
How to Setup Receptionist on the Quadro



Abstract: This document describes the setup and the functionality of receptionist on the Quadro and represents the scenarios of using the receptionist services.

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1 Introduction

This document describes the setup and the functionality of receptionist on the Quadro and represents the scenarios of using the receptionist services.

Feature is specific to all Quadro IP PBXs with the software 3.1.x and higher.

2 Functional Descriptions

Receptionist feature on the Quadro offers several of services capable of manipulating multiple calls. It can keep numerous calls in the queue waiting to be answered by the receptionist and finally to be forwarded to the corresponding destination, if needed.

Please Note: It is recommended to have the Snom360 IP phone for the receptionist in order to be able to use the services below. The Snom360 IP phone is used as the official hardware for Receptionist Management on the Quadro.

The following services are available to the receptionist:

- Call Queue
- Extension Status
- Call Interception
- Voicemail Transfer
- Multi-Company Receptionist

2.1 Call Queue

The feature allows you to keep multiple incoming calls in the queue while being on the line and to answer calls in the order they have been received.

The configuration of the Call Queue feature is done from the Extensions Management page. The length of the call queue and the call queue appearance can be defined on this page. When the Call Queue service is enabled, the second arriving call to the receptionist/extension user will be set into the queue (if call queue appearance is 1) or will be ringing in the background of the active call (if call waiting is enabled for the user and the call queue appearance value is greater than 1). If the call ringing in the background won't be answered, it will be transferred to the user's voice mailbox or, if No Answer Forwarding is enabled, it will be forwarded to the corresponding destination.

If a call is set into the queue, the caller will hear a message asking them to wait until the call will be answered. Once the receptionist terminates a call, the next call in the queue will be ringing to the receptionist.

The Snom360 IP phone provides the receptionist the option of monitoring the calls in the queue even while being in call. The **Messages** lamp on the IP phone will be blinking when there will be at least one caller in the call queue. By pressing the **Retrieve** button on the IP phone, the receptionist can receive information about the total number of callers in the queue and the name/phone number of the last caller.

2.2 Extension Status

Quadro provides options to control and determine the actual state of a manager's phone. Through Receptionist Phone Configuration Wizard, Quadro will automatically configure the receptionist's IP phone to be able to watch the status of a manager's phone. A programmable key assigned to the corresponding manager will blink if an incoming call is received and the manager's phone is currently ringing. A key lamp will be ON when manager is on a call and will be OFF if the manager's phone is in the idle state. The extension status option can be used by

the receptionist to receive the actual information about the availability of managers for incoming call transfers.

2.3 Call Interception

The functionality of the Call Interception service is limited to the capabilities of the Snom360 IP phone. To use the service of Call Interception, the managers' phones watch option should be enabled. Each manager should have a programmable key assigned on the receptionist's IP phone. Quadro, through the Receptionist Phone Configuration Wizard, performs this automatically.

When an incoming call is addressed to a certain manager comes, the receptionist will be able to see the corresponding programmable key blinking and the caller's ID (for Snom360 only) on the phone's display. The receptionist is able to intercept the incoming call by pressing the blinking key. The caller will then be connected to the receptionist. If the receptionist does not answer the call addressed to the manager or the manager does not answer the call, the call will be directed to the manager's voice mailbox, if it is enabled, otherwise the call will be disconnected.

2.4 Voicemail Transfer

Quadro allows the receptionist to forward incoming calls directly to the voicemail of the attached extension. To do so, an appropriate routing pattern should be added to the Call Routing table. When this is done, the incoming call transferred to the assigned extension will go directly to the extension's voice mailbox.

2.5 Multi-Company Receptionist

Quadro provides the option to use the single IP phone (Snom 360) to manage the receptionist features for multiple companies at the same time. In order to do this, the incoming line appearance on the phone should be created, attached to the IP line of the IP phone and then labelled to the corresponding company name. When a call related to one company is busy, the receptionist is able to receive calls related to other companies. Calls can be ringing in the background and the receptionist can switch between the incoming calls. However, if the receptionist does not answer the incoming calls, and if the Call Queue service is enabled on the extensions, the incoming calls will be stored into the queue specified for each company line.

