SCOPTEL CentOS 7.X Boot Disk Installation Guide

Introduction

CentOS Linux

The CentOS Linux distribution is a stable, predictable, manageable and reproducible platform derived from the sources of Red Hat Enterprise Linux (RHEL).

or updating an older installation, it is crucial that you check hardware compatibility with CentOS7. Many older hardware cannot support

rch/#/category/Server?sort=sortTitle%20asc&certifications=Red%20Hat%20Enterprise%20Linux%207&architectures=x86_64&ecosyst

ScopTEL

The ScopTEL applications suite is a complete IP PBX management system used to manage the Asterisk open-source toolkit. ScopTEL's intuitive and comprehensive graphical interface takes full advantage of all the proven features of this platform. Recognized globally by VoIP professionals ScopTEL brings the benefits of Asterisk and other evolving open standards while controlling costs. In addition to offering unparalleled ease of use ScopTEL extends Asterisk's functionalities to offer a complete unified communications system.

- Previous versions of ScopTEL were either based on CentOS versions 4, 5, or 6.
- However these versions have limited lifecycle support and it was necessary for ScopServ International to Release an ScopTEL packages based on CentOS version 7.X.

End of Lifetime (EOL) Dates					
CentOS-6 CentOS-7 CentOS-8					
Full Updates ¹	May 10th, 2017	Q4 2020	May 2024		
Maintenance Updates ²	November 30th, 2020	June 30th, 2024	May 31st, 2029		

• As of 2020-02-01 the current version of ScopTEL install is CentOS Linux release 7.7 64 bit (x86_64)

Hardware Recommendations

- Quad Core 64 bit CPU x86_64 architecture
- 4 GB RAM
- 60 GB Hard Drive or Virtual Machine Container

Where to Download the Installation ISO

- http://isoredirect.centos.org/centos/7/isos/x86_64/
- Installation Options:
 - Burn to DVD and boot to DVD drive on a standalone server
 - · Copy ISO to USB key using Rufus and boot to USB on a standalone server
 - Download Rufus from https://github.com/pbatard/rufus/releases/download/v3.8/rufus-3.8.exe
 - Install the ISO using a Virtual Machine Container

Boot Media Installation Option 1. DVD

- 1. Once you have downloaded the ISO file from the CentOS website use your favourite software to burn the image to a bootable DVD
- 2. Attach a DVD drive to the target server
- 3. Edit the server's BIOS to boot from DVD first

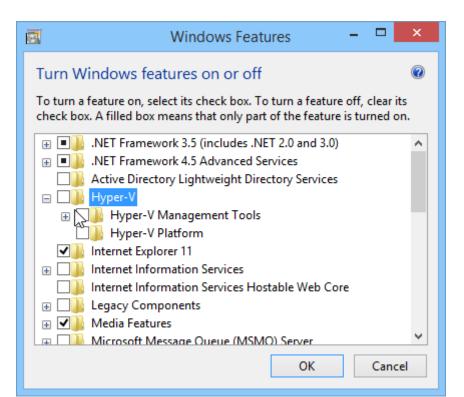
Boot Media Installation Option 2. USB

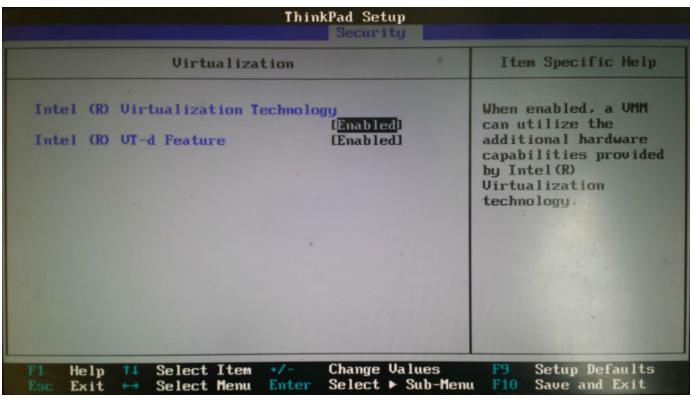
- 1. Once you have downloaded the ISO file from the CentOS website use Rufus to make a bootable USB drive
- 2. Use the SELECT button to choose the directory where you downloaded CentOS 7
- 3. Click on START to write the bootable ISO to the USB drive
- 4. Remove the USB drive
- 5. Insert the USB drive into the target server
- 6. Edit the server's BIOS to boot from USB first

