

Business Talk & Business Talk IP For Genesys PureCloud Edge on Premises

Version addressed in this guide : 1.0.07616

Information included in this document is dedicated to customer equipment (IPBX, TOIP ecosystems) connection to Business Talk IP service : it shall not be used for other goals or in another context.

Document Version

Version of 26/03/2019

Table of Contents

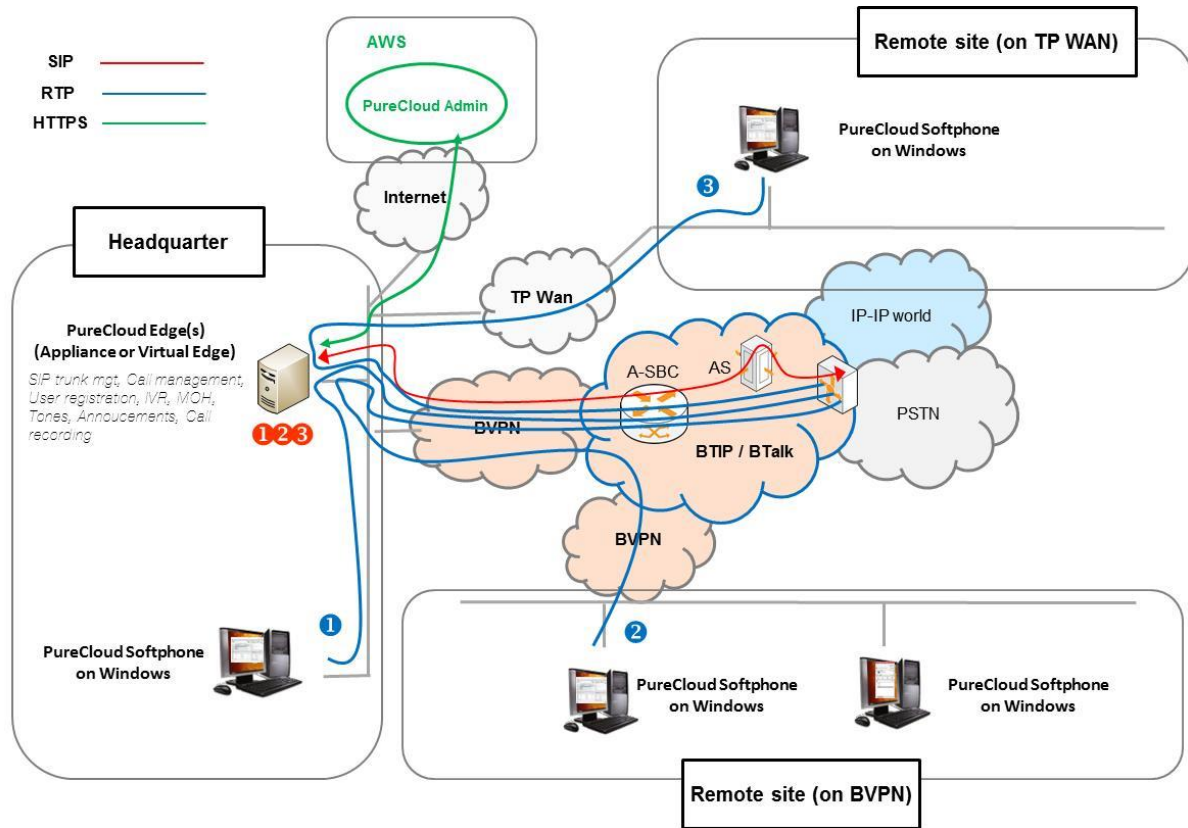
Table of Contents.....	2
Goal of this document	3
1 ARCHITECTURE OVERVIEW.....	4
1.1 Architecture	4
2 PARAMETERS to be PROVIDED by CUSTOMER to ACCESS BT/BTIP service	6
3 Business Talk & BTIP certified versions	7
Please refer to ' https://help.mypurecloud.com/edge-media-tier-release-notes/ ' web page for more details about the versions supported by Genesys.....	7
3.1 Genesys PureCloud Edge	7
3.2 Endpoints and applications	7
4 SIP TRUNKING CONFIGURATION CHECKLIST	8
4.1 External Trunk	8
4.2 Phone Trunk	11
4.3 Edges	13
4.4 Call routing.....	14
4.5 N+1 Redundancy.....	15
4.6 Call Admission Control	15
5 SIP SOFTPHONE CONFIGURATION WITH EDGE	16
5.1 Base Phone Settings.....	16
5.2 Phone	17

Goal of this document

The aim of this document is to list technical requirements to ensure the interoperability between Genesys PureCloud Edge solution on Customer Premises with OBS Business Talk & Business Talk IP SIP services, here after so-called “service”.

1 ARCHITECTURE OVERVIEW

1.1 Architecture



Notes:

In the diagram above, the SIP and proprietary internal flows are hidden.

