

# Interop T440/T640 2.0 Sipgate trunking

## Sipgate trunking

Feature	
Outgoing Calls	Yes
Incoming Calls	Yes
CLIP incoming	Yes
CLIP outgoing	Yes
Call Forwarding	Yes
Call Transfer	Yes
Call Waiting	Yes
DTMF	Yes
Anonymous Call	Yes
A-number forwarding	No
Fax	see chart below*

\*= Sipgate Trunking offers a full Fax2Mail solution via their web-platform. Preferably use this service!



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## Gigaset T440/T640 PRO settings.

For entering a new SIP trunk into the PBX, you need some steps:

1. Adding a new Gateway group
2. Adding a new SIP gateway
3. Defining the inbound routes (assignment of number to extension)
4. Defining the outbound routes

Let's assume our SIP trunk contains the following numbers:

**0891234567[0-9]**

And we choose following internal numberblock:

**67[0-9]**

And we have a '0' as line-prefix.

## Gateway Group

In the Gigaset PBX go to "Administration" - "Routes" - "Gateway groups" enter a name for the new group and click on: **Create new group**

In the Gateway group you have to define the Outbound Caller ID, the Asserted Identity settings, the Inbound DIDs (how the number is forwarded to the Inbound routes) and the Inbound caller ID (number presentation of external caller). in addition you can permit here inbound calls in general for this gateway group.

**Edit gateway group**

Title	Sipgate Trunking
Permit inbound calls	<input checked="" type="checkbox"/>
Outbound caller ID	Search/replace pattern for outbound caller ID (1) s/ ^d(d)(d) / 49891234567\$1 /
Asserted Identity	Search/replace pattern for asserted identity (1) s/ ^d(d)(d) / 49891234567\$1 /
Inbound DIDs	Search/replace pattern to cut prefixes (2) s/ ^?-(?:0049 +49490 789)?123 / \$1 /
Inbound caller ID	Search/replace pattern for inbound caller ID (3) s/ ^? / 0\$1 /
Gateways	SIP - Sipgate Trunk
Outgoing caller IDs	

(1) Search/Replace pattern (PCRE) for outbound caller ID signalling. Examples:  
Extension only: s/^(\*)/\$1/  
National format: s/^(\*)/030123456\$1/  
International format: s/^(\*)/004930123456\$1/ or s/^(\*)/+4930123456\$1/  
Same number for all users: s/^(\*)/00493012345612/  
In most cases you should use the national or international format.  
(2) If necessary, specify here a PCRE-pattern which removes prefixes from inbound numbers, so that only the internal extension remains. Examples:  
s/026313370//  
s/^(00490|2631)3370//  
s/^(?:00490|2631)73270/(\*)\$1/  
(3) Search/Replace pattern (PCRE) for inbound caller IDs, to fix up eventually wrong signalled caller IDs. Example: s/^0/ or s/^(\*)/0\$1/ to prefix the caller ID with a 0. Empty for no automatic change.  
Experimental: This option can also be used to add or remove a leading 0 to/from call log entries by using s/^0/ or s/^(\*)/0\$1/, or s/^0// or s/^0(\*)/\$1/.

Example of Sipgate trunking gateway group settings.

#### Outbound caller ID

As just the last digit of the trunk number block is changing, you can select just the last digit (in brackets, here: **^d(d)(d)**) and put it into the variable **\$1**. As the provider wants the signalling number in the format (country-code)(city-code)(number), you have to enter this number into the next line (here: **49891234567\$1**, where the **\$1** represents the changing part).

The provider will take care about the number representation to the called party. He will present e.g. **08912345678** to the calling party.

In case your block contains more numbers, you can change the first expression to **^d(d)(d)** or even **^(d(d)(d))**. Then you have to check if also the second expression has to be changed, e.g. from **49891234567\$1** to **4989123456\$1**.

#### Asserted Identity

These fields are used specially for external forwardings. Some providers need special settings in order to present the correct number at the receiving party.

For Sipgate trunking accounts these settings need the same values than the Outbound caller ID.

Here: **^d(d)(d)** and **49891234567\$1**

#### Inbound DIDs

For incoming calls, you can use the regular expression, generated by the setup assistant. In your case you would have to adjust the city-code and the first part of the extension, according to your line-settings.

