

SCOPSERV
INTERNATIONAL INC.

ScopTEL™ IP PBX Software Server Installation Wizard

Network Module - ifconfig

- A newly installed server uses DHCP to get an IP address from a DHCP server on the network so make sure the eth0 interface is connected to the network so the server can get an IP address.
- Before you can login to the server you must know the IP address of at least one physical interface.
- From the Linux console login prompt, enter username 'root' omitting any quotation marks.
- From the password prompt enter the default root password 'scopserv' omitting any quotation marks.
- Once you are successfully logged as root type the command 'ifconfig' to determine at least one eth interface.
- In this example the eth0 IP address is 192.168.192.60 which is the IP address that will be used to login to the GUI later.
- Also notice that the HWaddr is the MAC address of the eth0 interface.

```
login as: root
root@192.168.192.60's password:
Last login: Mon Jul 16 13:31:19 2012 from 192.168.192.55
[root@virtualbox1253 ~]# ifconfig
eth0      Link encap:Ethernet  HWaddr 08:00:27:0E:20:B0
          inet addr:192.168.192.60  Bcast:192.168.192.255  Mask:255.255.255.0
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:1781 errors:0 dropped:0 overruns:0 frame:0
          TX packets:824 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:225143 (219.8 KiB)  TX bytes:348620 (340.4 KiB)

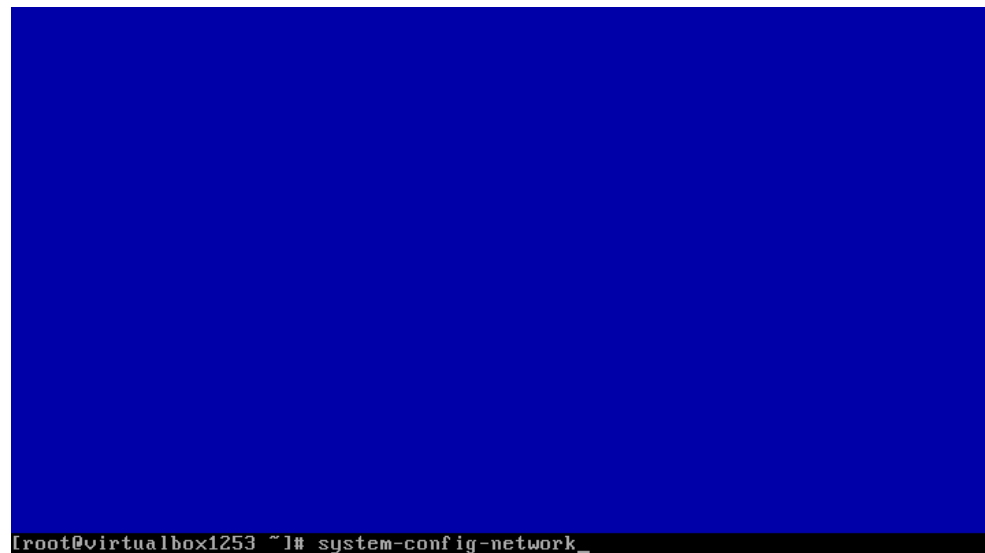
lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          UP LOOPBACK RUNNING  MTU:16436  Metric:1
          RX packets:5493 errors:0 dropped:0 overruns:0 frame:0
          TX packets:5493 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:359483 (351.0 KiB)  TX bytes:359483 (351.0 KiB)

[root@virtualbox1253 ~]# █
```

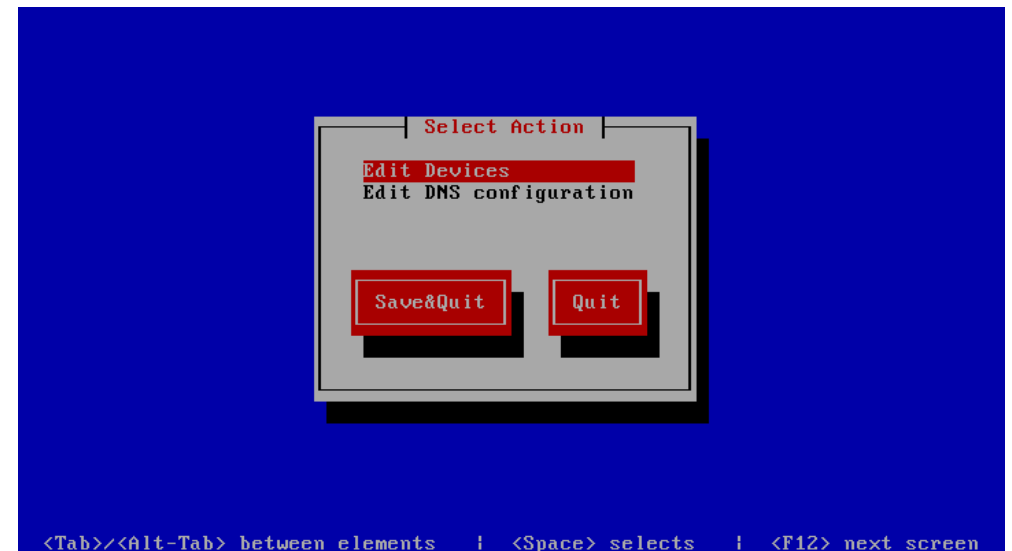


Network Module – system-config-network

- If there is no DHCP server on the network the server will not get an IP address.
- Using the command 'system-config-network' an IP address can be set statically and then used to login to the GUI

