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# Sonus SBC 5XX0 6.0R0 IOT BroadWorks R22 Application Notes

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## Document Overview

This document provides a configuration guide for Sonus Session Border Controller 5XX0 Series (SBC) when connecting to BroadWorks R22SP1.

This configuration guide supports features given in BW-SessionBorderController-InteropTestPlan-R22.


- For additional information on BroadWorks, visit <http://broadsoft.com>
- For additional information on Sonus SBC, visit <https://ribboncommunications.com>

## Introduction

The interoperability compliance testing focuses on verifying inbound and outbound call flows between Sonus SBC 5XX0 and BroadWorks R22SP1.

## Audience

This is a technical document intended for telecommunications engineers with the purpose of configuring both the Sonus SBC and a third-party product. This guide requires navigating both third-party product and the Sonus SBC Command Line Interface (CLI). Understanding the basic concepts of TCP/UDP, IP/Routing, and SIP/RTP are also required to complete the configuration and any necessary troubleshooting.

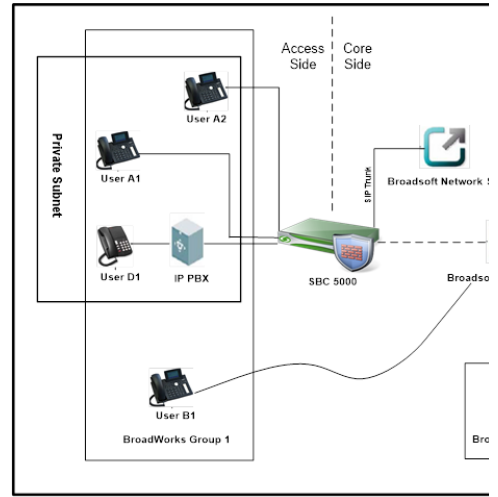
 This configuration guide is offered as a convenience to Sonus customers. The specifications and information regarding the product in this guide are subject to change without notice. All statements, information, and recommendations in this guide are believed to be accurate but are presented without warranty of any kind, express or implied, and are provided "AS IS". Users must take full responsibility for the application of the specifications and information in this guide.

## Requirements

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The following equipment and software were used for the sample configuration provided:

**Figure 1: Requirements**



**Table 1: Software Information**

|                              | Equipment      | Software Version |
|------------------------------|----------------|------------------|
| <b>Sonus Networks</b>        | Sonus SBC 5200 | V03.05.00        |
|                              | BMC            | V02.06.00        |
|                              | BIOS           | V03.02.00-I      |
|                              | ConnexIP OS    | V06.00.00-I      |
|                              | SonusDB        | V06.00.00-I      |
|                              | EMA SBX        | V06.00.00-I      |
| <b>Third-party Equipment</b> |                |                  |
| <b>OS</b>                    | BroadWorks     | R22SP1           |
| <b>Other software</b>        |                |                  |

### Reference Configuration

The following reference configuration shows connectivity between a third-party product and the Sonus SBC 5XX0.

**Figure 2: Reference Configuration**

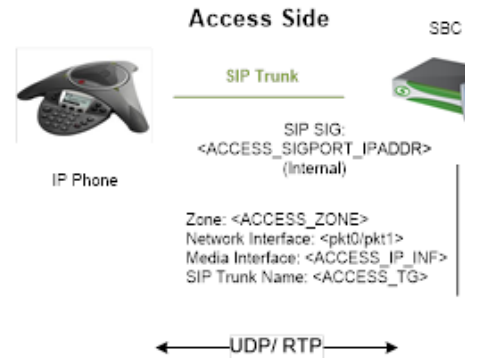
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Configuration Synopsis



## Support

For any questions regarding the content of this document, please contact your maintenance and support provider.

## Third-Party Product Features

This configuration guide supports basic and enhanced Broadsoft features. The following list indicates the packages verified using this configuration guide.

- Basic Package
- Broadsoft Services Package
- Access Device Services Package
- Redundancy Package
- Video Package
- Access Redirect Package
- IPv6 Package

## Prerequisites

- **Busy Lamp Field (on TCP) with NAT Traversal**

In case of Busy Lamp Field (on TCP) requiring NAT traversal, it is recommended to set 'tcpKeepalive'Timer on SIP Trunk Group toward NAT to 45 (in seconds).

- **DTMF payload type**

Configure all servers and endpoints with the same DTMF Payload Type.

# Configuration 1 - SBC Configuration

## 1.1 Global Configuration

### 1.1.1 SIP Max PDU Size

Increase the maximum PDU size from 6 kb to 60 kb to accommodate larger SIP packets.

```
set global signaling
sipSigControls
maxPduSizeValue
pdusize60kb
commit
```

### 1.1.2 SIP Domain

Specify the global SIP Domain name.

```
set global sipDomain
AS.IOP1.BROADWORKS.NET
commit
```

### 1.1.3 Crankback Profile

Add call release (reason) code 102 (Recovery on Timer Expiry) to the default Crankback Profile . The Crankback Profile contains the call release codes that automatically cause the SBC to attempt to reroute the call.

```
set profiles callRouting
crankbackProfile default
reason 102
commit
```

### 1.1.4 UDP Port Range for RTP (optional)

The Sonus SBC Core Portfolio defaults to using the UDP port range of 1024 - 65148 for RTP (media) traffic. Many enterprise networking devices, including security devices may assume a range of 16384 - 32767.

If required, the following configuration modifies the SBC to work within the limited range with no change to the existing devices. This is a global change.

```
set system media
mediaPortRange
baseUdpPort 16384
maxUdpPort 32767
commit
```

### 1.1.5 DSP Resource Allocation

This configuration only applies if the SBC has been deployed with (hardware) DSP resources. If it has not, executing these configuration steps has no negative impact.

Subsequent configuration sections (Packet service profiles) do not attempt transcoding, so lack of compression resources will not impact the overall SBC configuration in this document.

```
set system mediaProfile
compression 90 tone 10
commit
```

### 1.1.6 MultipleContactHeader per AoR

To disable multiple contacts per AOR, the “multipleContactsPerAor” system-level flag must be disabled as shown in the example below (default configuration is ‘enabled’).

In BSFT deployment, when customers do not want to allow multiple devices to use the same AoR, disable this flag. Since BSFT handles the multiple devices per AoR using different AoR suffixes, there is no need to have multiple Contact Headers per AoR.

```
set global signaling
sipSigControls
multipleContactsPerAor
disabled
commit
```

### 1.1.7 SIP Message Manipulation (SMM)

#### 1.1.7.1 SURR\_REG\_SMM

Add the Application server FQDN in the Surrogate SIP Register going towards BSFT.

```
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 2
```

```

criterion 2 type header
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 2
criterion 2 header name
To condition exist
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 2
criterion 1 type message
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 2
criterion 1 message
messageTypes request
methodTypes register
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 2
applyMatchHeader one
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 2
action 1 type token
operation regsub
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 2
action 1 to type token
tokenValue urihostname
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 2
action 1 regexp string
(?:[0-9]{1,3}\.){3}[0-9]
{1,3} matchInstance all
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 2
action 1 from type value
value
as.iopl.broadworks.net
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 1
criterion 2 type header
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 1
criterion 2 header name
From condition exist
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 1
criterion 1 type message
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 1
criterion 1 message
messageTypes request
methodTypes register
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 1
applyMatchHeader one
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 1
action 1 type token
operation regsub
set profiles signaling
sipAdaptorProfile

```

```
SURR_REG_SMM rule 1
action 1 regexp string
(?:[0-9]{1,3}\.){3}[0-9]
{1,3} matchInstance all
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 1
action 1 from type value
value
as.iopl.broadworks.net
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 1
action 1 to type token
tokenValue urihostname
set profiles signaling
sipAdaptorProfile
```



```
SURR_REG_SMM state
enabled
commit
```

### 1.1.7.2 Refer\_SMM

Create a SMM that will add the Refer-To Header in the CORE side.

```
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 3 type token
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 3 type token
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 3 type token
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 3 token
condition exist
tokenType urihostname
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 3 token
condition exist
tokenType urihostname
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 3 token
condition exist
tokenType urihostname
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 2 type header
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 2 type header
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 2 type header
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 2 header name
Refer-To condition exist
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 2 header name
Refer-To condition exist
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 2 header name
```

```
Refer-To condition exist
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 1 type message
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 1 type message
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 1 type message
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 1 message
messageTypes request
methodTypes refer
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 1 message
messageTypes request
methodTypes refer
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 1 message
messageTypes request
methodTypes refer
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
applyMatchHeader one
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
applyMatchHeader one
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1 action
1 type token operation
modify
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1 action
1 type token operation
modify
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1 action
1 type token operation
modify
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1 action
1 to type token
tokenValue urihostname
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1 action
1 from type value value
as.iopl.broadworks.net
commit
set profiles signaling
sipAdaptorProfile
Refer_SMM state enabled
```

```
advancedSMM disabled
commit
```

### 1.1.7.3 CORE\_PROF

This provides for Pass through of all the supported sipHeaders.

It should be attached to both the Trunk Groups

```
set profiles services
sipParamFilterProfile
CORE_PROF sipHeader
supported action
passthru all
commit
```

### 1.1.8 Prefix Profile

Create Prefix Profile with appropriate dial plan for handling outgoing calls.

This Access dial plan places all dialing patterns into username routing.

```
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 0
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 0
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 1
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 1
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 2
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 2
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
```

```
ACCESS_DIAL_PLAN entry 3
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 3
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 4
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 4
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 5
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 5
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 6
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 6
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 7
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 7
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 8
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 8
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 9
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 9
```

```
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry *
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry *
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry +
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry +
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry %
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry %
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry
"#" 0 1 31 callType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry
```

```
"#" 0 1 31 digitType  
userName  
commit
```

**Note**

The "" (quotation marks) around # is required for CLI.

