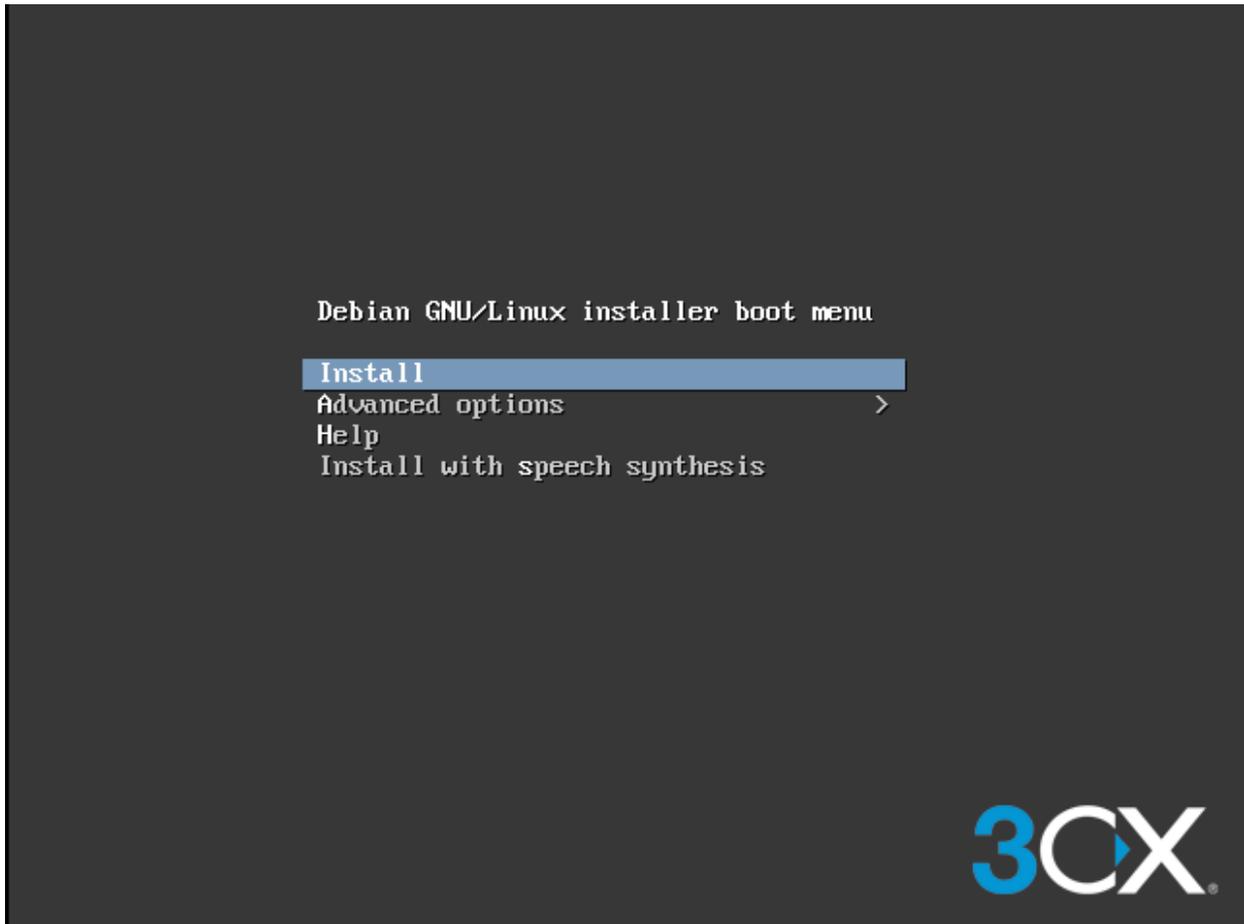
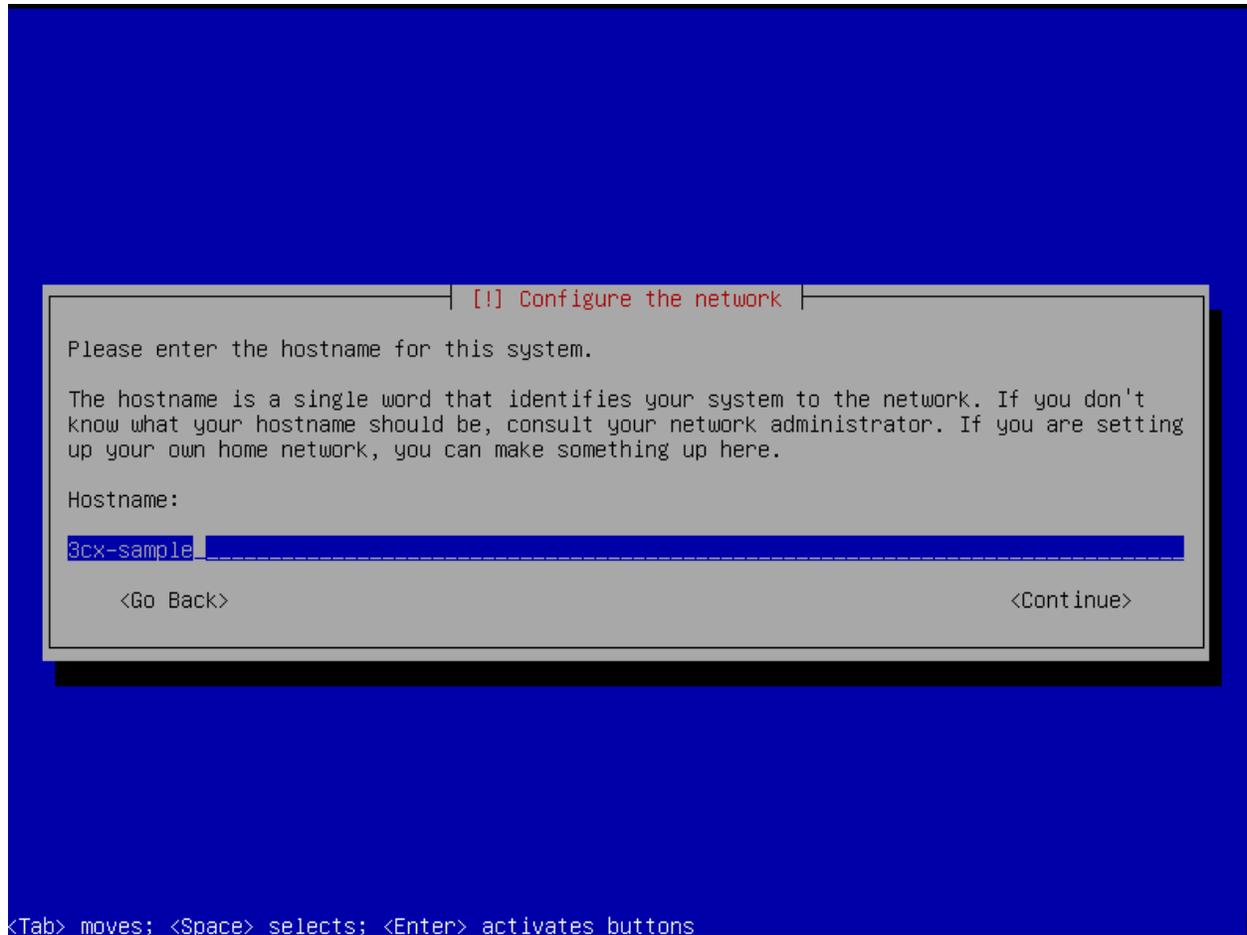


