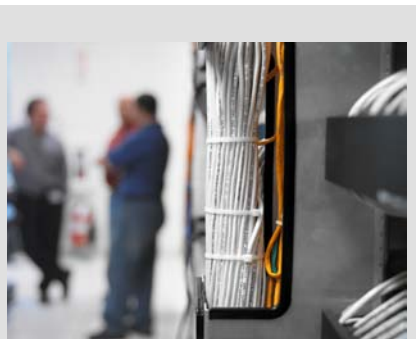# Cisco Wireless LAN Optimization Service

Optimize your wireless LAN network for business evolution and innovation using Cisco expertise and leading practices.

Cisco helps you build business success through a team of professionals focused on making sure your network is optimized to support your business objectives.

Complementing your team and the Cisco partners you work with, we help you to:

- More effectively design your wireless LAN network

- Improve your wireless LAN network stability, availability, and reliability and proactively identify and respond to issues

- Deploy and optimize a secure wireless network with optimal access point placement, application availability, network resiliency, and operational management for your services-oriented network

- Improve your wireless LAN software management practices and reduce network complexity

- Increase the self-sufficiency of your networking teams by sharing knowledge, best practices, and intellectual property and providing opportunities for continuous learning

Service Overview

The convenience of mobility, coupled with the availability of robust wireless security, has led organizations in a variety of industries to use their wireless networks for more than just email and Internet access. Maintaining your wireless LAN 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 security, performance, quality-of-service, coverage, and compatibility issues. By taking a proactive approach, you can avoid security gaps, poor quality of service, or software compatibility problems that might have an adverse effect on overall company operations.

The Cisco® Wireless LAN Optimization Service is a proactive service that provides ongoing design consultation, software configuration, and coverage recommendations to help improve the performance level of your Cisco wireless LAN. This service helps you support changes, while analyzing designs to enable your network to grow to support additional applications and users. It allows you to assess your wireless LAN's performance using periodic onsite coverage, interference, throughput, and utilization measurements. The service also assesses your software and develops a strategy to reduce compatibility problems and help improve network availability. Additionally the service helps increase your team's knowledge of wireless LAN technology and solutions so that it can be prepared to use new applications and solutions when they become available.

Optimizing Your Wireless LAN Network

The Cisco Wireless LAN Optimization Service helps you continuously improve your wireless LAN infrastructure and achieve operational excellence so that it is always a competitive resource. Cisco consulting engineers provide this service using industry-leading tools and leading practice methodologies gained through years of experience designing and deploying some of the world's most complex enterprise-level secure wireless networks.

This service includes nine components:

- Wireless LAN design review
- Wireless LAN design consultation
- Wireless LAN network assessment
- Wireless LAN operations risk management assessment
- Wireless LAN proactive software recommendation report
- Wireless LAN software security alert
- Wireless LAN change support
- Wireless LAN remote knowledge transfer session
- Wireless knowledge service

Wireless LAN Design Review

The design review consists of a series of meetings between your networking staff and a Cisco engineer to develop a thorough understanding of your design requirements. Cisco consultants work with your organization to develop a strong wireless LAN design. The Cisco design methodology considers all aspects of your wireless LAN network, including existing and planned architecture. (See Table 1.)

Table 1.   Wireless LAN Design Review Activities and Benefits

Activities Summary	Benefits
• Review design requirements, priorities, and goals by comparing business direction and feature/functionality requirements to the current design • Identify functionality gaps • Review network architecture and topology, including wireless LAN analysis, existing radio frequency (RF) deployment, and frequency use • A Cisco wireless LAN design report containing recommendations for architectural changes, security enhancements, performance improvements, system changes, and/or application migration	• Integrates your technical requirements and design goals into your overall network design, as well as transfer design knowledge to your team

Wireless LAN Design Consultation

Ongoing design consultation helps you to review existing architecture and analyze the readiness of your infrastructure to support wireless LAN services. Validate that proposed changes meet design goals and objectives. (See Table 2.)

Table 2.   Wireless LAN Consultation Activities and Benefits

Activities Summary	Benefits
Ongoing informal design sessions to review requirements such as: • Review design requirements, priorities, and goals • Analysis of effects of new requirements on existing network. • Consultation on wireless LAN architecture concerns, including applications such as guest access, context-aware adaptive wireless intrusion prevention systems (IPSs), and unified communications over wireless LAN • Security and authentication policies and options • Infrastructure management, availability, performance, and scalability • Desired coverage levels and areas frequency bands of operation	• Evolves your wireless LAN design to align with changing business needs • Bolsters network predictability by providing guidance for tuning • Validates that proposed changes meet design goals and objectives

Wireless LAN Network Assessment

The Cisco Wireless LAN Network Assessment and Cisco Wireless LAN Performance Analysis services provide a comprehensive approach to assessing the architecture, performance, and security of your wireless network. (See Table 3 and Table 4.)

