

# 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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INSPIRING CONVERSATION

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## 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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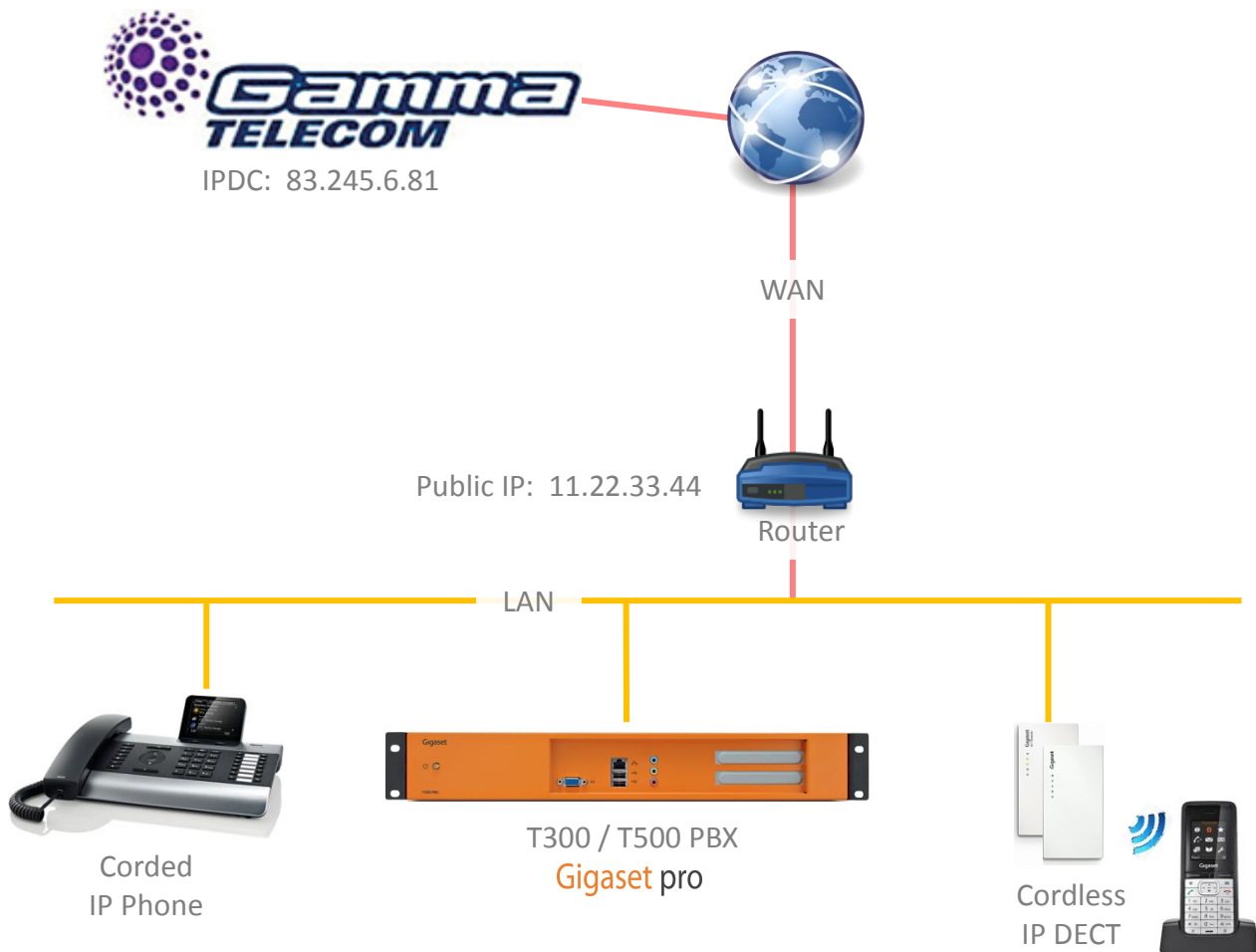


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## 2. Testing Configuration

### 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 'Lines' tab is selected. The 'Country Code' is set to '0044' (marked with a blue circle '1'), and the 'Area Code' is set to '1244' (marked with a blue circle '2'). The 'Prefix' is set to '- none -'. The 'Country' is set to 'United Kingdom'. The 'Deposit' is set to 'None'. The 'Internal Numbers' section shows a 'Number Range' from '900' to '989' (marked with a blue circle '3'). The left sidebar contains various configuration options: Users, Groups, Phones, Modules, Voicemail, Conference, Addressbook, Phone Numbers, Lines (highlighted), 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


Configuration

Line Configuration

General Lines Emergency Call

Line Allocation

Status	Line Name	Line Number	Line Type
▼	Gamma Telecom	No.: 1	Provider Connection

Provider: Gamma Telecom  Provider Status: ■

Authentication:  yes  no

User Name:

Password:

Provider Number Area Extended

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

Configuration

Edit Provider

Provider Name: Gamma Telecom

Line Protocol: SIP

Line Configuration

type: friend host: 83.245.6.81

dtmfmode: rfc2833 permit:

auth mode: IP address deny:

auth: md5 canreinvite: no

nat: yes disallow: all

allow: g711,alaw Outbound Proxy:

insecure: very progressinband:

port: 5060 qualify: no

defaultip: rtptimeout:

rtpholdtimeout: mask:

fromdomain: fromuser:

Number Display:

type: rfc3325

format incoming: +11 (222) XXX format outgoing: 222 XXX

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

The screenshot shows the 'Configuration' window with the 'Line Configuration' section. The 'Lines' tab is active. The 'Line Allocation' table shows a line with the name 'Gamma Telecom' and line number 'No.: 1'. Below the table, the 'Number' field is being edited. The 'Number' field is divided into 'Number Type', 'Number', and 'Number Area'. The 'Number' field contains '0044(1244)567', with a blue circle and the number '8' highlighting the '567' part. The 'Number Area' field contains '900 to 919'. The 'Country Code' is '0044' and the 'Area Code' is '1244'. The 'Status' field is currently empty.

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

The screenshot shows the 'Configuration' window with the 'Line Configuration' section. The 'Lines' tab is active. The 'Line Allocation' table shows a line with the name 'Gamma Telecom' and line number 'No.: 1'. Below the table, the 'Number' field is being edited. The 'Number' field is divided into 'Number Type', 'Number', and 'Number Area'. The 'Number' field contains '0044(1244)567', with a blue circle and the number '9' highlighting the '567' part. The 'Number Area' field contains '900 to 919'. The 'Country Code' is '0044' and the 'Area Code' is '1244'. The 'Status' field is currently empty. The 'Deposit' field is set to 'Default'. The 'No Screening' field is set to 'No Screening'. The 'Max Connection' field is set to '0'. The 'Manual Configuration' field is set to '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.

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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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