Cisco Mobility Express Solution

Overview

Q. What is the Cisco® Mobility Express Solution?

A. The Cisco Mobility Express Solution is a new wireless portfolio tailored to the needs of companies with fewer than 250 employees (small and medium-sized businesses [SMBs]). This solution is integrated within the Cisco Smart Business Communications System (SBCS), which also includes network systems, security, data center, and unified communications products. The Cisco Mobility Express Solution makes premium features that so far have been reserved mainly for enterprise customers accessible to SMBs so they do not have to compromise between price and sophistication. SMBs now have an alternative to consumer-grade products while benefiting from the latest services available over Wi-Fi.

Q. How does the Cisco Mobility Express Solution fit in with the Cisco SBCS?

A. Cisco SBCS is a new suite of networking solutions for SMB customers. An integral part of Cisco SBCS, the Cisco Mobility Express Solution comprises the mobility solution of this system. Solutions within Cisco SBCS share intuitive GUI-based management tools (such as Cisco Configuration Assistant, Cisco Smart Assist, Cisco Monitor Manager, and Cisco Monitor Director) to allow for quick and easy network setup and network management. These solutions reduce the time and effort required by SMBs to install and operate their network, thus allowing them to focus more time on their core business.

Q. What are the future plans for the Cisco Mobility Express Solution?

A. As a worldwide wireless LAN (WLAN) technology leader and innovator, Cisco will continue to lead the acceleration and evolution of technology into the next generation of SMB networking. Cisco will continue to evolve the Cisco Mobility Express Solution to meet the needs of SMB customers by supporting new business applications, WLAN technology developments, and SMB-class network demands. Cisco technology innovations will help ensure a secure, mobile, interactive workplace and deliver a unified architecture for companies deploying WLANs.

Q. How does the Cisco Mobility Express Solution support investment protection?

A. Cisco customers can be confident that their WLAN investments are protected both today and tomorrow. Cisco is committed to investment protection on the Cisco Mobility Express Solution through field firmware upgrades, software upgrades, and careful attention to future hardware requirements. Cisco will continue to make enhancements in the areas of mobility services, deployment options, scalability features, security capabilities, hardware advancements, and wired and wireless integration with a view to protecting customers' investments.

Q. Where can customers buy the Cisco Mobility Express Solution?

A. Customers can buy the Cisco Mobility Express Solution from a Cisco Certified Partner. To locate a Cisco Certified Partner, customers can go to http://tools.cisco.com/WWChannels/LOCATR/jsp/partner_locator.jsp

Benefits

Q. **Why should customers buy the Cisco Mobility Express Solution?**

A. The Cisco Mobility Express Solution enables SMBs to deploy wireless with confidence. This innovative solution supports the following business-critical features to help companies maintain agility and differentiation:

- **Ease of use:** The Cisco Mobility Express Solution is easy to deploy, use, and maintain. The friendly interface offered by the Cisco Configuration Assistant and the automated radio resource management (RRM) feature makes it comparable to a "RF-expert-in-a-box", requiring no additional IT staff or RF expertise.

- **Cost-effectiveness:** The Cisco Mobility Express Solution offers business-class features such as security, scalability, and reliability at competitive prices for SMB customers.

- **Investment protection:** The Cisco Mobility Express Solution will evolve with the needs of SMB customers over time by adding more mobile applications and benefiting from the latest innovations—unlike consumer-grade products.

- **Security:** By supporting the latest WLAN security standards and providing secure guest access, the Cisco Mobility Express Solution ensures that the information of SMB customers will be protected.

- **Scalability:** The controller-based Cisco Mobility Express Solution provides SMB customers an easy way to add access points to the network without having to individually configure them. In addition, the self-configuration, self-optimization, and self-healing features of the solution allow easy expansion of the network with minimal business disruption.

- **Reliability:** Features such as RRM and mobility management allow for intelligent bandwidth distribution and continuous roaming between access points, respectively. The network can also be designed to provide a high level of redundancy. Finally, advanced testing and validation ensures that the solution meets the high standards expected of Cisco.