Here: `^(?:?:(?:0049|+49|0)?89)?12345)?(.*)`

This expression cuts all possibly available country- and city-codes and the pilot-number from the incoming number and only the extension is remaining (here: **678**). This will be forwarded to the Inbound Routes.

#### Inbound caller ID

For incoming calls, we will add an additional **0** in front of the external number of the caller, in order to use the callback-feature of the phone (e.g. **0089987654321**). During the call-setup the additional **0** will be automatically removed.

#### Gateways

This field will be empty when you create this Gateway group. It will show later the assigned SIP gateways.

## SIP gateway

In the Gigaset PBX go to "Administration" - "Routes" - "SIP gateways" enter a name for the new gateway and click on: **Create new gateway**

The SIP gateway contains all necessary data for the registration and dial command and how the number is delivered to/from the provider.

Just enter or choose the values according to your contract or data you received from the provider.

The screenshot shows the Gigaset PBX administration interface. The left sidebar contains a menu with options: HOME, MENU, ADMINISTRATION (selected), and PROFILE. Below this, there are links for Users & extensions, System, Provisioning, Routes, Gateway group, SIP gateway (highlighted), TDM Gateway, Inbound route, Outbound route, Call forward, and System status. The main content area displays the 'Edit SIP gateway' form for 'Sipgate Trunk'. The form is divided into two columns. The left column contains fields for: Title (Sipgate Trunk), Name (gw\_2\_sipgate\_trunk), Registrar (sipconnect.sipgate.de), Proxy [1], User [2] (with a flag icon), Password (masked with dots), Allow outbound calls (ON), Register (ON), Language (de - German (de-DE)), Dial command [3] (PJSIP/(prefix)(number 1)@(gateway)), Transport name (default-udp), Source of destination number (INVITE request line), Group [4] (Sipgate Trunking), Port [5] (5060), NAT (yes), Redirect RTP stream (Do not reroute RTP stream (default)), Check availability (ON), and Simultaneous calls (0 for unlimited (default)). The right column contains a list of notes: (1) Empty for no proxy; (2) For some SIP providers, it might be necessary to use the format user@domain; (3) String for the Dial() command; (4) In order to use gateways, they must be assigned to a gateway group; (5) When specifying the port; (6) The priority of the codes is from left to right and top to bottom; (7) Useful settings are e.g. 0.0.0.0/0, 192.0.2.0/24, 192.168.0.0/16, 192.168.1.1/32. At the bottom right of the form are 'Cancel' and 'Save' buttons.

Example of Sipgate trunking gateway settings 1/2.

The screenshot shows the Gigaset PBX Administration interface. The sidebar on the left contains navigation links: HOME, MENU, ADMINISTRATION (highlighted), and PROFILE. Below these are categories: Users & extensions, System, Provisioning, Routes, Gateway groups, SIP gateways (highlighted), TDM Gateways, Inbound routes, Outbound routes, Call forwarding, and System status.

The main configuration area for a SIP gateway includes the following fields:

- DTMF mode: rfc4733 - RTP meta data
- From user: [Flag icon]
- From Domain: sipconnect.sipgate.de
- T38 support: ON
- Update P-Asserted-Identity (CLIP): Use P-Asserted-identity header
- Update remote party ID (CLIP): no - Deactivated (default)
- Trust remote party ID: no - Deactivated (default)
- Codecs [6]:
  - ☐ G.722 ☐ G.729 ☒ G.711a ☐ G.711u
  - ☐ GSM ☐ H.261 ☐ H.263
  - ☐ H.263+
- Allowed IP subnet [7]: 0.0.0.0 / 0

Below the main fields is the "Advanced parameters" section, which includes a "Value" field with a "username" label and a "Value" field with a "+" button. At the bottom, there is a "Preview of peer in sip.conf" section showing the entry: [gw\_2\_sipgatetrunk].