3CX Install with IP Auth SIP Trunk for QuestBlue

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

[!!] Select a language

Choose the language to be used for the installation process. The selected language will also be the default language for the installed system.

Language:

C	-	No localization	↑
Albanian	-	Shqip	
Arabic	-	العربية	
Asturian	-	Asturiano	
Basque	-	Euskara	
Belarusian	-	Беларуская	
Bosnian	-	Bosanski	
Bulgarian	-	Български	
Catalan	-	Català	
Chinese (Simplified)	-	中文(简体)	
Chinese (Traditional)	-	中文(繁體)	
Croatian	-	Hrvatski	
Czech	-	Čeština	
Danish	-	Dansk	
Dutch	-	Nederlands	
English	-	English	
Esperanto	-	Esperanto	
Estonian	-	Eesti	
Finnish	-	Suomi	
French	-	Français	
Galician	-	Galego	
German	-	Deutsch	
Greek	-	Ελληνικά	↓

<Go Back>

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

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.

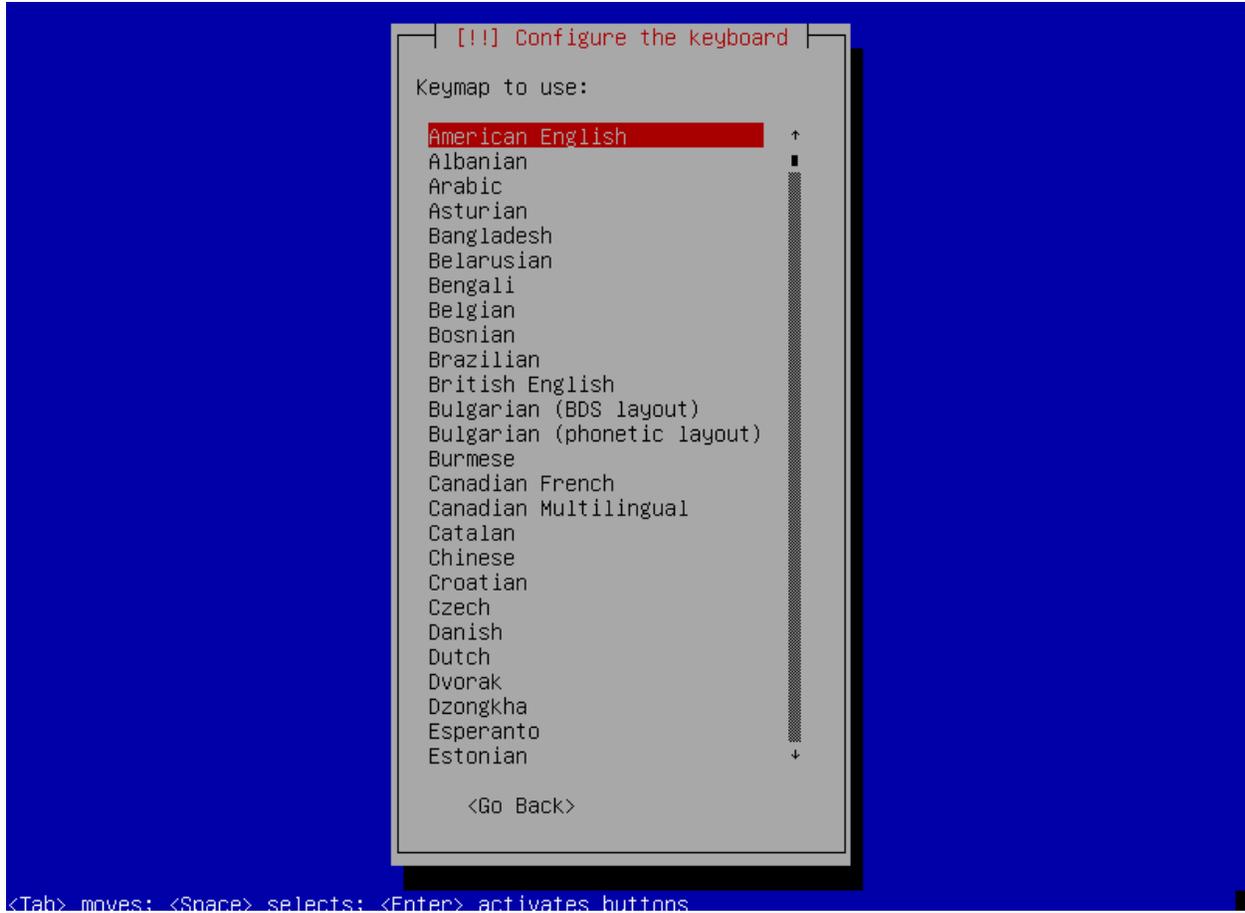
Country, territory or area:

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:

