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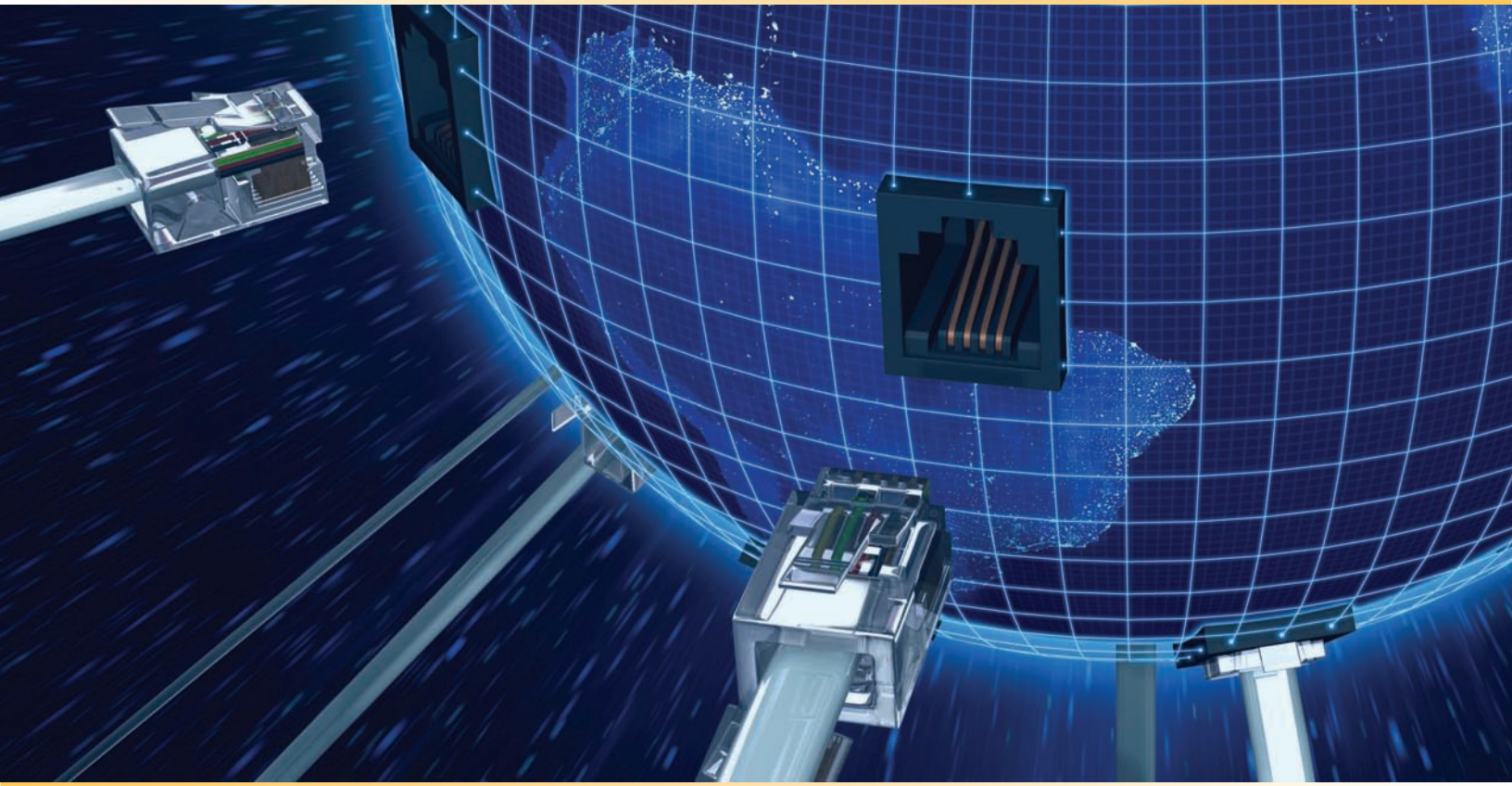
# trixbox™ CE

## Technical Application Notes



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# About trixbox™ CE

Fonality™ created trixbox™ CE and released it as open source software under the GNU General Public License (GPL). It is available free of charge as a download from the Internet for developing advanced communication solutions. trixbox™ CE can switch calls, manage call routing and connect calls over IP, POTS and digital connections, to list just a few of its capabilities. It runs on Linux and can interoperate with almost all standards-based telephony equipment.

trixbox™ CE supports Session Initiation Protocol (SIP), making it an ideal choice for use in conjunction with Broadvox GO! SIP Trunking. For more information about trixbox™ CE, visit www.trixbox.org.

# Purpose, Scope and Audience

This technical application note describes the configuration of trixbox™ CE for the Broadvox GO! SIP Trunking service. This document is suitable for use by anyone deploying the Broadvox GO! SIP Trunking service in conjunction with trixbox™ CE. This document has a technical audience in mind – specifically IT professionals skilled in Linux with some experience in PBX administration and familiarity with VoIP technologies. This document is not for business administrators or people in other non-technical careers. In order to successfully use this document to deploy Broadvox GO! SIP Trunking service, you will need to possess the following skills, or have access to professionals or consultants with the following skills:

- Understanding of UNIX or Linux operating systems, including:
  - Understanding of file and directory structure on target OS
  - Understanding of firewall configuration on target OS
  - Understanding of network configuration on target OS
  - Understanding of service configuration on target OS
- Familiarity with network troubleshooting tools, including:
  - Wireshark/Ethereal
  - dig/nslookup
  - ping
  - traceroute
- Familiarity with PBX systems, including:
  - Trunk configuration
  - Calling plan configuration
  - Extension configuration
  - Mailbox configuration
- Familiarity with Session Initiation Protocol (SIP)
- An understanding of all seven layers of the Open System Interconnection (OSI) model
- A complete understanding of your internal network structure, Network Address Translation (NAT) setup, and firewall setup
- A complete understanding of your public Internet connectivity

Broadvox can only provide support for trixbox™ CE to the extent covered in this Technical Application Note and the included reference configuration, so if your level of technical expertise does not include the above skills, it is recommended that you obtain the services of a software professional.

# trixbox™ CE Deployment Information

Before you begin deploying trixbox™ CE, please locate the following information. If you have questions about any item, refer to the descriptions and additional details provided on the pages that follow.

| | | |
|---|---|---|
| trixbox™ CE External IP Address: | _____._____._____._____ | |
| Max Calls: | _____ | |
| Preferred Codec: | ulaw | g729 |
| Alternate Codec: | ulaw | g729 |
| Is trixbox™ CE NATd: | Yes | No |
| Is trixbox™ CE Behind a Firewall: | Yes | No |
| Is There a Local Firewall: | Yes | No |

## *trixbox™ CE External IP Address*

Your trixbox™ CE server will either use a public IP address or a private IP address. If the IP address on your trixbox™ CE server is of the form 192.168.x.x, 172.16.x.x – 172.31.x.x, or 10.x.x.x, then your trixbox™ CE server uses an internal, private IP address. This internal address is not routable on the public Internet. In order for your trixbox™ CE server to connect to the Broadvox Session Border Controller (SBC), you must either have a public IP address on your trixbox™ CE server or you must translate your private IP address into a public IP address using a Network Address Translator (NAT).

If your trixbox™ CE server is behind a NAT, your public IP address will typically be the public IP address of your NAT. You may also have a static, one-to-one mapping of a public IP address to your private IP address. In this case, your public IP address will not match the IP address of your NAT, but you can look up the correct public IP address in your NAT configuration. If in doubt, you can perform a network packet capture using Wireshark (previously called Ethereal) on the public side of your NAT while simultaneously issuing some form of Internet request on your trixbox™ CE server.

## *Choosing the SIP Trunk Version*

Broadvox offers three versions of SIP Trunking to meet your requirements. By default, Broadvox places new customers on the Fusion platform. The Fusion and Legacy platforms both support dynamic IP addresses using registration, offer NAT Traversal, and offer automatic fall-back forwarding to PSTN numbers, either on a per-trunk basis, or a per-number basis. Fusion additionally supports the following functionality:

- TLS encrypted signaling support
- SRTP encrypted audio support
- Ability to place the dialed number in the Request-URI and/or To header on an INVITE to a registered endpoint
- Ability to support DNS A records for the customer endpoint (both sending and receiving)
- Ability to support DNS SRV records for the customer endpoint (sending and receiving)
- Disjointed static send and receive records
    - 'Send to' records control where we send traffic to reach the customer
    - 'Receive from' records control where we receive customer traffic from
- Multiple static send-to records
- Multiple static receive-from records
- Simultaneous INVITE support for send-to records
- Sequential INVITIE support for send-to records based on priority
- Prioritization of send-to records
    - Records of the same priority are randomized
    - Records of higher priority are attempted before records of lower priority
- Multiple trunk-based call forward record support
- Prioritization of trunk-based call forward records
    - Records of the same priority are randomized
    - Records of higher priority are attempted before records of lower priority
- Multiple DID-based call forward record support
- Prioritization of DID-based call forward records (same type as trunk-based records)
- All trunks support registration and static configurations all the time
    - Support for sequential INVITE to registration records, then static send-to records
    - Support for sequential INVITE to static send-to records, then registration records
    - Support for simultaneous INVITE to registration records and static send-to records
- Multiple registration support
- Simultaneous INVITE to multiple registrations (always on)

Fusion gateways are also rated for a higher call capacity than the Legacy platform and offer up to ten compatibility profiles, though 99% of devices will work on the default profile.

## *Sending Calls to Broadvox*

In your Welcome letter, Broadvox provides IP addresses to which you may send calls, and from which you should be prepared to receive calls. trixbox™ CE supports DNS A records, DNS SRV records, and IP addresses. Broadvox recommends that you use DNS A records or IP addresses in trixbox™ CE. Fusion uses three clusters in three geographically disparate locations to provide high availability.

At the top of your technical welcome letter, you will see a table like this one which shows your account number, turn-up ticket number, and trunk number. This information should be provided to Broadvox when you call for assistance to expedite support.

| Account Number | Trunk turn-up Ticket Number | Trunk Number |
|---|---|---|
| | | |

**Figure 1: Welcome Letter Account Information**

The third page of the welcome letter contains a table of the IP addresses and ports you need to allow through your firewall. Note that the table included here is an example and may be out of date.

| Traffic Type | IP Addresses | Protocol | Port Range |
|---|---|---|---|
| SIP | 208.93.224.224/28<br>208.93.226.208/28<br>208.93.227.208/28 | UDP and TCP | 5060 |
| SIPS (SIP over TLS) | 208.93.224.224/28<br>208.93.226.208/28<br>208.93.227.208/28 | TCP | 5061 |
| Media | 208.93.224.224/28<br>208.93.226.208/28<br>208.93.227.208/28<br>64.158.162.71<br>64.158.162.100<br>64.152.60.71<br>64.152.60.164<br>209.249.3.71<br>209.249.3.81<br>64.156.174.71<br>208.93.227.5<br>208.93.226.5 | UDP | 1024-65535 |

**Figure 2: Firewall Configuration Information**

The third page also contains the IP address and DNS information you should use for configuring your trunk. We recommend you utilize the DNS A record entries for trixbox™ CE unless you have specific reasons not to.

| City | DNS A Record | DNS SRV Record | IP Address |
|---|---|---|---|
| New York City, NY | nyc01-01.fs.broadvox.net | nyc01-01.fs.broadvox.net | 208.93.226.212 |
| Dallas, TX | dfw01-01.fs.broadvox.net | dfw01-01.fs.broadvox.net | 208.93.224.228 |
| Los Angeles, CA | lax01-01.fs.broadvox.net | lax01-01.fs.broadvox.net | 208.93.227.212 |

**Figure 3: Trunk Destination Information**

Also on the third page, you will find a section containing information about how your trunk is configured on the Broadvox side. You should carefully review this information to ensure it is configured properly.

