EXECUTIVE SUMMARY

Enterprises of all sizes are challenged to enhance the productivity of their mobile workforce by delivering pervasive cellular and Wi-Fi network access that meets the diverse requirements of their organizations. These requirements include delivering the full features and functionality of 802.11 wireless services while addressing increased demand for indoor cellular services and emerging fourth generation (4G) applications over data-intensive smartphones.

Cisco and MobileAccess are the first to deliver a new integrated cellular and Wi-Fi solution that addresses growing customer demands for a pervasive, reliable mobility experience anywhere throughout the enterprise at a fraction of the cost of alternative solutions. MobileAccessVE is an innovative solution that has been tested and validated with the Cisco® Unified Wireless Network. The MobileAccessVE and Cisco solution transparently distribute cellular RF signals inside of buildings over Category 5 or 6 (Cat 5/6) Ethernet infrastructure for second-generation (2G), third-generation (3G), and 4G services, without affecting the performance of wired or wireless LAN traffic or consuming LAN capacity. This flexible approach lets enterprises deliver reliable, in-building cellular and Wi-Fi coverage while minimizing the disruption and deployment costs associated with new cabling projects.

Partner Designation
· Cisco Developer Network—Solution Developer
· Cisco SolutionsPlus program member

Associated Cisco Solutions
· Cisco Unified Wireless Network
· Cisco LAN Switching

Targeted Industries
· Airports
· Education
· Enterprises and office buildings
· Healthcare
· Hotels
· Public sector
· Public venues
· Shopping centers

Geographical Regions Served
· United States
· Japan
· Europe
· Middle East

MobileAccessVE – Integrated In-Building Cellular and Wi-Fi Solution with Cisco Unified Wireless Network

Company Overview

MobileAccess, a global provider of reliable wireless coverage solutions for all indoor environments delivers connectivity to enterprises of every size, and has become the industry standard in the healthcare, hospitality, and higher-ed markets. With MobileAccess' legacy of innovation and proven architecture; the bar is set for indoor wireless peak performance, ensuring customers can meet current wireless demands, as well as easily expand with future applications and services.

Partner Solution Description

The MobileAccessVE architecture enhances enterprise cellular coverage by taking advantage of existing LAN cabling for cellular signal distribution while maintaining full Ethernet and wireless LAN capabilities. Tested and validated with the Cisco Unified Wireless Network, the VE solution provides a worry-free, plug-and- play design that uses existing unshielded twisted pair (UTP) Category 5/6 cabling infrastructure to distribute reliable cellular services to the enterprise at a cost that is comparatively lower than conventional solutions.

With the VE solution, a wireless operator signal source is established, bringing RF signals from the outside into the building. Cellular signals are then transported to VE Controllers housed alongside Cisco Wireless LAN Controllers. The VE Controller is connected to Ethernet via an e-Switch and then passes cellular and Ethernet signals, as well as standard Power-over-Ethernet (PoE) to VE Access Pods, which are plugged into RJ-45 jacks or installed on ceilings. Ethernet signals and PoE are passed on to Cisco access points connected directly onto VE Access Pods. Using PoE, both VE pods and Cisco access points are powered without additional cabling requirements, and neither network is impacted by an outage in the other. The result is a converged cellular and Wi-Fi solution.

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Compared to conventional distributed antenna systems (DAS), MobileAccessVE enables enterprises of all sizes to quickly and cost-effectively deliver wireless coverage over existing LAN cabling infrastructure while maintaining full Ethernet capabilities. This approach spreads WLAN cabling and installation costs across multiple wireless service needs, establishing one pervasive, enterprise-wide network.
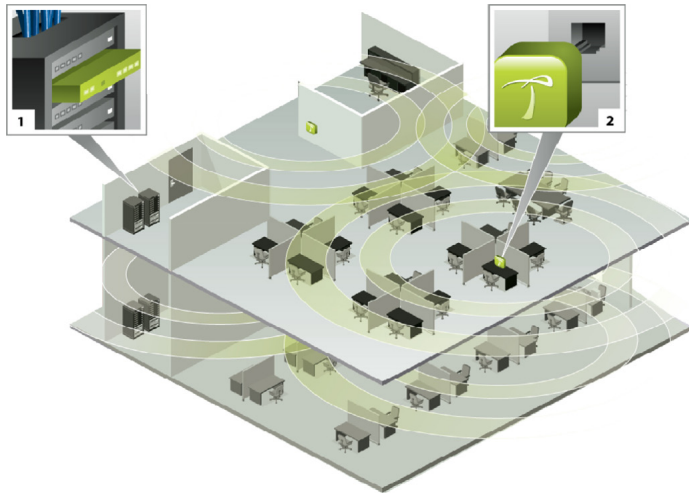
Customer Benefits

Carrier-Grade Coverage for a Variety of Cellular Services

· Extends 5-bar coverage for 2G, 3G, 4G services
· Supports full multiple-input multiple-output (MIMO) capabilities

Reduced Deployment Costs and Inconvenience

· Cisco validated to transparently coexist with the Cisco WLAN and all Ethernet/IP applications without impacting performance.
· Reduces installation time by half compared to conventional cellular antenna solutions.
· Maximizes price-performance by using existing Ethernet and standard-structure cabling architecture.
· Offers end-to-end network visibility and remote monitoring using an intuitive SNMP-based GUI.
· Simplifies design rules and configuration. "plug and play" VE Access Pods are powered over Ethernet cables and connect directly to Ethernet sockets.
· Aesthetically appealing VE Access Pods have similar appearance to Wi-Fi access points and come with a variety of mounting options.

In-Building Coverage Anywhere, Any Time

· Scales cost-effectively, allowing customers to choose where new services are activated over the existing LAN.
· VE access pods can be easily relocated for coverage modifications.
· Supports connectivity to any operator RF capacity source (for example, bidirectional amplifier, picocell, femtocell).

Core Components of the Partner Solution

The MobileAccessVE solution consists of the following main components:

· **VE Access Pods:** MobileAccessVE Access Pods distribute wireless services and provide Ethernet/IP connectivity (and PoE pass-through) to connected IP appliances. VE Access Pods are distributed at strategic locations over one or more floors, and plug into RJ-45 jacks, which are connected to the VE Control Unit through existing Cat 5/6 infrastructure. VE Access Pods are remotely powered by the VE Control Unit using PoE, which eliminates the need for local powering. VE pods are equipped with internal antennas, as well as with connectors for external antennas.

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· **VE Control Unit:** MobileAccessVE Control Units interface with the service provider's RF capacity sources and VE Access Pods. The VE Control Unit combines wireless services with Ethernet services and distributes them to VE Access Pods over Cat 5/6 cables. The VE Control Unit provides power and management for pods and one centralized Element Management System (EMS). Each VE Control Unit connects to the LAN and offers remote end-to-end system monitoring, management and configuration using a standard web browser and SNMP.

Related Cisco Products

· Cisco Unified Wireless Network

· Cisco Aironet Access Points

· Cisco Wireless LAN Controllers

· Cisco Routing and Switching Solutions

Related Partner Information

MobileAccessVE

For More Information

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