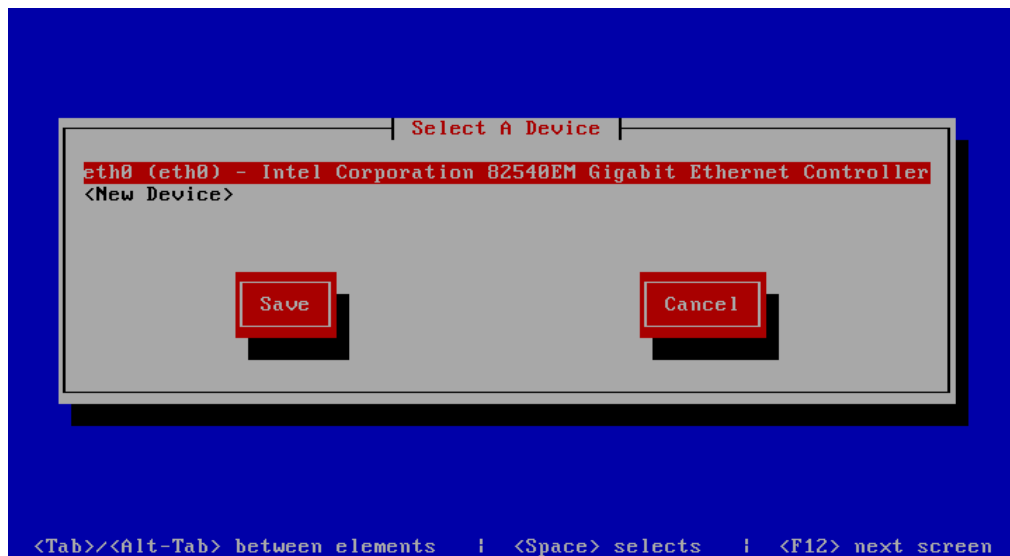


- Use the tab key on the keyboard to select Edit Devices

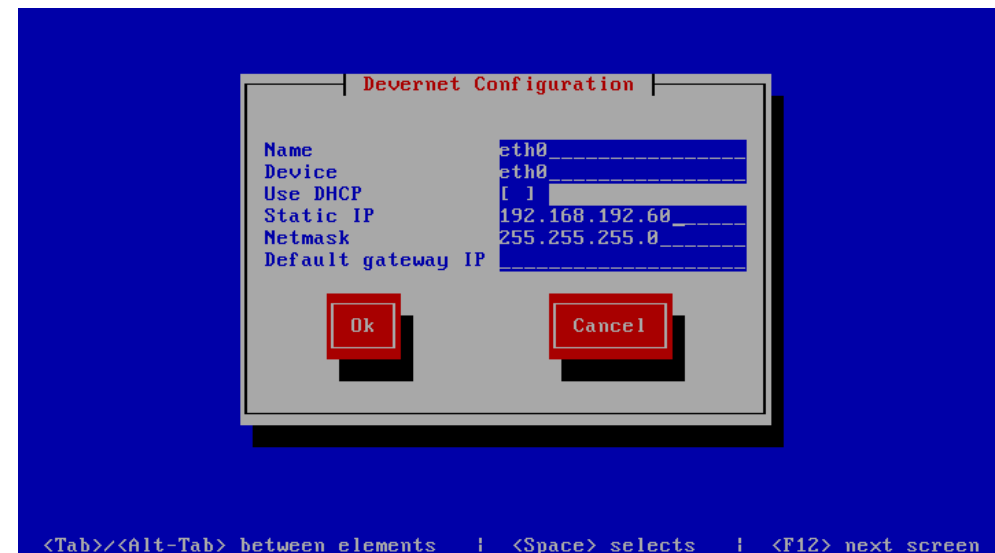


Network Module – system-config-network

Use the tab key on the keyboard to select elements
eth0 and press enter

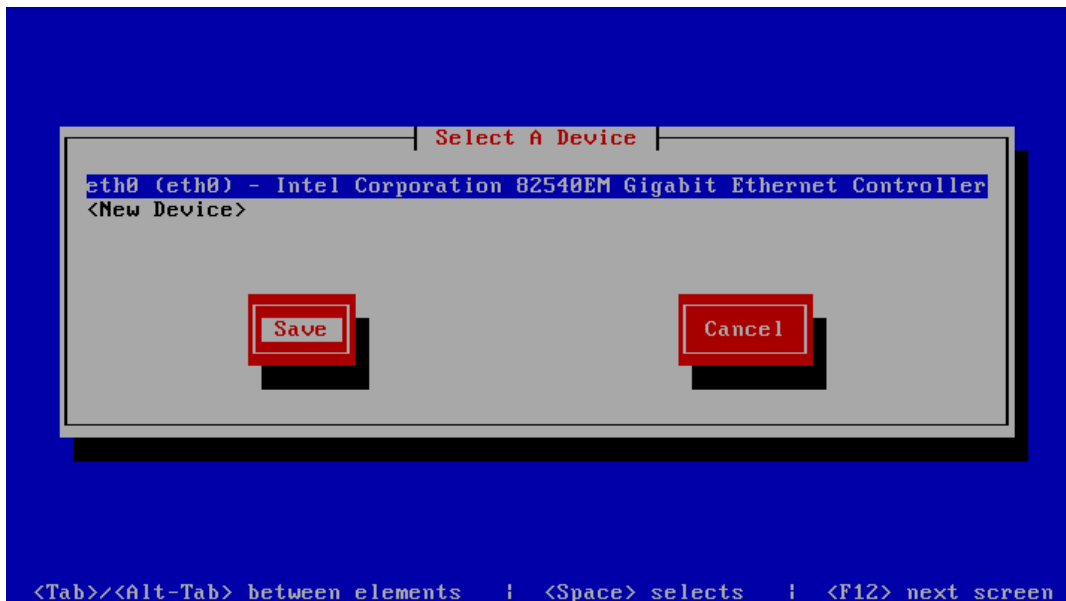


- Use the tab key on the keyboard to select elements.
- Use the space bar to uncheck or check DHCP.
- Use the keyboard to enter a Static IP as in this example.
- Use the tab key to select Ok.
- Press Enter when finished.

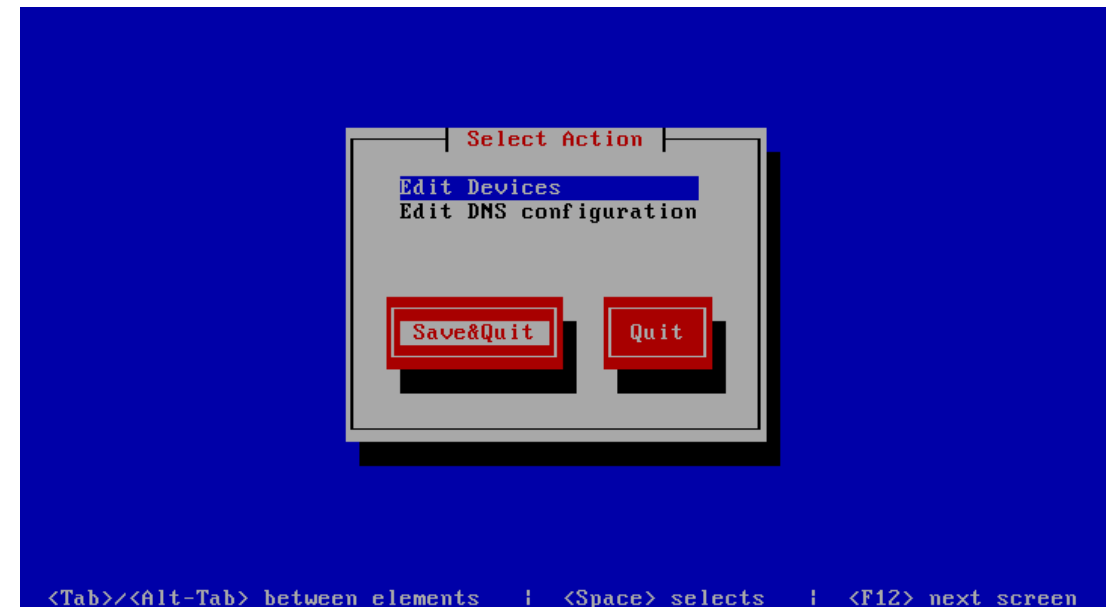


Server Module – system-config-network

- Use the tab key on the keyboard to select Save
- Press Enter when finished



- Use the tab key on the keyboard to select Save&Quit
- Press Enter when finished





Server Module – service network restart

From the root prompt type 'service network restart' omitting any quotes to restart the network with the new static IP address.

```
[root@virtualbox1253 ~]# service network restart_
```





Server Module - passwd

- If you need to change the default root password (recommended) then enter the command "passwd" omitting any quotes.
- You will be prompted to enter your new password twice to confirm the root password change.
- If you forget this password you will have to have a keyboard and monitor attached to the server.
- Interrupt the boot at the GRUB stage and boot to runlevel 1, AKA single user mode. Interrupt GRUB by typing a character such as "space" then append to the kernel line by typing "a", backspacing through "rhgb quiet" and appending " 1<enter>". This will give you a root shell and not a login prompt. From there you can use the "passwd" command to set a new root password.

```
login as: root
root@192.168.192.60's password:
Last login: Mon Jul 16 13:32:55 2012 from 192.168.192.55
[root@virtualbox1253 ~]# passwd
Changing password for user root.
New UNIX password:
BAD PASSWORD: it is based on a dictionary word
Retype new UNIX password:
passwd: all authentication tokens updated successfully.
[root@virtualbox1253 ~]# █
```





Server Module – Web GUI Login

- Open a web browser and use the IP address in the following format :
 - `http://<ip address>:5555`
- Where <ip address> is the IP address of the server and the :5555 is the listening port of the ScopTEL web server.
- Example: <http://192.168.192.60:5555>
- The default login username is 'admin' omitting quotes.
- The default admin password is 'admin' omitting any quotes.