Admin E-mail:
Trunk Type: GO!Local
BTN & Username:
Password:
TCP: ☐
TLS: ☐
SRTP: ☐
Dialed Number In: Request-URI
NAT Allowed: ☒
Simultaneous Calls:

**Figure 4: Configuration of Broadvox Side**

The 'Admin E-mail' lists the E-mail address which will receive alerts from the Fusion platform when various recognizable events occur. These events include things such as calls being blocked because they would cause you to exceed the simultaneous call sessions you purchased.

Finally, on the fourth page, you will find two sections that specify how Broadvox is configured to send calls to your trixbox™ CE system and how Broadvox is configured to receive calls from your trixbox™ CE system. These two sections are only utilized if you provided static IP address information or DNS information. Broadvox can send calls to entirely separate systems from the ones it is configured to receive calls from. This allows you to split your inbound and outbound traffic for any reason you may have, including but not limited to load distribution over several systems or multiple Internet connections. In addition, Broadvox can randomly load-balance calls across several systems using an identical priority for the Send-To records. These options should allow you to engineer your traffic flow to suite your particular needs.

| Static Receive From Records | |
|---|---|
| Location | Location Type |
| | ○DNS A ○DNS SRV ○IP |
| | ○DNS A ○DNS SRV ○IP |
| | ○DNS A ○DNS SRV ○IP |
| | ○DNS A ○DNS SRV ○IP |
| | ○DNS A ○DNS SRV ○IP |
| | ○DNS A ○DNS SRV ○IP |

Broadvox is set to send calls to the following static locations, in addition to any locations known through registration:

| Static Send To Records | | |
|---|---|---|
| Priority | Location | Location Type |
| | | ○DNS A ○DNS SRV ○IP |
| | | ○DNS A ○DNS SRV ○IP |
| | | ○DNS A ○DNS SRV ○IP |
| | | ○DNS A ○DNS SRV ○IP |
| | | ○DNS A ○DNS SRV ○IP |
| | | ○DNS A ○DNS SRV ○IP |

All locations known through registration will be sent an INVITE **Simultaneously**.

Registered locations will be contacted **Before Static Locations.**

Static locations will be contacted **Sequentially Based on Order.**

**Figure 5: Signaling Configuration**

## *SRV Records*

Service records (SRV) are a form of Domain Name System (DNS) record. They contain information about where to send requests for a particular service offered at a specific domain. In the case of Broadvox GO! SIP Trunking, they provide the IP addresses, port numbers, and preferences to use for sending SIP calls over UDP to Broadvox. The SRV location to use for sending calls to Broadvox for each of your trunk groups is in your Welcome letter.

## *Preferred and Alternate Codecs*

Broadvox allows you to select preferred and alternate codecs to simultaneously meet your bandwidth requirements and provide greater end-to-end support. In the event that your destination party or your destination party's carrier cannot support your preferred codec or alternate codecs, Broadvox will automatically transcode your call to a supported codec.

When configuring codecs, please keep in mind that G.711 µLaw (ulaw) consumes approximately 87.2 Kbps of bandwidth per simultaneous call. G.729 Annex B (g729) will consume approximately 31.2 Kbps of bandwidth per simultaneous call. Also, keep in mind that G.711 offers superior call quality when

compared to G.729, but only if you have enough bandwidth to support all of your simultaneous calls.

## *Is trixbox™ CE NATd*

If your trixbox™ CE server uses an Internet-facing IP address of the form 192.168.x.x, 172.16.x.x – 172.31.x.x, or 10.x.x.x, then it is almost certainly behind a Network Address Translation (NAT) device. If your server uses an address of that form and is not behind a NAT, then it has no connectivity to the Internet. Even if your server uses an IP address that does not match the forms above, it is still possible (though very unlikely) that it is behind a NAT. If trixbox™ CE is behind a NAT, you may need to perform *port forwarding*, set up a *DMZ host* or configure a *one-to-one static IP map*.

## *Is trixbox™ CE Behind a Firewall*

If trixbox™ CE is behind a NAT, then it is almost certainly behind a firewall. It is also possible that trixbox™ CE uses a public IP address but is still behind a firewall. If you use a Cisco PIX, SonicWALL, Shorewall, Firebox, or any other brand of firewall, you may need to perform additional configuration steps on the firewall device to allow trixbox™ CE to function properly. Additionally, you may be using an Application Gateway such as an Ingate SIParator. These devices will also need additional configuration to allow trixbox™ CE to function properly. Configuring your firewall or application gateway is beyond the scope of this document. In general, you will need to allow UDP port 5060 in both directions, as well as UDP ports 1024 to 65535 for RTP. We recommend only opening these ports for the Broadvox provided IP addresses.

## *Is There a Local Firewall*

In addition to being behind a firewall, it is also possible that the trixbox™ CE server itself utilizes a local firewall. Typically, a UNIX or Linux operating system deploys trixbox™ CE. These systems usually come with a firewall program installed, like **`iptables`**. If your server uses **`iptables`**, you can check to see if there are any rules in place by issuing the following commands:

```
$ iptables -L -v -n

Chain INPUT (policy ACCEPT 3549M packets, 4907G bytes)
 pkts bytes target     prot opt in     out     source
destination

Chain FORWARD (policy ACCEPT 0 packets, 0 bytes)
 pkts bytes target     prot opt in     out     source
destination

Chain OUTPUT (policy ACCEPT 688M packets, 51G bytes)
 pkts bytes target     prot opt in     out     source
destination

$ iptables -L -v -n -t nat
```

```
Chain PREROUTING (policy ACCEPT 1836K packets, 118M bytes)
 pkts bytes target     prot opt in     out     source
destination

Chain POSTROUTING (policy ACCEPT 2247K packets, 136M bytes)
 pkts bytes target     prot opt in     out     source
destination

Chain OUTPUT (policy ACCEPT 2247K packets, 136M bytes)
 pkts bytes target     prot opt in     out     source
destination

$ iptables -L -v -n -t mangle

Chain PREROUTING (policy ACCEPT 3551M packets, 4907G bytes)
 pkts bytes target     prot opt in     out     source
destination

Chain INPUT (policy ACCEPT 3549M packets, 4907G bytes)
 pkts bytes target     prot opt in     out     source
destination

Chain FORWARD (policy ACCEPT 0 packets, 0 bytes)
 pkts bytes target     prot opt in     out     source
destination

Chain OUTPUT (policy ACCEPT 688M packets, 51G bytes)
 pkts bytes target     prot opt in     out     source
destination

Chain POSTROUTING (policy ACCEPT 688M packets, 51G bytes)
 pkts bytes target     prot opt in     out     source
destination
```

The output shown above indicates that there are no firewall rules configured on this server. If you are using a different type of firewall software on your trixbox™ CE server, you will need to consult the documentation for that software to learn how to check whether it is enabled. If you have a local firewall enabled, you will need to configure it to allow the appropriate ports, as described in “Is trixbox™ CE Behind a Firewall”.

If you are using a standard iptables firewall setup, such as that used by a typical, modern Linux system, these rules may be of use to you in allowing the appropriate traffic from our Version N platform:

```
iptables -I INPUT -p udp --dport 5060 -s 209.249.3.59 -j ACCEPT
iptables -I INPUT -p udp --dport 1024:65535 -s 209.249.3.58 -j ACCEPT
iptables -I INPUT -p udp --dport 1024:65535 -s 209.249.3.60 -j ACCEPT
```

Please note, you may not be able to copy and paste these directly into a terminal program like SecureCRT, PuTTY, ZOC, etc. You may need to paste into Notepad or a similar text-only editor, and then copy and paste from there into the terminal program. This extra step should eliminate any hidden formatting characters that get copied along with the text (typically only applies when performing the copy and paste on a Microsoft platform).

Any rules you insert into iptables must be loaded each time the trixbox™ CE server restarts. There are typically two methods to accomplish this. The preferred

method is to use the iptables save and restore functionality. On trixbox™ platforms, you can simply issue this command:

```
/etc/init.d/iptables save
```

# Preparing for Installation of trixbox™ CE

Before you begin installation of trixbox™, first prepare a server which has a standard CD-ROM or DVD-ROM drive capable of reading CD-R media. The server should also contain a blank hard drive, or a hard drive that may can have all information contained on it wiped out. In addition, make sure that the server is wired to your local network.

Point your web browser to:

http://master.dl.sourceforge.net/sourceforge/asteriskathome/trixbox-2.6.2.1.iso

Download and save the file to your hard drive. Optionally, you may also go to http://www.trixbox.org/ and download any later version. Once the file has been saved to your drive, burn the ISO image to a blank CD-R. If you do not have a suitable program for burning the image to disc, you may download and use Active ISO Burner:

http://www.download.com/Active-ISO-Burner/3000-2646_4-10602452.html

Once the CD-R is prepared, place the disc in the optical disc drive bay and boot the server. If the server does not boot to the CD-R, then reboot and enter your BIOS configuration by following the onscreen instructions provided during the computer POST operation.  Reconfigure the BIOS to boot from the optical drive.

**Figure 6: trixbox™ CD boot screen**

When the computer correctly boots from the CD, you will see a screen like that shown in Figure 4. At this point, you may proceed with the installation instructions.

# Installing trixbox™ CE

When you press Enter, the installation process will start. After booting the install software, you will see driver loading screen similar to the one in Figure 5.