3 Configuration

This section describes the necessary configuration on the Quadro to setup and enable the Snom360 IP phone functional as a receptionist.

Please Note: The configuration below assumes that the receptionist's Snom360 IP phone is located in the LAN of the Quadro. Configuration when the IP phone is located outside the Quadro's LAN is out of the scope of this document.

3.1 Prerequisites

- Snom360 IP phone is connected in the Quadro's LAN.
- Quadro Software - 3.1.x or higher.
- Snom360 Software - 4.1 or higher.

3.2 Configuring Quadro as a Simple Receptionist

For most of the scenarios described below, the following configurations assume that the Quadro4x device is installed at the company premises.

1. Login as Administrator to Quadro's GUI.
2. From the **Users->Extensions Management**. Configure the companies hypothetical staff as indicated in the table below:

#	Employee	Occupation	Extension	Attached (IP) Line
1.	Dan	Company Manager	11	Line 1
2.	Bob	Technical Support	12	Line 2
3.	Judie	Accountant	13	Line 3
4.	Emily	Clerk	14	Line 4
5.	Olivia	Receptionist	31	IP Line 1
6.	Jacob	Technician	32	IP Line 2
7.	Matthew	Security guard	33	IP Line 3

Make sure that corresponding extensions exist on the Quadro and that they are attached to the corresponding IP lines. The receptionists extension should be registered on the public SIP server.

3. Go to **Telephony-> FXO Settings** page (see Fig. 1). Route the incoming PSTN calls to the receptionist (Olivia) by choosing the **Extension** radio button selection. Select extension 31 from the drop down list in front of the radio button. This will allow the receptionist to answer all incoming PSTN calls on the specified FXO line.

The screenshot shows the 'FXO Settings - FXO 1' configuration page. At the top, there are navigation tabs: Main, System, Users, Telephony, Internet Uplink, and LAN Services. The 'Epygi TQuadro225' logo is in the top right. The page content includes:

- Enable FXO
- Allowed Call Type: Both incoming and outgoing calls (dropdown)
- Route incoming FXO call to:
 - Extension: 31 (dropdown)
 - Routing: (empty field)
- PSTN Number: 442169 (text input)
- Alternative AC termination mode
- Buttons: Save, Back, Help

 A red box highlights the 'Extension' radio button and its dropdown menu.

Fig 1 – FXO Settings – Edit FXO Line page

All other FXO lines (if available) can be also routed to the same receptionist on the Quadro.

4. Go to **Users -> Receptionist Management**. The page that opens is where the existing receptionists are listed.
5. Click on the **Add** functional button. The **Receptionist Phone Configuration Wizard** will start (see Fig. 2).

Main System Users Telephony Internet Uplink LAN Services

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Receptionist Phone Configuration Wizard

IP Phone Model

Description:

Phone Model:

MAC Address:

Attached IP Lines:

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Fig 2 – Receptionist Phone Configuration Wizard – Page 1

6. Fill in an optional receptionist description in the **Description** field.
7. Choose the Snom360 IP phone from the **Phone Model** drop down list.
8. In the **MAC Address** field, insert the MAC address of your Snom360 IP Phone. You can find the IP phone's MAC address on the back of the phone or in the configuration of the IP phone.
9. Insert "1" in the **Attached IP Lines** text field.
10. Press **Next** to move forward to the next page.

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Receptionist Phone Configuration Wizard

Watched Extensions

Programmable Keys	Extension
PK 1	11
PK 2	12
PK 3	13
PK 4	14
PK 5	32
PK 6	33
PK 7	None
PK 8	None
PK 9	None
PK 10	None
PK 11	None
PK 12	None

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Fig 3 – Receptionist Phone Configuration Wizard – Page 2

11. The watched extensions are configured on the second page of the wizard (see Fig. 3). Assign 11, 12, 13, 14, 32 and 33 extensions to the **PK1**, **PK2**, **PK3**, **PK4**, **PK5** and **PK6** respectively.
12. Press **Next** to move forward to the next page.

