PART 2

Unified Communications – VoIP Assessment

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Unified Communications – VoIP Assessment Part 2

About this assessment:

These assessment tasks provide an opportunity to demonstrate the competencies covered in the VoIP - Unified Communications subject.

- You are allowed to refer to your text books, notes and the Internet during the Assessment.
- The documentation and research work must be entirely your own.
- By commencing this assessment, you confirm that you have read and agree to abide by the ACIT Academic Honesty Policy

Successful completion of this assessment contributes towards attaining competency in the following:

ICTTEN512 Design and implement an enterprise voice over internet protocol and a unified communications network
ICTNWK610 Design and build integrated VoIP networks
ICTPMG611 Prepare a detailed design brief
ICTTEN611 Produce an ICT network architecture design

ICTNWK529 Install and manage complex ICT networks

There are 3 parts to this assessment

1. Design and planning
2. Deployment
3. Question and answer

These assessment tasks provide an opportunity for you to demonstrate the competencies required to design, plan and deploy unified communications solutions.

Part 2 - Deployment

This part requires you to deploy an IP-private branch exchange (PBX) solution. You shall work in pairs for purpose of testing your solution.

You are provided with:

1. An Asterisk/FreePBX distro ISO file
2. A PC with Internet access
3. Access to a VMWare VSphere infrastructure host in which you can create new VM's.

4. Asterisk and FreePBX installation and configuration documentation
5. IP addressing scheme, extension numbering scheme, and DID
6. Head office trunk name and password

Note: you are required to take screen shots of each stage of your implementation. These will form part of your submission.

Scenario

OTS has implemented an Asterisk PBX at their head office. A SIP trunk has been provisioned to this site and is now fully operational. OTS now wishes to deploy IP telephony to their regional offices. It is much more economical to have one large SIP trunk than many small SIP trunks and therefore the entire organization will use the SIP trunk provisioned to the head office. The regional offices are connected to the head office via site to site VPN's. Some regional offices are connected to each other via site to site VPN's. OTS has decided that each regional office will have its own PBX. Calls to external numbers and other OTS offices that are not directly connected will be trunked via the head office.

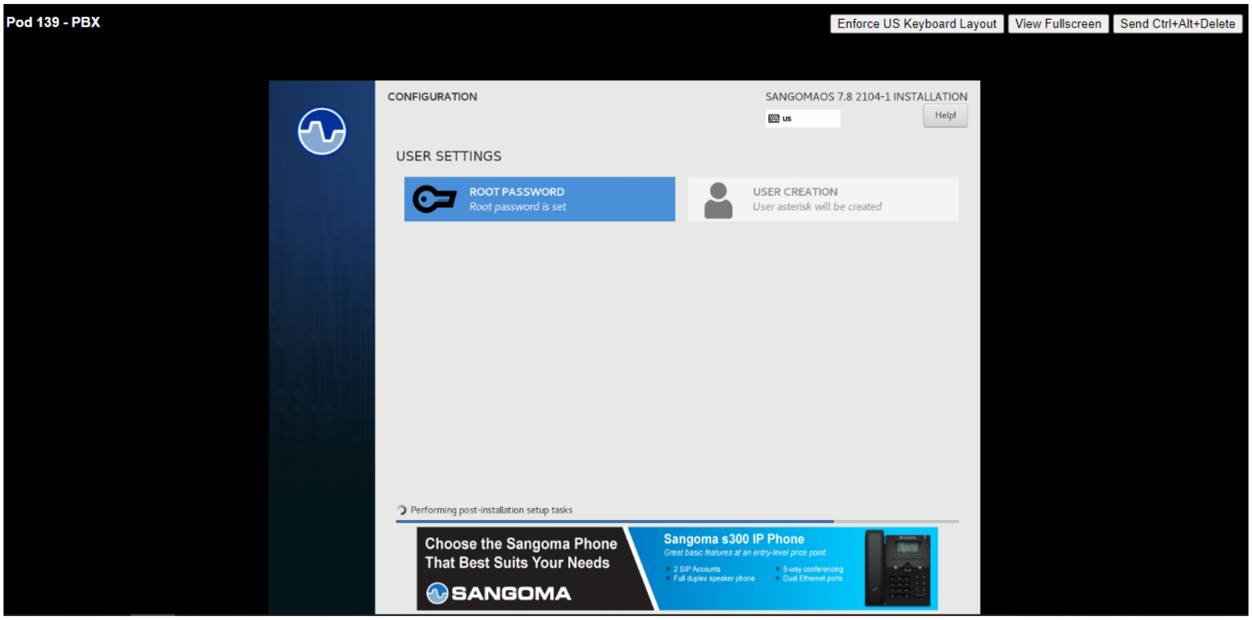
You have been given the task of designing and deploying the solution for a regional office. Your design and implementation plan must provide for the following:

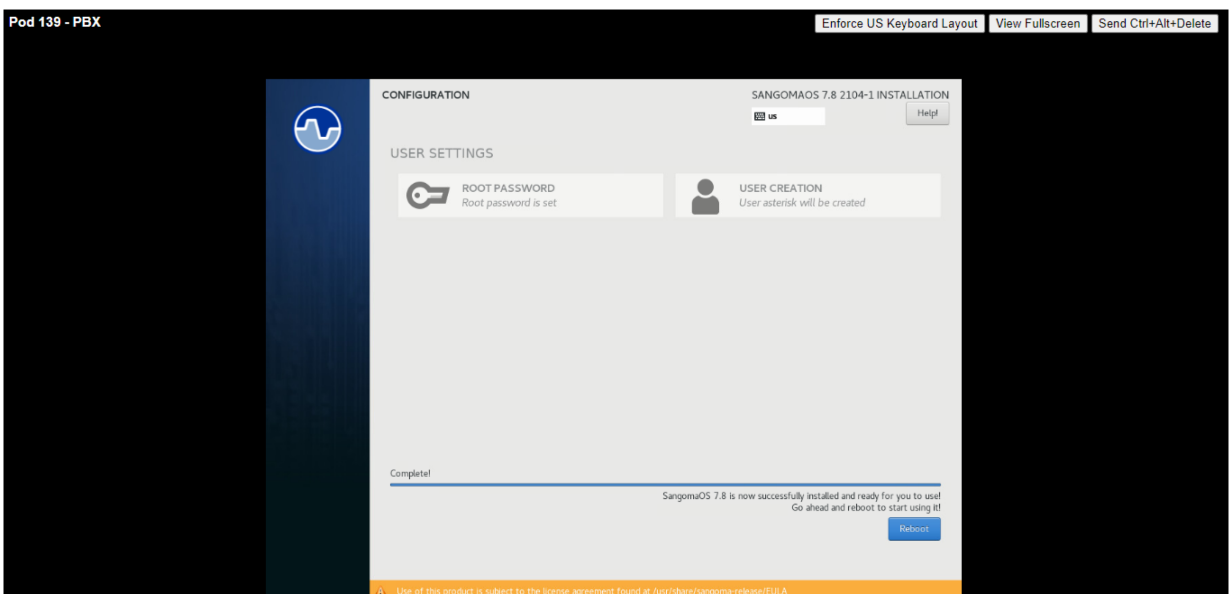
A IP-private branch exchange (PBX) solution that will:

1. Provide extensions for the local office that can call each other
2. Provide an efficient low bandwidth trunk to the head office and one other office
3. Receive incoming calls from extensions in other offices
4. Receive incoming calls on the assigned DID
5. Make outgoing calls to other office extensions and external PSTN numbers
6. Provide call parking, IVR, call queuing, voice mail and a ring group

Task 1

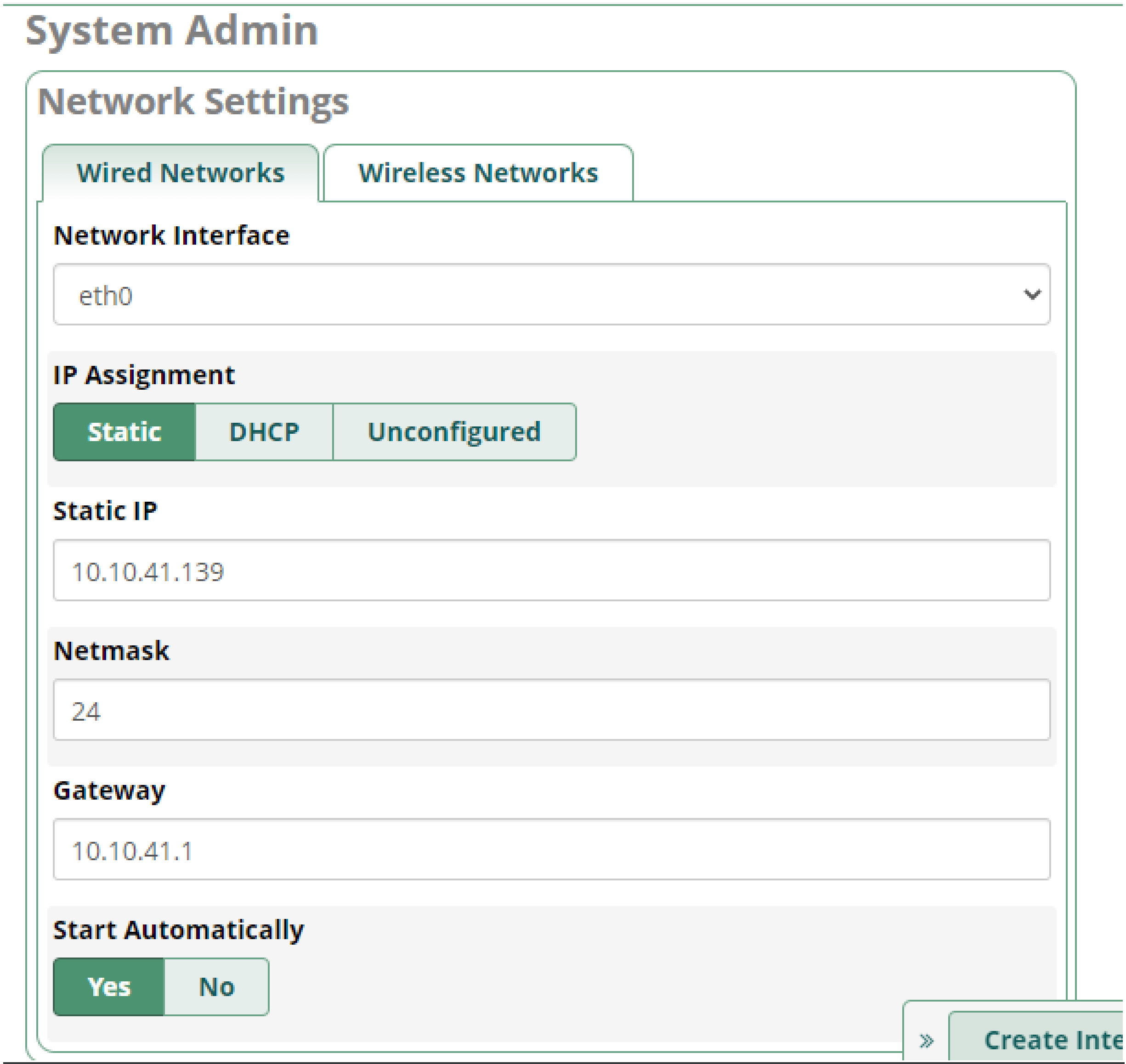
Install Asterisk/FreePBX IP-private branch exchange (PBX) server and perform initial configuration. Use the IP addressing scheme provided. Record the IP address, username, and password of the server.

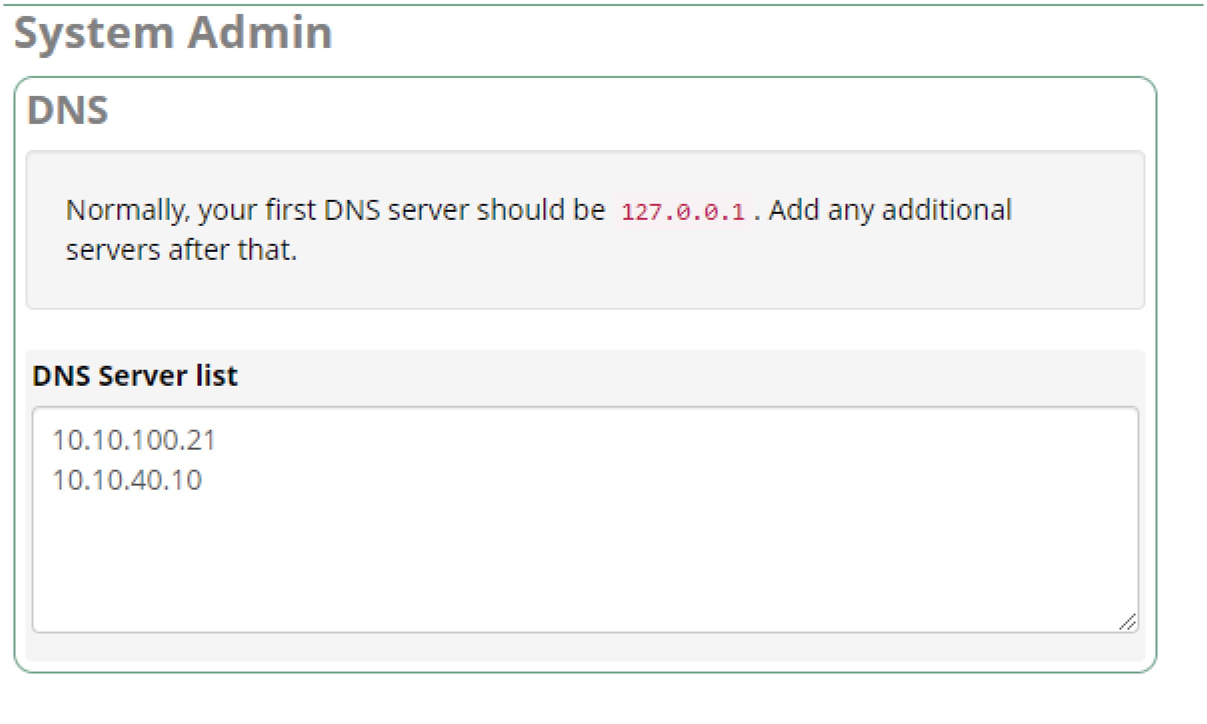


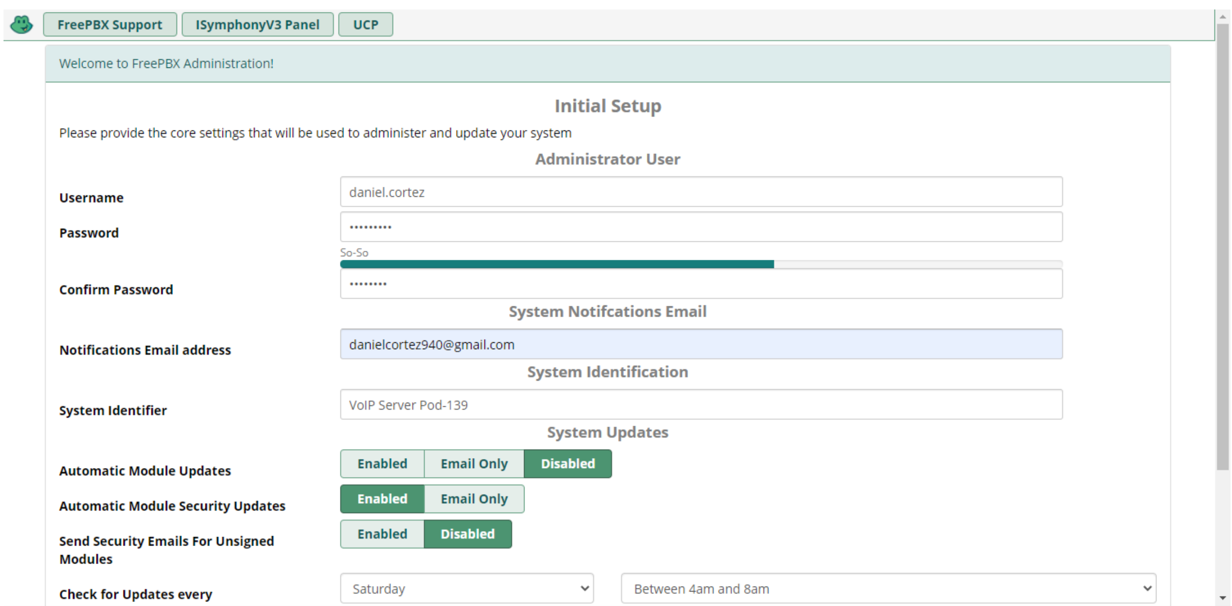


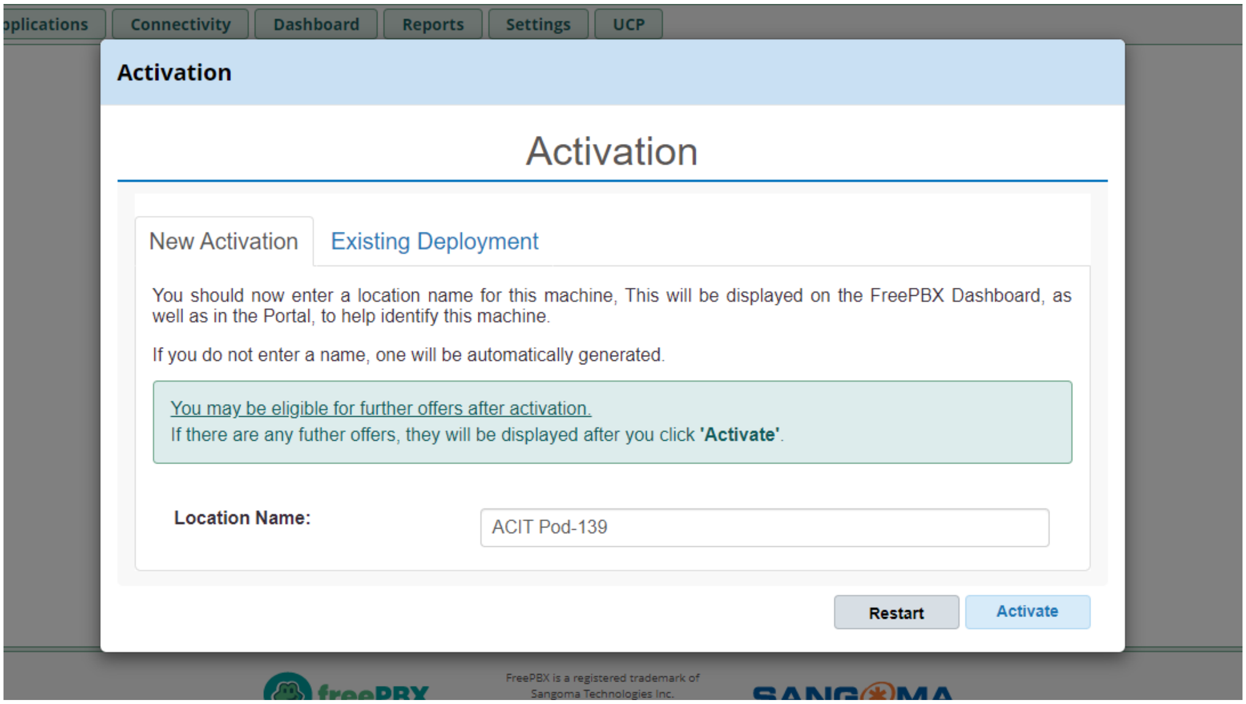
```
freepbx login: root
Password:
Last failed login: Wed Nov 24 12:55:29 AEST 2021 on tty1
There were 29 failed login attempts since the last successful login.
Last login: Wed Nov  3 13:02:22 on tty1

NOTICE! You have 7 notifications! Please log into the UI to see them!
Current Network Configuration
+-----------+-------------------+-------------------------+
| Interface | MAC Address       | IP Addresses            |
+-----------+-------------------+-------------------------+
| eth0      | 00:50:56:87:55:62 | 10.10.41.139            |
|           |                   | fe80::250:56ff:fe87:5562 |
+-----------+-------------------+-------------------------+

Please note most tasks should be handled through the GUI.
You can access the GUI by typing one of the above IPs in to your web browser.
For support please visit:
    http://www.freepbx.org/support-and-professional-services
```

```
# FreePBX Sysadmin Generated network configuration.
# This file was generated at 2021-09-09T05:14:32+00:00
DEVICE=eth0
BOOTPROTO=static
ONBOOT='yes'
IPADDR=10.10.41.139
NETMASK=255.255.255.0
GATEWAY=10.10.41.1
~
~
```
x

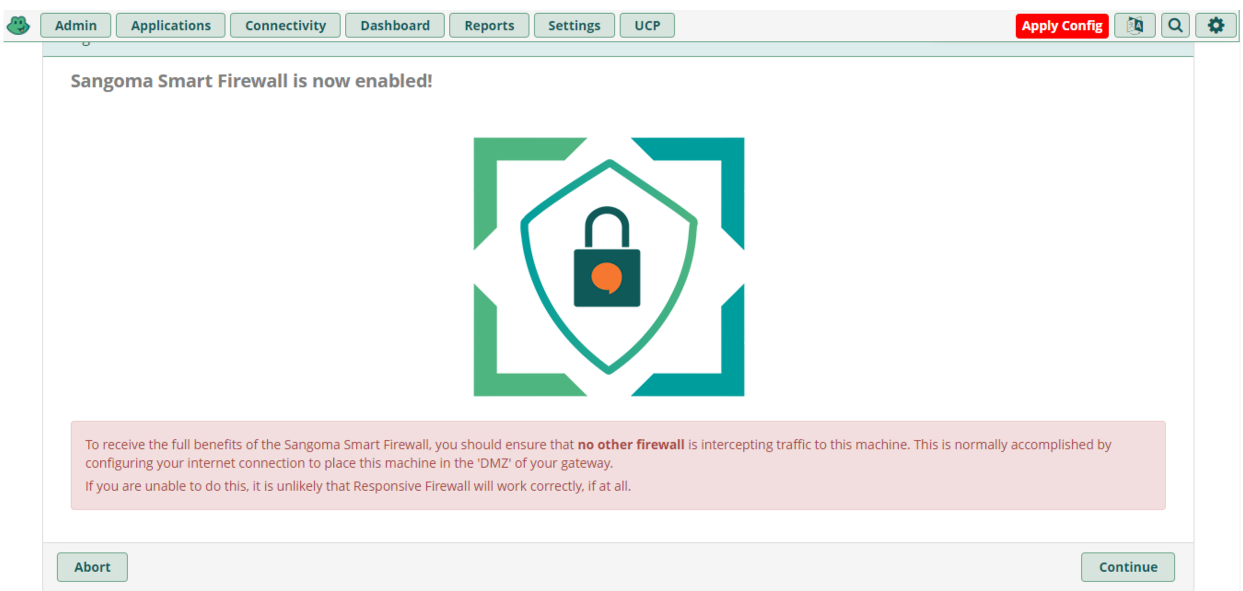

System Admin
Network Settings
Wired Networks
Wireless Networks
Network Interface
eth0
IP Assignment
Static
DHCP
Unconfigured
Static IP
10.10.41.139
Netmask
24
Gateway
10.10.41.1
Start Automatically
Yes
No
Create Inte