In this architecture

- All 'SIP trunking' signalling flows are carried by the PureCloud Edge and routed on the main BVPN connection.
- PureCloud Edge anchors systematically the RTP flow for calls to/from Orange a-SBC. Therefore, the RTP flow is not direct between SIP phones/softphones and Orange a-SBC. But IP routing differs from one site to another:
 - o For the Head Quarter site, media flows are just routed on the main BVPN connection.
 - o For Remote sites on BVPN, media flows are just routed on the local BVPN connection (= distributed architecture).
 - o For Remote sites on Third Party WAN, media flows are routed through the Head Quarter (through the Edge) and use the main BVPN connection (= centralized architecture, cf sizing below).

- Call scenario	nb of voice channels/media resources used		
	EDGE	WAN router*	BTIP/BT
1 offnet call from/to the headquarter (HQ)	1	1 in HQ	1 in HQ
1 offnet call from/to a remote site (RS) on BVPN	2	2 in HQ 1 in RS	0 in HQ 1 in RS
1 offnet call from/to a remote site (RS) on TP Wan	2	1 in HQ BVPN 1 in HQ TP Wan 1 in RS TP Wan	0 in HQ 1 in RS
1 offnet call from/to a remote site which put the caller on hold	2	3 in HQ (ou 2) 1 in RS	0 in HQ 1 in RS
1 offnet call from/to a remote site after transfer/forward to BTIP	2	2 in HQ 0 in RS	0 in HQ 2 in RS
1 forced onnet call from Headquarter to a remote site (= through Business Talk IP infrastructure)	2	3 in HQ 1 in RS	0 in HQ 0 in RS

*On the WAN router, 1 voice channel= 80Kb/s

Redundancy consideration

Edge appliances can be deployed in an N+1 configuration in order to provide local redundancy.

This requires that :

- o All the Edges are on the same geographical site or distributed in multi sites with very low latency between each site.
- o All the Edges belong to the same PureCloud Edge Group.

The Orange a-SBC distributes the calls in round-robin on all the Edge IP addresses of the BTIP/BT Sites.

Sizing consideration

Specific sizing approach has to be considered with PureCloud Edge due to the fact that the Edge anchors systematically the RTP flow for calls to/from Orange a-SBC. Therefore, the RTP flow is not direct between SIP phones/Softphones and Orange a-SBC.

2 PARAMETERS to be PROVIDED by CUSTOMER to ACCESS BT/BTIP service

IP addresses marked in red have to be indicated by the Customer, depending on Customer architecture scenario

N+1 Redundancy architecture - HQ Site architecture	Level of Service	Customer IP addresses used by the service	
		Nominal	Backup
<p>N+1 redundancy: All edges are member of the same Edge group. The incoming load sharing is done using a-SBC round robin to all Edges. If an Edge passes out of Service, the secondary Edge becomes the new Primary for each softphone which registers on it, even when the previous Edge comes back In Service. If existing, a 3rd Edge becomes Secondary.</p> <p>Softphones or SIP phones are hosted on a physical site with or without Edge.</p> <p>A site from BT/BTIP point of view corresponds to a physical site with or without phones/softphones.</p>	<p>- Local Edge appliance redundancy - User registration redundancy: User is registered on 2 edges. One edge is seen as Primary for the user, the other one is seen as Secondary.</p>	<p>EDGE 1 IP@ EDGE 2 IP@ EDGE 3 IP@</p>	<p>NA</p>

Remote Site (RS) architecture	Level of Service	Customer IP addresses used by the service	
		Nominal	Backup
Remote site	No survivability, no trunk redundancy.	NA	NA

3 Business Talk & BTIP certified versions

Please refer to '<https://help.mypurecloud.com/edge-media-tier-release-notes/>' web page for more details about the versions supported by Genesys.

3.1 Genesys PureCloud Edge

GENESYS PURECLOUD EDGE – software versions				
Reference product	Software version	Certification ✓ : Certified NS : No supported	Certified "Loads"	Restrictions
Genesys PureCloud Edge	1.0.0	✓	1.0.07616	

3.2 Endpoints and applications

Endpoints and applications					
Reference product		Software version NA: not applicable	Certification ✓ : Certified NS : No supported	Genesys PureCloud Edge version	Comments
Genesys endpoints	PureCloud Softphone	2016 R2 micro programme : 16.2.0.1888	✓	1.0.07616	
Audiocodes phones	Audiocodes 400HD	-	Not tested	-	PureCloud supports a number of types of phones. Refer to the information provided by Genesys to find details about the phones that PureCloud supports.
Polycom phones	Polycom SoundPoint IP	-	Not tested	-	
	Polycom RealPresence Trio	-	Not tested	-	
	Polycom VVX	-	Not tested	-	
	Polycom SoundStation IP	-	Not tested	-	
Spectralink phones	Spectralink 8000 Portfolio Handsets	-	Not tested	-	

4 SIP TRUNKING CONFIGURATION CHECKLIST

The checklist below presents all the steps of configuration required for interoperability between BTIP/BT and Genesys PureCloud Edge.

Two external trunks must be created, one to each Orange a-SBC. Each “external trunk” instance applies to all edges.

Each edge uses these 2 trunks in Primary/Backup mode (see below). Each trunk is used for inbound and outbound calls.

One “Phone trunk” must be created for SIP Phone (Purecloud softphones), it applies to all edges.

