

Gigaset pro

Third Party Interoperability Testing



T300 pro mini PBX

Up to 15 employees at each location

Multiple sites can be seamlessly inter-connected with a common numbering scheme



T500 pro large PBX

Up to 100 employees at each location

InterOperation & Configuration Notes For Gigaset pro T300 & T500 PBX Interworking With The Gamma Telecom IPDC SIP Trunking Service



Gigaset pro

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Contents

CHANGE HISTORY	2
1. OVERVIEW	3
1.1. INTRODUCTION.....	3
1.2. SESSION INITIATION PROTOCOL.....	3
2. TESTING CONFIGURATION	4
2.1. ARCHITECTURE OVERVIEW.....	4
2.2. REQUIREMENTS.....	4
2.3. SOFTWARE VERSIONS.....	4
3. CONFIGURATION	5
3.1. GAMMA TELECOM IPDC.....	5
3.2. GIGASET.....	5
4. TEST RESULTS	9

Change History

Document Revision	Date	Authored By	Sections Affected	Reason for Change
Rev00	11 JUL 2012	JL	All	Initial release

1. Overview

1.1. Introduction

This document provides a summary of how the Gamma Telecom IPDC SIP Trunking service can interoperate with the Gigaset pro T300 and T500 PBX Telephony Solution. This is a Gigaset pro "self-certification" document based on own testing with the Gamma IPDC service.

1.2. Session Initiation Protocol

Session Initiation Protocol (SIP) is a simple protocol that facilitates peer-to-peer communication sessions. Users (or, in general, any addressable entities) in a SIP framework are identified by Universal Resource Identifiers (URI). Each such Internet-style address (for example, sip: johndoe@proximitycomms.com) maps into one or more Contacts, each of which typically represents a device or service at which the corresponding user may be reached. The SIP framework is responsible for routing a request for a peer-to-peer session addressed to a given URL to one or more appropriate contacts for that URL. The framework may utilise information about the preferences, presence and location of the user identified by the URL, to determine the most appropriate contacts. The protocol also provides mechanisms to specify the type of session that is requested as well as means to change session parameters.

It is important to understand that SIP is not a standardised protocol but in fact is an IETF RFC (**R**equest **F**or **C**omment). An RFC is a document that describes the specifications for a recommended technology. If the specification is ratified it becomes a standards document. At the time of producing this document SIP still remains a RFC. Not all RFCs become standards; some are designated indefinitely with Informational or Experimental status. Therefore interoperability of two SIP devices is not guaranteed; this is why Gigaset pro has produced this document to explain the configuration and features available when using the Gamma IPDC service and Gigaset PBX.

Full details of the SIP IETF RFC can be found here: <http://www.ietf.org/rfc/rfc3261.txt>