Q. **What business benefits are associated with the Cisco Mobility Express Solution?**

A. The business benefits of the Cisco Mobility Express Solution are real and tangible; they include the following:

- **Responsiveness and agility:** Deploying a wireless network in a business environment enables the workforce to have immediate real-time access to business-critical information, such as inventory or e-mail. Access to timely information empowers employees, allowing them to make faster and better decisions. Employees can also be more responsive to customers and complete more sales in a shorter period of time.

- **Talent attraction and retention:** Today's workforce is more technically knowledgeable than previous ones. Ubiquitous wireless access is something they expect. Offering them the flexibility to work when and where they want significantly increases loyalty; it can also save the company money, because studies show that in skilled and semiskilled jobs, the total cost of replacing a worker who leaves is typically 1.5 to 2.5 times the worker's annual salary.

- **New opportunity identification:** Deploying a mobility solution also gives SMBs the opportunity to be more proactive in developing innovative ways to serve their customers and create value. For instance, the way of taking or placing orders can be streamlined to reduce cost—and also to allow employees to spend more time developing new revenue streams, increasing the customer market base, or recruiting new business partners.

Products and Solutions

Q. **What products are included in the Cisco Mobility Express Solution?**

A. Products within the Cisco Mobility Express Solution include:

- **Access points:** Standalone and controller-based access points (Cisco 521 Wireless Express Access Points)
- **Controller:** Controller appliance for network unification and management of the access points (Cisco 526 Wireless Express Mobility Controller)
- **Management systems:** The Cisco Configuration Assistant, Cisco Smart Assist (future release), Cisco Monitor Manager (future release), and Cisco Monitor Director (future release) management systems

Q. **What is the difference between the two network management systems?**

A. Three management options are available for managing both the Cisco Mobility Express Solution and the broader Cisco SBCS:

- **Cisco Configuration Assistant:** GUI-based network management for entire Cisco SBCS
- **Cisco Smart Assist (future release):** quick set up of devices and optimization of settings
- **Cisco Monitor Manager and Cisco Monitor Director (future release):** Monitoring and reporting tools for value-added resellers (VARs) to monitor their SMB customers' networks

Q. **Can the Cisco Mobility Express Solution be used with the Cisco Unified Wireless Network solution?**

A. Access points from the Cisco Mobility Express Solution can associate only with controllers within this solution. The Cisco SBCS was built with the needs of SMB customers in mind. Because these needs are different from those of enterprise customers (for example, simplified network management), the two solutions were intentionally designed differently.

Q. **What WLAN standard is supported by the Cisco Mobility Express Solution?**

A. The Cisco Mobility Express Solution supports the 802.11b/g standard, that is, the standard widely available on the vast majority of client devices (for example, laptops).

Q. **What about dual-band?**

A. Because most customers use clients with the 802.11b/g standard, dual-band is not supported in the Cisco Mobility Express Solution. Any potential interference benefits associated with 802.11b/g are mitigated in the Cisco Mobility Express Solution with the available RRM feature, which automatically configures the access points with the optimal power and channel settings to minimize interference.

Access Points

Q. **Which access point products are included in the Cisco Mobility Express Solution?**

A. Two Cisco 500 Series Wireless Express Access Point products are in the Cisco Mobility Express Solution; their part numbers follow:

- AIR-AP521G-x-K9 (standalone access point)
- AIR-LAP521G-x-K9 (controller-based access point)

The hardware for these products is the same. The products have different software, but the access points can be converted from standalone mode to the controller-based mode with a simple software upgrade.

Up to three access points can be managed by Cisco Configuration Assistant. More than three access points in the network requires the controller as well.

Q. **How is the Cisco 521 Wireless Express Access Point managed?**

A. The Cisco Configuration Assistant can be used to manage up to three access points in standalone mode. Beyond this number, Cisco Configuration Assistant is used in conjunction with the Cisco 526 Wireless Express Mobility Controller to manage up to six access points as part of the same mobility group.

Q. **How can I upgrade a standalone architecture to a controller-based one?**

A. Standalone access points can be upgraded to controller-based access points with a simple software update. This upgrade, combined with the addition of one or more of the Cisco 526 Wireless Express Mobility Controllers into the network, is how a standalone architecture is upgraded to a controller-based one. Note that the upgrade tool will be made available in late 2007.