4.1 External Trunk

Steps	Parameter Name	Value (example)												
Creation et Configuration for an external trunk to a-SBC														
Step 1	<ul style="list-style-type: none"> ➤ Telephony→Trunks→External Trunks→ « Trunk Name » ➤ General 													
	<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 External Trunk Name</td> <td>1 <i>Trunk Name (ex : SBC_113)</i></td> </tr> <tr> <td>2 Type</td> <td>2 External SIP</td> </tr> <tr> <td>3 Trunk State</td> <td>3 In-Service</td> </tr> <tr> <td>4 Protocol</td> <td>4 UDP</td> </tr> <tr> <td>5 Listen Port</td> <td>5 5060</td> </tr> </tbody> </table>	Parameter Name	Value	1 External Trunk Name	1 <i>Trunk Name (ex : SBC_113)</i>	2 Type	2 External SIP	3 Trunk State	3 In-Service	4 Protocol	4 UDP	5 Listen Port	5 5060	
	Parameter Name	Value												
	1 External Trunk Name	1 <i>Trunk Name (ex : SBC_113)</i>												
	2 Type	2 External SIP												
	3 Trunk State	3 In-Service												
	4 Protocol	4 UDP												
	5 Listen Port	5 5060												
	<ul style="list-style-type: none"> ➤ Outbound 													
	<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 SIP Servers or Proxies</td> <td>1 <i>SBC @IP:port (Ex : 172.22.246.33:5060)</i></td> </tr> <tr> <td>2 Digest Authentication</td> <td>2 Disable</td> </tr> <tr> <td>3 Calling Address</td> <td>3 <i>Phone Number of Call Center (Ex : +0800PQMCDU)</i></td> </tr> </tbody> </table>	Parameter Name	Value	1 SIP Servers or Proxies	1 <i>SBC @IP:port (Ex : 172.22.246.33:5060)</i>	2 Digest Authentication	2 Disable	3 Calling Address	3 <i>Phone Number of Call Center (Ex : +0800PQMCDU)</i>					
Parameter Name	Value													
1 SIP Servers or Proxies	1 <i>SBC @IP:port (Ex : 172.22.246.33:5060)</i>													
2 Digest Authentication	2 Disable													
3 Calling Address	3 <i>Phone Number of Call Center (Ex : +0800PQMCDU)</i>													
<ul style="list-style-type: none"> ➤ Availability 														
<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 State</td> <td>1 Enable</td> </tr> <tr> <td>2 Interval</td> <td>2 600 sec</td> </tr> </tbody> </table>	Parameter Name	Value	1 State	1 Enable	2 Interval	2 600 sec								
Parameter Name	Value													
1 State	1 Enable													
2 Interval	2 600 sec													
<ul style="list-style-type: none"> ➤ Registration 														
<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 State</td> <td>1 Disable</td> </tr> </tbody> </table>	Parameter Name	Value	1 State	1 Disable										
Parameter Name	Value													
1 State	1 Disable													
<ul style="list-style-type: none"> ➤ Sip Access Control 														
<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 Use Source Address</td> <td>1 Yes</td> </tr> <tr> <td>2 Allow All</td> <td>2 uncheck</td> </tr> <tr> <td>3 Allow the Following Addresses</td> <td>3 <i>a-SBC @IP</i></td> </tr> </tbody> </table>	Parameter Name	Value	1 Use Source Address	1 Yes	2 Allow All	2 uncheck	3 Allow the Following Addresses	3 <i>a-SBC @IP</i>						
Parameter Name	Value													
1 Use Source Address	1 Yes													
2 Allow All	2 uncheck													
3 Allow the Following Addresses	3 <i>a-SBC @IP</i>													

➤ External Trunk Configuration/General	
Parameter Name	Value
1 Call Draining	1 Enabled
2 Language	2 English
3 Max Calls	3 350
4 Max Call Rate	4 40/5s
5 Max Dial Timeout	5 120 sec
6 Asserted Identity	6 Disabled
➤ External Trunk Configuration/Transport	
Parameter Name	Value
1 Transport DSCP Value	1 18 (24.011000)CS3
2 Retryable Reason Codes	2 500-599
3 Retryable Cause Codes	3 1-5,25,27,28,31,34,38,41,42,44,46,62,63,79,91,96,97,99,100,103
4 UDP T1 timeout	4 500ms
5 UDP T2 timeout	5 1s
6 UDP Max Packet retry	6 4
7 UDP Max Invite Retry	7 3
➤ External Trunk Configuration/Identity	
Parameter Name	Value
Inbound	
1 Identity Type	1 From
Outbound	
2 Apply header privacy	2 Disabled or Enabled
3 Apply User privacy	3 Disabled
4 Calling/Address Transformation	4
5 Calling/Address Digits length	5 0
6 Calling/Address Omit+Prefix	6 Disabled
7 Called/Address Transformation	7
8 Called/Address Digits length	8 0
9 Called/Address Omit+Prefix	9 Disabled
➤ External Trunk Configuration/Media	
Parameter Name	Value
1 DSCP Value	1 2E (46,101110) EF
2 Media Method	2 Normal
3 Preferred Codec List	3 <i>Codec (Audio/PCMA, or Audio/G729)</i>
4 SRTP Cipher Suite List	4 AES_CM_128_HMAC_SHA1_80
5 Ringback	5 Enabled
6 Disconnect on Idle RTP	6 Enabled
DTMF Setting	
7 DTMF Payload	7 101
8 DTMF Method	8 RTP Event
Recording	
9 Line Recording	9 Enabled
10 Dual Channel	10 Enabled
11 Continue on External Transfert	11 Enabled
12 Audio Format	12 audio/ PCMA
13 Automatic Level Control	13 Disabled
14 Recording/ Consent Required	14 Disabled

