



## Server 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 ~]#
```



## Server Module - passwd

- If you need to change the default root password (recommended) the 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 found using the ifconfig command 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

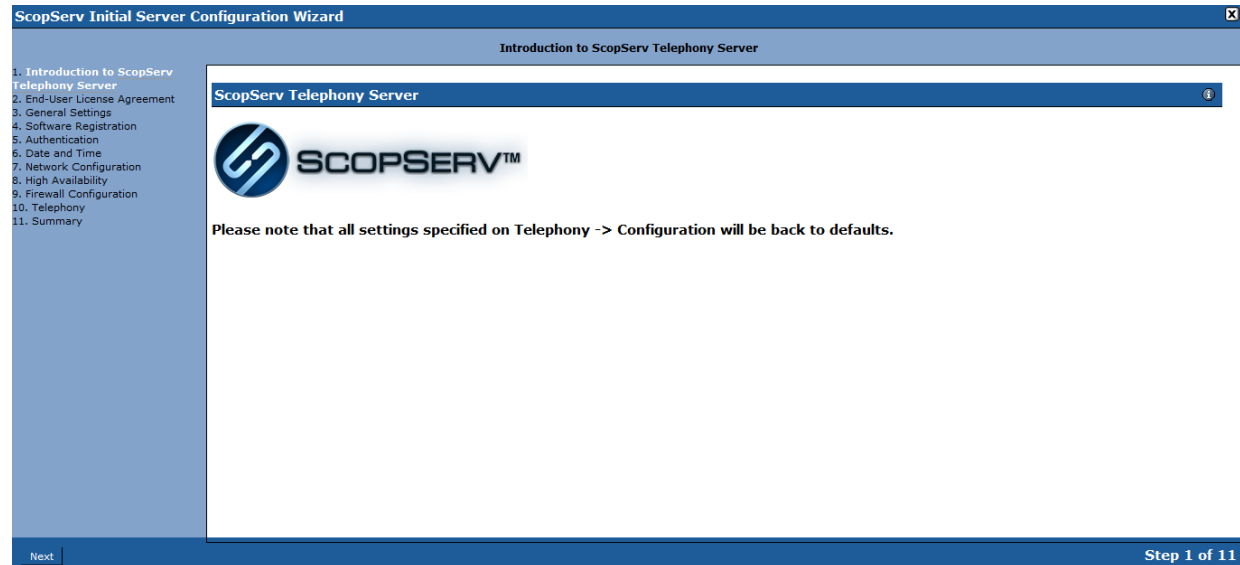


The image shows a screenshot of the ScopServ Telephony Server web GUI login page. The page has a blue header with the text "ScopServ Telephony Server". Below the header, on the left, is the ScopServ logo (a stylized blue 'S' in a circle) followed by the text "SCOPSERV™". On the right side, there is a login form with three fields: "Username" with the value "admin", "Password" with masked characters "•••••", 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 footer with the text "Copyright © 2005-2012 ScopServ International Inc."



