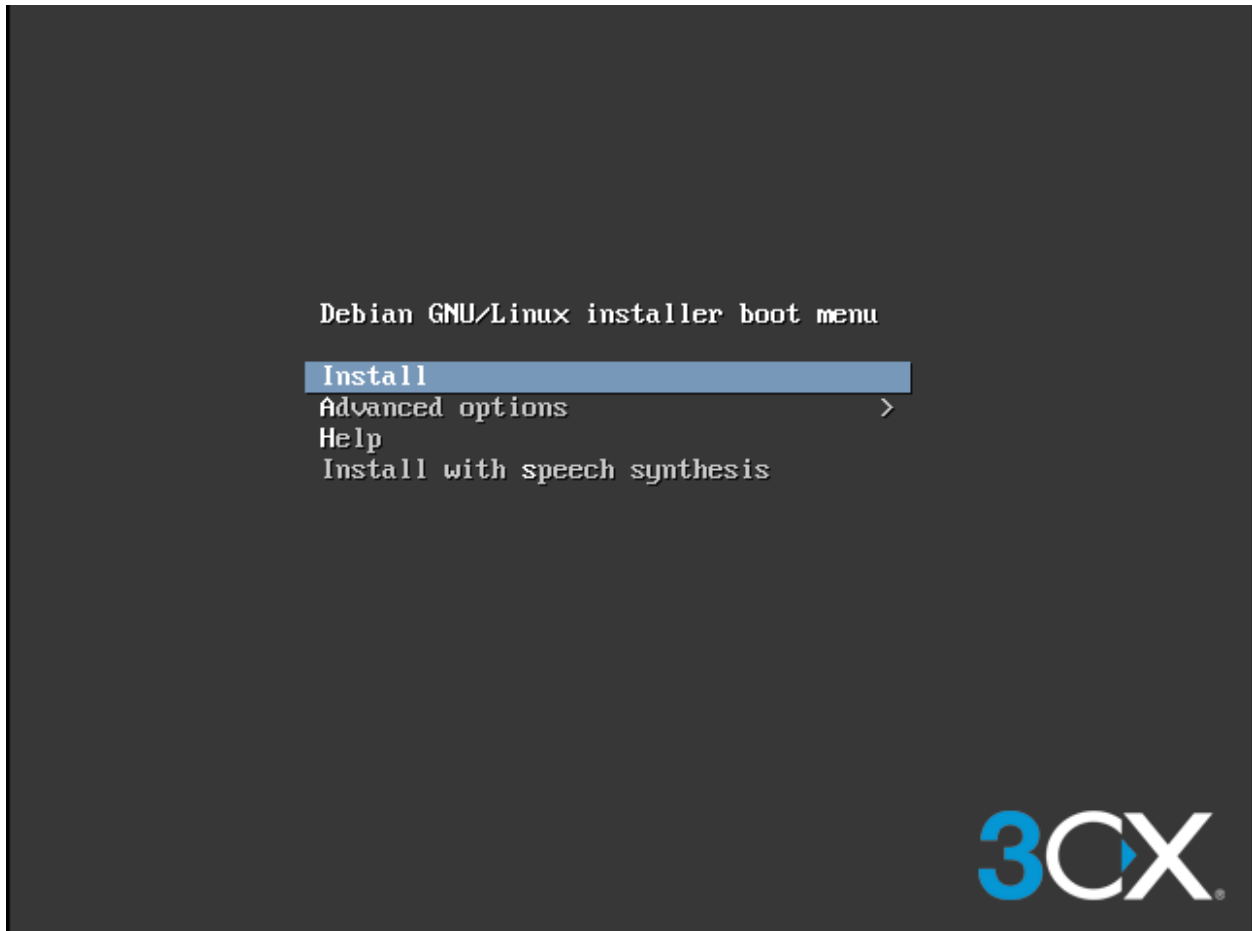
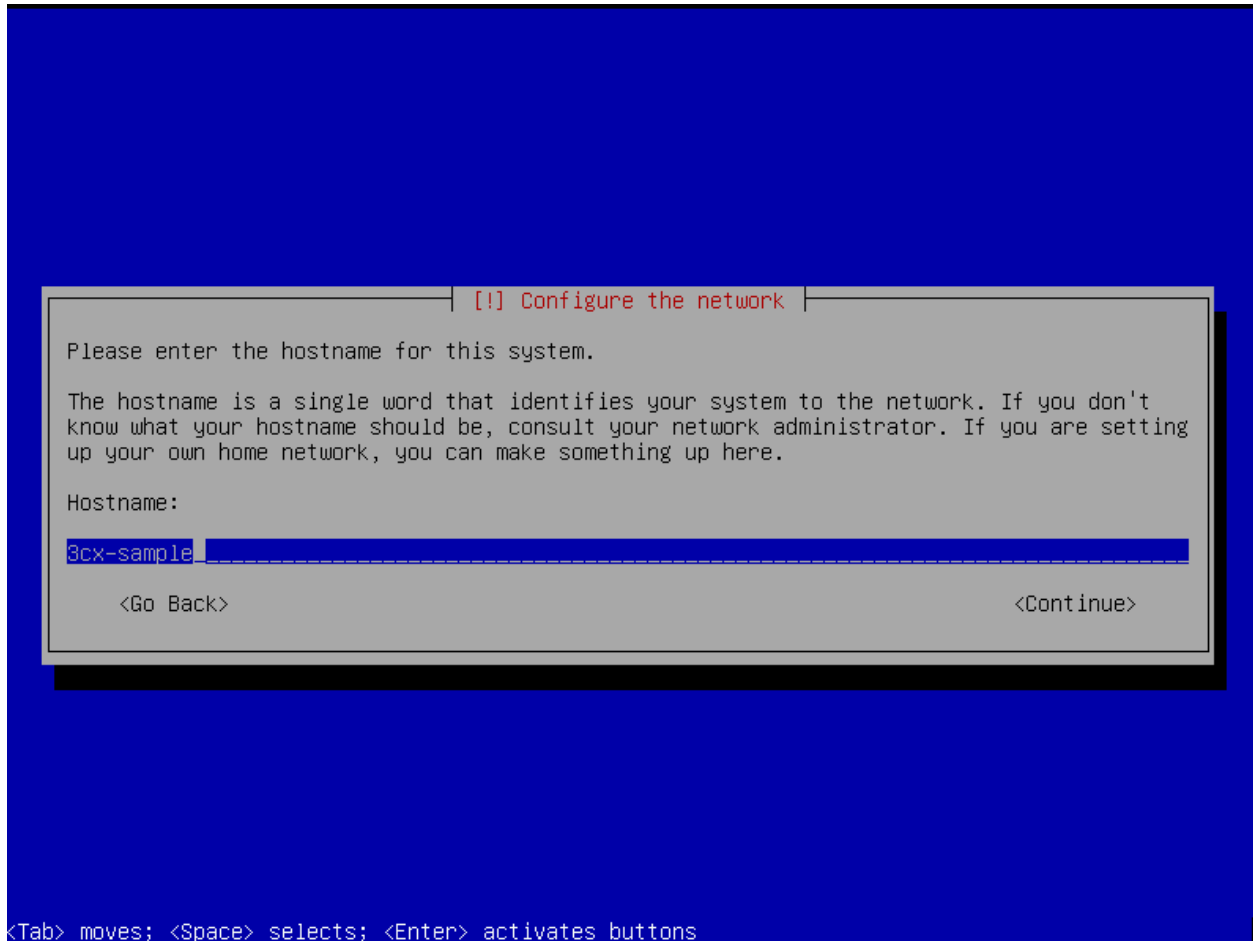