## 1.1.9 Numbering Plan

Create Numbering Plan by applying Prefix Profile created earlier.

```
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN
prefixProfile
ACCESS_DIAL_PLAN
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN lengths
nationalNumber min 1
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN lengths
nationalNumber max 31
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN lengths
subscriberNumber min 0
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN lengths
subscriberNumber max 0
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN lengths
line min 0
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN lengths
line max 0
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN lengths
exchangeCode min 0
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN lengths
exchangeCode max 0
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN lengths
areaCode min 0
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN lengths
areaCode max 0
commit
```

## 1.1.10 Digit Manipulation/Parameter Manipulation

### 1.1.10.1 DM/PM Rules

Create a DM/PM rule to ignore the user=phone parameter. This allows the SBC to support both Called Number and Username Routing.

```
set profiles
digitParameterHandling
dmPmRule DMPM_RULE
subRule 0 ruleType uri
uriParameterManipulation
uriType calledUri
uriParameterManipulation
userParameter ip
commit
```

### 1.1.11 Element Routing Priority

The Element Routing Priority (ERP) Profile determines the priority or precedence for criteria used for call routing, and then applies an ERP to the Trunk Group entity.

When configuring a Trunk Group to Trunk Group , the SBC must have an ERP profile which prioritizes the Trunk Group entity above others. This allows routing of traffic from the ingress Trunk Group to the egress Trunk Group.



```
set profiles callRouting
elementRoutingPriority
TG_ERP entry _private 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry
nationalOperator 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry
localOperator 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry
nationalType 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry
internationalType 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry
internationalOperator 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry
longDistanceOperator 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry
ipVpnService 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry test 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry transit 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry
otherCarrierChosen 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry
carrierCutThrough 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry userName 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry mobile 1
entityType trunkGroup
commit
```

## 1.1.12 Address reachability Service (ARS) Profile

To achieve efficient device failover to the backup/secondary Application Server, the SBC uses the Address Reachability Service (ARS) to determine if a server is reachable, providing the ability to “blacklist” a server IP address if it is found to be unreachable, as well as the ability to Remove the server from the blacklisted state.

ARS will be triggered based on the SIP-INVITE timeout, so if other requests like SUBSCRIBE, REGISTER are sent to that peer, then ARS will not be triggered.

ARS profile is suitable for the peer which is used only for INVITE.

```
set profiles services
sipArsProfile CORE_ARSP
blkListAlgorithms
timeouts,retryafter
set profiles services
sipArsProfile CORE_ARSP
blkListAlgTimeoutsType
sip-invite
set profiles services
sipArsProfile CORE_ARSP
blkListAlgTimeoutsNumTim
eouts 4
set profiles services
sipArsProfile CORE_ARSP
blkListAlgTimeoutsDurati
on 120
set profiles services
sipArsProfile CORE_ARSP
blkListAlgRetryAfterType
sip-503
set profiles services
sipArsProfile CORE_ARSP
recoveryAlgorithm probe
set profiles services
sipArsProfile CORE_ARSP
recoveryAlgProbeInterval
30
set profiles services
sipArsProfile CORE_ARSP
recoveryAlgProbeNumRespo
nses 6
set profiles services
sipArsProfile CORE_ARSP
recoveryAlgProbeDuration
240
commit
```

## 1.2 Internal Side SBC Configuration

### 1.2.1 IP Interface Group

The configuration below is for a Sonus 52x0

system using a single port for Internal connectivity.

```
set addressContext
default ipInterfaceGroup
CORE_LIF ipInterface
IPIF2 ceName IOTNANO
portName pkt1 ipAddress
172.16.100.202 prefix 24
altIpAddress
2001:E48:80:1001::10
altPrefix 64
set addressContext
default ipInterfaceGroup
CORE_LIF ipInterface
IPIF2 mode inService
state enabled
commit
```

## 1.2.2 IP Static Route

Create a default route to the subnet's IP nexthop for the interface and IP Interface Group.

```
set addressContext
default staticRoute
0.0.0.0 0 172.16.100.2
CORE_LIF IPIF2
preference 100
commit
set addressContext
default staticRoute 0::0
0 2001:E48:80:1001::1
CORE_LIF IPIF2
preference 100
commit
```

## 1.3 SBC Configuration for Core

### 1.3.1 Profile Configuration

#### 1.3.1.1 Codec Entry

Create a Codec Entry with the supported codec on the network.

```
set profiles media
codecEntry
G711_ALAW_PTIME_20 codec
g711 law ALaw packetSize
20
set profiles media
codecEntry
G729AB-DEFAULT codec
g729ab packetSize 20
commit
```

### 1.3.1.2 Packet Service Profile (PSP)

Create a Packet Service Profile (PSP) for the BroadWorks Core. The PSP will be specified within the SIP Trunk Group configuration.

```
set profiles media
packetServiceProfile
CORE_PSP codec
codecEntry1
G729AB-DEFAULT
set profiles media
packetServiceProfile
CORE_PSP codec
codecEntry2
G711_ALAW_PTIME_20
set profiles media
packetServiceProfile
CORE_PSP
packetToPacketControl
transcode
transcoderFreeTransparen
cy
set profiles media
packetServiceProfile
CORE_PSP rtcpOptions
rtcp enable
set profiles media
packetServiceProfile
CORE_PSP videoCalls
maxVideoBandwidth 4096
commit
```

### 1.3.1.3 IP Signaling Profile (IPSP)

Create an IP Signaling Profile (IPSP) for the BroadWorks Core. The IPSP will be specified within the SIP Trunk Group configuration.

```
set profiles signaling
ipSignalingProfile
CORE_IPSP
ipProtocolType sipOnly
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes flags
disableHostTranslation
enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes flags
disableMediaLockDown
enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes flags
```

```
includeTransportTypeInContactHeader enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes flags
reQueryPxxOnRegisterRefresh enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes flags
endToEndBye enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes flags
minimizeRelayingOfMediaChangesFromOtherCallLegAll enable
relayDataPathModeChangeFromOtherCallLeg enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes
relayFlags
dialogEventPackage
enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes
relayFlags info enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes
relayFlags notify enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes
relayFlags refer enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes
relayFlags
statusCode4xx6xx enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes
relayFlags
updateWithoutSdp enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes
transparencyFlags
authcodeHeaders enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
egressIpAttributes flags
disable2806Compliance
enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
egressIpAttributes
```

```
sipHeadersAndParameters
flags endToEndAck enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
egressIpAttributes flags
sameCallIdForRequiredAut
horization enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
egressIpAttributes
privacy transparency
enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
egressIpAttributes
transport type1 udp
set profiles signaling
ipSignalingProfile
CORE_IPSP
egressIpAttributes
transport type2 tcp
set profiles signaling
ipSignalingProfile
CORE_IPSP
egressIpAttributes
transport type3
tlsOverTcp
set profiles signaling
ipSignalingProfile
CORE_IPSP
egressIpAttributes
transport type4 sctp
set profiles signaling
ipSignalingProfile
CORE_IPSP
egressIpAttributes flags
suppressUnregister
enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
```

```
commonIpAttributes flags
noPortNumber5060 enable
commit
```

### **1.3.1.4 Transparency Profile (TP)**

Create a Transparency Profile (TP) for the BroadWorks Core. The TP will be specified within the SIP Trunk Group configuration.

For BroadWorks, this profile is configured to make the Call Headers transparent, and exceptions will be added for the headers that will not be transparent.

```
set profiles services
transparencyProfile
CORE_TP sipHeader all
set profiles services
transparencyProfile
CORE_TP sipMessageBody
all
set profiles services
transparencyProfile
CORE_TP sipHeader
supported
set profiles services
transparencyProfile
CORE_TP sipHeader via
ignoreTransparency yes
set profiles services
transparencyProfile
CORE_TP sipHeader
expires
ignoreTransparency yes
set profiles services
transparencyProfile
CORE_TP sipHeader
contact
ignoreTransparency yes
set profiles services
transparencyProfile
CORE_TP sipHeader path
ignoreTransparency yes
set profiles services
transparencyProfile
CORE_TP sipHeader
serviceroute
ignoreTransparency yes
set profiles services
transparencyProfile
CORE_TP sipHeader
require
ignoreTransparency yes
set profiles services
transparencyProfile
CORE_TP sipHeader
proxy-Require
ignoreTransparency yes
set profiles services
transparencyProfile
CORE_TP sipHeader event
ignoreTransparency yes
set profiles services
transparencyProfile
CORE_TP sipHeader min-se
ignoreTransparency yes
set profiles services
transparencyProfile
CORE_TP sipHeader
session-expires
ignoreTransparency yes
set profiles services
transparencyProfile
CORE_TP state enabled
commit
```

### 1.3.1.5 Feature Control Profile (FCP)



Create a Feature Control Profile (FCP) for the BroadWorks Core. The FCP will be specified within the SIP Trunk Group configuration.

When BSFT uses the tgrp based routing for the enterprise Trunking, SBC needs to process the received tgrp parameter to find the egress Trunk Group.

```
set profiles
featureControlProfile
CORE_FCP
processDestinationTgrp
enable
commit
```

## 1.3.2 Address Context Configuration

No overlapping IP addressing is used on the SBC in this guide, all configuration will be done under the “default” Address Context.

### 1.3.2.1 DNS Group

DNS Groups set DNS objects that may be used for DNS resolution within a particular Zone.

If a DNS server is available and accessible by SBC, then use this section.

```
set addressContext
default dnsGroup
CORE_DNS_GRP type mgmt
set addressContext
default dnsGroup
CORE_DNS_GRP server
EXTERNAL_DNS ipAddress
10.54.80.101
set addressContext
default dnsGroup
CORE_DNS_GRP server
EXTERNAL_DNS priority
80
set addressContext
default dnsGroup
CORE_DNS_GRP server
EXTERNAL_DNS weight 50
set addressContext
default dnsGroup
CORE_DNS_GRP server
EXTERNAL_DNS state
enabled
commit
```

### 1.3.2.2 Zone

This Zone groups the set of objects that is used for the communication to BroadWorks Network and Application Servers.

```
set addressContext
default zone CORE id 2
remoteDeviceType
appServer
commit
```

### 1.3.2.3 SIP Signaling Port

A SIP Signaling port is a logical address permanently bound to a specific zone and is used to send and receive SIP call signaling packets.

```
set addressContext
default zone CORE
sipSigPort 3
ipInterfaceGroup
CORE_LIF
set addressContext
default zone CORE
sipSigPort 3
ipAddressV4
172.16.100.202
ipAddressV6
2001:E48:80:1001::10
set addressContext
default zone CORE
sipSigPort 3 dscpValue
26
set addressContext
default zone CORE
sipSigPort 3
transportProtocolsAllowe
d sip-udp,sip-tcp
set addressContext
default zone CORE
sipSigPort 3 state
enabled mode inService
commit
```

