



Cisco Small and Medium Business Product Guide



Purpose Built SMB Solutions

Cisco offers routers, switches, security devices, VPNs, wireless LANs (WLANs), IPC solutions, and the software necessary to integrate each element into a secure, productive, reliable, and easy-to-manage network.

Cisco's unique end-to-end networking solutions allow organizations to communicate, collaborate and compete more effectively by providing real time access to information, enhanced communication and improved business processes for today while helping companies evolve to meet constantly changing business requirements.

Cisco's purpose built commercial networking solutions provide customers a roadmap for implementing technology to meet their current and future business needs.

- **Integrated, End-to-End Security**—To safeguard confidential business data, a Cisco® network provides enhanced security that protects the network from internal and external threats. An integrated security solution also simplifies security management and greatly reduces the total cost of ownership of the network.
- **High Network Availability**—A Cisco network helps ensure the reliable network access and maximum uptime that companies depend on to support new users, open new offices, deploy new services, extend their networks to customers and partners, support a more mobile workforce, and more. Cisco switches and routers include support for network and link redundancy, dynamic routing, automatic failover, and redundant power for improved fault tolerance and network availability.
- **Predictable Performance**—Intelligent end-to-end management maximizes the availability and performance of critical applications. Cost-conscious small and medium-sized businesses (SMBs) can maximize WAN bandwidth to serve more users and conduct more business over the Internet without upgrading to more expensive WAN facilities.
- **Ease of Use**—Intuitive end-to-end Web-based management helps keep administrative expenses down—even as the network expands.

- **Cost-Effectiveness**—An end-to-end solution approach reduces complexity and network management costs. Modular and scalable products help reduce costs of future expansion.
- **Investment Protection**—Customers can receive trade-in value for existing Cisco products against the purchase of new Cisco products.

Wireless Solutions Enable People to Work Productively, Onsite, While Away from their Desks.

Cisco Aironet® wireless solutions:

- Provide secure, affordable, upgradable, and easy-to-use WLAN solutions.
- Deliver industry-leading security with the IEEE 802.1X-based Cisco Wireless Security Suite.
- Support data rates of up to 54 Mbps (IEEE 802.11g) with backward compatibility to 802.11b equipment.
- Make management easy and straightforward.
- Support local power and inline Power over Ethernet (PoE).
- Provide dual-mode support for 801.11a and 802.11g (Cisco Aironet 1200 Series and Cisco ISR 3800, 2800, 1800 only).

Cisco Catalyst® Switches Provide High Performance, Increased Network Intelligence, Better Control, and Enhanced Security.

Robust and reliable, Cisco Catalyst switches:

- Provide superior control of traffic to maximize network availability for every user.
- Intelligently allocate priority to critical business applications.
- Provide advanced security to protect vital business data and confidential information.
- Are easy to install and to configure using Cisco Network Assistant.
- Are available in standalone, stackable, or modular configurations.

Security is an Issue for Every Company.

Cisco security solutions help protect your network from inside and out, encompassing:

- VPNs, firewalls, access control lists (ACLs), and intrusion detection systems (IDSs) that can be deployed on Cisco routers, switches, and specialized Cisco PIX® and ASA® security appliances.
- Tools such as Cisco Easy VPN, Auto Update, and comprehensive configuration and monitoring solutions for easy deployment and management.

Integrated Services Routers Provide Highly Secure, Intelligent and Flexible WAN and Internet Access Solutions.

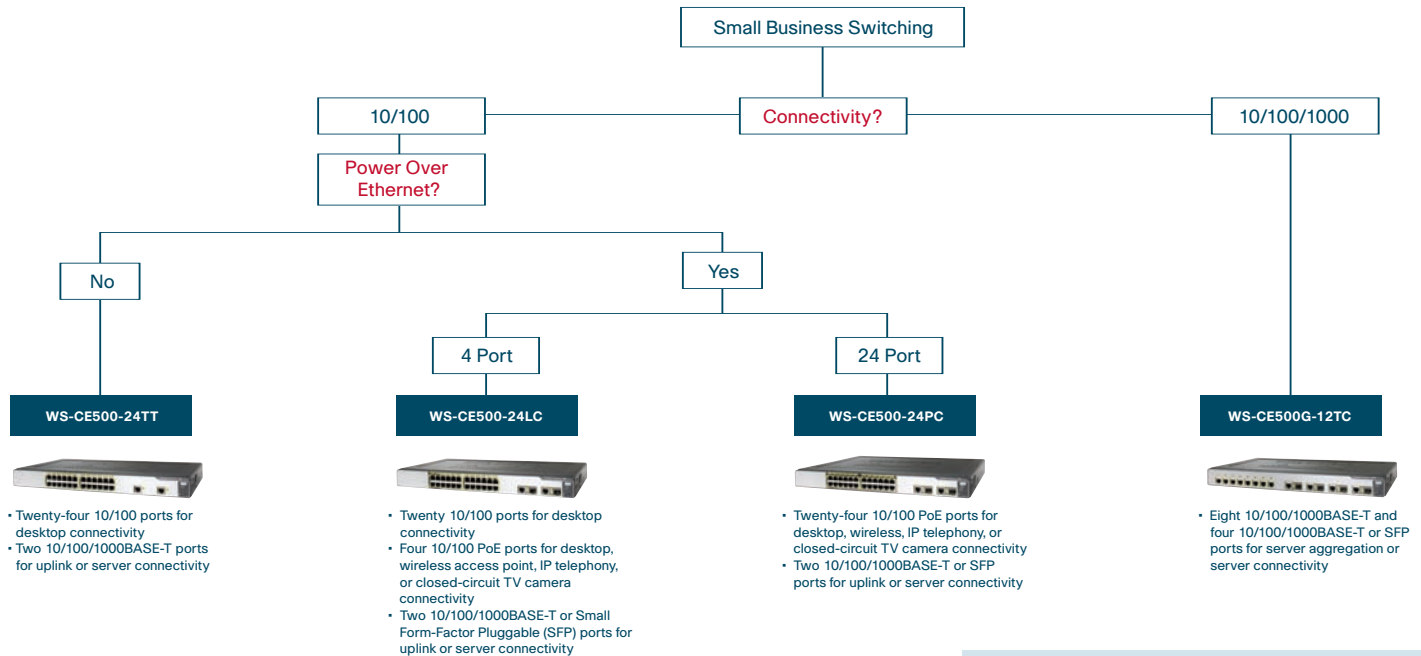
Cisco Integrated Services Routers:

- Provide secure firewall and VPN capabilities.
- Span solutions from the service provider and enterprise edge to branch, teleworker, and small offices.
- Offer enhanced performance, support for voice, and additional security features.

IP Communications is the Convergence of Data, Voice, and Video Solutions onto a Single (IP-Based) Network.

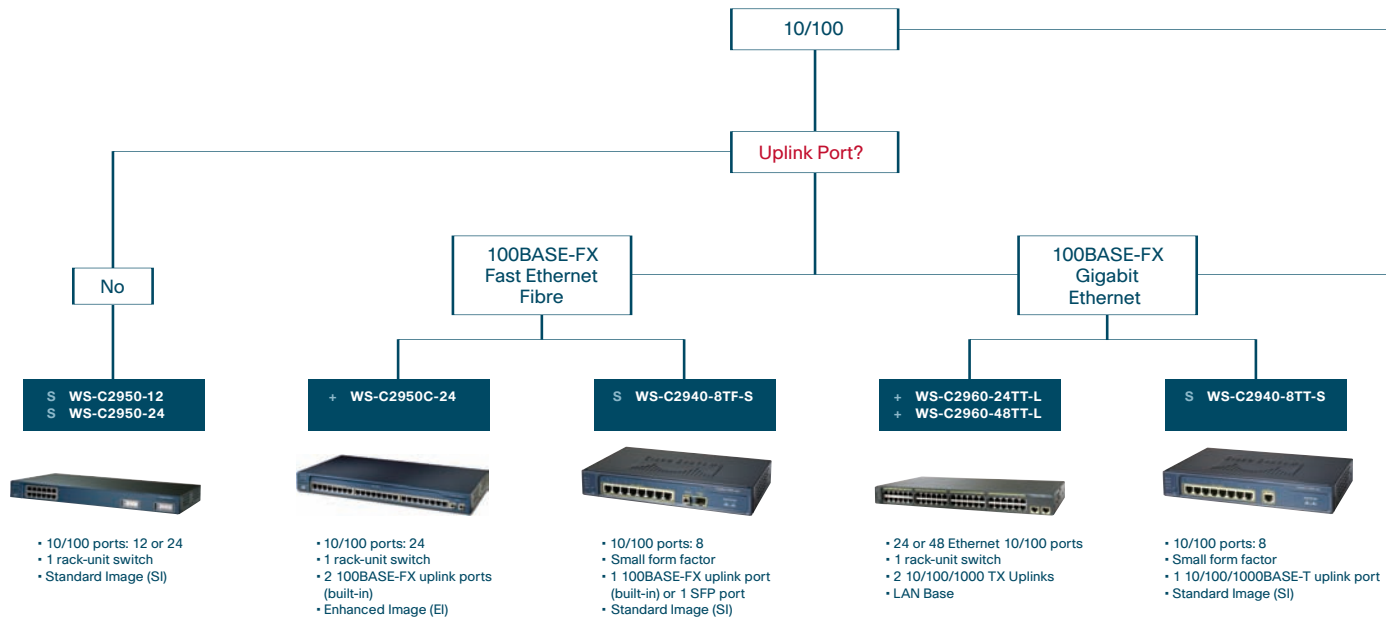
IP communications can play a critical part in helping a company to identify new ways to generate revenue, reduce operational costs, increase organizational flexibility, and generate a sustainable competitive advantage.

Cisco Catalyst Express Series Small Business Switches



NOTE: Cisco Catalyst Express switches are Web/GUI managed only with preset configuration options.

