

# SHORETEL SIP TRUNK TROUBLESHOOTING REFERENCE GUIDE

## Frequently Asked Questions

Question	Answer
How do you know which SIP Trunk providers are certified to use with ShoreTel?	You can find a list of all of our service providers at the website below by selecting "ITSP/SIP Trunking" <a href="http://www.shoretel.com/partners/tech_developers/ecosystem">http://www.shoretel.com/partners/tech_developers/ecosystem</a>
Is it required to use an Ingate appliance between my carrier and ShoreTel?	Most of the providers that have gone through ShoreTel's Innovation Network( all except Etherspeak) do require the use of an Ingate appliance
Can call recording be accomplished with using sip trunks?	Call recording requires a physical trunk which is not possible using SIP Trunks in ShoreTel 12.x and below. In ShoreTel 13.x it is possible if a SIP Media Proxy ports are available.
Are there any additional features that are available with the use of SIP Media Proxy ports in 13.x?	Yes. The use of SIP Media Proxy ports allow the following features to work <ul style="list-style-type: none"> <li>• Silent Monitor &amp; Silent Coach</li> <li>• Simultring</li> <li>• Mesh Conferencing</li> <li>• No SDP in an INVITE message</li> </ul>
Is there a way to change the signaling port from 5060 on SIP trunks?	Yes. This can be done in the Ingate.
Is it possible to change the payload type?	Yes. The payload type can be changed in the Director under Call Control > Options. The default is 102.

## Information Needed by ShoreTel TAC

Please complete this check list before calling TAC to ensure the best possible service

- Review the TPP article pertaining to the carrier in question
- What is the current problematic behavior?
- What is the expected behavior (Desired solution)?
- When did the problem start?
- How often does the problem occur?
- Who is effected by the problem?
- Provide a specific instance of the problem (GUID, screenshot, etc).
- What is the Business Impact of the problem?
- Who is the SIP trunk provider?
- Is an Ingate SIPParator appliance installed?
- Provide the IP addresses of all devices involved

### Logs/Info that may be requested:

- Packet capture from the Ingate or appropriate location (See KB16807)
- Additional debug output from troubleshooting completed (See KB16807)
- Network topology documentation
- Windows Event Logs (Application and System)
- ShoreWare Configuration Database
- Windows System Info from HQ server
- Shoreline Data logs for day(s) of event from \Shoreline Data\Log (search yymmdd)

## ShoreTel SIP Trunk Troubleshooting Reference Guide

### Common Issues and Basic Troubleshooting

Issue	Scenario	Basic Troubleshooting Steps
<p>Unable to transfer calls to another extension. OR Incoming calls over SIP trunks that route to ECC receive silence. The call never routes to agent.</p>	<p>Incoming calls routes into the system over SIP trunks. The call goes to a route point that sends the call to ECC. OR The call is presented to an agent, but no audio is heard. OR If you call this Route Point internally and route to ECC, there are no issues.</p>	<ul style="list-style-type: none"> <li>Using the Ingate SIParator browser interface, select the "Network" tab, then under the "Networks and Computers" add a new Network, name it Loopback and enter the IP address of 127.0.0.1, save the change.</li> <li>Select the "SIP Traffic" tab, then select the "Dial Plan" tab: <ul style="list-style-type: none"> <li>In the "Matching From Header" parameter section, add a new entry, name it Loopback, set the "Username" and "Domain" parameters to an asterisk (*), set the Transport to "Any" and the Network to the one created above, which should be "Loopback". Save the Change.</li> <li>Go down to the "Dial Plan" parameter section, add a new entry and number it above the "WAN" entry (if WAN is currently 3, set it to 4 and number the new entry to 3), in the "From Header" select the "Loopback" network created, then in the "Action" select "Allow". Save the change.</li> </ul> </li> <li>Select the "Administration" tab, then "Apply" the configuration, then "Save."</li> </ul>
<p>Inbound workgroup or hunt group calls fail. OR Office anywhere external calls fail to establish properly. OR Unable to transfer calls to another extension.</p>	<p>Inbound workgroup or hunt group calls will never complete. Inbound calls designated for a user who is setup for external assignment will drop. You may see 491 Request Pending SIP signaling messages in the SIP call traces.</p>	<ul style="list-style-type: none"> <li>Using the Ingate SIParator browser interface, select the "Sip Services" tab, then under the "Interoperability" tab change the "Signaling Order of Re-INVITES."</li> <li>Go to the "Sessions and Media" tab under "SIP Services," and modify the "B2BUA request pending timeout" parameter to 3.</li> <li>Go to "Sip Traffic," then "Routing" and check "Always handle REFER locally."</li> <li>Adjust codecs in the Ingate and the Director to PCMU/8000</li> </ul>
<p>No ring back provided</p>	<p>A call is established over SIP trunks, and the ShoreTel user transfers the call to another destination</p>	<ul style="list-style-type: none"> <li>Using the Ingate Web UI, select the "Sip Services" tab, then under Sessions and Media select "Play local ringback when transferer hangs up" under "Local Ringback."</li> <li>To see which SIP profile is being used - use systemTrunk instead of ATT BVOIP (TEST all call scenarios after this to ensure working functionality)</li> <li>Ensure the Ingate SIParator is upgraded to the latest firmware</li> </ul>