System Admin
DNS
Normally, your first DNS server should be 127.0.0.1 . Add any additional servers after that.
DNS Server list
10.10.100.21
10.10.40.10

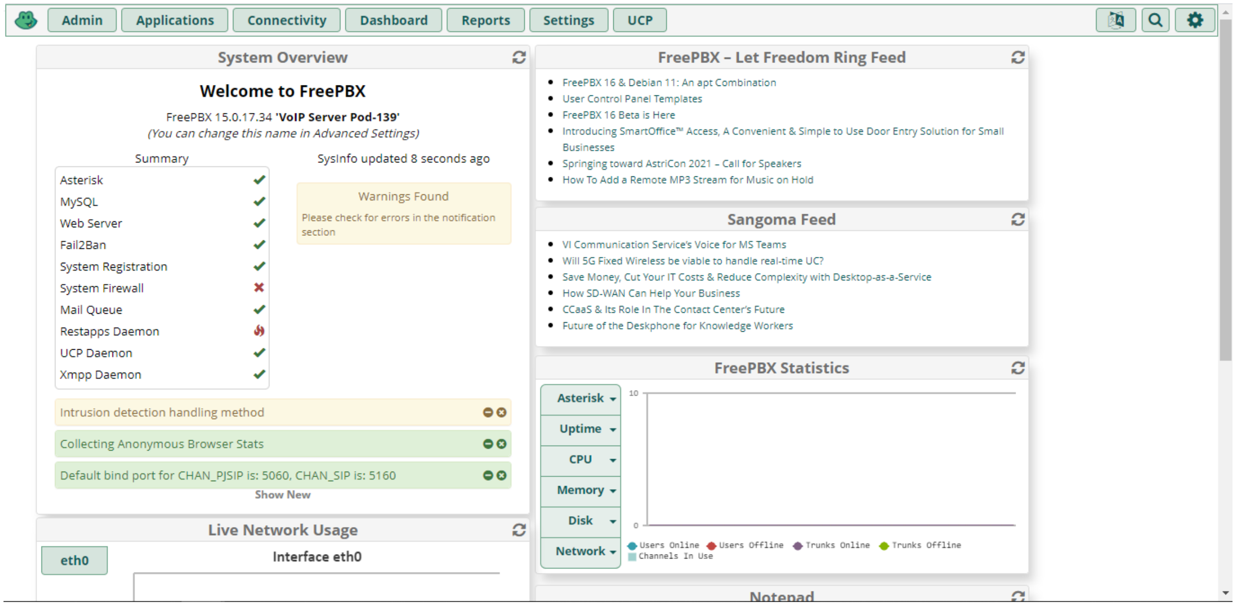

FreePBX Support
ISymphonyV3 Panel
UCP
Welcome to FreePBX Administration!
Initial Setup
Please provide the core settings that will be used to administer and update your system
Administrator User
Username
daniel.cortez
Password
So-So
Confirm Password
System Notifcations Email
Notifications Email address
danielcortez940@gmail.com
System Identification
System Identifier
VoIP Server Pod-139
System Updates
Automatic Module Updates
Enabled
Email Only
Disabled
Automatic Module Security Updates
Enabled
Email Only
Send Security Emails For Unsigned Modules
Enabled
Disabled
Check for Updates every
Saturday
Between 4am and 8am



pplications
Connectivity
Dashboard
Reports
Settings
UCP
Activation
Activation
New Activation
Existing Deployment
You should now enter a location name for this machine, This will be displayed on the FreePBX Dashboard, as well as in the Portal, to help identify this machine.
If you do not enter a name, one will be automatically generated.
You may be eligible for further offers after activation.
If there are any futher offers, they will be displayed after you click 'Activate'.
Location Name:
ACIT Pod-139
Restart
Activate
FreePBX is a registered trademark of Sangoma Technologies Inc.



Admin
Applications
Connectivity
Dashboard
Reports
Settings
UCP
Apply Config
Sangoma Smart Firewall is now enabled!
To receive the full benefits of the Sangoma Smart Firewall, you should ensure that no other firewall is intercepting traffic to this machine. This is normally accomplished by configuring your internet connection to place this machine in the 'DMZ' of your gateway.
If you are unable to do this, it is unlikely that Responsive Firewall will work correctly, if at all.
Abort
Continue

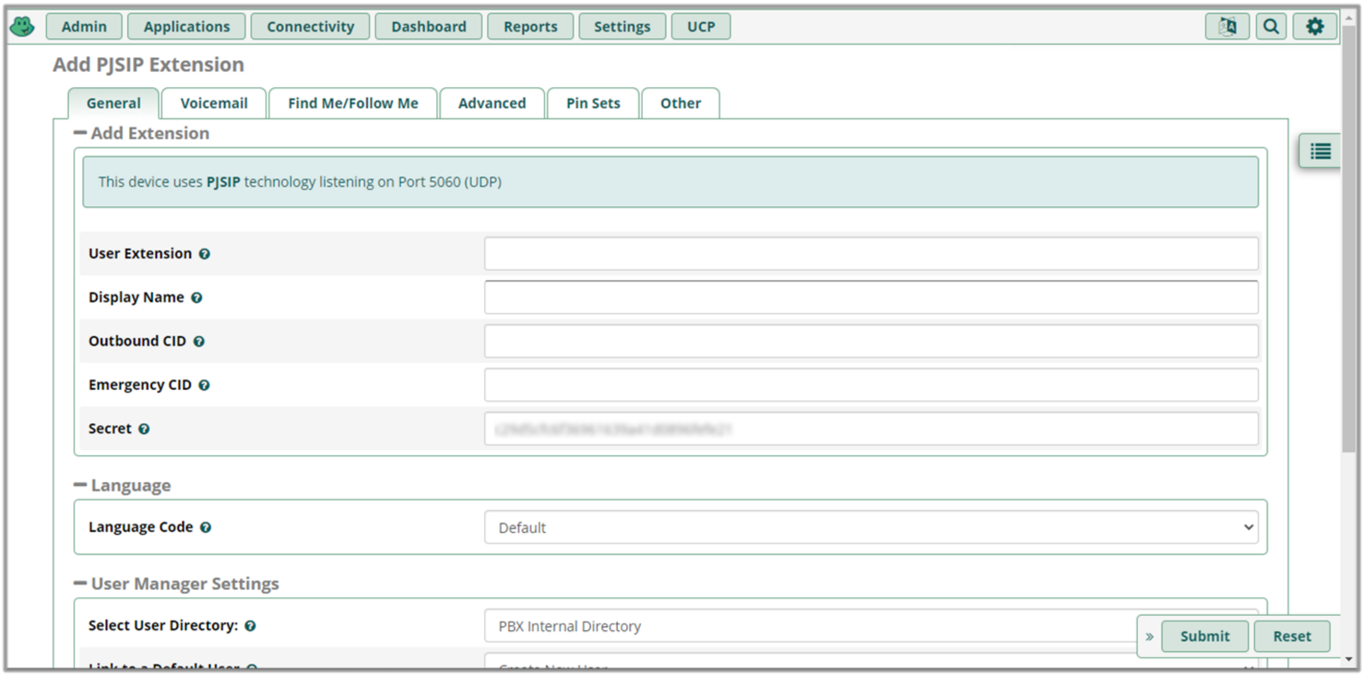


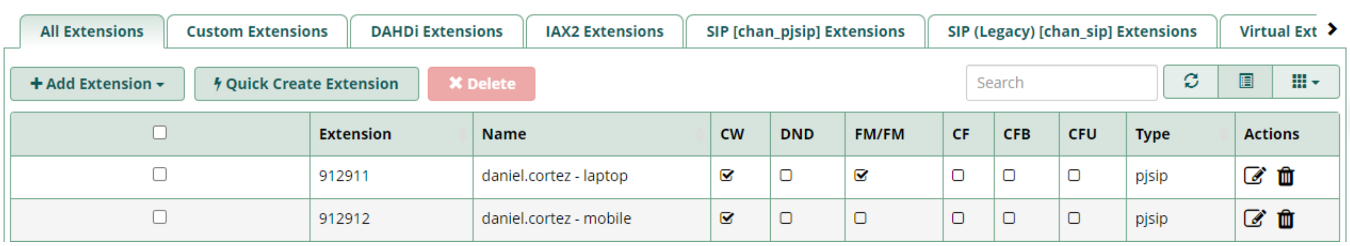
Pod 139	Daniel Ivan Cortez Olivares	10.10.41.139	0756200129

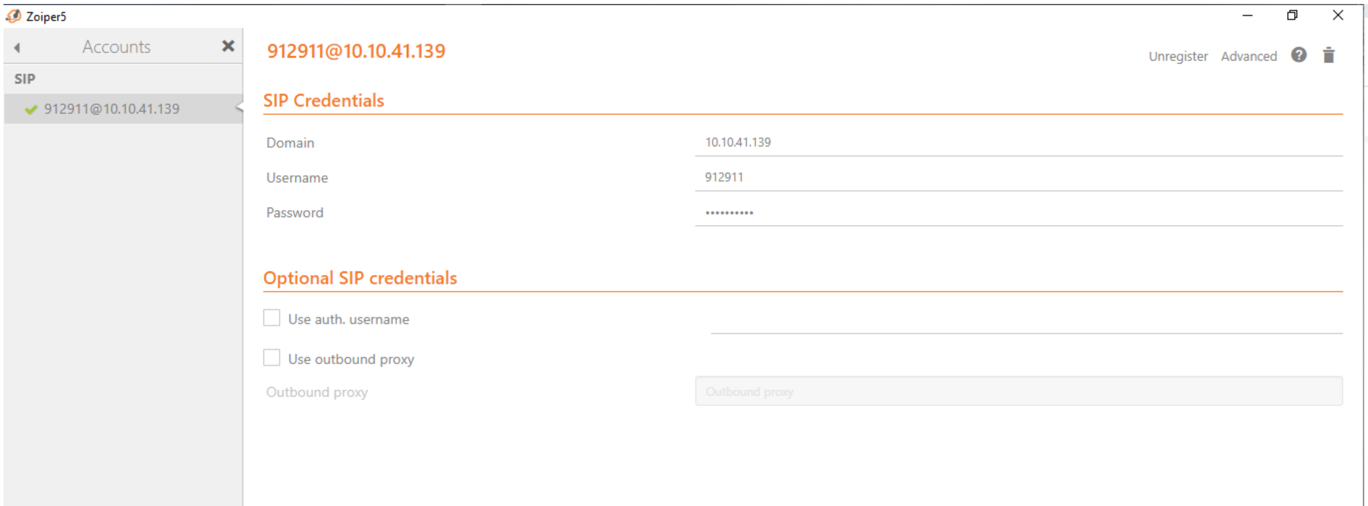
```
username: daniel.cortez
password: Passw00rd
```

Task 2

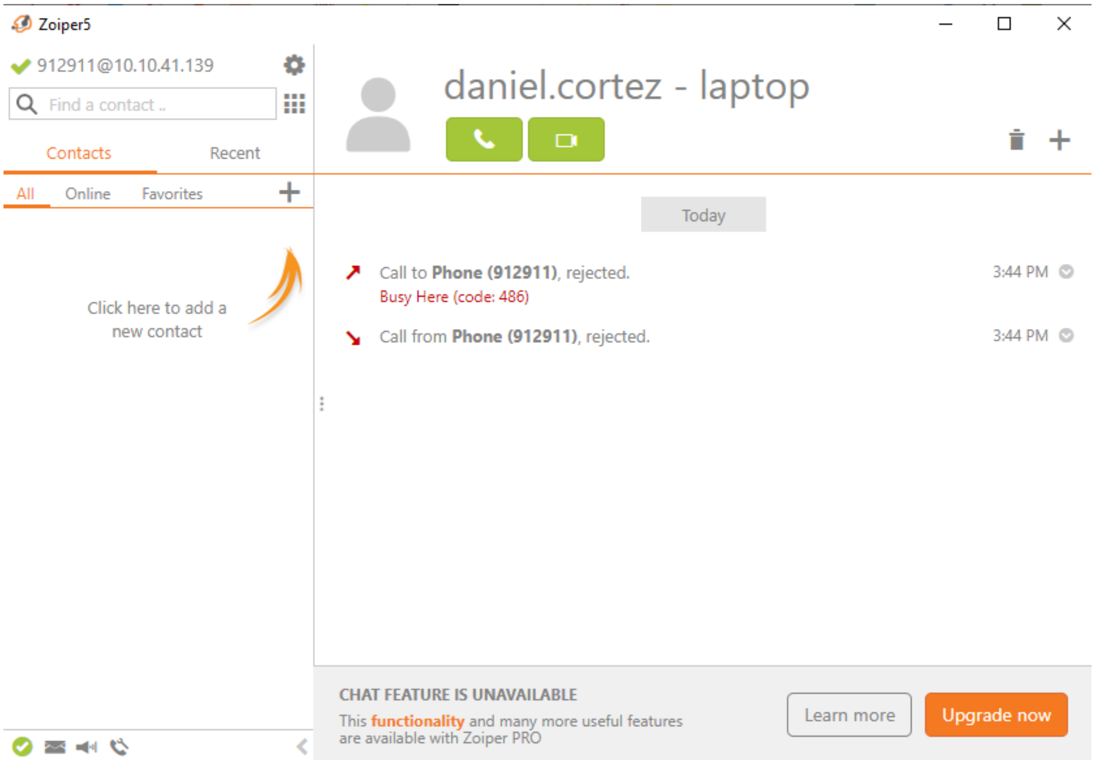
Create 2 extensions in accordance with your extension numbering scheme and configure softphones or handsets for each of them. You may install and configure one softphone on the PC you are using and another on a mobile device that is connected to the campus network. If you are doing this assessment remotely you will need to create 2 client VM's and configure a softphone on each of them. Test the extensions to make sure they are working. Record the extension numbers.

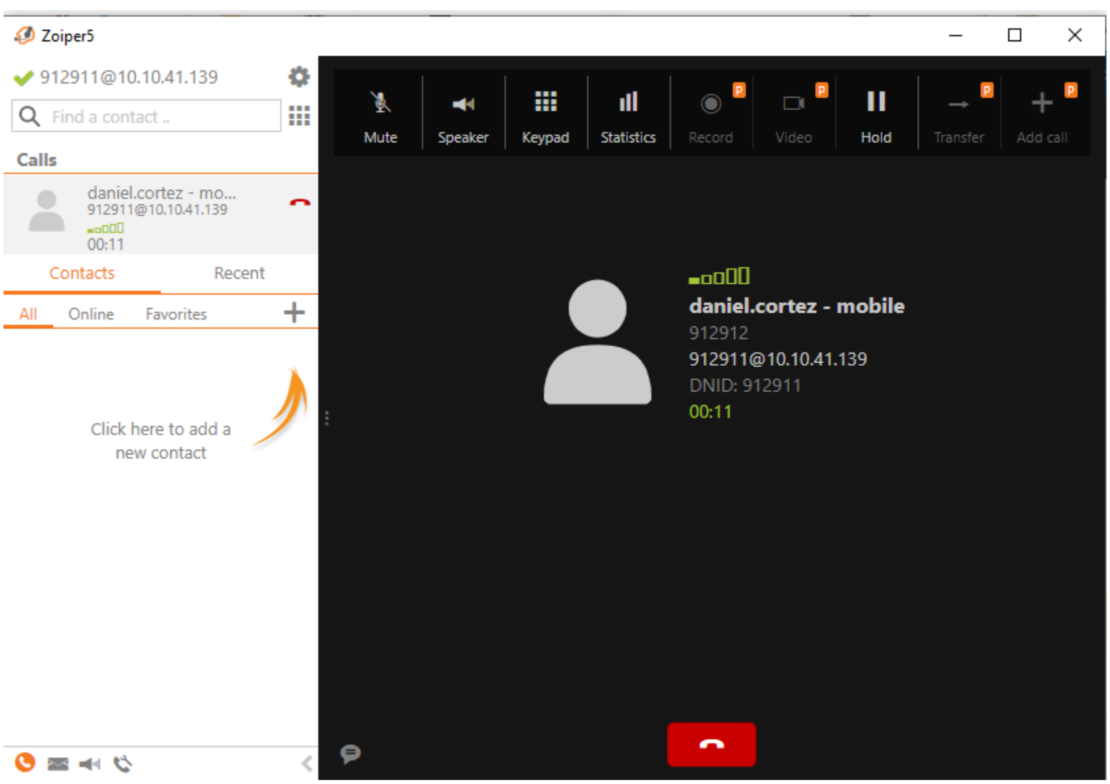





Zoiper5
Accounts
SIP
912911@10.10.41.139
912911@10.10.41.139
Unregister
Advanced
SIP Credentials
Domain
10.10.41.139
Username
912911
Password
Optional SIP credentials
Use auth. username
Use outbound proxy
Outbound proxy
Outbound proxy


vodafone AU
2:23 p. m.
5 %
Cuentas
Cuenta SIP
Estado de Registro: OK
Desregistrar
OPCIONES SIP
Nombre de cuenta:
912912@10.10.41....
Dominio:
10.10.41.139
Usuario:
912912
Contraseña:
Identificador de llamante:
daniel.cortez - mo...
AJUSTES AVANZADOS
Usuario de autenticación:
[auth username]
Usar Outbound Proxy:
Outbound Proxy:
[outbound proxy]


Zoiper5
912911@10.10.41.139
Find a contact ..
Contacts
Recent
All
Online
Favorites
Click here to add a new contact
daniel.cortez - laptop
Today
Call to Phone (912911), rejected.
Busy Here (code: 486)
3:44 PM
Call from Phone (912911), rejected.
3:44 PM
CHAT FEATURE IS UNAVAILABLE
This functionality and many more useful features are available with Zoiper PRO
Learn more
Upgrade now


Zoiper5
912911@10.10.41.139
Find a contact ..
Calls
daniel.cortez - mo...
912911@10.10.41.139
00:11
Contacts
Recent
All
Online
Favorites
Click here to add a new contact
Mute
Speaker
Keypad
Statistics
Record
Video
Hold
Transfer
Add call
daniel.cortez - mobile
912912
912911@10.10.41.139
DNID: 912911
00:11

Task 3

Create VoIP trunks to the head office PBX and one other PBX (this is your other team member's PBX). The trunks must consume as little bandwidth as possible. The head office PBX IP address is 10.10.41.2. The trunk credentials are:

Between your FreePBX and your team member's PBX:

- **Username: [yourname.surname@PBX]**
- **Password: P@ssw0rd**

Between your FreePBX and head office PBX:

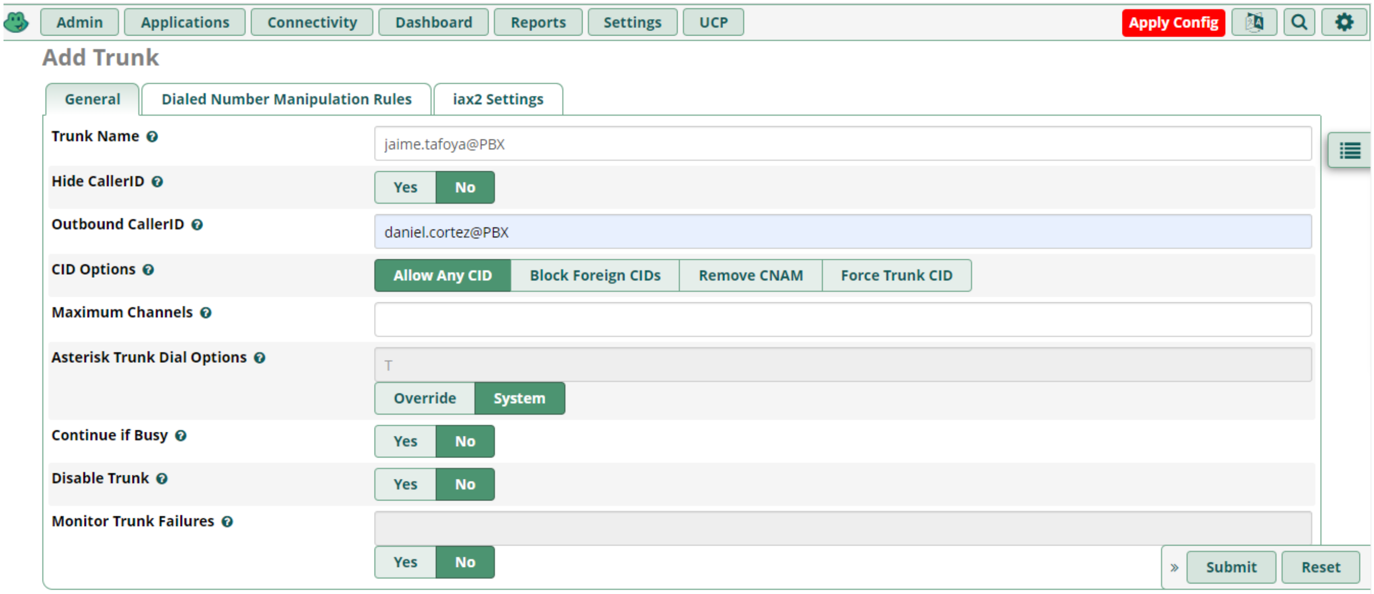
- **Username: [your FreePBX IP address]**
- **Password: P@ssw0rd**

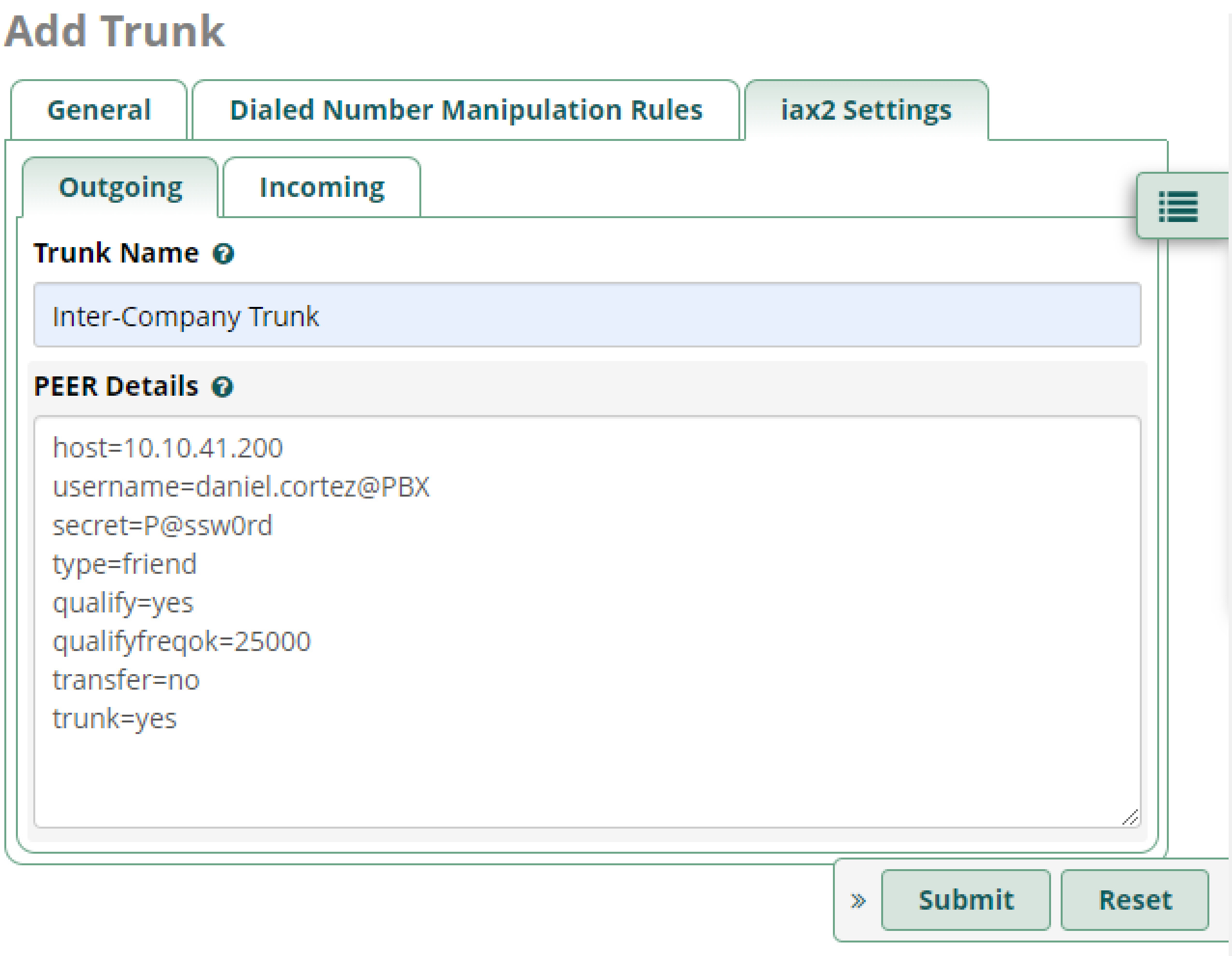
Provide answers to the following:

What type of trunk did you create and why did you choose that type?