➤ External Trunk Configuration/Protocol	
Parameter Name	Value
Header/Invite	
1 Conversation Headers	1 Enabled
2 From Header Hostname	2 Automatically generate from Edge network Interface
3 Routing Address	3 Request-URI
4 Diversion Method	4 None
5 Asserted Identity Header	5 P-Asserted-Identity
6 Max Diversion Entries	6 4
7 Request Target Address	7
User to User Information (UUI)	
8 UUI Passthrough	8 Enabled
9 Header/Type	9 User-to-User
10 Encoding Format	10 Hex
11 Protocol Discriminator	11 04
12 Static User Data	12 Disable or Enabled
13 Header/name	13 User-to-User
14 Value	14 <i>Ex :</i> <i>0468656c6c6f20776f726c64;encoding=hex;purpose=isdn-interwork;content=isdn-uui</i>
15 Priority	15 Low
Take Back and Transfer	
16 Enable Take Back and transfer	16 Disabled
➤ External Trunk Configuration/Diagnostic	
Parameter Name	Value
1 Media Capture	17 Disabled
2 protocol Capture	18 Disabled
➤ External Trunk Configuration/Custom	
Parameter Name	Value

4.2 Phone Trunk

Steps	Parameter Name	Value (example)																	
Creation and Configuration for Phone trunk																			
Step 1	➤ Telephony→Trunks→Phone Trunks→ « Trunk Name »																		
	➤ General																		
	<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 Phone Trunk Name</td> <td>1 <i>Phone Trunk Name</i></td> </tr> <tr> <td>2 Type</td> <td>2 <i>(to_softphone)</i></td> </tr> <tr> <td>3 Trunk State</td> <td>3 <i>SIP</i></td> </tr> <tr> <td>4 Protocol</td> <td>3 <i>In-Service (check)</i></td> </tr> <tr> <td>5 Listen Port</td> <td>4 <i>UDP</i></td> </tr> <tr> <td></td> <td>5 <i>8060</i></td> </tr> </tbody> </table>	Parameter Name	Value	1 Phone Trunk Name	1 <i>Phone Trunk Name</i>	2 Type	2 <i>(to_softphone)</i>	3 Trunk State	3 <i>SIP</i>	4 Protocol	3 <i>In-Service (check)</i>	5 Listen Port	4 <i>UDP</i>		5 <i>8060</i>				
	Parameter Name	Value																	
	1 Phone Trunk Name	1 <i>Phone Trunk Name</i>																	
	2 Type	2 <i>(to_softphone)</i>																	
	3 Trunk State	3 <i>SIP</i>																	
4 Protocol	3 <i>In-Service (check)</i>																		
5 Listen Port	4 <i>UDP</i>																		
	5 <i>8060</i>																		
➤ Registration																			
<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 Max Registration Rate</td> <td>1 <i>600/1m</i></td> </tr> </tbody> </table>	Parameter Name	Value	1 Max Registration Rate	1 <i>600/1m</i>															
Parameter Name	Value																		
1 Max Registration Rate	1 <i>600/1m</i>																		
➤ Sip Access Control																			
<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 Use Source Address</td> <td>1 <i>No</i></td> </tr> <tr> <td>2 Allow All</td> <td>2 <i>Check</i></td> </tr> </tbody> </table>	Parameter Name	Value	1 Use Source Address	1 <i>No</i>	2 Allow All	2 <i>Check</i>													
Parameter Name	Value																		
1 Use Source Address	1 <i>No</i>																		
2 Allow All	2 <i>Check</i>																		
➤ Connection Configuration /General																			
<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 Language</td> <td>1 <i>English – United States</i></td> </tr> <tr> <td>Calls</td> <td></td> </tr> <tr> <td>2 Max Calls</td> <td>2 <i>100</i></td> </tr> <tr> <td>3 Max Call Rate</td> <td>3 <i>40</i></td> </tr> <tr> <td>4 Max Dial Timeout</td> <td>4 <i>60 sec</i></td> </tr> </tbody> </table>	Parameter Name	Value	1 Language	1 <i>English – United States</i>	Calls		2 Max Calls	2 <i>100</i>	3 Max Call Rate	3 <i>40</i>	4 Max Dial Timeout	4 <i>60 sec</i>							
Parameter Name	Value																		
1 Language	1 <i>English – United States</i>																		
Calls																			
2 Max Calls	2 <i>100</i>																		
3 Max Call Rate	3 <i>40</i>																		
4 Max Dial Timeout	4 <i>60 sec</i>																		
➤ Connection Configuration/Transport																			
<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 Transport DSCP Value</td> <td>1 <i>18 (24.011000)CS3</i></td> </tr> <tr> <td>2 Retryable Reason Codes</td> <td>2 <i>500-599</i></td> </tr> <tr> <td>3 Retryable Cause Codes</td> <td>3 <i>1-5,25,27,28,31,34,38,41,42,44,46,62,63,79,91,96,97,99,100,103</i></td> </tr> <tr> <td>UDP Settings</td> <td></td> </tr> <tr> <td>4 UDP T1 timeout</td> <td>4 <i>500ms</i></td> </tr> <tr> <td>5 UDP T2 timeout</td> <td>5 <i>1s</i></td> </tr> <tr> <td>6 UDP Max Packet retry</td> <td>6 <i>4</i></td> </tr> <tr> <td>7 UDP Max Invite Retry</td> <td>7 <i>3</i></td> </tr> </tbody> </table>	Parameter Name	Value	1 Transport DSCP Value	1 <i>18 (24.011000)CS3</i>	2 Retryable Reason Codes	2 <i>500-599</i>	3 Retryable Cause Codes	3 <i>1-5,25,27,28,31,34,38,41,42,44,46,62,63,79,91,96,97,99,100,103</i>	UDP Settings		4 UDP T1 timeout	4 <i>500ms</i>	5 UDP T2 timeout	5 <i>1s</i>	6 UDP Max Packet retry	6 <i>4</i>	7 UDP Max Invite Retry	7 <i>3</i>	
Parameter Name	Value																		
1 Transport DSCP Value	1 <i>18 (24.011000)CS3</i>																		
2 Retryable Reason Codes	2 <i>500-599</i>																		
3 Retryable Cause Codes	3 <i>1-5,25,27,28,31,34,38,41,42,44,46,62,63,79,91,96,97,99,100,103</i>																		
UDP Settings																			
4 UDP T1 timeout	4 <i>500ms</i>																		
5 UDP T2 timeout	5 <i>1s</i>																		
6 UDP Max Packet retry	6 <i>4</i>																		
7 UDP Max Invite Retry	7 <i>3</i>																		