Cisco Catalyst Series Layer 2 Access Switches



Layer 2 Switching

Connectivity?

S Standard Image (SI)
+ Enhanced Image (EI)—for enhanced security/QoS (= LAN Base)

10/100/1000

100BASE-SX
Gigabit
Ethernet Fibre

Flexible Uplink

- S WS-C2950SX-24
- S WS-C2950SX-48

- + WS-C2960-24TC-L
- + WS-C2960-48TC-L

- + WS-C2960G-24TC-L



- 24 or 48 Ethernet 10/100 ports
- 1 rack-unit switch
- 2 Fixed 1000Base-SX Uplinks
- Standard Image (SI)

- 24 or 48 Ethernet 10/100 ports
- 1 rack-unit switch
- 2 Dual-Purpose Uplinks
- LAN Base

- 20 Ethernet 10/100/1000 ports
- 1 rack-unit switch
- 4 Dual-Purpose Uplinks
- LAN Base

Layer 2/Layer 3 Switching

Stackable?

Yes

Power Over Ethernet?

Yes

10/100/1000

Gigabit Fibre

10/100

10/100/1000

Uplink Port?

No

SFP

10GE

S WS-C3750G-24T-S
+ WS-C3750G-24T-E

S WS-C3750G-24TS-S
+ WS-C3750G-24TS-E
S WS-C3750G-48TS-S
+ WS-C3750G-48TS-E

S WS-C3750G-16TD-S
+ WS-C3750G-16TD-E

S WS-C3750-12S-S
+ WS-C3750-12S-E

S WS-C3750-24PS-S
+ WS-C3750-24PS-E
S WS-C3750-48PS-S
+ WS-C3750-48PS-E

S WS-C3750G-24PS-S
+ WS-C3750G-24PS-E
S WS-C3750G-48PS-S
+ WS-C3750G-48PS-E



- 24 Ethernet 10/100/1000 ports
- 1 rack-unit switch
- Cisco StackWise enhanced stacking capability
- IP Base (24T-S)
- IP Services (24T-E)

- 24 or 48 Ethernet 10/100/1000 ports
- 1 rack-unit switch
- 4 SFP-based Gigabit Ethernet ports
- Cisco StackWise enhanced stacking capability
- IP Base (24TS-S and 48TS-S)
- IP Services (24TS-E and 48TS-E)

- 16 Ethernet 10/100/1000 ports
- 1 rack-unit switch
- 1 10GB uplink
- Cisco StackWise enhanced stacking capability
- IP Base (16TD-S)
- IP Services (16TD-E)

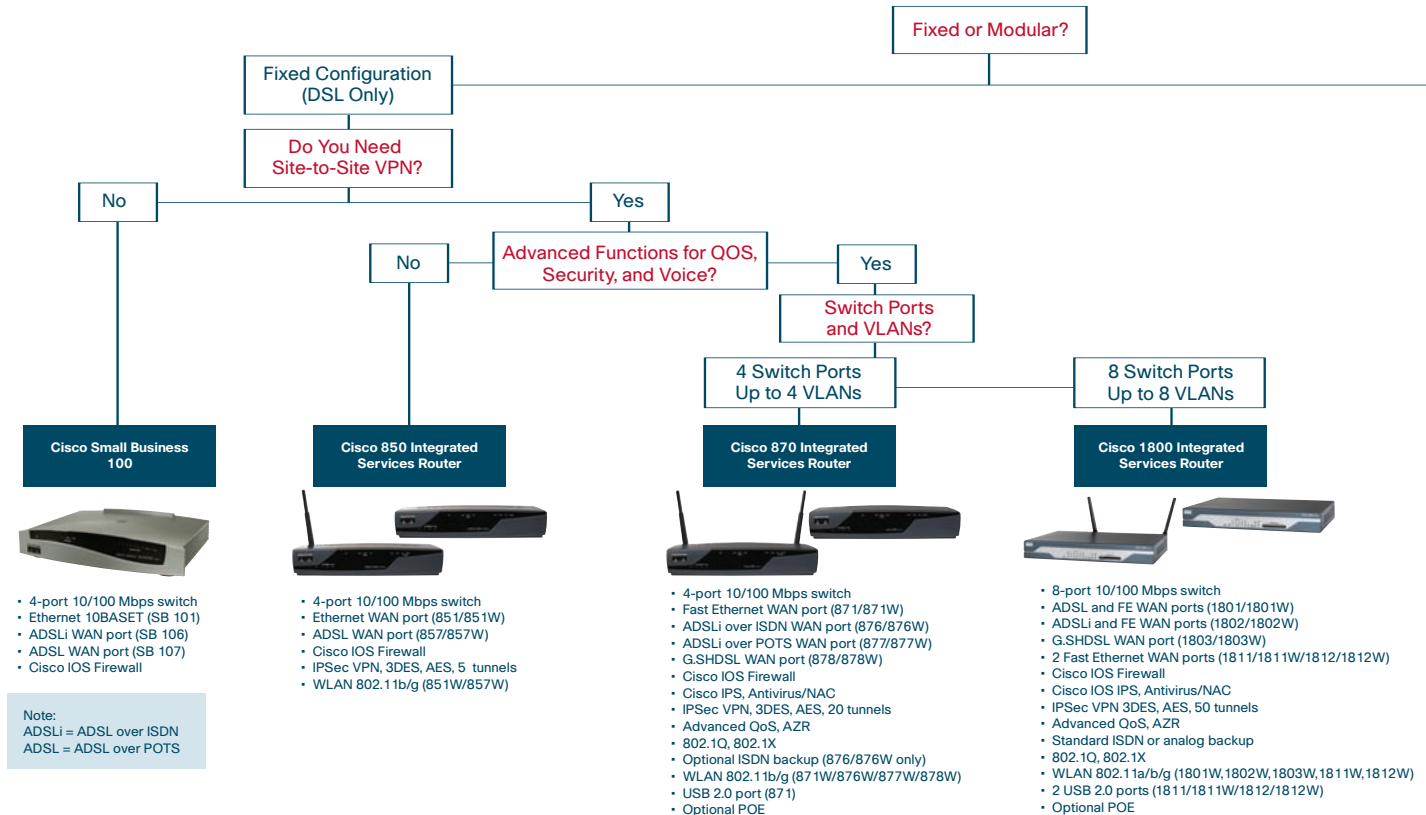
- 12 SFP-based Gigabit ports
- 1 rack-unit switch
- Cisco StackWise enhanced stacking capability
- IP Base (12S-S)
- IP Services (12S-E)