🖋 Rufus 3.3.1400	_		\times
Drive Properties			
Drive Properties —			
Device			
CentOS-8-1-1911-x86_64-dvd (E:) [1	28 GB]		\sim
Boot selection		_	
CentOS-7-x86_64-DVD-1810.iso	~ 🤕	SE	LECT
Partition scheme	Target syster	n	
MBR ~	BIOS or UEF	:I	\sim
 Show advanced drive properties 			
Format Options			
Format Options ——			
Volume label			
CentOS 7 x86_64			
File system	Cluster size		
Large FAT32 (Default) V	32 kilobytes	(Default) ~
ullet Show advanced format options			
Status			
READY			
S) (i) ≵ III	START	С	LOSE
1 device found			

Boot Media Installation Option 3. Virtual Machine

- 1. Once you have downloaded the ISO file from the CentOS website edit the target server's BIOS and ensure that Virtualization Options are enabled
- 2. If you are not using Microsoft Hyper-V on the host you may have to disable Hyper-V in Windows Features
- 3. Check with your VM Vendor for documentation and support
- 4. ScopTEL is known to work with Xen, VMWare, Hyper-V, VirtualBox





Xen Requirements:

You must choose Other install media and select the CentOS 7 ISO location

😣 New VM				- 🗆 X
5elect a VM temp	late			?
Template	Search		Q	
Name	Name	Category	^	Template details
Installation Media	Ubuntu Precise Pangolin 12.04 (32-bit)	Ubuntu		If the operating system you plan
Home Server	Ubuntu Precise Pangolin 12.04 (64-bit)	Ubuntu		to use is not listed, you may be able to install it by selecting this
CPU & Memory	Ubuntu Trusty Tahr 14.04	Ubuntu		template. We recommend that
Storage	Ubuntu Xenial Xerus 16.04	Ubuntu		only advanced users attempt to use this template, and you should
Networking	Citrix XenApp on Windows Server 2008 (32-	Citrix		note that our products have been
Finish	Citrix XenApp on Windows Server 2008 (64-	Citrix		tested running only the supported distributions and
	Citrix XenApp on Windows Server 2008 R2 (Citrix		specific versions covered by the
	Other install media	Misc		standard supplied templates.
	Before Revert	Snapshots		
	R Fresh Install	Snapshots		
	Resh Install 57	Snapshots		
	ScopCOMM Installed	Snapshots	~	
CITRIX [.]	Copy host BIOS strings to VM			
			<	Previous Next > Cancel

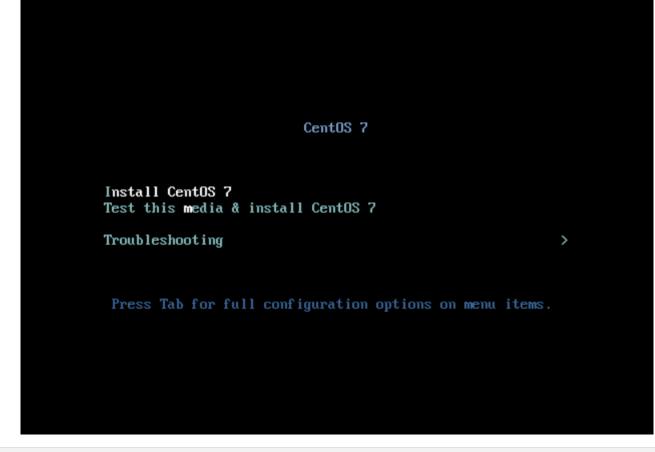
BEFORE YOU BEGIN!

Installing from the CentOS 7 installation media will format and destroy all data on your existing drives!

If you are upgrading a previous ScopTEL distribution you will need to ensure all data is backed up before proceeding. Refer to the documentation available at https://blog.scopserv.com/2012/06/how-to-backup-and-restore-a-scoptel-pbx/ The Putty and WinSCP method is the recommended method.

Installation Procedure

Once the ISO file has started booting choose the Install CentOS 7 option.