Between my FreePBX and my team member´s PBX I created a IAX2 TRUNK, 2 which allows to create trunks between Asterisk PBX's. The advantage of using IAX2 is that it combines signaling media in the same protocol and compresses multiple calls to save bandwidth.

List the settings you configured under 'Peer Details' and describe what each of those settings does.


Admin
Applications
Connectivity
Dashboard
Reports
Settings
UCP
Apply Config
Add Trunk
General
Dialed Number Manipulation Rules
iax2 Settings
Trunk Name
jaime.tafoya@PBX
Hide CallerID
Yes
No
Outbound CallerID
daniel.cortez@PBX
CID Options
Allow Any CID
Block Foreign CIDs
Remove CNAM
Force Trunk CID
Maximum Channels
Asterisk Trunk Dial Options
T
Override
System
Continue if Busy
Yes
No
Disable Trunk
Yes
No
Monitor Trunk Failures
Yes
No
Submit
Reset


Add Trunk
General
Dialed Number Manipulation Rules
iax2 Settings
Outgoing
Incoming
Trunk Name
Inter-Company Trunk
PEER Details
host=10.10.41.200
username=daniel.cortez@PBX
secret=P@ssw0rd
type=friend
qualify=yes
qualifyfreqok=25000
transfer=no
trunk=yes
Submit
Reset

Peers Details: This is where the tunnel between both Pbx is created.

Outgoing:

host: Is the IP address of the remote system that you are going to connect to. You can also put the domain name. If the other system will register to your system (using the Registration String field on the remote system), you should put the word "dynamic" here.

Username: Is the username that will be sent to the remote system when you attempt to place a call to authenticate the call. If the remote system requires authentication on incoming calls, the username= on the local system must match the name put in the "Trunk Name" in the PEER details on the remote system.

secret: Is the password that will be sent to the remote system when you attempt to place a call to authenticate the call. It is also the password that you will expect to receive when you receive a call, unless insecure=invite is used int the PEER details

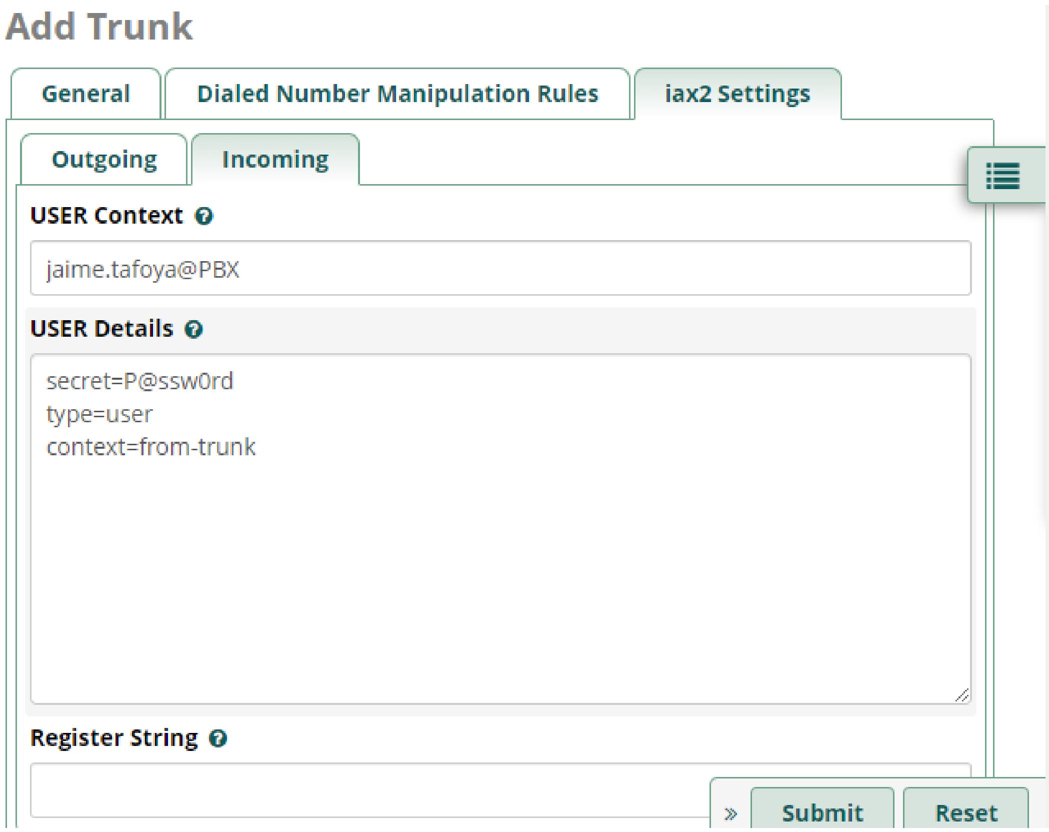
type: "friend" means that you will both send calls to and receive calls from this server and that the PEER details will be used both for incoming and outgoing calls on this trunk.

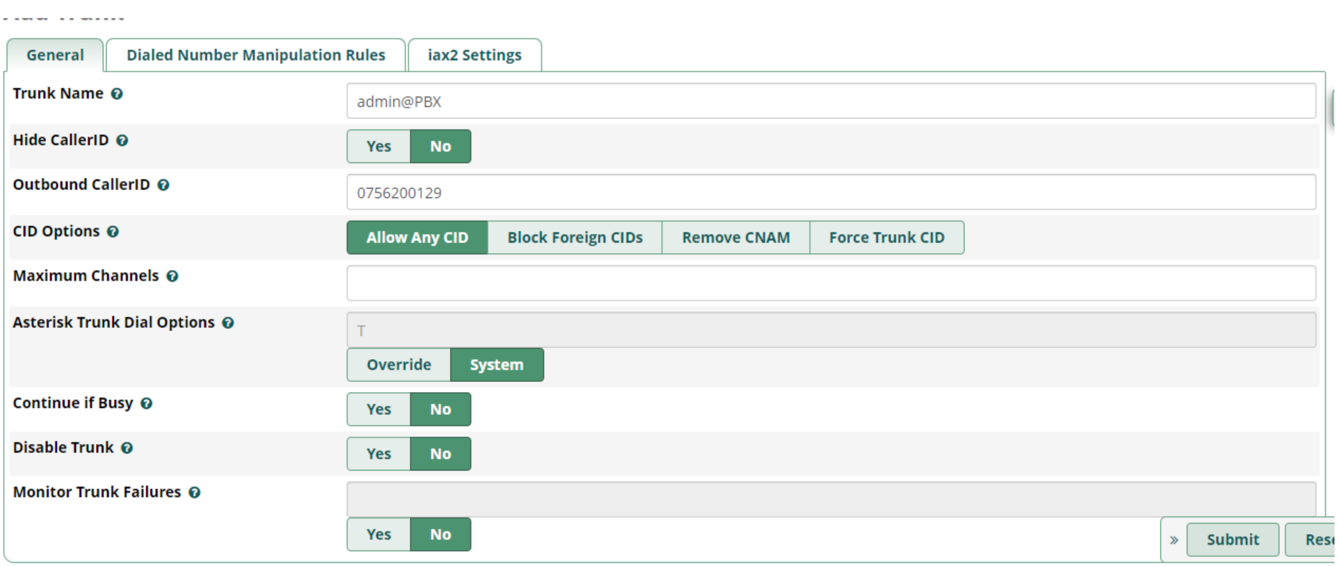
qualify: "yes" means that your system will periodically send a request that the other system identify itself. If there is no answer within 2 seconds, your system will assume that the other system is down and stop sending calls to the system until the system responds. Instead of "yes," you can also put a number, in milliseconds. For example, qualify=3000 means that your system will wait 3 seconds for a response, instead of 2 seconds.

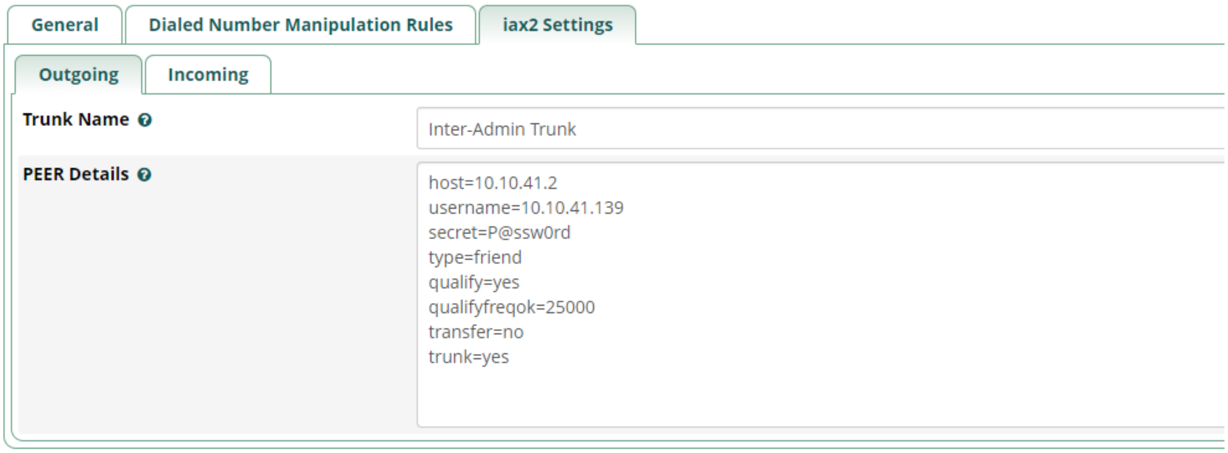
quilifyfreqok: The qualifyfreqok setting determines how often to ping the peer when it’s in an OK state.

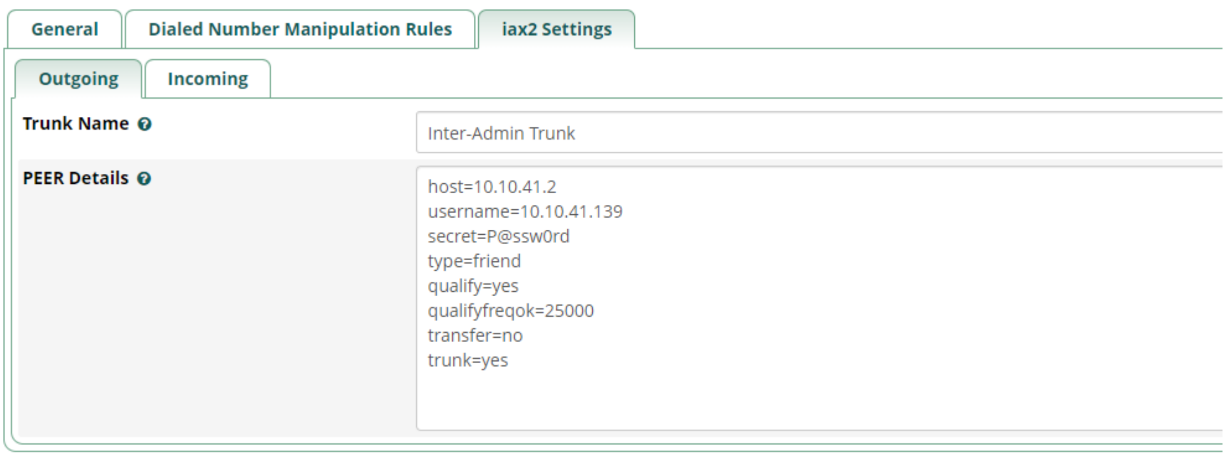
transfer: You can set transfer to yes, no, or mediaonly. If set to yes, Asterisk will transfer the call away from itself if it can, in order to make the packet path shorter between the two endpoints. (This obviously won’t work if Asterisk needs to transcode or translate between protocols, or if network conditions don’t allow the two endpoints to talk directly to each other.) If it is set to no, Asterisk will not try to transfer the call away from itself.

trunk (channel): IAX2 trunking enables Asterisk to send media (as mini-frames) from multiple channels using a single header. The reduction in overhead makes the IAX2 protocol more efficient when sending multiple streams to the same endpoint.


Add Trunk
General
Dialed Number Manipulation Rules
iax2 Settings
Outgoing
Incoming
USER Context
jaime.tafoya@PBX
USER Details
secret=P@ssw0rd
type=user
context=from-trunk
Register String
Submit
Reset


General
Dialed Number Manipulation Rules
iax2 Settings
Trunk Name
admin@PBX
Hide CallerID
Yes
No
Outbound CallerID
0756200129
CID Options
Allow Any CID
Block Foreign CIDs
Remove CNAM
Force Trunk CID
Maximum Channels
Asterisk Trunk Dial Options
T
Override
System
Continue if Busy
Yes
No
Disable Trunk
Yes
No
Monitor Trunk Failures
Yes
No
Submit

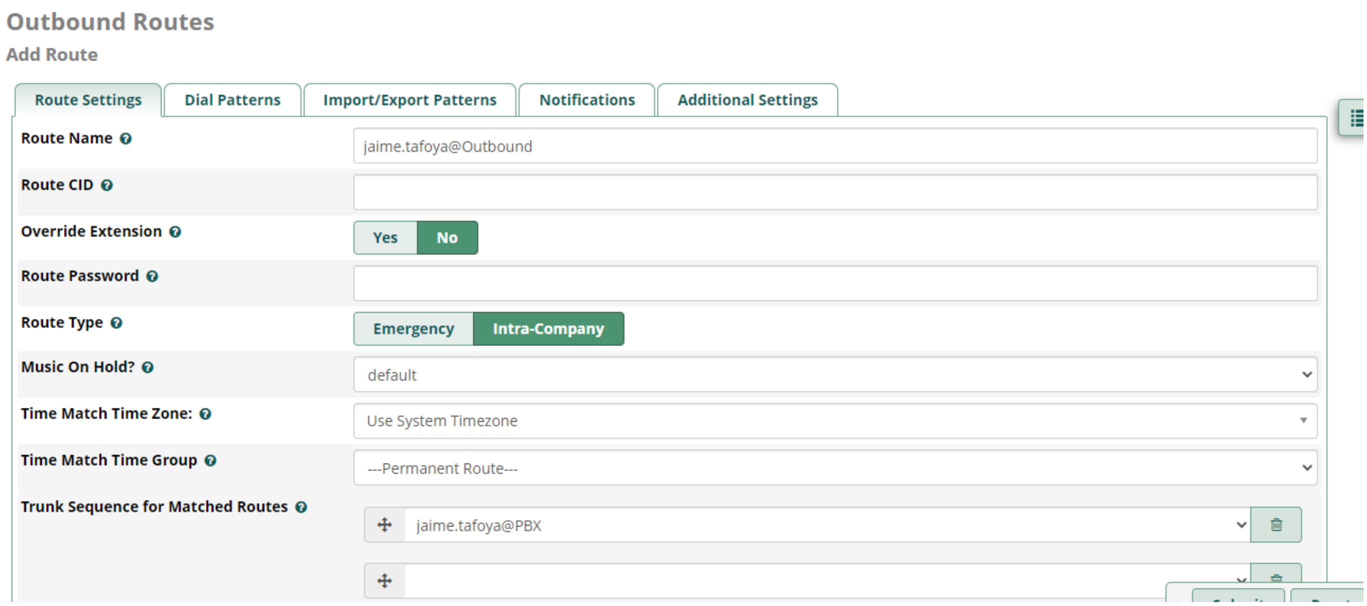


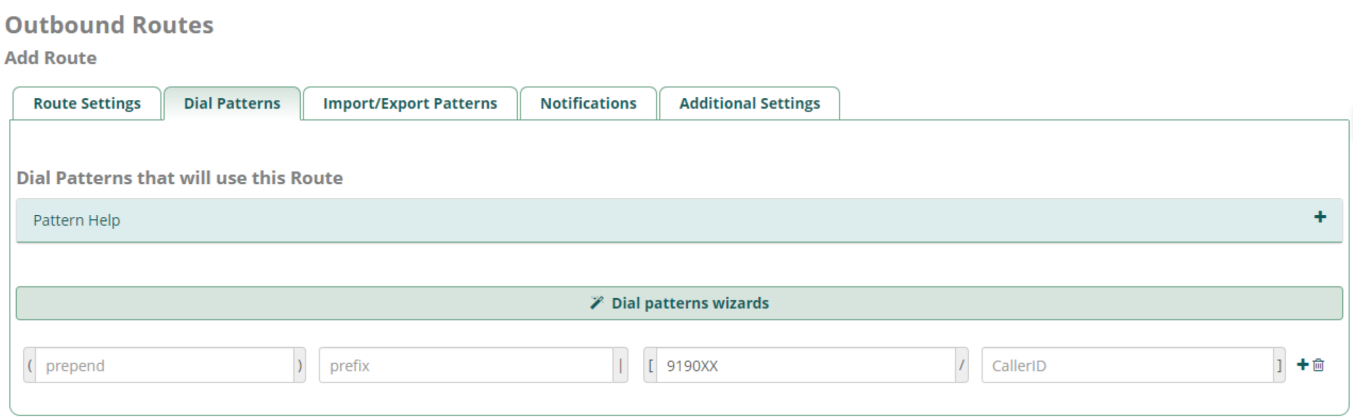


Task 4

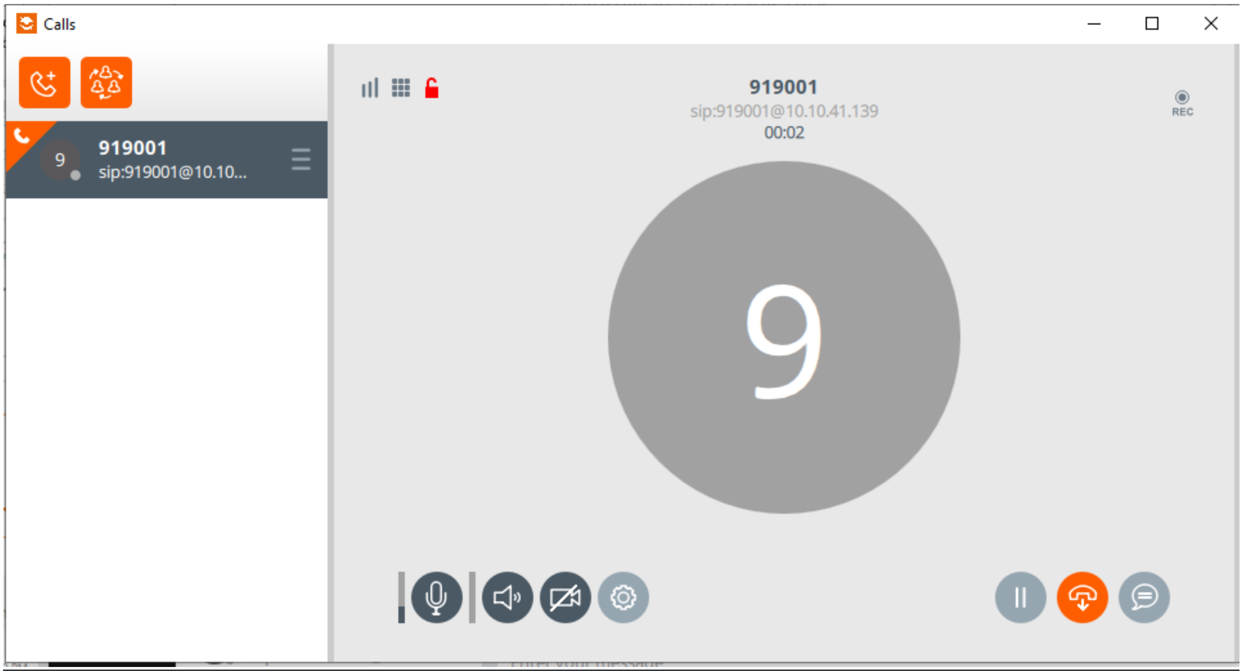
Configure outbound call routing so that calls can be made to extensions in another PBX. (This is the PBX of the other student you are working with). Verify that you can make and receive calls to and from the extensions in the other PBX.