➤ Connection Configuration /Media																			
<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 DSCP Value</td> <td>1 2E (46,101110) EF</td> </tr> <tr> <td>2 Media Method</td> <td>2 Normal</td> </tr> <tr> <td>3 Preferred Codec List</td> <td>3 <i>Codecs (Audio/PCMA or AUDIO/g729)</i></td> </tr> <tr> <td>4 SRTP Cipher Suite List</td> <td>4 AES_CM_128_HMAC_SHA1_80</td> </tr> <tr> <td>5 Disconnect On Idle RTP</td> <td>5 Enable</td> </tr> <tr> <td colspan="2">DTMF Setting</td> </tr> <tr> <td>1 DTMF Payload</td> <td>6 101</td> </tr> <tr> <td>2 DTMF Method</td> <td>7 RTP Event</td> </tr> </tbody> </table>	Parameter Name	Value	1 DSCP Value	1 2E (46,101110) EF	2 Media Method	2 Normal	3 Preferred Codec List	3 <i>Codecs (Audio/PCMA or AUDIO/g729)</i>	4 SRTP Cipher Suite List	4 AES_CM_128_HMAC_SHA1_80	5 Disconnect On Idle RTP	5 Enable	DTMF Setting		1 DTMF Payload	6 101	2 DTMF Method	7 RTP Event	
Parameter Name	Value																		
1 DSCP Value	1 2E (46,101110) EF																		
2 Media Method	2 Normal																		
3 Preferred Codec List	3 <i>Codecs (Audio/PCMA or AUDIO/g729)</i>																		
4 SRTP Cipher Suite List	4 AES_CM_128_HMAC_SHA1_80																		
5 Disconnect On Idle RTP	5 Enable																		
DTMF Setting																			
1 DTMF Payload	6 101																		
2 DTMF Method	7 RTP Event																		
➤ Connection Configuration /Protocol																			
<table border="1"> <thead> <tr> <th>Parameter Name Header/Invite</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 Conversation Headers</td> <td>8 Enabled</td> </tr> </tbody> </table>	Parameter Name Header/Invite	Value	1 Conversation Headers	8 Enabled															
Parameter Name Header/Invite	Value																		
1 Conversation Headers	8 Enabled																		
➤ Connection Configuration /Authentication																			
<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 Inbound Digest Authentication</td> <td>1 Disabled</td> </tr> <tr> <td>2 Authorization Methods</td> <td>2 REGISTER</td> </tr> <tr> <td>3 Realm</td> <td>3 ININ</td> </tr> <tr> <td>4 User Name</td> <td>4</td> </tr> <tr> <td>5 Password</td> <td>5</td> </tr> </tbody> </table>	Parameter Name	Value	1 Inbound Digest Authentication	1 Disabled	2 Authorization Methods	2 REGISTER	3 Realm	3 ININ	4 User Name	4	5 Password	5							
Parameter Name	Value																		
1 Inbound Digest Authentication	1 Disabled																		
2 Authorization Methods	2 REGISTER																		
3 Realm	3 ININ																		
4 User Name	4																		
5 Password	5																		
➤ Connection Configuration /Provisioning																			
<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 Require Authentications</td> <td>1 Disabled</td> </tr> <tr> <td>2 Prefer http Redirects</td> <td>2 Disabled</td> </tr> <tr> <td>3 Require HTTPS</td> <td>3 Disabled</td> </tr> <tr> <td>4 External Provision Server</td> <td>4</td> </tr> <tr> <td>5 HTTP Port</td> <td>5 8098</td> </tr> <tr> <td>6 HTTPS Port</td> <td>6 8099</td> </tr> </tbody> </table>	Parameter Name	Value	1 Require Authentications	1 Disabled	2 Prefer http Redirects	2 Disabled	3 Require HTTPS	3 Disabled	4 External Provision Server	4	5 HTTP Port	5 8098	6 HTTPS Port	6 8099					
Parameter Name	Value																		
1 Require Authentications	1 Disabled																		
2 Prefer http Redirects	2 Disabled																		
3 Require HTTPS	3 Disabled																		
4 External Provision Server	4																		
5 HTTP Port	5 8098																		
6 HTTPS Port	6 8099																		
➤ Connection Configuration /Diagnostic																			
<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 Media Capture</td> <td>1 Disabled</td> </tr> <tr> <td>2 protocol Capture</td> <td>2 Disabled</td> </tr> </tbody> </table>	Parameter Name	Value	1 Media Capture	1 Disabled	2 protocol Capture	2 Disabled													
Parameter Name	Value																		
1 Media Capture	1 Disabled																		
2 protocol Capture	2 Disabled																		
➤ Connection Configuration /Custom																			
<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> </tbody> </table>	Parameter Name	Value																	
Parameter Name	Value																		

