

## Overview

OneStream A (at the Head Office) acts as a Server. OneStream B, OneStream C and OneStream D will register as extensions on OneStream A.

It will be possible to dial from any branch office to any other branch office by dialling the extension number for the required branch. E.g. To dial from Branch 1 to Branch 2 the user would dial 2002.

Port forwarding must be setup on the firewall at the head office to forward the SIP port (UDP port 5060) to OneStream A (OneStream A must be assigned a static IP Address). The firewalls at the branches should not require any modification.

An available STUN Server is required to enable all of the OneStream units to lookup their external IP addresses and traverse the firewalls correctly.

## Configuring STUN

*This step is required on ALL OneStream units (Head Office and Branch offices)*

On the Advanced webpage the **External (Internet) IP Address** section must be filled in:

### External (Internet) IP Address

**Discover IP Address**

Not Set  
 Use STUN Server  
 Set Manually

**STUN Server**

**STUN Server Port**

**External IP Address**

**Local Networks**

**192.168.1.0/255.255.255.0**

Network IP Address / Subnet Mask  
e.g. 192.168.1.0/255.255.255.0

<b>Discover IP Address</b>	Select "Use STUN Server"
<b>STUN Server</b>	Enter the domain name and port for an available STUN server
<b>Local Networks</b>	Enter the network IP address for the local network e.g. if the IP address of the OneStream is 192.168.1.10 and the subnet mask is 255.255.255.0 then the local networks should be set to 192.168.1.0/255.255.255.0

# Head Office (OneStream as a Server)

## Groups

<u>Group</u>	<u>Type</u>	<u>Edit</u>	<u>Delete</u>
FXS	Analogue FXS (PBX)		
GSM	GSM		
Branches	SIP Extension		

Add a SIP Extension group to allow the OneStream units at branch offices to register:

## Add Group

Interface Type

Name

### Options

SIP Port (default 5060)

NAT Traversal

Call Limit (0=unlimited)

### Extensions

	<u>Username</u>	<u>Password</u>
1	<input type="text" value="2001"/>	<input type="password" value="••••••••"/>
2	<input type="text" value="2002"/>	<input type="password" value="••••••••"/>
3	<input type="text" value="2003"/>	<input type="password" value="••~•••••"/>
4	<input type="text" value="2004"/>	<input type="password" value="••••••~•"/>
5	<input type="text" value="2005"/>	<input type="password" value="••••••••"/>

### [Show Advanced Options](#)

**Name** Enter a name to identify the group e.g. Branches

**NAT Traversal** Select "Disable" since the OneStream will use STUN to traverse the firewall correctly.

**Extensions** Add an extension for every branch office and enter a username and password. E.g. 2001, 2002, 2003, etc. It is important to use strong passwords since the extensions will be accessible from the internet.

## Routes

Add Route

<u>Route</u>	<u>From Group</u>	<u>Dest. Addr.</u>	<u>Orig. Addr.</u>	<u>To Group</u>	<u>Mod. Dest.</u>	<u>Mod. Orig.</u>	<u>ACT</u>	<u>CB</u>	<u>Split/Fail</u>
Branches > Branches	Branches	_2XXX	-	Branches	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Branches > FXS	Branches	1000	-	FXS	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FXS > Branches	FXS	_2XXX	-	Branches	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Add 3 routes -

The 1<sup>st</sup> route handles calls between branch offices:

**Name** Branches > Branches  
**From Group** Branches  
**Destination Addresses** \_2XXX (matches any 4 digit number starting with a 2)  
**To Group** Branches  
*(no other options need to be filled in)*

The 2<sup>nd</sup> route handles calls from branch office to the head office phone/PBX:

**Name** Branches > FXS  
**From Group** Branches  
**Destination Addresses** 1000  
**To Group** FXS  
*(no other options need to be filled in)*







The 3<sup>rd</sup> route handles calls between the head office phone/PBX to branch offices:

**Name** FXS > Branches  
**From Group** FXS  
**Destination Addresses** \_2XXX (matches any 4 digit number starting with a 2)  
**To Group** Branches  
*(no other options need to be filled in)*

## Branch Offices (OneStream as a client)

### Groups

Add Group

<u>Group</u>	<u>Type</u>	<u>Edit</u>	<u>Delete</u>
FXS	Analogue FXS (PBX)		
GSM	GSM		
Head Office	SIP Network		

Add a SIP Network group to register to the Head Office OneStream:

### Add Group

Interface Type

SIP Network

Add Cancel

Name

Head Office

#### SIP Network

##### Options

SIP Server

80.10.20.30

SIP Port (default 5060)

5060

NAT Traversal

Disable

Call Limit (0=unlimited)

0

From (optional)

@

Registration Required

##### Registrations

Username

Auth Username

Auth Password

Contact

1 2001

••••••••

2001

New Registration

##### Show Advanced Options

Add Cancel

**Name** Enter a name to identify the group e.g. Head Office

**NAT Traversal** Select "Disable" since the OneStream will use STUN to traverse the firewall correctly.

**Registration Required** Make sure this option is enabled

**Username** Enter a username to register to the Head Office OneStream. This should match one of the usernames entered in the SIP Extension group on the Head Office OneStream (all branches must use a different usernames) e.g. 2001

**Auth Password** Enter the corresponding password for the user which was setup in the SIP Extension group on the Head Office OneStream

**Contact** This should match the username e.g. 2001

## Routes

Add Route

<u>Route</u>	<u>From Group</u>	<u>Dest. Addr.</u>	<u>Orig. Addr.</u>	<u>To Group</u>	<u>Mod. Dest.</u>	<u>Mod. Orig.</u>	<u>ACT</u>	<u>CB</u>	<u>Split/Fail</u>
FXS > Head Office	FXS	1000	-	Head Office	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FXS > Branches	FXS	_2XXX	-	Head Office	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Head Office > FXS	Head Office	?	-	FXS	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Add 3 routes -

The 1<sup>st</sup> route handles calls from the branch office phone/PBX to the phone/PBX at the Head Office:

**Name** FXS > Head Office

**From Group** FXS

**Destination Addresses** 1000

**To Group** Head Office

*(no other options need to be filled in)*

The 2<sup>nd</sup> route handles calls from the branch office phone/PBX to the phone/PBX at other branch offices (calls are routed via the Head Office):

**Name** FXS > Branches

**From Group** FXS

**Destination Addresses** \_2XXX (matches any 4 digit number starting with a 2)

**To Group** Head Office

*(no other options need to be filled in)*

The 3<sup>rd</sup> route handles calls from the Head Office or other branch offices to the local phone/PBX:

**Name** Head Office > FXS

**From Group** Head Office

**Destination Addresses** ? (matches any number)

**To Group** FXS

*(no other options need to be filled in)*