# Cisco SPA901 1-Line IP Phone Cisco Small Business IP Phone

Durable, Affordable, Feature-Rich IP Telephone for the Home Office and Business

- Small, affordable, single line business class IP Phone
- · Connect directly to an Internet telephone service provider or connect to an IP PBX
- Wall mount of table top phone
- · Easy installation with secure remote provisioning.

## **Comprehensive Interoperability and SIP-Based Feature Set**

Based on the Session Initiation Protocol (SIP), the Cisco<sup>®</sup> SPA901 1-Line IP Phone (Figure 1) has been tested to ensure comprehensive interoperability with equipment from voice over IP (VoIP) infrastructure leaders, enabling service providers to quickly roll out competitive, feature-rich services to their customers.

With hundreds of features and configurable service parameters, the Cisco SPA901 addresses the requirements of traditional business users while building on the advantages of IP telephony. Features such as easy station moves and shared line appearances (across local and geographically dispersed locations) are just some of the many advantages of the SPA901.

## Carrier-Grade Security, Provisioning, and Management

The Cisco SPA901 uses standard encryption protocols to perform secure remote provisioning and unobtrusive in-service software upgrades.

Secure remote provisioning tools include detailed performance measurement and troubleshooting features, enabling network providers to deliver high-quality support to their subscribers. Remote provisioning also saves service providers the time and expense of managing, preloading, and reconfiguring customer premises equipment.

#### Figure 1. Cisco SPA901 1-Line IP Phone



## **Telephony Features**

- One line registration
- Two call appearances accessed via flash key or hook flash
- Shared line appearance\*\*
- Line status indicator
- Call hold
- Music on hold\*\*
- · Call waiting
- Outbound caller ID blocking
- Call transfer: attended and blind
- Three-way conferencing with local mixing
- Multi party call conferencing via external conference bridge\*\*
- Call pickup: selective and group\*\*
- Call park and unpark\*\*
- Call back on busy
- Call blocking: anonymous and selective
- Call forwarding: unconditional, no answer, on busy
- Call return: redial last caller
- · Hot line and warm line automatic calling
- Call logs (60 entries each): made, answered, and missed calls, accessed via HTTP server
- Redial last called number
- Do not disturb (callers hear line busy tone)
- Block anonymous incoming calls
- Uniform Resource Identifier (URI) (IP) dialing support (vanity numbers)
- Built-in web server for administration and configuration, with user and administrator access levels

- · Built-in interactive voice response system to check status and change configuration
- · Date and time with intelligent daylight savings support
- Call start time stored in call logs
- Distinctive ringing
- 10 user-downloadable ring tones
- Speed dial (eight entries)
- Group paging (outbound only)\*\*
- Intercom (outbound only)\*\*
- Set preferred codec per call, all calls
- Configurable dial/numbering plan support
- Ringer and handset volume controls
- Handset input gain adjustment
- DNS SRV and multiple A records for proxy lookup and proxy redundancy
- Syslog, debug, report generation, and event logging
- · Secure call encrypted voice communication support
- Network Address Translation (NAT) Traversal
- Automated provisioning, multiple methods; up to 256-bit encryption: (HTTP, HTTPS, Trivial File Transfer Protocol [TFTP])
- Support for Linksys voice system automatic configuration
- · Option to require administrator password to reset unit to factory defaults

\*\* Feature requires support by call server.

#### **Hardware Features**

- Voicemail message waiting indicator light
- Redial button
- Dedicated flash button
- Volume control button cycles through volume levels; controls ringer and handset volume
- · Standard 12-button dialing pad
- · High-quality handset and cradle
- Ethernet LAN: 10BASE-T RJ-45
- 5 VDC universal (100–240V) switching power adapter

## Specifications

Table 1 gives specifications for the Cisco SPA901 1-Line IP Phone. Table 2 compares the SPA901 with other Cisco Small Business IP Phones.