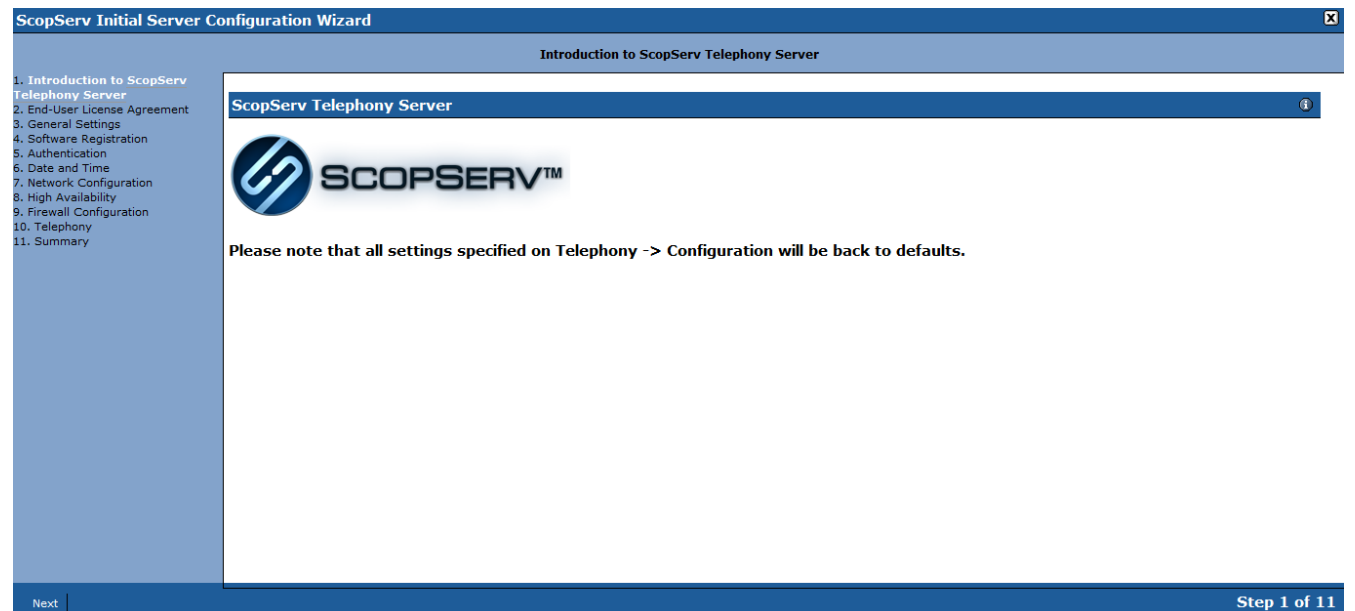
The image shows a screenshot of the ScopServ Telephony Server web GUI login page. The page has a blue header bar with the text "ScopServ Telephony Server". Below the header, on the left, is the ScopServ logo, which consists of a blue circle containing a white stylized 'S' shape, followed by the text "SCOPSERV™" in a bold, black, sans-serif font. On the right side of the page is a login form with a blue background. The form contains three input fields: "Username" with the text "admin" entered, "Password" with seven black dots, and "Language" with a dropdown menu showing "English". Below these fields is a blue "Login" button. At the bottom of the page, there is a blue footer bar with the text "Copyright © 2005-2012 ScopServ International Inc." in white.





Server Module – Configuration Wizard

- Before proceeding make sure you have your server's serial number handy so you can activate all of the menus and proceed with the configuration wizard.
- If you have the serial number proceed with the wizard by pressing Next.





Server Module – EULA

By clicking on Next on the EULA page you are agreeing to the terms of the ScopServ End User License Agreement.

A screenshot of the ScopServ Initial Server Configuration Wizard. The window title is "ScopServ Initial Server Configuration Wizard". The current step is "End-User License Agreement". On the left side, there is a navigation pane with a list of steps: 1. Introduction to ScopServ Telephony Server, 2. End-User License Agreement (highlighted), 3. General Settings, 4. Software Registration, 5. Authentication, 6. Date and Time, 7. Network Configuration, 8. High Availability, 9. Firewall Configuration, 10. Telephony, and 11. Summary. The main content area displays the "End-User License Agreement" text. The text includes a title "SCOPSERV SOFTWARE END-USER LICENSE AGREEMENT", an attention notice, a paragraph of important information, a section for definitions, and a section for license grants. At the bottom of the window, there are "Previous" and "Next" buttons, and a status bar indicating "Step 2 of 11".

ScopServ Initial Server Configuration Wizard

End-User License Agreement

1. Introduction to ScopServ Telephony Server
2. End-User License Agreement
3. General Settings
4. Software Registration
5. Authentication
6. Date and Time
7. Network Configuration
8. High Availability
9. Firewall Configuration
10. Telephony
11. Summary

End-User License Agreement

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(A) a second installation may be permitted, in accordance with ScopServ and after such a demand is accepted by ScopServ regarding the installation on a second computer/server for the sole purpose of redundancy. (B) The other computer/server will have to be red by ScopServ through Internet for Mac address and to ascertain that only 1 other device will receive the licensed software just like the original installation.

You may make one copy of the Software in machine-readable form solely for backup purposes. You must reproduce on any such copy all copyright notices and any other proprietary legends on the original copy of the Software. You may not sell or transfer any copy of the Software made for backup purposes.

Previous Next

Step 2 of 11





Server Module – Listen Port

- The default GUI listening port is 5555
- Proxy information can be entered if the required Internet connection uses a proxy.
- To send voicemail or fax to email using a third party email server tick the 'Smart Relay' check box and fill in the credentials needed to connect to the external email server.
- Click Next to proceed.

