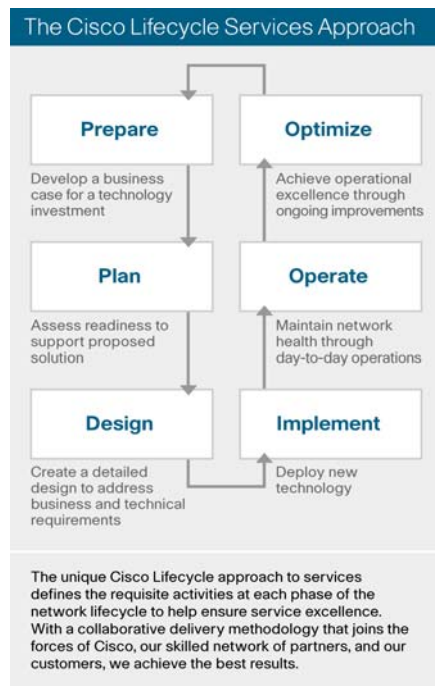


Cisco Outdoor Wireless Services

Build a secure, scalable outdoor wireless infrastructure.



Challenge

Cisco® Outdoor Wireless Network solutions use wireless mesh technology, wireless bridging, and mobile networks to allow government, public safety, transportation, and enterprise organizations to build cost-effective outdoor wireless networks for private or public use. These technologies are designed to provide secure, scalable, high-bandwidth solutions to enable access to fixed and mobile applications across metropolitan areas.

When deploying an outdoor wireless solution, the challenge is to effectively support today's business requirements and applications while establishing a foundation that can scale with the evolving business environment in a cost-effective way. Businesses must be able to integrate the solution with their existing network infrastructure and segment traffic into VLANs for security and network management. Finally, the solution must be easy to manage.

Solution

Cisco and our Wireless LAN Specialized Partners offer a broad portfolio of end-to-end services based on proven methodologies for planning, designing, implementing, operating, and optimizing the performance of a variety of secure network solutions, technologies, and strategies.

Cisco's extensive global network of partners can provide specialized networking services and a wide variety of support services to help deliver a secure outdoor wireless solution with a low total cost of ownership.

Planning and Design

Cisco Outdoor Wireless Scoped Planning and Design Service

Whether you are planning and designing a small, private outdoor wireless network or a large-scale, service provider outdoor network, the goal is to provide users convenient access to business applications and data while maintaining a high level of security over a broad area. To deploy a cost-effective, efficient outdoor wireless network it is vital to understand how to use wired points of presence and distribute and manage bandwidth to enable architectural scalability in the future.

Cisco and our Wireless LAN Specialized Partners can support you in planning and designing your RF environment through a phased approach that includes:

- Developing an outdoor wireless technical feasibility study
- Developing an outdoor wireless detailed design
- Developing an outdoor wireless site design
- Validating the outdoor wireless solution after deployment

Outdoor Wireless Technical Feasibility Study

We review your requirements and analyze your environment for factors that could impede solution success, and we help you understand which outdoor wireless capabilities would align your current and future business requirements. For outdoor mesh deployments, we develop high-level coverage maps showing generalized site locations of required mesh node densities and analyze the readiness of your existing architecture and infrastructure to support mesh services.

Outdoor Wireless Detailed Design

We draw on leading practices to reduce time-consuming network redesign and help you develop detailed plans and configurations for design elements such as security, switching and routing, network management infrastructures, and an IP addressing scheme. We can also develop configuration templates for primary networking infrastructure devices and recommend software image detailed configurations.

Outdoor Wireless Site Design

We set the stage for successful implementation with a detailed design for each site that includes installation plans and a detailed predictive coverage model with outdoor mesh nodes deployed according to available sites and that identifies areas where additional sites are required to achieve coverage to support your business requirements. We also help you evaluate available outdoor mesh node sites and document issues regarding mounting, powering, and potential interference.

Outdoor Wireless Postdeployment Validation

After your outdoor access points have been installed and the network has been configured, you can improve performance, availability, capacity, and security by assessing your outdoor wireless system and understanding adjustments that might need to be made. We can survey the RF environment for coverage, interference, and general performance after access points are installed and the network is configured. We can assess coverage and interference, evaluate mesh network capacity, and recommend changes.

