

## The Cisco Mobility Express Solution

A business-grade, affordable mobility solution for small and medium-sized businesses with up to 250 employees.

### Executive Summary

This document presents the Cisco® Mobility Express Solution, including its components and how it integrates with the Cisco Smart Business Communications System. A description of the solution's features and associated benefits will help readers choose a mobility solution that fits their needs.

### Challenge

With the business pace accelerating, small and medium-sized businesses (SMBs) should now more than ever take advantage of advances in technology to stay competitive and rapidly navigate market changes. Deploying a wireless network increases customer responsiveness, as well as collaboration within the company and with business partners; in other words, it improves a company's business agility.

**Figure 1.** Mobility for SMBs



The Cisco Mobility Express Solution delivers best-in-class wireless capabilities that until recently had been reserved for enterprises. The solution is sold at a premium accessible to SMB customers seeking to gain a competitive edge without having to compromise between price and sophistication. SMBs now have an alternative to consumer-grade products and can benefit from the latest enterprise-class services available over Wi-Fi.

The Cisco Mobility Express Solution smoothly integrates with a wired infrastructure. Its Radio Resource Management feature delivers self-configuration, self-optimization, and self-healing, minimizing manual management. Businesses can offer wireless guest access and use voice over Wi-Fi without the need for RF expertise or additional IT resources.

Using Smart Business Communications System management tools, the Cisco Mobility Express Solution offers a friendly user interface for configuration. As customers upgrade or evolve their networks, the introduction of new routing, switching, security or unified communications solutions will be greatly simplified.

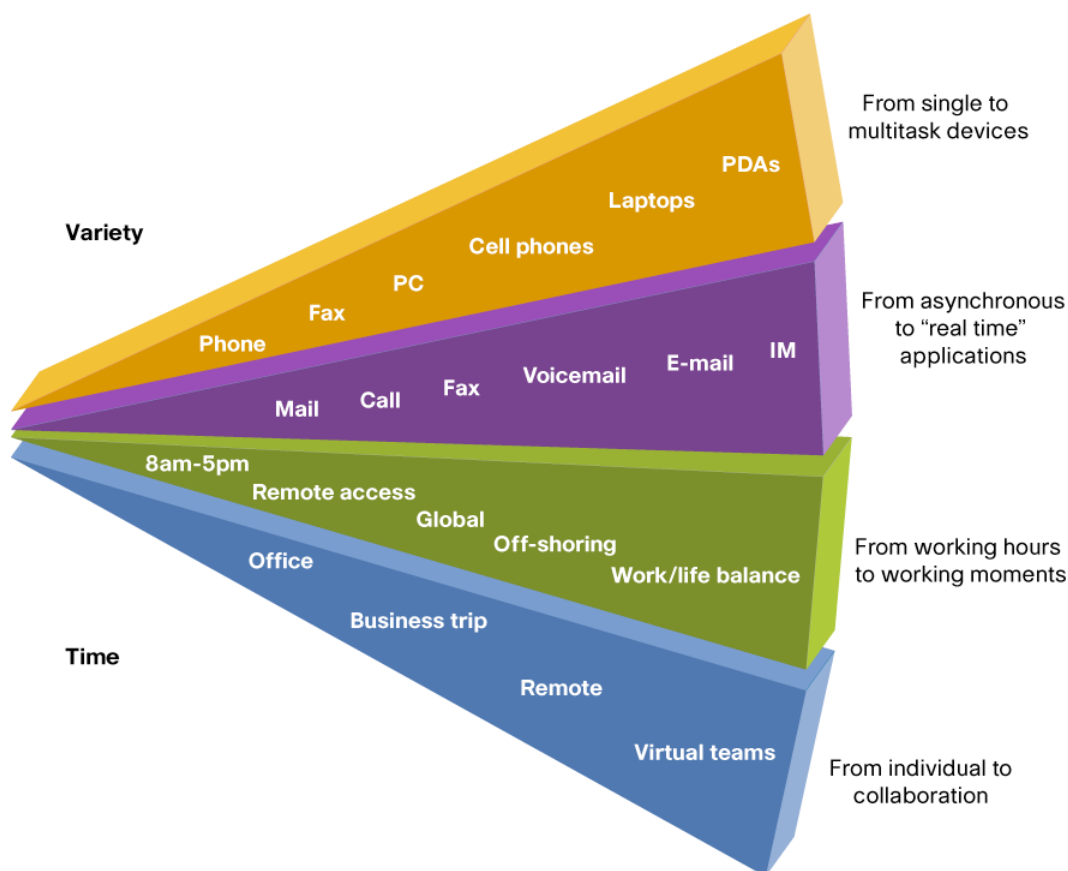
### Why should you deploy wireless?