## Server Module – Configuration Wizard

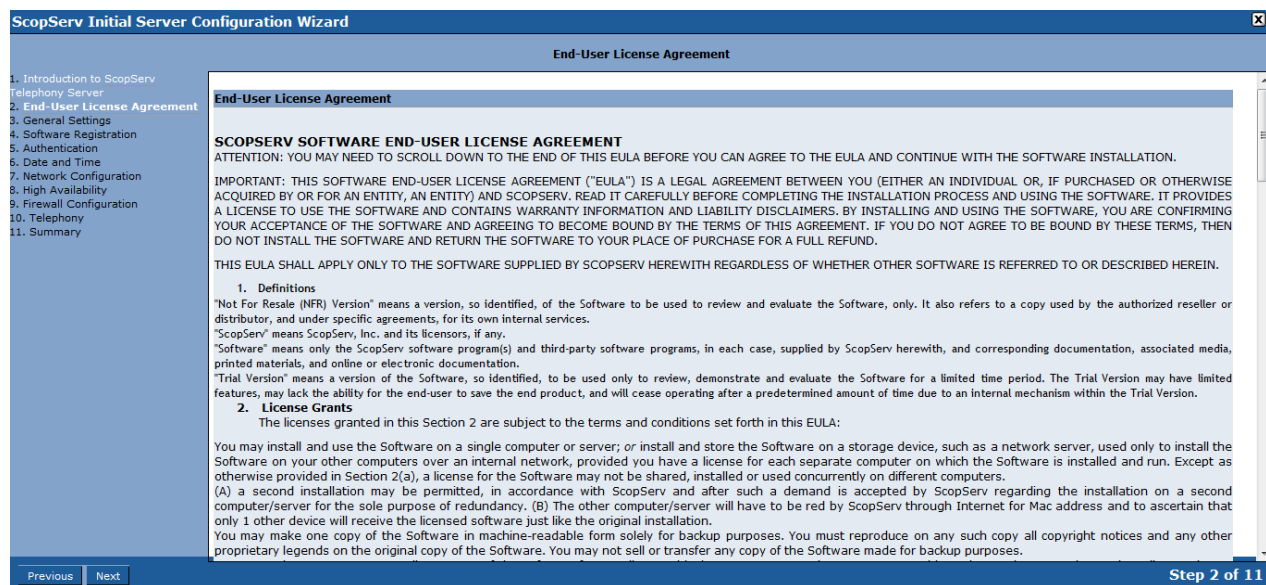
- Before proceeding make sure you have your server's serial number handy so you can activate all of the menus and proceed with the configuration wizard.
- If you have the serial number proceed with the wizard by pressing Next





## Server Module – EULA

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





## 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 screenshot shows the 'ScopServ Initial Server Configuration Wizard' at Step 3 of 11, titled 'General Settings'. On the left is a navigation pane with steps 1 through 11, where 'General Settings' is selected. The main 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 note 'Default: 5555'. The 'Proxy Settings' section has a label 'Enable Proxy ?' followed by a checkbox that is currently unchecked. The 'SMTP Settings' section has a label 'Enable 'Smart Relay' for Outgoing SMTP ?' followed by a checkbox that is also unchecked. At the bottom of the wizard, there are 'Previous' and 'Next' buttons, and the text 'Step 3 of 11' is displayed in the bottom right corner.



## Server Module – Registration Details

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

ScopServ Initial Server Configuration Wizard

Software Registration

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  
11. Summary

**License Informations**

Serial Number	DOFC94D0-0000-AH8H8-9
Format:	00000000-0000-00000-0
Company Name:	ScopServ Virtualbox
Contact Name:	David Brillert
Contact Email:	david_brillert@scopserv.com
Phone Number:	416-414-8967
Street Address:	1253 Warner Way
City:	Mississauga
State/Province:	Ontario
Country:	Canada
Zip/Postal Code:	L4W3H6

Previous Next

Step 4 of 11



## Server Module – Admin Password Change

- It is recommended to change the default admin password.
- Enter the new password here and click Next

The screenshot shows the 'ScopServ Initial Server Configuration Wizard' window, specifically the 'Authentication' step (Step 5 of 11). The window has a blue header bar with the title 'ScopServ Initial Server Configuration Wizard' and a close button. Below the header, the main content area is divided into two sections. The top section is titled 'Authentication' and contains a red asterisk followed by the text 'Administrator Password (admin):'. To the right of this text are two password input fields, each containing six dots. Below the input fields, a message states 'Default password is set to 'admin''. The bottom section of the window is a list of configuration steps, with '5. Authentication' highlighted. The steps are: 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, and 11. Summary. At the bottom of the window, there are 'Previous' and 'Next' buttons, and the text 'Step 5 of 11' is displayed in the bottom right corner.