### 1.3.2.4 IP Peer

Create an IP Peer with the Fully-Qualified Domain Name (FQDN) of the BroadWorks Network Server Cluster and assign it to the BroadWorks Core Zone.

```

set addressContext
default zone CORE
ipPeer CORE_PEER policy
sip fqdn
ns.iopl.broadworks.net
set addressContext
default zone CORE
ipPeer CORE_PEER policy
sip fqdnPort 5060
commit

```

### 1.3.2.5 SIP Param Filter Profile

Create a SIP Param filter to pass the "Supported" SIP Header.

```

set profiles services
sipParamFilterProfile
CORE_PROF sipHeader
supported action
passthru all
set profiles services
sipParamFilterProfile
CORE_PROF state enabled

```

### 1.3.2.6 SIP Trunk Group

Create a SIP Trunk Group towards BroadWorks Core and assign the Profiles configured above.

```

set addressContext
default zone CORE
sipTrunkGroup CORE_STG
media
mediaIpInterfaceGroupName
CORE_LIF
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
media lateMediaSupport
passthru
sourceAddressFiltering
enabled
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
media mediaAddrType
matchSigAddrType
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
media
sdpAttributesSelectiveRe
lay enabled
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
policy

```

```
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
policy callRouting
elementRoutingPriority
TG_ERP
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
policy media
packetServiceProfile
CORE_PSP
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
policy signaling
ipSignalingProfile
CORE_IPSP
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
policy signaling
signalingProfile
DEFAULT_IP_PROFILE
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
services dnsSupportType
a-srv-naptr
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
services sipArsProfile
CORE_ARSP
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
services
sipParamFilterProfile
CORE_PROF
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling
relayNonInviteRequest
enabled
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling retryCounters
general 4
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling retryCounters
invite 2
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling retryCounters
bye 2
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling retryCounters
cancel 2
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
```

```
signaling retryCounters
reInvite 2
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling timers
sessionMinSE 60
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling registration
bulkRegisterFormat
followIngress
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling registration
insideExpiresMinimum
3500
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
ingressIpPrefix 0.0.0.0
0
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
ingressIpPrefix 0::0 0
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling
honorMaddrParam enabled
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
services
transparencyProfile
CORE_TP
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
policy
featureControlProfile
CORE_FCP
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling
messageManipulation
outputAdapterProfile
SURR_REG_SMM
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
state enabled mode
inService
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling
messageManipulation
outputAdapterProfile
Refer_SMM
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
services
```

```
sipParamFilterProfile
CORE_PROF
commit
```

## 1.4 External Side SBC Configuration

### 1.4.1 IP Interface Group

The configuration below is for a Sonus 52x0 system using a single port for internal connectivity.

```
set addressContext
default ipInterfaceGroup
ACCESS_LIF ipInterface
IPIF0 ceName IOTNANO
portName pkt0 ipAddress
172.16.102.125 prefix 24
altIpAddress
fc00::102:f:f:f:43
altPrefix 64
set addressContext
default ipInterfaceGroup
ACCESS_LIF ipInterface
IPIF0 mode inService
state enabled
commit
```

### 1.4.2 IP Static Route

Create a default route to the subnet's IP nexthop for the interface and IP Interface Group.

```
set addressContext
default staticRoute
0.0.0.0 0 172.16.102.1
ACCESS_LIF IPIF0
preference 100
commit
set addressContext
default staticRoute 0::0
0 fc00::20:f:f:f:1
ACCESS_LIF IPIF0
preference 100
commit
```

## 1.5 SBC Configuration for Access

## 1.5.1 Profile Configuration

### 1.5.1.1 Packet Service Profile (PSP)

Create a Packet Service Profile (PSP) for Access. The PSP will be specified within the SIP Trunk Group configuration.

```
set profiles media
packetServiceProfile
ACCESS_PSP
packetToPacketControl
transcode
transcoderFreeTransparen
cy
set profiles media
packetServiceProfile
ACCESS_PSP videoCalls
maxVideoBandwidth 4096
set profiles media
packetServiceProfile
ACCESS_PSP rtcpOptions
rtcp enable
set profiles media
packetServiceProfile
ACCESS_PSP codec
codecEntry1
G729AB-DEFAULT
set profiles media
packetServiceProfile
ACCESS_PSP codec
codecEntry2
G711_ALAW_PTIME_20
commit
```

### 1.5.1.2 IP Signaling Profile (IPSP)

Create an IP Signaling Profile (IPSP) for Access. The IPSP will be specified within the SIP Trunk Group configuration.

```
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
ipProtocolType sipOnly
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
commonIpAttributes
flags
disableMediaLockDown
enable
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
commonIpAttributes
flags
includeTransportTypeInCo
ntactHeader enable
set profiles signaling
ipSignalingProfile
```

ACCESS\_IPSP  
commonIpAttributes  
flags  
reQueryPsxOnRegisterRefresh enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
commonIpAttributes  
flags endToEndBye enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
commonIpAttributes  
flags  
minimizeRelayingOfMediaChangesFromOtherCallLegAl  
l enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
commonIpAttributes  
flags  
relayDataPathModeChangeFromOtherCallLeg enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
commonIpAttributes  
relayFlags  
dialogEventPackage  
enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
commonIpAttributes  
relayFlags info enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
commonIpAttributes  
relayFlags notify enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
commonIpAttributes  
relayFlags options  
enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
commonIpAttributes  
relayFlags refer enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
commonIpAttributes  
relayFlags statusCode3xx  
enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
commonIpAttributes  
relayFlags  
statusCode4xx6xx enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
commonIpAttributes  
relayFlags  
updateWithoutSdp enable  
set profiles signaling



```
ipSignalingProfile
ACCESS_IPSP
commonIpAttributes
transparencyFlags
authcodeHeaders enable
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
egressIpAttributes
flags
disable2806Compliance
enable
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
egressIpAttributes
sipHeadersAndParameters
flags endToEndAck enable
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
egressIpAttributes
flags
sameCallIdForRequiredAut
horization enable
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
egressIpAttributes
privacy transparency
enable
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
ingressIpAttributes
flags
sendSdpInSubsequent18x
enable
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
ingressIpAttributes
flags
suppress183WithoutSdp
enable
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
ingressIpAttributes
flags
suppress183For3xxRedirec
tResponse enable
sendSdpIn200OkIf18xRelia
ble enable
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
commonIpAttributes
flags noPortNumber5060
enable
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
commonIpAttributes
flags
```

```
disableHostTranslation
enable
commit
```

### **1.5.1.3 Transparency Profile (TP)**

Create a Transparency Profile (TP) for Access. The TP will be specified within the SIP Trunk Group configuration.

For BroadWorks, this profile is configured to make the Call Headers transparent, and exceptions will be added for the headers that will not be transparent.

```

set profiles services
transparencyProfile
ACCESS_TP sipHeader all
set profiles services
transparencyProfile
ACCESS_TP sipMessageBody
all
set profiles services
transparencyProfile
ACCESS_TP sipHeader
supported
set profiles services
transparencyProfile
ACCESS_TP sipHeader via
ignoreTransparency yes
set profiles services
transparencyProfile
ACCESS_TP sipHeader
contact
ignoreTransparency yes
set profiles services
transparencyProfile
ACCESS_TP sipHeader path
ignoreTransparency yes
set profiles services
transparencyProfile
ACCESS_TP sipHeader
serviceroute
ignoreTransparency yes
set profiles services
transparencyProfile
ACCESS_TP sipHeader
require
ignoreTransparency yes
set profiles services
transparencyProfile
ACCESS_TP sipHeader
proxy-Require
ignoreTransparency yes
set profiles services
transparencyProfile
ACCESS_TP sipHeader
event ignoreTransparency
yes
set profiles services
transparencyProfile
ACCESS_TP sipHeader
min-se
ignoreTransparency yes
set profiles services
transparencyProfile
ACCESS_TP sipHeader
session-expires
ignoreTransparency yes
set profiles services
transparencyProfile
ACCESS_TP state enabled
commit

```

### 1.5.1.4 Surrogate registration Profile

Create a surrogate registration profile for surrogate registered end points. Create the

profile with the pilot number configured in BroadWorks.

```
set profiles services
surrogateRegistrationPro
file SURR_PROF
aorUserName 9876543210
commit
set profiles services
surrogateRegistrationPro
file SURR_PROF
aorUserName 9876543210
aorState enabled
commit
```

## 1.5.2 Address Context Configuration

No overlapping IP addressing is used on the SBC in this document, all configurations will be done under the “default” Address Context.

### 1.5.2.1 Zone

This Zone groups the set of objects that is used for the communication to the Access SIP trunk.

```
set addressContext
default zone ACCESS id
3 remoteDeviceType
accessDevice
commit
```

### 1.5.2.2 SIP Signaling Port

A SIP Signaling port is a logical address permanently bound to a specific zone and is used to send and receive SIP call signaling packets

```

set addressContext
default zone ACCESS
sipSigPort 2
ipInterfaceGroup
ACCESS_LIF
set addressContext
default zone ACCESS
sipSigPort 2
ipAddressV4
172.16.102.125
ipAddressV6
fc00::102:f:f:43
set addressContext
default zone ACCESS
sipSigPort 2 dscpValue
26
set addressContext
default zone ACCESS
sipSigPort 2
transportProtocolsAllowe
d sip-udp,sip-tcp
set addressContext
default zone ACCESS
sipSigPort 2 state
enabled mode inService
commit

```

### 1.5.2.3 IP Peer

Create an IP Peer with the IP address of the PBX on behalf of the SBC which made a surrogate registration.

```

set addressContext
default zone ACCESS
ipPeer Surr_Peer
ipAddress 10.54.20.225
ipPort 5060
commit
set addressContext
default zone ACCESS
ipPeer Surr_Peer
surrogateRegistration
surrRegProfile Surr_Prof
hostPart
as.iopl.broadworks.net
commit
set addressContext
default zone ACCESS
ipPeer Surr_Peer
surrogateRegistration
surrRegProfile Surr_Prof
state enabled
commit

```

### 1.5.2.5 SIP Param Filter Profile

Create a SIP Param filter to pass the "Supported" SIP Header.

```
set profiles services
sipParamFilterProfile
ACCESS_PROF sipHeader
supported action
passthru all
set profiles services
sipParamFilterProfile
ACCESS_PROF state
enabled
```