Business tools and usage patterns have dramatically changed over the past two decades. Multitask devices are now common, and offer more memory and processing power to run real-time applications such as e-mail or instant messaging. Employees, business partners, and customers expect instant answers. While businesses need to provide services 24/7, they are also expected to offer more flexibility to their employees when it comes to working hours. In addition, the complexity of tasks requires a broader set of skills than in the past. Working in teams, sometimes virtual ones, is increasingly necessary.

Mobility solutions help companies to better navigate this complex and fast-moving environment by empowering users with the right device or application at the right time and at the right place, and by facilitating collaboration and business interactions. Companies are now considering deploying wireless technologies as part of their business strategy. Today, more than 50 percent of companies use mobility-enabling technologies such as WLANs, and the sales of laptops outpaced desktop sales in 2005.

Figure 2 shows the evolution in business tools and usage patterns over the past decades.

**Figure 2.** Evolution in Business Tools and Usage Patterns



**Responsiveness and agility**

Unlike large global companies, the competitive advantage of an SMB is often being local. SMBs can offer unmatched service to their customers or deliver unique customized products, while collaborating with business partners to better share each others' competitive advantage.

Delivering such quality is time-consuming and has a high cost. A shift in market demand or a misalignment with business partners can quickly have significant financial consequences and can affect customer loyalty. Deploying a wireless network in a business environment enables the workforce to have 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. It also means being more responsive to customers and turning over more deals in a shorter period of time.

A wireless network also increases business advantages; for example, reducing the cost of a company's cell phone bills by supporting voice over Wi-Fi, or increasing the satisfaction and efficiency of business partners or customers visiting your facilities by providing Internet access without compromising network integrity or requiring IT support.

**Retain and attract talent**

Studies show that in skilled and semi-skilled jobs, the full cost of replacing a worker is typically 1.5 to 2.5 times the worker's annual salary. Because of company size, SMBs must use their resources—especially their human resources—in the most efficient way; their employees are the foundation of the company's success.

The new workforce generation is more tech-savvy than the previous generations. They are highly familiar with wireless access and expect it from their employers. Loyalty from these workers is also more difficult to gain; offering them the flexibility to work when and where they want is key to their satisfaction.

**Set the stage for new opportunities**

Deploying a mobility solution gives SMBs the opportunity to be more proactive 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, but also to allow employees to spend more time developing new revenues streams, increasing the customer market base, or recruiting new business partners.