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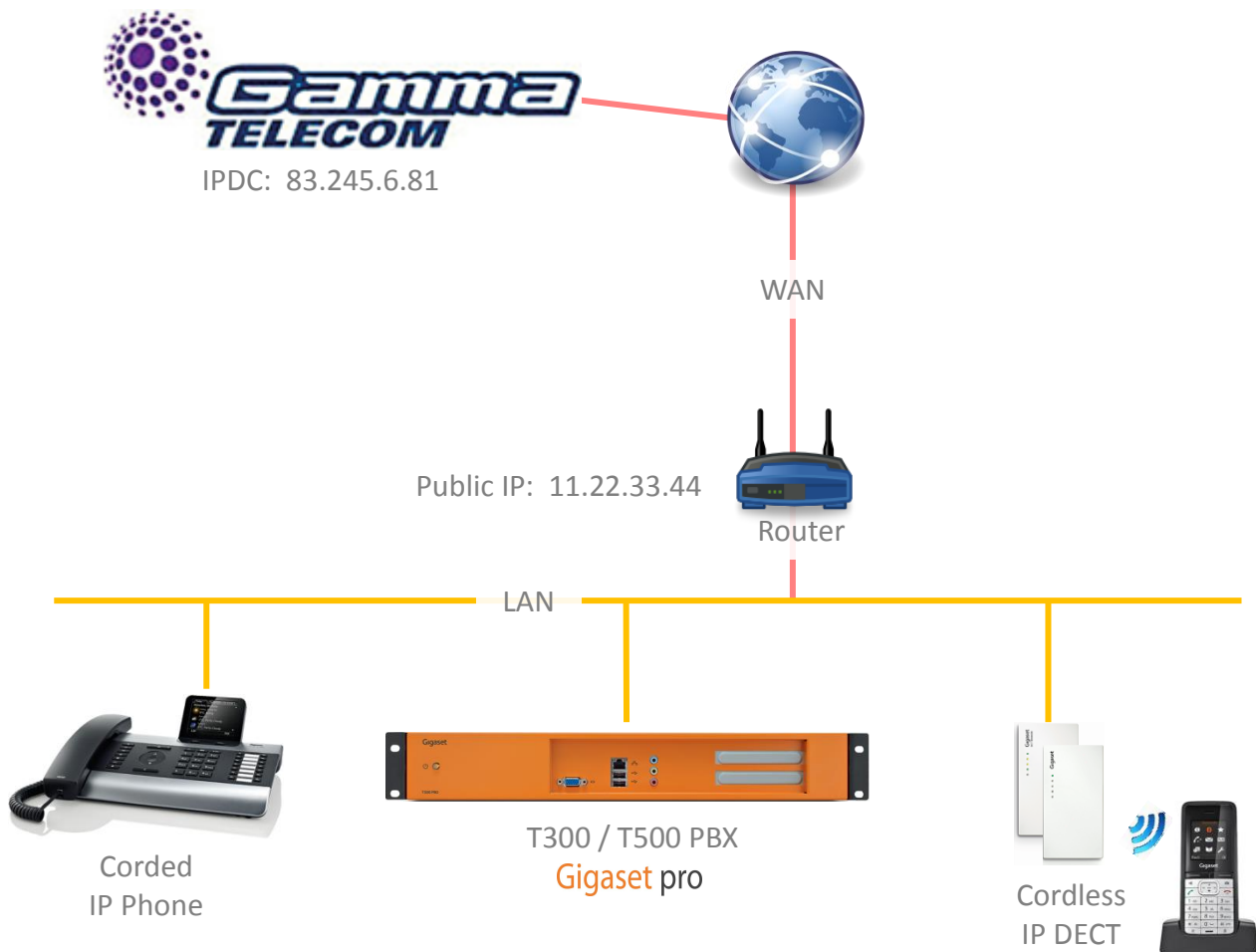


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2. Testing Configuration

2.1. Architecture Overview

The following is a diagram of the solution architecture showing the components used during the test.



2.2. Requirements

Gamma Telecom IPDC SIP Trunking service authenticates the User by its originating “trusted” public IP address [eg 11.22.33.44] therefore this must be previously registered on the Customer’s Gamma account.

2.3. Software versions

The following software versions were used during the testing by Proximity (Re-seller)

Device	Software version
Gamma IPDC	Unknown but date tested 11 July 2012
Gigaset T300 / T500 PBX	5.2

3. Configuration

3.1. Gamma Telecom IPDC

Configure Global SIP Settings

Gamma Telecom IPDC SIP Trunking product authenticates on the Public IP Address of the CPE PBX.

3.2. Gigaset

Review the following steps to configure the Gigaset PBX:

The following represents a real example using the Gigaset UK HQ telephone number DDI range: +44 1244 567900 - 567919

Number Planning ~ From the Lines menu configure Country/Area settings and preferred internal numbering range/s:

1. IDD country code
2. STD local code omitting the leading zero
3. Internal extension numbers range, eg 3 digits. Ideally these should map the last digits of DDI range supplied and therefore form the last part of the overall telephone number.

The screenshot shows the 'Configuration' window for a Gigaset PBX, specifically the 'Line Configuration' section. The interface is divided into a left-hand navigation menu and a main configuration area. The 'Lines' menu item is highlighted. The configuration area is split into two tabs: 'General' (selected) and 'Emergency Call'. Under the 'General' tab, the following settings are visible: 'Country Code' is set to '0044' (marked with a blue circle '1'), 'Area Code' is set to '1244' (marked with a blue circle '2'), 'Prefix' is set to '- none -', 'Country' is set to 'United Kingdom', and 'Deposit' is set to 'None'. Below this, the 'Internal Numbers' section is visible, showing a 'Number Range' of '900' to '989' (marked with a blue circle '3'). The left-hand menu includes options for Users, Groups, Phones, Modules, Voicemail, Conference, Addressbook, Phone Numbers, Lines, Routing, Server, Statistic, Interconnection, Security, and Extended Settings.