## 3CX Install with IP Auth SIP Trunk for QuestBlue

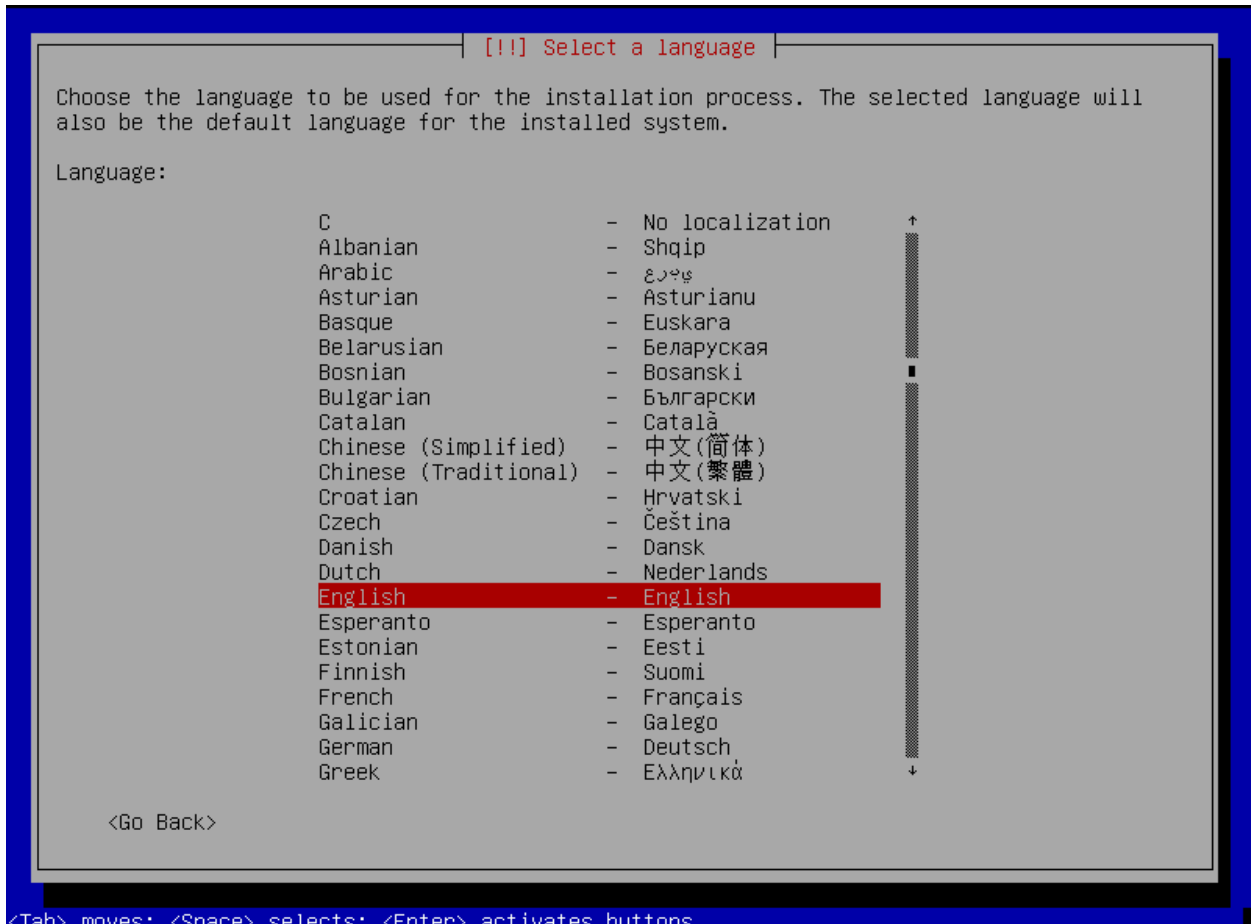
Follow the prompts below to complete an install of 3CX



### 3CX Install with IP Auth SIP Trunk for QuestBlue



### 3CX Install with IP Auth SIP Trunk for QuestBlue



### 3CX Install with IP Auth SIP Trunk for QuestBlue

[!!] Select your location

The selected location will be used to set your time zone and also for example to help select the system locale. Normally this should be the country where you live.

This is a shortlist of locations based on the language you selected. Choose "other" if your location is not listed.