**Benefits of the Cisco Mobility Express Solution****Ease of use**

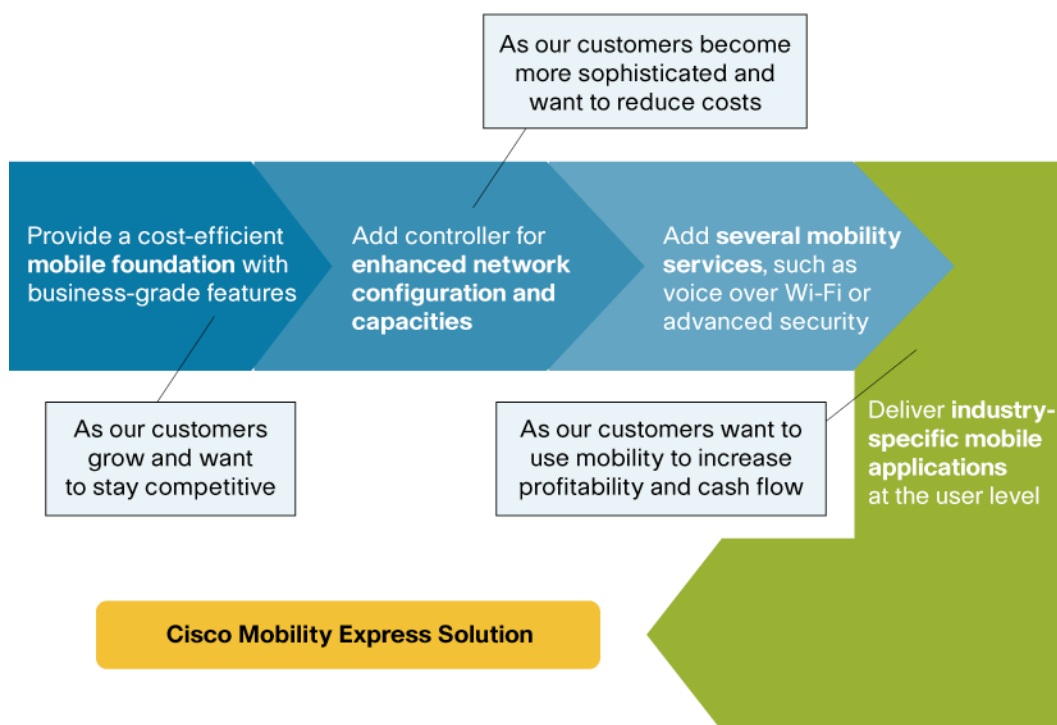
The Cisco Mobility Express Solution is easy to deploy, use, and maintain. The friendly interface offered by the Cisco Configuration Assistant and the automated Radio Resources Management tool makes it comparable to having an "RF-expert-in-a-box". No additional IT staff or RF expertise is required. The network configures the access points automatically to avoid interferences or coverage gaps while maximizing the bandwidth available. If it detects an access point failure or a point of interference, it will immediately take action tuning the radio power or frequency of surrounding access points to compensate and maintain business continuity without impacting the devices connected to the wireless network.

### Cost-effectiveness and investment protection

The Cisco Mobility Express Solution is ideal for SMBs that do not want to compromise between sophistication and price. It offers affordable, business-class features such as security, scalability, and reliability. The solution also offers the assurance that, unlike consumer-grade products, your wireless network will evolve with your needs over time, by being capable of adding more mobile applications and benefiting from the latest innovations.

Figure 3 shows the staged approach that the Cisco Mobility Express Solution offers to evolve with the company needs.

**Figure 3.** Staged Approach of the Cisco Mobility Express Solution



### Security

Protecting customer information is crucial for SMBs, where reputation and customer retention is directly associated with future revenues and stable growth. But aligning increasingly stringent regulations is costly, and noncompliance can sometimes result in the closure of a business. The Cisco Mobility Express Solution helps SMBs proactively avoid these risks. It supports a wide range of security architectures by including all the latest Wi-Fi standards and many identity-based authentication options. The security infrastructure allows for advanced secure guest access, providing business partners such as customers, contractors, or suppliers with wireless access to the Internet while safely segregating their traffic from the corporate intranet.

### Scalability

Unlike most consumer-grade products, the centralized management of the Cisco Mobility Express Solution and its self-configuration, self-optimization, and self-healing features allow you to expand your network in total simplicity and with minimum business disruption. Instead of manually configuring access points one by one, a simple change in the Cisco Configuration Assistant will update your network policies; adding another access point is "plug and play".