### 1.5.2.6 SIP Trunk Group

Create a SIP Trunk Group towards Access and assign the Profiles configured above.

```
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
media
mediaIpInterfaceGroupName
ACCESS_LIF
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
media lateMediaSupport
passthru
sourceAddressFiltering
enabled
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
media mediaAddrType
matchSigAddrType
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
media
sdpAttributesSelectiveRelay
enabled
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
policy
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
policy callRouting
elementRoutingPriority
TG_ERP
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
policy media
packetServiceProfile
ACCESS_PSP
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
policy signaling
ipSignalingProfile
ACCESS_IPSP
set addressContext
default zone ACCESS
```

```

sipTrunkGroup ACCESS_STG
policy signaling
signalingProfile
DEFAULT_IP_PROFILE
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
services dnsSupportType
a-srv-naptr
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
services
sipParamFilterProfile
ACCESS_PROF
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
services natTraversal
signalingNat enabled
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
services natTraversal
mediaNat enabled
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
services natTraversal
qualifiedPrefix 10.0.0.0
8
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
services natTraversal
qualifiedPrefix
192.168.0.0 16
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
signaling
messageManipulation
outputAdapterProfile
RE_ADD_ISFOCUS
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
signaling
messageManipulation
inputAdapterProfile
SMM_RM_USRPH
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
signaling
relayNonInviteRequest
enabled
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
signaling registration
requireRegistration
required

set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
signaling registration
expires 3600
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG

```

```
signaling registration
insideExpiresMinimum
3500
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
signaling rel100Support
disabled
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
signaling
psxRouteForSubscribe
enabled
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
policy
digitParameterHandling
ingressDmPmRule
DMPM_RULE
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
ingressIpPrefix 0.0.0.0
0
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
ingressIpPrefix 0::0 0
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
services
transparencyProfile
ACCESS_TP
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
media
sdpAttributesSelectiveRe
lay enabled
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
state enabled mode
inService
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
services
```



```
sipParamFilterProfile
CORE_PROF
commit
```

## 1.6 SBC Configuration for GIN PBX Access

### 1.6.1 Profile Configuration

#### 1.6.1.1 Packet Service Profile (PSP)

Create a Packet Service Profile (PSP) for GIN IP PBX Access. The PSP will be specified within the SIP Trunk Group configuration.

```
set profiles media
packetServiceProfile
GIN_ACCESS_PSP
packetToPacketControl
transcode
transcoderFreeTransparen
cy
commit
```

#### 1.6.1.2 IP Signaling Profile (IPSP)

Create an IP Signaling Profile (IPSP) for GIN IP PBX Access. The IPSP will be specified within the SIP Trunk Group configuration.

```
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
ipProtocolType sipOnly
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes flags
disableMediaLockDown
enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes flags
minimizeRelayingOfMediaC
hangesFromOtherCallLegAl
l enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes flags
relayDataPathModeChangeF
romOtherCallLeg enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
```

```
commonIpAttributes
relayFlags
dialogEventPackage
enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
relayFlags info enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
relayFlags notify enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
relayFlags options
enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
relayFlags refer enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
relayFlags statusCode3xx
enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
relayFlags
statusCode4xx6xx enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
relayFlags
updateWithoutSdp enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
transparencyFlags
acceptHeader enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
transparencyFlags
authcodeHeaders enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
transparencyFlags
callInfoHeader enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
transparencyFlags
fromHeader enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
transparencyFlags
```

```
mwiBody enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
transparencyFlags
sipfragBody enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
transparencyFlags
unknownBody enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
transparencyFlags
unknownHeader enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
transparencyFlags
userAgentHeader enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
egressIpAttributes flags
disable2806Compliance
enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
egressIpAttributes flags
sameCallIdForRequiredAut
horization enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
egressIpAttributes
privacy transparency
enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
egressIpAttributes
transport type1 udp
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
egressIpAttributes
transport type2 tcp
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
egressIpAttributes
transport type3
tlsOverTcp
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
egressIpAttributes
transport type4 sctp
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
ingressIpAttributes
flags
sendSdpInSubsequent18x
enable
set profiles signaling
```

ipSignalingProfile  
GIN\_ACCESS\_IPSP  
ingressIpAttributes  
flags

```
suppress183WithoutSdp  
enable  
commit
```

### **1.6.1.3 Transparency Profile (TP)**

Create a Transparency Profile (TP) for GIN IP PBX Access. The TP will be specified within the SIP Trunk Group configuration.

For BroadWorks, this profile is configured to make the Call Headers transparent, and exceptions will be added for the headers that are not transparent.

```

set profiles services
transparencyProfile
GIN_TP sipHeader all
set profiles services
transparencyProfile
GIN_TP sipMessageBody
all
set profiles services
transparencyProfile
GIN_TP sipHeader
supported
set profiles services
transparencyProfile
GIN_TP sipHeader via
ignoreTransparency yes
set profiles services
transparencyProfile
GIN_TP sipHeader expires
ignoreTransparency yes
set profiles services
transparencyProfile
GIN_TP sipHeader contact
ignoreTransparency yes
set profiles services
transparencyProfile
GIN_TP sipHeader path
ignoreTransparency yes
set profiles services
transparencyProfile
GIN_TP sipHeader
serviceroute
ignoreTransparency yes
set profiles services
transparencyProfile
GIN_TP sipHeader require
ignoreTransparency yes
set profiles services
transparencyProfile
GIN_TP sipHeader
proxy-Require
ignoreTransparency yes
set profiles services
transparencyProfile
GIN_TP sipHeader event
ignoreTransparency yes
set profiles services
transparencyProfile
GIN_TP sipHeader min-se
ignoreTransparency yes
set profiles services
transparencyProfile
GIN_TP sipHeader
session-expires
ignoreTransparency yes
set profiles services
transparencyProfile
GIN_TP state enabled
commit

```

## 1.6.2 Address Context Configuration

No overlapping IP addressing is used on the SBC in this document, all configurations will be done under the “default” Address Context.

### 1.6.2.1 Zone

This Zone groups the set of objects that is used for the communication to the GIN IP PBX Access SIP trunk.

```
set addressContext
default zone GIN_ACCESS
id 4 remoteDeviceType
accessDevice
commit
```

### 1.6.2.2 SIP Signaling Port

A SIP Signaling port is a logical address permanently bound to a specific zone and is used to send and receive SIP call signaling packets.

```
set addressContext
default zone GIN_ACCESS
sipSigPort 4
ipInterfaceGroup
ACCESS_LIF
set addressContext
default zone GIN_ACCESS
sipSigPort 4
ipAddressV4
172.16.102.145
set addressContext
default zone GIN_ACCESS
sipSigPort 4 dscpValue
26
set addressContext
default zone GIN_ACCESS
sipSigPort 4
transportProtocolsAllowed sip-udp,sip-tcp
set addressContext
default zone GIN_ACCESS
sipSigPort 4 state
enabled mode inService
commit
```

### 1.6.2.3 SIP Trunk Group

Create a SIP Trunk Group towards Access and assign the Profiles configured above.

```
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG media
mediaIpInterfaceGroupName
ACCESS_LIF
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
```

```

GIN_ACCESS_STG media
sourceAddressFiltering
disabled
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG policy
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG policy
callRouting
elementRoutingPriority
TG_ERP
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG policy
media
packetServiceProfile
GIN_ACCESS_PSP
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG policy
signaling
ipSignalingProfile
GIN_ACCESS_IPSP
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG policy
signaling
signalingProfile
DEFAULT_IP_PROFILE
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG services
dnsSupportType
a-srv-naptr
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG services
natTraversal
signalingNat enabled
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG services
natTraversal mediaNat
enabled
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
signaling
messageManipulation
outputAdapterProfile
RE_ADD_ISFOCUS
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
signaling registration
requireRegistration
required-group
set addressContext

```



```

default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
signaling registration
bulkRegisterFormat
enabled
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
signaling registration
expires 60
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
signaling registration
insideExpiresMinimum
3500
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
signaling rel100Support
disabled
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
signaling
relayNonInviteRequest
enabled
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
signaling
psxRouteForSubscribe
enabled
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
signaling validateAor
disabled
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG services
transparencyProfile
GIN_TP
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
ingressIpPrefix 0.0.0.0
0
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
ingressIpPrefix 0::0 0
set addressContext
default zone GIN_ACCESS
sipTrunkGroup

```

```
GIN_ACCESS_STG state
enabled mode inService
commit
```

## 1.7 SBC Configuration for BroadWorks Enterprise Trunking

### 1.7.1 Profile Configuration

#### 1.7.1.1 Packet Service Profile (PSP)

Create a Packet Service Profile (PSP) for BroadWorks Enterprise SIP Trunk. The PSP will be specified within the SIP Trunk Group configuration.

```
set profiles media
packetServiceProfile
PBX123_PSP
packetToPacketControl
transcode
transcoderFreeTransparen
cy
commit
```

#### 1.7.1.2 IP Signaling Profile (IPSP)

Create an IP Signaling Profile (IPSP) for BroadWorks Enterprise SIP Trunk. The IPSP will be specified within the SIP Trunk Group configuration.

```
set profiles signaling
ipSignalingProfile
PBX123_IPSP
ipProtocolType sipOnly
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes flags
disableMediaLockDown
enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes flags
minimizeRelayingOfMediaC
hangesFromOtherCallLegAl
l enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes flags
```

```
relayDataPathModeChangeF
romOtherCallLeg enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
relayFlags
dialogEventPackage
enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
relayFlags info enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
relayFlags notify enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
relayFlags options
enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
relayFlags refer enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
relayFlags statusCode3xx
enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
relayFlags
statusCode4xx6xx enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
relayFlags
updateWithoutSdp enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
transparencyFlags
acceptHeader enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
transparencyFlags
authcodeHeaders enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
transparencyFlags
callInfoHeader enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
transparencyFlags
fromHeader enable
```

```
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
transparencyFlags
mwiBody enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
transparencyFlags
sipfragBody enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
transparencyFlags
toHeader enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
transparencyFlags
unknownBody enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
transparencyFlags
unknownHeader enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
transparencyFlags
userAgentHeader enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
egressIpAttributes flags
disable2806Compliance
enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
egressIpAttributes flags
sameCallIdForRequiredAut
horization enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
egressIpAttributes flags
useCalledPartyInRequestU
ri enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
egressIpAttributes
privacy transparency
enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
egressIpAttributes
transport type1 udp
set profiles signaling
ipSignalingProfile
PBX123_IPSP
egressIpAttributes
transport type2 tcp
set profiles signaling
ipSignalingProfile
```

```
PBX123_IPSP
egressIpAttributes
transport type3
tlsOverTcp
set profiles signaling
ipSignalingProfile
PBX123_IPSP
egressIpAttributes
transport type4 sctp
set profiles signaling
ipSignalingProfile
PBX123_IPSP
ingressIpAttributes
flags
```

```
sendSdpInSubsequent18x
enable
commit
```

### 1.7.1.3 Transparency Profile (TP)

Create a Transparency Profile (TP) for BroadWorks Enterprise SIP Trunk. The TP will be specified within the SIP Trunk Group configuration.