 Table 1.
 Specifications for the Cisco SPA901 1-Line IP Phone

Data networking	MAC address (IEEE 802.3)										
	<ul> <li>IPv4 (RFC 791)</li> <li>ARP: Address Resolution Protocol</li> <li>DNS A record (RFC 1706), SRV record (RFC 2782)</li> <li>DHCP client: Dynamic Host Configuration Protocol (RFC 2131)</li> </ul>										
						<ul> <li>ICMP: Internet Control Message Protocol (RFC 792)</li> <li>TCP (RFC 793)</li> <li>UDP: User Datagram Protocol (RFC 768)</li> <li>RTP: Real Time Protocol (RFC 1889, 1890)</li> <li>RTCP: Real Time Control Protocol (RFC 1889)</li> <li>DiffServ: Differentiated Services (RFC 2475)</li> <li>ToS: type of service (RFC 791, 1349)</li> <li>VLAN tagging 802.1p/Q; Layer 2 quality of service (QoS)</li> <li>SNTP: Simple Network Time Protocol (RFC 2030)</li> </ul>					
										Voice gateway	• SIP v2: (RFC 3261, 3262, 3263, 3264)
										0 ,	<ul> <li>SIP proxy redundancy: dynamic via DNS SRV, A records</li> </ul>
		Reregistration with primary SIP proxy server									
		<ul> <li>SIP support in NAT networks (including serial tunnel [STUN])</li> </ul>									
		• SIPFrag (RFC 3420)									
		<ul> <li>Secure (encrypted) calling via prestandard implementation of Secure RTP</li> </ul>									
		Codec name assignment									
		Voice algorithms:									
		<ul> <li>G.711 (A-law and mu-law)</li> </ul>									
		<ul> <li>G.726 (16/24/32/40 kbps)</li> </ul>									
		• G.729 A									
	<ul> <li>G.723.1 (6.3 kbps, 5.3 kbps)</li> </ul>										
	Dynamic payload support										
	Adjustable audio frames per packet										
	<ul> <li>DTMF: in-band and out-of-band (RFC 2833) (SIP INFO)</li> </ul>										
	Flexible dial plan support with interdigit timers										
	IP address/URI dialing support										
	Call progress tone generation										
	Jitter buffer: adaptive										
	Frame loss concealment										
	VAD: voice activity detection with silence suppression										
	Attenuation/gain adjustments										
	MWI: message waiting indicator tones										
	<ul> <li>VMWI: visual message waiting indicator via NOTIFY, SUBSCRIBE</li> </ul>										
	<ul> <li>Third-party call control (RFC 3725)</li> </ul>										
Security	Password-protected system, preset to factory default										
	<ul> <li>Password-protected access to administrator and user-level features</li> </ul>										
	HTTPS with factory-installed client certificate										
	HTTP digest: encrypted authentication via MD5 (RFC 1321)										
	Up to 256-bit Advanced Encryption Standard (AES) encryption										

Provisioning, administration,	Integrated web server provides web-based administration and configuration			
and maintenance	Integrated voice response system to report and modify configuration parameters			
	<ul> <li>Automated provisioning and upgrade via HTTPS, HTTP, TFTP</li> <li>Asynchronous notification of upgrade availability via NOTIFY</li> <li>Nonintrusive in-service upgrades</li> <li>Report generation and event logging</li> </ul>			
	Statistics transmitted in BYE message			
	Syslog and debug server records: configurable per line			
Physical interfaces	One 10BASE-T RJ-45 Ethernet port (IEEE 802.3)			
	Handset: RJ-9 connector			
Power supply	5V, 2A Switching Power Adaptor			
Indicator lights/LED	Status LED			
	Message waiting indicator LED			
Documentation	Quick-Start Installation and Configuration Guide			
	User Guide			
	Administration Guide			
	Provisioning Guide (for service providers only)			
Dimensions (W x H x D)	4.13 x 3.75 x 8.38 in. (104.78 x 95.25 x 212.73 mm)			
Unit weight	1.70 lb (0.7711 kg)			
Operating temperature	32° to 113°F (0° to 45°C)			
Storage temperature	-13° to 185°F (-25° to 85°C)			
Operating humidity	10% to 90% noncondensing			
Storage humidity	10% to 90% noncondensing			
Package Contents				
Cisco SPA901 IP Phone and	handset			
<ul> <li>Handset cord</li> </ul>				
<ul> <li>5V power adapter</li> </ul>				
<ul> <li>RJ-45 Ethernet cable</li> </ul>				