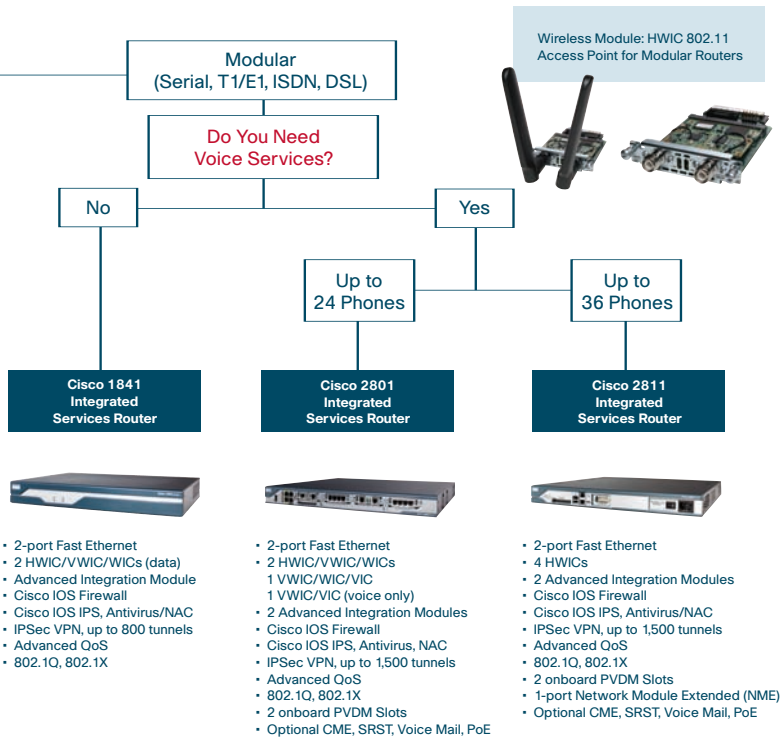
- 24 or 48 Ethernet 10/100 ports with PoE
- 1 rack-unit switch
- 2 SFP ports (24-port model)
- 4 SFP ports (48-port model)
- IEEE 802.3af and Cisco prestandard
- Cisco StackWise enhanced stacking capability
- IP Base (24PS-S and 48PS-S)
- IP Services (24PS-E and 48PS-E)

- 24 or 48 Ethernet 10/100/1000 ports with PoE
- 1 rack-unit switch
- 4 SFP-based Gigabit Ethernet ports
- IEEE 802.3af and Cisco prestandard
- Cisco StackWise enhanced stacking capability
- IP Base (24PS-S and 48PS-S)
- IP Services (24PS-E and 48PS-E)

