

# Interop T440/T640 2.0 QSC IPFonie extended connectR

QSC IPFonie extended connectR (T440/640 [SW-version 2.0.0](#))

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	Yes
Fax	see chart below



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## Gigaset T440/T640 PRO settings.

For entering a new SIP account 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 has the following block of numbers:

**+49 89-1234567[0-9]**

And we choose following block for internal extensions:

**67[0-9]**, where our examples will be for the user with extension **678**.

## 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, 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.

Example of QSC IPFonie extended connectR gateway group settings.

#### Outbound caller ID

As the users are having the last 3 digits of the trunk number as extension we can use the term '^ ( . \* )' to add the users extension behind the shown pilot number. The whole extension will be put in the variable \$1. As the provider wants the signalling number in the format +(country-code)(city-code)(number), you have to enter the pilot-number into the next line (here: **+498912345\$1**, where the **\$1** represents the changing part).

For external calls, we will present e.g. **+498912345678** to the provider, and he will take care about the correct representation to the called party.

#### 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 the QSC IPFonie extended connectR, you can use the entries from the outbound caller ID fields e.g. **^ ( . \* )** and **+498912345\$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 pilot-number, according to your line-settings.

**^ ( ? : ( ? : ( ? : 0049 | \ +49 | 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

As the provider needs a '+'-sign for own numbers (e.g. in PAI-field), we recommend not to use an additional digit for seizing the outside line.

For incoming calls, we will forward the external number of the caller as-is to the inbound routes, in order to use the callback-feature of the phone (e.g. **089987654321**).

#### 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 data you received from the provider.

The screenshot shows the 'Edit SIP gateway' configuration window for 'QSC extended ConnectR'. The left sidebar contains a navigation menu with options: HOME, MENU, ADMINISTRATION (selected), and PROFILE. Below this, there are links for Users & extensions, System, Provisioning, Routes, Gateway groups, SIP gateways (selected), TDM Gateways, Inbound routes, Outbound routes, Call forwarding, and System status.

The main configuration area is titled 'Edit SIP gateway : QSC extended ConnectR'. It contains a table of settings:

Field	Value
Title	QSC extended ConnectR
Name	gw_3_qscextendedconn
Registrar	duro02.sipconnect.qsc.de
Proxy [1]	
User [2]	****@qsc.de
Password	*****
Allow outbound calls	<input checked="" type="checkbox"/>
Register	<input checked="" type="checkbox"/>
Language	de - German (de-DE)
Dial command [3]	PJSIP/(prefix)(number)@(gateway)
Transport name	default-udp
Source of destination number	INVITE request line
Group [4]	QSC extended connectR
Port [5]	5060
NAT	no
Redirect RTP stream	Do not reroute RTP stream (default)
Check availability	<input checked="" type="checkbox"/>
Simultaneous calls	0 (0 for unlimited (default))

On the right side of the configuration window, there are seven numbered notes:

- (1) Empty for no proxy.
- (2) For some SIP providers, it might be necessary to use the format user@domain. (domain is then used in the From header, which equals fromdomain in Asterisk.)
- (3) String for the Dial()-command. T440/T640 PRO will automatically replace (number) by the called number, (number:1) without the first digit and (gateway) with the internal description (e.g. gw\_1\_ami).
- (4) In order to use gateways, they must be assigned to a gateway group.
- (5) When specifying the port (standard SIP port: 5060), it will be directly used. Without, a DNS lookup of the SRV record \_sip.\_udp of the domain (or server) will be performed upon dialout. More information: [Srv Resource Record](#), [Srv Resource Record \(en\)](#), [CIDR](#), [SIP-DNS-Srv-Records](#), [SIP-DNS-Srv-Records \(en\)](#), [SIP-DNS-Srv-Records \(en\)](#).
- (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, to allow calls from all IP addresses,  
192.0.2.0/24 to allow calls originating from network 192.0.2.\*,  
192.168.0.0/16 to allow calls originating from network 192.168.\*,  
192.168.1.1/32 to allow calls originating from IP address 192.168.1.1 etc.

At the bottom right of the window are 'Cancel' and 'Save' buttons.

Example of QSC IPFonie extended connectR sip gateway settings 1/2.

**Gigaset**

HOME MENU **ADMINISTRATION** PROFILE

Users & extensions  
System  
Provisioning  
Routes  
Gateway groups  
**SIP gateway**  
TDM gateway  
Inbound routing  
Outbound routing  
Call forwarding  
System status

DTMF mode: rfc4733 - RTP meta data

From user:

From Domain: qsc.de

T38 support: ☒ ON

Update P-Asserted-Identity (CLIP): no - Deactivated (default)

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

More Information IP address, Subnet, CIDR, sip.conf

Advanced parameters

Value:

Value: +

Preview of peer in sip.conf

```
[gw_3_qscextendedconn]
type=auth
auth_type=userpass
```

Cancel Save

Example of QSC IPFonie extended connectR gateway settings 2/2.

#### Registrar

Enter here the DNS name of the SIP-server, here:

duro02.sipconnect.qsc.de

You have to use this DNS-name for registration, otherwise incoming calls will be rejected by the server.

#### User

Enter here the pilot-number of your account followed by '@qsc.de', here:

089123456@qsc.de

In case you have multiple number blocks, you have to create for each block a separate Gateway-group, SIP-gateway and incoming/outgoing routing!