Add the new SIP trunk:

4. Name the trunk Gamma Telecom
5. Authentication should be set to "no" as Gamma uses IP based authentication
6. Click the pencil icon to edit the specifics of the trunk

The screenshot shows the Asterisk Manager GUI 'Configuration' window. The left sidebar has 'Lines' selected. The main area is titled 'Line Configuration' and has tabs for 'General', 'Lines', and 'Emergency Call'. Under 'Line Allocation', a table lists a line with 'Line Name: Gamma Telecom', 'Line Number: No.: 1', and 'Line Type: Provider Connection'. A pencil icon next to the line name is circled with a blue '4'. Below the table, the 'Provider' dropdown is set to 'Gamma Telecom' and is circled with a blue '6'. The 'Authentication' section has 'no' selected, circled with a blue '5'. There are also fields for 'User Name' and 'Password'.

Edit the SIP provider details as shown:

7. Ensure the host IP address entered is the correctly issue one for the Gamma IPDC telephony gateway 83.245.6.81

The screenshot shows the Asterisk Manager GUI 'Configuration' window with 'Edit Provider' selected. The 'Provider Name' is 'Gamma Telecom' and 'Line Protocol' is 'SIP'. Under 'Line Configuration', the 'host' field is set to '83.245.6.81' and is circled with a blue '7'. Other fields include 'type: friend', 'dtmfmode: rfc2833', 'auth mode: IP address', 'auth: md5', 'nat: yes', 'allow: g711,alaw', 'insecure: very', 'port: 5060', 'defaultip:', 'rtpholdtimeout:', 'fromdomain:', 'permit:', 'deny:', 'canreinvite: no', 'disallow: all', 'Outbound Proxy:', 'progressinband:', 'qualify: no', 'rtptimeout:', 'mask:', and 'fromuser:'. Under 'Number Display', 'type: rfc3325', 'format incoming: +11 (222) XXX', and 'format outgoing: 222 XXX' are visible.

8. Enter the first part of the telephone number (excluding the DDI/extension element previously inserted)

The screenshot shows the 'Line Configuration' window with the 'Lines' tab selected. The 'Line Allocation' table lists a line named 'Gamma Telecom' with 'No.: 1' and 'Provider Connection' type. Below the table, the 'Number' field is populated with '0044(1244)567', where the '567' is highlighted and a blue circle with the number '8' is placed over it. Other fields include 'Country Code: 0044', 'Area Code: 1244', and 'Number Area: 900 to 919'. The 'Number Type' is set to 'Number Block'.

9. Note the Status will not show as Registered as this is not the method used for authentication.

The screenshot shows the 'Line Configuration' window with the 'Lines' tab selected. The 'Line Allocation' table lists a line named 'Gamma Telecom' with 'No.: 1' and 'Provider Connection' type. Below the table, the 'Line Prefix' field is populated with '**'. A blue circle with the number '9' is placed over the 'Line Prefix' field. Other fields include 'Deposit: Default', 'No Screening: []', 'Phone Number Prefix: +', and 'Max Connection: 0'. The 'Manual Configuration' section is active.

Server Menu:

10. Ensure that "Behind NAT?" is set to yes when connected to a router that has NAT enabled.

11. Enter the external IP address as used for authentication by Gamma

The screenshot shows the Asterisk configuration interface with the 'Server' menu selected. The 'Network' tab is active, displaying the following settings:

- SIP Settings:**
 - Behind NAT? yes no
 - Automatically detected external IP: 11.22.33.44
 - External address: 11.22.33.44
 - STUN: []
- Network Settings:**
 - Gateway IP: 192.168.1.254
 - Hostname: dhcppc22
 - DNS Server 1: 192.168.1.254
 - DNS Server 2: []
 - DNS Server 3: []
- Proxy-Settings:**
 - Use for:
 - HTTP
 - HTTPS
 - Address: []
 - Port: 80
 - Requires authentication:
 - Username: []
 - Password: []
- Network Adapter:**
 - eth0 "Realtek Semiconductor Co., Ltd. RTL8111/8168B PCI Express Gigabit Ethernet controller (rev 03)" link: yes activate

4. Test Results

Issues deemed to require a resolution are displayed in BLUE

Feature	Success	Comments
Outgoing calls	✓	
Incoming calls	✓	DDI tested also
CLIP Outgoing	✓	
CLIP Incoming	✓	
DTMF	✓	
Anonymous calling	-	Untested.

Further configuration details can be found in the specific product Admin Guide which is available for download in the Support area of the pro website.

Comments or questions in relation to this document should be addressed to the originator:

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