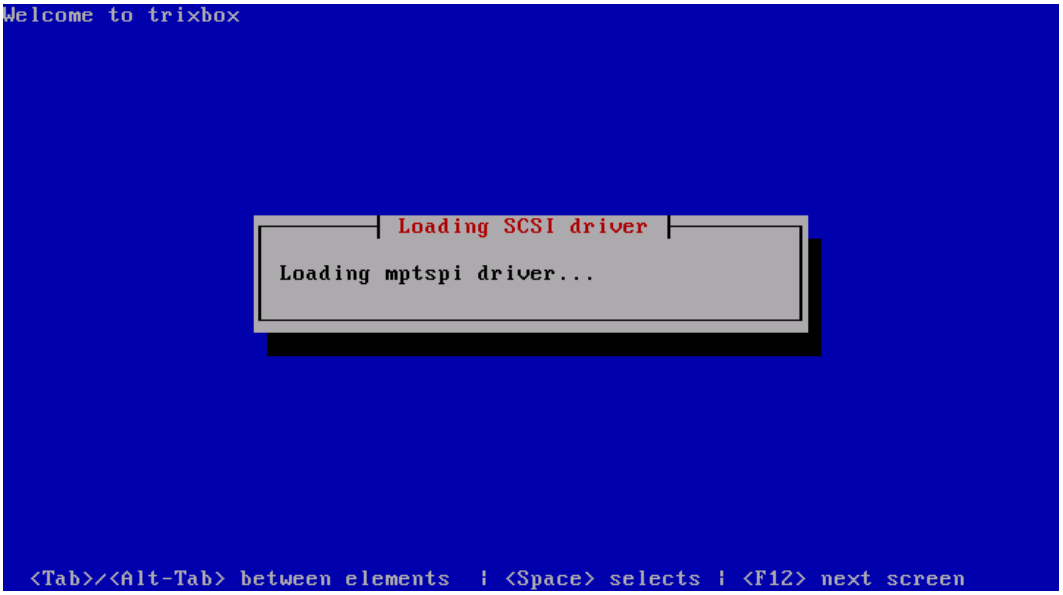


**Figure 7: Loading Drivers**

After drivers are loaded, you must select your keyboard layout.

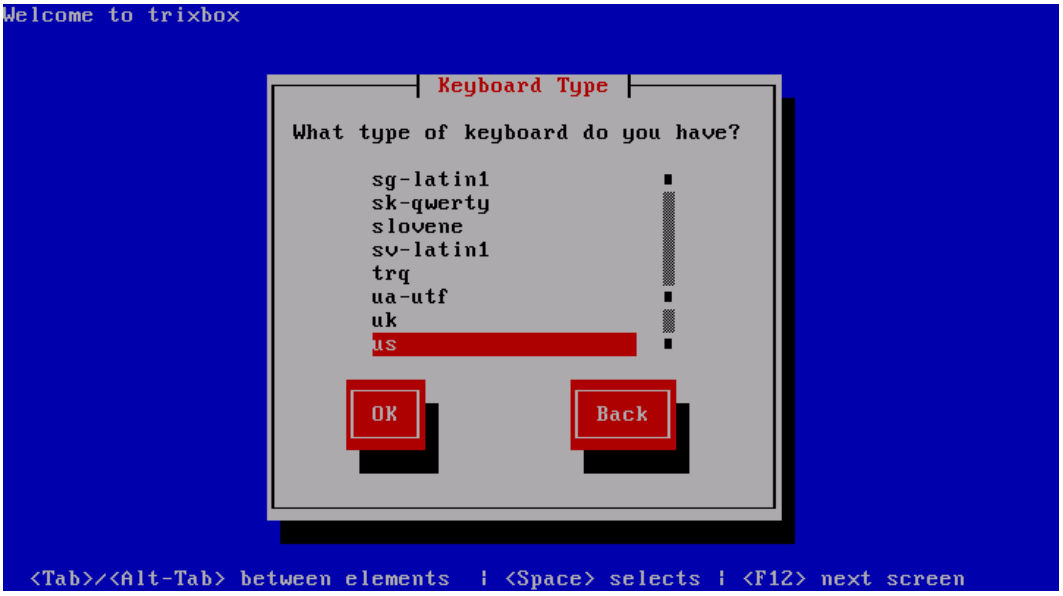


**Figure 8: Choose Keyboard Layout**

Next, you must set your system clock time zone. Use the TAB and arrow keys to move around.

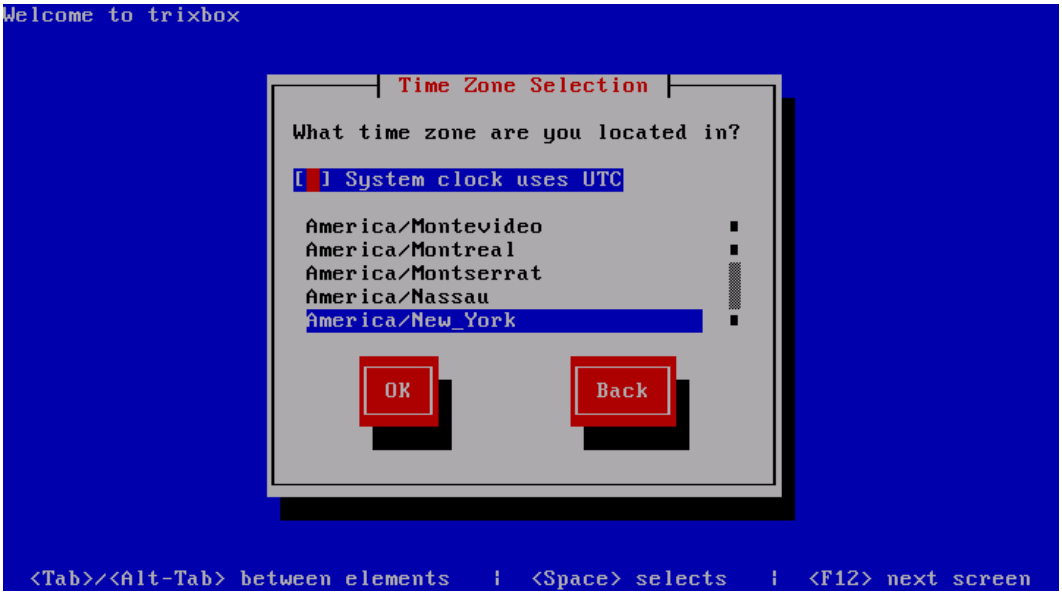


**Figure 9: Select Time Zone**

After selecting your time zone, you must set a root password. Set this password carefully as it controls access to all the capabilities of the system. An insecure root password will quickly result in a compromised system.

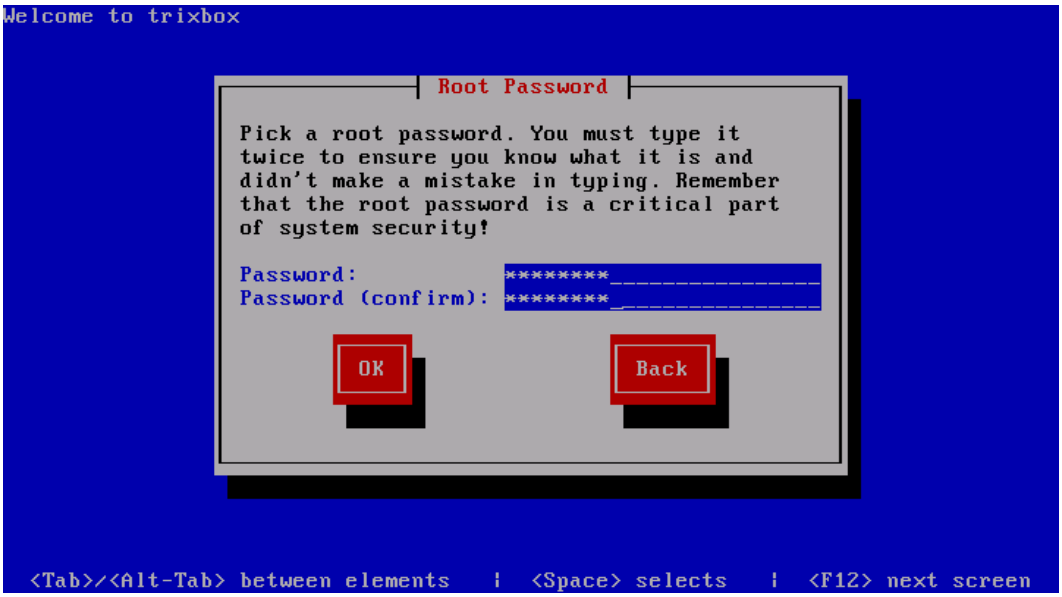


**Figure 10: Set Root Password**

Once your root password is set, the system will perform a dependency check on packages. This is automated.

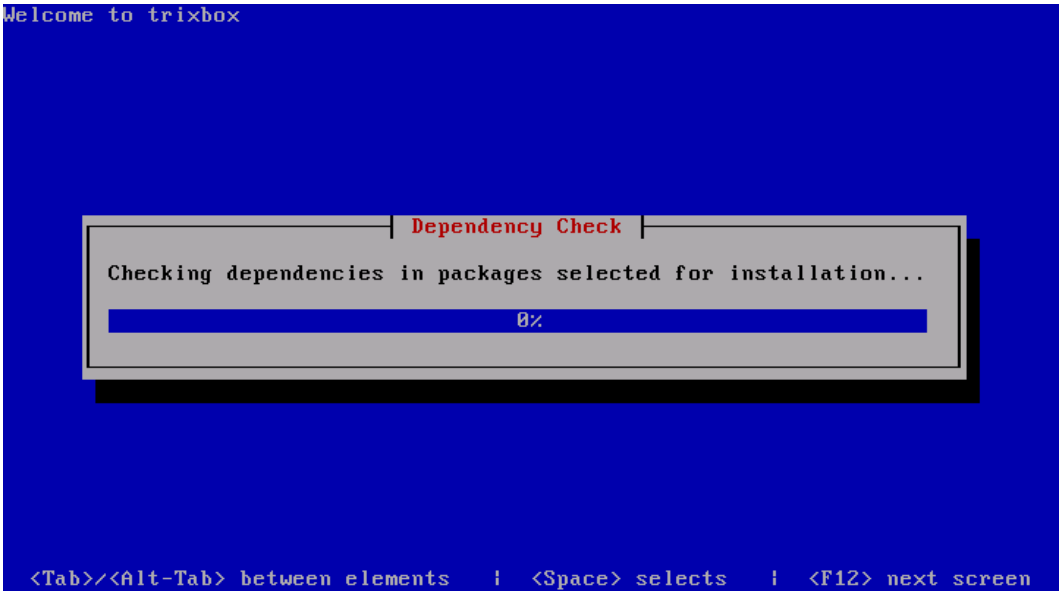


**Figure 11: Dependency Check**

Next, the hard drive will be partitioned and formatted automatically.