Table 3.   Wireless LAN Network Assessment Activities and Benefits

Activities Summary	Benefits
- Review wireless LAN business goals, objectives, and requirements - Review existing wireless LAN architecture and design documentation, including network diagrams, device configurations. and security - Evaluate the wireless LAN architecture for redundancy, reliability, and performance - Review the Cisco Wireless LAN Controller deployment and provide recommendations for improved redundancy and scalability - Analyze wireless device configurations and compare with Cisco recommended leading practices - Identify security vulnerabilities in the wireless LAN infrastructure - Analyze RF coverage, interference, and contention based on information collected from the Cisco Wireless LAN Controller to identify areas of incomplete wireless coverage - Provide a report that documents gaps in architecture, security risk analysis, and performance analysis, providing prioritized recommendations for improvement.	- Reduce the time it takes to evolve your wireless LAN network to support changing business requirements for innovative and collaborative mobility services - Improve the reliability and resiliency of your wireless network by identifying architectural gaps and deviations from best practices - Improve the performance of your wireless LAN network to strengthen network services for business-critical mobility applications - Optimize your RF coverage to reduce the risk of service disruption for mission-critical business applications - Strengthen the security of your wireless LAN infrastructure by identifying vulnerabilities and deviations from best practices - Protect your investment by extending the reliability, performance, and security capabilities of the existing wireless LAN infrastructure

Table 4.   Wireless LAN Performance Analysis Activities and Benefits

Activities Summary	Benefits Summary
- Travel onsite to perform a detailed performance analysis of a limited portion of the wireless LAN network - Measure the actual RF signal coverage of the wireless network - Perform RF interference analysis to identify specific sources adversely affecting wireless network performance - Perform signal analysis to evaluate network utilization, signal tracking accuracy, and efficiency metrics of the wireless network - Perform packet capture analysis to troubleshoot specific wireless LAN performance problems - Provide a summary of the performance gaps in the wireless LAN infrastructure	- Quickly identify, classify, and troubleshoot sources of RF interference that affect the performance of wireless LAN networks - Optimize RF coverage to reduce the risk of service disruption for business-critical mobility applications such as voice and video - Help improve the capacity of the existing wireless LAN by identifying the signals patterns of Wi-Fi devices, such as phones and microwave ovens

Wireless LAN Operations Risk Management Assessment

The Wireless LAN Operations Risk Management Assessment reviews the current operational state of your wireless network, including staff, processes, and tools. Specific activities include a series of meetings between your networking staff and Cisco to develop a thorough understanding of your operational processes and policies.

Based on this information, Cisco consultants identify operational gaps and propose a remediation framework and roadmap to meet your business goals. Recommendations are based on process-focused leading practices to build a proactive service support model for operational excellence. All recommendations are based on your business requirements and strategies. (See Table 5.)

Table 5.   Wireless LAN Operations Risk Management Assessment Activities and Benefits

Activities Summary	Benefits
- Review the customer's operational processes: problem management, wireless network configuration management, change management, release management, wireless network performance and capacity management, and wireless event management - Review the customer's operational processes of wireless network management systems tools and instrumentation - Identify gaps in operations processes, personnel, and wireless network management - Provide a remediation framework report that helps you build a roadmap for process and operational improvement	- Provide timely and validated support data regarding service delivery and support processes, thereby reducing overall network total cost of ownership - Reduce downtime - Automate analytics, reporting, and provisioning for increased time savings and to decrease operational risk - Lower change-induced service disruption

Wireless LAN Proactive Software Recommendation

This service evaluates whether your existing wireless LAN software version is able to meet current and future requirements. This activity also assesses how scheduled events such as hardware and software upgrades might affect the current code and proposes both the process and the frequency of proactive code upgrades. (See Table 6.)

Table 6.   Wireless LAN Proactive Software Recommendation Activities and Benefits

Activities Summary	Benefits
• Evaluate the capabilities of your currently deployed Cisco software levels on the network versus future feature and functionality requirements • Analyze software versions at risk and summarize identified end-of-life or end-of-service releases • Perform proactive critical bug analysis; periodically analyze identified software tracks • Provide critical defect analysis for identified software versions relative to your current and future requirements • Cisco wireless LAN software proactive recommendation report provides a software version recommendation and that identifies potential benefits and risks of implementing a specific software upgrade	• Helps improve network performance and functionality by providing the information you need to deploy the appropriate software releases for your network • Identifies known software issues that could potentially affect your environment

Wireless LAN Software Security Alerts

Engineers conduct a proactive analysis of alerts released by the Product Security Incident Response Team (PSIRT) generated when security issues are uncovered that might affect Cisco networks. Cisco will provide an analysis of the vulnerability and its resolution with regard to its possible effects on your wireless LAN solution. (See Table 7.)

