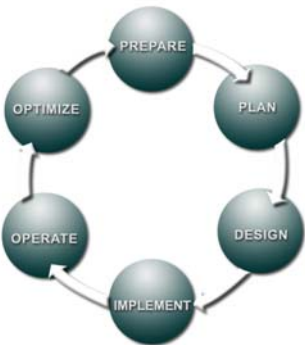
## Challenges

To remain competitive, cable MSOs are moving from analog to digital in order to provide new services that combine high-speed data, voice, video and mobility bundles. To be successful, they must build the most scalable and robust packet networks with new capabilities to support quad-play services.

To meet these challenges, Cisco Systems® offers a vision of a converged IP-based network for data, voice, video, and mobile services: the IP Next-Generation Network. The Cisco IP Next-Generation Network solution provides a highly scalable converged infrastructure, with superior service creation and control capabilities to help cable MSOs bring new services to their customers.

The Cisco IP Next-Generation Network enables delivery of innovative high-speed data, voice, video, and mobility applications. Service-layer elements include video on demand (VoD), service control, and packet voice; network-layer elements include wideband cable modem termination system (CMTS) and IP/Gigabit Ethernet transport; and operation-layer elements include operations support systems (OSSs), security, and IT systems. These solutions give cable MSOs greater network flexibility to meet their immediate needs, and help them seize new market opportunities.

To deploy and operate these solutions, cable MSOs must be able to offer services that pertain to each phase of the network lifecycle. With the Cisco Lifecycle Services approach, Cisco and its partners can help you deploy a robust, dependable IP Next-Generation Network solution that addresses all aspects of preparing, planning, designing, implementing, operating, and optimizing a complex solution and that includes people, processes, tools, and technology.



## Solution

To help you mitigate risks, maintain stability and availability, and manage costs, Cisco Services for Cable MSOs offer expert advice and services for the successful deployment and operation of a Cisco IP Next-Generation Network solution.

## Supporting Business and Technical Requirements throughout the Network Lifecycle

The Cisco Lifecycle Services approach helps cable MSOs accelerate their success with the Cisco IP Next-Generation Network solution. Through a broad portfolio of customizable end-to-end services designed specifically for cable MSOs, Cisco and its partners can help you achieve network-related business goals throughout all aspects of deploying, operating, and optimizing a complex solution.

## Planning Services

In the plan phase, Cisco recommends services that assess the network and operations to determine if the existing environment can support the proposed change sufficiently and securely. As well, Cisco can establish and execute a project plan to manage the migration and deployment of IP Next-Generation Network solutions. Activities and deliverables in the plan phase might include:

- Planning and design workshop
- Gathering detailed requirements
- Operation assessment
- Network readiness assessments
- Site and environment assessment
- Application integration assessment
- Developing a detailed project plan

These activities result in a high-level design document that includes a comprehensive, customized set of guidelines for designing and deploying a scalable solution that meets your technical needs and business goals. The high-level design also includes a validated bill of materials, network topology, and high-level description of the technology features you will receive.



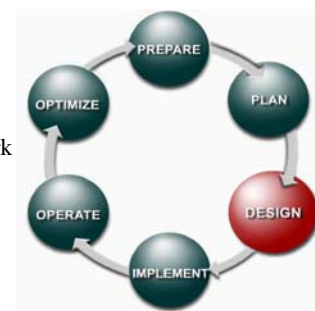
## Design Services

During the design phase, Cisco recommends services that help you develop a comprehensive detailed design to meet business and technical requirements, and create plans to guide implementation-phase activities.

The design phase takes input from the entire scope of requirements discussed previously (services, network, security, and operations) and transparently brings together all elements. The choices made during the network design phase determine whether the network can meet business goals. It is critical to gather all the facts first and approach the design in such a way that any future changes can be made with minimal disruption.

Activities and deliverables in the design phase might include:

- Producing a low-level design
- Developing a staging plan and proof of concept
- Identifying required changes in the existing network
- Developing a migration plan
- Developing an acceptance test plan
- Developing the operation design



## Implementation Services

The goal of the implementation phase is to ensure smooth installation and integration without disrupting the existing network or creating points of vulnerability. Cisco recommends services that stage and test the proposed system to identify and resolve potential system implementation problems. These are followed by services that install and configure system components, integrate them into the operational network/OSS, and validate that the network is working as intended.

To help you plan your implementation, Cisco and its partners begin by gaining a comprehensive understanding of your requirements and



analyzing the potential effect of the proposed implementation on your existing infrastructure and operations. Through an iterative process, they work with you to develop your implementation plan, verifying that it contains the elements required to deploy your solution quickly and successfully. They also work with you to develop your migration and test plans and proactively identify potential risks to help you avoid disruptions in service. A network implementation plan documents the step-by-step process for implementing your Cisco IP Next-Generation Network solution, using an approach that considers all critical elements and helps avoid network downtime.

Cisco provides standby deployment support to quickly address problems that might arise when moving from the test environment to the production environment. This contributes to successful implementation of the new solution and helps you avoid costly delays. Cisco consultants also deliver custom training and knowledge transfer to address any gaps in the technical skills of your network operation staff and to enhance their ability to support the new environment. Activities and deliverables might include:

- Detailed design review
- Network implementation plan
- Assembled floor plan and cutover sheets
- Network staging
- Equipment delivery and physical installation
- Proof of concept/system acceptance test
- Solution validation and interoperability testing with third-party providers
- Application deployment
- Integration with OSS/billing systems
- Documentation
- Training