Summary

Description: Quadro Receptionist
 Phone Model: Snom360
 MAC Address: 00:01:F0:B1:12:EE
 Attached IP Lines: 1
 Mapped IP Lines To Keys:
 Watched Extensions: 11, 12, 13, 14, 32, 33

WARNING: After deleting this receptionist record, call queue settings of the extensions to which the lines are attached will be reset to their default values.

Previous Finish Cancel Help

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Fig 4 – Receptionist Phone Configuration Wizard – Summary

13. This page summarizes the configured settings (see Fig. 4). Press **Finish** to confirm the settings.
14. When the wizard is finished, a new receptionist will be added to the list (see Fig. 5).

Receptionist Management

Add Edit Delete Select all Inverse Selection

Receptionist	Attached IP Lines	Watched Extensions
<input type="checkbox"/> Quadro Receptionist	IP Line 1	11, 12, 13, 14, 32, 33

Back Help

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Fig 5 – Receptionist Management table

Now the receptionist is configured on the Quadro. The Call Queue service will automatically be enabled on the extension that is attached to the selected IP Line. The Call Queue Size will be set to 8 and the Max Call Queue Appearance will be set to 1.

3.3 Configuring Quadro as a Multi-Company Receptionist

For the Multi-Company Receptionist scenario, the following configuration is considered. We will assume that the Quadro16x device is installed and is being used for two companies.

1. Login as Administrator to Quadro's GUI.
2. From the **Users->Extensions Management**. Configure the companies hypothetical staff as indicated in the table below:

#	Employee	Company	Occupation	Extension	Attached (IP) Line
1.	Dan	#2	Company Manager	11	Line 1
2.	Bob	#1	Company Manager	12	Line 2
3.	Judy	#1	Accountant	13	Line 3
4.	Emily	#2	Accountant	14	Line 4
5.	Olivia	#1	Receptionist	31	IP Line 1
6.		#2		32	IP Line 2
7.	Jacob	#1	Technical Support	33	IP Line 3
8.	Matthew	#2	Technical Support	34	IP Line 4

Make sure that corresponding extensions exist on the Quadro and that they are attached to the corresponding IP lines. One receptionist, Olivia, serves both companies. The receptionist extensions, 31 and 32, should be registered on the public SIP server. The PSTN calls addressed to both companies can be routed to either of these extensions. The receptionist, Olivia, will manage the incoming calls and distribute them between the two companies as needed.

- Go to **Telephony** -> **FXO Settings** page (see Fig. 6). To route the incoming PSTN calls addressed to the staff of Company#1 to the Receptionist's first extension, choose the **Extension** selection on the **FXO Settings – FXO#** page and select the extension 31 from the drop down list in front of the radio button. All incoming PSTN calls on this FXO line will then ring on extension 31, the receptionist.

Fig 6 – FXO Settings – Edit FXO Line page

- From the same page, the second FXO line which serves Company2 should be attached to the Olivia's second extension. In order to do this, edit the corresponding FXO line that the PSTN cable is attached from the **FXO Settings – FXO#** page. Choose the **Extension** selection and select the extension 32 from the drop down list in front of the radio button. All incoming PSTN calls on this FXO line will then ring on extension 32, the receptionist.

Other FXO lines on the Quadro (if available) dedicated to both of the Companies can also be routed to the receptionist's extensions and managed by the receptionist.

- Go to **Users** -> **Receptionist Management**. The page that opens is where existing receptionists are listed.
- Click on the **Add** functional button on the opened page. The **Receptionist Phone Configuration Wizard** will start (see Fig. 7).

Main System Users Telephony Internet Uplink LAN Services

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Receptionist Phone Configuration Wizard

IP Phone Model

Description:

Phone Model:

MAC Address:

Attached IP Lines:

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Fig 7 – Receptionist Phone Configuration Wizard – Page 1

7. Fill in an optional description in the **Description** field.
8. Choose the **Snom360 IP** phone from the **Phone Model** drop down list.
9. In the **MAC Address** field, insert the MAC address of your Snom360 IP Phone. You can find the IP phone's MAC address on the back of the phone or in the configuration of the IP phone.
10. Insert "1, 2" in the **Attached IP Lines** text field.
11. Press **Next** to move forward to the next page.