Example of Sipgate trunking gateway settings 2/2.  
Dial command

The dial command is the command which is used in the asterisk software. The term **{number :1}** means, that at the dialled number (e.g. 008987654321) the first digit is removed. If you don't use a line access code (in most cases '0' is used), you have to remove the ':1' !!! In case you want to use the prefix in the outbound routes, you have to enter '**{prefix}**' to the dial command: **SIP/{prefix}{number:1}@{gateway}**

### Group

Select here the previously created gateway group.

### Update remote party ID / P-Asserted-Identity (CLIP)

These settings are just optional, as the provider replaces outgoing CLIP which is not valid with the default number of the SIP account.

### T.38 support

In order to have the best fax support on the FXS ports, you have to deactivate the T.38 support option. A fallback to G.711 will be used instead.

### Advanced Parameter

You have to enter the complete term

username=12345678t9

in the value-field and press the plus-sign.

Underneath you will see then a preview of the entry in the sip.conf file.

## **Inbound routes**

In the Gigaset PBX go to "Administration" - "Routes" - "Inbound routes" select the correct Gateway group and press **Show**.

In addition it is advised to activate the advanced options by clicking it to 'ON' and then pressing **Show**.

The screenshot shows the Gigaset PBX Administration interface. The top navigation bar includes HOME, MENU, ADMINISTRATION (selected), and PROFILE. The left sidebar lists various system settings, with 'Routes' expanded to show 'Inbound routes'. The main content area is titled 'Inbound routes' and features a 'Gateway group' dropdown set to 'Sipgate Trunking (sipgate-trunking)' and an 'Advanced options' toggle set to 'ON'. Below this is a table for configuring rules:

Rule	Active	Date	Weekdays	Time	Profile	Pattern	Target	
General	ON		M T W T F S S ☑ ☑ ☑ ☑ ☑ ☑ ☑	00:00 to 24:00	-	^(*)	\$1	+ -
	ON		M T W T F S S ☑ ☑ ☑ ☑ ☑ ☑ ☑	00:00 to 24:00	-			+

Example of Sipgate trunking Inbound routes.

#### Rule

Enter here a name for the according rule.

#### Date / Weekdays / Time

With these settings you can configure a time-controlled routing to different targets.

#### Pattern / Target

In the pattern you define which part of the incoming number is used to forward the call to the according extension.

Because we already receive the correct extension from the gateway group, we don't need any further number manipulation here.

In our example we forward incoming calls directly to the according extension.

The shown example is the easiest way for a block of numbers, but also other configurations or assignments are possible.

## Outbound routes

In the Gigaset PBX go to "Administration" - "Routes" - "Outbound routes" activate the Advanced options by clicking it to 'ON' and then pressing **Show**.

The screenshot shows the Gigaset PBX Administration interface for 'Outbound Routes'. The top navigation bar is the same as the previous screenshot. The left sidebar shows 'Routes' expanded to 'Outbound routes'. The main content area is titled 'Outbound Routes' and features an 'Advanced options' toggle set to 'ON'. Below this is a table for configuring rules:

Rule	Active	Weekdays	Time	Pattern	Group	Gateway gr...	Add prefix	
General	ON	M T W T F S S ☑ ☑ ☑ ☑ ☑ ☑ ☑	00:00 to 24:00	*0	[all]	Sipgate T		+ -
						-		+

Example of Sipgate trunking Outbound routes.

#### Rule

Enter here a name for the according rule.

#### Date / Weekdays / Time

With these settings you can configure a time-controlled routing.

#### Pattern

In the pattern you define how the outside line is seized. In our example all dialled numbers starting with '0' will use the Gateway group Sipgate trunking.

## Fax support

Fax has been tested (11.08.2016). These results are without a guarantee. Due to different end-devices, configuration of PBX or other settings the fax transmission might fail.

	Sending				
		Internal FXS	Internal T38-Fax	External T38-Fax	External machine-Fax
Receiving	Internal FXS	---	---	Yes*	Yes*
	Internal T38-Fax	---	---	No	No
	External T38-Fax	Yes*	No	---	---
	External machine-Fax	Yes*	No	---	---

Used devices or services:

Canon Fax-L100 (internal FXS), [www.minifax.de](http://www.minifax.de) (external T38-Fax), Triumph Adler DCC 2725 (external machine-Fax)

\* = T38 option in SIP gateway deactivated