

## IP Telephone

## PRODUCT DATA

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



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

Based on the SIP standard, the SPA901 has been tested to ensure comprehensive interoperability with equipment from 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 SPA901 addresses the requirements of traditional business users while leveraging 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 SPA901 uses standard encryption protocols to provide secure remote provisioning and unobtrusive in-service software upgrades. Linksys 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 hassle and expense of managing, pre-loading, and re-configuring customer premise equipment (CPE).

# PRODUCT DATA

Model No. **SPA901**

## Telephony Features

- One Service Provider Line
  - 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 Pick Up - 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
  - URI (IP) Dialing Support (Vanity Numbers)
  - Built-in Web Server for Administration and Configuration, with User and Admin 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
  - Ten User Downloadable Ring Tones - Ring Tone Generator Free from [www.linksys.com](http://www.linksys.com)
  - Speed Dial (8 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
  - NAT Traversal
  - Automated Provisioning, Multiple Methods. Up to 256 Bit Encryption: (HTTP, HTTPS, TFTP)
  - Support Linksys Voice System Automatic Configuration
  - Optionally Require Admin Password to Reset Unit to factory defaults
- \*\* Feature requires support by call server

## Hardware

- Voice Mail 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 – 10BaseT RJ-45
- 5 volt DC Universal (100-240 Volt) Switching Power Adaptor

## Specifications

Model	SPA901  Note: Many features are programmable within a defined range or list of options. Please see the SPA Administration Guide for details. The target configuration profile is uploaded to the SPA901 at the time of provisioning.
Data Networking	MAC Address (IEEE 802.3) IPv4 - Internet Protocol v4 (RFC 791) upgradeable to v6 (RFC 1883) ARP - Address Resolution Protocol DNS - A Record (RFC 1706), SRV Record (RFC 2782) DHCP Client - Dynamic Host Configuration Protocol (RFC 2131) ICMP - Internet Control Message Protocol (RFC792) TCP - Transmission Control Protocol (RFC793) UDP - User Datagram Protocol (RFC768) RTP - Real Time Protocol (RFC 1889) (RFC 1890) RTCP - Real Time Control Protocol (RFC 1889) DiffServ (RFC 2475), Type of Service - TOS (RFC 791/1349) VLAN Tagging 802.1p/q - Layer 2 QoS SNTP - Simple Network Time Protocol (RFC 2030)
Voice Gateway	SIPv2 - Session Initiation Protocol Version 2 (RFC 3261, 3262, 3263, 3264) SIP Proxy Redundancy - Dynamic via DNS SRV, A Records Re-registration with Primary SIP Proxy Server SIP Support in Network Address Translation Networks - NAT (including STUN) SIPFrag (RFC 3420) Secure (Encrypted) Calling via Pre-Standard Implementation of Secure RTP Codec Name Assignment Voice Algorithms: - G.711 (A-law and $\mu$ -law) - G.726 (16/24/32/40 kbps) - G.729 A - G.723.1 (6.3 kbps, 5.3 kbps) Dynamic Payload Support Adjustable Audio Frames Per Packet DTMF: In-band and Out-of-Band (RFC 2833) (SIP INFO) Flexible Dial Plan Support with Inter-Digit 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 VMWI - Visual Message Waiting Indicator - Via NOTIFY, SUBSCRIBE Third Party Call Control (RFC 3725)
Security	Password Protected System, Preset to Factory Default Password Protected Access to Administrator and User Level Features HTTPS with Factory Installed Client Certificate HTTP Digest - Encrypted Authentication via MD5 (RFC 1321) Up to 256-bit AES Encryption
Provisioning, Administration, and Maintenance:	Integrated Web Server Provides Web Based Administration and Configuration Integrated Voice Response system to report and modify configuration parameters Automated Provisioning and Upgrade via HTTPS, HTTP, TFTP Asynchronous Notification of Upgrade Availability via NOTIFY Non-intrusive, In-Service Upgrades Report Generation and Event Logging Statistics Transmitted in BYE Message Syslog and Debug Server Records - Configurable Per Line
Physical Interfaces:	1 10baseT RJ-45 Ethernet Port (IEEE 802.3) Handset: RJ-7 Connector
Power Supply:	Switching Type (100-240v) Automatic DC Input Voltage: +5 Volts DC at 2.0 Amps Maximum Power Consumption: 5 Watts Power Adapter: 100-240v - 50-60Hz (26-34VA) AC Input, 1.8m cord
Indicator Lights/LED:	Status LED Message Waiting Indicator LED Flash Button with Indicator LED LED Test Function
Documentation:	Quick-Start Installation and Configuration Guide User Guide Administration Guide Provisioning Guide - For Service Providers Only

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## Environmental

Dimensions (W x H x D):	4.13 x 3.75 x 8.38 inches (104.78 x 95.25 x 212.73 mm)
Unit Weight:	1.70 lbs (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% Non-condensing
Storage Humidity:	10 to 90% Non-condensing

- SPA901 IP Phone and Handset
- Handset Cord - 56 cm (26 in)
- 5v Power Adapter - 1.8 m (6 ft) Cord
- RJ45 Ethernet Cable - 1.8 m (6 ft) Cord
- Quick Installation Guide

## Package Contents

## Linksys IP Telephone Comparison Chart

SPA Model	Voice Lines	Ethernet Ports	High Resolution Graphical Display	Power over Ethernet Support
SPA901	1	1	N	N
SPA921	1	1	Y	N
SPA922	1	2	Y	Y
SPA941	2-4	1	Y	N
SPA942	2-4	2	Y	Y

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