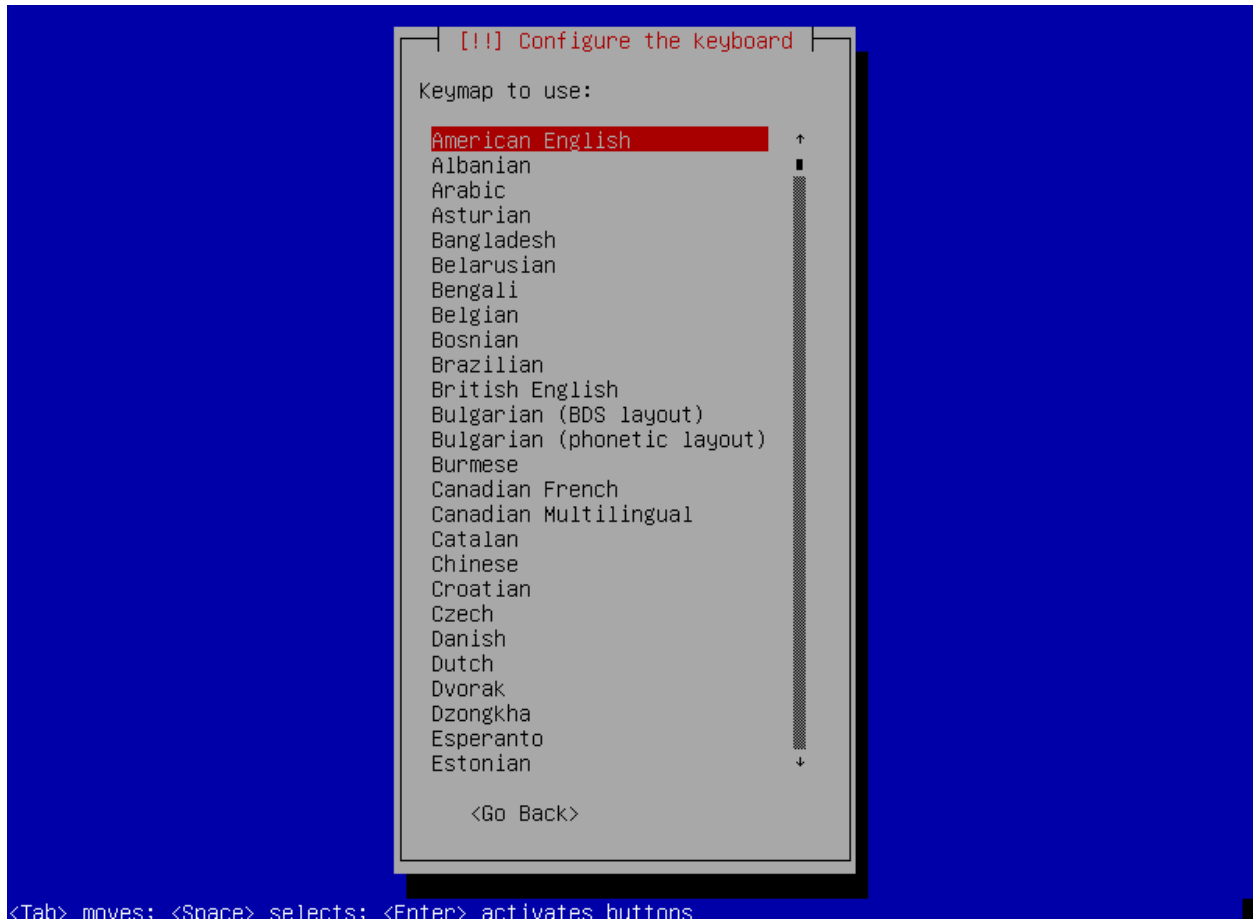
Country, territory or area:

Antigua and Barbuda  
Australia  
Botswana  
Canada  
Hong Kong  
India  
Ireland  
Israel  
New Zealand  
Nigeria  
Philippines  
Singapore  
South Africa  
United Kingdom  
United States  
Zambia  
Zimbabwe  
other

<Go Back>

<Tab> moves: <Space> selects: <Enter> activates buttons

### 3CX Install with IP Auth SIP Trunk for QuestBlue



## 3CX Install with IP Auth SIP Trunk for QuestBlue

### [!!] Set up users and passwords

You need to set a password for 'root', the system administrative account. A malicious or unqualified user with root access can have disastrous results, so you should take care to choose a root password that is not easy to guess. It should not be a word found in dictionaries, or a word that could be easily associated with you.

A good password will contain a mixture of letters, numbers and punctuation and should be changed at regular intervals.

The root user should not have an empty password. If you leave this empty, the root account will be disabled and the system's initial user account will be given the power to become root using the "sudo" command.

Note that you will not be able to see the password as you type it.

Root password:

\_\_\_\_\_

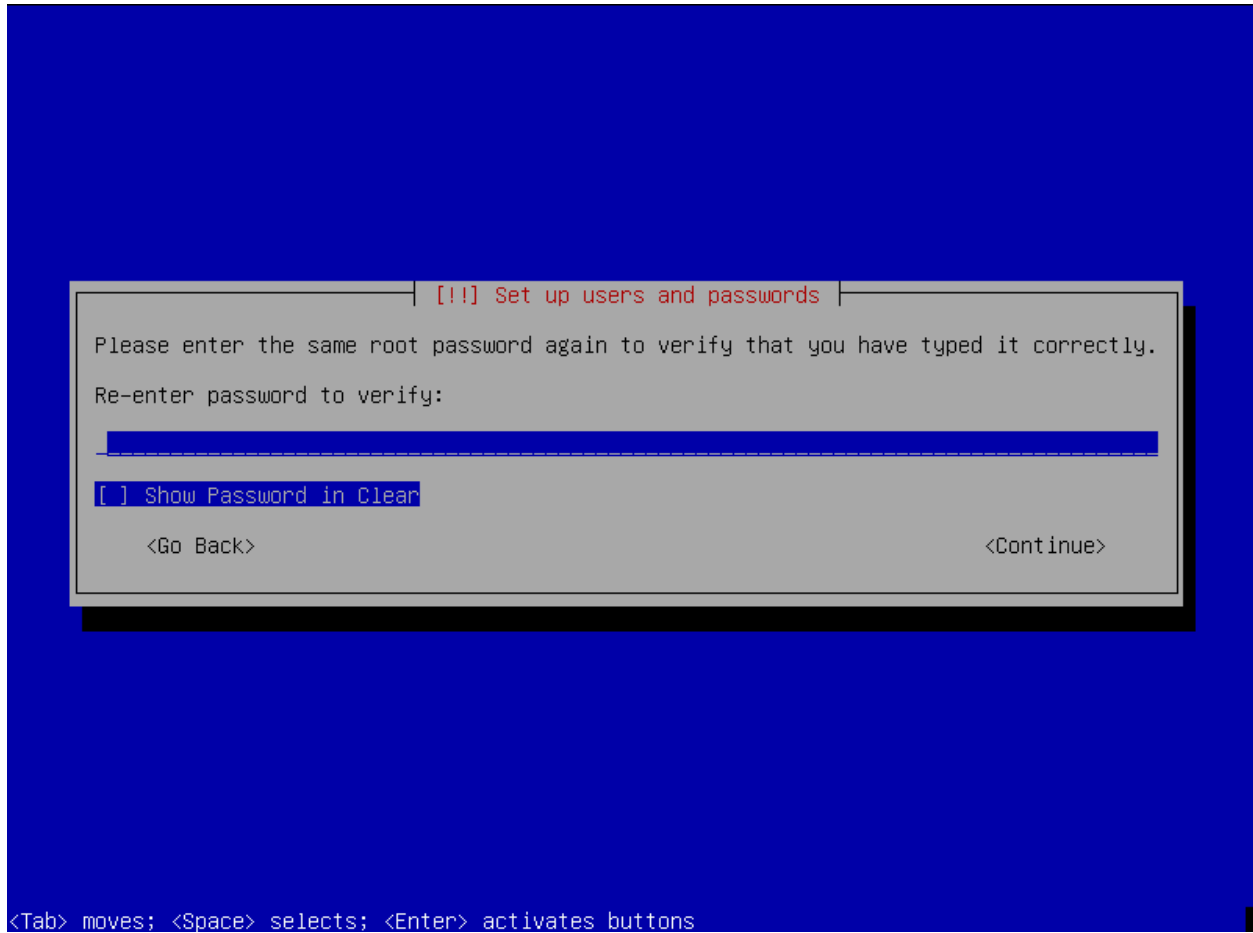
Show Password in Clear

<Go Back>

<Continue>

<Tab> moves; <Space> selects; <Enter> activates buttons

## 3CX Install with IP Auth SIP Trunk for QuestBlue



### 3CX Install with IP Auth SIP Trunk for QuestBlue

[!] Configure the clock

If the desired time zone is not listed, then please go back to the step "Choose language" and select a country that uses the desired time zone (the country where you live or are located).

Select your time zone:

- Eastern
- Central
- Mountain
- Pacific
- Alaska
- Hawaii
- Arizona
- East Indiana
- Samoa

<Go Back>

<Tab> moves; <Space> selects; <Enter> activates buttons



## 3CX Install with IP Auth SIP Trunk for QuestBlue

### [!!] Partition disks

The installer can guide you through partitioning a disk (using different standard schemes) or, if you prefer, you can do it manually. With guided partitioning you will still have a chance later to review and customise the results.

If you choose guided partitioning for an entire disk, you will next be asked which disk should be used.

Partitioning method:

- Guided - use entire disk
- Guided - use entire disk and set up LVM
- Guided - use entire disk and set up encrypted LVM
- Manual

<Go Back>

<Tab> moves; <Space> selects; <Enter> activates buttons

## 3CX Install with IP Auth SIP Trunk for QuestBlue

### [!!] Partition disks

Note that all data on the disk you select will be erased, but not before you have confirmed that you really want to make the changes.

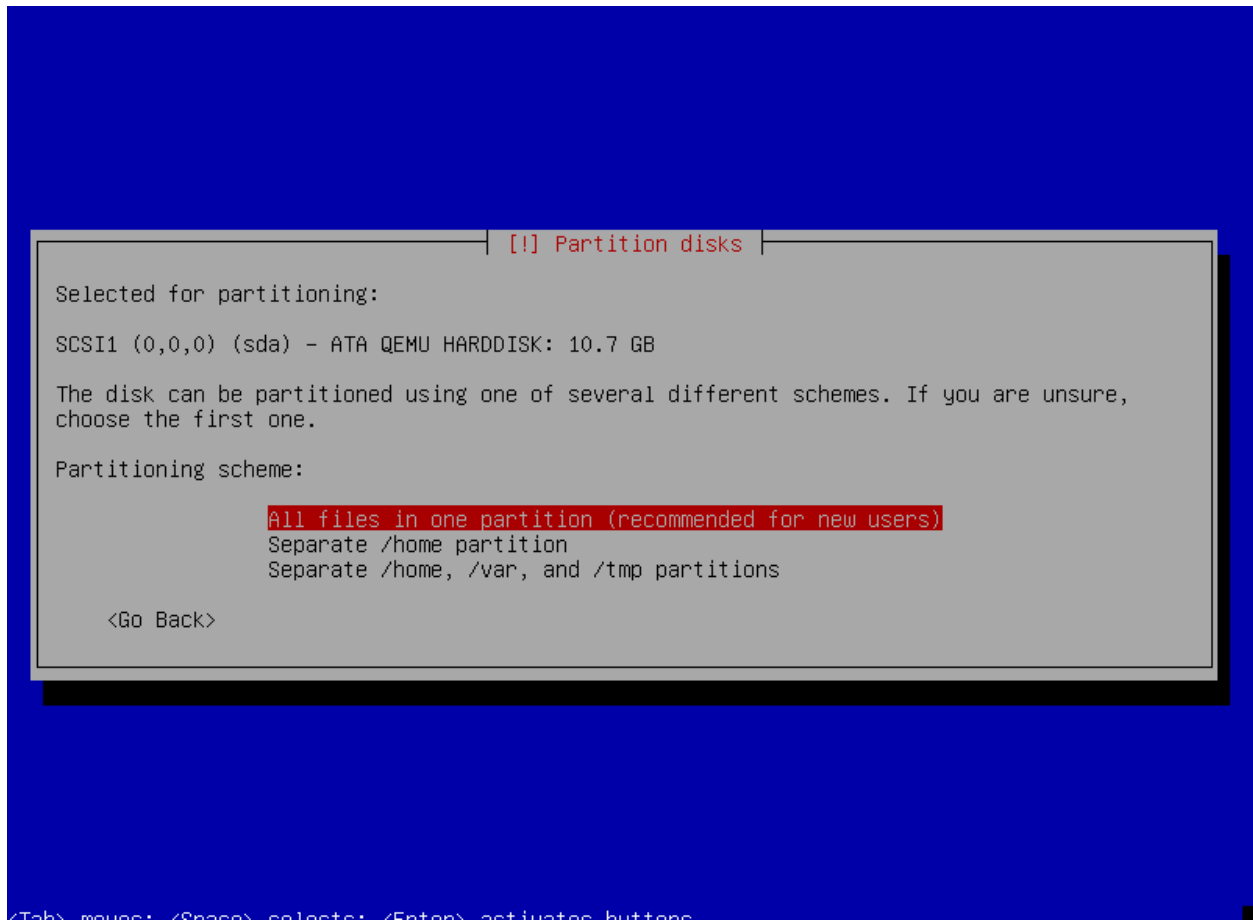
Select disk to partition:

SCSI1 (0,0,0) (sda) - 10.7 GB ATA QEMU HARDDISK

<Go Back>

<Tab> moves; <Space> selects; <Enter> activates buttons

## 3CX Install with IP Auth SIP Trunk for QuestBlue



### 3CX Install with IP Auth SIP Trunk for QuestBlue

#### [!!] Partition disks

This is an overview of your currently configured partitions and mount points. Select a partition to modify its settings (file system, mount point, etc.), a free space to create partitions, or a device to initialize its partition table.