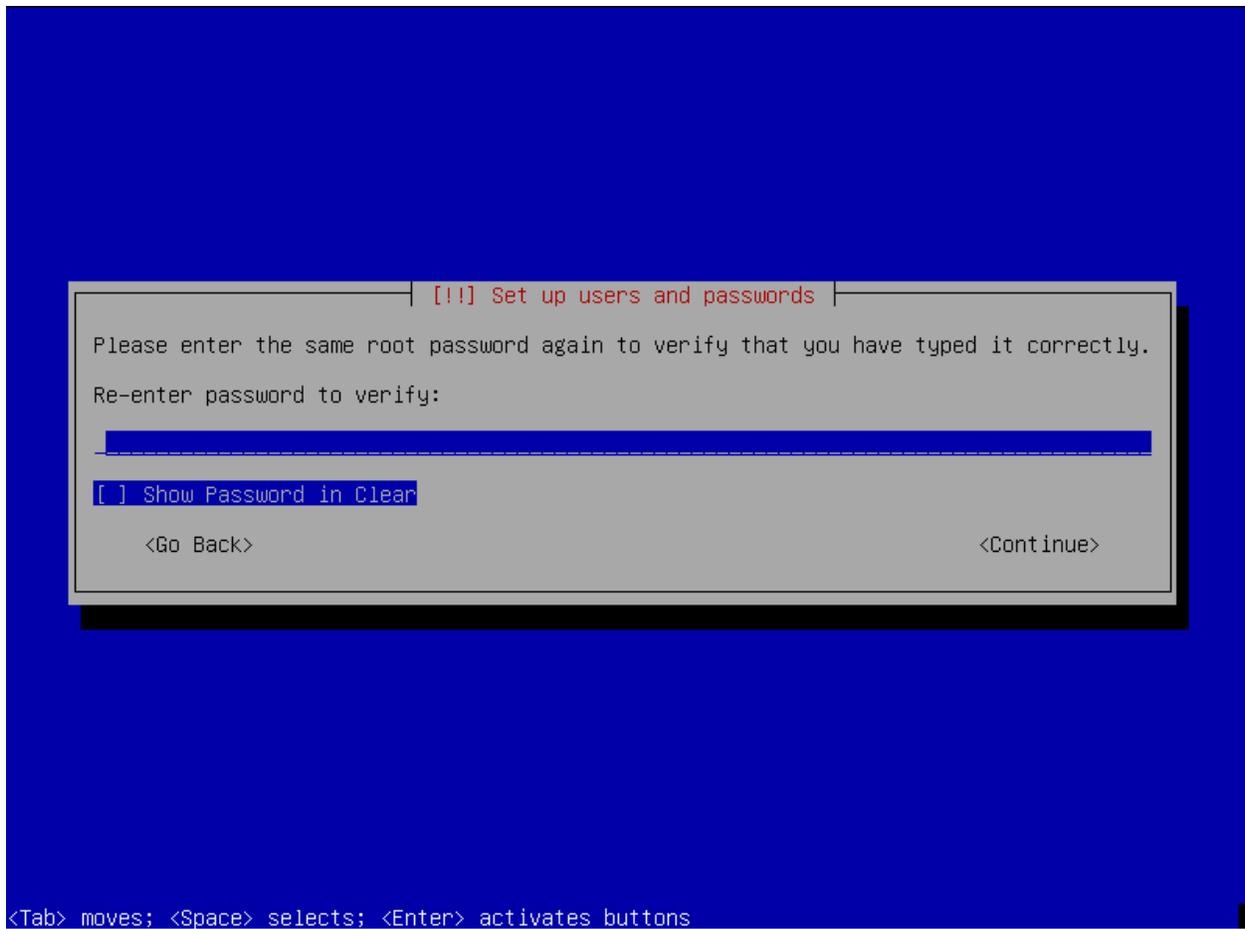
Show Password in Clear

<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