Main System Users Telephony Internet Uplink LAN Services

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Receptionist Phone Configuration Wizard

Mapping IP Lines To Programmable Keys

Programmable Keys	IP Lines
PK 1	<input type="text" value="IP Line 1"/>
PK 2	<input type="text" value="IP Line 2"/>
PK 3	<input type="text" value="None"/>
PK 4	<input type="text" value="None"/>
PK 5	<input type="text" value="None"/>
PK 6	<input type="text" value="None"/>
PK 7	<input type="text" value="None"/>
PK 8	<input type="text" value="None"/>
PK 9	<input type="text" value="None"/>
PK 10	<input type="text" value="None"/>
PK 11	<input type="text" value="None"/>
PK 12	<input type="text" value="None"/>

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Fig 8 – Receptionist Phone Configuration Wizard – Page 2

12. The programmable keys on the IP Phone need to be configured on the second page of the wizard (see Fig. 8). Assign IP Line 1 and IP Line 2 to **PK1** and **PK2** respectively.
13. Press **Next** to move forward to the next page.
14. The watched extensions need to be configured on the third page of the wizard (see Fig. 9). Assign 11, 12, 13, 14, 32 and 33 extensions to **PK3**, **PK4**, **PK5**, **PK6**, **PK7** and **PK8** respectively.

Watched Extensions

Programmable Keys	Extension
PK1	IP Line 1
PK2	IP Line 2
PK3	11
PK4	12
PK5	13
PK6	14
PK7	33
PK8	34
PK9	None
PK10	None
PK11	None
PK12	None

Previous Next Cancel Help

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Fig 9 – Receptionist Phone Configuration Wizard – Page 3

15. Press **Next** to move forward to the next page.

Summary

Description: Multi-Company Recept
 Phone Model: Snom360
 MAC Address: 1E:0E:FF:C8:90:0A
 Attached IP Lines: 1, 2
 Mapped IP Lines To Keys: 1, 2
 Watched Extensions: 11, 12, 13, 14, 33, 34

WARNING: After deleting this receptionist record, call queue settings of the extensions to which the lines are attached will be reset to their default values.

Previous Finish Cancel Help

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Fig 10 – Receptionist Phone Configuration Wizard – Summary

16. This page summarizes the configured settings (see Fig. 10). Press **Finish** to confirm the settings.

17. When the wizard is finished, a new multi-company receptionist will be added to the list.

Receptionist	Attached IP Lines	Watched Extensions
<input type="checkbox"/> Multi-Company Receip	IP Line 1, IP Line 2	11, 12, 13, 14, 33, 34

Fig 11 – Receptionist Management table

Now the multi-company receptionist is configured on the Quadro. The Call Queue service will automatically be enabled on the extensions that are attached to the selected IP Line(s). The Call Queue Size will be set to 8 and the Max Call Queue Appearance will be set to 1.

3.4 Call Routing configuration on the Quadro

Additional call routing configuration is required on the Quadro for the receptionist's Voicemail Transfer service to work.

1. Go to **Telephony** -> **Call Routing**. Enter the **Call Routing Table** page.
2. Press the **Add** functional link to start **Call Routing Wizard** used create a new call routing rule (see Fig. 12).

Fig 12 – Call Routing Wizard – Page 1

3. Insert **4[1-7]?** in the **Pattern** text field.
4. Insert **1** in the **Number of Discarded Symbols** text field.
5. Choose **PBX-Voicemail** from the **Call Type** drop down list.
6. Other fields of the wizard can be left as defaults.
7. Press **Next** to move to the second page of the Call Routing Wizard.
8. The configuration on the second page can be also left as defaults. This does not affect receptionist functionality.
9. Press **Next** to move to the last page of the **Call Routing Wizard** where the configured settings are summarized. Press **Finish** to confirm the settings.
10. When the wizard is finished, a new routing rule will be added to the **Call Routing Table**.