4.3 Edges

Steps	Parameter Name	Value (example)										
Site Configuration												
Step 1	<ul style="list-style-type: none"> ➤ Telephony → Edges → « Edge Name » ➤ General 											
	<table border="1"> <thead> <tr> <th style="text-align: left;">Parameter Name</th> <th style="text-align: left;">Value</th> </tr> </thead> <tbody> <tr> <td>1 Edge Name</td> <td>1 <i>Edge Name</i></td> </tr> <tr> <td>2 Site</td> <td>2 <i>Site</i></td> </tr> <tr> <td>3 Edge Group</td> <td>3 <i>Edge Group Name</i></td> </tr> <tr> <td>4 Network Interface for Internal Edge Communication</td> <td>4 <i>NIC name (ex: Port LAN 1)</i></td> </tr> </tbody> </table>	Parameter Name	Value	1 Edge Name	1 <i>Edge Name</i>	2 Site	2 <i>Site</i>	3 Edge Group	3 <i>Edge Group Name</i>	4 Network Interface for Internal Edge Communication	4 <i>NIC name (ex: Port LAN 1)</i>	
	Parameter Name	Value										
	1 Edge Name	1 <i>Edge Name</i>										
2 Site	2 <i>Site</i>											
3 Edge Group	3 <i>Edge Group Name</i>											
4 Network Interface for Internal Edge Communication	4 <i>NIC name (ex: Port LAN 1)</i>											
<ul style="list-style-type: none"> ➤ Network Interfaces → Interface Name → External Trunks 												
<table border="1"> <thead> <tr> <th style="text-align: left;">Parameter Name</th> <th style="text-align: left;">Value</th> </tr> </thead> <tbody> <tr> <td>1 Use the following trunks</td> <td>1 Check</td> </tr> <tr> <td>2 select External Trunks</td> <td>2 <i>Trunk to Primary a-SBC</i> <i>Trunk to Secondary a-SBC</i></td> </tr> </tbody> </table>	Parameter Name	Value	1 Use the following trunks	1 Check	2 select External Trunks	2 <i>Trunk to Primary a-SBC</i> <i>Trunk to Secondary a-SBC</i>						
Parameter Name	Value											
1 Use the following trunks	1 Check											
2 select External Trunks	2 <i>Trunk to Primary a-SBC</i> <i>Trunk to Secondary a-SBC</i>											
<ul style="list-style-type: none"> ➤ Network Interfaces → Interface Name → Phone Trunks 												
<table border="1"> <thead> <tr> <th style="text-align: left;">Parameter Name</th> <th style="text-align: left;">Value</th> </tr> </thead> <tbody> <tr> <td>1 Use the following trunks</td> <td>1 Check</td> </tr> <tr> <td>2 select Phone Trunks</td> <td>2 <i>Phone Trunk Name</i></td> </tr> </tbody> </table>	Parameter Name	Value	1 Use the following trunks	1 Check	2 select Phone Trunks	2 <i>Phone Trunk Name</i>						
Parameter Name	Value											
1 Use the following trunks	1 Check											
2 select Phone Trunks	2 <i>Phone Trunk Name</i>											

4.4 Call routing

Call routing for Primary a-SBC and Backup a-SBC is set at the “site level”

