Introduction
Today’s growing businesses face relentless competitive pressures. To keep up with large global organizations as well as smaller, more technology-enabled businesses, your company must boost productivity through better communications, streamline business processes, get full value from resources and applications, and manage costs effectively. Superior customer service and business agility can help your organization stand apart from the competition. The Cisco® Smart Business Communications System can help you compete more successfully on all of these levels with an affordable, complete system designed and built for small businesses.

The Cisco Smart Business Communications System offers a new way for small businesses to reach, serve, and retain customers. Having secure access—anytime, anywhere—to voice, video, and wireless networking enables more effective and efficient communication with customers and employees. The Cisco Smart Business Communications System gives you the right mix of communications, productivity, and business operations applications, designed to work together so they are easier to deploy, operate, and manage. It lets you integrate your voice, video, and wireless communications in an affordable, complete system, complemented by award-winning support and easy financing, all delivered through trusted local partners.

Integrating your communications systems with an intelligent IT infrastructure transforms your network into a “human network” in which your business moves with you, security is everywhere, and your information is always available—whenever and wherever it’s needed. You can efficiently access information on demand, interact with virtual teams all over the world, and manage these interactions on the go, in real time, as if you were everywhere at once. Every interaction is more valuable. Everyone is more efficient. All communications are more effective and secure. These capabilities let you excel in today’s fast-paced marketplace and give your business the agility it needs to innovate continuously, adapt quickly, and grow successfully.

The Cisco® Smart Business Communications System is made up of multiple components:

- Cisco Unified Communications 500 Series for Small Business
  - With integrated wireless option on specified versions
- Cisco Catalyst® Express 520 Series
- Cisco Mobility Express Solution
  - Cisco 500 Series Wireless Express Access Points
  - Cisco 500 Series Wireless Express Mobility Controller
- System management
  - Cisco Smart Assist
  - Cisco Configuration Assistant
  - Cisco Monitor Manager and Cisco Monitor Director

Figure 1. Smart Business Communications System with Cisco Mobility Express Solution, Including Guest Access
Call processing, with the intelligence of a telephony solution, directing how calls should be routed and used throughout the network

- Local storage of voicemail
- Eight Ethernet ports that support PoE, to provide power to IP phones using the IEEE 802.3af power standard
- WAN connection (Ethernet only) for either Internet connectivity or connection into a corporate data network
- Connectivity to the public switched telephone network (PSTN) for making and receiving external calls (FXO, BRI and T1/E1 support on the new 48 IP phone model)
- FXS ports to connect local analog devices, such as fax machines
- Optional wireless connectivity for both wireless voice and data (only on specific models)
- Security for connectivity to the Internet

Cisco Unified 500 Series Integrated Wireless Access Point Option

The Cisco Unified 500 Series offers an integrated wireless access point option on specific models. Use this approach when the Cisco Unified 500 Series can be placed in a centralized area for the best wireless access.

This single access point resides in the Cisco Unified 500 Series and provides wireless access acting like a standalone access point. This is an ideal solution, for instance, to deploy wireless IP phones in a small area without running wires.

As your business grows, you may need to expand the wireless coverage to more than a single access point. The Cisco Mobility Express Solution, described in a later section, includes access points that can be installed as standalone access points and then upgraded when necessary to controller-based access points. It is possible to have up to 12 Cisco 500 Series Wireless Express Access Points in a network controlled by two Cisco 500 Series Wireless Express Mobility Controllers.

Note that the integrated wireless access point on the Cisco Unified 500 Series is not part of the Cisco Mobility Express Solution and cannot be upgraded into a controller-based architecture.