Guided partitioning  
Configure software RAID  
Configure the Logical Volume Manager  
Configure encrypted volumes  
Configure iSCSI volumes

SCSI1 (0,0,0) (sda) - 10.7 GB ATA QEMU HARDDISK  
#1 primary 8.6 GB f ext4 /  
#5 logical 2.1 GB f swap swap

Undo changes to partitions  
**Finish partitioning and write changes to disk**

<Go Back>

<F1> for help; <Tab> moves; <Space> selects; <Enter> activates buttons

### 3CX Install with IP Auth SIP Trunk for QuestBlue

[!] Partition disks

If you continue, the changes listed below will be written to the disks. Otherwise, you will be able to make further changes manually.

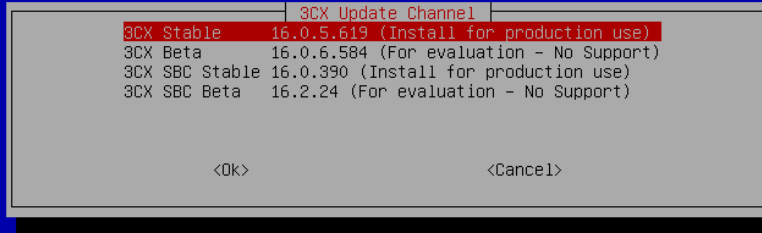
The partition tables of the following devices are changed:  
SCSI1 (0,0,0) (sda)

The following partitions are going to be formatted:  
partition #1 of SCSI1 (0,0,0) (sda) as ext4  
partition #5 of SCSI1 (0,0,0) (sda) as swap

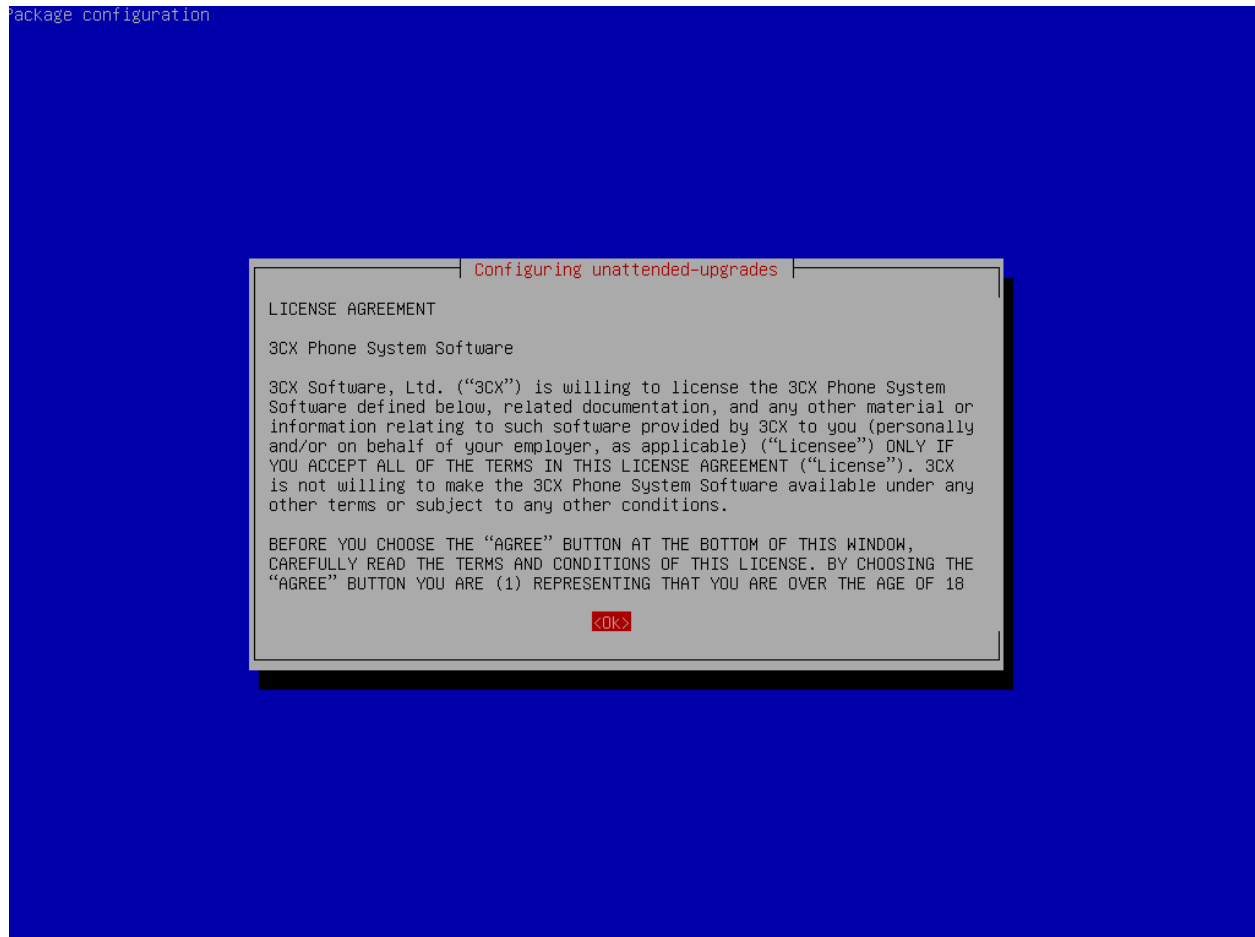
Write the changes to disks?