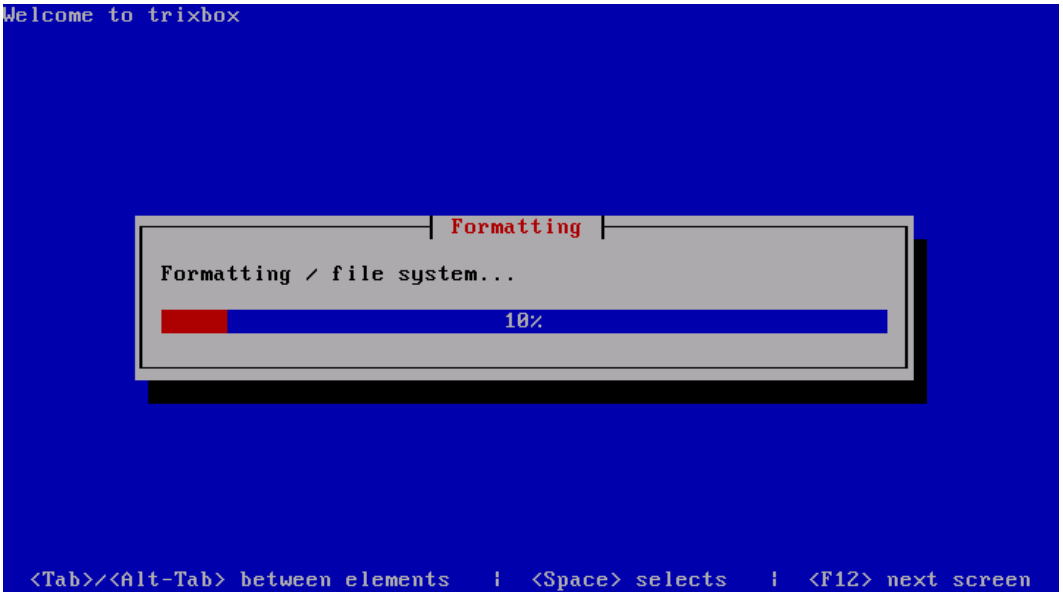


**Figure 12: Format File System**

After the file systems have been prepared, the install image will be transferred to your hard drive.

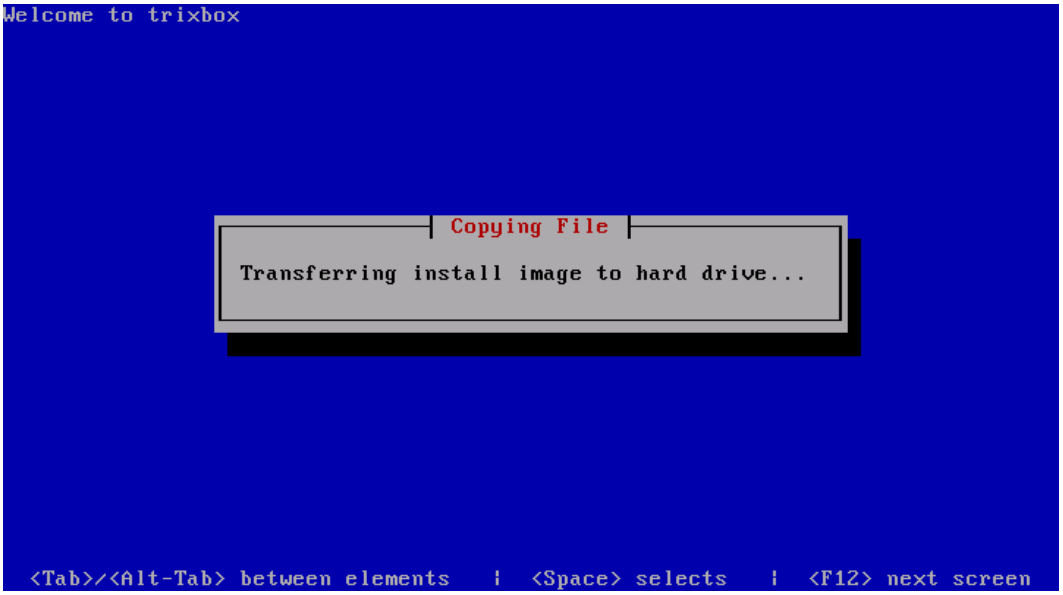


**Figure 13: Transfer Install Image**

When the install image is transferred, you will see a screen similar to Figure 12, indicating that the install process is about to begin.

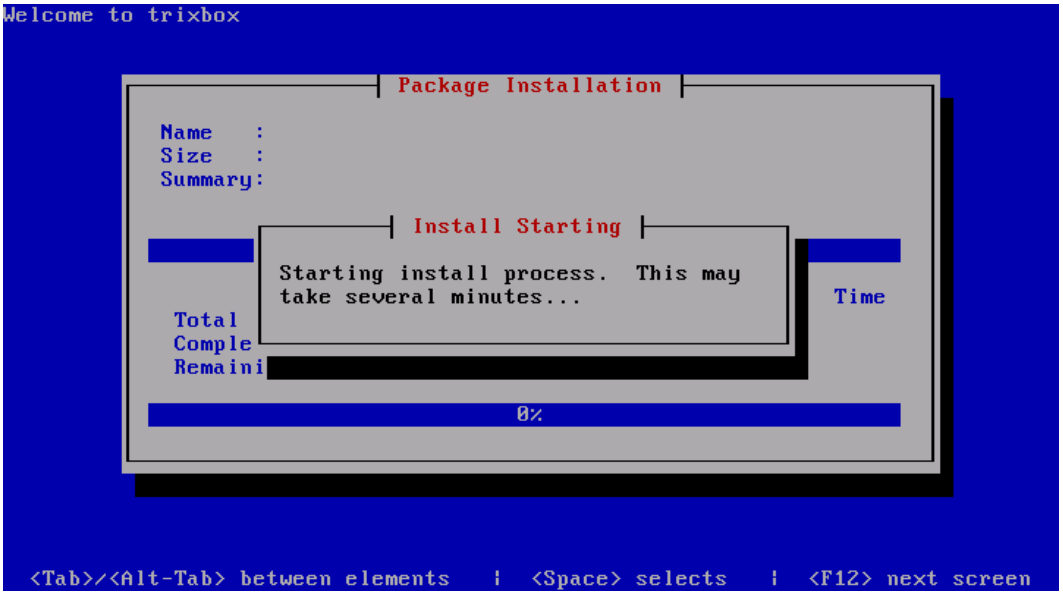


**Figure 14: Start Install Process**

Immediately prior to the transference of files, you will see the screen in Figure 13.

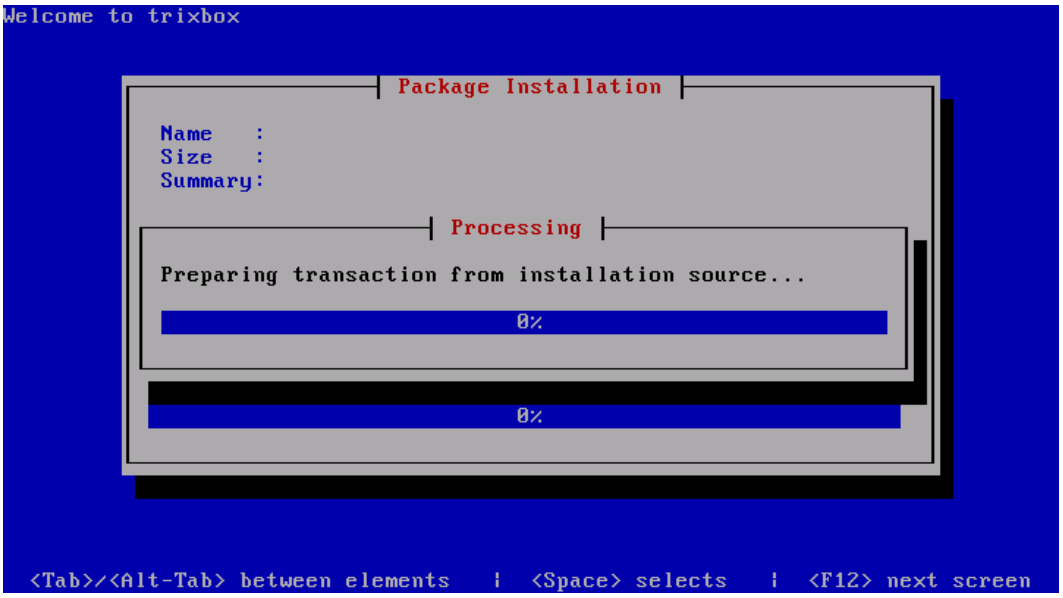


**Figure 15: Prepare Transaction**

Finally, you will begin to see packages being copied to your hard drive. These packages are standard Linux packages and make up trixbox™ CE platform. It will take a long time to install all of the required packages onto your hard drive.

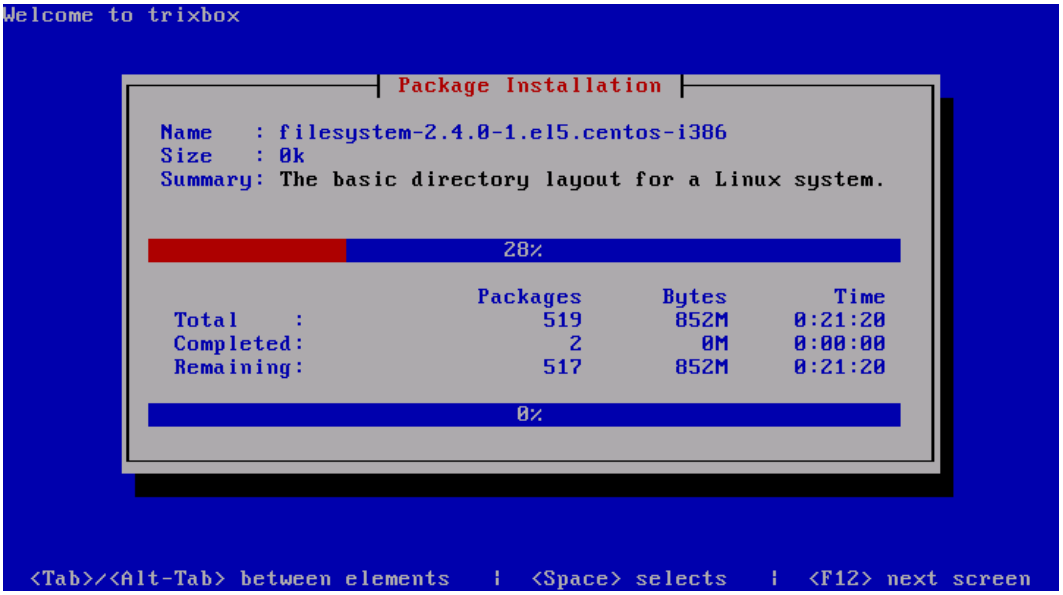


**Figure 16: Install Packages**

**Figure 17: Grub Boot Screen**

When the installation of packages completes, the system will reboot automatically. Shortly after reboot, you will see the Grub boot screen for trixbox™ CE. After a few seconds, the system will boot to your trixbox™ installation. When you get to the login prompt, you may log in with the username "root" and the password you previously configured.

