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Cisco Wireless LAN Network Assessment Service

Strengthen Your Wireless LAN Architecture, Security, and Performance



Strengthen your wireless LAN architecture, security, and performance:

- Optimize the deployment of advanced performance and security capabilities of the Cisco Unified Wireless Network
- Effectively secure your wireless LAN network by identifying security vulnerabilities and deviations from best practices
- Optimize RF coverage to reduce the risk of service disruption for mission-critical business applications

Challenge

As users become increasingly mobile and business applications become more interactive, innovative wireless services are critical in helping companies maintain innovation, agility and differentiation. Wireless LAN technology advancements like those enabled by the new 802.11n standard and Clean Air technology have improved security, flexibility, and reliability to the point that enterprises have begun deploying wireless more pervasively throughout their organizations, not simply for business travelers and mobile workers, but for the entire organization. These pervasive networks, supporting more users, devices, and applications than ever before, call for a solid understanding of the wireless network infrastructure and performance.

Solution

Cisco and our Wireless LAN Specialized Partners offer a broad portfolio of professional services that help you take full advantage of the scalability, flexibility, and reliability provided by 802.11n standardbased Cisco[®] Unified Wireless Networks. These services are based

on proven methodologies for planning and deploying secure voice, video, and data wireless network solutions, technologies, and strategies. This knowledge has been gained through years of experience designing and deploying some of the world's most complex enterprise-class wireless networks and can help you simplify deployment and reduce the burden on IT resources.

For a comprehensive assessment of your wireless LAN infrastructure, Cisco provides the following two services:

- Cisco Wireless LAN Network Assessment: Remote assessment of the architecture, performance, and security of your wireless LAN
- Cisco Wireless LAN Performance Analysis: Onsite, in-depth performance analysis and troubleshooting of a limited portion of your wireless LAN network

Cisco Wireless LAN Network Assessment Service

This service provides a review of your overall wireless LAN architecture, focusing on wireless LAN infrastructure redundancy and reliability, the operational status of mobility services, security controls, and wireless LAN performance. Whether you are planning an expansion of your wireless LAN, the adoption of new mobility services, or migration to a Cisco Unified Wireless Network based on 802.11n and Clean Air technologies, the Cisco Wireless LAN Network Assessment Service can improve the overall performance, reliability, and security of your wireless LAN infrastructure.

A critical first step in implementing a high-performance wireless LAN network, this service identifies gaps in your wireless LAN infrastructure, providing a prioritized set of actionable steps to strengthen the overall performance, reliability, and security. Wireless LAN experts begin by conducting a detailed review of your wireless LAN goals and requirements. Based on this information, they complete an in-depth analysis of your wireless LAN architecture,

including the network topology, wireless LAN devices, security controls, and Radio Frequency (RF) performance. Additionally, they evaluate your overall wireless LAN architecture for scalability, reliability, and performance.

The Cisco Wireless LAN Network Assessment Service is performed remotely and includes the following types of analysis:

- · Wireless device analysis compares your device configuration with Cisco leading practices
- · Security analysis identifies areas of vulnerability and makes recommendations for improvement
- RF performance, interference, and contention analysis, based on information collected from the Cisco wireless LAN controller, identifies areas with incomplete wireless coverage
- Wireless LAN controller architecture analysis identifies recommendations for improved redundancy and scalability

Upon completion of the analysis, Cisco engineers provide prioritized and actionable recommendations to improve your overall wireless LAN operations, network design, performance and security. By taking a comprehensive approach to assessing the wireless LAN architecture, this service helps you plan and design a robust wireless LAN infrastructure that supports a world-wide collaborative working environment. (See Table 1.)

| Table 1. Wireless LAN Network Assessment Service Activities and Benefit |
|---|
|---|

| Activities Summary | Benefits Summary |
|--|--|
| Review wireless LAN business goals, objectives, and requirements | 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 |
| 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 | Optimize your RF coverage to reduce the risk of service disruption for mission-critical business applications |
| Analyze RF coverage, interference, and contention based on information collected from the Cisco Wireless LAN Controller to identify areas of incomplete wireless experience. | 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 |
| incomplete wireless coverage Provide a report that documents gaps in architecture, security risk analysis, and performance analysis, providing prioritized recommendations for improvement. | |

Cisco Wireless LAN Performance Analysis Service

This service is available as an additional service option if your organization needs in-depth performance troubleshooting and analysis on a specified portion of your wireless LAN network. Working with your IT staff, Cisco experts in RF engineering perform a detailed onsite performance analysis to measure actual signal coverage, interference, and wireless LAN traffic to resolve specific wireless LAN performance issues.

The Cisco Wireless LAN Performance Analysis Service is performed onsite and includes the following types of analysis:

- RF coverage analysis measures the actual signal coverage of the wireless network
- RF interference analysis identifies specific sources adversely affecting wireless network performance
- Signal analysis analyzes network utilization, RF signal tracking accuracy, and efficiency metrics of the wireless network
- · Packet capture analysis troubleshoots specific wireless LAN performance problems

With this analysis, Cisco engineers are able to troubleshoot specific performance issues and make recommendations that can help you overcome potential performance or reliability issues that might lead to service disruption for business-critical mobility applications. (See Table 2.)

| Activities Summary | Benefits Summary |
|---|--|
| Travel onsite to perform a detailed performance analysis of a limited portion of the wireless LAN network | 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 |
| 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 | |

Table 2. Wireless LAN Performance Analysis Service Activities and Benefits

Benefits

The Cisco Wireless LAN Network Assessment Service and Cisco Wireless LAN Performance Analysis Service provide a comprehensive approach to assessing the architecture, performance, and security of your current wireless network. These services are delivered by wireless experts who draw on their extensive wireless experience in wireless network architectural design and RF engineering. This expertise is supported by a combination of best-inclass tools, methodologies, and superior access to Cisco product development engineers to help you make the most of the sophisticated performance and security features of your Cisco Unified Wireless Network.

These services help you to:

- 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 service 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

Why Cisco Services

Services from Cisco and our partners enable you to realize the full business value of your technology investments by harnessing the network as a powerful business platform enabled by smart, personalized services that solve your toughest business challenges.

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.

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, including the Cisco Unified Wireless Network Migration Service, visit <u>www.cisco.com/go/wirelesslanservices</u> or contact your local account representative.

Cisco Services. Making Your Business Work Smarter.

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