.

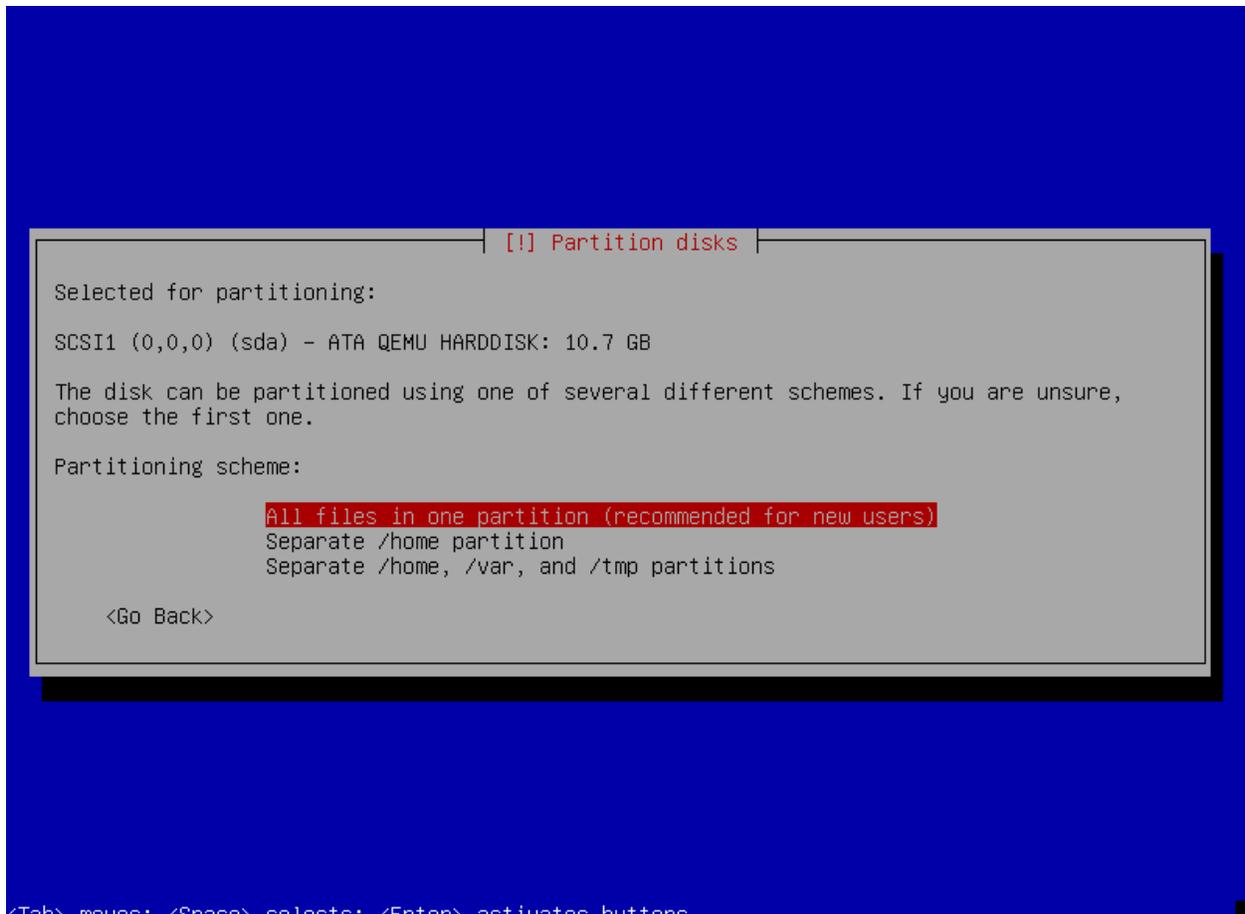
Select disk to partition:

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)

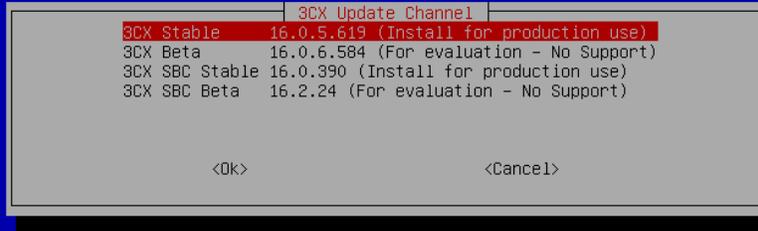
The following partitions are going to be formatted:
  partition #1 of SCSI1 (0,0,0) (sda) as ext4
  partition #5 of SCSI1 (0,0,0) (sda) as swap

Write the changes to disks?

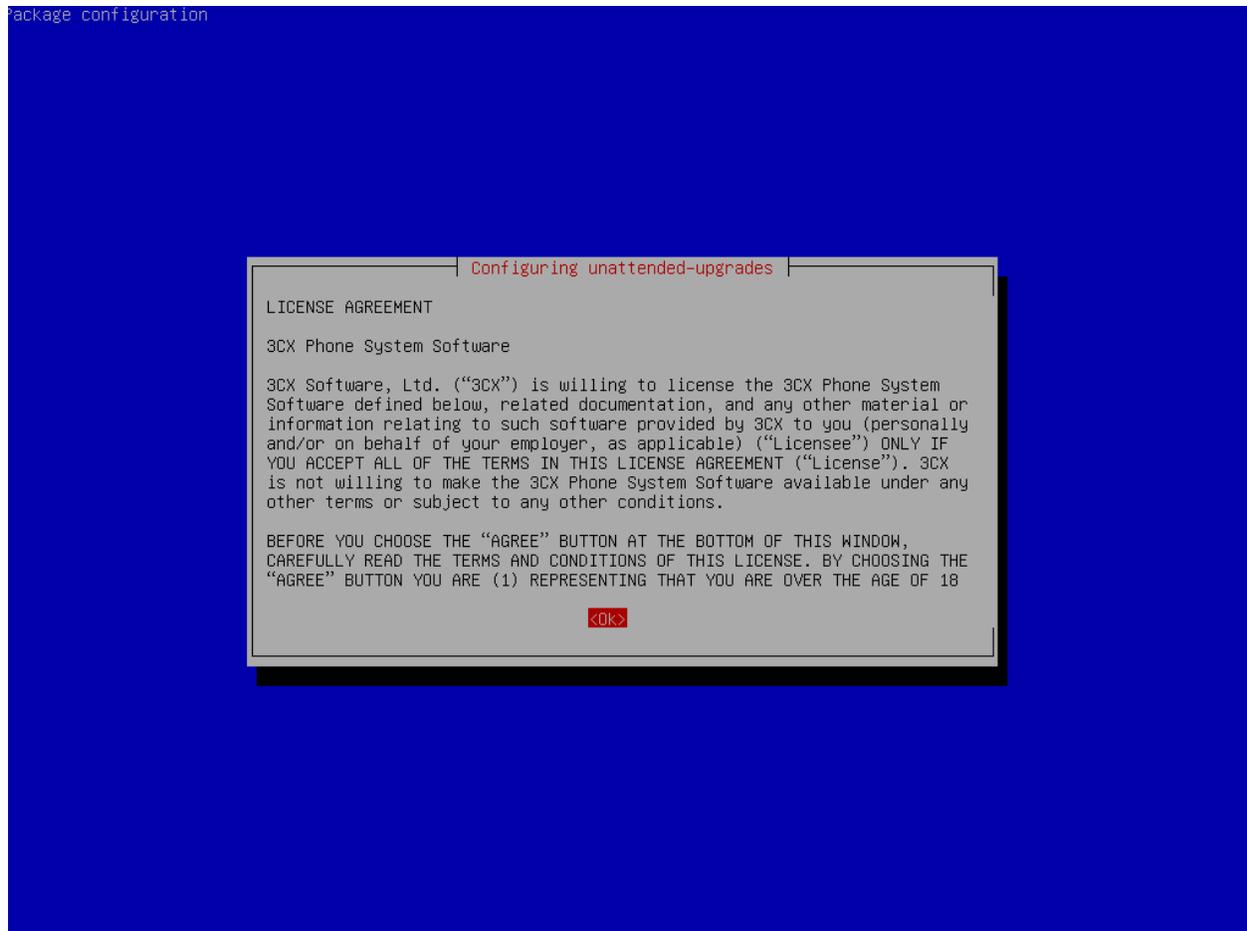
  <Yes>                                     <No>
```

<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



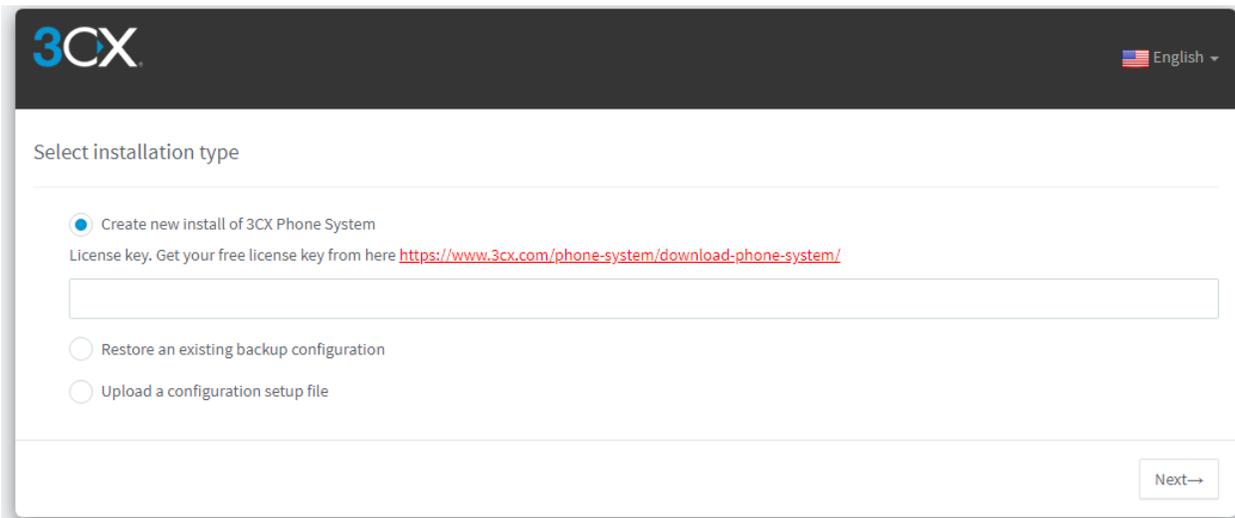
When you reach the page below enter "1" for using a web browser.



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] [Redacted]

test company United States ▾

Telephone: +1 [Redacted] [Redacted]

[Redacted] 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 **192.168.1.100**

Yes my public IP Address is **192.168.1.100**

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

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.

English

Select the default network adapter

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:

Set the Time Zone:

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:

First Name:

Last Name:

Email Address:

Voicemail Number:

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

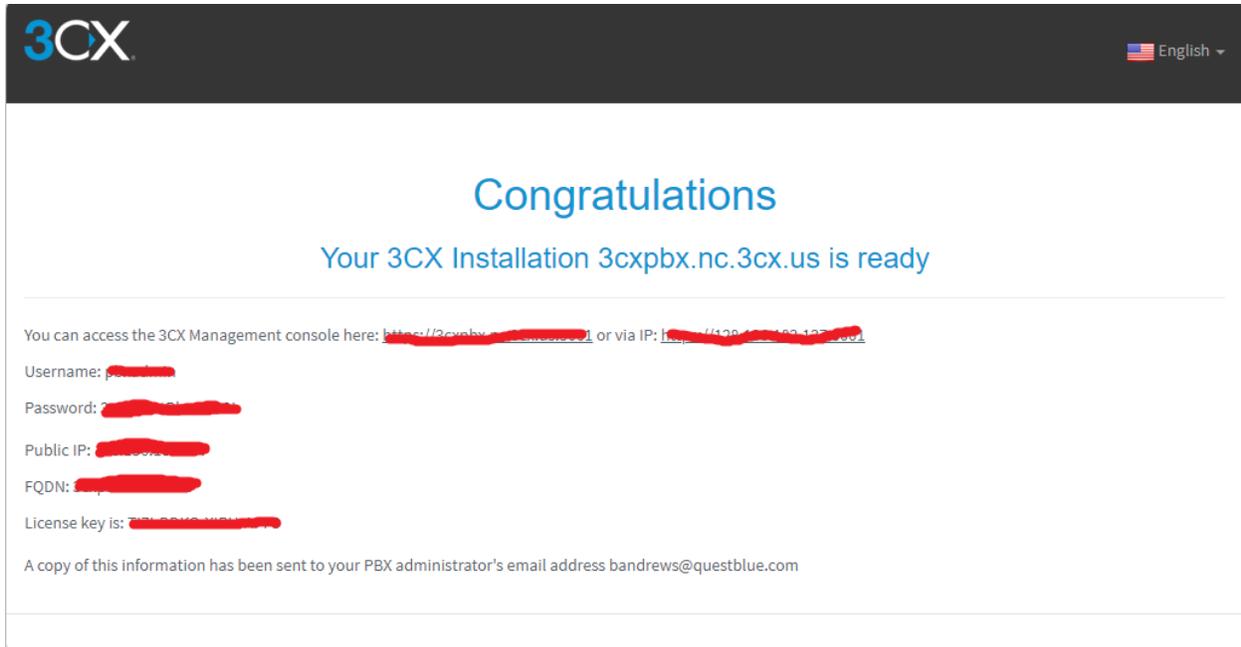
Select in which language you want to play system prompts.