## Reliability

The Cisco Mobility Express Solution delivers reliability through multiple means. Radio Resource Management optimizes the radio settings of each access point in real time to present maximum bandwidth and coverage of the entire WLAN. If an access point goes down, a source of interference comes up, or traffic density shifts over the course of the day, the Cisco Mobility Express Solution re-works the radio plan in real time to compensate. Mobility Management enables a voice over Wi-Fi call or a wireless connection to be maintained while roaming from one access point to another, without the need to re-authenticate or re-launch the applications. The network can be designed to allow a high level of redundancy when needed. Finally, the advanced Cisco testing and validation that the solution has to comply with is a proven label of quality.

## Integration with the Smart Business Communications System

The Cisco Smart Business Communications System is a suite of Cisco products designed for SMBs and managed by a common user-friendly tool.

Customers that have non-wireless Smart Business Communications System solutions, such as switching, or unified communications, can quickly and easily add the Cisco Mobility Express Solution to help ensure a complete integration between the wired and wireless networks.

For customers that start with the Cisco Mobility Express Solution, other elements can be added over time as needed. Using the same interface reduces the need for IT staff training and helps avoid the time-consuming maintenance of separate wired and wireless networks.

## Solution

**Figure 4.** The Cisco Mobility Express Solution



The Cisco Mobility Express solution comprises access points, mobility controllers, and a configuration assistant:

- **The Cisco Wireless Express Access Point:** The access points can be deployed in two modes: standalone or controller-based.
  - Standalone mode: Up to 3 access points can be deployed to provide wireless connectivity between the devices and the rest of the network. In this configuration, the access points have to be managed individually through the Cisco Configuration Assistant.
  - Controller-based mode: Up to 12 access points (6 per wireless LAN controller) can be deployed and become multifunctional. In addition to offering connectivity, the access points now monitor all wireless activities and report them to the controllers. In this configuration, they can all be managed simultaneously through the Cisco Configuration Assistant.

- **The Cisco Wireless Express Mobility Controller:** The mobility controller is the “RF expert” of the system. It has a complete view of the wireless network. Based on the information received from the access points, the mobility controller can automatically and dynamically manage the access points to reduce interferences, avoid coverage gaps, and more.
- **The Cisco Configuration Assistant:** To simplify management, the Cisco Configuration Assistant is used to configure the entire Smart Business Communications System portfolio, including Cisco Wireless Express Mobility Controllers and Access Points.

The Cisco Mobility Express Solution is designed to evolve with customer needs over time. For a cost-effective first solution, customers can start by deploying access points in standalone mode, and reap the benefits of wireless connectivity. As their business grows and the need for a larger coverage arises, or as they want simpler management for an optimized radio network, the controller-based architecture can be deployed. Finally, as wireless becomes an integral part of the business strategy with mobility services such as voice over Wi-Fi or guest access, an application-based architecture can be implemented to run more sophisticated mobile applications.

Figure 5 shows the Cisco Mobility Express Solution architectures associated with the different needs of businesses.

**Figure 5.** Cisco Mobility Express Solution Architectures



## Why Cisco?

Cisco is the worldwide leader in networking technologies, with a 20-year track record supporting customers of all sizes, around the globe. By working with the established industry leader, municipalities and businesses can benefit from:

- More than two decades of experience building large-scale routing and RF networks
- Proven performance, reliability, and security with more than 3 million access points deployed and more than 128,000 customers worldwide
- A broad range of technical experts and engineers who understand the unique requirements of business customers
- Award-winning customer support services that help companies get the most out of their investments and extend the life of their network assets
- Ongoing investments in R&D initiatives
- Sustained value with upgradeable, standards-based solutions

- A phased approach to support the integration of new technologies or respond to new government mandates or regulations
- A global partnership with 200,000 worldwide partners, 4000 specialization badges, and best practices sharing

For more information about the Cisco Mobility Express Solution, visit  
[www.cisco.com/go/mobilityexpress](http://www.cisco.com/go/mobilityexpress).



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