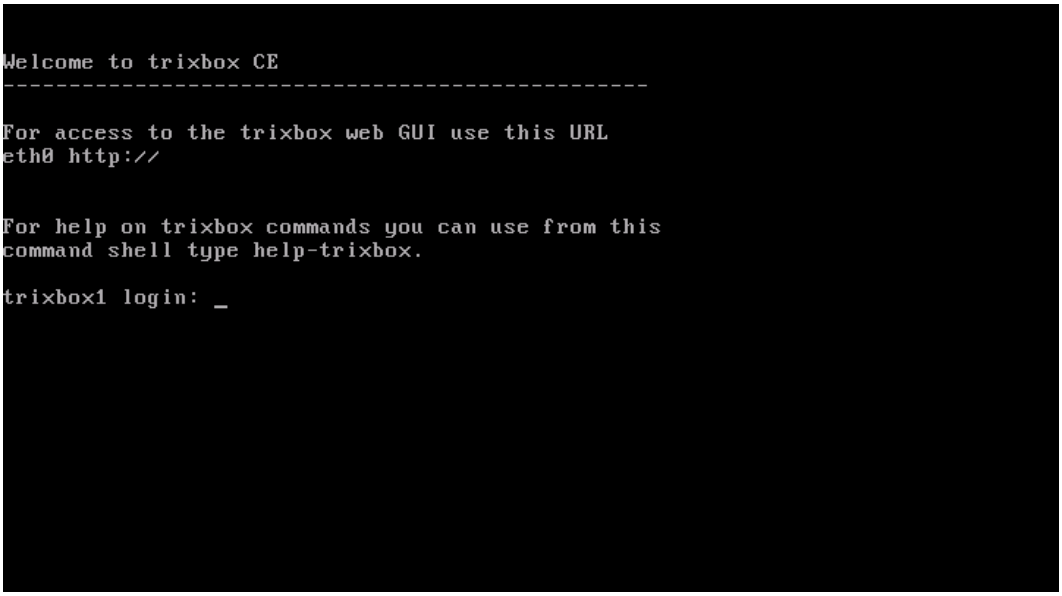


**Figure 18: Login Prompt**

# Basic Configuration of trixbox™ CE for Fusion

After installing trixbox™ CE, you will need to log in to the system as root in order to obtain the IP address of the web interface, as shown in Figure 17.

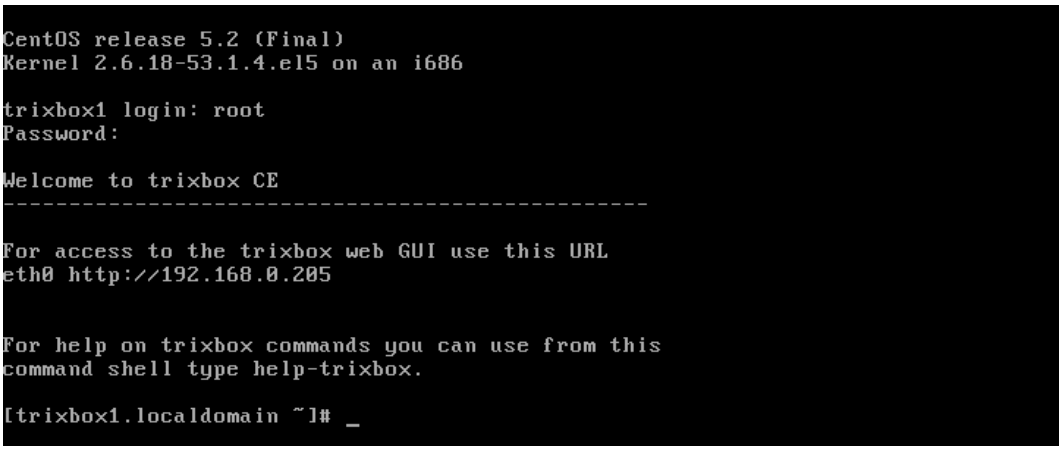


**Figure 19: Log in as Root**

Point your web browser to the address listed in the output. If the IP address is not listed, you do not have a DHCP server on your network or it is not configured to respond. You will need to set the IP address manually, which is beyond the scope of this guide.

Once you have pointed your web browser to the GUI, it should log you in as "user". In the upper, right corner, click on "switch". For the username, enter "maint" and for the password, enter "password".

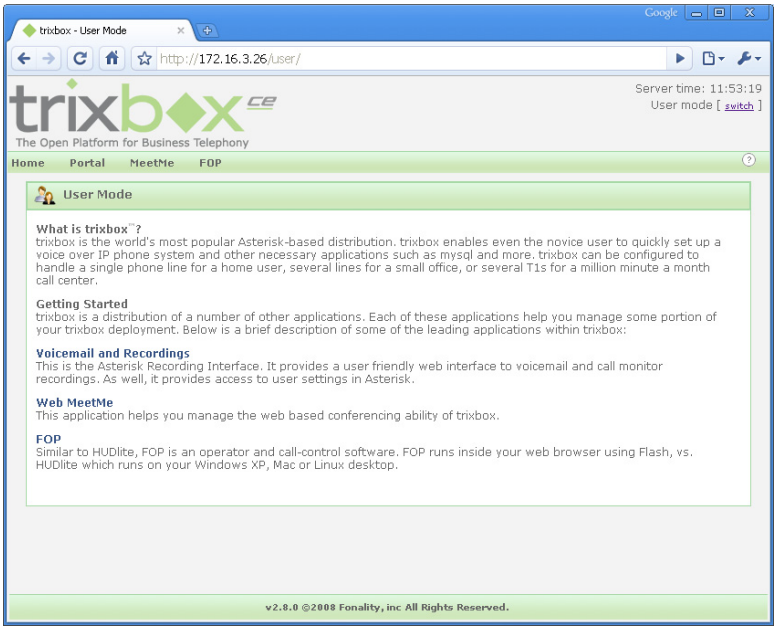


**Figure 20: User Home Page**

After logging in as "maint," you will see a trixbox Registration window. Click the **gray X** in the corner of the trixbox Registration window (*not* the red or blue X in the corner of your browser window).

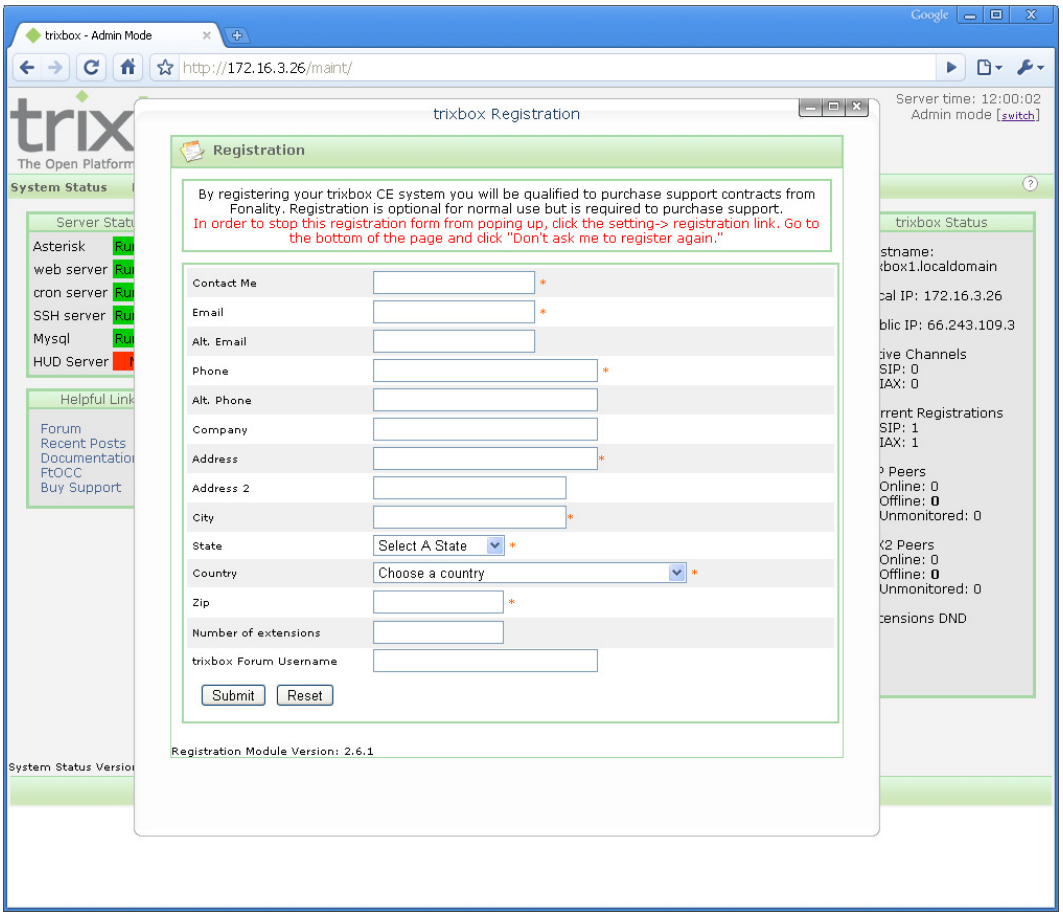


**Figure 21: trixbox Registration**

Hover your mouse over the "Settings" menu and click on "Registration". Click on "Don't ask me to register again."

