SIP Server Deployment Guide

Treating incoming calls as inbound calls

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Treating incoming calls as inbound calls

Starting with version 8.1.103.35, SIP Server can treat incoming calls from external callers (agents behind SIP trunks) as inbound calls. Previously, if the username in the **From** header of the initial INVITE request matched the name of the existing DN in the SIP Switch, SIP Server treated that inbound call as an internal call.

Feature Configuration

To enable this feature:

1. Set the **enforce-1pcc-inbound** option to `true`.

2. (Optional) Set the **internal-call-domains** option to a list of IPv4 CIDR blocks or FQDN separated by semicolons (;).

SIP Server feature processing logic

To take advantage of this feature and, if you use the **enforce-external-domains** option in your environment, Genesys recommends that you gradually transition from using the **enforce-external-domains** option to using the **enforce-1pcc-inbound** option.

The **enforce-external-domains** option has higher priority than the **enforce-1pcc-inbound** option. If configuration options of both approaches are applied, SIP Server verifies the new incoming call INVITE message multiple times, as follows:

1. SIP Server verifies the domain part of the **From** header of the INVITE message against the value of the **enforce-external-domains** option:
   - If a match is found in the **enforce-external-domains** option, SIP Server treats the call as inbound.
   - If a match is *not* found, SIP Server proceeds to Step 2.

2. SIP Server verifies the value of the **enforce-1pcc-inbound** option:
   - If the value of the **enforce-1pcc-inbound** option is set to `true`, SIP Server proceeds to Step 3.
   - Otherwise, SIP Server proceeds to Step 5.

3. SIP Server verifies the value of the **internal-call-domains** option:
   - If the value of the **internal-call-domains** option is empty, SIP Server treats the call as inbound.
   - If the value of the **internal-call-domains** option is not empty, SIP Server proceeds to Step 4.

4. SIP Server verifies the **Via** header of the INVITE message against the value of the **internal-call-domains** option:
   - If a match is found in the **internal-call-domains** option, SIP Server proceeds to Step 5.
   - If a match is *not* found in the **internal-call-domains** option, SIP Server treats the call as inbound.

5. SIP Server verifies only the username part in the **From** header in the INVITE message against the internal DNs:

   - If the username matches an Extension or ACD Position DN, SIP Server treats the call as internal.

   - If the username matches a Routing Point or Trunk Group DN, SIP Server rejects the call.

   - If a match is *not* found, SIP Server treats the call as inbound.

Configuration Options

enforce-1pcc-inbound

Setting: **TServer** section, Application level
Default Value: `false`
Valid Values: `true, false`
Changes Take Effect: On the next call

When set to `true`, SIP Server treats 1pcc/incoming calls from external callers as inbound calls. A call is considered internal if both conditions are met:

1. A username in the **From** header matches the Extension DN configured in the SIP Switch.

2. A network address of the caller in the first **Via** header matches the IPv4 CIDR blocks or FQDN listed in the **internal-call-domains** option.

If the **internal-call-domains** option is empty, all incoming calls are treated as inbound calls.

internal-call-domains

Setting: **TServer** section, Application level
Default Value: An empty string
Valid Values: A list of IPv4 CIDR blocks or FQDN separated by semicolons (;). The IP address without a wildcard means the host address—for example, "1.2.3.0" means "1.2.3.0/32".
Changes Take Effect: On the next call

If the **enforce-1pcc-inbound** option is set to `true` and the **internal-call-domains** option is set to a list of IP addresses, SIP Server does the following for the incoming calls:

1. SIP Server verifies the **Via** header of the INVITE message against the value of the **internal-call-domains** option:

   - If a match is found, SIP Server proceeds to Step 2.

   - If a match is *not* found, SIP Server treats the call as inbound.

2. SIP Server verifies only the username part in the **From** header in the INVITE message against the internal DNs and classifies the calls as follows:

   - If the username matches an Extension or ACD Position DN, SIP Server treats the call as internal.

   - If the username matches a Routing Point or Trunk Group DN, SIP Server rejects the call.

   - If a match is *not* found, SIP Server treats the call as inbound.

All other 1pcc/incoming calls are treated as inbound calls. If the option is empty, all 1pcc/incoming calls are treated as inbound calls.

Feature Limitations

- IPv6 addresses are not supported in the list of the **internal-call-domains** option.