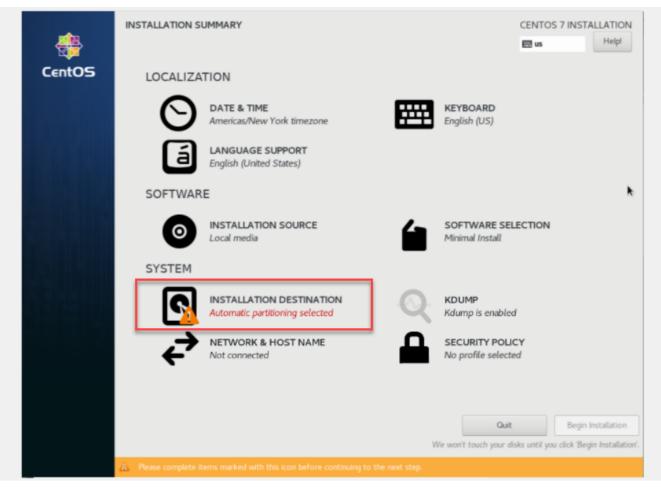
Language

Choose your desired language and click Continue.

	u like to use during the insta	-
English	English 💙	English (United States)
Afrikaans	Afrikaans	English (United Kingdom)
አማርኛ	Amharic	English (India) English (Australia)
العربية	Arabic	English (Canada)
অসমীয়া	Assamese	English (Denmark)
Asturianu	Asturian	English (Ireland)
Беларуская	Belarusian	English (New Zealand)
Български	Bulgarian	English (Nigeria)
বাংলা	Bengali	English (Hong Kong SAR China)
Bosanski	Bosnian	English (Philippines)
Català	Catalan	English (Singapore)
Čeština	Czech	English (South Africa)
Cymraeg	Welsh	English (Zambia)
Dansk	Danish	English (Zimbabwe)
Deutsch	German	English (Botswana)
	Cerman	English (Antiqua & Barbuda)

INSTALLATION DESTINATION

Click on the INSTALLATION DESTINATION to customize and select the installation drive and partition

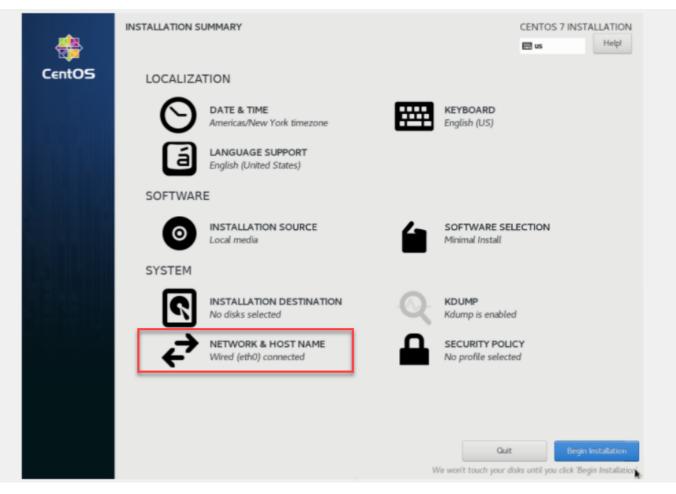


- Click on the INSTALLATION DESTINATION if you would like to customize your Partition
- Click on Done when your are finished selecting your Destination

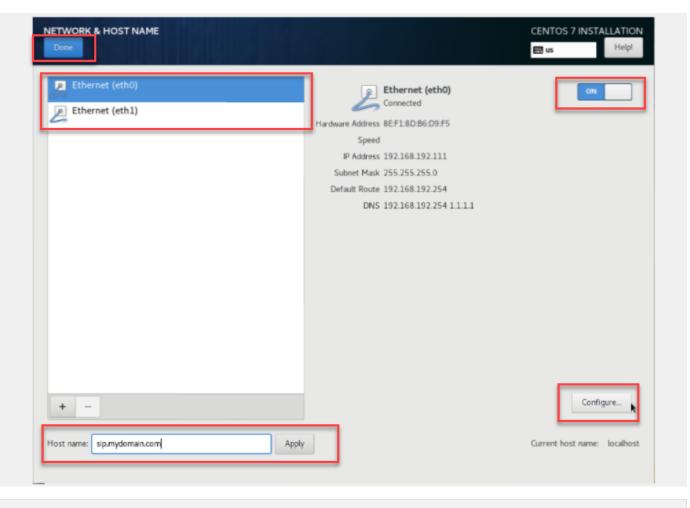
	CENTOS 7 INSTALLATIO
Device Selection	
Select the device(s) you'd like to install to. They will be left untouched until you click on the m	nain menu's "Begin Installation" button.
Local Standard Disks	
20 GiB	*
Specialized & Network Disks Add a disk Other Storage Options	
Partitioning	
Automatically configure partitioning. I will configure partitioning.	
I would like to make additional space available.	
Encryption Encrypt my data. You'll set a passphrase next.	
	0 disks selected; 0 B capacity; 0 B free Refre
	0 disks selected; 0 B capacity; 0 B free Refre