Controllers

Q. **Which WLAN controllers are part of the Cisco Mobility Express Solution?**

A. The new Cisco 500 Series Wireless Express Mobility Controllers are included in the Cisco Mobility Express Solution. The Cisco 526 Wireless Express Mobility Controller has embedded quality-of-service (QoS) and load-balancing capabilities, making it optimal for transmission of data, voice, and video.

Q. **How many access points can a single controller manage?**

A. A single controller can manage up to 6 Cisco 521 Wireless Express Access Points. A second controller can be added to the network to support redundancy or to increase capacity, meaning that any given SMB network built with the Cisco Mobility Express Solution can support up to 12 access points.

Q. **What are some of the features of the Cisco 526 Wireless Express Mobility Controller?**

A. The controller-based architecture of the Cisco Mobility Express Solution offers many benefits to SMB customers, including:

- **Centralized management:** Allows users to quickly and easily manage clients, access points, and network policies through a single interface

- **RRM:** Offers features such as QoS and load balancing, which optimize traffic of voice, video, and data, thus optimizing bandwidth

- **Up to eight virtual networks (Service Set Identifiers [SSIDs] and VLANs):** Allows configuration of different virtual wired and wireless networks without compromising security so that one physical infrastructure can be segmented for multiple uses (for example, different organizations, different security levels, different applications [voice or data], etc.); also allows for the support of secured guest access

- **Mobility management:** Allows movement from one access point to another without dropping a connection

- **Mobility services ready:** Supports advanced mobility services traditionally reserved for enterprise businesses:
  - Security
  - Guest access
  - Optimized voice over Wi-Fi

Network Management

Q. **What management options are available for managing the Cisco Mobility Express Solution?**

A. Three management options are available for managing both the Cisco Mobility Express Solution and the broader Cisco SBCS:

- **Cisco Configuration Assistant:** GUI-based network management for entire Cisco SBCS
- **Cisco Smart Assist (future release):** quick set up of devices and optimization of settings
- **Cisco Monitor Manager and Cisco Monitor Director (future release):** Monitoring and reporting tools for VARs to monitor their SMB customers' networks

Q. **Can the Cisco IOS® command-line interface (CLI) be used to manage the Cisco Mobility Express Solution?**

A. Because the objective of the Cisco SBCS was to create a simplified management system and interface for SMB customers, the CLI is limited to troubleshooting (SHO/DEBUG) commands only and cannot be used for configuration.

Q. **Can the Cisco Mobility Express Solution be remotely configured and monitored?**

A. Yes. Remote configuration can be done with Cisco Configuration Assistant.

Product Positioning

Q. **How do these products differ from the existing Cisco Unified Wireless Network?**

A. The Cisco Mobility Express Solution is built to address the needs of SMBs (<250 employees), whereas the existing Cisco Unified Wireless Network (for example, Cisco 2106 and 4400 Series Wireless LAN Controllers and Cisco Aironet 1100 and Aironet 1200 Series Access Points) is primarily designed for midmarket and enterprise customers. The Cisco Mobility Express Solution provides many of the benefits of the feature-rich enterprise solution, but with less flexibility and more simplicity. Table 1 highlights the differences between these two solutions:

Table 1. Differences Between Cisco Mobility Express Solution and Cisco Unified Wireless Network

	Cisco Mobility Express Solution	Cisco Unified Wireless Network
Primary target segment	SMBs (<250 employees)	Midmarket and enterprise businesses (250+ employees)
Scalability	Up to 12 access points maximum in the network (6 per controller x 2 controllers)	Up to an unlimited number of access points in the network
Security	• Data encryption • Client authentication	• Data encryption • Client authentication • Intrusion detection and prevention
Management	Cisco Configuration Assistant (GUI-based management for Cisco SBCS)	Cisco Wireless Control System (WCS)

Q. **Can the Cisco Mobility Express Solution also be used by enterprises as branch-office solutions?**

A. It is strongly recommended that enterprises not deploy the Cisco Mobility Express Solution as a branch-office solution. The Cisco Mobility Express Solution was built for SMB customers. It does not provide many of the advanced features ideally suited for distributed enterprise networks that the Cisco Unified Wireless Network Solution supports, such as centralized management through the Cisco Wireless Control System. For this reason, the two solutions were intentionally kept distinct and are designed for different environments.