For BroadWorks, this profile is configured to make the Call Headers transparent, and exceptions will be added for the headers that are not transparent.

```

set profiles services
transparencyProfile
PBX_TP sipHeader all
set profiles services
transparencyProfile
PBX_TP sipMessageBody
all
set profiles services
transparencyProfile
PBX_TP sipHeader
supported
set profiles services
transparencyProfile
PBX_TP sipHeader via
ignoreTransparency yes
set profiles services
transparencyProfile
PBX_TP sipHeader expires
ignoreTransparency yes
set profiles services
transparencyProfile
PBX_TP sipHeader contact
ignoreTransparency yes
set profiles services
transparencyProfile
PBX_TP sipHeader path
ignoreTransparency yes
set profiles services
transparencyProfile
PBX_TP sipHeader
serviceroute
ignoreTransparency yes
set profiles services
transparencyProfile
PBX_TP sipHeader require
ignoreTransparency yes
set profiles services
transparencyProfile
PBX_TP sipHeader
proxy-Require
ignoreTransparency yes
set profiles services
transparencyProfile
PBX_TP sipHeader event
ignoreTransparency yes
set profiles services
transparencyProfile
PBX_TP sipHeader min-se
ignoreTransparency yes
set profiles services
transparencyProfile
PBX_TP sipHeader
session-expires
ignoreTransparency yes
set profiles services
transparencyProfile
PBX_TP state enabled
commit

```

#### 1.7.1.4 IP Signaling Peer Group

When BroadWorks provides the destination Trunk Group (Via the DTG parameter) to the SBC, an IP Signaling Peer Group must be configured rather than an IP Peer. This is

because only the IP Signaling Peer Group parameter is directly associated with a Trunk Group.

```
set profiles
ipSignalingPeerGroup
PBX123_IPSG description
"IP-PBX for BW Trunking
Example"
set profiles
ipSignalingPeerGroup
PBX123_IPSG
ipSignalingPeerGroupData
1 ipAddress
10.54.20.168 ipPort
5070
set profiles
ipSignalingPeerGroup
PBX123_IPSG
ipSignalingPeerGroupData
1 serviceStatus
inService
commit
```

## 1.7.2 Address Context Configuration

No overlapping IP addressing is used on the SBC in this document, all configurations will be done under the “default” Address Context.

### 1.7.2.1 Zone

This Zone groups the set of objects that is used for the communication to the BroadWorks Enterprise SIP Trunk.

```
set addressContext
default zone PBX_ZONE
id 5
commit
```

### 1.7.2.2 SIP Signaling Port

A SIP Signaling port is a logical address permanently bound to a specific zone and is used to send and receive SIP call signaling packets.



```

set addressContext
default zone PBX_ZONE
sipSigPort 5
ipInterfaceGroup
ACCESS_LIF
set addressContext
default zone PBX_ZONE
sipSigPort 5
ipAddressV4
172.16.102.144
set addressContext
default zone PBX_ZONE
sipSigPort 5 dscpValue
26
set addressContext
default zone PBX_ZONE
sipSigPort 5
transportProtocolsAllowe
d sip-udp,sip-tcp
set addressContext
default zone PBX_ZONE
sipSigPort 5 state
enabled mode inService
commit

```

### 1.7.2.3 SIP Trunk Group

Create a SIP Trunk Group towards Access and assign the Profiles configured above.

```

set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
media
mediaIpInterfaceGroupNam
e ACCESS_LIF
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
media
sourceAddressFiltering
disabled
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
policy sipDomain
AS.IOP1.BROADWORKS.NET
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
policy
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
policy callRouting
elementRoutingPriority
TG_ERP
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
policy

```

```

ipSignalingPeerGroup
PBX123_IPSG
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
policy media
packetServiceProfile
PBX123_PSP
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
policy signaling
ipSignalingProfile
PBX123_IPSP
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
policy signaling
signalingProfile
DEFAULT_IP_PROFILE
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
services dnsSupportType
a-srv-naptr
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
services natTraversal
signalingNat enabled
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
services natTraversal
mediaNat enabled
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
signaling rel100Support
disabled
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
signaling
relayNonInviteRequest
enabled
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
signaling
psxRouteForSubscribe
enabled
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
services
transparencyProfile
PBX_TP
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
ingressIpPrefix 0.0.0.0
0
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
ingressIpPrefix 0::0 0
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG

```

```
state enabled mode
inService
commit
```

## 1.8 Global Call Routing Configuration

A Routing Label (RL) is a new user-named object that contains a list of one or more next-hop peers – defined as Routing Label Routes – that can reach a specified destination.

A Routing Label Route (RLR) defines a single peer (Trunk Group + IP Peer) to which the call can be delivered. There may be many Routing Label Routes (1 to n) in a Routing Label.

For each call placed to a destination Routing Label, the SBC will advance through the list of peers (RLRs) until the call is completed or the list is exhausted. The RL's Prioritization Type determines the order in which the list will be processed.

Routing Labels are then assigned within the Route entity.

### 1.8.1 ACCESS and GIN ACCESS

Access side routing (calls egress the SBC toward the endpoint) will be done by SBC based on the SIP registration information of the endpoints stored in SBC. Call Routing Label or Route is not required.

### 1.8.2 PBX123

In the case of BroadWorks Enterprise trunking, where BroadWorks is performing the routing and sending the destination trunk group to the SBC, no specific outbound routes need to be configured on SBC.

This assumes that the operator has selected to not utilize the SBC's advanced routing capabilities.

### 1.8.3 CORE\_RL

#### 1.8.3.1 Routing Label

Create a Routing Label with a single Routing Label Route to bind the Core Trunk Group with the Core IP Peer.

```
set global callRouting
routingLabel CORE_RL
routePrioritizationType
sequence action routes
routingLabelRoute 1
trunkGroup CORE_STG
ipPeer CORE_PEER
inService inService
commit
```

### 1.8.3.2 Routing

Routing must be put in place to send calls to the correct destination. For the purpose of this scenario we have used trunk group routing, but additional routing options may be used.

Configuration of both standard and username routes are done to ensure that no matter which way the called party is addressed (a number or username) the SBC will route the message to the Core.

Create Route entries for standard Trunk Group routing with Matching Criteria and a Routing Label destination.

```

set global callRouting
route trunkGroup
ACCESS_STG      IOTNANO
standard Sonus_NULL
Sonus_NULL all all ALL
none Sonus_NULL
routingLabel CORE_RL
set global callRouting
route trunkGroup
GIN_ACCESS_STG IOTNANO
standard Sonus_NULL
Sonus_NULL all all ALL
none Sonus_NULL
routingLabel CORE_RL
set global callRouting
route trunkGroup
PBX123_TG      IOTNANO
standard Sonus_NULL
Sonus_NULL all all ALL
none Sonus_NULL
routingLabel CORE_RL
commit
set global callRouting
route trunkGroup
ACCESS_STG      IOTNANO
username Sonus_NULL
Sonus_NULL all all ALL
none Sonus_NULL
routingLabel CORE_RL
set global callRouting
route trunkGroup
GIN_ACCESS_STG IOTNANO
username Sonus_NULL
Sonus_NULL all all ALL
none Sonus_NULL
routingLabel CORE_RL
set global callRouting
route trunkGroup
PBX123_TG      IOTNANO
username Sonus_NULL
Sonus_NULL all all ALL
none Sonus_NULL
routingLabel CORE_RL
commit

```

## Test Results

**Table 2:** Test Results

| S.No | Procedure | Observation | Result |
|------|-----------|-------------|--------|
|      |           |             |        |

## Conclusion

These Application Notes describe the configuration steps required for Sonus SBC 5XX0 to successfully interoperate with BroadWor

ks R22SP1. All feature and serviceability test cases were completed and passed with the exceptions/observations noted in [Test Results](#).