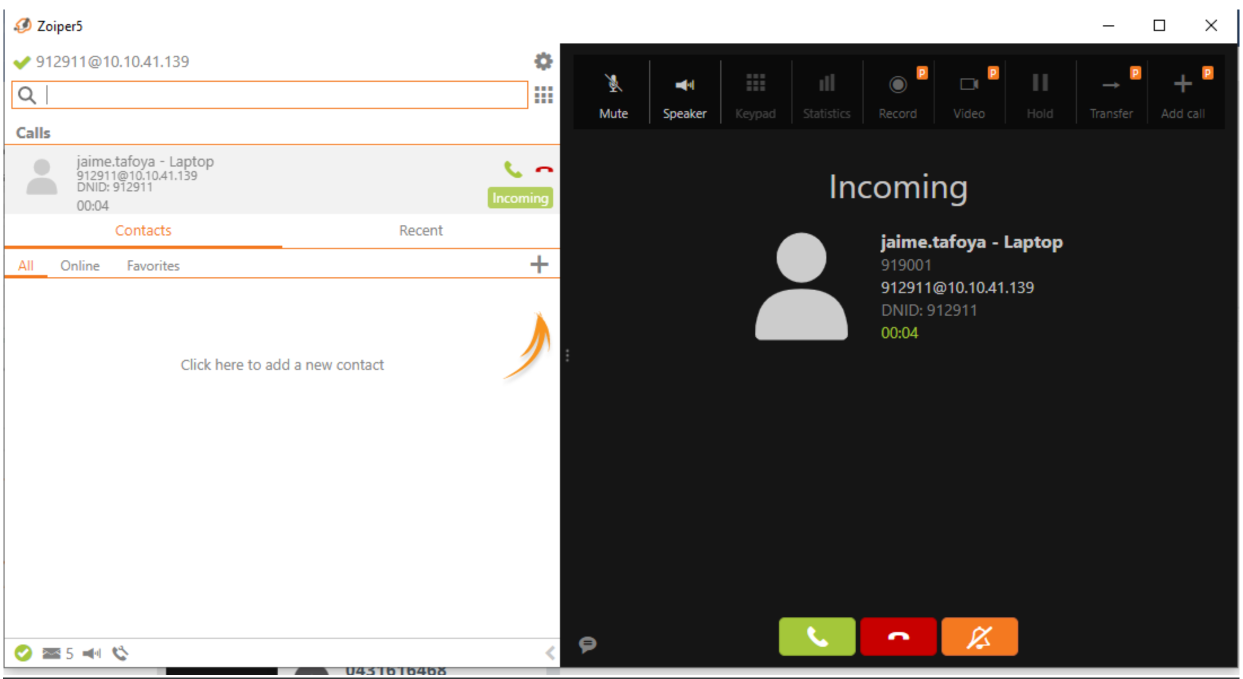
Record the dial pattern that you are matching for this route and the name of the trunk through which calls will be forwarded.


Outbound Routes
Add Route
Route Settings
Dial Patterns
Import/Export Patterns
Notifications
Additional Settings
Route Name
jaime.tafoya@Outbound
Route CID
Override Extension
Yes
No
Route Password
Route Type
Emergency
Intra-Company
Music On Hold?
default
Time Match Time Zone:
Use System Timezone
Time Match Time Group
---Permanent Route---
Trunk Sequence for Matched Routes
jaime.tafoya@PBX


Outbound Routes
Add Route
Route Settings
Dial Patterns
Import/Export Patterns
Notifications
Additional Settings
Dial Patterns that will use this Route
Pattern Help
Dial patterns wizards
prepend
prefix
9190XX
CallerID

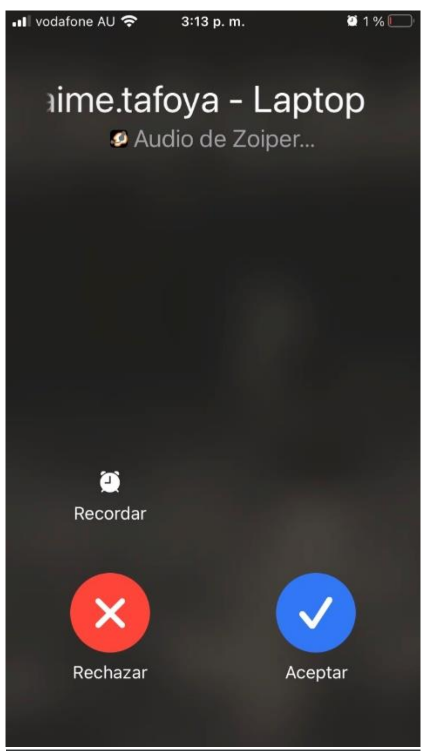

Outbound Routes
This page is used to manage your outbound routing.
Add Outbound Route
Name
Outbound CID
Attributes
Actions
daniel.cortez@Outbound
0756200129
jaime.tafoya@Outbound


Calls
919001
sip:919001@10.10...
919001
sip:919001@10.10.41.139
00:02
REC
9


Zoiper5
912911@10.10.41.139
Calls
jaime.tafoya - Laptop
912911@10.10.41.139
DNID: 912911
00:04
Incoming
Contacts
Recent
All
Online
Favorites
Click here to add a new contact
Mute
Speaker
Keypad
Statistics
Record
Video
Hold
Transfer
Add call
Incoming
jaime.tafoya - Laptop
919001
912911@10.10.41.139
DNID: 912911
00:04

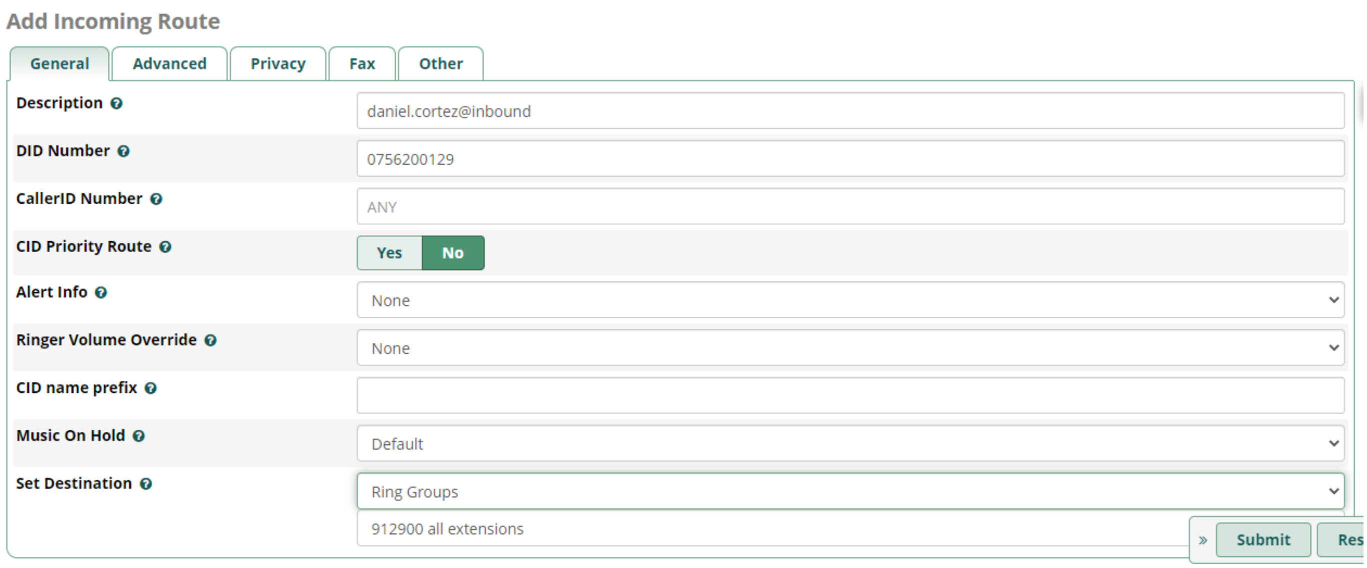

Seguridad Ninguno
919001
Duración: 00:06
Mute
Teclado
Altavoz
Video
Espera
Estadísticas
Finalizar

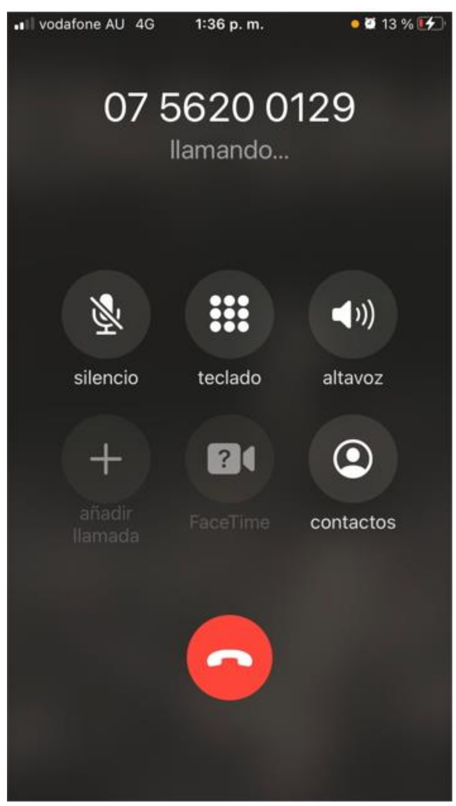

Seguridad Ninguno
jaime.tafoya - Laptop
919001
Duración: 00:00
Mute
Teclado
Altavoz
Video
Espera
Estadísticas
Finalizar


vodafone AU
3:13 p. m.
1 %
ime.tafoya - Laptop
Audio de Zoiper...
Recordar
Rechazar
Aceptar

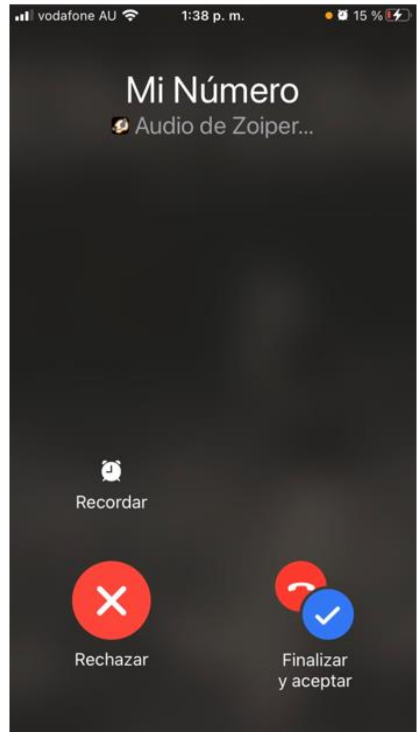
Task 5

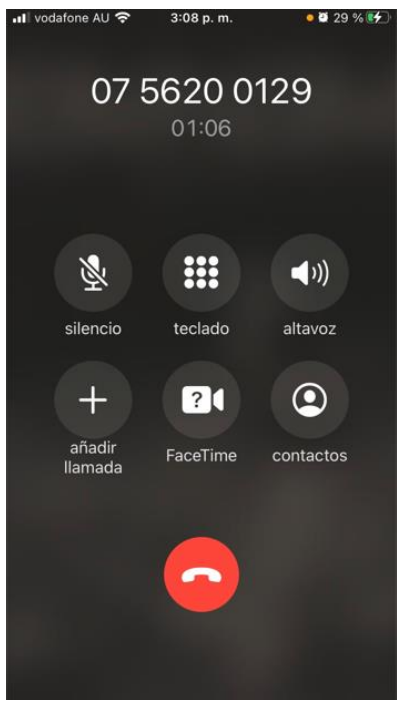
Configure an inbound route so that calls can be received on your DID. Verify that you can receive calls with 2-way audio made from the PSTN. (you can do this by calling your DID from your mobile or any other phone on the PSTN). Record the test procedure and results.

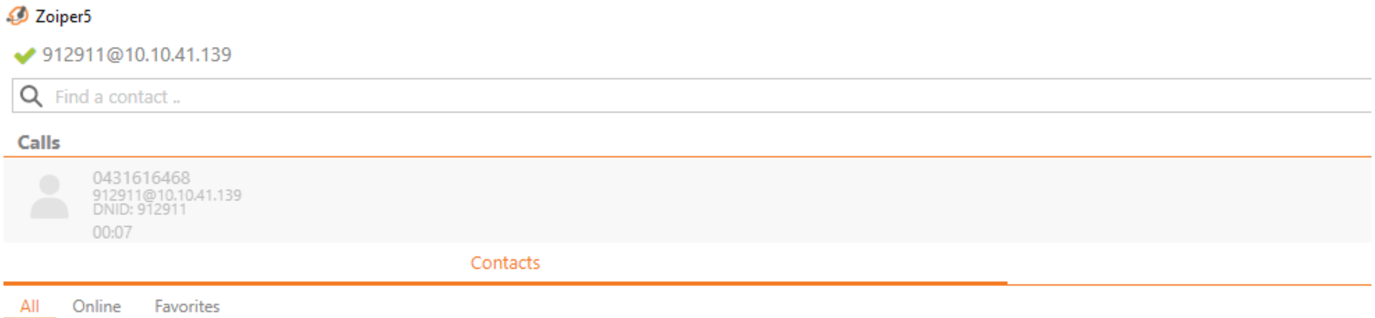


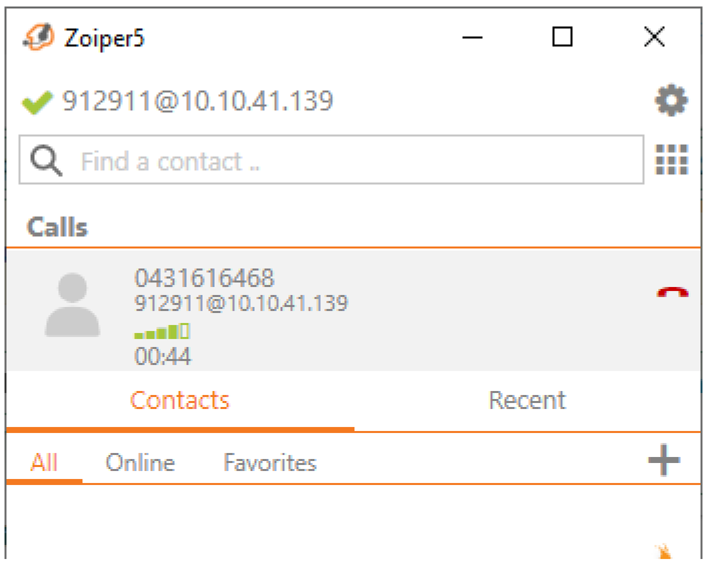



vodafone AU 1:38 p. m. 16 %
Mi Número
0431616468
Responder
Vídeo
Rechazar


vodafone AU 1:38 p. m. 15 %
Mi Número
Audio de Zoiper...
Recordar
Rechazar
Finalizar
y aceptar

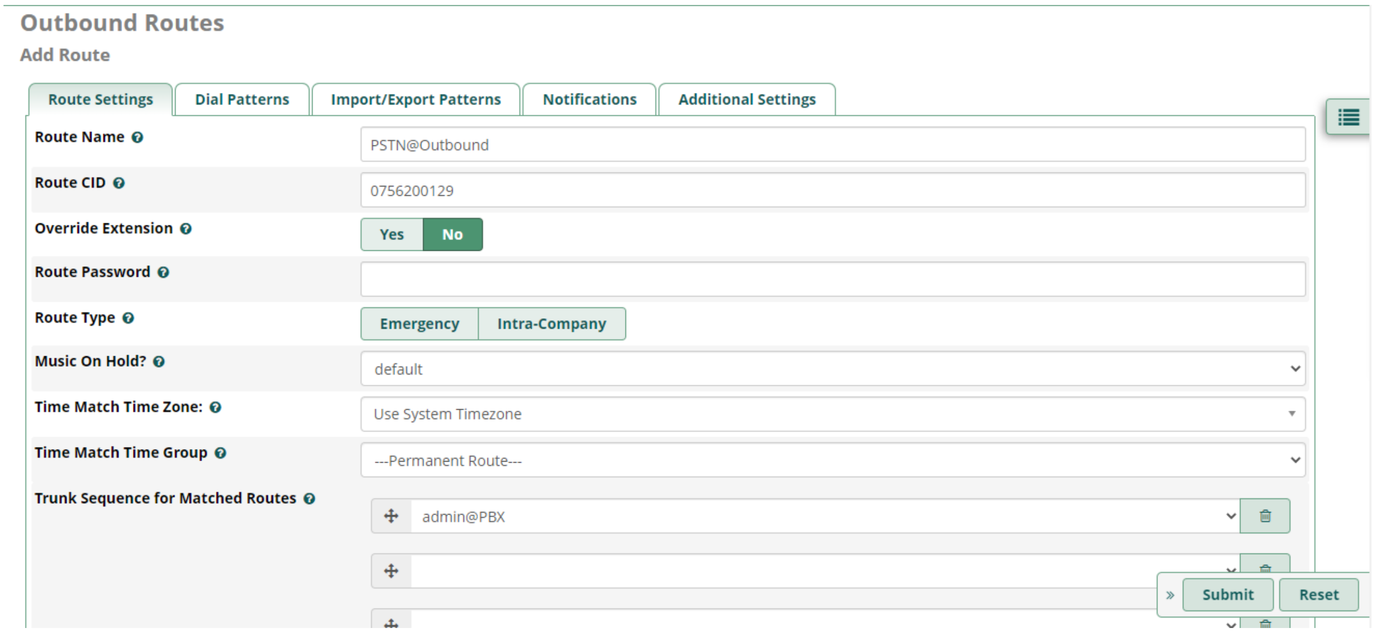

vodafone AU 3:08 p. m. 29 %
07 5620 0129
01:06
silencio
teclado
altavoz
añadir
llamada
FaceTime
contactos

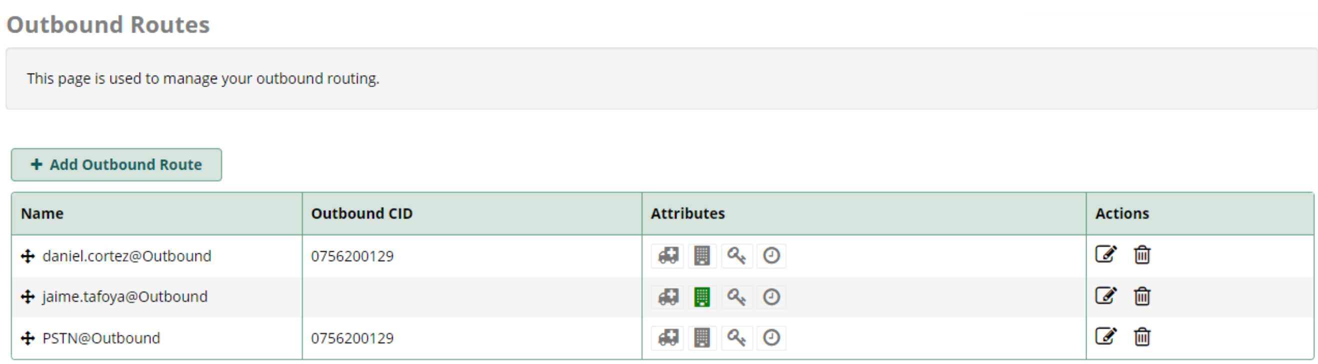

Zoiper5
912911@10.10.41.139
Find a contact ..
Calls
0431616468
912911@10.10.41.139
DNID: 912911
00:07
Contacts
All
Online
Favorites

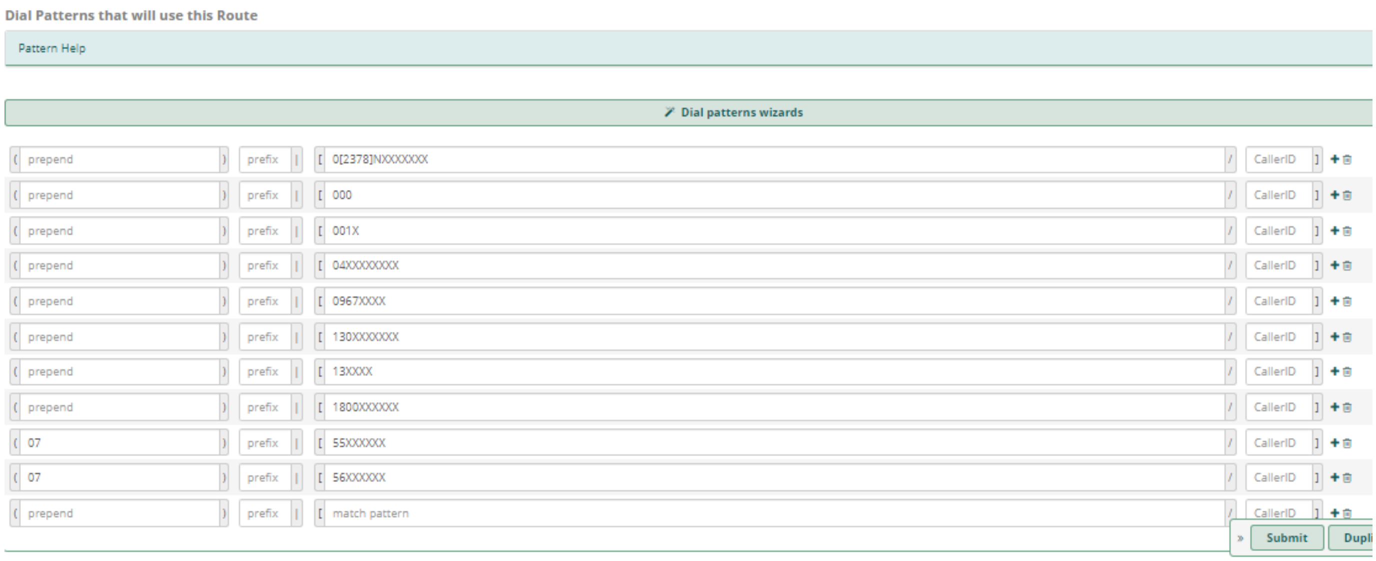

Zoiper5
912911@10.10.41.139
Find a contact ..
Calls
0431616468
912911@10.10.41.139
00:44
Contacts
Recent
All
Online
Favorites