Select Language

Standard English Prompts Set ▾

←Prev Next→

3CX Install with IP Auth SIP Trunk for QuestBlue

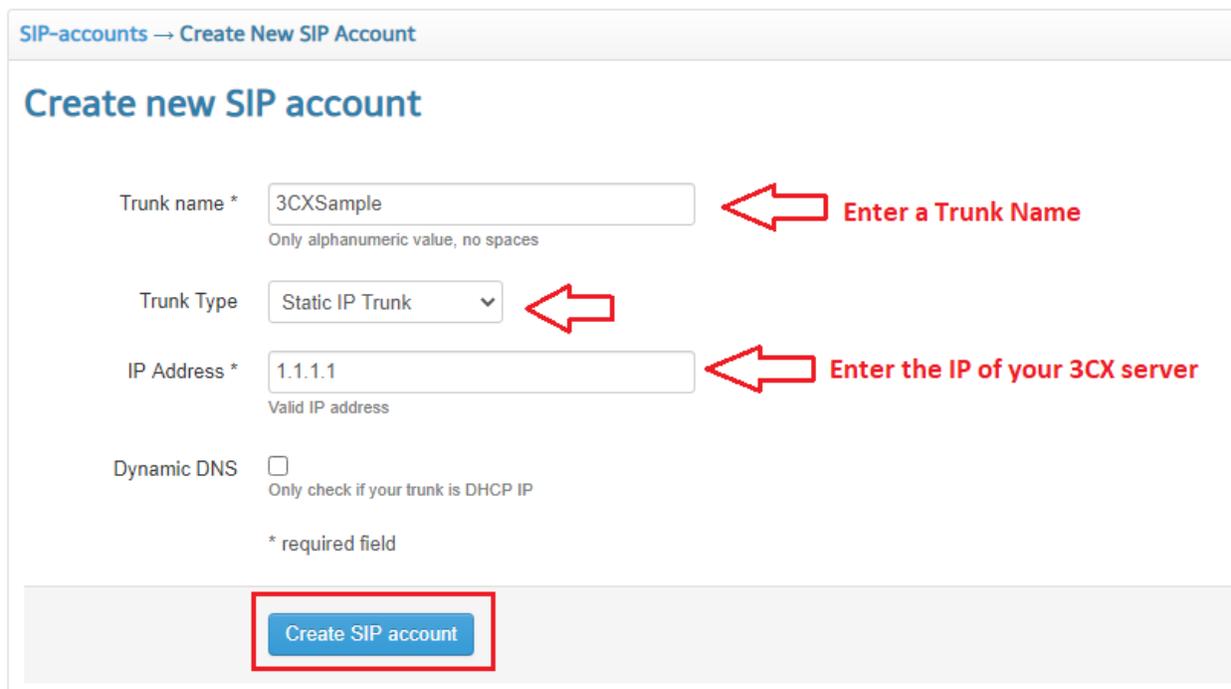


The screenshot shows the 3CX installation success page. At the top left is the 3CX logo, and at the top right is a language selector set to 'English'. The main heading is 'Congratulations' in blue, followed by 'Your 3CX Installation 3cxpbx.nc.3cx.us is ready'. Below this, it provides access information: 'You can access the 3CX Management console here: https://3cxpbx.nc.3cx.us/ or via IP: 192.168.1.107'. It lists the following details: Username: [redacted], Password: [redacted], Public IP: [redacted], FQDN: [redacted], and License key is: [redacted]. A note at the bottom 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 an IP Auth SIP Trunk for QuestBlue:

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



The screenshot shows the 'Create New SIP Account' form in the QuestBlue interface. The breadcrumb is 'SIP-accounts → Create New SIP Account'. The main heading is 'Create new SIP account'. The form contains the following fields and options:

- Trunk name ***: Text input field containing '3CXSample'. Below it is the note 'Only alphanumeric value, no spaces'. A red arrow points to this field with the text 'Enter a Trunk Name'.