Quick Installation Guide

#### **Table 2.**Cisco SPA IP Phone Comparison Chart

Model	Voice Lines	Ethernet Ports	High-Resolution Graphical Display	PoE Support
SPA901	1	1	No	No
SPA921	1	1	Yes	No
SPA922	1	2	Yes	Yes
SPA941	4	1	Yes	No
SPA942	4	2	Yes	Yes
SPA962	6	2	Color	Yes

## **Cisco Limited Warranty for Cisco Small Business Series Products**

This Cisco Small Business product comes with a 2-year limited hardware warranty with return to factory replacement. In addition, Cisco offers software application updates for bug fixes and telephone technical support at no charge for the first 12 months following the date of purchase. To download software updates, go to: <u>http://www.cisco.com/go/smallbiz</u>.

Product warranty terms and other information applicable to Cisco products are available at <a href="http://www.cisco.com/go/warranty">http://www.cisco.com/go/warranty</a>.

### For More Information

For more information on Cisco Small Business products and solutions, visit: <u>http://www.cisco.com/smallbusiness</u>.



Americas Headquarters Cisco Systems, Inc. San Jose, CA Asia Pactite Headquarters Cisco Systems (USA) Pte. Ltd. Singapore Europe Headquarters Cisco Systems International BV Amsterdam, The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

CODE, COSI, COENT, Cisco Eos, Cisco HealthPresence, the Cisco logo, Cisco Lumin, Cisco Nexus, Cisco Nurse Connect, Cisco Staclipower, Cisco Staclipower, Cisco TelePresence, Cisco WebEx, DCE, and Wetcome to the Human Network are trademarks; Changing the Way We Work, Live, Play, and Learn and Cisco Store are service marks; and Access Registra; Aironet, AsyncOS, Bringing the Meeting To You, Catalyst, CODA, CCDP, CCIE, CCIP, CCNA, CCNP, CCSP, CCVP, Cisco, the Cisco Certified Internetwork Expert Logo, Cisco Disco Press, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Callaboration Without Limitation, EtherFast, EtherSwitch, Event Center, Fast Step, Fallow Me Browsing, FormShare, GigaDitive, HometLini; Internet Quotient, ICS, IPhone, IQuick Study, IronPort, the IronPort logo, LightStream, Linkays, MediaTone, MeetingPlace, MeetingPlace, Clinics Quotient, Max Networkers, Networkers, Networking, Academy, Networkers, Networking, Networkers, Networking, Academy, Networkers, DCE, COV, Place, Torese Press, Cisco Systems, Cisco Systems, Cisco Systems, Cisco Systems, Cisco Systems, Cisco Systems, Cisco Unity, Collaboration Without Limitation, EtherFast, EtherSwitch, Event Center, Fast Step, Follow Me Browsing, FormShare, GigaDitive, Homet Quotient, ICS, IPhone, IQuick Study, IronPort, the IronPort logo, LightStream, Linkays, MediaTone, MeetingPlace, MeetingPlace, Clinics Quotient, Max Networkers, Networking Academy, Networkers, Networking, Academy, Networkers, Networking, Cisco Systems Cisco Systems Cornect, ScriptShare, SenderBase, SMARTinet, Spectrum Expert, StechWise, The Fissibat Way to Increase Your Internet Quotient, TransPath, WebEx, and the WebEx logo are registered 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. (0902R)

Printed in USA