The following table compares the features of the new Cisco Unified Communications 500 Series models:

<table>
<thead>
<tr>
<th>Feature</th>
<th>8 IP Phones</th>
<th>16 IP Phones</th>
<th>32 IP Phones</th>
<th>48 IP Phones</th>
<th>48 IP Phones</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>19 Inch Rack Mount</td>
<td>Optional</td>
<td>Optional</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>FXO</td>
<td>4</td>
<td>4</td>
<td>8</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>BRI</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>T1/E1</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>1</td>
</tr>
<tr>
<td>FXS</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Integrated WIFI option</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>VIC Expansion slot</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Cisco Catalyst Express 520 Series

The Cisco Catalyst Express 520 Series Switches are a series of fixed-configuration managed switches that range from 8 ports of 10/100 Power over Ethernet (PoE) to 24 ports of 10/100/1000. These switches are a part of the Smart Business Communications System and enable the Cisco Unified Communications 500 Series to scale to from 8 to 48 IP phones as well as provide connectivity for up to 250 users.

The Cisco Catalyst Express 520 Series Switches feature:

- Quality of Service to ensure network traffic prioritization
- Embedded device security to protect management traffic with Secure Sockets Layer (SSL) encryption
- Wire-speed managed Fast Ethernet and Gigabit Ethernet connectivity
- Central management with Cisco Configuration Assistant

The following table compares the features of the Cisco Catalyst Express 500 Series Switches:

<table>
<thead>
<tr>
<th>Feature</th>
<th>8 Port Switch</th>
<th>24 Port Switch (Data Only)</th>
<th>24 Port Switch (Partial PoE)</th>
<th>24 Port Switch (Full PoE)</th>
<th>24 Port Switch (Gigabit Data)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFP</td>
<td>1</td>
<td>N/A</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>10/100</td>
<td>8</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>N/A</td>
</tr>
<tr>
<td>10/100/1000</td>
<td>N/A</td>
<td>2</td>
<td>N/A</td>
<td>N/A</td>
<td>24</td>
</tr>
<tr>
<td>Power over Ethernet</td>
<td>8</td>
<td>N/A</td>
<td>4</td>
<td>24</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Cisco Mobility Express Solution

Wireless access to the Smart Business Communications System has been designed for both standalone and controller-based operation. It is composed of:

- Cisco 500 Series Wireless Express Access Points: The Cisco 521 Wireless Express Access Points can function in two modes:
  - Standalone mode: The access points are directly connected to the wired infrastructure and provide wireless connectivity to users in the area they cover. Configuration and management must be done at the individual access point level.
  - Controller-based mode: The access points associate with a Cisco Wireless Express Mobility Controller and, in addition to providing wireless connectivity, act as air monitors. The Cisco Wireless Express Mobility Controller manages the configurations of all the access points through a single interface.
- Cisco 500 Series Wireless Express Mobility Controller: This controller centralizes the intelligence of the wireless network, providing three key functions:
  - Single point of management for all access points in the network (configuration, software image management, security/access management, etc.)
  - Radio Resource Management, retrieving information from access points and in turn coordinating them to optimize radio transmit power and channel settings to optimize coverage
  - Host for advanced mobility services like secure guest access with guest portal pages or VoWLAN optimizations

System Management

The Cisco Smart Business Communications System is managed by a suite of applications that provide:

- Setup
- Optimization
- Transparent integration
- Local management
- Remote management by a managed service provider (reseller, integrator, consultant, or service provider)

Each of the applications is part of the overall solution to set up, optimize, and maintain the Smart Business Communications System.

Cisco Smart Assist

Cisco Smart Assist is a collection of features that provide auto-configuration and service activation between Cisco products and applications. Cisco Smart Assist features, initially supported on products in the Smart Business Communications System, are unique in offering assistance in:

- Improved ease of setup and deployment of Cisco products
- Optimizing network performance and security
- The ongoing operation of Cisco networks as they grow

Cisco Configuration Assistant

Cisco Configuration Assistant simplifies the task of configuring, deploying, and administering Cisco network solutions and provides everything needed to quickly set up a small office network. Purpose-built for single-site networks serving 8 to 250 users, this PC-based application with a simple graphical user interface (GUI) discovers all devices in the network and dynamically configures all routers, switches, and wireless access points as well as Cisco Unified Communications call-routing and voicemail systems.