#### Dial command

The dial command is the command which is used in the asterisk software. The term **{number}** means, that at the dialled number (e.g. **089987654321**) is not modified during call-setup.

We strongly recommend not to use an additional digit for seizing the outside line!

In case you want to use the prefix-fields from the outbound rules, please add '**{prefix}**' before '**{number}**'.

#### Source of destination number

To derive the correct target number from the INVITE, select here

INVITE request line

#### From Domain

To have the signalling correct enter here the following domain:

qsc.de

#### T.38 support

In order to have the best possible fax support, you should activate this parameter. Check also the fax-interop list below. In case you encounter issues for incoming/outgoing fax, please try to deactivate the option.

#### Group

Select here the previously created gateway group.

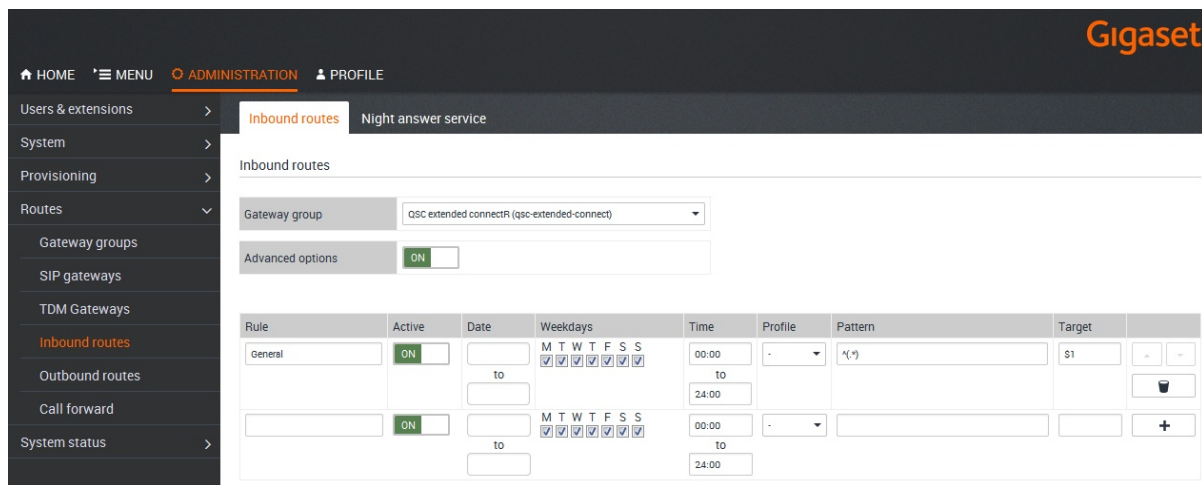
#### Advanced Parameter

For the QSC line you don't have to enter any advanced parameter.

## 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', and 'PROFILE'. The left sidebar lists various configuration options, with 'Inbound routes' highlighted. The main content area is titled 'Inbound routes' and contains a 'Gateway group' dropdown menu set to 'QSC extended connectR (qsc-extended-connect)'. Below this is an 'Advanced options' section with a green 'ON' button. A table lists the configured rules:

Rule	Active	Date	Weekdays	Time	Profile	Pattern	Target	
General	ON		M T W T F S S [x] [x] [x] [x] [x] [x] [x]	00:00 to 24:00	-	^(*)	\$1	[trash icon]
	ON		M T W T F S S [x] [x] [x] [x] [x] [x] [x]	00:00 to 24:00	-			[plus icon]

Example of QSC IPFonie extended connectR 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.

In our example we receive already the correct extension from the gateway group. Therefore no further number-manipulation is necessary.

When the PBX finds an according extension it will route the call to it.

But you can add here exceptions from this rule, for example if you want to forward the incoming call to an internal fax or waiting queues, etc.

Please have in mind the order of these rules, as the system is using **First Match!!!**

## 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**.

Gigaset

[HOME](#)
[MENU](#)
[ADMINISTRATION](#)
[PROFILE](#)

[Users & extensions](#)
[System](#)
[Provisioning](#)
[Routes](#)

[Gateway groups](#)
[SIP gateways](#)
[TDM Gateways](#)
[Inbound routes](#)

### Outbound Routes

Advanced options
☒ ON

Rule	Active	Weekdays	Time	Pattern	Group	Gateway gr...	Add prefix	
QSC extended connectR	<input checked="" type="checkbox"/> ON	M T W T F S S <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	00:00 to 24:00	*[*0]	[all]	QSC exte...		<input type="button" value="-"/> <input type="button" value="+"/> <input type="button" value="🗑"/>

Example of QSC IPFonie extended connectR 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' or '+' will use the Gateway group QSC IPFonie extended connectR.

Remark: For calling anonymous to external parties, use the CLIR-setting in the HOME screen of the user!

## Fax support

Following table shows you the current state (16.08.2016) of supported fax constellations. These results are without a guarantee. Due to different end-devices, configuration of PBX or other settings the fax transmission might fail. [More info about fax via VoIP networks can be found here.](#)

Receiving	Sending			
	Internal FXS	Internal T38-Fax	External T38-Fax	External machine-Fax
Internal FXS	---	---	OK*/**	OK*/**
Internal T38-Fax	---	---	OK**	OK**
External T38-Fax	OK*/**	OK**	---	---
External machine-Fax	OK*	OK**	---	---

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

\*\* = T38 option in SIP gateway activated