Cisco Routers

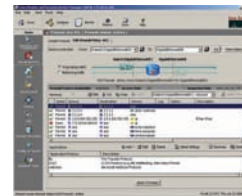
Broadband Routing



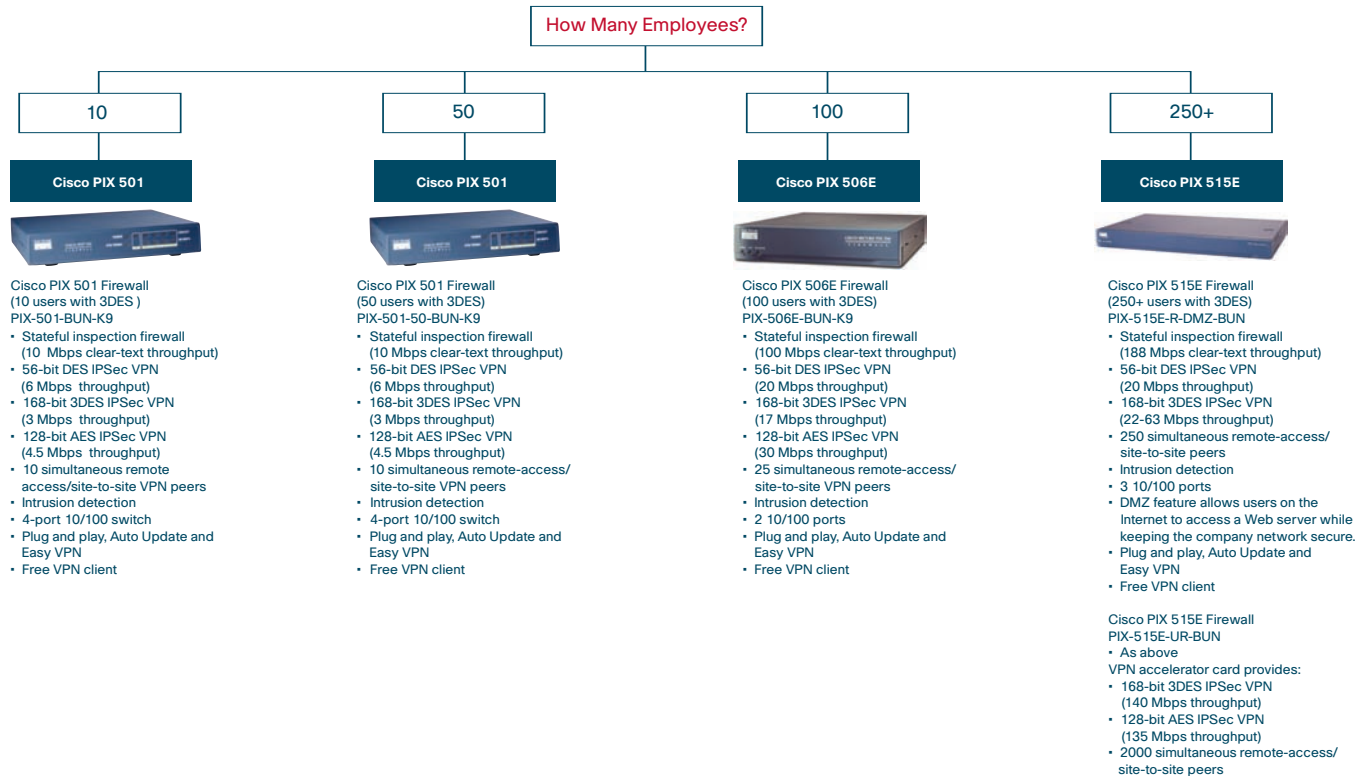


Cisco Router and Security Device Manager

- Intuitive, Web-based interface for securely managing a single remote Cisco router
- Intelligent Wizards enable quick deployment of network environment, security services, wireless access, and QoS policy features
- Innovative security auditing capability to check and recommend changes to router configuration
- Simple monitoring and troubleshooting tools for day-to-day operations