The image shows a screenshot of the "ScopServ Initial Server Configuration Wizard" window. The window title is "ScopServ Initial Server Configuration Wizard" and it has a close button in the top right corner. The main content area is titled "General Settings". On the left side, there is a vertical list of steps: 1. Introduction to ScopServ, 2. End-User License Agreement, 3. General Settings (highlighted), 4. Software Registration, 5. Authentication, 6. Date and Time, 7. Network Configuration, 8. High Availability, 9. Firewall Configuration, 10. Telephony, and 11. Summary. The main content area is divided into three sections: "General", "Proxy Settings", and "SMTP Settings". In the "General" section, there is a field for "Listen on Port (Web GUI)" with the value "5555" and a "Default: 5555" label. In the "Proxy Settings" section, there is a checkbox for "Enable Proxy ?" which is currently unchecked. In the "SMTP Settings" section, there is a checkbox for "Enable 'Smart Relay' for Outgoing SMTP ?" which is also unchecked. At the bottom of the window, there are "Previous" and "Next" buttons, and a status bar indicating "Step 3 of 11".





Server Module – Registration Details

- Enter the Serial Number purchased from ScopServ and system details.
- Click Next.

The screenshot shows the "ScopServ Initial Server Configuration Wizard" window, specifically the "Software Registration" step. On the left is a vertical navigation pane with 11 steps: 1. Introduction to ScopServ, 2. End-User License Agreement, 3. General Settings, 4. Software Registration (highlighted), 5. Authentication, 6. Date and Time, 7. Network Configuration, 8. High Availability, 9. Firewall Configuration, 10. Telephony, and 11. Summary. The main area is titled "License Informations" and contains the following fields:

Serial Number	00000000-0000-00000-0
Format:	00000000-0000-00000-0
Company Name:	Your Company Name
* Contact Name:	First Last
* Contact Email:	enduser@domain.com
Phone Number:	555-555-1212
* Street Address:	1234 End User St
* City:	City
* State/Province:	State
* Country:	United States
* Zip/Postal Code:	12345

At the bottom left are "Previous" and "Next" buttons. At the bottom right, it says "Step 4 of 11".



Server Module – Network Configuration

- Set the Fully Qualified Domain Name (FQDN) for the system.
- Set the network configuration as DHCP or static for the system. Static is recommended.
- Set the DNS server information for this system so the server can resolve domain names to IP addresses.
 - NOTE: The system is a fully capable DNS server and can resolve DNS for the network but a third party DNS server can also be used.
- Press Next.

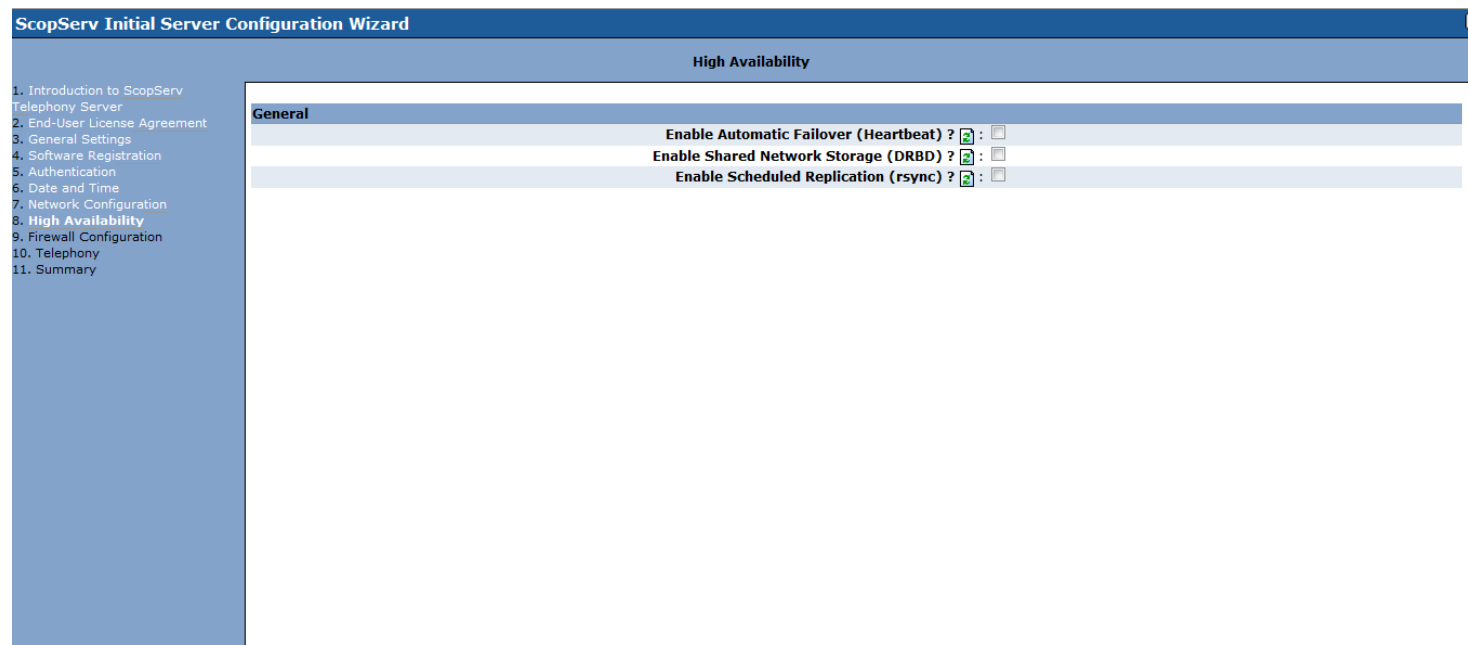
The screenshot shows the 'ScopServ Initial Server Configuration Wizard' window, specifically the 'Network Configuration' step. The window has a blue header and a sidebar on the left with a list of steps: 1. Introduction to ScopServ, 2. End-User License Agreement, 3. General Settings, 4. Software Registration, 5. Authentication, 6. Date and Time, 7. Network Configuration (highlighted), 8. High Availability, 9. Firewall Configuration, 10. Telephony, and 11. Summary. The main area is titled 'Network Configuration' and contains three sections: 'General' with a 'Hostname' field set to 'virtualbox1253.local'; 'Network Configuration (LAN)' with a 'Type' dropdown set to 'Dynamic (DHCP)'; and 'DNS Configuration' with 'Primary' IP '192.168.192.1' and 'Secondary' IP '8.8.8.8'. At the bottom, there are 'Previous' and 'Next' buttons, and the text 'Step 7 of 11'.