## Appendix A: Sonus SBC Core Portfolio CLI Configuration Synopsis

This section is a synopsis of all the Sonus SBC Core Portfolio CLI commands specified within this document, including any optional configurations, in a single section for easier review and usage.

```
configure
set global signaling
sipSigControls
maxPduSizeValue
pdusize60kb
commit
set profiles callRouting
crankbackProfile default
reason 102
commit
set system media
mediaPortRange
baseUdpPort 16384
maxUdpPort 32767
commit
set system mediaProfile
compression 90 tone 10
commit
set global signaling
sipSigControls
multipleContactsPerAor
disabled
commit

set global sipDomain
AS.IOP1.BROADWORKS.NET
commit

set profiles
featureControlProfile
CORE_FCP
processDestinationTgrp
enable
commit

set profiles services
transparencyProfile
CORE_TP sipHeader all
set profiles services
transparencyProfile
CORE_TP sipMessageBody
all
set profiles services
transparencyProfile
CORE_TP sipHeader
supported
set profiles services
```

```
transparencyProfile
CORE_TP sipHeader via
ignoreTransparency yes
set profiles services
transparencyProfile
CORE_TP sipHeader
expires
ignoreTransparency yes
set profiles services
transparencyProfile
CORE_TP sipHeader
contact
ignoreTransparency yes
set profiles services
transparencyProfile
CORE_TP sipHeader path
ignoreTransparency yes
set profiles services
transparencyProfile
CORE_TP sipHeader
serviceroute
ignoreTransparency yes
set profiles services
transparencyProfile
CORE_TP sipHeader
require
ignoreTransparency yes
set profiles services
transparencyProfile
CORE_TP sipHeader
proxy-Require
ignoreTransparency yes
set profiles services
transparencyProfile
CORE_TP sipHeader event
ignoreTransparency yes
set profiles services
transparencyProfile
CORE_TP sipHeader min-se
ignoreTransparency yes
set profiles services
transparencyProfile
CORE_TP sipHeader
session-expires
ignoreTransparency yes
set profiles services
transparencyProfile
CORE_TP state enabled
commit
```

```
set profiles services
transparencyProfile
ACCESS_TP sipHeader all
set profiles services
transparencyProfile
ACCESS_TP sipMessageBody
all
set profiles services
transparencyProfile
ACCESS_TP sipHeader
supported
set profiles services
transparencyProfile
ACCESS_TP sipHeader via
ignoreTransparency yes
set profiles services
transparencyProfile
ACCESS_TP sipHeader
expires
ignoreTransparency yes
set profiles services
```

```
transparencyProfile
ACCESS_TP sipHeader
contact
ignoreTransparency yes
set profiles services
transparencyProfile
ACCESS_TP sipHeader path
ignoreTransparency yes
set profiles services
transparencyProfile
ACCESS_TP sipHeader
serviceroute
ignoreTransparency yes
set profiles services
transparencyProfile
ACCESS_TP sipHeader
require
ignoreTransparency yes
set profiles services
transparencyProfile
ACCESS_TP sipHeader
proxy-Require
ignoreTransparency yes
set profiles services
transparencyProfile
ACCESS_TP sipHeader
event ignoreTransparency
yes
set profiles services
transparencyProfile
ACCESS_TP sipHeader
min-se
ignoreTransparency yes
set profiles services
transparencyProfile
ACCESS_TP sipHeader
session-expires
ignoreTransparency yes
set profiles services
transparencyProfile
ACCESS_TP state enabled
commit
```

```
set profiles services
transparencyProfile
GIN_TP sipHeader all
set profiles services
transparencyProfile
GIN_TP sipMessageBody
all
set profiles services
transparencyProfile
GIN_TP sipHeader
supported
set profiles services
transparencyProfile
GIN_TP sipHeader via
ignoreTransparency yes
set profiles services
transparencyProfile
GIN_TP sipHeader expires
ignoreTransparency yes
set profiles services
transparencyProfile
GIN_TP sipHeader contact
ignoreTransparency yes
set profiles services
transparencyProfile
GIN_TP sipHeader path
ignoreTransparency yes
set profiles services
```



```
transparencyProfile
GIN_TP sipHeader
serviceroute
ignoreTransparency yes
set profiles services
transparencyProfile
GIN_TP sipHeader require
ignoreTransparency yes
set profiles services
transparencyProfile
GIN_TP sipHeader
proxy-Require
ignoreTransparency yes
set profiles services
transparencyProfile
GIN_TP sipHeader event
ignoreTransparency yes
set profiles services
transparencyProfile
GIN_TP sipHeader min-se
ignoreTransparency yes
set profiles services
transparencyProfile
GIN_TP sipHeader
session-expires
ignoreTransparency yes
set profiles services
transparencyProfile
GIN_TP state enabled
commit
```

```
set profiles services
transparencyProfile
PBX_TP sipHeader all
set profiles services
transparencyProfile
PBX_TP sipMessageBody
all
set profiles services
transparencyProfile
PBX_TP sipHeader
supported
set profiles services
transparencyProfile
PBX_TP sipHeader via
ignoreTransparency yes
set profiles services
transparencyProfile
PBX_TP sipHeader expires
ignoreTransparency yes
set profiles services
transparencyProfile
PBX_TP sipHeader contact
ignoreTransparency yes
set profiles services
transparencyProfile
PBX_TP sipHeader path
ignoreTransparency yes
set profiles services
transparencyProfile
PBX_TP sipHeader
serviceroute
ignoreTransparency yes
set profiles services
transparencyProfile
PBX_TP sipHeader require
ignoreTransparency yes
set profiles services
transparencyProfile
PBX_TP sipHeader
proxy-Require
```

```
ignoreTransparency yes
set profiles services
transparencyProfile
PBX_TP sipHeader event
ignoreTransparency yes
set profiles services
transparencyProfile
PBX_TP sipHeader min-se
ignoreTransparency yes
set profiles services
transparencyProfile
PBX_TP sipHeader
session-expires
ignoreTransparency yes
set profiles services
transparencyProfile
PBX_TP state enabled
commit
```

```
set profiles services
surrogateRegistrationPro
file SURR_PROF
aorUserName 9876543210
commit
set profiles services
surrogateRegistrationPro
file SURR_PROF
aorUserName 9876543210
aorState enabled
commit
```

```
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 3 type token
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 3 type token
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 3 type token
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 3 token
condition exist
tokenType urihostname
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 3 token
condition exist
tokenType urihostname
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 3 token
condition exist
tokenType urihostname
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 2 type header
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 2 type header
set profiles signaling
sipAdaptorProfile
```

```
Refer_SMM rule 1
criterion 2 type header
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 2 header name
Refer-To condition exist
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 2 header name
Refer-To condition exist
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 2 header name
Refer-To condition exist
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 1 type message
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 1 type message
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 1 type message
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 1 message
messageTypes request
methodTypes refer
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 1 message
messageTypes request
methodTypes refer
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 1 message
messageTypes request
methodTypes refer
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
criterion 1 message
messageTypes request
methodTypes refer
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
applyMatchHeader one
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1
applyMatchHeader one
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1 action
1 type token operation
modify
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1 action
1 type token operation
modify
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1 action
1 type token operation
modify
set profiles signaling
sipAdaptorProfile
```

```

Refer_SMM rule 1 action
1 to type token
tokenValue urihostname
set profiles signaling
sipAdaptorProfile
Refer_SMM rule 1 action
1 from type value value
as.iopl.broadworks.net
commit
set profiles signaling
sipAdaptorProfile
Refer_SMM state enabled
advancedSMM disabled
commit

set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 2
criterion 2 type header
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 2
criterion 2 header name
To condition exist
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 2
criterion 1 type message
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 2
criterion 1 message
messageTypes request
methodTypes register
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 2
applyMatchHeader one
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 2
action 1 type token
operation regsub
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 2
action 1 to type token
tokenValue urihostname
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 2
action 1 regexp string
(?:[0-9]{1,3}\.){3}[0-9]{1,3}
matchInstance all
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 2
action 1 from type value
value
as.iopl.broadworks.net
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 1
criterion 2 type header
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 1
criterion 2 header name
From condition exist
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 1

```

```

criterion 1 type message
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 1
criterion 1 message
messageTypes request
methodTypes register
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 1
applyMatchHeader one
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 1
action 1 type token
operation regsub
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 1
action 1 regexp string
(?:[0-9]{1,3}\.){3}[0-9]
{1,3} matchInstance all
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 1
action 1 from type value
value
as.iopl.broadworks.net
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM rule 1
action 1 to type token
tokenValue urihostname
set profiles signaling
sipAdaptorProfile
SURR_REG_SMM state
enabled
commit

```

```

set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 0
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 0
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 1
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 1
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 2
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 2
0 1 31 digitType

```

```
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 3
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 3
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 4
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 4
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 5
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 5
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 6
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 6
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 7
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 7
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 8
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 8
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 9
0 1 31 callType userName
```

```
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry 9
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry *
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry *
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry +
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry +
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry %
0 1 31 callType userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry %
0 1 31 digitType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry
"# 0 1 31 callType
userName
set profiles
digitParameterHandling
prefixProfile
ACCESS_DIAL_PLAN entry
"# 0 1 31 digitType
userName
commit
```

```
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN
prefixProfile
ACCESS_DIAL_PLAN
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN lengths
nationalNumber min 1
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN lengths
nationalNumber max 31
set profiles
digitParameterHandling
```

```
numberingPlan
ACCESS_NUM_PLAN lengths
subscriberNumber min 0
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN lengths
subscriberNumber max 0
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN lengths
line min 0
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN lengths
line max 0
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN lengths
exchangeCode min 0
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN lengths
exchangeCode max 0
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN lengths
areaCode min 0
set profiles
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN lengths
areaCode max 0
commit
```

```
set profiles callRouting
elementRoutingPriority
TG_ERP entry _private 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry
nationalOperator 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry
localOperator 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry
nationalType 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry
internationalType 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry
internationalOperator 1
entityType trunkGroup
```



```
set profiles callRouting
elementRoutingPriority
TG_ERP entry
longDistanceOperator 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry
ipVpnService 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry test 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry transit 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry
otherCarrierChosen 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry
carrierCutThrough 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry userName 1
entityType trunkGroup
set profiles callRouting
elementRoutingPriority
TG_ERP entry mobile 1
entityType trunkGroup
commit
```

```
set profiles
digitParameterHandling
dmPmRule DMPM_RULE
subRule 0 ruleType uri
uriParameterManipulation
uriType calledUri
uriParameterManipulation
userParameter ip
```

```
set addressContext
default ipInterfaceGroup
CORE_LIF ipInterface
IPIF2 ceName IOTNANO
portName pkt1 ipAddress
172.16.100.202 prefix 24
altIpAddress
2001:E48:80:1001::10
altPrefix 64
set addressContext
default ipInterfaceGroup
CORE_LIF ipInterface
IPIF2 mode inService
state enabled
commit
```

```
set profiles services
sipArsProfile CORE_ARSP
blkListAlgorithms
timeouts,retryafter
set profiles services
sipArsProfile CORE_ARSP
```

```

blkListAlgTimeoutsType
sip-invite
set profiles services
sipArsProfile CORE_ARSP
blkListAlgTimeoutsNumTim
eouts 4
set profiles services
sipArsProfile CORE_ARSP
blkListAlgTimeoutsDurati
on 120
set profiles services
sipArsProfile CORE_ARSP
blkListAlgRetryAfterType
sip-503
set profiles services
sipArsProfile CORE_ARSP
recoveryAlgorithm probe
set profiles services
sipArsProfile CORE_ARSP
recoveryAlgProbeInterval
30
set profiles services
sipArsProfile CORE_ARSP
recoveryAlgProbeNumRespo
nses 6
set profiles services
sipArsProfile CORE_ARSP
recoveryAlgProbeDuration
240
commit
set profiles media
codecEntry
G711_ALAW_PTIME_20 codec
g711 law ALaw packetSize
20
set profiles media
codecEntry
G729AB-DEFAULT codec
g729ab packetSize 20

set profiles media
packetServiceProfile
CORE_PSP codec
codecEntry1
G729AB-DEFAULT
set profiles media
packetServiceProfile
CORE_PSP codec
codecEntry2
G711_ALAW_PTIME_20
set profiles media
packetServiceProfile
CORE_PSP
packetToPacketControl
transcode
transcoderFreeTransparen
cy
set profiles media
packetServiceProfile
CORE_PSP rtcpOptions
rtcp enable
set profiles media
packetServiceProfile
CORE_PSP videoCalls
maxVideoBandwith 4096
commit
set profiles signaling
ipSignalingProfile
CORE_IPSP
ipProtocolType sipOnly
set profiles signaling