Cisco Configuration Assistant was designed to provide comprehensive configuration, deployment, and ongoing network management support for the entire line of products in the Cisco Smart Business Communications System.

The Cisco Configuration Assistant provides the following:

- Holistic, network-level insight through multiple network views
- Simplified network design and deployment through dynamic discovery
- Clear separation of services through VLAN highlighting
- Improved network visibility with continual health monitoring
- Simplified network reporting
- Enhanced security for configuration and monitoring activities
- Increased IT staff efficiency through simplified software updates
- Improved network security and performance with dynamic application updates
- Increased security and performance through network synchronization
- Simplified troubleshooting with the Troubleshooting Advisor
- Faster network configuration and improved network performance through intelligent port configuration with Cisco Smartports Advisor
Cisco Monitor Manager and Cisco Monitor Director

The Cisco Monitor Manager and Cisco Monitor Director bring real-time management to the Smart Business Communications System. Whether you are a small or medium-sized business (SMB) managing your own network or a partner needing to manage your customers' networks remotely, these two products offer the perfect solution.

- **Cisco Monitor Manager:** The Cisco Monitor Manager provides management functionality at the SMB main and branch offices. This application allows customers to manage their own network infrastructure, including data and voice. Supported features include:
  - Network discovery
  - Device inventory
  - Configuration archive
  - Performance monitoring
  - Fault management
  - Performance and fault history
  - Reporting
  - Alerts
  - End-of-sale (EoS) report
  - Discovery, inventory, topology, monitoring, and reporting, including IP telephony devices
  - Cisco Unified Communications Manager Express monitoring
  - Cisco Unity Express monitoring
  - Monitoring of IP phones
  - Voice gateway monitoring

- **Cisco Monitor Director:** The Cisco Monitor Director enables partners to manage 50 individual customers at the same time. Partners gain intimate knowledge of their SMB customers and can migrate to the managed service provider (MSP) monthly recurring revenue model. They can manage customers' sites using features such as:
  - Real-time alerts and notifications
  - Configurable e-mail and pager addresses based on time-of-day setting
  - Automated e-mails sent to prevalent trouble ticketing applications
  - Multilayer alert filtering capability
  - End-of-life/end-of-sale database reference and notifications
  - Scheduled, HTML-based, automated e-mail reports that include a network alert summary, a device availability analysis, Top Number (TopN) performance reports, and a network topology

Some Additional Applications for the Cisco Smart Business Communications System

- **Cisco Unified CallConnector for Microsoft Dynamics CRM:** Integrates Cisco Unified Communications with the Microsoft Dynamics CRM Server to provide an easy-to-use, more complete customer relationship management (CRM) solution.
- **Cisco Unified CallConnector for Salesforce.com:** Integrates the Cisco Unified Communications system for small and medium-sized businesses with Salesforce.com's on-demand CRM services. The result is an easy-to-use, more complete on-demand (or hosted) CRM solution that helps increase productivity and improve customer satisfaction.
- **Cisco Unified CallConnector for Microsoft Windows:** Delivers a new way to handle the everyday task of communicating with others within the business or with customers and vendors. As a fully integrated communications management solution with presence (the availability of a current user), the application is easy to use and can offer greater productivity. Cisco Unified CallConnector for Microsoft Windows is not just another application for the Windows PC; it is embedded within business applications such as Microsoft Outlook and Internet Explorer.
- **Cisco Unified MeetingPlace Express:** Tightly integrates voice, video and Web conferencing capabilities, making it well suited for interactive meetings and presentations.
- **Cisco Unified Wireless IP Phones:** Equally adaptable for all mobile professionals, from managers on the move within an office environment to associates working in the warehouse, on the sales floor, or in the call center.