Server Module – High Availability

- Enable or skip any required High Availability Settings.
- Press Next.





Server Module – Firewall Type

- Since this example system only has a single network interface there is no option to choose a firewall/gateway mode.
- Choose single system to enable the firewall or no firewall to disable the firewall.
- If a firewall mode is chosen tick off the options to allow desired allowed inbound traffic.

The screenshot shows the "ScopServ Initial Server Configuration Wizard" window, specifically the "Firewall Configuration" step. The window has a blue title bar and a sidebar on the left with a list of steps: 1. Introduction to ScopServ, 2. End-User License Agreement, 3. General Settings, 4. Software Registration, 5. Authentication, 6. Date and Time, 7. Network Configuration, 8. High Availability, 9. Firewall Configuration (highlighted), 10. Telephony, and 11. Summary.

The main content area is titled "Firewall Configuration" and contains a yellow warning box at the top: "Warning: This wizard will replace all current Firewall data for: Configuration, Inbound Services (Permit) and Outbound Services (Deny). These data will be LOST." Below the warning, there is a section for "Firewall Configuration" with a "Server Type" dropdown menu set to "Single System". There are two radio buttons: "No Firewall" (unselected) and "Single System" (selected).

Below the "Firewall Configuration" section is the "Inbound Services (Allow)" section, which lists various services with checkboxes:

Service	Checked
ScopServ Web GUI	<input checked="" type="checkbox"/>
SSH/SFTP	<input checked="" type="checkbox"/>
VoIP (SIP/IAX/MGCP)	<input checked="" type="checkbox"/>
Flash Operator Panel	<input checked="" type="checkbox"/>
DNS Server	<input checked="" type="checkbox"/>
Web Server	<input type="checkbox"/>
Web Server over SSL	<input type="checkbox"/>
FTP Server	<input type="checkbox"/>
TFTP Server	<input checked="" type="checkbox"/>
VPN Server (PPTP)	<input type="checkbox"/>
Mail Services	<input type="checkbox"/>
Time Server (NTP)	<input checked="" type="checkbox"/>
DHCP Server (Public Interface)	<input type="checkbox"/>



Server Module – Locale

- Choose the language type that best suits your country profile to set the local tones and cadences configuration that best suits your local telco.
- The Server is behind NAT option is configured if the server is behind a third party NAT router. This setting manipulates SIP traffic to work behind the NAT router using the internal Session Border Controller (SBC).
- NOTE: If the server is behind NAT then ensure that the external firewall port forwards the TCP/UDP ports to the static IP address of the server.

Port examples:

- UDP/TCP 5060 SIP signaling
- UDP/TCP 10000-20000 SIP RTP traffic
- UDP 4569 IAX2 signaling and RTP traffic
- TCP 22 SSH management
- TCP 5555 ScopTEL GUI
- UDP 123 NTP
- UDP 69 TFTP provisioning

The screenshot shows the 'ScopServ Initial Server Configuration Wizard' window, specifically the 'Telephony' section. The window has a blue header and a sidebar on the left with a navigation menu. The main content area is divided into 'General' and 'NAT Settings' sections.

General

- Default Language (Prompt): English (dropdown menu)
- Default: English
- Tone Indication: United States / North America (dropdown menu)
- Default: United States / North America

NAT Settings

- Server is behind NAT ?
- * External IP or Hostname: whatismyip.com
- How often to refresh Hostname if used ? : 10
- Default: 10
- Local Network: 192.168.0.0/255.255.0.0 10.0.0.0/255.0.0.0 172.16.0.0/12 169.254.0.0/255.255.0.0
- You can add multiple 'network/subnet' if separated by a space.



Server Module – Apply Changes and Reboot

- Review changes and tick on Apply Changes.
- Click Finish.
- Reboot Server when prompted.

