

# SIP Refer Handling

## Overview

When the SBC receives a REFER message you can choose to route the REFER message in the dial plan. The reason for this is to have control over which SIP profile or SIP trunk the call is sent. In the example below we will show the common scenario where a PBX will send a REFER and a new call back to the SBC will be generated.

## Configuration Steps

1) Determine which SIP profile the call is originating from. In the example below the call comes from the ITSP through the "External" SIP profile. Then the call is routed to the PBX based on the External SIP profile routing plan. The PBX then sends the REFER back to the SBC. This REFER is handled in the "External" SIP Profiles routing plan because the call was originally routed there. To begin edit the External routing plan as shown below. Then click "add" to make a new routing plan.

Configuration > Routing > Call Routing

This page allows managing Basic Call Routing - External configuration. System started. Configuration is up to date.

Description	Trace Call	Disable
Default Response 404		

Edit Cancel

Rule

Showing 1 to 1 of 1 entries

#	Description	
10	IF MATCH Condition(All,Standard Information[Destination Address] = (.*) THEN Bridge to Trunk[PBX]=\$1 AND Continue	Edit Delete

Add

2) Below is the dial plan you need to add to handling the REFER message. The explanation of this is the following:

**Rank** - Set this to a value that is higher than your other routes that could bridge the call somewhere else.

**Stop Policy** - Stop On Success - The reason for this is the call will stop routing if it is a REFER

**Condition** - Variable "sip\_refer\_to" we know it is refer method because it has a refer-to sip header in the "SIP:<user>@<host>" format.

**Actions** - Use the custom action with the application bridge. **It is required to use a custom action for all bridges with in the dial plan, in order for REFERs to be routed.**

Once done click SAVE

**Variable Name** - sip\_refer\_to

**Expression** - ^.\*sip:[\+]?(.\*);

**Variable** - sip\_force\_full\_to

**Value** - sip:\$1

**Data** - sip/trunk/PBX/\$1

 The IP Firewall service is stopped.

 The Email Notification is disabled.

Rule - Rule\_113

Condition

Description Set REFER-TO variable if REFER comes from ITSP Rank 11

Matching All Stop Policy Stop On Success

Condition Variable Name sip\_refer\_to Expression  $\wedge.*sip:[\+]?(.*)$

Actions to perform if condition matches

Action Unset Variable Name sip\_refer\_to

Action Export Variable Name sip\_force\_full\_to Value sip:\$1

Action Log Level Alert Message ITSPside \$1

Action Custom Application bridge Data sip/trunk/PBX/\$1

Actions to perform if condition doesn't match

Action ( Please Select One )

Save Save & Apply Cancel

3) Next edit any previous rules that bridged calls using the action "bridge/bridge to \*" and replace them as shown below with the custom application. It is required to use a custom action for all bridges with in the dial plan, in order for REFERs to be routed.

Description [ ] Rank 10

Matching All Stop Policy Continue

Condition Standard Information Name Destination Address Expression (.\*)

Condition ( Please Select One )

Condition matches

Action Custom Application bridge Data sip/trunk/PBX\_SIP\_Trunk/\$1

Action ( Please Select One )

Condition doesn't match

Action ( Please Select One )

Save Cancel

4) Once done Save, apply the configuration and test. The dial plan summary page should look as shown below.

Rule

#	Description	
5	<pre>IF MATCH Condition(All,Variable[sip_refer_to] = ^.*sip:[\+]?(.+)@(.+)) THEN   Unset Variable[sip_refer_to]   Export Variable[sip_force_full_to]=sip:\$1@\$2   Custom[bridge]=sip/trunk/PBX_SIP_Trunk/\$1@\$2 AND Stop On Success</pre>	<a href="#">Edit</a> <a href="#">Delete</a>
10	<pre>IF MATCH Condition(All,Standard Information[Destination Address] = (.*)) THEN   Custom[bridge]=sip/trunk/PBX_SIP_Trunk/\$1 AND Continue</pre>	<a href="#">Edit</a> <a href="#">Delete</a>

[Add](#)