

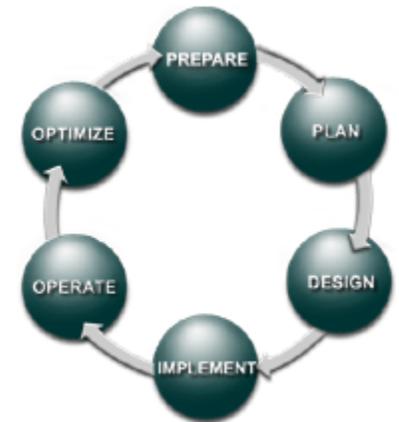
IPv6 ASSESSMENT AND MIGRATION SERVICES

Solution Overview

The challenge of migration from an IPv4 network to a federally mandated IPv6 network is becoming a reality, and careful planning of your IPv6 transition will be critical to your success. To help you meet your goals for network migration, Cisco Systems® offers complete service offering, in which engineers can work with your team or partner to plan, design, implement, and optimize the foundational components of your IPv6 network.

Cisco can first assess the implications of IPv6 for your environment, including product compliance, address provisioning and management, routing policies, security, and infrastructure design. This assessment also identifies opportunities to take advantage of IPv6 features and functionality to simplify your environment, as well as areas of risk to be considered during your transition to IPv6.

Cisco can also analyze your architecture requirements from business, technical, and implementation perspectives. Services include requirements analysis, site survey and logical network design, physical network design, documentation, and creation of an acceptance test plan. Cisco can facilitate smooth implementation activities through proven, written procedures and side-by-side coaching.



IPv6 Capability Assessment

Delivered by network experts with extensive field experience, the IPv6 Capability Assessment provides a comprehensive view of the state of your network's IPv6 readiness by conducting a thorough assessment of your Cisco network hardware devices and Cisco IOS® Software releases. Cisco experts document and identify areas of concern that help you readily understand the gaps that could affect a successful migration.

Cisco can assist in the design, integration, and coordinated deployment of your IPv6 network and deliver a plan that can help you transition to an IPv6 network, identify and define the transition approach, and recommend transition mechanisms to ease your implementation. Recommendations can include:

- Site-specific installation tasks and checklists
- Documentation of node-specific and site-specific information
- Guidelines for an implementation engineer
- Installation and site commissioning tests

Cisco engineers will team with your engineers to develop the network ready-for-use plan. Table 1 shows IPv6 Capability Assessment activities and deliverables.

Table 1 IPv6 Capability Assessment Activities and Deliverables

Activities and Deliverables	Benefits
<p>Identify, validate, and confirm the presence of Cisco devices and Cisco IOS Software on your network. Activities typically include:</p> <ul style="list-style-type: none"> • Perform an automated network discovery of customer-identified networks • Validate all devices and Cisco IOS Software • Examine assessment to determine feature functionality and IPv6 readiness 	<p>Faster migration time</p> <ul style="list-style-type: none"> • Helps reduce time in gathering and assessing the data necessary to create an IPv6 transition plan <p>Improved organizational productivity</p> <ul style="list-style-type: none"> • Helps increase the productivity of your network staff by providing expertise trained to identifying IPv6 readiness
<p>Confirm capabilities and readiness on identified devices to more effectively determine the appropriate IPv6 design. Activities typically include:</p> <ul style="list-style-type: none"> • Identify current IPv6 readiness on all Cisco devices • Recommend IPv4 to IPv6 transition when applicable 	<p>Reduced total cost of transition for IPv6 migration</p> <ul style="list-style-type: none"> • Can prevent the need for reassessment by capturing all required information
<p>Analyze and present IPv6 assessment results. Activities typically include:</p> <ul style="list-style-type: none"> • Identify critical deficiencies by analyzing and reviewing data and comparing test results with current operational requirements • Analyze and review data and compare results of the assessment with recommended IPv6 migration roadmap • Present IPv6 readiness and recommendations summary improvement 	<ul style="list-style-type: none"> • Helps reduce time and resources to migrate by providing a team of engineers dedicated to understanding the requirements of IPv6 and how these requirements affect your network
<p>Develop the internal IPv6 readiness and recommendations report. This deliverable typically summarizes:</p> <ul style="list-style-type: none"> • The most critical assessment findings • Data and statistics regarding individual systems and vulnerabilities and recommendations for improvement 	

Network Infrastructure Detailed Design Development

Network Infrastructure Detailed Design Development is a hands-on approach intended to establish a partnership between your networking staff and Cisco Advanced Services engineers. Your technical requirements and design goals are integrated into your IPv6 network design, and Cisco takes responsibility for creating your low-level design (LLD) using Cisco templates, leading practices, and lessons learned.

Your Cisco Advanced Services team begins by reviewing and evaluating your IPv6 network documentation and any existing IPv6 network infrastructure designs. The engineers validate and summarize your IPv6 design requirements

and develop an IPv6 LLD that supports those requirements. Throughout the development process, Cisco Advanced Services engineers also mentor your networking staff as needed. In this way, the Network Infrastructure Detailed Design Development service can minimize the possibility of costly and time-consuming redesign work even as it enhances the skills and knowledge base of your staff. Table 2 shows Network Infrastructure Detailed Design Development activities and deliverables.

