ProVu Communications
Linksys SPA-9000

Full featured IP PBX System for the Small Business and Home Office

The SPA-9000 combines high-end PBX telephone systems features with convenience and cost advantages of Voice over IP. The SPA-9000 opens up access to the benefits of VoIP, including low cost long distance service, telephone number portability, and one network for both voice and data.

The SPA-9000 is so easy to configure- new telephones are automatically detected and registered when they are connected. The SPA-9000 has an integrated web server that allow features to be configured using a web browser. The web server has multiple levels of password protected access to user and service level features. Service level settings may be locked by an ITSP to ensure they are not inadvertently corrupted. Software and settings can be remotely updated through a secure encrypted connection.

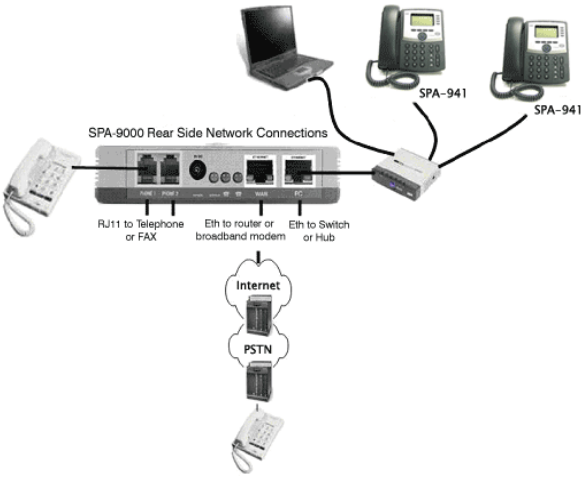
With its integrated router, the SPA-9000 can be either connected directly to the internet connection or to another router on your network. The SPA-9000 has separate WAN and LAN Ethernet ports.

The WAN connection can be connect through DHCP or a fixed IP address. The LAN port can assign IP addresses to IP Phones and computers using NAT and DHCP.

The SPA-9000 can support 4 SIP compatible IP Phones. Up to 16 total IP Phones per SPA-9000 can be supported with an easy to install license key upgrade. While the 2 FXS ports still support traditional analog devices such as telephones, answering machines, FAX machines, and media adapters.

Key Features

- Auto-attendant
- Shared Line Appearances
- 3 Way Calling Conferencing
- Intercom
- Music on Hold
- Call Forwarding
- Two FXS ports for connecting analogue phones
- Do Not Disturb



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Technical Information

Compliance

- FCC (Part 15 Class B), CE, A-Tick, ICES-003

Security

- Password Protected System Reset to Factory Default
- Password Protected Admin and User Access Authority
- HTTPS with Factory Installed Client Certificate
- HTTP Digest - Encrypted Authentication via MD5 (RFC 1321)
- Up to 256-bit AES Encryption

LEDs

- LAN & WAN Activity/Link LED's
- Status LED (In-Use, Provisioning, Idle, Alert)

Documentation

- Quick-Start Installation and Configuration Guide, User Guide, Administration Guide - Service Providers Only, Provisioning Guide - Service Providers Only

Package Contents

- 1 - SPA9000 System - Color: Platinum
- 1 - 5 Volt Power Adapter - 1.8 m (6 ft) Cord
- 1 - RJ45 Ethernet Cable - 1.8 m (6 ft) Cord
- 1- Quick Setup Guide

Environmental

- Dimensions 4.18 x 1.13. x 4.89in (106.17 x 28.7 x 124.2 mm) W x H x D
- Unit Weight 0.40 lbs (0.181 kg)
- Power Switching Type (100-240v) Automatic, DC Input Voltage: +5 VDC at 2.0 A Max., Power Consumption: 5 Watts, Power Adapter: 100-240v - 50-60Hz (26-34VA) AC Input, 1.8m cord
- Operating Temp. 41º~113ºF (5º~45ºC)
- Storage Temp. -13º~185ºF (-25º~85ºC)
- Operating Humidity 10~90% Non-condensing
- Storage Humidity 10~90% Non-Condensing

Note: Many specifications 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 SPA9000 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)
- DHCP Server - Dynamic Host Configuration Protocol (RFC 2131)
- PPoE Client - Point to Point Protocol over Ethernet (RFC 2516)
- 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
- SNTP - Simple Network Time Protocol (RFC 2030)
- Upload Data Rate Limiting - Static and Automatic
- QoS - Voice Packet Prioritization over Other Packet Types
- Router or Bridge Mode of Operation
- MAC Address Cloning
- Port Forwarding

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 (incl. STUN)
- Secure (Encrypted) Calling via Pre-Standard Implementation of Secure RTP
- Codec Name Assignment
- Voice Algorithms:
  - G.711 (A-law and µ-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 & 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 w/ Silence Suppression
- Attenuation / Gain Adjustments
- MWI - Message Waiting Indicator Tones
- VMWI - Via NOTIFY, SUBSCRIBE
- Caller ID Support (Name & Number)

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