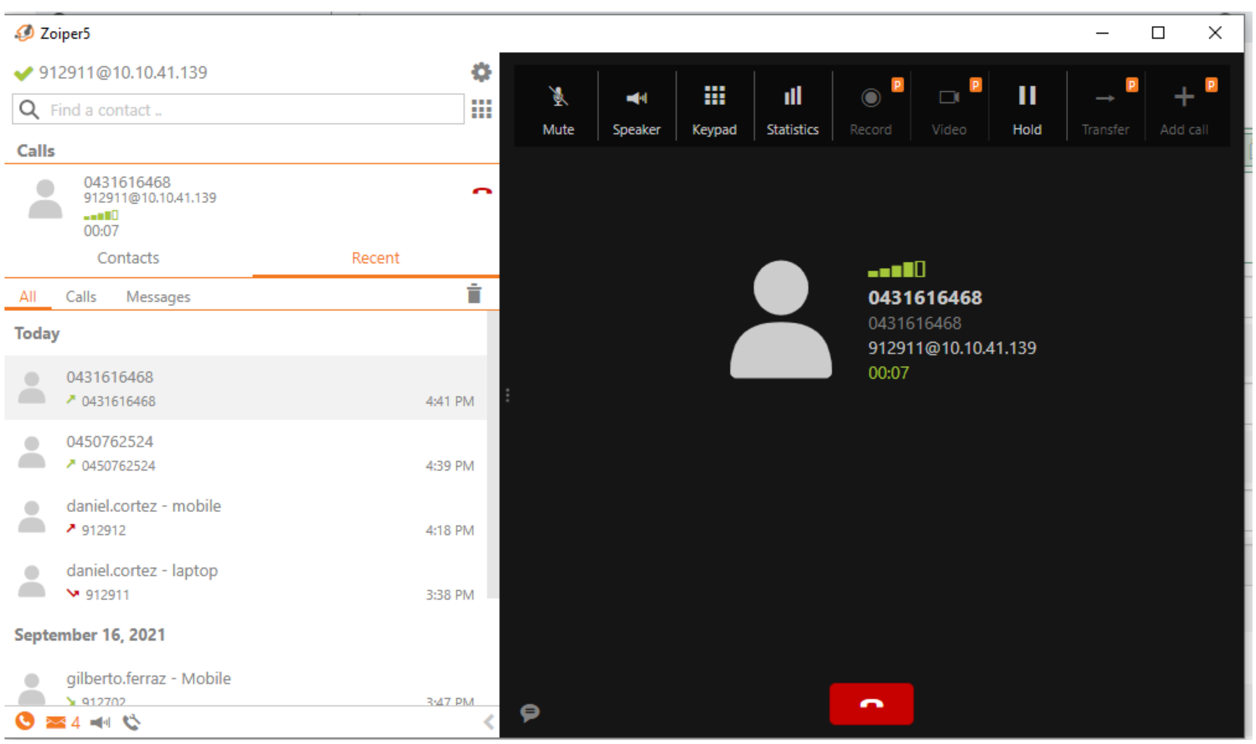
Task 6

Configure an outbound route so that you can make calls to any external number. Record the dial pattern that you are matching and the name of the trunk through which calls will be forwarded. How did you test that you could make calls to the PSTN?






Dial Patterns that will use this Route
Pattern Help
Dial patterns wizards
prepend
prefix
0[2378]NXXXXXXX
000
001X
04XXXXXXXX
0967XXXX
130XXXXXXX
13XXXX
1800XXXXXX
07
55XXXXXX
07
56XXXXXX
match pattern
CallerID
Submit

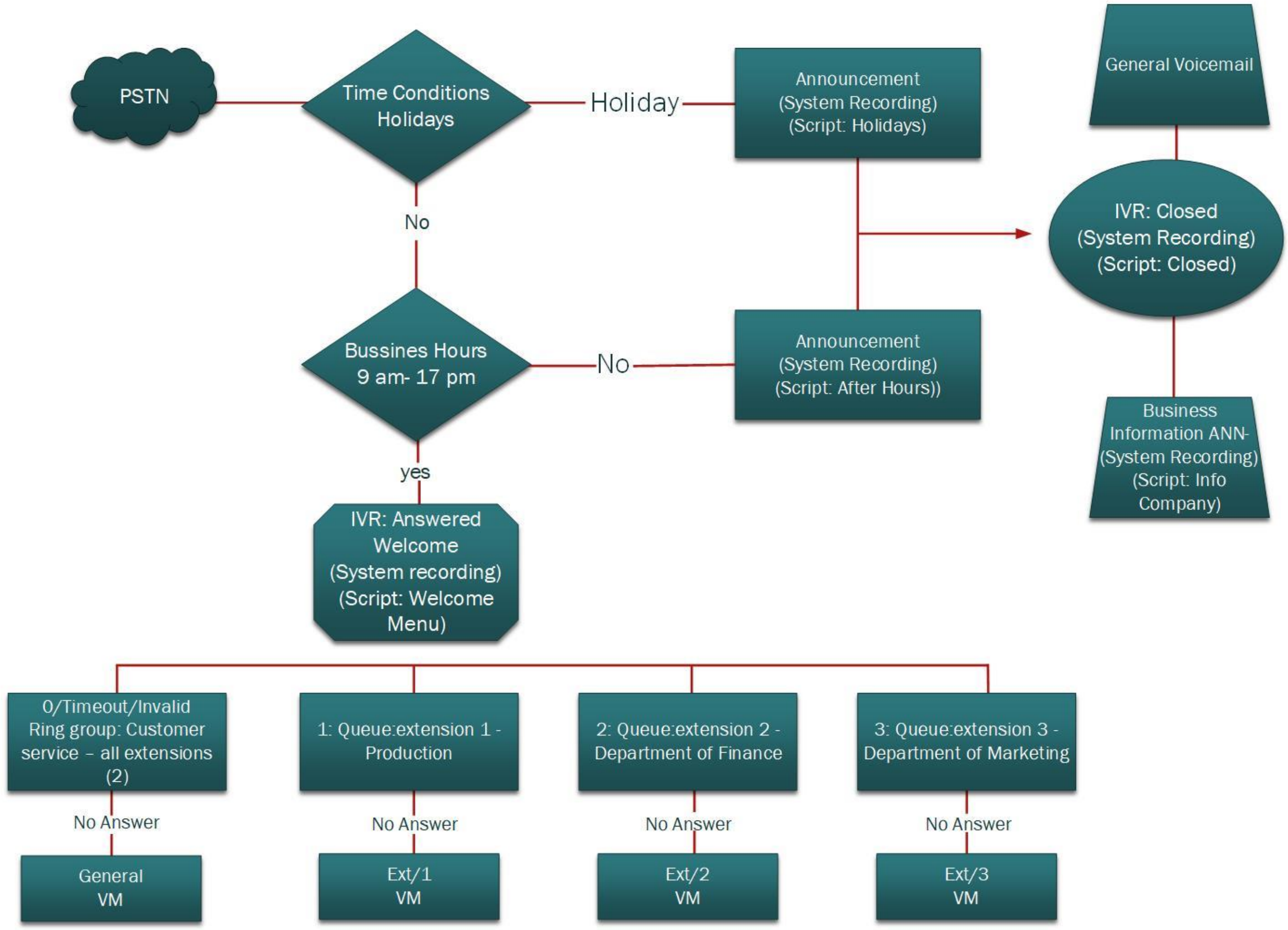

Zoiper5
912911@10.10.41.139
Find a contact ..
Calls
0431616468
912911@10.10.41.139
00:07
Contacts
Recent
All
Calls
Messages
Today
0431616468
0431616468
4:41 PM
0450762524
0450762524
4:39 PM
daniel.cortez - mobile
912912
4:18 PM
daniel.cortez - laptop
912911
3:38 PM
September 16, 2021
gilberto.ferraz - Mobile
Mute
Speaker
Keypad
Statistics
Record
Video
Hold
Transfer
Add call
0431616468
0431616468
912911@10.10.41.139
00:07

<u>Task 7</u>

Configure call parking, IVR, call queuing, voice mail, and a ring group.

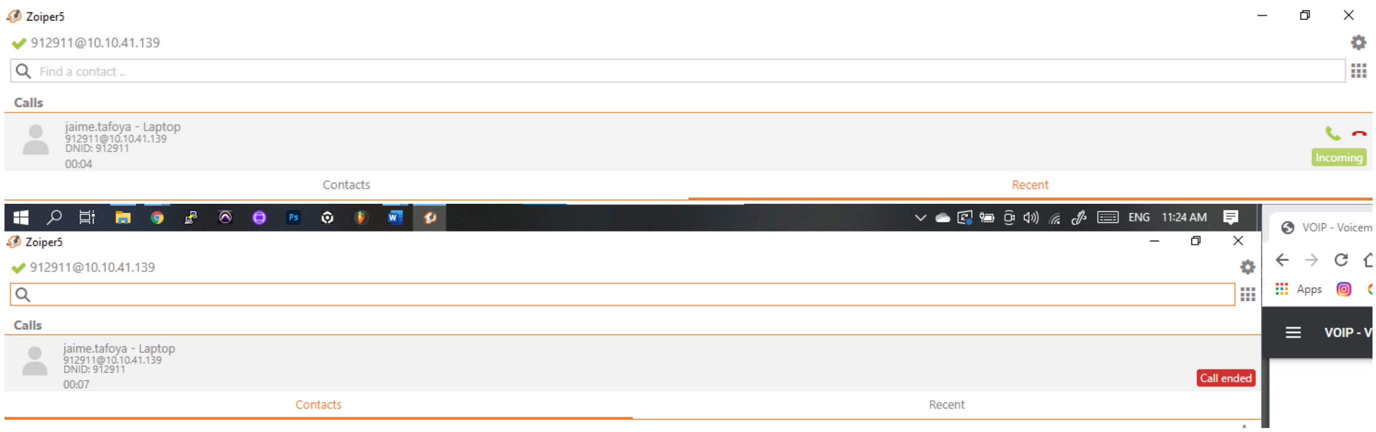
How did you test that these functions are working?

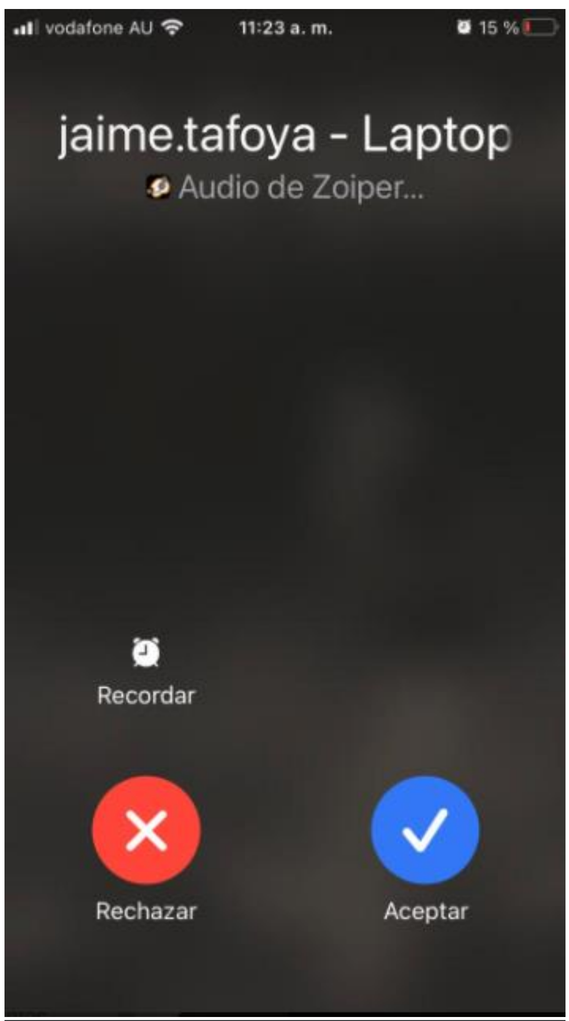
IVR

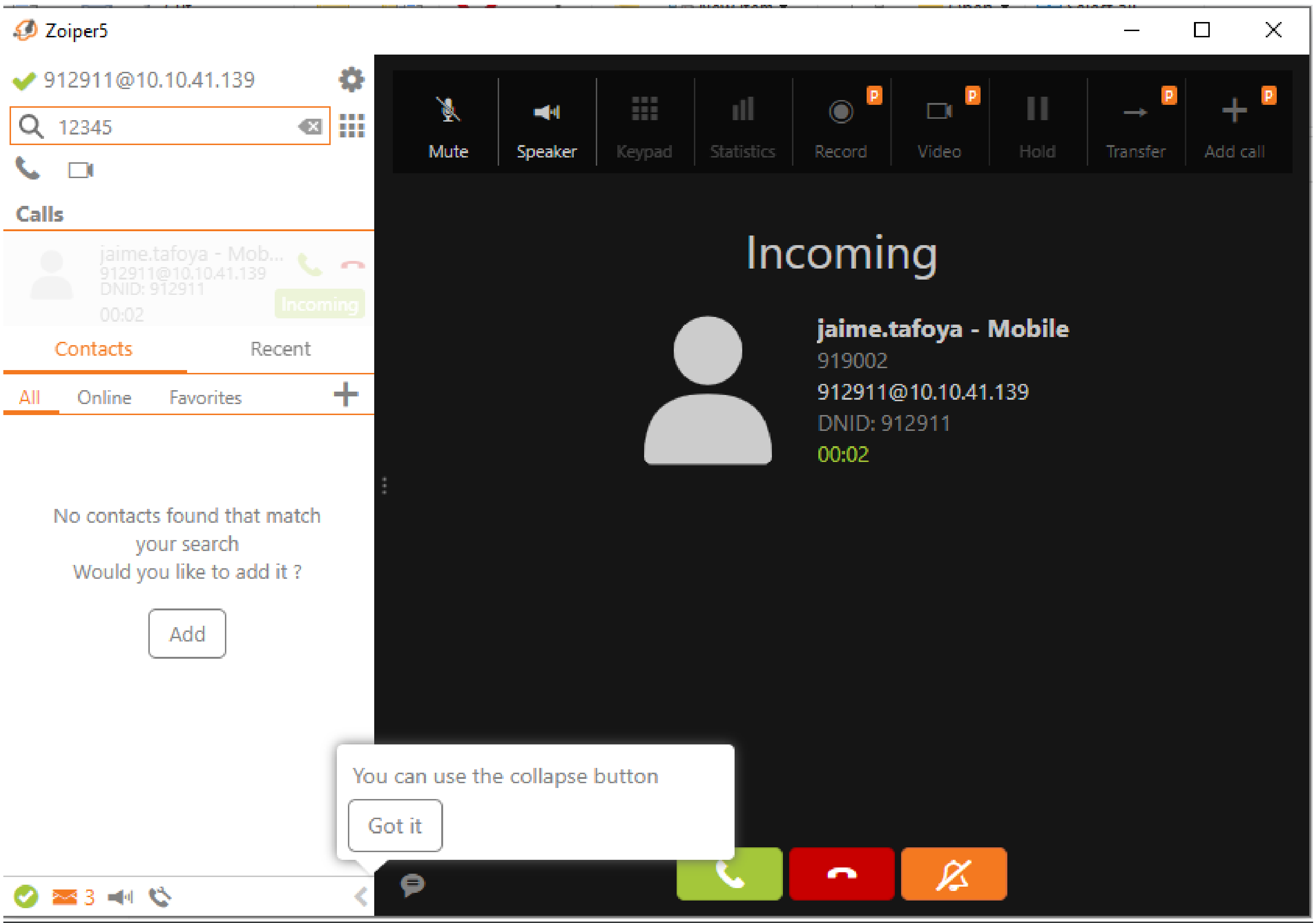


PSTN
Time Conditions Holidays
Holiday
Announcement (System Recording) (Script: Holidays)
General Voicemail
No
IVR: Closed (System Recording) (Script: Closed)
Bussines Hours 9 am- 17 pm
No
Announcement (System Recording) (Script: After Hours))
Business Information ANN- (System Recording) (Script: Info Company)
yes
IVR: Answered Welcome (System recording) (Script: Welcome Menu)
0/Timeout/Invalid Ring group: Customer service – all extensions (2)
1: Queue:extension 1 - Production
2: Queue:extension 2 - Department of Finance
3: Queue:extension 3 - Department of Marketing
No Answer
No Answer
No Answer
No Answer
General VM
Ext/1 VM
Ext/2 VM
Ext/3 VM

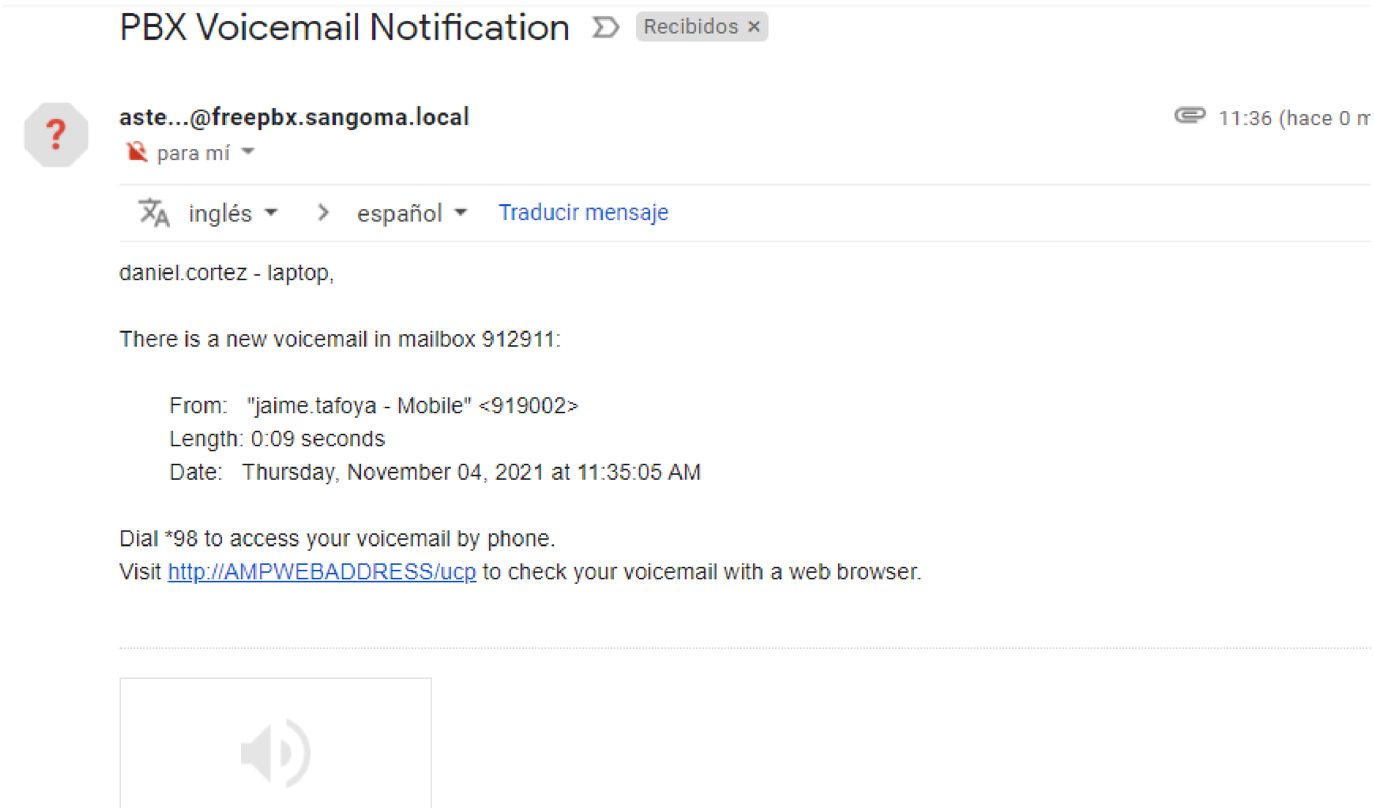
voicemail:


Zoiper5
912911@10.10.41.139
Find a contact ..
Calls
jaime.tafoya - Laptop
912911@10.10.41.139
DNID: 912911
00:04
Incoming
Contacts
Recent
ENG
11:24 AM
Zoiper5
912911@10.10.41.139
Calls
jaime.tafoya - Laptop
912911@10.10.41.139
DNID: 912911
00:07
Call ended
Contacts
Recent
VOIP - Voicem
Apps
VOIP - V


vodafone AU
11:23 a. m.
15 %
jaime.tafoya - Laptop
Audio de Zoiper...
Recordar
Rechazar
Aceptar



Zoiper5
912911@10.10.41.139
12345
Calls
jaime.tafoya - Mob...
912911@10.10.41.139
DNID: 912911
00:02
Incoming
Contacts
Recent
All
Online
Favorites
No contacts found that match
your search
Would you like to add it ?
Add
3
Mute
Speaker
Keypad
Statistics
Record
Video
Hold
Transfer
Add call
Incoming
jaime.tafoya - Mobile
919002
912911@10.10.41.139
DNID: 912911
00:02
You can use the collapse button
Got it



PBX Voicemail Notification Recibidos ×

aste...@freepbx.sangoma.local 11:36 (hace 0 m

para mí

inglés > español Traducir mensaje

daniel.cortez - laptop,

There is a new voicemail in mailbox 912911:

From: "jaime.tafoya - Mobile" <919002>
Length: 0:09 seconds
Date: Thursday, November 04, 2021 at 11:35:05 AM

Dial *98 to access your voicemail by phone.
Visit http://AMPWEBADDRESS/ucp to check your voicemail with a web browser.