```

```
ipSignalingProfile
CORE_IPSP
commonIpAttributes flags
disableHostTranslation
enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes flags
disableMediaLockDown
enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes flags
includeTransportTypeInCo
ntactHeader enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes flags
reQueryPxxOnRegisterRefr
esh enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes flags
endToEndBye enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes flags
minimizeRelayingOfMediaC
hangesFromOtherCallLegAl
l enable
relayDataPathModeChangeF
romOtherCallLeg enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes
relayFlags
dialogEventPackage
enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes
relayFlags info enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes
relayFlags notify enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes
relayFlags refer enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes
relayFlags
statusCode4xx6xx enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes
relayFlags
updateWithoutSdp enable
set profiles signaling
```

```

ipSignalingProfile
CORE_IPSP
commonIpAttributes
transparencyFlags
authcodeHeaders enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
egressIpAttributes flags
disable2806Compliance
enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
egressIpAttributes
sipHeadersAndParameters
flags endToEndAck enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
egressIpAttributes flags
sameCallIdForRequiredAut
horization enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
egressIpAttributes
privacy transparency
enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
egressIpAttributes
transport type1 udp
set profiles signaling
ipSignalingProfile
CORE_IPSP
egressIpAttributes
transport type2 tcp
set profiles signaling
ipSignalingProfile
CORE_IPSP
egressIpAttributes
transport type3
tlsOverTcp
set profiles signaling
ipSignalingProfile
CORE_IPSP
egressIpAttributes
transport type4 sctp
set profiles signaling
ipSignalingProfile
CORE_IPSP
egressIpAttributes flags
suppressUnregister
enable
set profiles signaling
ipSignalingProfile
CORE_IPSP
commonIpAttributes flags
noPortNumber5060 enable
commit
set addressContext
default dnsGroup
CORE_DNS_GRP type mgmt
set addressContext
default dnsGroup
CORE_DNS_GRP server
EXTERNAL_DNS ipAddress
10.54.80.101
set addressContext
default dnsGroup

```

```

CORE_DNS_GRP    server
EXTERNAL_DNS   priority
80
set addressContext
default dnsGroup
CORE_DNS_GRP   server
EXTERNAL_DNS   weight 50
set addressContext
default dnsGroup
CORE_DNS_GRP   server
EXTERNAL_DNS   state
enabled
commit
set addressContext
default zone CORE id 2
remoteDeviceType
appServer
commit
set addressContext
default zone CORE
sipSigPort 3
ipInterfaceGroup
CORE_LIF
set addressContext
default zone CORE
sipSigPort 3
ipAddressV4
172.16.100.202
ipAddressV6
2001:E48:80:1001::10
set addressContext
default zone CORE
sipSigPort 3 dscpValue
26
set addressContext
default zone CORE
sipSigPort 3
transportProtocolsAllowed
sip-udp,sip-tcp
set addressContext
default zone CORE
sipSigPort 3 state
enabled mode inService
commit
set addressContext
default zone CORE
ipPeer CORE_PEER policy
sip fqdn
ns.iopl.broadworks.net
set addressContext
default zone CORE
ipPeer CORE_PEER policy
sip fqdnPort 5060
commit
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
media
mediaIpInterfaceGroupName
CORE_LIF
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
media lateMediaSupport
passthru
sourceAddressFiltering
enabled
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
media mediaAddrType
matchSigAddrType

```

```
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
media
sdpAttributesSelectiveRe
lay enabled
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
policy
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
policy callRouting
elementRoutingPriority
TG_ERP
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
policy media
packetServiceProfile
CORE_PSP
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
policy signaling
ipSignalingProfile
CORE_IPSP
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
policy signaling
signalingProfile
DEFAULT_IP_PROFILE
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
services dnsSupportType
a-srv-naptr
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
services sipArsProfile
CORE_ARSP
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling
relayNonInviteRequest
enabled
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling retryCounters
general 4
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling retryCounters
invite 2
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling retryCounters
bye 2
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling retryCounters
```

```

cancel 2
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling retryCounters
reInvite 2
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling timers
sessionMinSE 60
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling registration
bulkRegisterFormat
followIngress
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling registration
insideExpiresMinimum
3500
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
ingressIpPrefix 0.0.0.0
0
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
ingressIpPrefix 0::0 0
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling
honorMaddrParam enabled
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
services
transparencyProfile
CORE_TP
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
policy
featureControlProfile
CORE_FCP
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
signaling
messageManipulation
outputAdapterProfile
SURR_REG_SMM
set addressContext
default zone CORE
sipTrunkGroup CORE_STG
state enabled mode
inService
commit

set addressContext
default ipInterfaceGroup
ACCESS_LIF ipInterface
IPIF0 ceName IOTNANO
portName pkt0 ipAddress
172.16.102.125 prefix 24
altIpAddress
fc00::102:f:f:f:43

```

```
altPrefix 64
set addressContext
default ipInterfaceGroup
ACCESS_LIF ipInterface
IPIF0 mode inService
state enabled
commit
```

```
set profiles media
packetServiceProfile
ACCESS_PSP
packetToPacketControl
transcode
transcoderFreeTransparen
```

```
cy
set profiles media
packetServiceProfile
ACCESS_PSP videoCalls
maxVideoBandwith 4096
set profiles media
packetServiceProfile
ACCESS_PSP rtcpOptions
```

```
rtcp enable
set profiles media
packetServiceProfile
ACCESS_PSP codec
codecEntry1
G729AB-DEFAULT
```

```
set profiles media
packetServiceProfile
ACCESS_PSP codec
codecEntry2
G711_ALAW_PTIME_20
commit
```

```
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
ipProtocolType sipOnly
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
commonIpAttributes flags
disableMediaLockDown
enable
```

```
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
commonIpAttributes flags
includeTransportTypeInCo
ntactHeader enable
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
commonIpAttributes flags
reQueryPxxOnRegisterRefr
```

```
esh enable
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
commonIpAttributes flags
endToEndBye enable
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
commonIpAttributes flags
minimizeRelayingOfMediaC
hangesFromOtherCallLegAl
l enable
set profiles signaling
ipSignalingProfile
```



ACCESS\_IPSP  
commonIpAttributes flags  
relayDataPathModeChangeF  
romOtherCallLeg enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
commonIpAttributes  
relayFlags  
dialogEventPackage  
enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
commonIpAttributes  
relayFlags info enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
commonIpAttributes  
relayFlags notify enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
commonIpAttributes  
relayFlags options  
enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
commonIpAttributes  
relayFlags refer enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
commonIpAttributes  
relayFlags statusCode3xx  
enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
commonIpAttributes  
relayFlags  
statusCode4xx6xx enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
commonIpAttributes  
relayFlags  
updateWithoutSdp enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
commonIpAttributes  
transparencyFlags  
authcodeHeaders enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
egressIpAttributes flags  
disable2806Compliance  
enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
egressIpAttributes  
sipHeadersAndParameters  
flags endToEndAck enable  
set profiles signaling  
ipSignalingProfile  
ACCESS\_IPSP  
egressIpAttributes flags

```

sameCallIdForRequiredAut
horization enable
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
egressIpAttributes
privacy transparency
enable
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
ingressIpAttributes
flags
sendSdpInSubsequent18x
enable
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
ingressIpAttributes
flags
suppress183WithoutSdp
enable
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
ingressIpAttributes
flags
suppress183For3xxRedirec
tResponse enable
sendSdpIn200OkIf18xRelia
ble enable
set profiles signaling
ipSignalingProfile
ACCESS_IPSP
commonIpAttributes flags
noPortNumber5060 enable
commit
set addressContext
default zone ACCESS id
3 remoteDeviceType
accessDevice
commit
set addressContext
default zone ACCESS
sipSigPort 2
ipInterfaceGroup
ACCESS_LIF
set addressContext
default zone ACCESS
sipSigPort 2
ipAddressV4
172.16.102.125
ipAddressV6
fc00::102:f:f:f:43
set addressContext
default zone ACCESS
sipSigPort 2 dscpValue
26
set addressContext
default zone ACCESS
sipSigPort 2
transportProtocolsAllowe
d sip-udp,sip-tcp
set addressContext
default zone ACCESS
sipSigPort 2 state
enabled mode inService
commit
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
media

```

```

mediaIpInterfaceGroupNam
e ACCESS_LIF
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
media lateMediaSupport
passthru
sourceAddressFiltering
enabled
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
media mediaAddrType
matchSigAddrType
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
media
sdpAttributesSelectiveRe
lay enabled
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
policy
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
policy callRouting
elementRoutingPriority
TG_ERP
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
policy media
packetServiceProfile
ACCESS_PSP
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
policy signaling
ipSignalingProfile
ACCESS_IPSP
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
policy signaling
signalingProfile
DEFAULT_IP_PROFILE
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
services dnsSupportType
a-srv-naptr
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
services natTraversal
signalingNat enabled
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
services natTraversal
mediaNat enabled
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
services natTraversal
qualifiedPrefix 10.0.0.0
8

```

```

set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
services natTraversal
qualifiedPrefix
192.168.0.0 16
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
signaling
messageManipulation
outputAdapterProfile
RE_ADD_ISFOCUS
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
signaling
messageManipulation
inputAdapterProfile
SMM_RM_USRPH
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
signaling
relayNonInviteRequest
enabled
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
signaling registration
requireRegistration
required

set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
signaling registration
expires 3600
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
signaling registration
insideExpiresMinimum
3500
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
signaling rel100Support
disabled
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
signaling
psxRouteForSubscribe
enabled
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
policy
digitParameterHandling
ingressDmPmRule
DMPM_RULE

set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
ingressIpPrefix 0.0.0.0
0
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG

