

# Cisco AVVID Network Infrastructure

## Wireless LAN Solution



### Cisco AVVID—Enabling E-Business

Cisco AVVID (Architecture for Voice, Video and Integrated Data) is the intelligent network infrastructure for today's Internet business solutions. As the industry's only enterprise-wide, standards-based network architecture, Cisco AVVID provides the roadmap for combining your business and technology strategies into one cohesive model.

### Cisco AVVID Network Infrastructure

Businesses operating large enterprise networks increasingly seek an enterprise-wide infrastructure to serve as a solid foundation for emerging technologies such as IP telephony, content delivery, and IP storage. Cisco AVVID Network Infrastructure provides a documented roadmap for planning, building, and expanding enterprise networks with consideration for quality of service (QoS), high availability, and security. Cisco AVVID Network Infrastructure extends beyond a single box approach, focusing on good design principles, interoperability between different network components, and the use of features and protocols needed to build a converged voice, video, and data network. Through solution network reference design guides (SRND), which provide best practice designs and implementation, Cisco AVVID Network Infrastructure enables enterprises to design networks that facilitate rapid and seamless deployment of emerging technologies to meet

current and future business demands, and accelerate deployment cycles across the enterprise.

### Cisco AVVID Wireless LAN

The Cisco AVVID Wireless LAN (WLAN) Solution is a fundamental element of the Cisco AVVID Network Infrastructure. Instead of more traditional media such as copper or fibre, this solution uses radio frequency (RF) signals through a Cisco wireless device to connect businesses and individuals to the Internet or a private intranet.

With a WLAN, the covered area is analogous to a standard local area network. This might be a building or a campus environment, or even a small office or home environment. In large applications, by deploying a series of access points throughout a building or campus, you can achieve full coverage, providing the benefits of high-speed data rates, the freedom of mobility, and the ability to access broadband data anywhere within the local area network.

#### Designed for Scalability

Customers can choose from three wireless LAN designs:

- Enterprise-wide, multisite
- Small, standalone office
- Telecommuter

## Solutions Benefits

Cisco AVVID WLAN solutions offer strategic benefits to the enterprise, including:

- Mobility within a building or campus—Facilitates implementation of applications that require an always-on network and that tend to involve movement within a campus environment.
- Convenience—Simplifies networking of large, open work areas.
- Flexibility—Allows work to be done at the most appropriate or convenient place rather than where a cable drop terminates.
- Easy setup of temporary spaces—Promotes quick network setup of meeting rooms or brainstorming areas that can adapt to variations in the number of participants.
- Lower cabling costs—Reduces the requirement for contingency cable plan installation because the WLAN can be employed to fill the gaps.
- Easy adds, moves, changes, lower support and maintenance costs—Temporary networks become much easier to set up, easing migration issues and costly last-minute fixes.
- Improved efficiency—Studies show that WLAN users stay connected to the network 1.75 hours longer per day compared with hard-wired users.
- Productivity gains—Promotes easier access to network connectivity, resulting in better utilization of business productivity tools.
- Simplified collaboration—Facilitates access to collaboration tools from any location, such as meeting rooms; files can be shared on the spot and requests for information handled immediately.

## Technology Overview

At its most basic level, a Cisco AVVID WLAN Solution consists of a Cisco Aironet® access point and a client device with a wireless radio. WLAN implementations can grow to feature multiple access points, centralized access control, and sophisticated encryption schemes. A WLAN can span multiple floors and connect multiple buildings in a large campus setting—or can feature a single access point

and a single radio connecting a single user to a corporate network over a virtual private network (VPN). Cisco AVVID WLAN Solution deployments can be tailored to specific situations based on scope of coverage and security requirements.

## Secure Wireless Connectivity

Cisco wireless security services closely parallel security available in a wired LAN, fulfilling the need for a consistent, reliable, and secure mobile networking solution.

