

## SPA9000 Firmware Version 5.2.5

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This document describes the updates that have been made since version 5.1.10 and provides instructions for downloading and installing the new firmware.

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### Changes since SPA9000 Firmware Version 5.1.10

The following new features were added:

- Support for 16 users by default, no longer requiring a license key
- Support for LVS Wizard v2.0

The following problems were fixed:

- Redirect loops were causing dropped calls. (CSCsl96253)
- IP dialing failed and the SPA9000 rebooted when the transport was configured using TCP. (CSCsg43804)  
NOTE: IP dialing should not be allowed when SIP over TCP or SIP over TLS because the unit only maintains 1 static TCP connection with the proxy server. It does not dynamically create a TCP connect to the peer on every call. The problem is fixed by not allowing IP dialing unless SIP transport is over UDP. In this case, an attempt to IP dial a peer will just fail but will not cause the SPA9000 to reboot.
- An Accept Media Loopback Request failed in Manual mode. (CSCsm38304, CSCso70560)
- An Accept Media Loopback Request sent caller ID to the phone in Automatic mode.
- The Info page does not display the encoder and decoder during a T.38 FAX transmission. (CSCsk45801)
- Caller ID was not appearing when the Ring9 Cadence was in use. (CSCsm38327)
- The Auto Attendant Weekend day setting was off by one day during February 2008 (CSCsm59133)
- The Contact List was not using the correct order of operations to interpret a rule with an “or” condition, such as `<Contact List> = 1234:110|aa`. (CSCsm61087)
- RFC 2543 Call Hold was not honored when a call from an external caller was forwarded to an external number (CSCsm63567)
- Incoming calls that were forwarded or redirected to an external number or an extension failed. (CSCsl55615)
- An incorrect weekday was displayed in the Date field of the 200 OK message. (CSCsc24861)
- The Caller ID in the From field was replaced with the SPA9000 ID when a call was sent to SPA400 voice mail. The vmclerid field was added to the Referred-By header of the INVITE message to ensure that the original Caller ID is presented to the SPA400. (CSCso51332)
- SIP NOTIFY keep alive messages did not have a Contact header (CSCso64972)
- The SPA9000 was not marking DSCP on internal calls. (CSCsm85975)
- Joining two external PSTN calls in a conference via SPA400 did not work (CSCsg28395)
- A station-to-station transfer of an external call failed when the SPA9000 placed the call on hold to perform the transfer. This occurred due to an a=inactive reply from the external call on a soft switch (CSCso65867)
- The SPA9000 rebooted when PBX station attempts to call a hunt group that is empty (CSCsc45844)

- The SPA9000 stopped hunting when any hunt group member forwarded the call. (CSCsk92927)
- When an external caller transferred a station to the same station behind the SPA9000, the operation should have been rejected. (CSCsc40734)
- The date header in the 200 OK to Register message was missing the CRLF. (CSCso69030)
- The statistics shown in the P-RTP-Stat Header of a SIP BYE (or response to SIP BYE) message from the SPA9000 were always 0 when the Stats In BYE parameter is "yes". (CSCse65427)
- Setting the INVITE Expires and reINVITE Expires parameters to 0 did not remove the Expires header from outbound INVITE and reINVITE SIP messages. (CSCsc23750, CSCsc74976)
- An internal station A could not end a call with an external caller B if the B had the same extension number as an internal station. (CSCsk36314)
- When both EXT IP and NAT Mapping are enabled the SPA9000 failed to substitute its IP address in the SDP to a second call peer with the EXT IP. Hence, 1-way audio resulted. (CSCso72222)
- When a station-to-station call is set up via two SPA9000 line interfaces and ITSP, then a call transfer to an external number failed. CSCsg81498 and CSCsg85689)
- When an internal caller A placed a call to external phone B, and then B forwarded the call to internal station C, there was no audio between caller A and station C. (CSCsc26178)
- There was no audio when the SPA9000 bridged two external callers (either CFWD bridge, Transfer Bridge, or voice mail bridge) through a Session Border Controller. (CSCso72703)
- When two phones tried to pick up the same call, both phones were connected but with one-way audio on one phone and no audio on the other phone. (CSCse90152)
- A call that was placed to the page group could not be put on hold. (CSCsd15047)
- The administration web server could not be accessed because the TCP session closed (CSCsm67258)
- The Force Resync Delay feature ignores calls other than the two FXS ports on the SPA9000. (CSCsk32587)

## Upgrading the Firmware for the SPA9000

You need to download the firmware from Linksys.com and then install it on the SPA9000.

### Downloading the Firmware from Linksys.com

1. Start Internet Explorer, and enter the following URL: <http://www.linksys.com>
2. From the menu at the top of the page, select **Support > Technical Support**.
3. Click **Choose a Product**.
 

**NOTE:** If you are visiting the site for the first time, you may be prompted to choose your location before continuing.
4. On the *Select Product Category* page, find the *Voice over IP (VoIP)* drop-down list. Choose **IP PBX**.
5. On the *Choose The Device* page, choose **SPA9000** from the drop-down list on the left side of the page.
6. In the *Downloads* section near the top right corner of the page, click the **Click Here** link.
7. On the SPA9000 Downloads page, choose the hardware version for your device.
8. Under *Firmware*, click the link for the latest version of the firmware.
 

**NOTE:** If you are using Windows XP Service Pack 2 (SP2) and Internet Explorer, you may see the "Pop-up blocked" message in your browser information bar. If you see this message, click the information bar and select **Temporarily Allow Pop-ups**. Then click the link again.
9. Click **Save** in the *File Download* dialog box that appears.
10. In the *Save As* dialog box, choose a location for the file and then click **Save**.
11. When the download is complete, if prompted, click **Close**.

## Installing the Firmware

1. Use the IVR to check the IP address of the SPA9000:
  - a. Pick up the receiver of the analog phone that you connected to the SPA9000.
  - b. Press \*\*\*\* and then press 110#.
  - c. Make a note of the IP address that is announced.
2. Use the administration computer to install the latest firmware:
  - a. Extract the Zip file, and then run the executable file to upgrade the firmware.
  - b. When the *Firmware Upgrade Warning* window appears, click **Continue**.
  - c. In the next window that appears, enter the IP address of the SPA9000, and then click **OK**.
  - d. In the *Confirm Upgrade* window, verify that the correct device information and product number appear. Then click **Upgrade**.

A progress message appears while the upgrade is in progress. The success window appears when the upgrade is completed. The device reboots.
3. Click **OK** to close the confirmation message.
4. To verify the upgrade, start Internet Explorer, and enter the IP address of the SPA9000. Check the *Router>Status* page. The *Software Version* field should show the firmware version that you installed.

<b>Product Information</b>			
Product Name:	SPA9000	Serial Number:	FM700F513180
Software Version:	5.2.5	Hardware Version:	1.0.5
MAC Address:	000E08E1BA69	Client Certificate:	Installed
Customization:	Open	Licenses:	None
<b>System Status</b>			
Current Time:	1/2/2008 06:38:47	Elapsed Time:	2 days and 21:10:55
Wan Connection Type:	Static IP	Current IP:	192.168.0.109
Host Name:	SipuraSPA	Domain:	
Current Netmask:	255.255.255.0	Current Gateway:	192.168.0.1
Primary DNS:	192.168.0.1		

**NOTE:** You may need to refresh your browser to display the updated page reflecting the new version number.