Cisco PIX Security Appliances

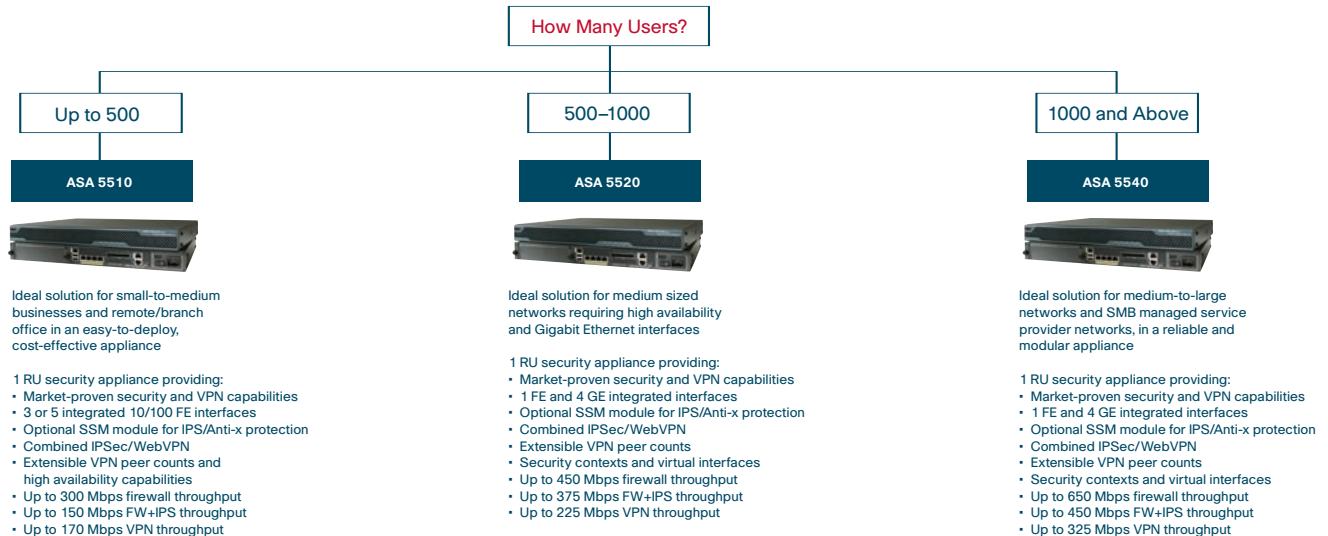


Cisco Adaptive Security Device Manager

- Intuitive, Web-based interface for securely managing a single remote Cisco PIX or ASA Security Appliance
- Web-based real-time monitoring of CPU/memory utilization, interface throughput, connections, and VPN tunnels.
- Full-featured wizards for initial firewall and VPN configuration
- More than 100 predefined services for simplified security policy creation



Cisco ASA Security Appliances



Cisco Adaptive Security Device Manager

- Intuitive, Web-based interface for securely managing a single remote Cisco PIX or ASA Security Appliance
- Web-based real-time monitoring of CPU/memory utilization, interface throughput, connections, and VPN tunnels.
- Full-featured wizards for initial firewall and VPN configuration
- More than 100 predefined services for simplified security policy creation



Cisco IP Communications Solutions

How Many Handsets Are Required?

24

Cisco
2801-CCME/K9



Cisco 2801 CallManager Express Bundle

Options suggestions:

- 1-port RJ-48 multiflex trunk E1
- Cisco Catalyst Express 500 24PC 24-port 10/100 switch with POE
- Wide choice of Cisco IP Phones (see pages 19–21)
- Cisco Unity Express
- AIM-CUE (includes 12 mailboxes)
- SCUE-LIC-25CME (additional 25 mailboxes)

36

Cisco
2811-CCME/K9



Cisco 2811 CallManager Express Bundle

Options suggestions:

- 1-port RJ-48 multiflex trunk E1
- 2 Catalyst Express 500 24PC 24-port 10/100 switch with POE or Cisco Catalyst 3560 24/48-port 10/100 switch with POE
- Wide choice of Cisco IP Phones (see pages 19–21)
- Cisco Unity Express
- AIM-CUE (includes 12 mailboxes)
- SCUE-LIC-25CME (additional 25 mailboxes)

48

Cisco
2821-CCME/K9



Cisco 2821 CallManager Express Bundle

Options suggestions:

- 1-port RJ-48 multiflex trunk E1
- Cisco Catalyst 3560 24/48-port 10/100 switch with POE
- Wide choice of Cisco IP Phones (see pages 19–21)
- Cisco Unity Express
- AIM-CUE (includes 12 mailboxes)
- SCUE-LIC-50CME (additional 50 mailboxes)

96

**CISCO
2851-CCME/K9**



Cisco 2851 CallManager Express Bundle

Options suggestions:

- 1-port RJ-48 multiflex trunk E1
- Cisco Catalyst Switch 3560 24/48-port 10/100 switch with POE or Catalyst 3750
- Choice of Cisco IP Phones (see pages 19–21)
- Cisco Unity Express
- NM-CUE (includes 12 mailboxes)
- SCUE-LIC-100CME (additional 100 mailboxes)

168

**Cisco
3825-CCME/K9**



Cisco 3825 CallManager Express Bundle

Options suggestions:

- 2-port RJ-48 multiflex trunk E1
- Cisco Catalyst Switch 3560 24/48-port 10/100 switch with POE or Catalyst 3750
- Choice of Cisco IP Phones (see pages 19–21)
- Voicemail option: Cisco Unity Express or Unity (depending on the number of mailboxes required)

240

**Cisco
3845-CCME/K9**



Cisco 3845 CallManager Express Bundle

Options suggestions:

- 2-port RJ-48 multiflex trunk E1
- 1-port RJ-48 multiflex trunk E1
- Cisco Catalyst Switch 3560 24/48-port 10/100 switch with POE or Catalyst 3750
- Choice of Cisco IP Phones (see pages 19–21)
- Voicemail option: Cisco Unity Express or Unity (depending on the number of mailboxes required)