Steps	Parameter Name	Value (example)										
Site Configuration												
Step 1	➤ Telephony→Sites→ Outbound Routes →« Outbound Route Name »											
	➤ General											
	<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 Outbound Route Name</td> <td>1 Default Outbound Route</td> </tr> <tr> <td>2 Description</td> <td>2 <i>Description</i></td> </tr> <tr> <td>3 State</td> <td>3 Enabled</td> </tr> <tr> <td>4 Classifications</td> <td>4 Emergency, National, International</td> </tr> </tbody> </table>	Parameter Name	Value	1 Outbound Route Name	1 Default Outbound Route	2 Description	2 <i>Description</i>	3 State	3 Enabled	4 Classifications	4 Emergency, National, International	
	Parameter Name	Value										
1 Outbound Route Name	1 Default Outbound Route											
2 Description	2 <i>Description</i>											
3 State	3 Enabled											
4 Classifications	4 Emergency, National, International											
➤ distribution Pattern												
<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 Sequential</td> <td>1 Check</td> </tr> <tr> <td>2 Random</td> <td>2 Uncheck</td> </tr> </tbody> </table>	Parameter Name	Value	1 Sequential	1 Check	2 Random	2 Uncheck						
Parameter Name	Value											
1 Sequential	1 Check											
2 Random	2 Uncheck											
➤ External Trunks												
<table border="1"> <tbody> <tr> <td>Primary a-SBC Trunk Name (at the top)</td> </tr> <tr> <td>Secondary a-SBC Trunk Name (at the bottom)</td> </tr> </tbody> </table>		Primary a-SBC Trunk Name (at the top)	Secondary a-SBC Trunk Name (at the bottom)									
Primary a-SBC Trunk Name (at the top)												
Secondary a-SBC Trunk Name (at the bottom)												

4.5 N+1 Redundancy

Steps	Parameter Name	Value (example)												
Site Configuration														
Step 1	➤ Telephony→Sites→ « Site Name »													
	➤ General													
	<table border="1"> <thead> <tr> <th></th> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Site Name</td> <td>1 <i>Site Name</i></td> </tr> <tr> <td>2</td> <td>Description</td> <td>2 <i>Description</i></td> </tr> <tr> <td>3</td> <td>Location</td> <td>3 <i>Location</i></td> </tr> </tbody> </table>		Parameter Name	Value	1	Site Name	1 <i>Site Name</i>	2	Description	2 <i>Description</i>	3	Location	3 <i>Location</i>	
		Parameter Name	Value											
1	Site Name	1 <i>Site Name</i>												
2	Description	2 <i>Description</i>												
3	Location	3 <i>Location</i>												
➤ Phone Edge Assignements														
	<table border="1"> <thead> <tr> <th></th> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Use these Sites</td> <td>1 Check</td> </tr> <tr> <td>2</td> <td>Primary Sites</td> <td>2 <i>sites list</i> (all sites containing Edges)</td> </tr> <tr> <td>3</td> <td>Secondary Sites</td> <td>3 <i>sites list</i> (all sites containing Edges)</td> </tr> </tbody> </table>		Parameter Name	Value	1	Use these Sites	1 Check	2	Primary Sites	2 <i>sites list</i> (all sites containing Edges)	3	Secondary Sites	3 <i>sites list</i> (all sites containing Edges)	
	Parameter Name	Value												
1	Use these Sites	1 Check												
2	Primary Sites	2 <i>sites list</i> (all sites containing Edges)												
3	Secondary Sites	3 <i>sites list</i> (all sites containing Edges)												

4.6 Call Admission Control

The CAC is managed by the "Max Calls" options in the trunk configuration. The same Pure Cloud trunk is used from one a-SBC to all edges, so this value is the global CAC, in and out, for all the edges.

5 SIP SOFTPHONE CONFIGURATION WITH EDGE

This chapter describes the Purecloud configuration for Purecloud SIP phones. All options are listed.

Two configurations menus are used :

- “Based settings” for global configuration for a phone type.
- “Phone” to create an instance of a phone type and optionally to adjust the parameters set in the base settings.

5.1 Base Phone Settings

Steps	Parameter Name	Value (example)													
Base Phone settings															
Step 1	➤ Telephony→Phone Management→Base Settings → “Base Settings Name”														
	➤ General														
	<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 Base Settings Name</td> <td>1 "BaseName"</td> </tr> <tr> <td>2 Phone Make and Model</td> <td>2 PurecloudSoftphone</td> </tr> </tbody> </table>	Parameter Name	Value	1 Base Settings Name	1 "BaseName"	2 Phone Make and Model	2 PurecloudSoftphone								
	Parameter Name	Value													
	1 Base Settings Name	1 "BaseName"													
	2 Phone Make and Model	2 PurecloudSoftphone													
	➤ Phone Configuration/General														
	<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 Firmware Version</td> <td>1 "the last version"</td> </tr> <tr> <td>2 Dynamic Reload</td> <td>2 Enable</td> </tr> </tbody> </table>	Parameter Name	Value	1 Firmware Version	1 "the last version"	2 Dynamic Reload	2 Enable								
	Parameter Name	Value													
	1 Firmware Version	1 "the last version"													
2 Dynamic Reload	2 Enable														
➤ Phone Configuration/Media															
<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 DSCP Value</td> <td>1 2E (46,101110) EF</td> </tr> <tr> <td>2 RTP Audio Port Start Range</td> <td>2 16384</td> </tr> <tr> <td>3 Preferred Codec List</td> <td>3 Codec (Audio/PCMA or Audio G729)</td> </tr> <tr> <td colspan="2" style="text-align: center;">DTMF Setting</td> </tr> <tr> <td>1 DTMF Payload</td> <td>1 101</td> </tr> <tr> <td>2 DTMF Method</td> <td>2 RTP Event</td> </tr> </tbody> </table>	Parameter Name	Value	1 DSCP Value	1 2E (46,101110) EF	2 RTP Audio Port Start Range	2 16384	3 Preferred Codec List	3 Codec (Audio/PCMA or Audio G729)	DTMF Setting		1 DTMF Payload	1 101	2 DTMF Method	2 RTP Event	
Parameter Name	Value														
1 DSCP Value	1 2E (46,101110) EF														
2 RTP Audio Port Start Range	2 16384														
3 Preferred Codec List	3 Codec (Audio/PCMA or Audio G729)														
DTMF Setting															
1 DTMF Payload	1 101														
2 DTMF Method	2 RTP Event														
➤ Phone Configuration/Network															
<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 Provision</td> <td>1 From Edges within the Site</td> </tr> <tr> <td>2 TLS Authority ID</td> <td>2</td> </tr> <tr> <td colspan="2" style="text-align: center;">Signaling</td> </tr> <tr> <td>1 DSCP</td> <td>1 18 (24. 011000)CS3</td> </tr> </tbody> </table>	Parameter Name	Value	1 Provision	1 From Edges within the Site	2 TLS Authority ID	2	Signaling		1 DSCP	1 18 (24. 011000)CS3					
Parameter Name	Value														
1 Provision	1 From Edges within the Site														
2 TLS Authority ID	2														
Signaling															
1 DSCP	1 18 (24. 011000)CS3														
➤ Phone Configuration/Custom															
<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> </tbody> </table>	Parameter Name	Value													
Parameter Name	Value														