NETWORK & HOST NAME

Click on the Click on the NETWORK & HOST NAME



- NOTE: All Ethernet devices are DISABLED by DEFAULT so you must manually ENABLE them using the mouse to change the OFF setting to ON
- Change the Default Host name to match your network requirements
- Use the Configure button if you need to change the Network parameters to something other than the Default DHCP configuration.
- Click the Done button once you are sure your configuration is correct



Begin Installation

Change the DATE & TIME settings to reflect your region and then click on Begin Installation

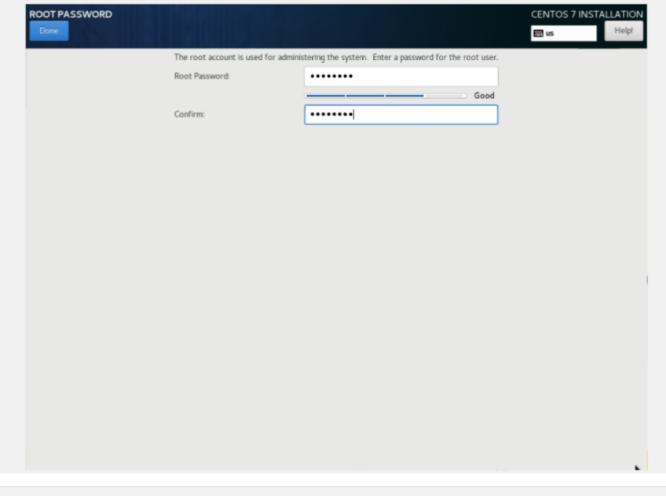
	INSTALLATION S	UMMARY		CENTOS	7 INSTALLATION
				🖽 us	Helpl
CentOS	LOCALIZA	TION			
	0	DATE & TIME Americas/New York timezone		KEYBOARD English (US)	
	a	English (United States)			
	SOFTWAR	E			
	0	INSTALLATION SOURCE	6	SOFTWARE SELECTION Minimal Install	
	SYSTEM				
	ک	INSTALLATION DESTINATION No disks selected	Q	KDUMP Kdump is enabled	
	₹	NETWORK & HOST NAME Wired (eth0) connected	₽	SECURITY POLICY No profile selected	
				Quit	Begin Installation
			V	Ve won't touch your disks until you	

Set ROOT PASSWORD

Click on the ROOT PASSWORD selector and change your root password

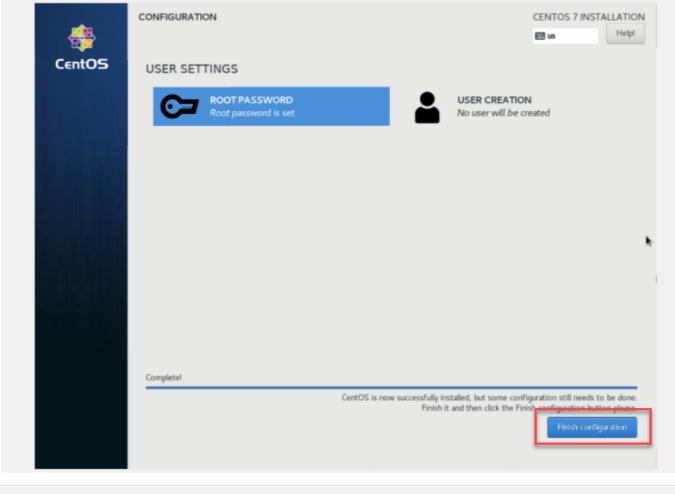


Make sure the root password is very difficult to guess by brute force attack using alpha numeric and special characters Click on Done once configured