The image shows a screenshot of the "ScopServ Initial Server Configuration Wizard" at the "Summary" step. The window title is "ScopServ Initial Server Configuration Wizard". On the left, a navigation pane lists 11 steps: 1. Introduction to ScopServ, 2. End-User License Agreement, 3. General Settings, 4. Software Registration, 5. Authentication, 6. Date and Time, 7. Network Configuration, 8. High Availability, 9. Firewall Configuration, 10. Telephony, and 11. Summary. The main area displays a summary of configuration options with their current values:

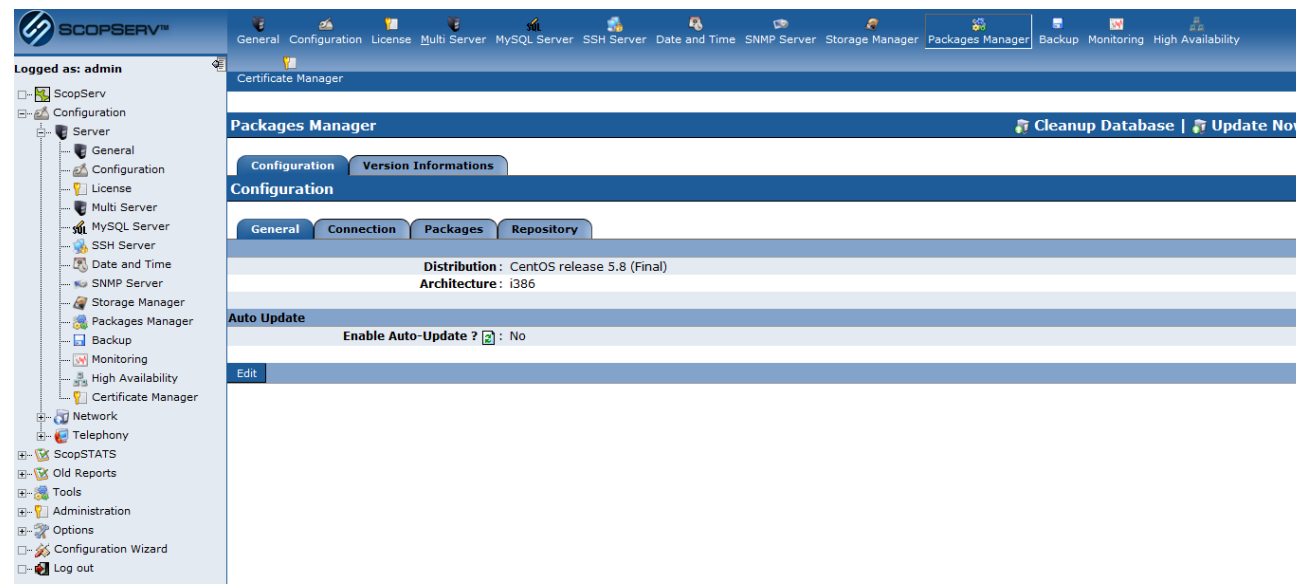
Summary	
SSH/SFTP:	Yes
VoIP (SIP/IAX/MGCP):	Yes
Flash Operator Panel:	Yes
DNS Server:	Yes
Web Server:	No
Web Server over SSL:	No
FTP Server:	No
TFTP Server:	Yes
VPN Server (PPTP):	No
Mail Services:	No
Time Server (NTP):	Yes
DHCP Server (Public Interface):	No
Telephony	
General	
Default Language (Prompt):	English
Tone Indication:	United States / North America
NAT Settings	
Server is behind NAT ?	Yes
External IP or Hostname:	whatismyip.com
How often to refresh Hostname if used ?	10
Local Network:	192.168.0.0/255.255.0.0 10.0.0.0/255.0.0.0 172.16.0.0/169.254.0.0/255.255.0.0
Do you really want to apply these changes?	
★ Apply Changes?: <input checked="" type="checkbox"/>	

At the bottom left, there are "Previous" and "Finish" buttons. At the bottom right, it says "Step 11 of 11".