Cisco IP Communications Solutions

Selecting WAN and Voice Modules

- VIC-2E/M—2-port E&M VIC
- VIC-2FXS—2-port analog FXS VIC
- VIC-2FXO—2-port analog FXO VIC
- VIC-2FXO-EU—2-port analog FXO VIC (for Europe)
- VIC-2BRI-NT/TE—2-port BRI VIC (NT and TE)
- VIC-2BRI-S/T-TE—2-port BRI VIC (terminal)
- VWIC2-1MFT-E1—1-port E1/PRI VWIC
- VWIC2-2MFT-E1—2-port E1/PRI VWIC
- VIC2-2FXS—2-port VIC (FXS)
- VIC2-2FXO—2-port VIC (FXO: universal)
- VIC2-4FXO—4-port VIC (FXO: universal)
- VIC2-2E/M—2-port E&M VIC
- VIC2-2BRI-NT/TE—2-port BRI VIC (NT and TE)
- 1-slot IP Communications voice/fax network module (up to 4 channels of analog/BRI voice)
- 2-slot IP Communications voice/fax network module (up to 8 channels of analog/BRI voice)
- 2-slot IP Communications enhanced voice/fax network module (up to 24 channels of analog/BRI voice)

New Cisco CallManager Express 3.3 Features Available with Cisco IOS Release 12.4

- Support for 240 IP phones
- Transcoding
- Soft-key customization
- Loopback DN Free
- CUE H.323 to SIP hairpin

- SCCP to RCFC 2833 DTMF support
- Direct FXO line select
- DND divert call to voicemail
- Call waiting beep suppression
- Overlay DN called name display
- Longest idle hunt group with call statistics
- Conference initiator drop-off

Features from Cisco CallManager Express 3.1.1 Maintenance Release

- Japanese Katakana (1-byte) localization
- Cisco IP Conference Station 7936 support
- H.323 integration with Cisco CallManager 4.0

Features from Cisco CallManager Express 3.2.1 with Cisco IOS Software Release 12.3(11)XL (Released November 14)

- Basic ACD (3 queues) with call statistics
- Cisco IP Phone 7970G (Cisco CallManager Express and SRST)
- Cisco IP Phone 7971G-GE (CME and SRST)
- Call waiting with overlay DN
- Call waiting ring
- Feature ring with DND set
- VIC2-4FXO/DID now supports DID mode in addition to FXO
- Cisco IOS Firewall now supports inspection of locally generated H.323 packets

Cisco IP Phones

Basic Features

Cisco IP Phone
7902G



- Entry-level phone
- Single line
- No display
- No configurable fixed keys

Cisco IP Phone
7905G



- Pixel-based display
- Single line
- Four dynamic soft keys
- Listening mode support
- Supports text-only XML

Cisco IP Phone
7912G



- Pixel-based display
- Single line
- Four dynamic soft keys
- Listening mode support
- Dual-port integrated Ethernet switch
- Supports text-only XML

Analogue/Fax

Cisco ATA
186/188



Device with two analog ports to connect faxes or analog phones

- 1 RJ-45 10BASE-T Ethernet port (Cisco 186 ATA)
- 2 Ethernet RJ-45 10/100BASE-T ports (Cisco ATA 188)

Cisco IP Phones

Advanced Features

Cisco IP Phone
7940G



Business IP Phone

- Grayscale graphic display
- Four dynamic soft keys
- Two configurable keys
- Integrated external headset socket
- Full-duplex speakerphone
- Integrated dual Ethernet switch port

Cisco IP Phone
7941G



Enhanced Business IP Phone

- Higher resolution grayscale display (320x222) for broader application capability
- Four dynamic soft keys
- Two configurable keys
- Integrated external headset socket
- Full-duplex speakerphone
- Integrated dual Ethernet switch port
- IEEE Standards based 802.3af inline Power over Ethernet
- Cisco pre-standard Power over Ethernet
- Double-byte characters and Unicode
- Lighted line keys

Cisco IP Phone
7960G



Manager IP Phone

- Grayscale graphic display
- Four dynamic soft keys
- Six configurable keys
- Integrated external headset socket
- Full-duplex speakerphone
- Integrated dual Ethernet switch port

Cisco IP Phone
7961G



Enhanced Manager IP Phone

- Higher resolution grayscale display (320x222) for broader application capability
- Four dynamic soft keys
- Six configurable keys
- Integrated external headset socket
- Full-duplex speakerphone
- Integrated dual Ethernet switch port
- IEEE Standards based 802.3af inline Power over Ethernet
- Cisco pre-standard Power over Ethernet
- Double-byte characters and Unicode
- Lighted line keys

Cisco IP Phone
7970G



- Executive IP Phone
- 8 programmable keys
 - 320x234 pixel color touch screen display
 - 5 soft keys
 - Advanced XML support
 - IEEE 802.3af inline power support
 - Lighted line keys

Cisco IP Phone
7971G-GE



- Gigabit Ethernet IP Phone
- 10/100/1000BASE-T Ethernet
 - 8 programmable backlit keys
 - 320x234 pixel color touch screen display
 - 5 soft keys
 - Advanced XML support
 - IEEE 802.3af inline power support
 - Lighted line keys

Cisco Wireless
IP Phone 7920



- IEEE 802.11b standard wireless IP phone
- Pixel-graphical display
- Two soft keys
- XML application script support
- A range of 15–300m indoors depending on environment
- Supported on Cisco Aironet access points 1300, 1200, 1130, 1100, 1000 Lightweight, 350, and 340 series