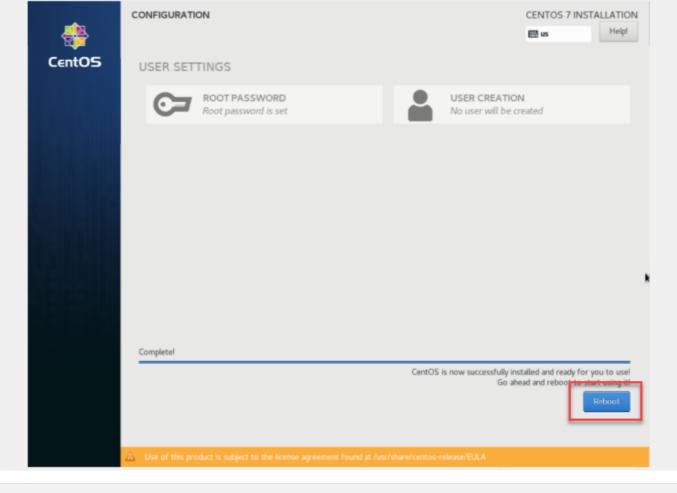
Finish Configuration

Click on Finish configuration



Reboot

Remove your installation medium and click on Reboot



IP Address

Remove your installation medium and click on Reboot The server will reboot and the console will become visible for root to login

-	CONFIGURATION		CENTOS 7 IN	STALLATION
			🖽 us	Helpl
CentOS	USER SETTINGS			
	ROOT PASSWORD Root password is set	USER CR No user w	EATION vill be created	
	Completel			
		CentOS is now succes	sfully installed and ready f Go ahead and reboo	or you to use!
				Reboot
	Use of this product is subject to the license agreement found	at rush share/centos-release/EULA		

Post OS Installation

You can use the command 'ip address show' to see your IP address You will have to run commands to install your ScopTEL software

Proot@sip:~	\times
login as: root	\sim
root@192.168.192.111's password:	
Last login: Fri Jan 31 13:09:05 2020	
<pre>[root@sip ~]# ip address show</pre>	
1: lo: <loopback,up,lower_up> mtu 65536 qdisc noqueue state UNKNOWN group def</loopback,up,lower_up>	faul
t qlen 1000	
link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00	
inet 127.0.0.1/8 scope host lo	
<pre>valid_lft forever preferred_lft forever</pre>	
inet6 ::1/128 scope host	
<pre>valid_lft forever preferred_lft forever</pre>	
2: eth0: <broadcast,multicast,up,lower_up> mtu 1500 qdisc pfifo_fast state UP</broadcast,multicast,up,lower_up>	gr ?
oup default glen 1000	
<pre>link/ether 8e:f1:8d:b6:d9:f5 brd ff:ff:ff:ff:ff</pre>	
inet 192.168.192.111/24 brd 192.168.192.255 scope global noprefixroute dy	ynam
ic eth0	
valid_lft 86299sec preferred_lft 86299sec	
inet6 fe80::524:4760:3614:e7d9/64 scope link noprefixroute	
valid_lft forever preferred_lft forever	
3: eth1: <broadcast,multicast,up,lower_up> mtu 1500 qdisc pfifo_fast state UP</broadcast,multicast,up,lower_up>	gr
<pre>oup default qlen 1000 link/ether e2:19:d7:13:2d:c3 brd ff:ff:ff:ff:ff:ff</pre>	
[root@sip ~]# [

Cleaning the Repositories

Run this command to clear the default CentOS 7 repositories:

```
rm -rf /etc/yum.repos.d/*.repo
```

₽ root@sip:~	_	\times
[root@sip ~]#		^
[root@sip ~]#		
[root@sip ~]# [root@sip ~]#		
[root@sip ~]#		
[root@sip ~]#		
[root@sip ~]#		
[root@sip ~]#		
[root@sip ~]#		
[root@sip ~]#		
[root@sip ~]#		
[root@sip ~]#		
[root@sip ~]#		
[root@sip ~]# [root@sip ~]#		
[root@sip ~]#		
[root@sip ~]#		
[root@sip ~]#		
[root@sip ~]#		
[root@sip ~]#		
[root@sip ~]#		
[root@sip ~]#		
<pre>[root@sip ~]# rm -rf /etc/yum.repos.d/*.repo</pre>		
[root@sip ~]#		\sim