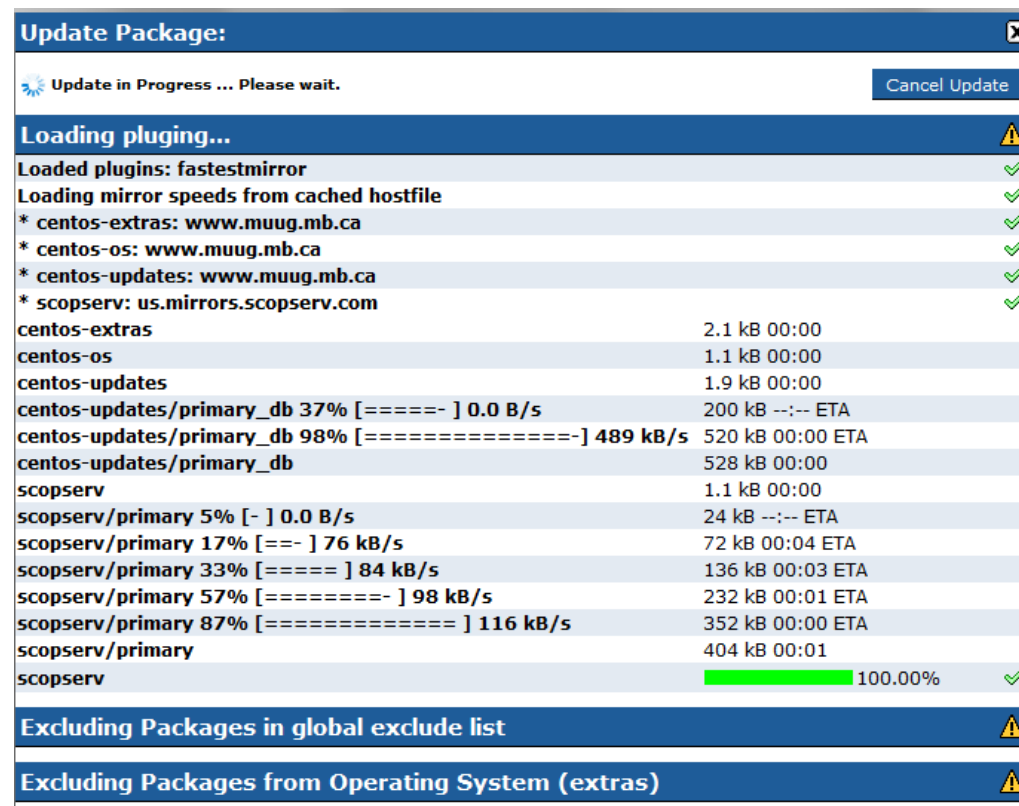
Server Module – Update After Reboot

- Once the server is rebooted login again (use the new IP address if the ifconfig address was changed).
- From the Configuration>Server>Packages Manager menu tree click on the 'Update Now' link to upgrade all of the system packages.



Server Module – Update All Packages

- Be patient while all updates are fetched and applied by the server.
- NOTE: If the annual software maintenance agreement is not current for the system serial number then no ScopServ updates will be fetched.



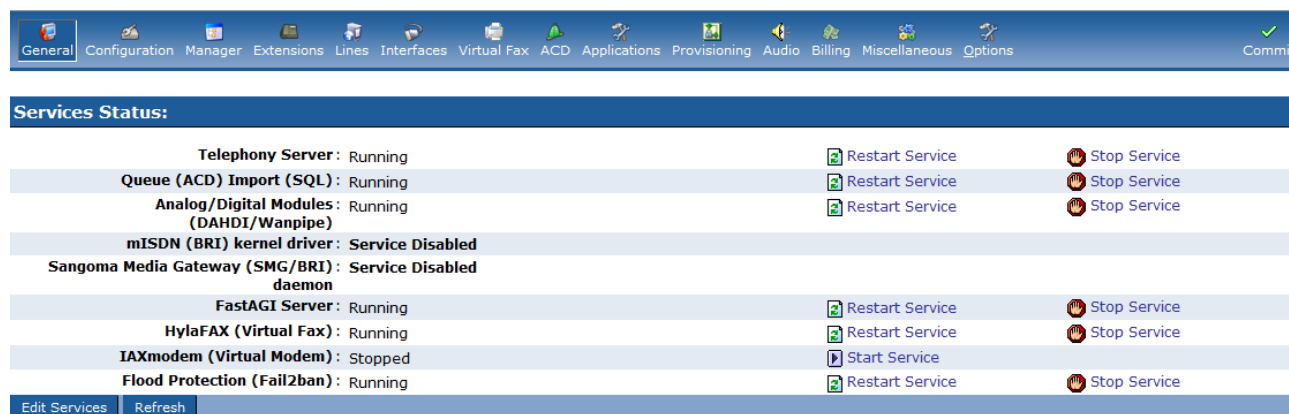
The screenshot shows a window titled "Update Package:" with a "Cancel Update" button. The status is "Update in Progress ... Please wait." Below this, there are sections for "Loading plugins...", "Loaded plugins: fastestmirror", "Loading mirror speeds from cached hostfile", and a list of mirrors with their respective download speeds and progress bars. The "scopserv/primary" package is shown as 100.00% complete.

Package	Progress	Speed	ETA
centos-extras	2.1 kB	00:00	
centos-os	1.1 kB	00:00	
centos-updates	1.9 kB	00:00	
centos-updates/primary_db	37% [=====]	0.0 B/s	200 kB --:-- ETA
centos-updates/primary_db	98% [=====]	489 kB/s	520 kB 00:00 ETA
centos-updates/primary_db			528 kB 00:00
scopserv	1.1 kB	00:00	
scopserv/primary	5% [-]	0.0 B/s	24 kB --:-- ETA
scopserv/primary	17% [==]	76 kB/s	72 kB 00:04 ETA
scopserv/primary	33% [====]	84 kB/s	136 kB 00:03 ETA
scopserv/primary	57% [=====]	98 kB/s	232 kB 00:01 ETA
scopserv/primary	87% [=====]	116 kB/s	352 kB 00:00 ETA
scopserv/primary			404 kB 00:01
scopserv	100.00%		

Telephony Module – Commit and Restart Asterisk?

- If the scopserv-telephonyX packages are updated then you will have to do a full commit on the Configuration>Telephony>Configuration page.
- If any Asterisk packages are updated then you will have to restart Asterisk from the Configuration>Telephony>General>Restart Telephony page.

NOTE: Always do a full commit before restarting Asterisk/Telephony Server.



Service	Status	Restart Service	Stop Service
Telephony Server	Running		
Queue (ACD) Import (SQL)	Running		
Analog/Digital Modules (DAHDI/Wanpipe)	Running		
mISDN (BRI) kernel driver	Service Disabled		
Sangoma Media Gateway (SMG/BRI) daemon	Service Disabled		
FastAGI Server	Running		
HylaFAX (Virtual Fax)	Running		
IAXmodem (Virtual Modem)	Stopped		
Flood Protection (Fail2ban)	Running		