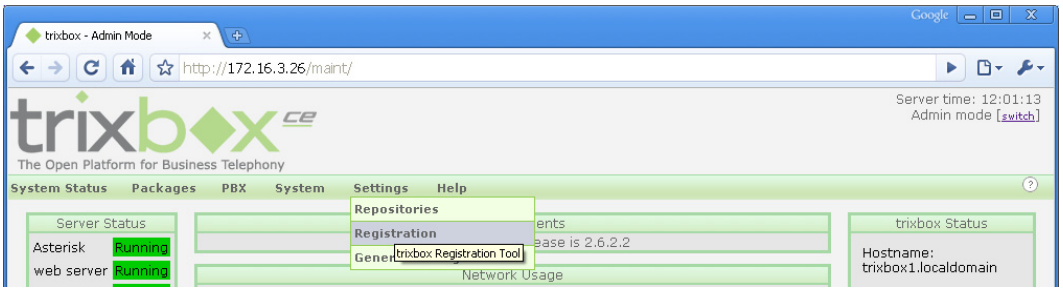


**Figure 22: Settings->Registration**

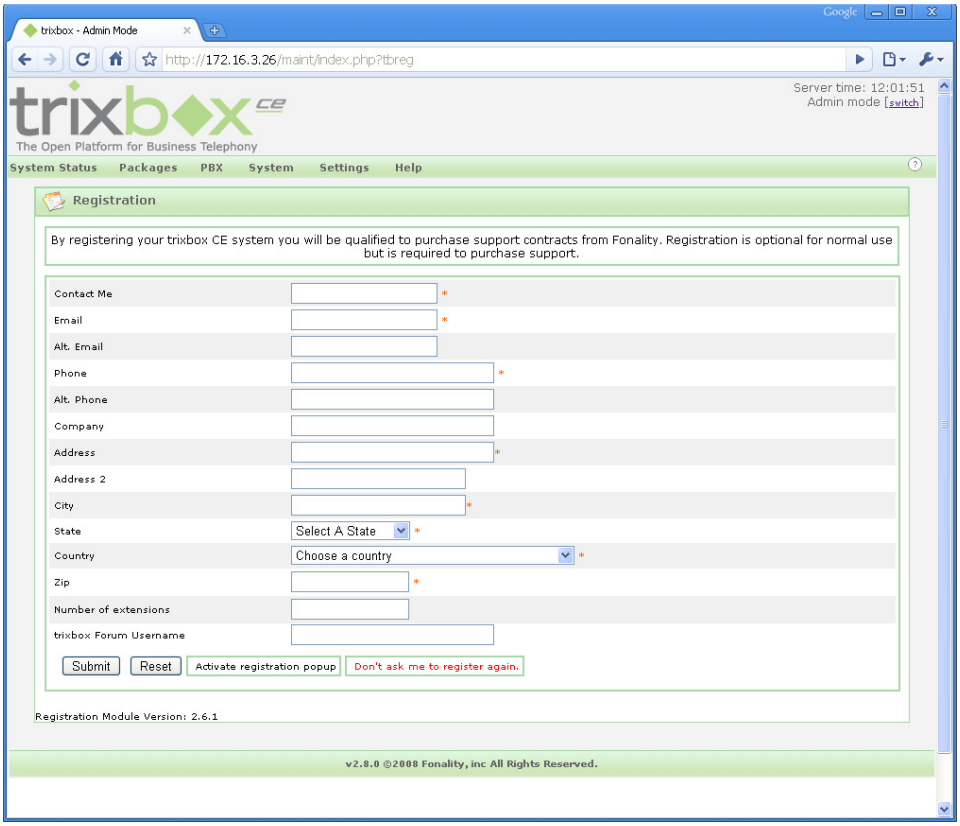


**Figure 23: Registration Page**

Next, go to the "System" menu and click on "Network."

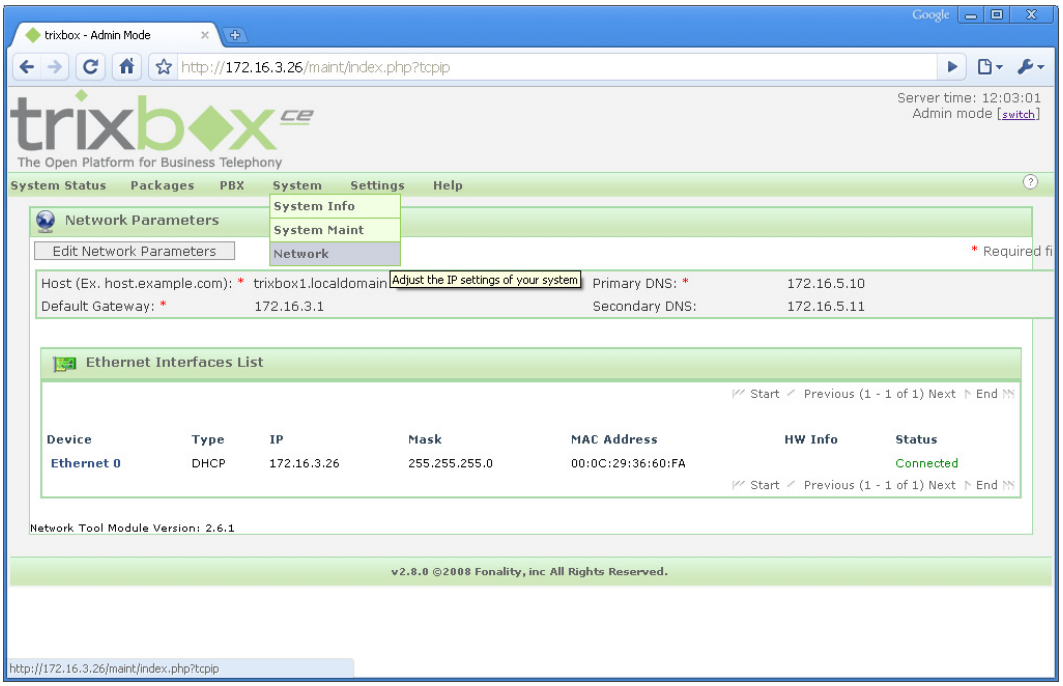


**Figure 24: System Network Settings**

Click on the blue device link titled "Ethernet 0". Then, place a dot in "Static." Optionally, adjust the IP address to your desired IP. Finally, click on "Apply Changes."

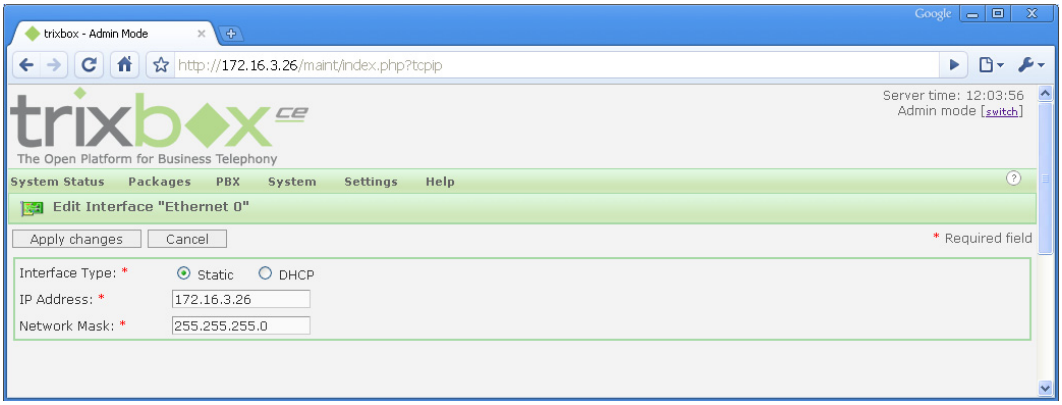


**Figure 25: Adjust IP Address**

If your web browser stops being able to access the trixbox, go back to your command line interface (CLI) and reboot the device, as shown in Figure 24. Then, log in again as the "maint" user.

```
[trixbox1.localdomain ~]#
[trixbox1.localdomain ~]#
[trixbox1.localdomain ~]#
[trixbox1.localdomain ~]# reboot

Broadcast message from root (tty1) (Wed Dec 24 10:15:03 2008):

The system is going down for reboot NOW!
INIT: Switching to runlevel: 6
INIT: Sending processes the TERM signal
Stopping HAL daemon:                                       [  OK  ]
Stopping anacron: _
```

**Figure 26: Reboot trixbox**

# Interconnecting trixbox™ CE to the Broadvox Network

After setting the IP address, you need to configure the PBX to interconnect to the Broadvox network. This entails configuring both outbound and inbound routes for calls to and from Broadvox. Inbound routes control how DIDs provided by Broadvox are routed to your IVR and/or phones. Outbound routes determine how calls from your phones are routed out towards Broadvox.

To start configuration of the PBX system to interconnect to Broadvox, hover over the "PBX" menu and click on "PBX Settings".

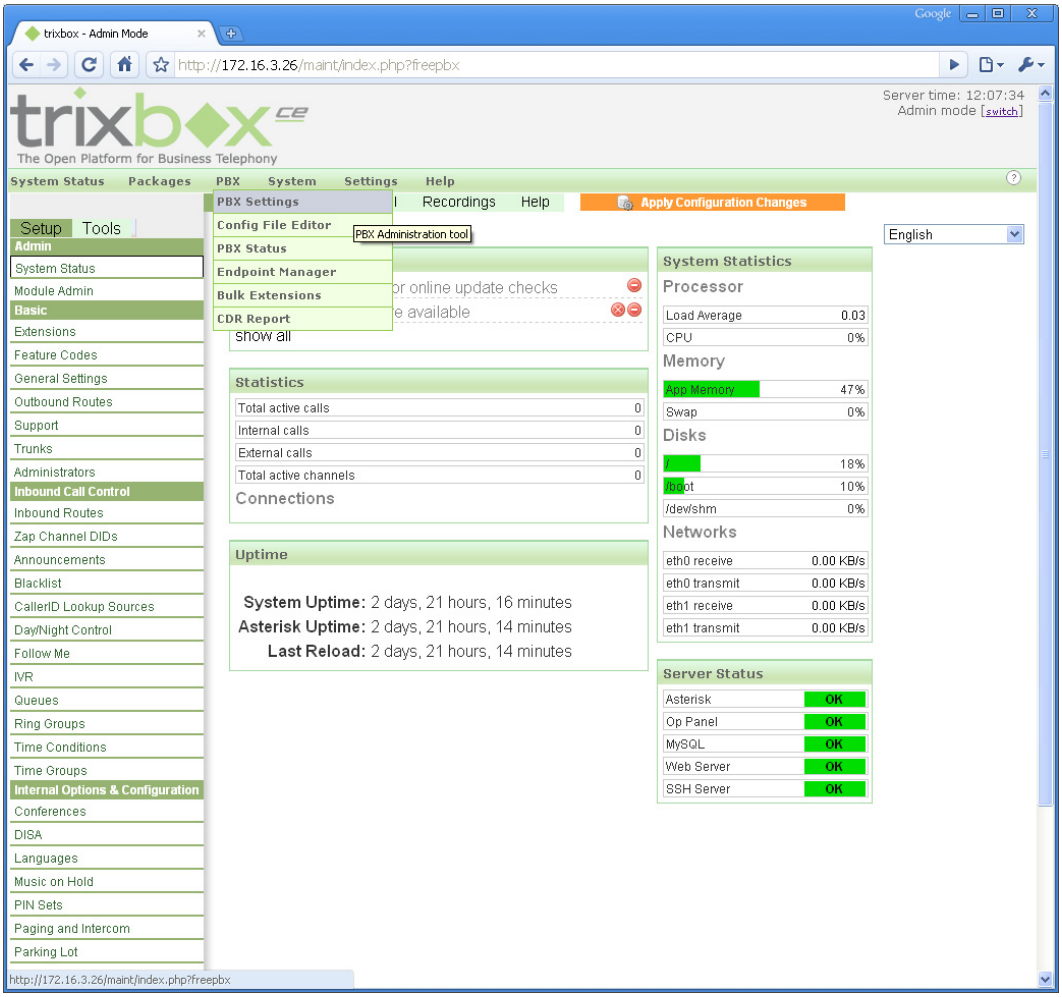


**Figure 27: PBX Settings**

Next, click the "Trunks" menu on the left-hand side, then click "Add SIP Trunks".