<Tab> moves; <Space> selects; <Enter> activates buttons

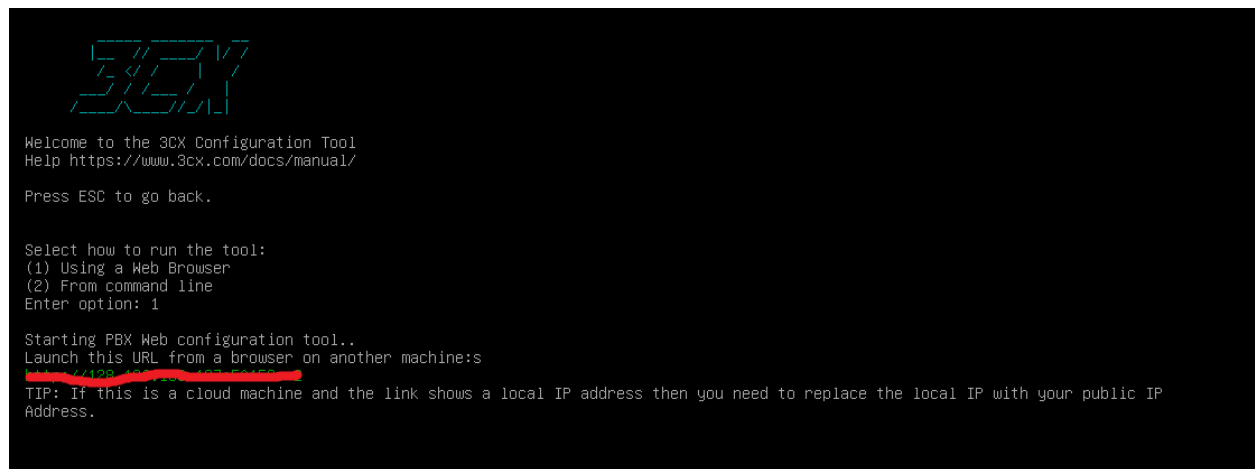
## 3CX Install with IP Auth SIP Trunk for QuestBlue



## 3CX Install with IP Auth SIP Trunk for QuestBlue



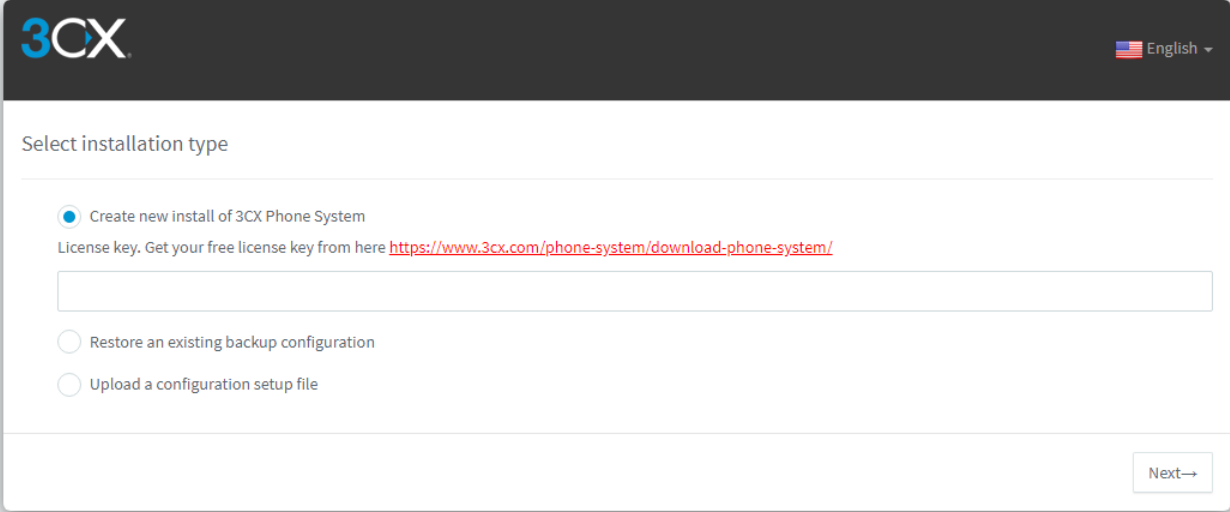
When you reach the page below enter "1" for using a web browser.



Navigate to the link provided in your browser to pull up the 3CX GUI.

## 3CX Install with IP Auth SIP Trunk for QuestBlue

Click the and enter your personal information to have the license key emailed.



3CX English

Select installation type

Create new install of 3CX Phone System  
License key. Get your free license key from here <https://www.3cx.com/phone-system/download-phone-system/>

Restore an existing backup configuration

Upload a configuration setup file

Next →

Fill in the form and you will receive an email with your license key details and deployment options (cloud or on-premise).

Company  Individual

[Redacted]

test company

Telephone: +1 [Redacted]

[Redacted]

[Redacted]

United States

0-25


Check your email (including your spam folder) to verify your email address.

- ✓ Self host – on YOUR cloud account
- ✓ Zero admin with automated admin tasks
- ✓ Smartphone Apps & Web Conferencing
- ✓ On-premise: on Windows or Linux
- ✓ Bulletproof security
- ✓ Free for up to 25 extensions, forever



# 3CX Install with IP Auth SIP Trunk for QuestBlue

Follow the prompts below to finish your 3CX setup


English

Enter 3CX Management Console credentials

Username:

Password:

Repeat Password:

English


We detected your Public IP Address as **128.128.128.128**

Yes my public IP Address is **128.128.128.128**

No, I want to enter it manually

## 3CX Install with IP Auth SIP Trunk for QuestBlue

Check to see if your IP address is Static or Dynamic before making a selection

English


### Type of Public IP

Is this a STATIC IP (reliable because ISP does not change your IP) or a DYNAMIC IP (unreliable residential connection where ISP may change your IP without warning). If you are unsure ask your Internet Service Provider.

Static IP

Dynamic IP

←Prev Next→

English

### Port selection for Web services (HTTPS/HTTP) and VoIP (SIP and Tunnel)

Select the ports required for the management console, web client and VoIP services. You can leave the default options or choose other ports. Not all ports are permitted and ports cannot be changed after. These ports are automatically opened on your Windows or Linux local firewalls but you will need to port forward these ports on your border firewall device. More information [here](#).

Enter a FREE port for HTTPS. Recommended 443 or 5001.

Enter a FREE port for HTTP. Recommended port 80 or 5000.

Enter a FREE port for the SIP server. Default 5060.

Enter a FREE Tunnel Port. Default 5090.


←Prev Next→

English

### Select the default network adapter

←Prev Next→

# 3CX Install with IP Auth SIP Trunk for QuestBlue

English ▾

### Extension Length


Select how many digits your extensions should have. Default is 3 Digits. Note that the system reserves 30 numbers for system extension. This cannot be changed later.

2 Digits (00-99)

3 Digits (000-999)


4 Digits (0000-9999)

5 Digits (00000-99999)

English ▾

### Admin Email:

Enter an Email for important system notifications such as updates, service failures, hacking attempts, network errors, emergencies and other diagnostics.


English ▾

### Mail Server Configuration

3CX requires a mail account to send notifications, invites and welcome emails

SMTP Providers:

# 3CX Install with IP Auth SIP Trunk for QuestBlue

English ▾

### Select Country and Time Zone

This is important for call reporting, dialling rules, phone configuration, invites and notifications.