- Trunk Type**: Dropdown menu set to 'Static IP Trunk'. A red arrow points to this dropdown.
- IP Address ***: Text input field containing '1.1.1.1'. Below it is the note 'Valid IP address'. A red arrow points to this field with the text 'Enter the IP of your 3CX server'.
- Dynamic DNS**: A checkbox that is currently unchecked. Below it is the note 'Only check if your trunk is DHCP IP'.

At the bottom of the form, there is a blue button labeled 'Create SIP account' which is highlighted with a red rectangular box. A note '* required field' is located below the Dynamic DNS checkbox.

3CX Install with IP Auth SIP Trunk for QuestBlue

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

The screenshot shows the 3CX web interface. On the left is a navigation menu with items: Dashboard, Phones, Extensions, Groups, SIP Trunks (highlighted with a red box), and Inbound Rules. The main content area is titled 'SIP Trunks' and contains a sub-section 'SIP Trunks' with four blue buttons: '+ Add SIP Trunk' (highlighted with a red box), '+ Add gateway', '+ Add SBC', and '+ Add Bridge'. Below these buttons is a search bar. A modal dialog titled 'Add SIP Trunk/VoIP Provider' is open, featuring three dropdown menus: 'Select Country' with 'Generic' selected (highlighted with a red box), 'Select Provider in your Country' with 'Asterisk' selected (highlighted with a red box), and 'Main Trunk No' with 'QuestBlue' entered (highlighted with a red box). At the bottom right of the modal are 'OK' and 'Cancel' buttons, with 'OK' highlighted by a red box.

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
Do not require - IP Based ←

Authentication ID (aka SIP User ID)

Authentication Password

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 highlighted in a red box. Other buttons include 'Edit', 'Delete', and 'Move Up'. Below these buttons 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](#)

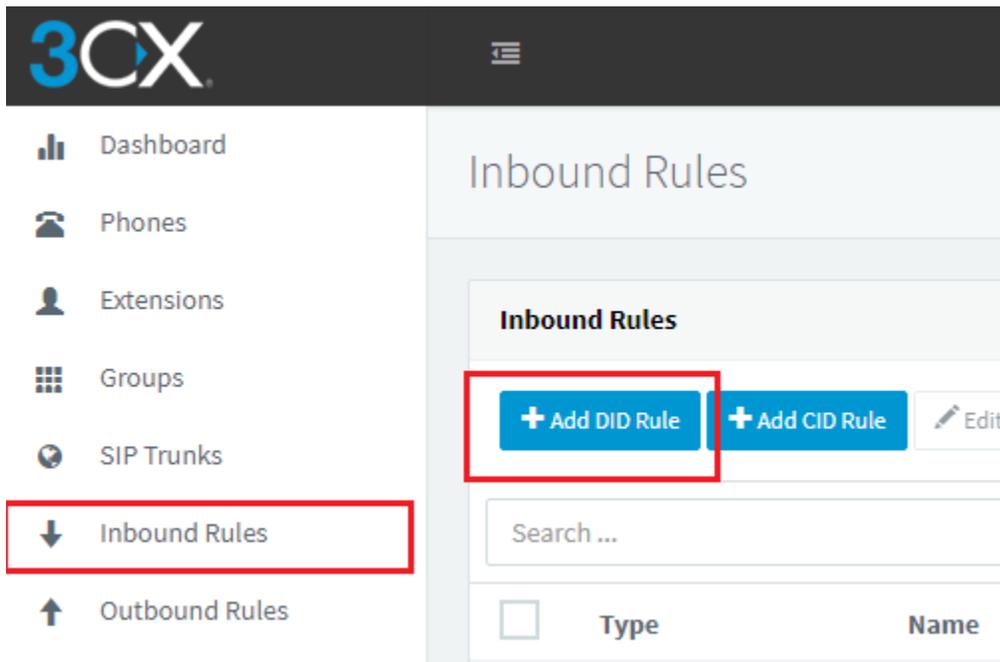
Make outbound calls on

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

- Dashboard
- Phones
- Extensions
- Groups
- SIP Trunks
- Inbound Rules**
- Outbound Rules

Inbound Rules

[+ Add DID Rule](#) [+ Add CID Rule](#) [Edit](#)

Search ...

Type	Name
------	------

3CX Install with IP Auth SIP Trunk for QuestBlue

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.

Add Inbound Rule OK Cancel Help

General

Name

DID/DDI

Route calls to

Destination for calls during office hours

Destination for calls outside office hours

Set up Specific Office Hours for this rule

Play holiday prompt when it's a global holiday