Q. **What is the difference between deploying a Cisco 2106 Controller and six access points versus deploying a Cisco 526 Mobility Controller and six Cisco 521 Access Points?**

A. The Cisco Mobility Express Solution has been designed with the needs of the SMB customer in mind. The Cisco 2106 Controller is part of the Cisco Unified Wireless Network and is primarily designed for midmarket and enterprise customers. Following are some of the benefits of the Cisco Mobility Express Solution to an SMB customer relative to deploying the Cisco 2106 Controller and six access points:

- **Lower total cost of ownership (TCO):** The Cisco Mobility Express Solution offers a 30- to 40-percent lower TCO than the Cisco Unified Wireless Network.
- **Management:** The Cisco Configuration Assistant is specially designed to be SMB friendly and offer integration across different technologies such as unified communications and mobility.
- **Capacity requirements for the future:** The Cisco Mobility Express Solution has a maximum capacity of 12 Cisco Wireless Express Access Points—unlike the Cisco Unified Wireless Network, which has no limitations in terms of access points.
- **Features set:** The most advanced features, such as location-based services, are currently offered only on the Cisco Unified Wireless Network.

Q. **What competitors' solutions are the primary competitors of the Cisco Mobility Express Solution?**

A. Few competitive WLAN solutions offer SMB customers enterprise-class features at attractive price points. The current solutions either offer too many features at too high price points or they offer limited business-class features for SMBs. The Cisco Mobility Express Solution changes this situation by offering a high level of sophistication (security, scalability, reliability, and integration) at prices that are cost-effective for SMBs. No longer do SMBs have to compromise between the following two primary categories of competitors:

- Traditional competitors for enterprise mobility solutions, such as Symbol and Aruba
- Consumer-grade solutions from companies such as D-Link and Netgear that are being sold in the SMB segment

Q. **How does this solution differ from those offered by Cisco's traditional competitors such as Aruba and Symbol?**

A. The Cisco Mobility Express Solution is built for SMB customers, offering many enterprise-grade features at SMB price points. Typical solutions from enterprise WLAN competitors such as Aruba, Meru, Trapeze, or Symbol are designed for enterprise business customers, and they tend to be high-priced and difficult to deploy and manage for SMB customers. Table 2 highlights the benefits of the Cisco Mobility Express Solution:

Table 2.   Benefits of Cisco Mobility Express Solution

Cisco Mobility Express Solution	Typical Enterprise Grade WLAN Solutions

Management	Cisco Configuration Assistant: Intuitive, GUI-based management for Cisco SBCS solution	Complex management tools
Investment protection	Industry leader (65-percent share) with significant research and development (R&D) investments	Far less spend on R&D
Solution breadth	Full wired and wireless complement of network components through Cisco SBCS	Mobility products only
Support	Award-winning 24-hour service and support	24-hour support
Price	Competitive price points for SMB customers	Price points more suited to midmarket customers

Q. **How does this solution differ from typical consumer-grade solutions available in the market?**

A. The Cisco Mobility Express Solution is designed for businesses with fewer than 250 employees. Consumer-grade solutions are designed for consumers' homes and possibly small office or home office (SOHO) environments. The overarching benefit of the Cisco Mobility Express Solution is that it offers SMB customers enterprise-class benefits at optimal prices. Consumer solutions, while offering wireless connectivity, offer far fewer features than businesses expect. Table 3 highlights the differences between the two solution categories:

Table 3. Differences Between Cisco Mobility Express Solution and Typical Consumer-Grade WLAN Solutions