Cisco IP Conference
Station 7936



- Equipped with three microphones for better space coverage
- Full-duplex speakerphone
- Three dynamic soft keys
- Supports three external directional microphones

Cisco IP Phone
Expansion Module 7914



- Attendant console station to be used in conjunction with the Cisco IP Phone 796X series and 797X series phones
- Two modules (additional 34 extensions) can be monitored

Cisco Aironet Family

Cisco Aironet Wireless LAN Solutions

- Inline PoE or local power
- Cisco IOS feature set for QoS, security, and VLAN
- Lockable mounting brackets
- Secure with cable/padlock
- 802.11g backward-compatible with 802.11b
- Part of the Cisco SWAN framework

SMB Branch Offices

Cisco Aironet 1100 Series

- Cisco Aironet 1100 Series 802.11g Access Point
AIR-AP1121G-E-K9
- 802.11g: 54 Mbps/2.4 GHz
 - Integrated 2-dBi gain omni antenna
 - Flexible mounting (wall, ceiling, cubicle, desktop)



Enterprise Public Hotspots

Cisco Aironet 1200 Series

- Cisco Aironet 1200 Series Access Point
- Supports simultaneous dual-band
 - Flexible mounting (wall, ceiling)
 - Plenum-rated rugged design
- AIR-AP1231G-E-K9
- 802.11g: 54 Mbps/2.4 GHz
 - 2 RP-TNC connectors for flexible antenna selection
- AIR-AP1230A-A-K9
- 802.11a: 54 Mbps/5 GHz
 - Integrated dual omni/patch antenna (802.11a only)



Cisco Aironet Wireless Bridging Solutions

- Configurable for access point, bridge, or workgroup bridge roles
- Support for both point-to-point or point-to-multipoint configurations
- Industry-leading range and throughput, supporting data rates of up to 54 Mbps
- Part of the Cisco SWAN framework
- Enhanced security mechanisms based on 802.1X standards
- Ruggedized enclosure optimized for harsh outdoor environments with extended operating temperature range
- Integrated or optional external antennas for flexibility in deployment

Cisco Aironet 1300 Series

- Cisco Aironet 1300 Series Outdoor Access Point/Bridge
802.11g radio: 54 Mbps
- AIR-BR1310G-E-K9
Integrated 13-dBi antenna
- AIR-BR1310G-E-K9-R
RP-TNC connectors for flexible antenna selection



Typical Example



Cisco Aironet Series 1200 802.11g Access Point
AIR-AP1231G-E-K9
• 802.11g: 54 Mbps/2.4 GHz

+



Cisco Aironet Series 1200 802.11a radio module
AIR-RM20A-A-K9
• 802.11a: 54 Mbps/5 GHz

=



Simultaneous dual-band operation
802.11a+g

Links

Product Links

Cisco Catalyst Series Switches

www.cisco.com/go/switching

Cisco Routers

www.cisco.com/go/routers

Cisco Security Solutions

www.cisco.com/go/security

Cisco Wireless Networking Products

www.cisco.com/go/wireless

Cisco IP Communications

www.cisco.com/go/ipc



Corporate Headquarters

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

European Headquarters

Cisco Systems International BV
Haarlerbergpark
Haarlerbergweg 13-19
1101 CH Amsterdam
The Netherlands
www-europe.cisco.com
Tel: 31 0 20 357 1000
Fax: 31 0 20 357 1100

Americas Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-7660
Fax: 408 527-0883


Asia Pacific Headquarters

Cisco Systems, Inc.
168 Robinson Road
#28-01 Capital Tower
Singapore 068912
www.cisco.com
Tel: +65 6317 7777
Fax: +65 6317 7799

Cisco Systems has more than 200 offices in the following countries and regions. Addresses, phone numbers, and fax numbers are listed on the

Cisco.com Website at www.cisco.com/go/offices.

Argentina • Australia • Austria • Belgium • Brazil • Bulgaria • Canada • Chile • China PRC • Colombia • Costa Rica • Croatia • Cyprus • 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 © 2005 Cisco Systems, Inc. All rights reserved. CCSP, CCVP, the Cisco Square Bridge logo, Follow Me Browsing, and StackWise are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn, and iQuick Study are service marks of Cisco Systems, Inc.; and Access Registrar, Aironet, ASIST, BPX, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Empowering the Internet Generation, Enterprise/Solver, EtherChannel, EtherFast, EtherSwitch, Fast Step, FormShare, GigaDrive, GigaStack, HomeLink, Internet Quotient, IOS, IP/TV, iQ Expertise, the iQ logo, iQ Net Readiness Scorecard, LightStream, Linksys, MeetingPlace, MGX, the Networkers logo, Networking Academy, Network Registrar, Packet, PIX, Post-Routing, Pre-Routing, ProConnect, RateMUX, ScriptShare, SlideCast, SMARTnet, StrataView Plus, TeleRouter, The Fastest Way to Increase Your Internet Quotient, and TransPath are registered trademarks or trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or Website 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. (0502R)