5.2 Phone

Steps	Parameter Name	Value (example)													
Phone création and configuration															
Step 1	➤ Telephony→Phone Management→Phones→"Phone Name"														
	➤ General														
	<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 phone Name</td> <td>1 "PhoneName"</td> </tr> <tr> <td>2 Base settings</td> <td>2 "Base_Setting_Name"</td> </tr> <tr> <td>3 Site</td> <td>3 "site name"</td> </tr> <tr> <td>4 Hardware ID</td> <td>4 "station FQDN" where the softphone is installed</td> </tr> </tbody> </table>	Parameter Name	Value	1 phone Name	1 "PhoneName"	2 Base settings	2 "Base_Setting_Name"	3 Site	3 "site name"	4 Hardware ID	4 "station FQDN" where the softphone is installed				
	Parameter Name	Value													
	1 phone Name	1 "PhoneName"													
	2 Base settings	2 "Base_Setting_Name"													
	3 Site	3 "site name"													
	4 Hardware ID	4 "station FQDN" where the softphone is installed													
	➤ Phone Configuration/General														
	<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 Firmware Version</td> <td>1 "the last version"</td> </tr> <tr> <td>2 Dynamic Reload</td> <td>2 Enable</td> </tr> </tbody> </table>	Parameter Name	Value	1 Firmware Version	1 "the last version"	2 Dynamic Reload	2 Enable								
Parameter Name	Value														
1 Firmware Version	1 "the last version"														
2 Dynamic Reload	2 Enable														
➤ Phone Configuration/Media															
<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 DSCP Value</td> <td>1 2E (46,101110) EF</td> </tr> <tr> <td>2 RTP Audio Port Start Range</td> <td>2 16384</td> </tr> <tr> <td>3 Preferred Codec List</td> <td>3 <i>Codec (Audio/PCMA, Audio G729)</i></td> </tr> <tr> <td colspan="2" style="text-align: center;">DTMF Setting</td> </tr> <tr> <td>1 DTMF Payload</td> <td>1 101</td> </tr> <tr> <td>2 DTMF Method</td> <td>2 RTP Event</td> </tr> </tbody> </table>	Parameter Name	Value	1 DSCP Value	1 2E (46,101110) EF	2 RTP Audio Port Start Range	2 16384	3 Preferred Codec List	3 <i>Codec (Audio/PCMA, Audio G729)</i>	DTMF Setting		1 DTMF Payload	1 101	2 DTMF Method	2 RTP Event	
Parameter Name	Value														
1 DSCP Value	1 2E (46,101110) EF														
2 RTP Audio Port Start Range	2 16384														
3 Preferred Codec List	3 <i>Codec (Audio/PCMA, Audio G729)</i>														
DTMF Setting															
1 DTMF Payload	1 101														
2 DTMF Method	2 RTP Event														
➤ Phone Configuration/Network															
<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>1 Provision</td> <td>1 From Edges within the Site</td> </tr> <tr> <td>2 TLS Authority ID</td> <td>2</td> </tr> <tr> <td colspan="2" style="text-align: center;">Signaling</td> </tr> <tr> <td>3 DSCP</td> <td>3 18 (24. 011000)CS3</td> </tr> </tbody> </table>	Parameter Name	Value	1 Provision	1 From Edges within the Site	2 TLS Authority ID	2	Signaling		3 DSCP	3 18 (24. 011000)CS3					
Parameter Name	Value														
1 Provision	1 From Edges within the Site														
2 TLS Authority ID	2														
Signaling															
3 DSCP	3 18 (24. 011000)CS3														
➤ Phone Configuration/Custom															
<table border="1"> <thead> <tr> <th>Parameter Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Parameter Name	Value													
Parameter Name	Value														