## Server Module – NTP Server

- Choose your Time Zone and check the box to sync time with an NTP time server
- Enter the IP or FQDN address of the NTP server
- Click Next

The screenshot shows the 'ScopServ Initial Server Configuration Wizard' window, specifically the 'Date and Time' step. The window has a title bar and a close button. On the left is a sidebar 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 (highlighted), 7. Network Configuration, 8. High Availability, 9. Firewall Configuration, 10. Telephony, and 11. Summary. The main area is titled 'Date and Time' and contains a 'General' section. In this section, there is a 'Time Zone' dropdown menu set to 'America/Montreal' with a 'Default: America/Montreal' label. Below this is a checkbox labeled 'Synchronize clock from a Time Server (NTP) ?' which is checked. Underneath the checkbox is a text field for 'Server Name or IP Address' containing 'time.nrc.ca' and a label 'Specify the Time Server IP Address or Hostname'. At the bottom of the window are 'Previous' and 'Next' buttons, and a status bar indicating 'Step 6 of 11'.

ScopServ Initial Server Configuration Wizard

Date and Time

General

\* Time Zone: America/Montreal  
Default: America/Montreal

Synchronize clock from a Time Server (NTP) ? ☒

\* Server Name or IP Address: time.nrc.ca  
Specify the Time Server IP Address or Hostname

Previous Next

Step 6 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 (Step 7 of 11). The window has 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' and 'Secondary' IP address fields. The 'Primary' field is set to '192.168.192.1' and the 'Secondary' field is set to '8.8.8.8'. At the bottom, there are 'Previous' and 'Next' buttons, and the text 'Step 7 of 11' is displayed in the bottom right corner.

General	
★ Hostname :	virtualbox1253.local

Network Configuration (LAN)	
★ Type :	Dynamic (DHCP)

DNS Configuration	
★ Primary :	192 . 168 . 192 . 1
Secondary :	8 . 8 . 8 . 8



## Server Module – High Availability

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

ScopServ Initial Server Configuration Wizard

High Availability

General

Enable Automatic Failover (Heartbeat) ? : ☐

Enable Shared Network Storage (DRBD) ? : ☐

Enable Scheduled Replication (rsync) ? : ☐

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  
11. Summary



## 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 left sidebar lists the configuration steps, with 'Firewall Configuration' selected. The main area contains a warning message, a 'Firewall Configuration' section with a 'Server Type' dropdown set to 'Single System', and an 'Inbound Services (Allow)' section with a list of services and their checkboxes.

**ScopServ Initial Server Configuration Wizard**

**Firewall Configuration**

A firewall can help prevent unauthorized access to your computer from the outside world.  
Warning: This wizard will replace all current Firewall data for: Configuration, Inbound Services (Permit) and Outbound Services (Deny). These data will be LOST.

**Firewall Configuration**

★ Server Type [2]: ☐ No Firewall ☒ Single System

**Inbound Services (Allow)**

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 image shows a screenshot of the 'ScopServ Initial Server Configuration Wizard' window, specifically the 'Telephony' section. The window has a 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, 10. Telephony (selected), and 11. Summary. The main content area is divided into two sections: 'General' and 'NAT Settings'. In the 'General' section, there are fields for 'Default Language (Prompt)' set to 'English', 'Default: English', and 'Tone Indication' set to 'United States / North America' with a dropdown arrow. Below this, the 'NAT Settings' section has a checkbox for 'Server is behind NAT ?' which is checked. Below the checkbox is a field for 'External IP or Hostname' with the value 'whatsmyip.com'. Below that is a field for 'How often to refresh Hostname if used ?' with the value '10' and a 'Default: 10' label. At the bottom of the NAT Settings section is a text area for 'Local Network' containing the IP ranges '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'. A note at the bottom of the text area says '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

ScopServ Initial Server Configuration Wizard

**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 10.0.0.0/255.0.0.0 172.16.0.0/12 169.254.0.0/255.255.0.0

Do you really want to apply theses changes?

\* Apply Changes? : ☒

Previous Finish

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.