For announcements

(After Hours Message) – (ANN Script after hours) : "Thank you for calling the beats rap company, your call is important to us, we regret to inform you that our office is currently closed. Our business hours are from 9AM to 5PM, from Monday to Friday Australian Time" [GO TO IVR]

Pressed [2] - (ANN_BUSSINES_INFORMATION) –If you would like to know more about our company, you can visit us at beatsrap.com on your favorite browser, you can find related information about our prices and other products. Otherwise, you can leave as an email through beatsrap@gmail.com, and one of our representatives will get in touch with you within business hours. Thank you!" [HANG UP]

(ANN HOLIDAYS) "Thank you for calling the beatsrap, the best website to get your beat to make your amazing rap song, we are currently closed due to Holidays. We will return on the [10 JANUARY] at 9AM GOLD COAST TIME " [GO TO IVR]

(In Queue Message) "Your call is important to us. All our representatives are still busy assisting other callers, we appreciate your patience. One of our agents will be with you shorty" [REPEAT EVERY 1 MINUTE(S)]

(ANN_goodbye) "Thank you for calling beatsrap, Goodbye"

(ANN_Invalid Key) "You pressed an Invalid key, here are the options again"

(IVR Timeout – Message) “Please stay on the line, one of our representatives will be with your shortly”

IVR For AFTER HOURS

[IVR CLOSED] “To leave a message in our voicemail, press 1: And A representative will contact you within a business day.” “Otherwise, Press 2 for more information about our business contacting methods”
[REPEAT 2 TIMES]

[IF NOT THEN GO TO NOT ANSWERED ANNOUNCEMENT]

IVR For Menu Options

(IVR_WELCOME_MENU_OK)“Thank you for calling Beatsrap. If you know your party’s extension you can dial it at any time, otherwise please listen carefully as our menu option has changed:

Press 1, If you want to contact the production department. [GO TO QUEUES]

Press 2 for department of finances [GO TO QUEUES]

To speak to one of our representatives of Marketing Department, press 3,
to speak to one of our representatives please stay on the line or press 0 to be redirected immediately. [GO TO RING GROUP]

If you would like to hear these options again press the Pound key #. [REPEAT IVR] [TIMEOUT/9/INVALID = RING GROUP]”

MUSIC ON HOLD

+ Add Recording

Search

Display Name	Description	Supported Languages	Actions
ANN_bussines_information	SCRIPT: INFO COMPANY	English	
ANN_GOOD BYE	ANN_GOOD BYE	English	
ANN_HOLIDAYS	SCRIPT_HOLIDAYS	English	
ANN_SCRIPT: AFTER HOURS	ANN_SCRIPT: AFTER HOURS	English	
ANN_WELCOME	ANN_WELCOME	English	
IN QUEUE MESSAGE	IN QUEUE MESSAGE	English	
INVALID_KEY	INVALID_KEY	English	
IVR_ CLOSED	IVR_ CLOSED	English	
IVR_TIMEOUT_MESSAGE	IVR_TIMEOUT_MESSAGE	English	
IVR_WELCOME_MENU_OK	IVR_WELCOME_MENU_OK	English	

+ Add Category

Search

Category	Type	Actions
default	files	
MUSIC-ON-HOLD	files	

Showing 1 to 2 of 2 rows

Extensions according to the company and ivr design

All Extensions | Custom Extensions | DAHDi Extensions | IAX2 Extensions | SIP [chan_pjsip] Extensions | SIP (Legacy) [chan_sip] Extensions | Virtual Ext

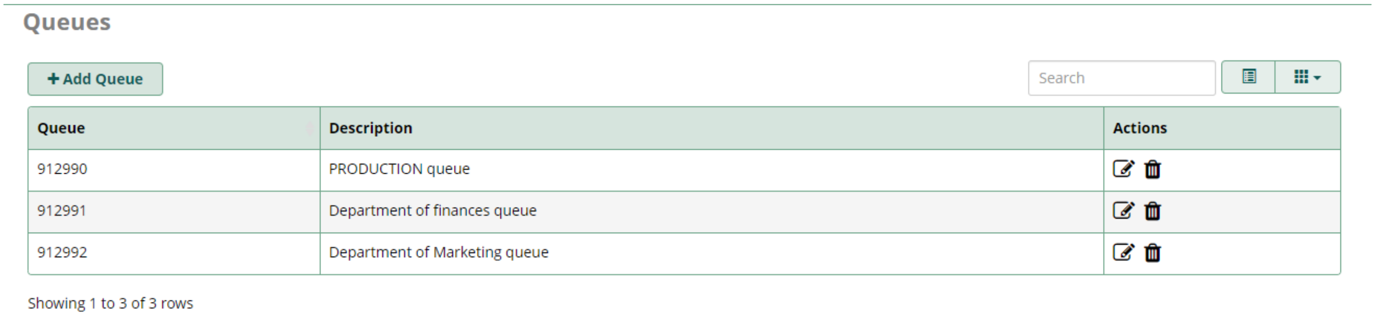
+ Add Extension | Quick Create Extension | ✖ Delete

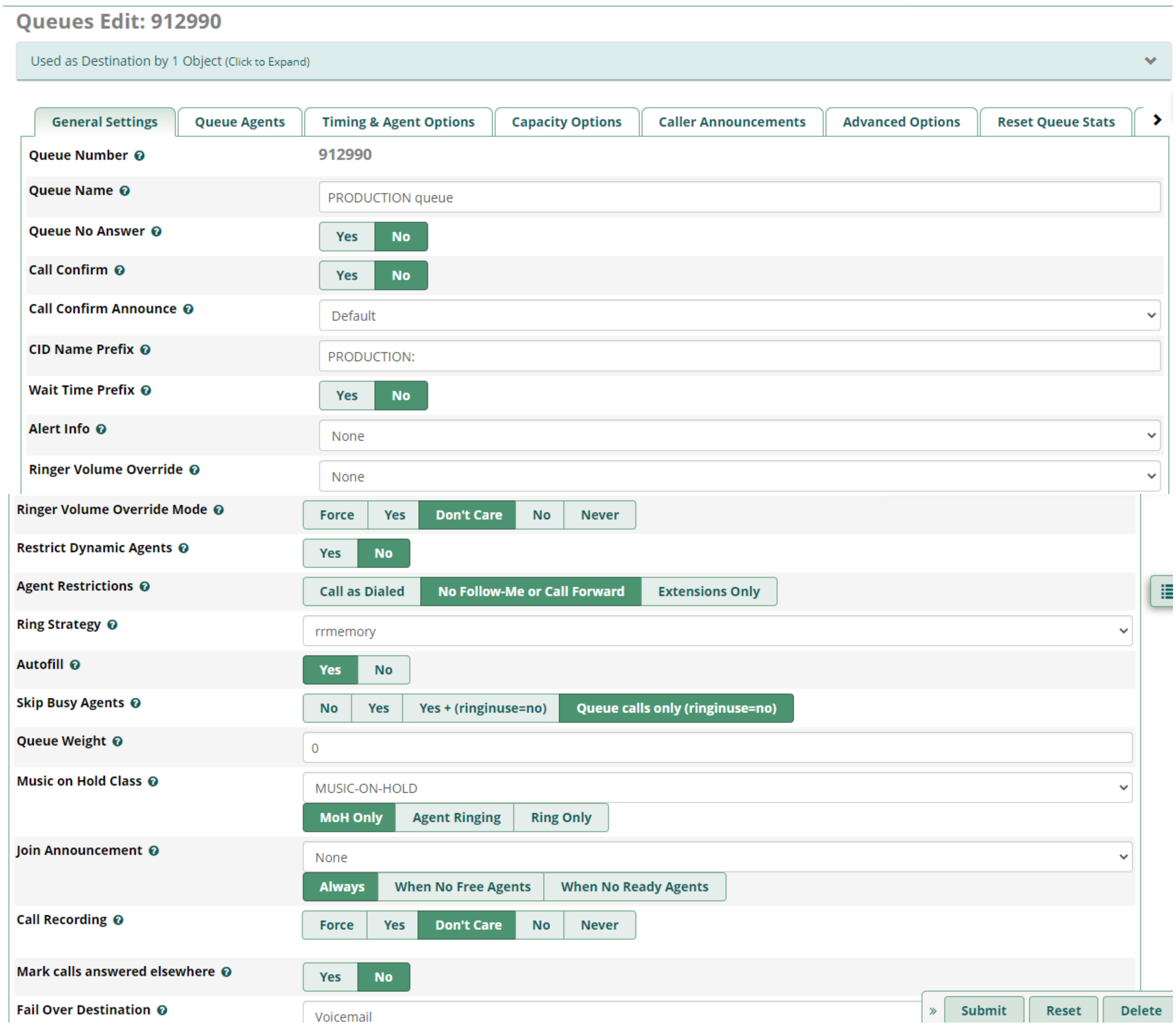
Search

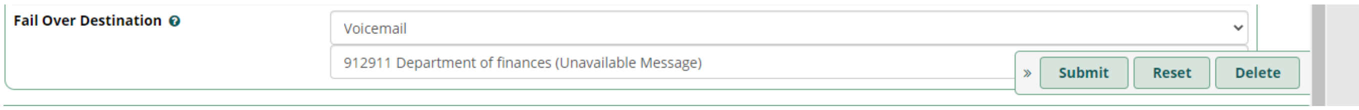
☐	Extension	Name	CW	DND	FM/FM	CF	CFB	CFU	Type	Actions
☐	912901	Production	☑	☐	☐	☐	☐	☐	pjsip	
☐	912911	Department of finances	☑	☐	☑	☐	☐	☐	pjsip	
☐	912912	Department of Marketing	☑	☐	☐	☐	☐	☐	pjsip	
☐	912999	General Voicemail	☑	☐	☐	☐	☐	☐	virtual	

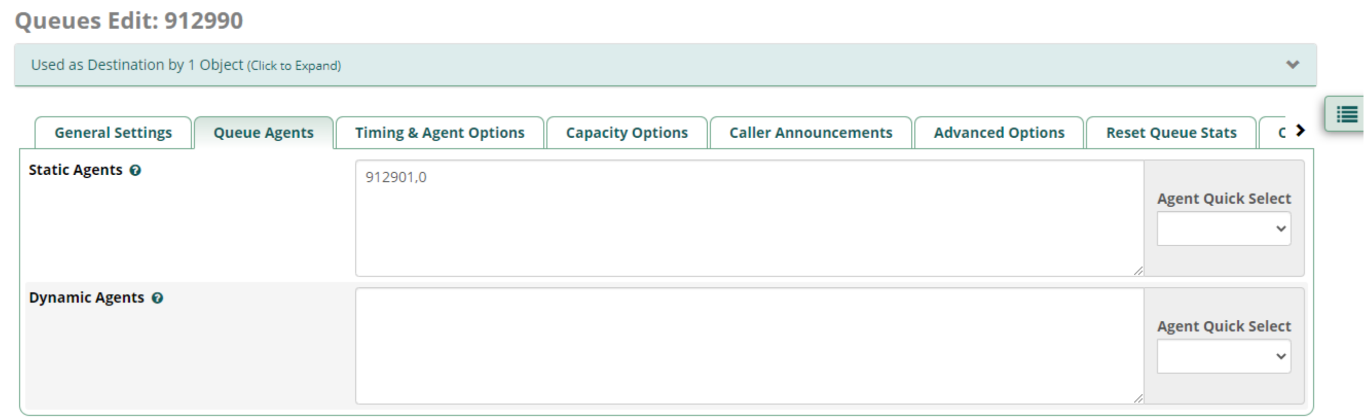
Showing 1 to 4 of 4 rows

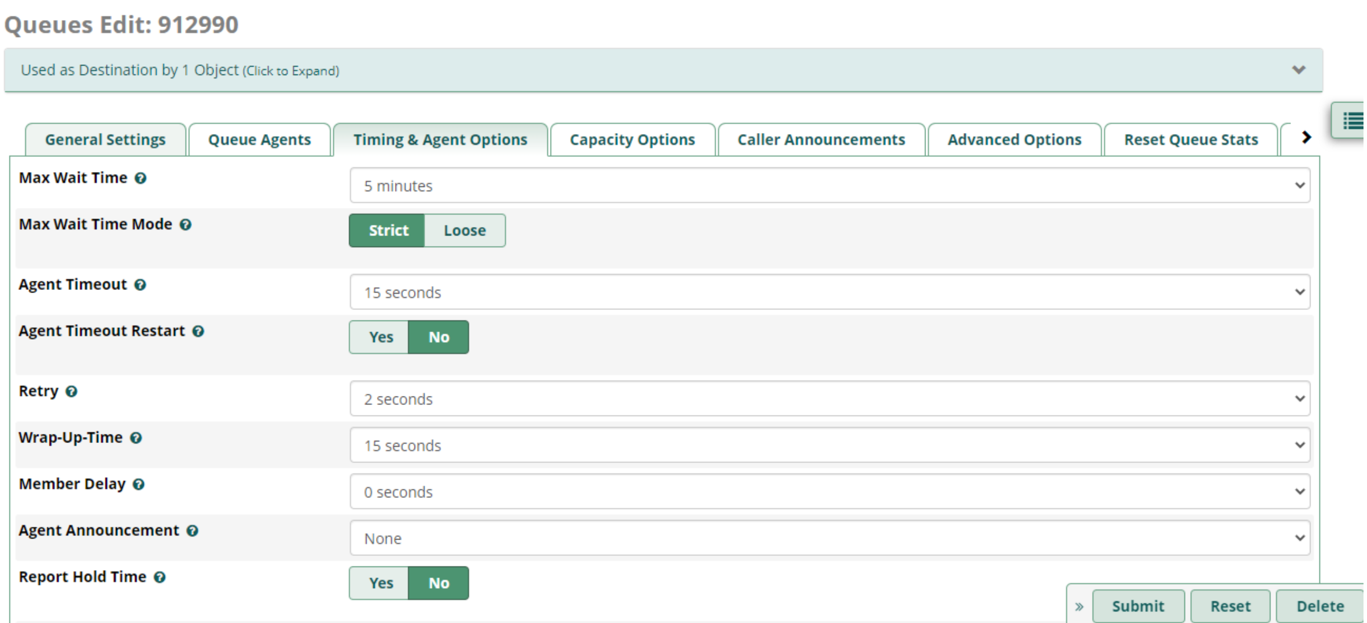
QUEUES


Queues
+ Add Queue
Search
Queue
Description
Actions
912990
PRODUCTION queue
912991
Department of finances queue
912992
Department of Marketing queue
Showing 1 to 3 of 3 rows

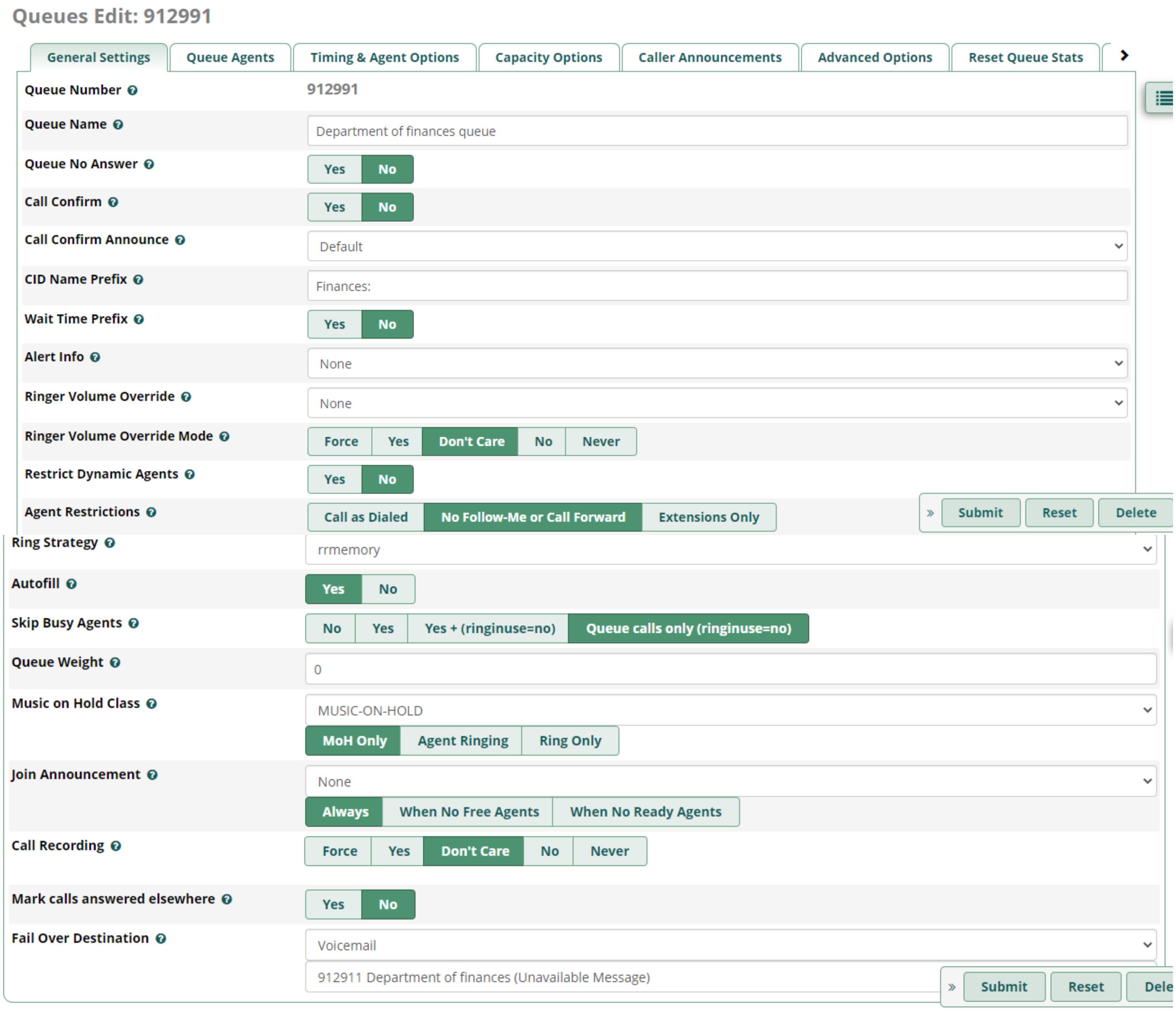

Queues Edit: 912990
Used as Destination by 1 Object (Click to Expand)
General Settings
Queue Agents
Timing & Agent Options
Capacity Options
Caller Announcements
Advanced Options
Reset Queue Stats
Queue Number
912990
Queue Name
PRODUCTION queue
Queue No Answer
Yes
No
Call Confirm
Yes
No
Call Confirm Announce
Default
CID Name Prefix
PRODUCTION:
Wait Time Prefix
Yes
No
Alert Info
None
Ringer Volume Override
None
Ringer Volume Override Mode
Force
Yes
Don't Care
No
Never
Restrict Dynamic Agents
Yes
No
Agent Restrictions
Call as Dialed
No Follow-Me or Call Forward
Extensions Only
Ring Strategy
rrmemory
Autofill
Yes
No
Skip Busy Agents
No
Yes
Yes + (ringinuse=no)
Queue calls only (ringinuse=no)
Queue Weight
0
Music on Hold Class
MUSIC-ON-HOLD
MoH Only
Agent Ringing
Ring Only
Join Announcement
None
Always
When No Free Agents
When No Ready Agents
Call Recording
Force
Yes
Don't Care
No
Never
Mark calls answered elsewhere
Yes
No
Fail Over Destination
Voicemail
Submit
Reset
Delete

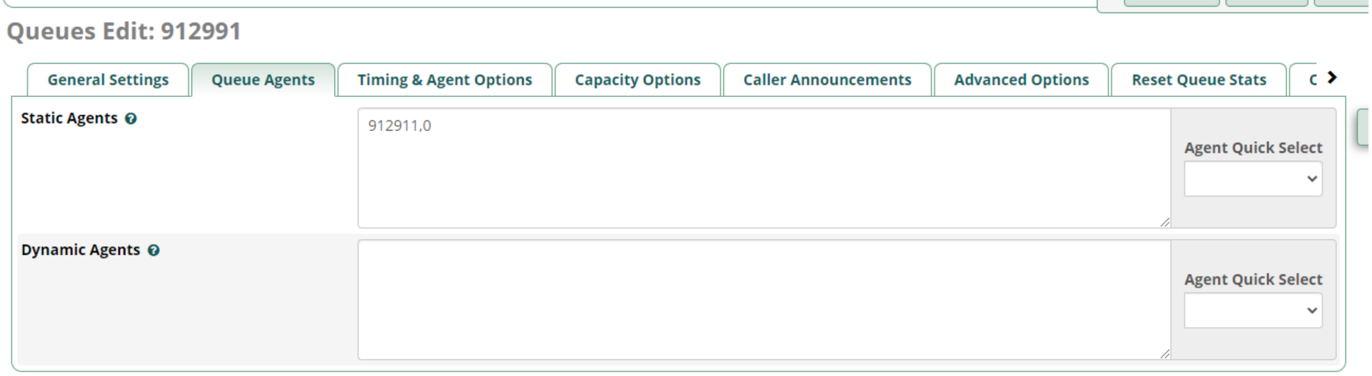

Fail Over Destination
Voicemail
912911 Department of finances (Unavailable Message)
Submit
Reset
Delete