Table 7.   Wireless LAN Software Security Alerts Activities and Benefits

Activities Summary	Benefits
• Provide ongoing software security alerts • Report of Cisco security advisories for issues with potential to affect your network • Provide consultation on potential mitigation strategies for the security advisories • Review similar environments and correlate features and code	• Improves network security and resiliency by notifying you of devices and software releases affected or potentially affected by known issues and providing recommendations to mitigate risk

Wireless LAN Change Support

Cisco engineers work with you to evaluate the potential effects of proposed major network changes. They also provide remote support related to system changes that affect the Cisco wireless LAN infrastructure. (See Table 8.)

Table 8.   Wireless LAN Change Support Activities and Benefits

Activities Summary	Benefits
• Review network changes before they are implemented • Provide remote support during certain network changes • Help manage technical support escalation • Provide assistance with software upgrades, design changes, or configuration changes needed to restore the network	• Shortens mean time to resolution of technical issues • Reduces the potential for error during scheduled changes • Reduces the effects of individual device failures on the overall network

Wireless LAN Remote Knowledge Transfer Session

The wireless LAN remote knowledge transfer session helps increase the proficiency of your network support organization by assessing the skills and knowledge required to support your wireless LAN network. Specific activities include evaluating staff capabilities, developing training requirements and a curriculum, and delivering custom training workshops. (See Table 9.)

Table 9. Wireless LAN Remote Knowledge Transfer Session Activities and Benefits

Activities Summary	Benefits
• Develop customized informal training material or topics of interest tailored to your needs • Deliver remote knowledge-transfer sessions about Cisco wireless LAN products and technologies you use	• Helps increase the self-sufficiency of your network support team by sharing knowledge, best practices, and intellectual property and providing opportunities for continuous learning

Wireless Knowledge Service

The Wireless Knowledge Service offers subscription-based access to Cisco leading practices, technical content, and wireless LAN expertise. Increase the knowledge and self-sufficiency of your network support team with multimedia and self-study resources developed by seasoned Cisco network consulting engineers who are experts in wireless products and technology. Anytime access to content includes technical sessions, videos, leading practice documentation, configuration examples, troubleshooting methodologies, white papers, and case studies helping your staff to design, deploy, and operate wireless networks with greater confidence. (See Table 10.)

Table 10. Wireless Knowledge Service Activities and Benefits

Activities Summary	Benefits

Through the Wireless Knowledge Service:
• Provide anytime company access to multimedia resources, online content, and technical documentation
• Provide self-study resources for continuous learning and preparation for Cisco career certifications
• Deliver technical knowledge and intellectual property content, including:
  ◦ Proprietary Cisco product and technology documentation
  ◦ Knowledge transfer videos
  ◦ Leading practices documentation
  ◦ Configuration examples
  ◦ Troubleshooting methodologies
  ◦ White papers and case studies
  ◦ Online technical sessions
	• Increase operational efficiency and maximize the return on Cisco network investment with continuous learning
	• Increase technical skills and self-sufficiency of network staff with shared knowledge, best practices, and intellectual property
	• Improve time to resolution with short video technical demonstrations and troubleshooting tips by Cisco experts with extensive field experience
	• Remain current on the latest Cisco wireless developments with product and technology updates

Why Cisco Services

Realize the full business value of your technology investments more quickly with intelligent, customized services from Cisco and our partners. Backed by deep networking expertise and a broad ecosystem of partners, Cisco Services enable you to successfully plan, build, and run your network as a powerful business platform. Whether you are looking to quickly seize new opportunities to meet rising customer expectations, improve operational efficiency to lower costs, mitigate risk, or accelerate growth, we have a service that can help you.

Cisco and Partner Expertise: Better Together

Cisco engineers and Cisco Certified Partners are among the industry's elite in providing integrated, collaborative, adaptive solutions. Jointly with our partners, we form the largest collection of industry certified experts in the world supporting the most complex networks to meet and exceed the needs of our customers. Cisco teams can collaborate with partners to foster consistency and alignment with Cisco methodologies, tools, and leading practices.

For More Information

For more information about Cisco Wireless LAN Services, visit www.cisco.com/go/wirelesslanservices or contact your local account representative.

For more information about Cisco Wireless LAN products, visit www.cisco.com/en/US/products/hw/wireless/index.html.

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Printed in USA   C78-529307-03   02/11