The screenshot displays the ScopSERV web interface. The left sidebar shows a menu tree with 'Configuration' expanded, and 'Server' > 'Packages Manager' selected. The main content area shows the 'Packages Manager' configuration page. The 'Configuration' tab is active, and the 'General' sub-tab is selected. The page displays system information: 'Distribution: CentOS release 5.8 (Final)' and 'Architecture: i386'. Under the 'Auto Update' section, 'Enable Auto-Update ?' is set to 'No'. The 'Update Now' link in the top right corner of the 'Packages Manager' section is circled in red.



## 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.

**Update Package:** ✕

Update in Progress ... Please wait. Cancel Update

**Loading plugging...** ⚠

**Loaded plugins:** fastestmirror ✓

**Loading mirror speeds from cached hostfile** ✓

**\* centos-extras:** www.muug.mb.ca ✓

**\* centos-os:** www.muug.mb.ca ✓

**\* centos-updates:** www.muug.mb.ca ✓

**\* scopserv:** us.mirrors.scopserv.com ✓

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	<div><div></div></div> 100.00%	<span>✓</span>

**Excluding Packages in global exclude list** ⚠

**Excluding Packages from Operating System (extras)** ⚠





## Server 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

The screenshot shows the ScopTEL IP PBX web interface. The top navigation bar includes tabs for General, Configuration, Manager, Extensions, Lines, Interfaces, Virtual Fax, ACD, Applications, Provisioning, Audio, Billing, Miscellaneous, and Options. The 'Commit' button in the top right corner is circled in red. Below the navigation bar, the 'Services Status' section displays a table of services and their status. The 'Restart Service' button for the 'Telephony Server' is circled in red.

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		

At the bottom of the Services Status section, there are buttons for 'Edit Services' and 'Refresh'.



## Server Module – Full Menus

- Once all packages are updated and applied you can login to the ScopTEL GUI and start configuring the system.
- Or you can use the ScopTEL version switcher to toggle between different versions of ScopServ Telephony or Asterisk

The screenshot displays the ScopServ web interface. On the left is a navigation tree with categories like Configuration, Server, Network, and Telephony. The main content area is titled 'Services Status' and lists various services with their current status and control buttons. Below this is a 'General Information' section showing server uptime and change/reload timestamps. At the bottom are 'Quick Links' and 'Wizards' for common tasks.

Services Status:		
Telephony Server	: Running	<a href="#">Restart Service</a> <a href="#">Stop Service</a>
Queue (ACD) Import (SQL)	: Running	<a href="#">Restart Service</a> <a href="#">Stop Service</a>
Analog/Digital Modules (DAHDI/Wanpipe)	: Running	<a href="#">Restart Service</a> <a href="#">Stop Service</a>
mISDN (BRI) kernel driver	: Service Disabled	
Sangoma Media Gateway (SMG/BRI) daemon	: Service Disabled	
FastAGI Server	: Running	<a href="#">Restart Service</a> <a href="#">Stop Service</a>
HylaFAX (Virtual Fax)	: Running	<a href="#">Restart Service</a> <a href="#">Stop Service</a>
IAXmodem (Virtual Modem)	: Stopped	<a href="#">Start Service</a>
Flood Protection (Fail2ban)	: Running	<a href="#">Restart Service</a> <a href="#">Stop Service</a>

[Edit Services](#) [Refresh](#)

**General Information**

Server is up since: Undefined  
Last Change: Tuesday July 03, 2012 10:10  
Last Reload: Tuesday July 03, 2012 10:11

Quick Links	Wizards
<a href="#">Multi Tenants</a>	<a href="#">Add Multiple Extensions</a>
<a href="#">Class of Service</a>	<a href="#">Cards Detection (Analog / Digital)</a>
<a href="#">VoIP Accounts</a>	<a href="#">DUNDI Configuration</a>
<a href="#">Incoming Lines</a>	<a href="#">Phones Detection (Network Scan)</a>
<a href="#">Outgoing Lines</a>	



***Congratulations***