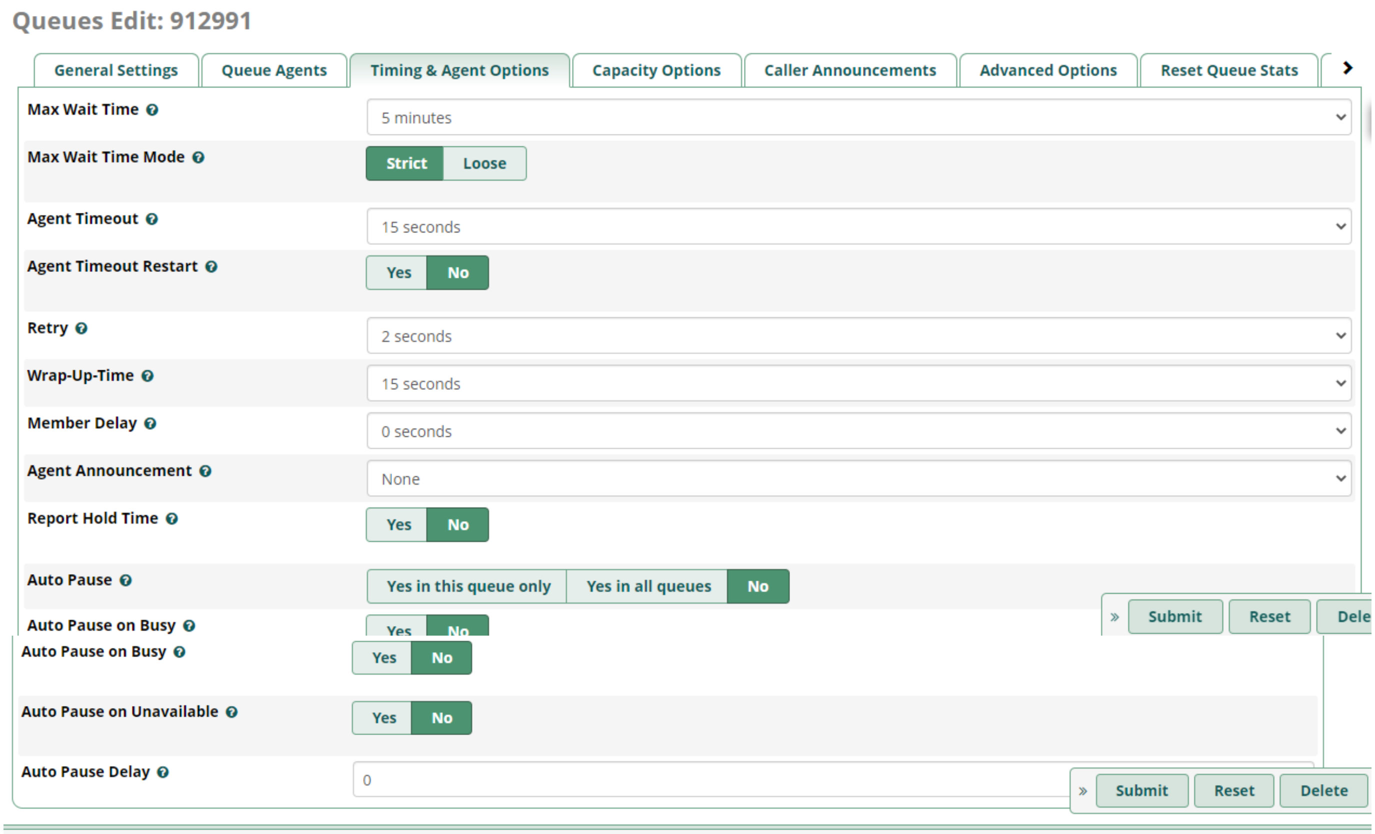

Queues Edit: 912990
Used as Destination by 1 Object (Click to Expand)
General Settings
Queue Agents
Timing & Agent Options
Capacity Options
Caller Announcements
Advanced Options
Reset Queue Stats
Static Agents
912901,0
Agent Quick Select
Dynamic Agents
Agent Quick Select

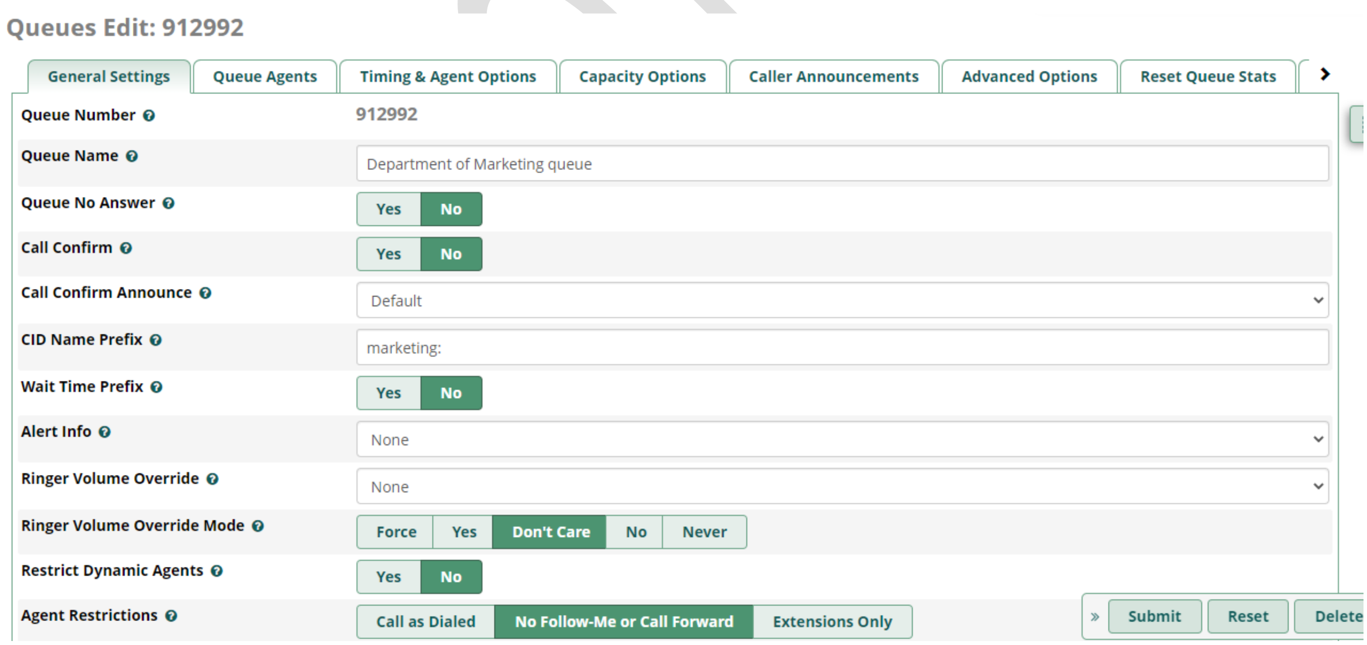

Queues Edit: 912990
Used as Destination by 1 Object (Click to Expand)
General Settings
Queue Agents
Timing & Agent Options
Capacity Options
Caller Announcements
Advanced Options
Reset Queue Stats
Max Wait Time
5 minutes
Max Wait Time Mode
Strict
Loose
Agent Timeout
15 seconds
Agent Timeout Restart
Yes
No
Retry
2 seconds
Wrap-Up-Time
15 seconds
Member Delay
0 seconds
Agent Announcement
None
Report Hold Time
Yes
No
Submit
Reset
Delete

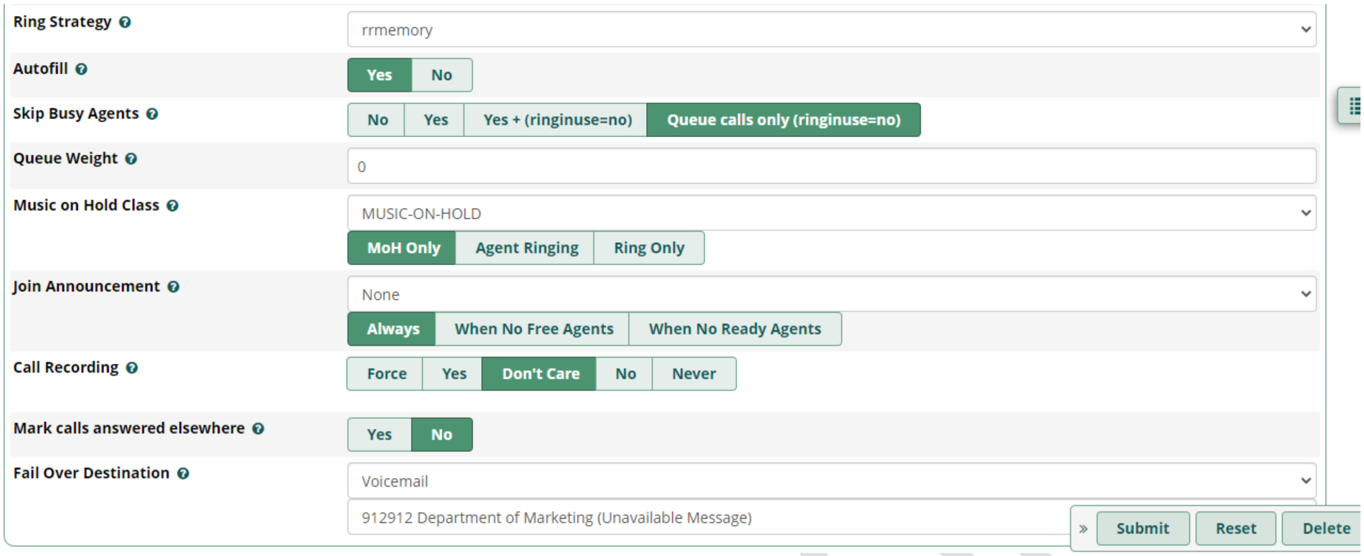

Report Hold Time
Yes
No
Auto Pause
Yes in this queue only
Yes in all queues
No
Auto Pause on Busy
Yes
No
Auto Pause on Unavailable
Yes
No
Auto Pause Delay
0
Submit
Reset
Delete

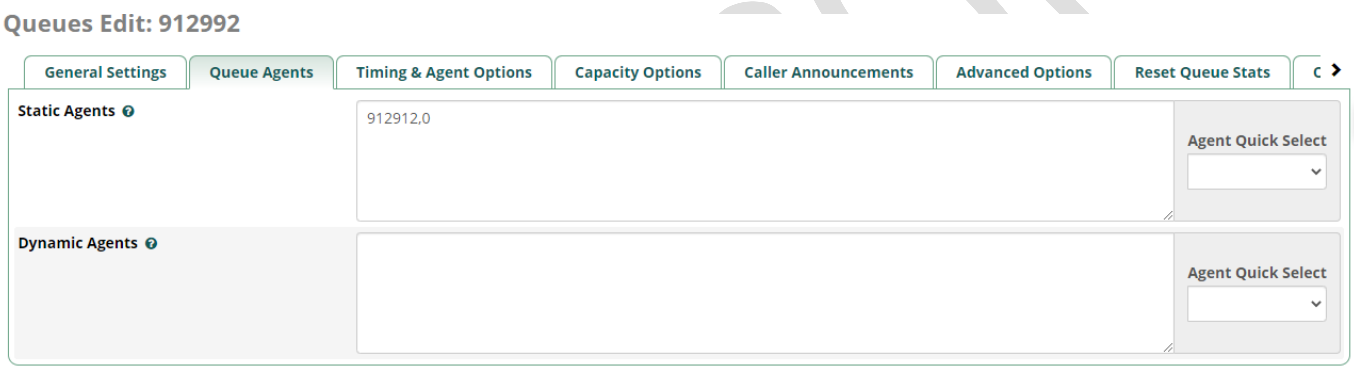

Queues Edit: 912991
General Settings
Queue Agents
Timing & Agent Options
Capacity Options
Caller Announcements
Advanced Options
Reset Queue Stats
Queue Number
912991
Queue Name
Department of finances queue
Queue No Answer
Yes
No
Call Confirm
Yes
No
Call Confirm Announce
Default
CID Name Prefix
Finances:
Wait Time Prefix
Yes
No
Alert Info
None
Ringer Volume Override
None
Ringer Volume Override Mode
Force
Yes
Don't Care
No
Never
Restrict Dynamic Agents
Yes
No
Agent Restrictions
Call as Dialed
No Follow-Me or Call Forward
Extensions Only
Submit
Reset
Delete
Ring Strategy
rrmemory
Autofill
Yes
No
Skip Busy Agents
No
Yes
Yes + (ringinuse=no)
Queue calls only (ringinuse=no)
Queue Weight
0
Music on Hold Class
MUSIC-ON-HOLD
MoH Only
Agent Ringing
Ring Only
Join Announcement
None
Always
When No Free Agents
When No Ready Agents
Call Recording
Force
Yes
Don't Care
No
Never
Mark calls answered elsewhere
Yes
No
Fail Over Destination
Voicemail
912911 Department of finances (Unavailable Message)
Submit
Reset

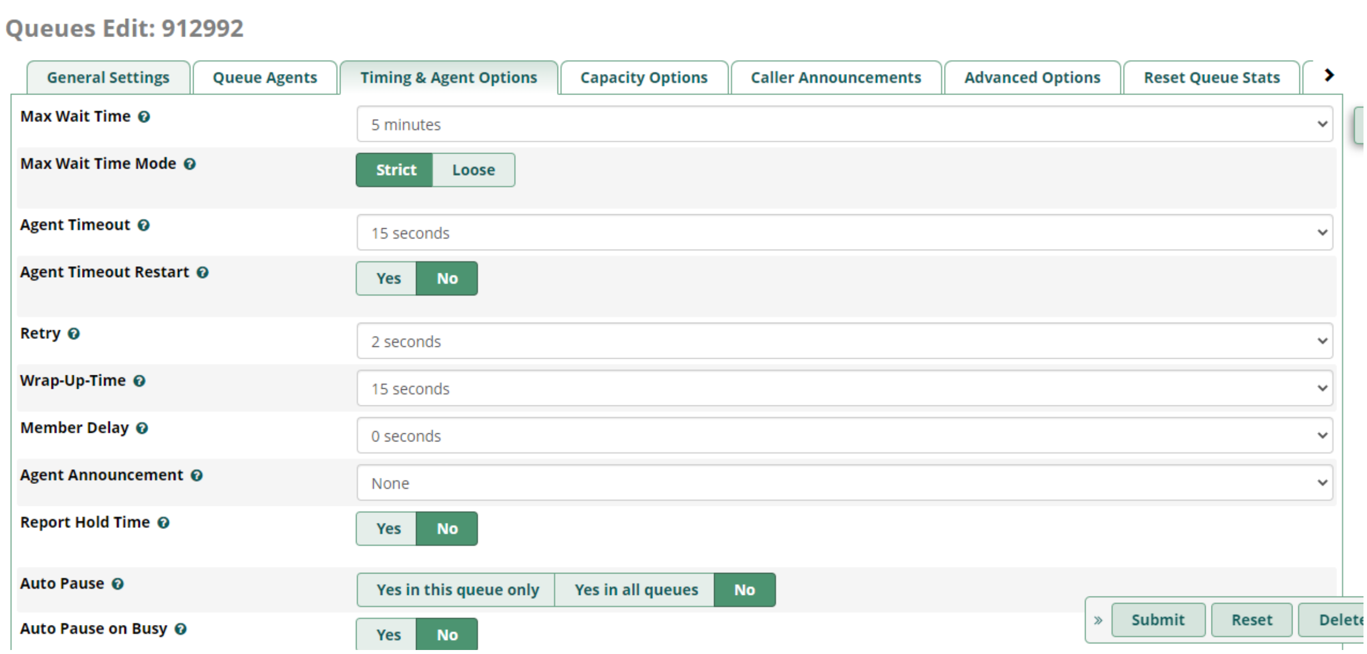

Queues Edit: 912991
General Settings
Queue Agents
Timing & Agent Options
Capacity Options
Caller Announcements
Advanced Options
Reset Queue Stats
Static Agents
912911,0
Agent Quick Select
Dynamic Agents
Agent Quick Select

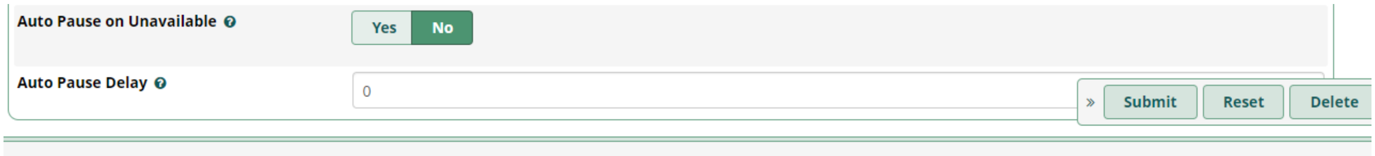

Queues Edit: 912991
General Settings
Queue Agents
Timing & Agent Options
Capacity Options
Caller Announcements
Advanced Options
Reset Queue Stats
Max Wait Time
5 minutes
Max Wait Time Mode
Strict
Loose
Agent Timeout
15 seconds
Agent Timeout Restart
Yes
No
Retry
2 seconds
Wrap-Up-Time
15 seconds
Member Delay
0 seconds
Agent Announcement
None
Report Hold Time
Yes
No
Auto Pause
Yes in this queue only
Yes in all queues
No
Submit
Reset
Auto Pause on Busy
Yes
No
Auto Pause on Unavailable
Yes
No
Auto Pause Delay
0
Submit
Reset
Delete


Queues Edit: 912992
General Settings
Queue Agents
Timing & Agent Options
Capacity Options
Caller Announcements
Advanced Options
Reset Queue Stats
Queue Number
912992
Queue Name
Department of Marketing queue
Queue No Answer
Yes
No
Call Confirm
Yes
No
Call Confirm Announce
Default
CID Name Prefix
marketing:
Wait Time Prefix
Yes
No
Alert Info
None
Ringer Volume Override
None
Ringer Volume Override Mode
Force
Yes
Don't Care
No
Never
Restrict Dynamic Agents
Yes
No
Agent Restrictions
Call as Dialed
No Follow-Me or Call Forward
Extensions Only
Submit
Reset
Delete

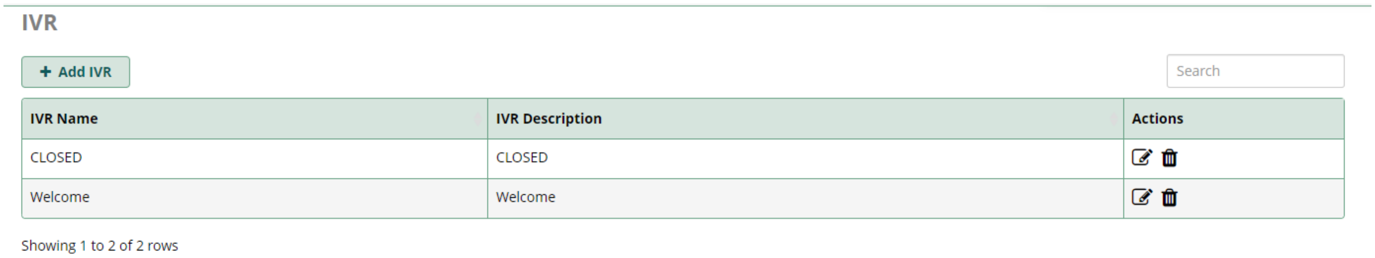

Ring Strategy
rrmemory
Autofill
Yes No
Skip Busy Agents
No Yes Yes + (ringinuse=no) Queue calls only (ringinuse=no)
Queue Weight
0
Music on Hold Class
MUSIC-ON-HOLD
MoH Only Agent Ringing Ring Only
Join Announcement
None
Always When No Free Agents When No Ready Agents
Call Recording
Force Yes Don't Care No Never
Mark calls answered elsewhere
Yes No
Fail Over Destination
Voicemail
912912 Department of Marketing (Unavailable Message)
Submit Reset Delete

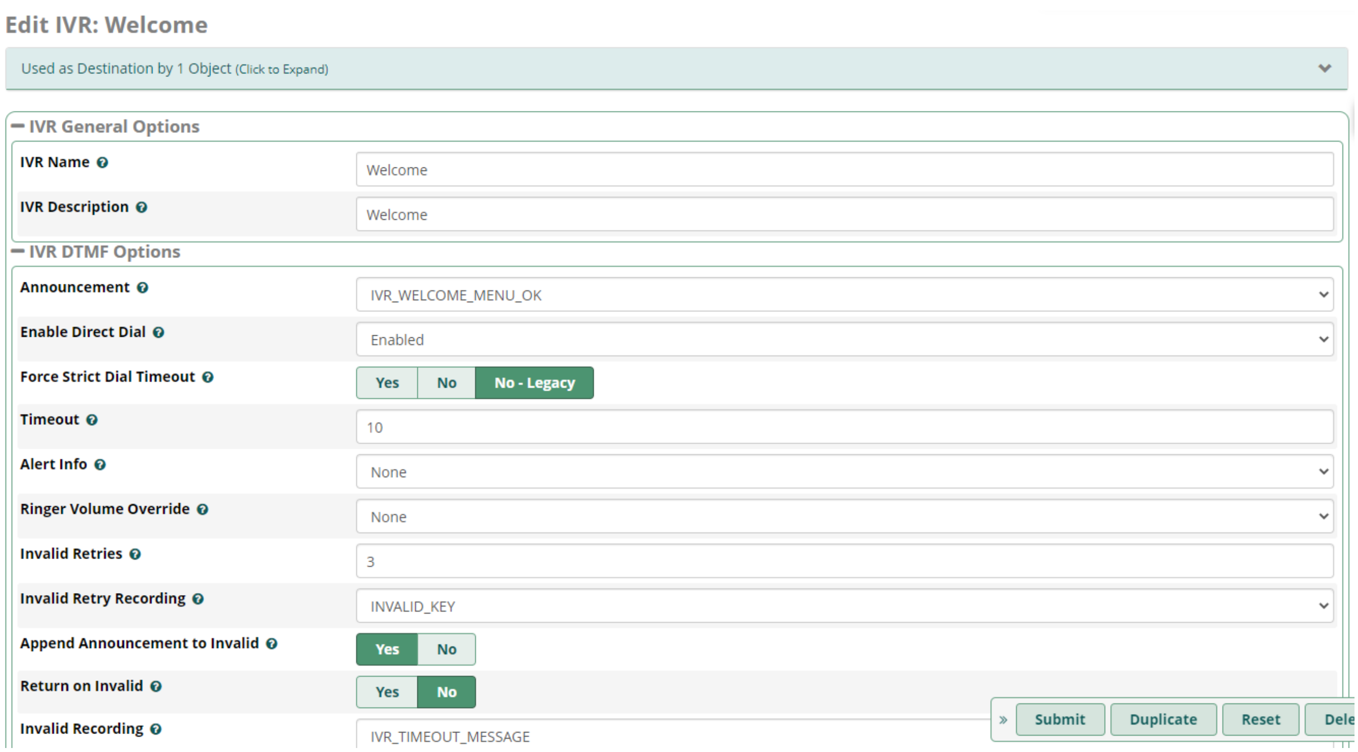

Queues Edit: 912992
General Settings Queue Agents Timing & Agent Options Capacity Options Caller Announcements Advanced Options Reset Queue Stats
Static Agents
912912,0
Agent Quick Select
Dynamic Agents
Agent Quick Select