Cisco Outdoor Wireless Scoped Planning and Design Starter Kit Service

If you are making initial forays with an outdoor wireless network covering only one to two square miles, this scaled-down version of the Cisco Outdoor Wireless Scoped Planning and Design Service is a good place to start. We can help you establish a sound foundation for future expansion.

Cisco Outdoor Wireless Scoped Project Management Service

Effective project management helps you to reduce risk and resolve problems quickly during your outdoor wireless deployment. An experienced project manager with wireless technology expertise helps you manage projects throughout the network lifecycle. This service helps you deploy your outdoor wireless solution on time and on budget by assisting with establishing deployment project parameters, identifying primary sponsors, and developing a project plan.

Implement

In the implementation phase, a company works to integrate devices and new capabilities in accordance with the design without compromising network availability or performance.

Service activities for the implementation phase of the network or solution lifecycle are delivered primarily through Wireless LAN Specialized Partners. However, for technologies and applications that are relatively new, Cisco can perform service activities in conjunction with our channel partners. Cisco transfers knowledge to broaden and deepen the expertise of our channel partners and your staff in supporting implementation activities.

In the implementation phase, Cisco makes our outdoor wireless postdeployment validation available as a scoped service offering for customers who did not purchase the Cisco Outdoor Wireless Scoped Planning and Design Service.

Operate

Cisco SMARTnet Service

Unexpected problems can arise in any network. If your outdoor wireless network is a critical part of your business operations, you need a way to resolve problems rapidly.

Cisco SMARTnet[®] Service is an award-winning technical support service that gives you direct, anytime access to Cisco engineers and an extensive range of technical resources. Cisco SMARTnet Service delivers rapid issue resolution, flexible device-by-device coverage, and premium service options to help you maximize operational efficiency of your wireless LAN.

Cisco Software Application Support Services

Network security is a dynamic undertaking, with new threats emerging daily. To protect the integrity of the network and reduce downtime, which can affect your business, you need up-to-date software applications as well as secure network hardware. Cisco Software Application Support Services provide comprehensive services and cost-saving application updates to help customers enhance their outdoor wireless security, performance, and functionality.

Receive expert problem diagnosis and resolution and advice on software features. Access essential wireless LAN software application support, including new Cisco software application versions and documentation from Cisco.com.

Cisco Focused Technical Support Services

Resolving network-level issues quickly is critical for system reliability. Cisco builds on device-level technical support services by offering three levels of focused technical support for large, complex networks that are critical to business operations:

- Level 1: Cisco High-Touch Operations Management Service – Augment your staff with a dedicated operations manager eight hours a day, five days a week to expedite issue resolution, identify measures to help prevent issues from recurring, and manage service requests to closure.
- Level 2: Cisco High-Touch Technical Support Service – Add a designated team of specialized Cisco engineers to respond to your needs 24 hours a day, seven days a week.

- Level 3: Cisco High-Touch Engineering Service – Access a designated Cisco network engineer eight hours a day, five days a week to handle cases and resolve network issues. Maintain a stable network through root cause analysis and responsive, proactive, and corrective measures delivered by engineers whose expertise is aligned with your needs.

Cisco maintains a large, skilled workforce of high-touch network support specialists, backed by industry recognized certifications.

Optimize

Cisco Optimization Services take a two-stage approach to provide an integrated service offering:

- Cisco Foundation Technology Optimization Service Bundle/Network Optimization Support (NOS) – Optimize your network's performance, enhancing security and increasing operational efficiency to help increase your business profitability.
- Cisco Outdoor Wireless Scoped Optimization Service – Build on the Cisco Foundation Technology Optimization Service Bundle/NOS by improving the performance of your outdoor wireless infrastructure to increase your return on investment and better align your network solutions to your business requirements.

Learn more in the Cisco Optimization Services Overview at www.cisco.com/go/wirelesslanservices under "Optimization Services."

Cisco Foundation Technology Optimization Service Bundle/NOS

To make full use of your network investment, you need to enhance the performance and security of your network and improve operational efficiency. The Cisco Foundation Technology Optimization Service Bundle/NOS provides advanced network-level support and consultative proactive support to help you optimize your Cisco routing and switching network.

These services focus on the core routing and switching network and help you make full use of your foundation technology and maintain optimal security. By helping you establish a network with the capacity to offer a broad range of services, evaluating the capabilities of your software to meet future needs, and taking measures to reduce risk when making changes, these services also help prepare your network for successful integration of new advanced technologies.