	Cisco Mobility Express Solution	**Typical Consumer-Grade WLAN Solutions**
Scalability	• Up to 12 access points in the network • Self-configuration, self-optimization, and self-healing functions	Limited ability to scale to include many access points
Security	• Data encryption with support for the latest standards (Wi-Fi Protected Access [WPA]1 and WPA2) • Client authentication • Support for Extensible Authentication Protocol (EAP) to allow username and password management through centralized RADIUS server	Data encryption only, often without support for the latest standards
Management	• Cisco Configuration Assistant: Unique centralized network management for the entire Cisco SBCS portfolio • Rich management features, such as RRM ("RF expert in a box")	• Management often at the individual access point level • Limited management features
Voice over Wi-Fi	• Voice over Wi-Fi ready • Built-in QoS to optimize bandwidth • Integrated mobility management to allow for roaming between access points without dropped calls	• Often not supported • If supported, limited functions without QoS
Guest access	Tunneled guest traffic to the Internet for total intranet integrity	Basic
Investment protection	• Industry leader with significant R&D investments • Leadership in standards bodies • Built to support future mobility services	Not designed with future services in mind
Service and support	In-house support from highly trained Cisco representatives	Support often outsourced

Mobility Services

Q. What mobility services does the Cisco Mobility Express Solution support?

A. Support for current and new mobility services is built into the Cisco Mobility Express Solution. The solution supports the following industry-leading, innovative mobility services:

- **Security:** Supports a wide range of authentication and encryption algorithms, including multiple forms of EAP to allow for username and password management through a centralized RADIUS server
- **Voice over WLAN:** Built-in RRM, QoS, and load balancing, which prioritize voice traffic so calls are not dropped; in addition, the mobility management feature permits transparent roaming between access points without dropping of calls
- **Guest access:** Multiple SSIDs, which allow for setting up a guest network; in addition, all guest traffic can be tunneled to the Internet, thus keeping the intranet secure

Q. What is the future plan to incorporate support for additional mobility services?

A. It will depend on demand. As SMB customers' needs for mobility services increase, Cisco will build support for these services into the Cisco Mobility Express Solution.

Service and Support

Q. What is the standard warranty on products within the Cisco Mobility Express Solution?

A. The standard warranty on the Cisco Mobility Express Solution is 1 year from the date of purchase.

Cisco Smart Business Communications System

Q. I have heard that the Cisco SBCS solution supports a maximum of 50 users. Is this true?

A. The Cisco SBCS is Cisco's upcoming suite of products designed and ideally suited for SMBs. The Cisco Mobility Express Solution is part of Cisco SBCS. Although the Cisco Unified Communications 500 Series for Small Business mainly targets small businesses, the Cisco Mobility Express Solution can support up to 250 users, addressing the needs of both small and medium businesses.

Q. Can SMB customers purchase just the Cisco Mobility Express Solution, or do they have to purchase all the products within Cisco SBCS?

A. The Cisco SBCS is a modular offer. The Cisco Mobility Express Solution can be purchased and deployed as a module, just like the Cisco Unified Communications 500 Series for Small Business. SMB customers do not have to purchase all the components of the Cisco SBCS at the same time.

Q. Does the Cisco Unified Communications 500 Series for Small Business come with a built-in access point?

A. There are two Cisco Unified Communications 500 Series for Small Business products, one with a built-in access point and the other without an access point. The product without the wireless option cannot be upgraded at a later point to add wireless capabilities to it.

Q. What is the difference between the Cisco Unified Communications 500 Series for Small Business with wireless and the products within the Cisco Mobility Express Solution?

A. The Cisco Unified Communications 500 Series for Small Business product with wireless is designed for customers who need only one access point in their network, even though two

additional Cisco 521 Wireless Express Access Points can be added to the network. With the standalone Cisco Mobility Express Solution, up to 3 access points can be added to the network. With the controller-based Cisco Mobility Express Solution, up to 12 access points can be added to the network. In addition, the Cisco Unified Communications 500 Series for Small Business with integrated wireless cannot be upgraded to the controller-based architecture, whereas the standalone Cisco 521 Wireless Express Access Points can.

Additional Product Information

Q. **Where can I learn more about these products?**

A. Go to:

- **Cisco Mobility Express Solution:** www.cisco.com/go/mobilityexpress
- **Cisco Smart Business Communications System:** www.cisco.com/go/sbcs
- **Partner Locator tool:** http://tools.cisco.com/WWChannels/LOCATR/jsp/partner_locator.jsp