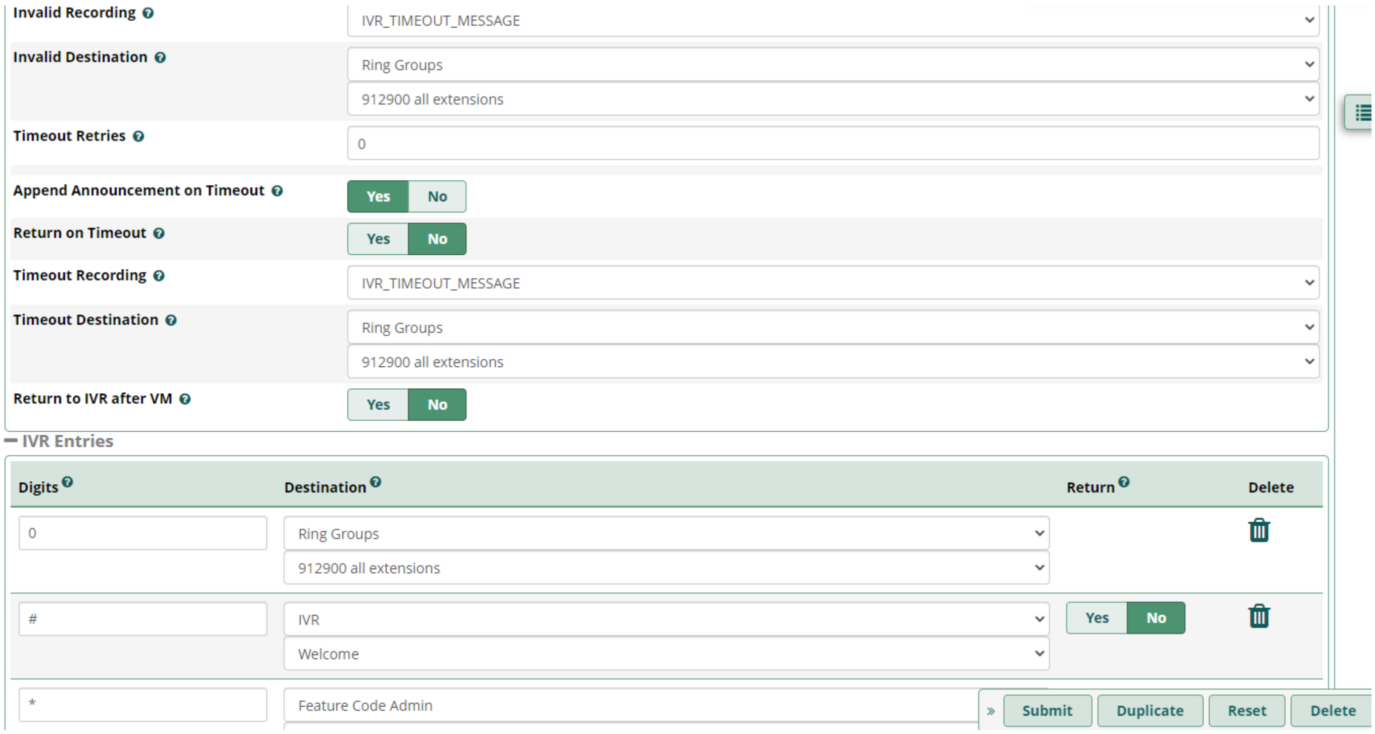

Queues Edit: 912992
General Settings Queue Agents Timing & Agent Options Capacity Options Caller Announcements Advanced Options Reset Queue Stats
Max Wait Time
5 minutes
Max Wait Time Mode
Strict Loose
Agent Timeout
15 seconds
Agent Timeout Restart
Yes No
Retry
2 seconds
Wrap-Up-Time
15 seconds
Member Delay
0 seconds
Agent Announcement
None
Report Hold Time
Yes No
Auto Pause
Yes in this queue only Yes in all queues No
Auto Pause on Busy
Yes No
Submit Reset

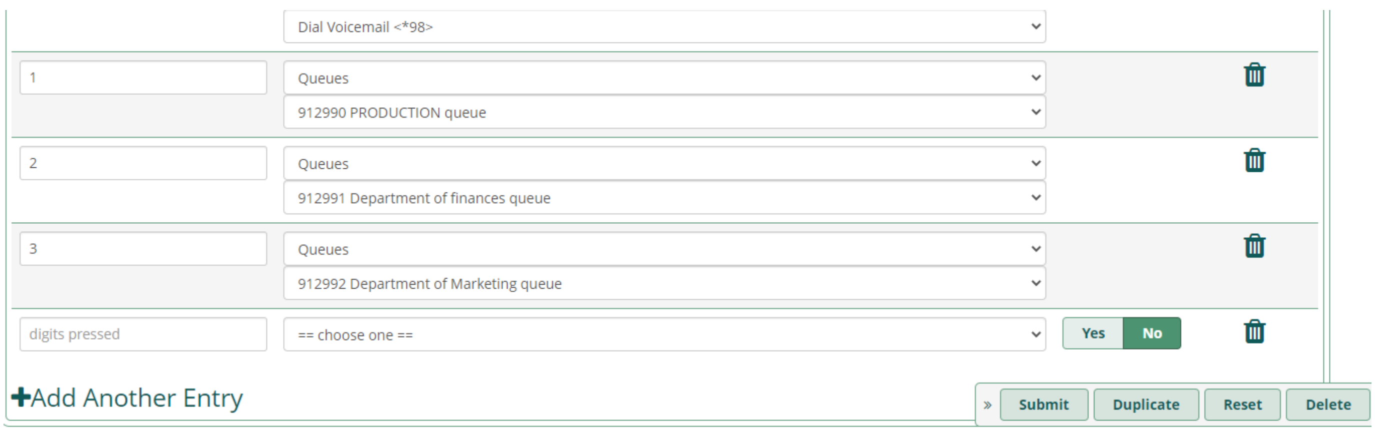

Auto Pause on Unavailable
Yes
No
Auto Pause Delay
0
Submit
Reset
Delete

IVR


IVR
+ Add IVR
Search
IVR Name
IVR Description
Actions
CLOSED
CLOSED
Welcome
Welcome
Showing 1 to 2 of 2 rows


Edit IVR: Welcome
Used as Destination by 1 Object (Click to Expand)
IVR General Options
IVR Name
Welcome
IVR Description
Welcome
IVR DTMF Options
Announcement
IVR_WELCOME_MENU_OK
Enable Direct Dial
Enabled
Force Strict Dial Timeout
Yes
No
No - Legacy
Timeout
10
Alert Info
None
Ringer Volume Override
None
Invalid Retries
3
Invalid Retry Recording
INVALID_KEY
Append Announcement to Invalid
Yes
No
Return on Invalid
Yes
No
Invalid Recording
IVR_TIMEOUT_MESSAGE
Submit
Duplicate
Reset


Invalid Recording
IVR_TIMEOUT_MESSAGE
Invalid Destination
Ring Groups
912900 all extensions
Timeout Retries
0
Append Announcement on Timeout
Yes No
Return on Timeout
Yes No
Timeout Recording
IVR_TIMEOUT_MESSAGE
Timeout Destination
Ring Groups
912900 all extensions
Return to IVR after VM
Yes No
IVR Entries
Digits
Destination
Return
Delete
0
Ring Groups
912900 all extensions
#
IVR
Welcome
Yes No
*
Feature Code Admin
Submit Duplicate Reset Delete


Dial Voicemail <*98>
1
Queues
912990 PRODUCTION queue
2
Queues
912991 Department of finances queue
3
Queues
912992 Department of Marketing queue
digits pressed
== choose one ==
Yes No
Add Another Entry
Submit Duplicate Reset Delete

Edit IVR: CLOSED

Used as Destination by 1 Object (Click to Expand)

IVR General Options

IVR Name	CLOSED
IVR Description	CLOSED

IVR DTMF Options

Announcement	IVR_ CLOSED
Enable Direct Dial	Disabled
Force Strict Dial Timeout	Yes / No / **No - Legacy**
Timeout	5
Alert Info	None
Ringer Volume Override	None
Invalid Retries	2
Invalid Retry Recording	INVALID_KEY
Append Announcement to Invalid	**Yes** / No
Return on Invalid	Yes / **No**
Invalid Recording	ANN_GOOD BYE

» Submit Duplicate Reset Delete

Invalid Destination	Terminate Call Hangup
Timeout Retries	1
Timeout Retry Recording	None
Append Announcement on Timeout	**Yes** / No
Return on Timeout	Yes / **No**
Timeout Recording	ANN_GOOD BYE
Timeout Destination	Terminate Call Hangup
Return to IVR after VM	Yes / **No**

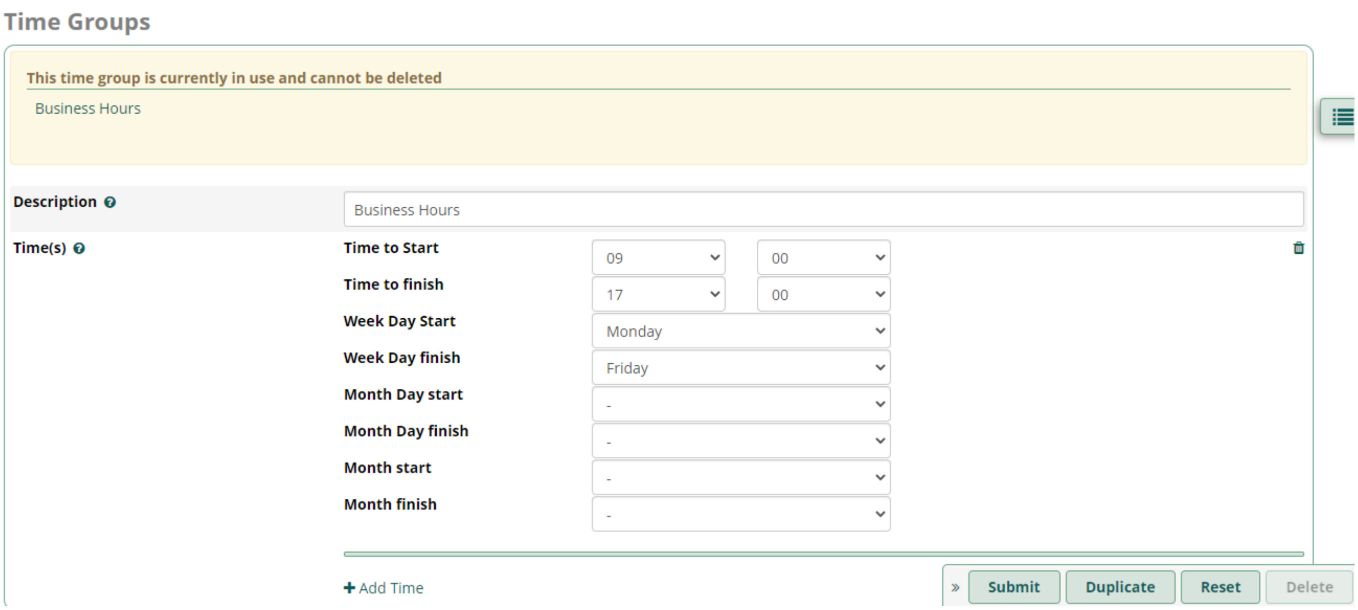
IVR Entries

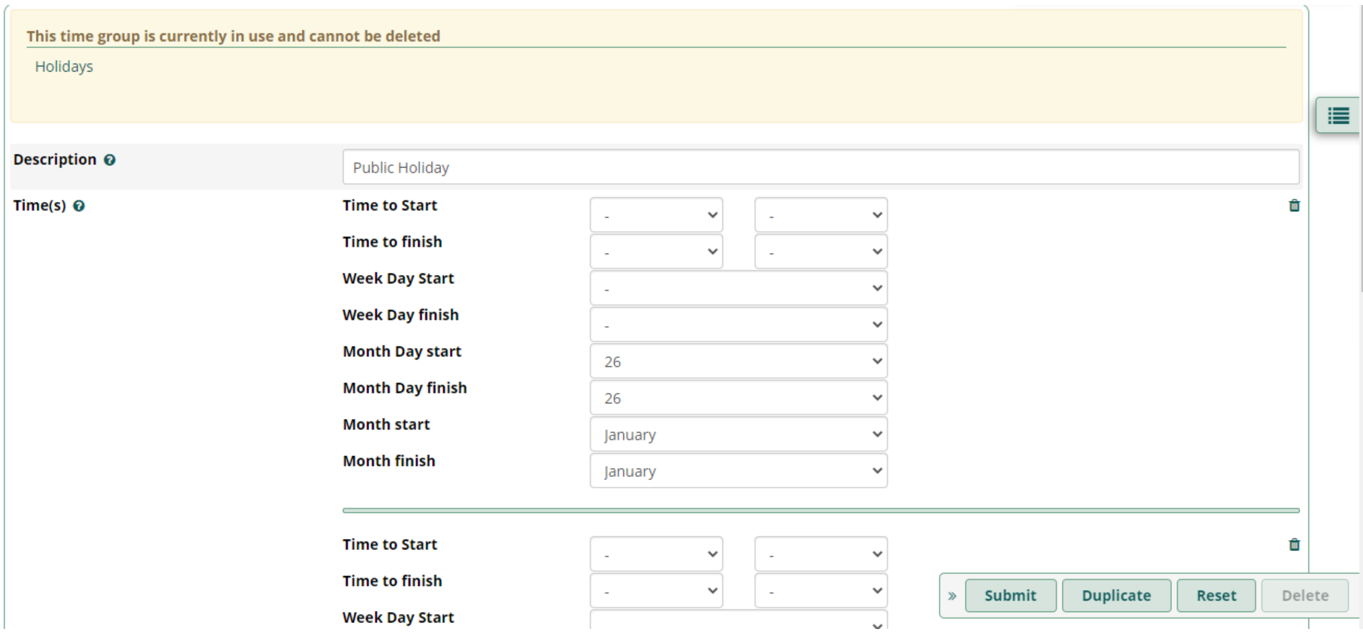
Digits	Destination	Return	Delete
1	Voicemail 912999 General Voicemail (Instructions Only)		
2	Announcements INFO_COMPANY		
digits pressed	== choose one ==	Yes / **No**	

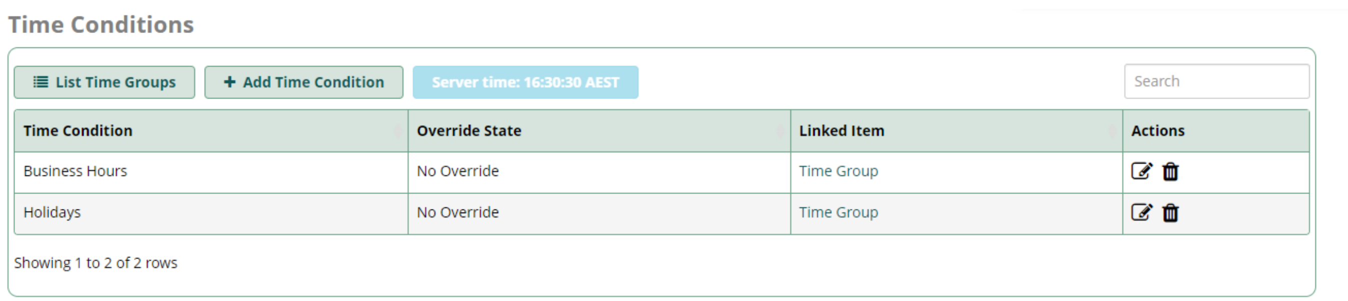
+Add Another Entry

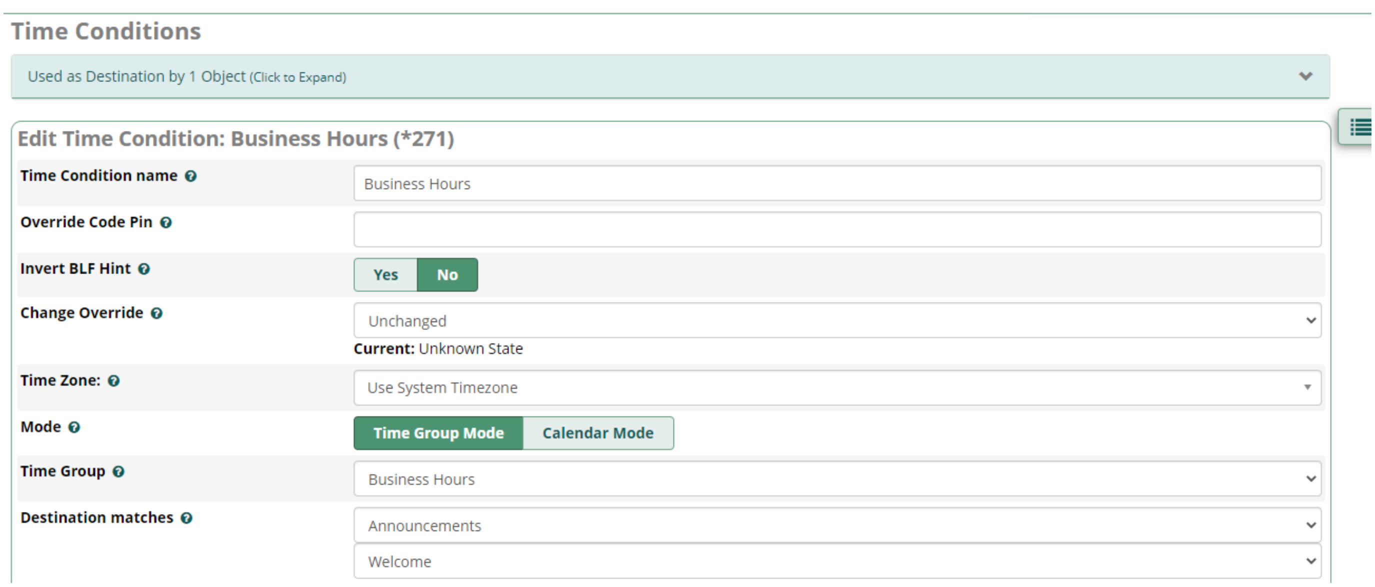
» Submit Duplicate Reset Delete

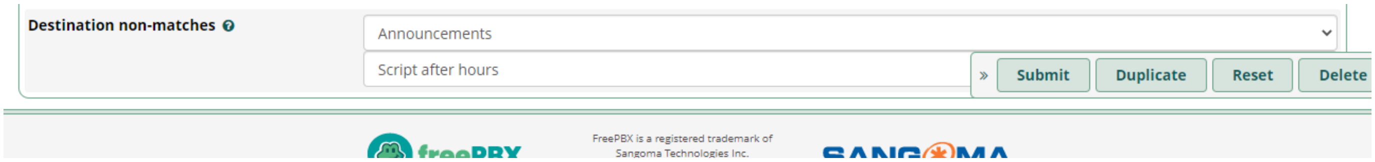
Time Condition

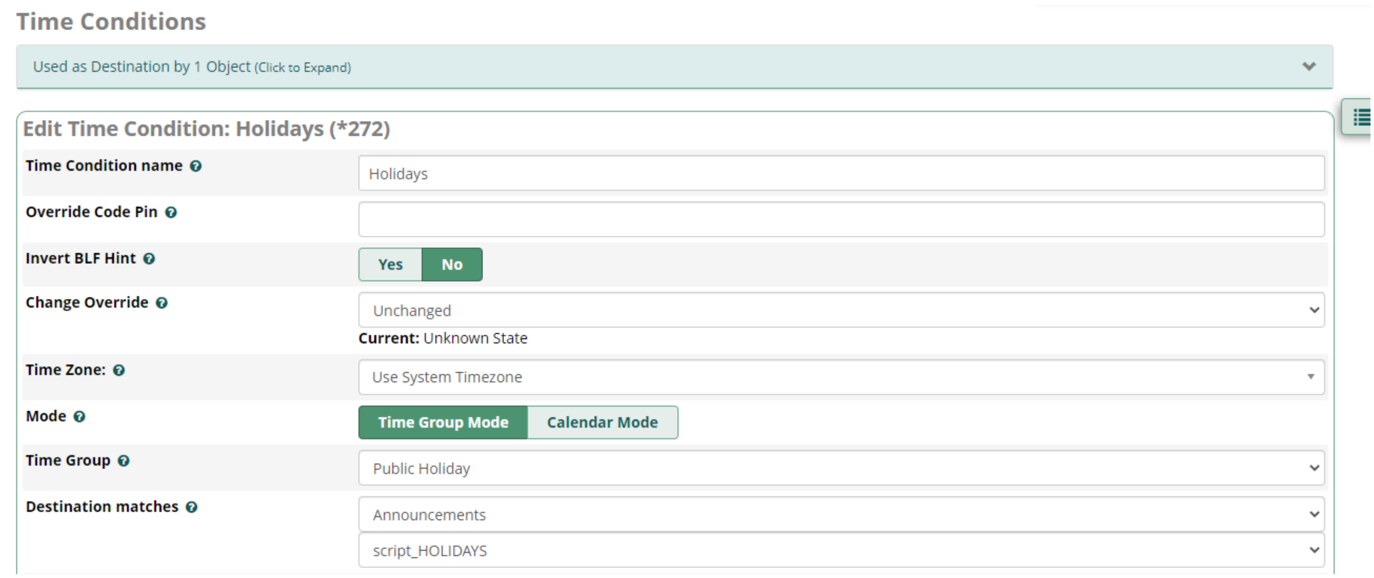


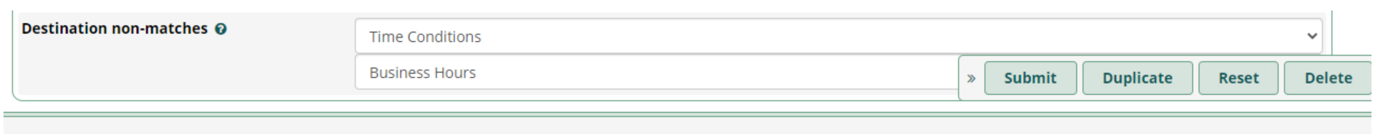

This time group is currently in use and cannot be deleted
Holidays
Description
Public Holiday
Time(s)
Time to Start
Time to finish
Week Day Start
Week Day finish
Month Day start
26
Month Day finish
26
Month start
January
Month finish
January
Time to Start
Time to finish
Week Day Start
Submit
Duplicate
Reset
Delete


Time Conditions
List Time Groups
Add Time Condition
Server time: 16:30:30 AEST
Search
Time Condition
Override State
Linked Item
Actions
Business Hours
No Override
Time Group
Holidays
No Override
Time Group
Showing 1 to 2 of 2 rows


Time Conditions
Used as Destination by 1 Object (Click to Expand)
Edit Time Condition: Business Hours (*271)
Time Condition name
Business Hours
Override Code Pin
Invert BLF Hint
Yes
No
Change Override
Unchanged
Current: Unknown State
Time Zone:
Use System Timezone
Mode
Time Group Mode
Calendar Mode
Time Group
Business Hours
Destination matches
Announcements
Welcome







Task 8

Complete the post-installation checklist in appendix 'A'. Use today's date for acceptance and cutover dates.

Submission requirements

You are required to submit the following as evidence for this assessment:

1. Written tasks should be completed on a word processor
2. Screen shots for each component of your system build.
3. Screen shots for each functionality test
4. Voice recordings you made for your IVR as .wav files
5. Completed appendix A
6. You must click the submit button