The Cisco Foundation Technology Optimization Service Bundle/NOS is available on an annual subscription basis and consists of:

- Cisco Foundation Technology Annual Assessment Service
- Cisco Foundation Technology Network Support Service
- Cisco Foundation Technology Continuous Learning Service

Cisco Outdoor Wireless Scoped Optimization Service

Maintaining your wireless network to help keep business-critical applications available and operational through the lifetime of the network can increase employee productivity while reducing operational expenses. In supporting these applications, it is critical to proactively address quality-of-service, coverage, interference, and compatibility issues. If your outdoor wireless infrastructure has coverage gaps, poor quality of service, or software compatibility problems, your network users might not be able to complete business-critical transactions.

The Cisco Outdoor Wireless Scoped Optimization Service is a proactive optimization service that provides software, configuration, and coverage recommendations to help improve the performance level of your Cisco wireless infrastructure. Delivered by engineers with detailed knowledge of your

wireless network design and architecture, this service helps you support changes, while analyzing designs that enable your network to support additional applications and users. It allows you to assess your outdoor wireless infrastructure's performance using periodic onsite coverage, interference, throughput, and utilization measurements.

The service also assesses wireless applications and develops a strategy to manage Cisco wireless software in a standardized way, helping to improve network availability and reliability. It also increases your team's knowledge base of wireless technology and solutions so that they can be better prepared to use new wireless applications and solutions when they become available.

Cisco Outdoor Wireless Scoped Training Service

To reduce your ongoing operational expenses, you need to deliver effective professional training to your network support organization. Whether your wireless technology is new to your IT environment or a new person is part of your staff, the Cisco Outdoor Wireless Scoped Training Service can educate your team about wireless technology, common problems, troubleshooting techniques, and operational best practices.

This service helps increase the proficiency of your network support organization by assessing the existing skills and creating a training curriculum that provides the knowledge required to support the wireless infrastructure. After the Cisco engineers understand your business objectives, evaluate the capabilities of the existing staff, and identify the training required to align skills with the requirements, Cisco or a Cisco training partner can deliver custom training workshops that include both classroom lecture and hands-on exercises. The results are reduced risk, less network downtime, and fewer avoidable deployment delays.

Benefits

Cisco Outdoor Wireless Services help you to build a secure, scalable outdoor wireless infrastructure and to:

- Reduce risk and resolve problems quickly during your wireless deployment and deploy your outdoor wireless solution on time and on budget through effective project management
- Prepare for solution success by reviewing your requirements and analyzing your environment for issues regarding mounting, powering, and potential interference
- Reduce expensive, time-consuming solution redesign by creating a well-engineered design for your outdoor wireless solution and detailed installation plans for each site
- Improve security and simplify network management through transparent integration of the outdoor wireless solution with your existing Cisco infrastructure and network management applications
- Reduce network operations costs and enhance network reliability by identifying potential performance problems and making recommendations to proactively address them
- Identify and proactively correct potential network configuration problems and software interoperability issues through ongoing optimization

Why Cisco Services

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

Today, the network is a strategic platform in a world that demands better integration between people, information, and ideas. The network works better when services, together with products, create solutions aligned with business needs and opportunities.

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.

For More Information

For more information about Cisco Outdoor Wireless Services, visit www.cisco.com/go/wirelesslanservices or contact your local account representative. All Cisco Services may not be available in all theaters.

For more information about Cisco Outdoor Wireless Solutions, visit www.cisco.com/go/outdoorwireless or contact your local account representative.

Cisco Services.
Making Networks Work.
Better Together.



Americas Headquarters
 Cisco Systems, Inc.
 170 West Tasman Drive
 San Jose, CA 95134-1706
 USA
www.cisco.com
 Tel: 408 526-4000
 800 553-NETS (6387)
 Fax: 408 527-0883

Asia Pacific Headquarters
 Cisco Systems, Inc.
 168 Robinson Road
 #28-01 Capital Tower
 Singapore 068912
www.cisco.com
 Tel: +65 6317 7777
 Fax: +65 6317 7799

Europe Headquarters
 Cisco Systems International BV
 Haarlerbergpark
 Haarlerbergweg 13-19
 1101 CH Amsterdam
 The Netherlands
www-europe.cisco.com
 Tel: +31 0 800 020 0791
 Fax: +31 0 20 357 1100

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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