Table 2 Network Infrastructure Detailed Design Development Activities and Deliverables

Activities and Deliverables	Benefits
<p>Detailed Design Workshop</p> <p>Conduct an onsite detailed design workshop to gather data and initiate the IPv6 network detailed design development process, which can include:</p> <ul style="list-style-type: none"> • Review and evaluation of IPv6 network documentation and existing IPv6 network designs, if available • Verification that the chosen platforms, features, and functions will meet the design objectives • Completion of the detailed design discovery checklist, where applicable, to integrate technical requirements and design goals into the LLD • Gathering of IPv6 network detailed design requirements 	<ul style="list-style-type: none"> • Integrates technical requirements and design goals into your IPv6 network infrastructure design with the leadership of Cisco experts using proven design principles • Accelerates the adoption of innovative technology through knowledge exchange and use of leading practices on IPv6 network design principles • Minimizes expensive, time-consuming, and IPv6 network-intrusive redesign by helping to ensure proper design early in the lifecycle • Improves staff proficiency through continuous knowledge exchange with Cisco design experts • Proactively improves the performance, resiliency, and availability of your IPv6 network infrastructure • Identifies potential security risks, helping you take appropriate corrective action to reduce the risk of network downtime
<p>Create LLD</p> <p>Team with you to create an LLD document that typically includes:</p> <ul style="list-style-type: none"> • IPv6 network logical and physical topology • Addressing and routing strategy • Scalability and redundancy • Security considerations such as authentication, VLANs, subnet isolation, and so on • Hardware and software protocol, feature, and function recommendations • Software version referral • Required changes to IPv6 network infrastructure to accommodate the LLD, if applicable 	
<p>Present and Discuss LLD</p> <p>Present and discuss the LLD, typically within 30 days of delivering the final LLD.</p>	



Network Infrastructure Implementation Engineering

Network Infrastructure Implementation Engineering can last from 1 to 12 months, depending on your needs and the complexity of your project. Through this service, Cisco Advanced Services engineers take responsibility for producing an IPv6 network infrastructure staging, implementation, and ready-for-use plans using Cisco templates, leading practices, and lessons learned. They also work closely with your staff to help ensure that the sites are ready and technical details are properly specified and implemented before deployment. These efforts not only reduce the possibility of errors or delays during the IPv6 deployment process, but also offer numerous knowledge transfer opportunities that can improve the proficiency of your staff and encourage a more proactive—and ultimately, more beneficial—approach to network design, implementation, and optimization.

Cisco understands that your need for technical assistance and expert guidance does not end simply because the site surveys have been performed and the implementation plans have been readied for completion. For this reason, the Network Infrastructure Implementation Engineering service includes cutover support.

Cisco Advanced Services engineers facilitate the smooth completion of your IPv6 implementation project by providing consultative, onsite support during the integration of your new IPv6 infrastructure with your live network. They also team with your engineers for post implementation verification and testing to resolve any problems that arise and help ensure that the fully integrated network delivers expected features, functions, capacity, and reliability. Table 3 shows Network Infrastructure Implementation Engineering activities and deliverables.

Table 3 Network Infrastructure Implementation Engineering Activities and Deliverables

Activities and Deliverables	Benefits
<p>Through this service, Cisco Advanced Services engineers:</p> <p>Team with your engineers to perform site surveys for up to three representative sites.</p> <p>Team with your engineers to develop the network staging plan, which typically includes:</p> <ul style="list-style-type: none"> • Physical and logical topologies • Configurations • Testing scripts • Acceptance criteria <p>Team with your engineers to develop a network implementation plan for up to three representative sites. A network implementation plan typically includes:</p> <ul style="list-style-type: none"> • Site-specific installation tasks and checklists • Documentation of node-specific and site-specific information • Guidelines for the implementation engineer • Installation and site commissioning tests 	<ul style="list-style-type: none"> • Enables you to work with and receive support from technical experts throughout the implementation process • Offers a more proactive—and ultimately, more beneficial—approach to network design, implementation, and optimization • Speeds implementation of Cisco recommendations for your network infrastructure • Creates opportunities for knowledge sharing, which can improve the proficiency of your staff • Helps ensure that technical details are properly specified and implemented prior to deployment, reducing the possibility of errors or delays during the implementation process • Facilitates smooth implementation activities through proven, written procedures and side-by-side coaching • Improves implementation team productivity by reducing the number of unexpected problems that arise during the implementation process • Helps to ensure that the network delivers expected features, functions, capacity, and reliability upon completion of the implementation
<p>Team with your engineers to develop the network ready-for-use plan.</p> <ul style="list-style-type: none"> • Assist with the completion of the network implementation plan for up to three representative sites. This can include: • Assisting your engineers with loading device configurations • Assisting your engineers with carrying out test plans and documenting results • Assisting your engineers with resolving implementation problems 	
<ul style="list-style-type: none"> • Provide remote support for your engineers during implementation of the network ready-for-use plan. • Provide consultative, onsite support at your central location during integration with the live network during one maintenance window. Team with your engineers to perform post implementation verification, testing, and one day of onsite “day 2” support. 	



Summary

IPv6 Assessment and Migration Services can provide you with a comprehensive evaluation and migration plan for your IPv6 network. By delivering an IPv6 Capability Assessment along with Network Infrastructure Detailed Design Development and NI Implementation Engineering, Cisco offers a complete service offering to help you successfully meet your IPv6 transition goals.

IPv6 Posture Assessment, Network Infrastructure Detailed Design Development, and Network Infrastructure Implementation Engineering services are part of Cisco Advanced Services. Cisco Advanced Services help speed the migration of advanced technologies into your IPv6 network and offer support throughout the network lifecycle.

Ordering Information

IPv6 Posture Assessment, Network Infrastructure Detailed Design Development, and Network Infrastructure Implementation Engineering can be ordered without a subscription to Network Optimization Support. Part Number(s): **AS-RS-CNSLT**

For More Information

For more information about Cisco Advanced Services or IPv6 Capability Assessment, Network Infrastructure Detailed Design Development, and Network Infrastructure Implementation Engineering, contact your Cisco representative.



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