Select Country:

United States (1) ▾

Set the Time Zone:

-5:00 United States - Eastern Time ▾

←Prev Next→

English ▾

### Operator Extension:

Create an Operator Extension which will be the default destination for inbound calls. Also confirm the Voicemail Number that will allow users to retrieve their Voicemail.

Extension Number:

100

First Name:

sample

Last Name:

name

Email Address:


sample@sample.com

Voicemail Number:

999

←Prev Next→

## 3CX Install with IP Auth SIP Trunk for QuestBlue


English ▾

Countries that calls can be made to

As an additional security measure, specify which countries calls can be made to.

- North America ▾
- South America ▾
- Europe ▾
- Asia and the Middle East ▾
- Africa ▾
- Australia ▾
- International Networks ▾

←Prev Next→

English ▾

Select Language

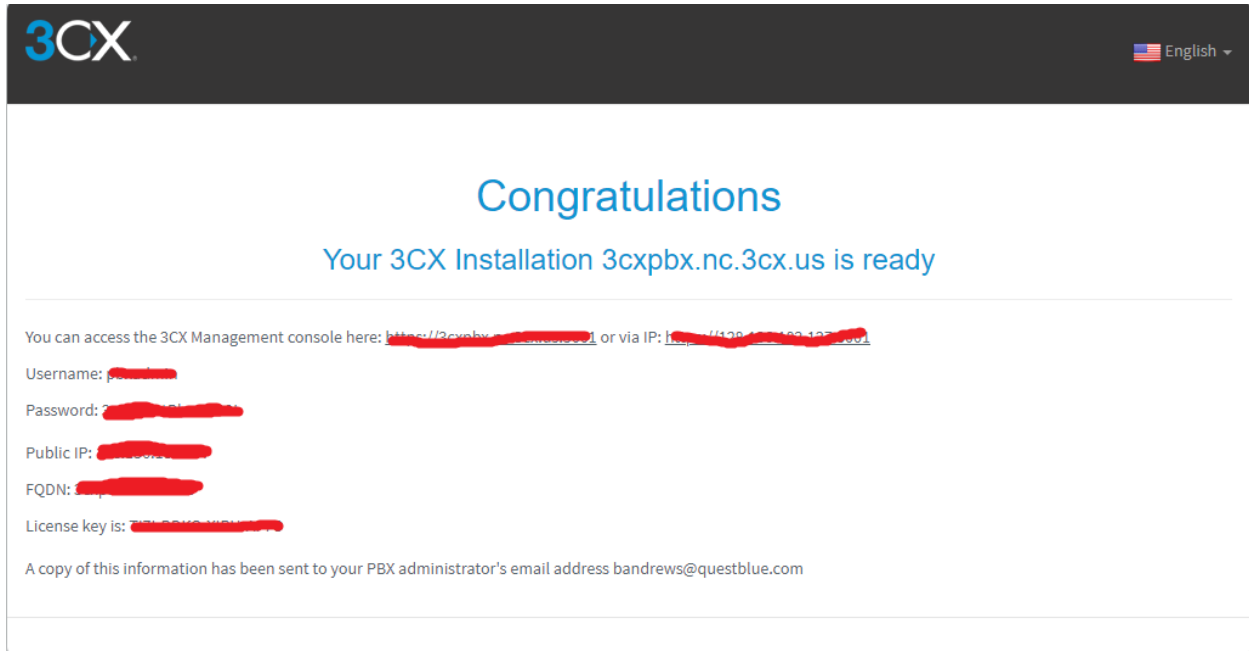
Select in which language you want to play system prompts.

Select Language

Standard English Prompts Set ▾

←Prev Next→

## 3CX Install with IP Auth SIP Trunk for QuestBlue

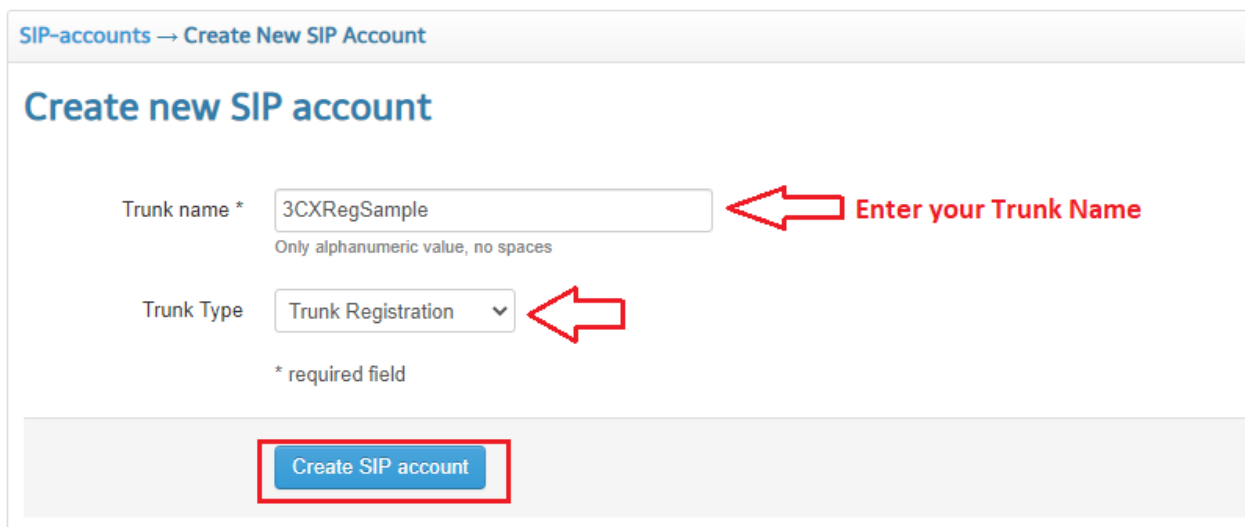


The screenshot shows the 3CX installation success page. At the top left is the 3CX logo, and at the top right is a language selector set to 'English'. The main heading is 'Congratulations' in blue, followed by 'Your 3CX Installation 3cxpbx.nc.3cx.us is ready'. Below this, there is a list of installation details: 'You can access the 3CX Management console here: https://3cxpbx.nc.3cx.us/ or via IP: 128.193.127.199', 'Username: [redacted]', 'Password: [redacted]', 'Public IP: [redacted]', 'FQDN: [redacted]', and 'License key is: [redacted]'. At the bottom, it states 'A copy of this information has been sent to your PBX administrator's email address bandrews@questblue.com'.