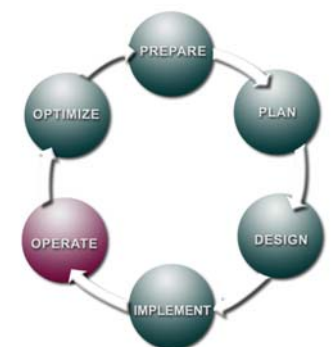
### Operate Services

The operate phase focuses on maintaining the ongoing health of the network and providing the technical support necessary to protect the investment. Operate services manage and resolve problems or changes affecting the system, replacing or repairing hardware as needed, keeping system software and applications current, and making moves, adds, and changes. The two offerings in this phase are:

### Cisco SP Base Support

Cisco SP Base support, offered specifically for service providers, offers the first step in providing the support you need to keep your networks up and running. Cisco SP Base support helps improve productivity and increase your operational efficiency by complementing your internal resources with Cisco networking expertise. Cisco SP Base support can help maximize availability and minimize risks for systems running mission-critical applications by delivering:

- Ongoing Cisco Operating System Software updates, allowing you to efficiently evolve your network infrastructure to meet the needs of an ever-changing business environment
- 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 on the telephone
- Knowledge transfer of Cisco expertise, enhancing internal technical skill levels
- Advance hardware replacement, reducing the risk of network downtime
- Registered access to an array of powerful online tools, allowing you to more quickly address common network problems



- Around-the-clock access to comprehensive technical information and numerous configuration, installation, troubleshooting, and service request management tools

## Cisco Software Application Support Services

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

Two levels of support are available.

Cisco Software Application Support (SAS) support services include:

- Minor and maintenance application releases
- Timely resolution to 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) is more comprehensive, and includes all of the support services included in SAS plus major application upgrades.

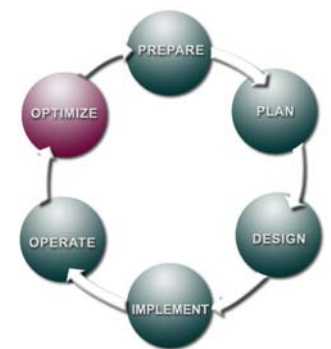
## Optimize Services


As the IP Next-Generation Network grows to support more applications, subscribers, and devices, providers must be able to maintain peak performance of their network. The optimize phase aims to achieve operational excellence and improve network availability through proactive services. Optimize phase services help you achieve a network that is adaptable – positioned to cope with new or changing business requirements – and deliver service assurance.

Optimization services can include periodic audits and assessments by Cisco engineers, using advanced tools and expert systems to uncover potential operational and performance issues. Cisco engineers begin by inspecting your network to validate device configurations, identify network congestion, and study software quality issues. They make specific recommendations for changes that can help you prevent network problems, increase availability, and enhance capabilities. Deliverables and activities in this phase might include:

- Operations assessments
- Network assessments
- Software support (for example, perform new feature, configuration, and protocol analysis and recommend the appropriate software level)
- Network change support of existing network
- Ongoing remote design support
- Ongoing application performance assessment
- Ongoing planning and testing of new solutions and applications
- Knowledge transfer session

The network assessment is an essential component of the optimization service. As part of this activity, Cisco engineers may use specialized tools that use proven data collection methodologies to inspect the health of your network; identify and measure the performance, capacity, configuration, and fault parameters on selected devices; compare that data against the baseline; and deliver findings and trends. The information collected by these tools and through other methods helps Cisco engineers make specific observations about your network and recommend changes that can address current problem areas or potential design, capacity, and scalability issues.





As part of this service, your Cisco team also delivers a report that summarizes the findings and recommendations from the assessments. The report includes an inventory of your network devices, and provides a complete picture of the Cisco software that is running on your network. This helps you to track what is currently on your network, what has been changed, and what performance improvements – and business benefits – have been accomplished.

## Benefits

With Cisco Services, cable MSOs can smoothly transition to an IP Next-Generation Network, accelerate time to market for new services, and improve network performance to deliver service assurance. Cisco Services draw upon leading practices developed through successful mobile deployments around the world. Specifically, Cisco Services deliver the following benefits:

- Help ensure your network's ability to adapt to changing business needs by aligning technology investment with business objectives
- Maximize the value from your investment in an IP Next-Generation Network by enabling maximum availability, stability, flexibility, and scalability
- Accelerate time to market for new services by using proven methodology and practices
- Increase network staff productivity through skills augmentation that reduce errors and rework
- Improve network performance, availability, and security to maintain service assurance

## Why Cisco

Cisco Services for cable MSOs support the complete lifecycle of your IP Next-Generation Network solution. Cisco engineers can help you successfully plan, design, deploy, implement, operate, and optimize your network while mitigating risks, accelerating time to market with new services, and getting the most value from your network investment. When your company deploys a Cisco solution, you receive a consistent services approach and delivery across your entire network, regardless of the network's size or geographic reach.

Cisco Services unite your Cisco team and its partners with processes, tools, and labs to accelerate your success with an IP Next-Generation Network solution. These customized services are tailored to your needs and are delivered through an extensive global support infrastructure, which includes our award-winning technical assistance center and an extensive network of certified partners and customer portals. Through this collaboration, you have access to the industry's largest collection of certified IP experts with experience in all phases of deploying and supporting large network infrastructures. With specialized tools, knowledge, methodologies, and best practices, Cisco and its partners are able to deliver value throughout the network lifecycle.

Cisco experience can provide the support and guidance you need to effectively migrate services and customers to your new platform or solution, and to ensure that the network design meets your future needs. Cisco application of its best practices in design and implementation can result in lower cost of ownership, increased stability and availability, and faster service adoption. Throughout the network lifecycle, from the build phase through basic operation support, Cisco can add its expertise in project management and, where necessary, can manage work that has been outsourced to partners.

Cisco Services help networks, applications, and the people who use them work better together.

## For More Information

For more information about Cisco Services, visit <http://www.cisco.com/go/services/> or contact your local account representative.

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