With the Cisco Wireless LAN Security Solution in place, an organization can:

- Minimize the security threats of lost or stolen hardware, rogue access points, and hacker attacks
- Use user-specific, session-based wired equivalency privacy (WEP) keys created dynamically at user logon, not static WEP keys stored on client devices and access points
- Manage the security for all wireless users from a central point of control

Cisco support for the Extensible Authentication Protocol (EAP) and IEEE 802.1x delivers a centrally managed, standards-based, and open wireless network security scheme that addresses the limitations of earlier IEEE 802.11 WEP implementations. In addition, the EAP framework is extensible to wired networks, enabling an enterprise to use a single security architecture for every access method.

Cisco supports the forthcoming standard today, offering a complete, end-to-end security solution that is fully compliant with IEEE 802.1x. The solution is available when a site uses Cisco Aironet wireless client adapters and access points and the Cisco Secure Access Control Server.

## Service and Support

Technology and equipment are only one component of an end-to-end Cisco AVVID WLAN solution based on tested and verified designs and materials. These end-to-end services enable businesses to configure and optimize each Cisco AVVID solution to deliver a fully interoperable solution. Delivered directly or through an ecosystem of

specialized channel partners, Cisco provides strategic and consultative support for planning, design, implementation, operation, and optimization.

Choosing an end-to-end Cisco AVVID Wireless LAN solution ensures that you receive best practices design capabilities, proven materials, faster deployment, and complete system interoperability.

## Get Started

To find out more about verified Cisco AVVID Wireless LAN solutions, please contact your Cisco Channel Account Manager or your Cisco Wireless LAN Specialized Partner or visit <http://www.cisco.com/discuss/wireless> to download the Wireless LAN SRND (CCO Login required).



Corporate Headquarters  
Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA  
[www.cisco.com](http://www.cisco.com)  
Tel: 408 526-4000  
800 553-NETS (6387)  
Fax: 408 526-4100

European Headquarters  
Cisco Systems Europe  
11, Rue Camille Desmoulins  
92782 Issy-les-Moulineaux  
Cedex 9  
France  
[www-europe.cisco.com](http://www-europe.cisco.com)  
Tel: 33 1 58 04 60 00  
Fax: 33 1 58 04 61 00

Americas Headquarters  
Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA  
[www.cisco.com](http://www.cisco.com)  
Tel: 408 526-7660  
Fax: 408 527-0883

Asia Pacific Headquarters  
Cisco Systems Australia, Pty., Ltd  
Level 9, 80 Pacific Highway  
P.O. Box 469  
North Sydney  
NSW 2060 Australia  
[www.cisco.com](http://www.cisco.com)  
Tel: +61 2 8448 7100  
Fax: +61 2 9957 4350

Cisco Systems has more than 200 offices in the following countries and regions. Addresses, phone numbers, and fax numbers are listed on the  
**Cisco Web site at [www.cisco.com/go/offices](http://www.cisco.com/go/offices)**

Argentina • Australia • Austria • Belgium • Brazil • Bulgaria • Canada • Chile • China PRC • Colombia • Costa Rica • Croatia  
Czech Republic • Denmark • Dubai, UAE • Finland • France • Germany • Greece • Hong Kong SAR • Hungary • India • Indonesia  
Ireland • Israel • Italy • Japan • Korea • Luxembourg • Malaysia • Mexico • The Netherlands • New Zealand • Norway • Peru  
Philippines • Poland • Portugal • Puerto Rico • Romania • Russia • Saudi Arabia • Scotland • Singapore • Slovakia • Slovenia • South Africa  
Spain • Sweden • Switzerland • Taiwan • Thailand • Turkey • Ukraine • United Kingdom • United States • Venezuela • Vietnam • Zimbabwe

Copyright © 2001, Cisco Systems, Inc. All rights reserved. Printed in the USA. Cisco, Cisco IOS, Cisco Systems, and the Cisco Systems logo are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and certain other countries.

All other trademarks mentioned in this document or Web site are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0108R)

201737/ETMG 10/01