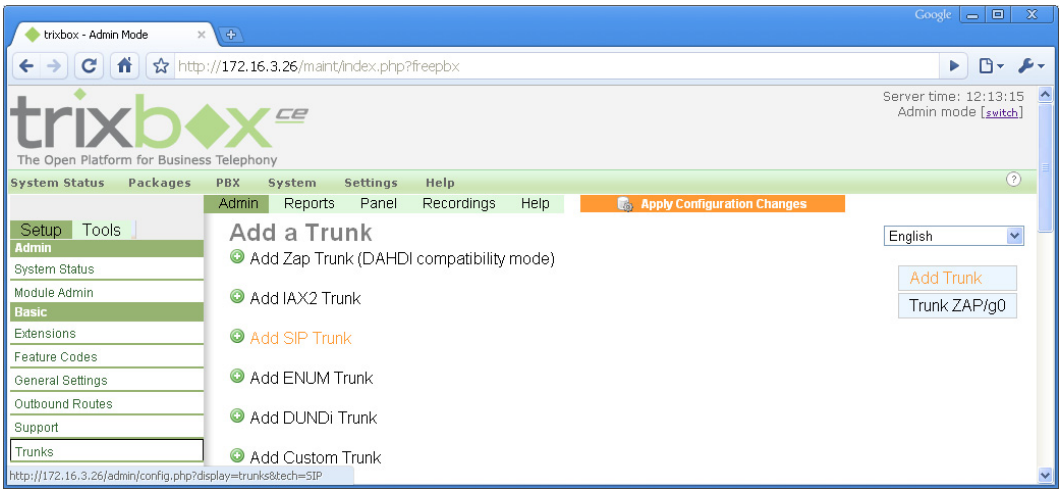


**Figure 28: Add a Trunk**

We need to add a trunk for each of the three cities that make up the high availability SIP Trunking service. In this example, we start with the Dallas location. The "host=" line should contain the location specified in your welcome letter for your particular trunk. In order to keep things straight, we recommend you name the trunk after the trunk number and city.

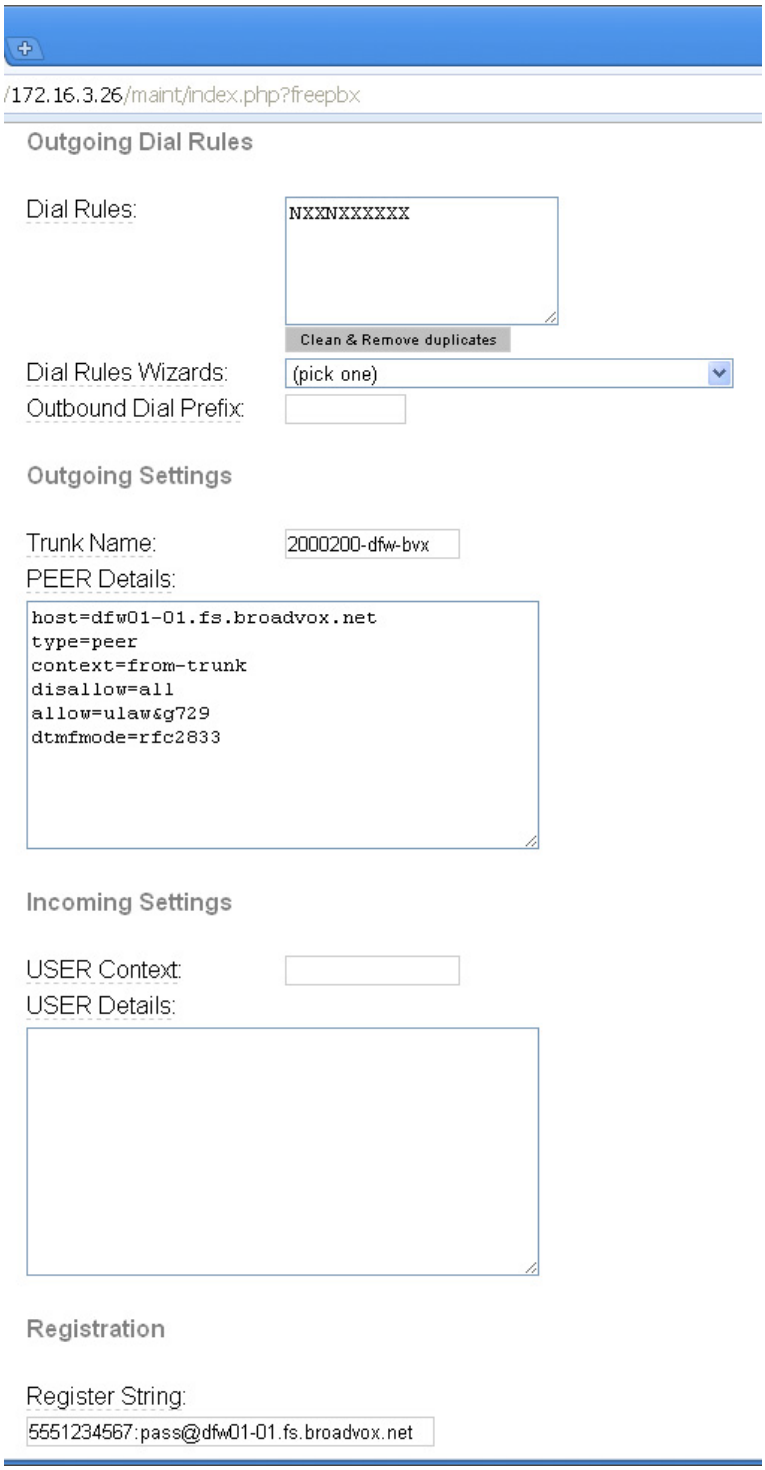


**Figure 29: Add Dallas Location**

When adding a trunk, you do not need to configure the "General Settings" section. In addition, you can remove everything from the "Incoming Settings" section. We handle both incoming and outgoing configuration under one peer definition using the "Outgoing Settings" section.

If you have a dynamic IP address or are behind a dynamic NAT, the registration line should contain your BTN and password, as specified in your welcome letter, followed by the hostname of Broadvox registrar (which is the same as the "host=" line in the "Outgoing Settings" section). You may also choose to use registration for other reasons, however registration is NOT REQUIRED. If you have a static IP address or use static NAT, it is usually simpler to not use registration. In that case, leave the register string blank.

Next, add your New York City and Los Angeles locations, as defined in your welcome letter.