Enter the DNS or IP link in your web browser to login to your 3CX

Next, we will create a Registration SIP Trunk for QuestBlue:

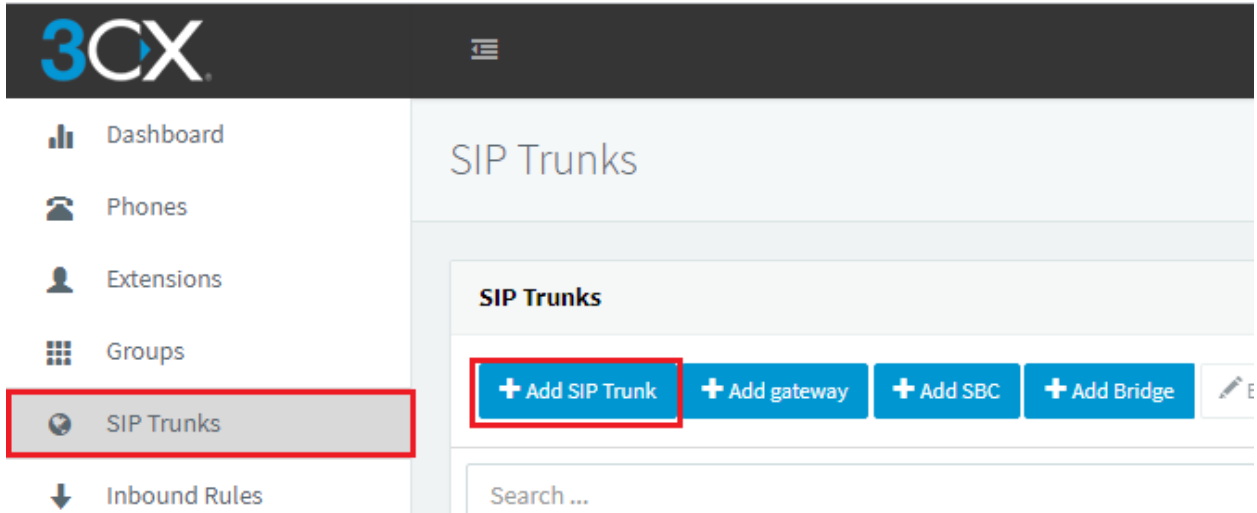
Navigate to <https://customer.questblue.com/sipaccounts/create>



The screenshot shows the 'Create new SIP account' form in the QuestBlue customer portal. The breadcrumb is 'SIP-accounts → Create New SIP Account'. The form title is 'Create new SIP account'. There are two main fields: 'Trunk name \*' with the value '3CXRegSample' and a red arrow pointing to it with the text 'Enter your Trunk Name'; and 'Trunk Type' with a dropdown menu set to 'Trunk Registration' and a red arrow pointing to it. Below the dropdown is the text '\* required field'. At the bottom of the form is a blue button labeled 'Create SIP account' which is highlighted with a red box.

Navigate back to your 3CX to complete your SIP Trunk Configuration

## 3CX Install with IP Auth SIP Trunk for QuestBlue



You may enter the SIP Trunk ID that's auto generated by QuestBlue when creating your SIP Trunk at [customer.questblue.com](https://customer.questblue.com)

The dialog box is titled 'Add SIP Trunk/VoIP Provider' and contains the following fields:

- Select Country:** A dropdown menu with 'Generic' selected (highlighted with a red box).
- Select Provider in your Country:** A dropdown menu with 'Generic SIP Trunk' selected (highlighted with a red box).
- Main Trunk No:** A text input field containing the text 'Enter SIP Trunk ID auto generated by QuestBlue' (highlighted with a red box).

At the bottom right of the dialog are 'OK' and 'Cancel' buttons.

## 3CX Install with IP Auth SIP Trunk for QuestBlue

Fill in the fields below and leave all others blank and click OK above.

### Trunk Details

Enter name for Trunk  
QuestBlue

Registrar/Server/Gateway Hostname or IP  
128.136.235.202 **Enter the IP of our SBC** 5060  Auto Discovery

Outbound Proxy  
5060  Auto Discovery

Number of SIM Calls  
10

### Authentication

Type of Authentication  
Register/Account based

Authentication ID (aka SIP User ID)  
3CXRegSample **Enter the Name of the SIP Trunk created on customer.questblue.com**

Authentication Password  
..... **Enter the Auto-Generated Password associated with your SIP Trunk**

3 Way Authentication Password

Create Outbound Rule for QuestBlue:

The screenshot shows the 3CX web interface. On the left sidebar, the 'Outbound Rules' menu item is highlighted with a red box. The main content area is titled 'Outbound Rules' and contains a sub-section 'Outbound Rules' with a '+ Add' button, 'Edit', 'Delete', and 'Move Up' buttons. Below this is a search bar and a form field labeled 'Outbound Rule Name'.

Fill in the fields below and click OK




# 3CX Install with IP Auth SIP Trunk for QuestBlue

**General**

Rule Name  
QuestBlue

**Apply this rule to these calls**

Calls to numbers starting with prefix  
Calls to numbers starting with prefix

Calls from extension(s)  
101  Specify Extensions calls are being made from

Calls to Numbers with a length of  
Calls to Numbers with a length of

Calls from extension group(s)  
[+ Add](#)

**Make outbound calls on**

Configure up to 5 backup routes for outgoing calls. Each route can be configured differently

Route		Strip Digits	Prepend
1	QuestBlue	0	1
2	QuestBlue	1	
3	BLOCK CALLS	0	

## Creating an Inbound Route

Click on Inbound Routes > Add DID Rule

## 3CX Install with IP Auth SIP Trunk for QuestBlue

The screenshot shows the 3CX web interface. On the left sidebar, the 'Inbound Rules' menu item is highlighted with a red box. In the main content area, the 'Add DID Rule' button is also highlighted with a red box. The page title is 'Inbound Rules'.

Fill in the following information including the same format for the DID then set the destination for the calls to route and click ok at the top.

The screenshot shows the 'Add Inbound Rule' form. The 'OK' button is highlighted with a red box. The form contains the following fields:

- General**
  - Name:
  - DID/DDI:
- Route calls to**
  - Destination for calls during office hours:
  - 101 Test Phone:
  - Destination for calls outside office hours:
  - 101 Test Phone:
  - Set up Specific Office Hours for this rule
  - Play holiday prompt when it's a global holiday