```

```

ingressIpPrefix 0::0 0
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
services
transparencyProfile
ACCESS_TP
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
media
sdpAttributesSelectiveRe
lay enabled
set addressContext
default zone ACCESS
sipTrunkGroup ACCESS_STG
state enabled mode
inService
commit
set addressContext
default zone ACCESS
ipPeer SURR_PEER
ipAddress 10.54.20.225
ipPort 5060
commit
set addressContext
default zone ACCESS
ipPeer SURR_PEER
surrogateRegistration
surrRegProfile SURR_PROF
hostPart
as.iopl.broadworks.net
commit
set addressContext
default zone ACCESS
ipPeer SURR_PEER
surrogateRegistration
surrRegProfile SURR_PROF
state enabled
commit

set profiles media
packetServiceProfile
GIN_ACCESS_PSP
packetToPacketControl
transcode
transcoderFreeTransparen
cy
commit
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
ipProtocolType sipOnly
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes flags
disableMediaLockDown
enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes flags
minimizeRelayingOfMediaC
hangesFromOtherCallLegAl
l enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes flags
relayDataPathModeChangeF

```

```
romOtherCallLeg enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
relayFlags
dialogEventPackage
enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
relayFlags info enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
relayFlags notify enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
relayFlags options
enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
relayFlags refer enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
relayFlags statusCode3xx
enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
relayFlags
statusCode4xx6xx enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
relayFlags
updateWithoutSdp enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
transparencyFlags
acceptHeader enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
transparencyFlags
authcodeHeaders enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
transparencyFlags
callInfoHeader enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
transparencyFlags
fromHeader enable
set profiles signaling
```

```
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
transparencyFlags
mwiBody enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
transparencyFlags
sipfragBody enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
transparencyFlags
unknownBody enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
transparencyFlags
unknownHeader enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
commonIpAttributes
transparencyFlags
userAgentHeader enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
egressIpAttributes flags
disable2806Compliance
enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
egressIpAttributes flags
sameCallIdForRequiredAut
horization enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
egressIpAttributes
privacy transparency
enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
egressIpAttributes
transport type1 udp
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
egressIpAttributes
transport type2 tcp
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
egressIpAttributes
transport type3
tlsOverTcp
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
egressIpAttributes
transport type4 sctp
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
ingressIpAttributes
```

```

flags
sendSdpInSubsequent18x
enable
set profiles signaling
ipSignalingProfile
GIN_ACCESS_IPSP
ingressIpAttributes
flags
suppress183WithoutSdp
enable
commit
set addressContext
default zone GIN_ACCESS
id 4 remoteDeviceType
accessDevice
commit
set addressContext
default zone GIN_ACCESS
sipSigPort 4
ipInterfaceGroup
ACCESS_LIF
set addressContext
default zone GIN_ACCESS
sipSigPort 4
ipAddressV4
172.16.102.145
set addressContext
default zone GIN_ACCESS
sipSigPort 4 dscpValue
26
set addressContext
default zone GIN_ACCESS
sipSigPort 4
transportProtocolsAllowe
d sip-udp,sip-tcp
set addressContext
default zone GIN_ACCESS
sipSigPort 4 state
enabled mode inService
commit
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG media
mediaIpInterfaceGroupNam
e ACCESS_LIF
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG media
sourceAddressFiltering
disabled
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG policy
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG policy
callRouting
elementRoutingPriority
TG_ERP
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG policy
media
packetServiceProfile

```



```

GIN_ACCESS_PSP
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG policy
signaling
ipSignalingProfile
GIN_ACCESS_IPSP
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG policy
signaling
signalingProfile
DEFAULT_IP_PROFILE
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG services
dnsSupportType
a-srv-naptr
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG services
natTraversal
signalingNat enabled
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG services
natTraversal mediaNat
enabled
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
signaling
messageManipulation
outputAdapterProfile
RE_ADD_ISFOCUS
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
signaling registration
requireRegistration
required-group
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
signaling registration
bulkRegisterFormat
enabled
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
signaling registration
expires 60
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
signaling registration
insideExpiresMinimum
3500
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG

```

```

signaling rell100Support
disabled
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
signaling
relayNonInviteRequest
enabled
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
signaling
psxRouteForSubscribe
enabled
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
signaling validateAor
disabled
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG services
transparencyProfile
GIN_TP
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
ingressIpPrefix 0.0.0.0
0
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG
ingressIpPrefix 0::0 0
set addressContext
default zone GIN_ACCESS
sipTrunkGroup
GIN_ACCESS_STG state
enabled mode inService
commit
set profiles media
packetServiceProfile
PBX123_PSP
packetToPacketControl
transcode
transcoderFreeTransparen
cy
commit
set profiles signaling
ipSignalingProfile
PBX123_IPSP
ipProtocolType sipOnly
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes flags
disableMediaLockDown
enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes flags
minimizeRelayingOfMediaC
hangesFromOtherCallLegAl
l enable
set profiles signaling
ipSignalingProfile

```

```
PBX123_IPSP
commonIpAttributes flags
relayDataPathModeChangeF
romOtherCallLeg enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
relayFlags
dialogEventPackage
enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
relayFlags info enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
relayFlags notify enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
relayFlags options
enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
relayFlags refer enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
relayFlags statusCode3xx
enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
relayFlags
statusCode4xx6xx enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
relayFlags
updateWithoutSdp enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
transparencyFlags
acceptHeader enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
transparencyFlags
authcodeHeaders enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
transparencyFlags
callInfoHeader enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
```

```
transparencyFlags
fromHeader enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
transparencyFlags
mwiBody enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
transparencyFlags
sipfragBody enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
transparencyFlags
toHeader enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
transparencyFlags
unknownBody enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
transparencyFlags
unknownHeader enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
commonIpAttributes
transparencyFlags
userAgentHeader enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
egressIpAttributes flags
disable2806Compliance
enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
egressIpAttributes flags
sameCallIdForRequiredAut
horization enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
egressIpAttributes flags
useCalledPartyInRequestU
ri enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
egressIpAttributes
privacy transparency
enable
set profiles signaling
ipSignalingProfile
PBX123_IPSP
egressIpAttributes
transport type1 udp
set profiles signaling
ipSignalingProfile
PBX123_IPSP
egressIpAttributes
transport type2 tcp
```

```

set profiles signaling
ipSignalingProfile
PBX123_IPSP
egressIpAttributes
transport type3
tlsOverTcp
set profiles signaling
ipSignalingProfile
PBX123_IPSP
egressIpAttributes
transport type4 sctp
set profiles signaling
ipSignalingProfile
PBX123_IPSP
ingressIpAttributes
flags
sendSdpInSubsequent18x
enable
commit
set profiles
ipSignalingPeerGroup
PBX123_IPSG description
"IP-PBX for BW Trunking
Example"
set profiles
ipSignalingPeerGroup
PBX123_IPSG
ipSignalingPeerGroupData
1 ipAddress
10.54.20.168 ipPort
5070
set profiles
ipSignalingPeerGroup
PBX123_IPSG
ipSignalingPeerGroupData
1 serviceStatus
inService
commit
set addressContext
default zone PBX_ZONE
id 5
commit
set addressContext
default zone PBX_ZONE
sipSigPort 5
ipInterfaceGroup
ACCESS_LIF
set addressContext
default zone PBX_ZONE
sipSigPort 5
ipAddressV4
172.16.102.144
set addressContext
default zone PBX_ZONE
sipSigPort 5 dscpValue
26
set addressContext
default zone PBX_ZONE
sipSigPort 5
transportProtocolsAllowe
d sip-udp,sip-tcp
set addressContext
default zone PBX_ZONE
sipSigPort 5 state
enabled mode inService
commit
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
media
mediaIpInterfaceGroupNam
e ACCESS_LIF

```

```

set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
media
sourceAddressFiltering
disabled
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
policy sipDomain
AS.IOP1.BROADWORKS.NET
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
policy
digitParameterHandling
numberingPlan
ACCESS_NUM_PLAN
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
policy callRouting
elementRoutingPriority
TG_ERP
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
policy
ipSignalingPeerGroup
PBX123_IPSG
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
policy media
packetServiceProfile
PBX123_PSP
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
policy signaling
ipSignalingProfile
PBX123_IPSP
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
policy signaling
signalingProfile
DEFAULT_IP_PROFILE
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
services dnsSupportType
a-srv-naptr
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
services natTraversal
signalingNat enabled
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
services natTraversal
mediaNat enabled
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
signaling rel100Support
disabled
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
signaling

```

```

relayNonInviteRequest
enabled
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
signaling
psxRouteForSubscribe
enabled
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
services
transparencyProfile
PBX_TP
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
ingressIpPrefix 0.0.0.0
0
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
ingressIpPrefix 0::0 0
set addressContext
default zone PBX_ZONE
sipTrunkGroup PBX123_TG
state enabled mode
inService
commit
set global callRouting
routingLabel CORE_RL
routePrioritizationType
sequence action routes
routingLabelRoute 1
trunkGroup CORE_STG
ipPeer CORE_PEER
inService inService
commit
set global callRouting
route trunkGroup
ACCESS_STG IOTNANO
standard Sonus_NULL
Sonus_NULL all all ALL
none Sonus_NULL
routingLabel CORE_RL
set global callRouting
route trunkGroup
GIN_ACCESS_STG IOTNANO
standard Sonus_NULL
Sonus_NULL all all ALL
none Sonus_NULL
routingLabel CORE_RL
set global callRouting
route trunkGroup
PBX123_TG IOTNANO
standard Sonus_NULL
Sonus_NULL all all ALL
none Sonus_NULL
routingLabel CORE_RL
commit
set global callRouting
route trunkGroup
ACCESS_STG IOTNANO
username Sonus_NULL
Sonus_NULL all all ALL
none Sonus_NULL
routingLabel CORE_RL
set global callRouting
route trunkGroup
GIN_ACCESS_STG IOTNANO
username Sonus_NULL
Sonus_NULL all all ALL

```

```
none Sonus_NULL
routingLabel CORE_RL
set global callRouting
route trunkGroup
PBX123_TG IOTNANO
username Sonus_NULL
Sonus_NULL all all ALL
none Sonus_NULL
routingLabel CORE_RL
commit
```

```
set addressContext
default staticRoute
0.0.0.0 0 172.16.100.2
CORE_LIF IPIF2
preference 100
commit
```

```
set addressContext
default staticRoute
0.0.0.0 0 172.16.102.1
ACCESS_LIF IPIF0
preference 100
commit
```

```
set addressContext
default staticRoute 0::0
0 2001:E48:80:1001::1
CORE_LIF IPIF2
preference 100
commit
```

```
set addressContext
default staticRoute 0::0
0 fc00::20:f:f:f:1
```



```
ACCESS_LIF IPIF0  
preference 100  
commit
```