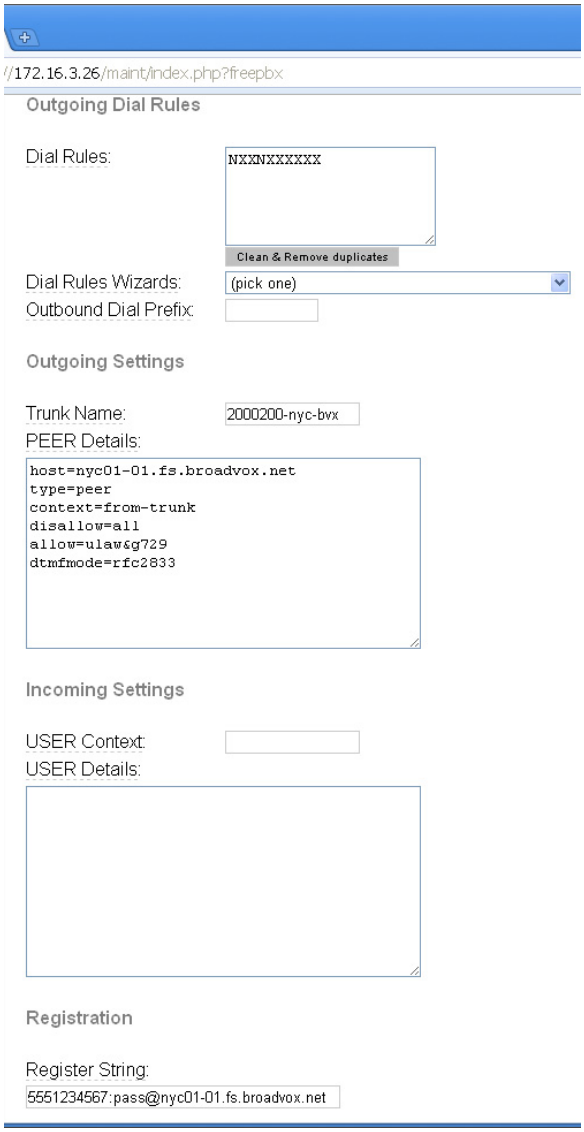


**Figure 30: Add New York City Location**

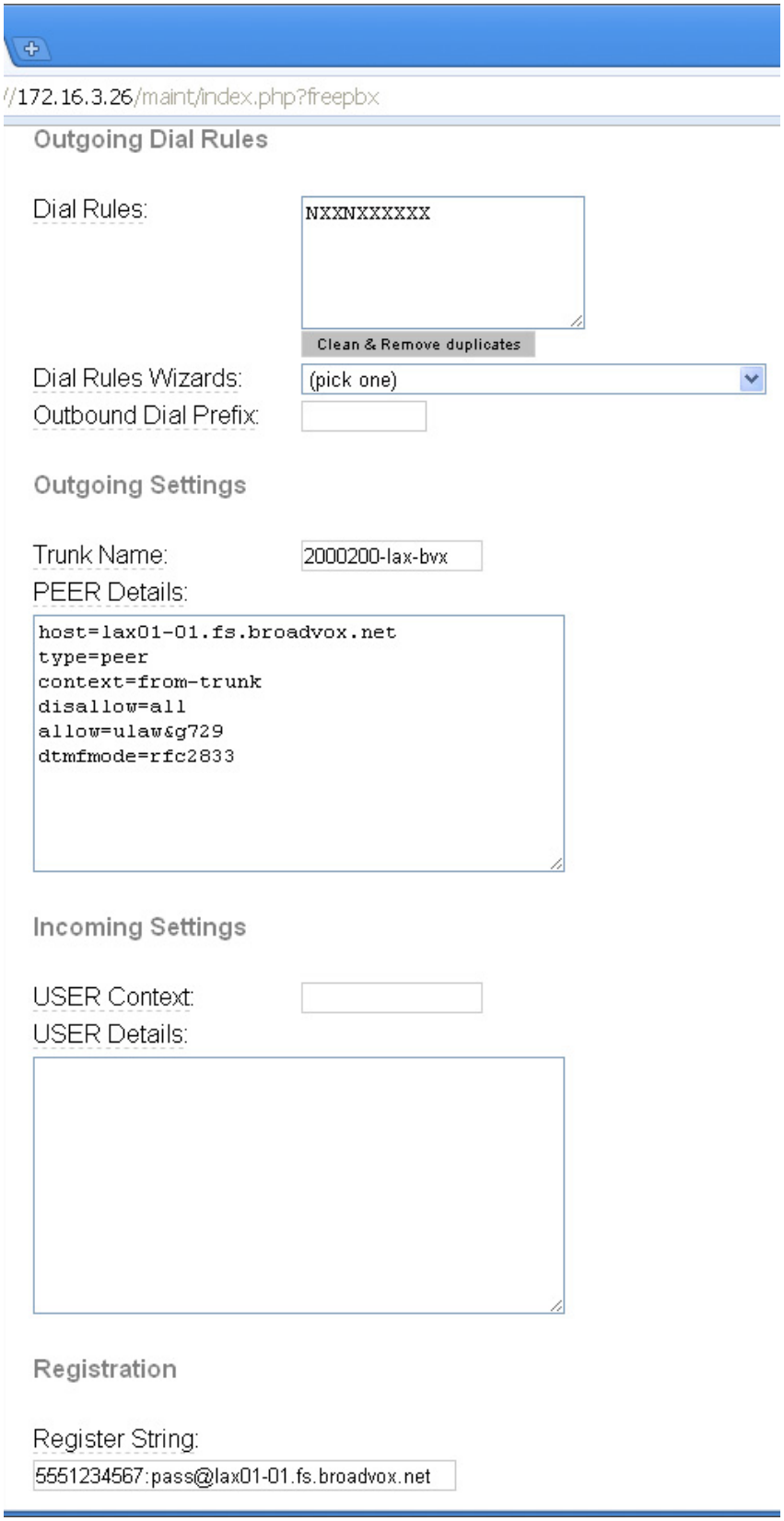


**Figure 31: Add Los Angeles Location**

After adding each of the three peer definitions, you will need to configure outbound routes. On the left-hand side, click on "Outbound Routes". Then add a route similar to the one shown below. You can adjust the order of the trunks based on the order of the cities you wish to send to.

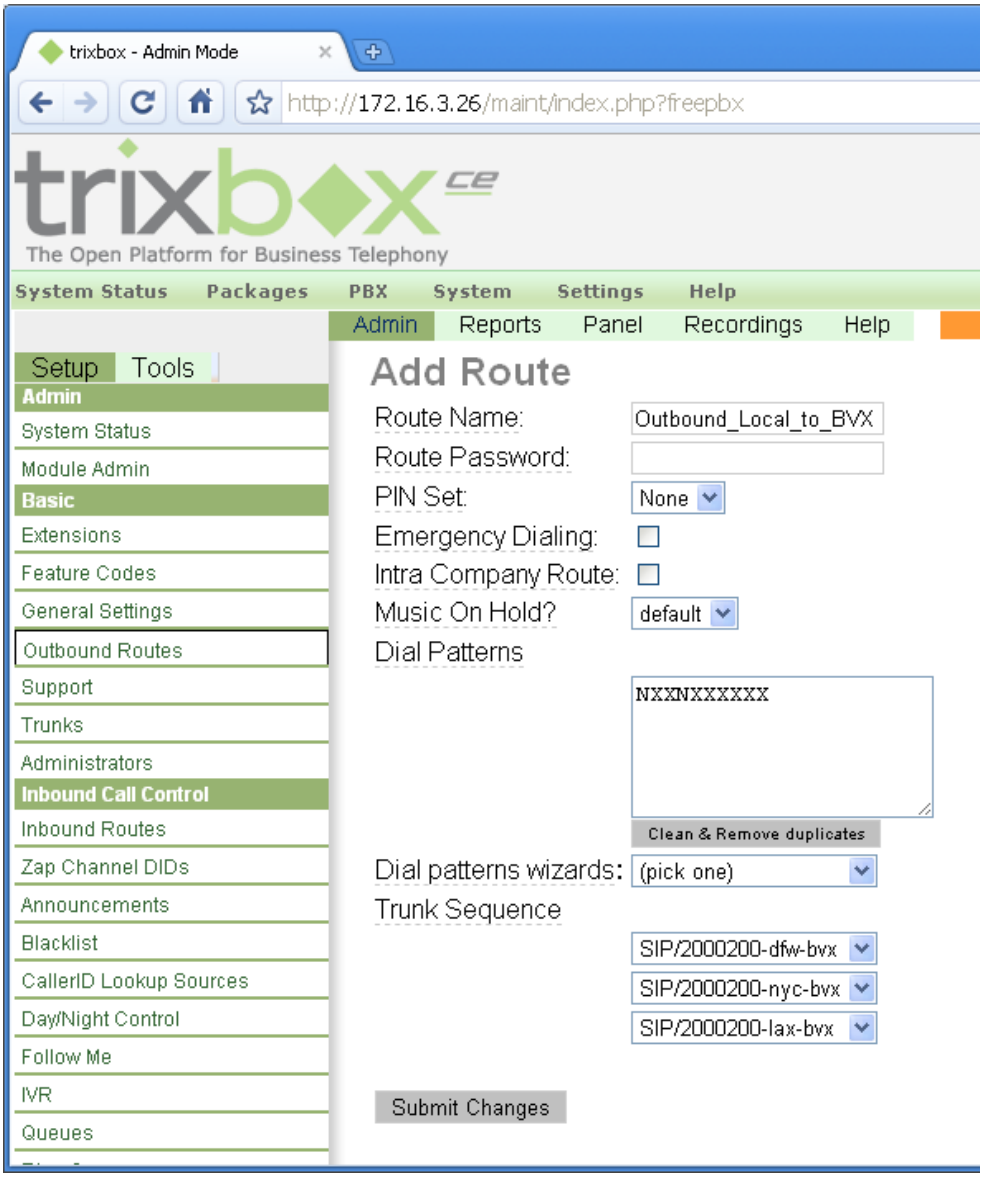


**Figure 32: Build Outbound Local Route**

This concludes configuration of the trixbox™ CE platform for Broadvox Fusion SIP Trunking based on a single, GO!Local trunk group.

For inbound calls, please use the "Extensions" and/or "Inbound Routes" functionality. Configuration of these options is outside the scope of this document. For registered endpoints, if inbound calls do not route to your DID

properly, please check with Broadvox to ensure that your trunk is set to send the dialed number in the Request-URI for registration records. This is the default configuration if you list trixbox™ as your PBX when you request your trunk(s), however it is not the default for most other devices.

**You may wish to configure a route for long distance calls dialed with a "1" in front the number. You may do this under the "Outbound Routes" section using the same configuration used in Figure 30 except by changing the name and setting the pattern to 1NXXNXXXXXX. If you ordered a GO!Domestic trunk along with your GO!Local trunk, you should run through this process again.**

**If you plan to use 911, 411, or 711, be sure to create an outbound route for them and point them to your GO!Local trunk. For 911, be sure to set it as an emergency route. Also, be certain you are sending the correct calling number on calls to 911 by setting the Emergency CID correctly on your extensions! It should be either your BTN, an ELN, or an EDID.**

## Routing on the To URI

If you would like to make trixbox™ route on the To-URI instead of the Request-URI, you may do so by modifying the configuration files directly. Open up the "Config File Editor" to get started.

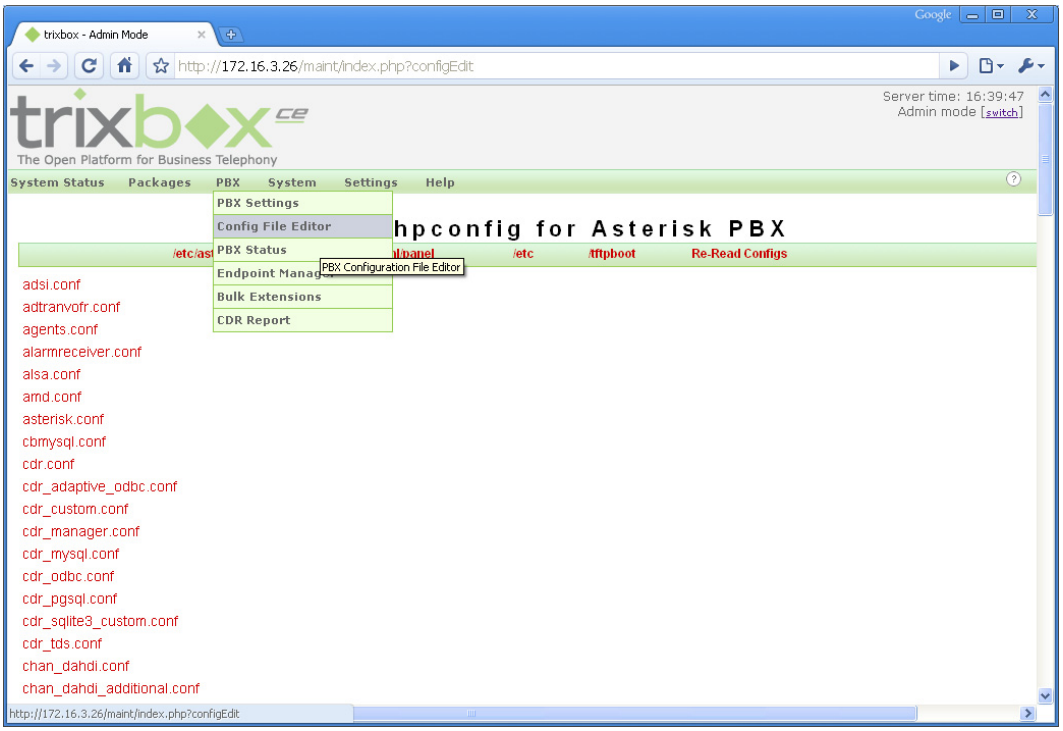


**Figure 33: Config File Editor**

Edit extensions_custom.conf and add the following two sections:

```
[ext-did-0001-custom]
exten => s,1,Goto(ext-did-0001,${SIP_HEADER(TO):5:10},1)

[ext-did-0002-custom]
exten => s,1,Goto(ext-did-0002,${SIP_HEADER(TO):5:10},1)
```

**Figure 34: Add Custom Extension Sections**

When, finished, update and apply your changes (making sure the system properly reloads). Calls should now route on the To header.

# Alternate Routing on To URI

If, for some reason, something has changed and the above described method no longer routes on the To header, you can try an alternate method. Edit extensions_custom.conf again and change:

```
exten => s,1,.....
```

To:

```
exten => did,1,.....
```

Then, under PBX->PBX Settings->Setup->Trunks, select your Broadvox trunk. Edit the registration line to add "/did" at the end. So, if your line looked like:

```
5551234567:password@dfw01-01.fs.broadvox.net
```

Change it to this instead:

```
5551234567:password@dfw01-01.fs.broadvox.net/did
```

This will create a binding called 'did' in the Broadvox SBC. When an INVITE is sent from Broadvox to trixbox™, Broadvox will send the binding in the Request-URI. Consequently, the rule you modified in extensions_custom.conf will match the 'did' binding in the Request-URI and summarily switch over to routing on the To header.

If this also no longer works, we recommend you hire the services of a trixbox™ or Asterisk guru to assist you.