Adding the Repositories

Run this command to add the ScopServ repositories:

printf "[scopserv]\nname=ScopServ Packages\nbaseurl=http://download.scopserv.com/dist/redhat

🚰 root@sip:~	_		\times
[root@sip ~]#			~
[root@sip ~]#			
<pre>[root@sip ~]# printf "[scopserv]\nname=ScopServ Packages\nbaseurl=</pre>	http:/	//down]	Loa
d.scopserv.com/dist/redhat/el7/en/x86_64/scopserv/" > /etc/yum.rep	os.d/s	scopsei	cv.
repo			
[root@sip ~]#			\sim

Install the Software

Run this command to install the ScopTEL Software:

```
yum install scopserv --nogpgcheck -y
```

Proot@sip:~	_	\times
[root@sip ~]#		\sim
[root@sip ~]#		
[root@sip ~]# yum install scopservnogpgcheck -y		
		\sim

Update the Software

Run this command to update the OS and the ScopTEL software and to compile dahdi and wanpipe drivers automatically:

scopserv_yum update -y

<pre>[root@sip ~]# [root@sip ~]#</pre>	Proot@sip:~		\times
<pre>[root@sip ~]# [root@sip ~]#</pre>			^
<pre>[root@sip ~]# [root@sip ~]#</pre>			
<pre>[root@sip ~]# [root@sip ~]#</pre>			
<pre>[root@sip ~]# [root@sip ~]#</pre>			
<pre>[root@sip ~]# [root@sip ~]#</pre>			
<pre>[root@sip ~]# [root@sip ~]#</pre>			
<pre>[root@sip ~]# [root@sip ~]#</pre>			
<pre>[root@sip ~]# [root@sip ~]#</pre>			
<pre>[root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]#</pre>			
<pre>[root@sip ~]# [root@sip ~]#</pre>			
<pre>[root@sip ~]# [root@sip ~]#</pre>			
<pre>[root@sip ~]# [root@sip ~]#</pre>			
<pre>[root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]#</pre>			
<pre>[root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]#</pre>			
<pre>[root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]#</pre>			
<pre>[root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]#</pre>			
<pre>[root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]#</pre>			
<pre>[root@sip ~]# [root@sip ~]# [root@sip ~]# [root@sip ~]#</pre>			
<pre>[root@sip ~]# [root@sip ~]# [root@sip ~]#</pre>			
<pre>[root@sip ~]# [root@sip ~]#</pre>			
[root@sip ~]#			
[receipterb] peeppert law abaace 1	[root@sip ~]# scopserv yum update -y		\sim

Edit Server Bootup Services

Edit the Bootup Services to include RabbitMQ Server Apply Changes

ScopTEL	General	etion License	SQL S	- 💆 SH Date and Ti	me LDAP	() SNMP	📆 Storage Manager	Packages Manager	8 Backup	Here Monitoring	💼 High Availability	Certificate Manager	? <u>H</u> elp	
Logged as: admin														
🐣 ScopServ	Bootup Services:													
- 🏠 Configuration	Start at bootup:													
- 🛡 Server	Web Management : 🗹 MySQL Daemon : 🗹													
🚰 General	RabbitMQ Server : 🗹													
Configuration	SSH Daemon : 🗹													
۹ License	DenyHosts (Block SSH attack) : 🗹 Time Server (NTP) Daemon : 🗹													
🤗 MySQL Server	Sensors (Temperature/Fan) Daemon :													
🖂 SSH Server		SNMP Daemon : OpenLDAP Server :												
🕝 Date and Time			Ser	ver : Running						🥝 Reboot Server		Power Off	Power Off	
🖍 LDAP Server	Apply Change													
SNMP Server														
📻 Storage Manager														
Packages Manager						2								
😪 Backup														
😭 High Availability														
👳 Certificate Manager														
+ 📄 Network														
- 🚆 Telephony	*													

Reboot the Server

Run this command to reboot the server and compile all the drivers automatically:

reboot

After the reboot you can login with a web browser to your server and start configuring ScopTEL for your installation *http://<ip address/hostname>:5555*

🛃 root@sip:~		\times
[root@sip ~]#		\sim
[root@sip ~]#		
[root@sip ~]# reboot		\sim