ID	State	Pattern	NDS	Prefix	Call Type	UES	Destination Address	ML	URP	AAA Required	Port ID	Fail Reason	Inb Caller Pattern	Inb NDS	Inb Prefix	Inb Call Type	Inb Server	Inb Port ID
1	Enabled	911	0		FXO					No	Any Port	None	'			PBX		
2	Enabled	9[*]1*	3		FXO					No	FX01	Any	*			PBX		
3	Enabled	9[*]2*	3		FXO					No	FX02	Any	*			PBX		
4	Enabled	9[?]1[*]*	1		FXO					No	Any Port	Any	*			PBX		
<input type="checkbox"/>	Enabled	9*	1		FXO					No	Any Port	None						
<input type="checkbox"/>	Enabled	8*	1		SIP		sip.epygi.loc		No	No		None						
<input type="checkbox"/>	Enabled	7*	1		SIP		sip.epygi.com		No	No		None						
<input type="checkbox"/>	Enabled	[0-7]?			PBX					No		None						
<input type="checkbox"/>	Enabled	4[1-7]?	1		PBX-Voicemail					No		None						

Fig 13 – Call Routing Table – Page 1

With this route, the call will go directly to the extension's voice mailbox when dialling 4 as a prefix followed by the extension's number.

3.5 Configuring Snom360

To make the IP phone functional as both a simple or multi-company receptionist, it should be simply reset/rebooted. The appropriate configuration will then be automatically downloaded from Quadro to Snom360.

The Snom360 is now ready to perform as a receptionist on the Quadro.

4 Using Receptionist features on the Quadro

This chapter contains brief scenarios describing the receptionist features on the Quadro using the configuration described in the section [Configuring Quadro](#).

For more information about feature codes such as call hold, call transfer, etc., please refer to [References](#) [3].

4.1 Call Queue

The configuration described in the [Configuring Quadro as a Simple Receptionist](#) section should be considered for this scenario.

1. Someone is calling from the PSTN.
2. The receptionist, Olivia, answers the call and talks with the customer.
3. A second call arrives to the Receptionist via SIP.
4. The receptionist, Olivia, is busy with the first call. The second call goes to queue and the **Message** light is blinking on the Snom360 phone. By pressing the **Retrieve** button on the phone, Olivia can see the second caller's phone number.
5. The second caller hears the Quadro message asking them to wait. After finishing the conversation with the first caller, Olivia hangs up the phone and receives the second call waiting in the queue.

6. The second caller speaks to the receptionist Olivia and asks to talk with Matthew.
7. Olivia transfers the call to extension 34.
8. The SIP caller reaches Matthew.

4.2 Extensions Status

The configuration described in the [Configuring Quadro as a Simple Receptionist](#) section should be considered for this scenario.

1. The receptionist, Olivia, answers the incoming call.
2. One of customers has specific technical questions and Olivia wants to transfer the call to Bob, extension 12, but the light of the button on Snom360 corresponding to Bob's extension is ON indicating that Bob is currently using his phone.
3. Olivia asks customer if they would like to speak with the company technician. The customer agrees to speak to the technician. Olivia transfers the call to Jacob's extension, number 33.
4. The customer speaks to Jacob and they discuss the technical problem.

4.3 Call Interception

The configuration described in the [Configuring Quadro as a Simple Receptionist](#) section should be considered for this scenario.

1. The receptionist, Olivia, notices that the light corresponding to the Judy's extension on the Snom360 is blinking. On the Snom360's display, Olivia can see that the call addressed to Judy is from the accountant from the Central Office.
2. Since Judy is not at her desk and is unable to pick up the call, Olivia intercepts the call by pushing the blinking button and speaks to an accountant.
3. After a brief conversation, Olivia transfers the call to Emily who is able to assist the accountant.

4.4 Voicemail Transfer

The configuration described in the [Configuring Quadro as a Simple Receptionist](#) and [Call Routing configuration on the Quadro](#) sections should be considered for this scenario.

1. Bob calls the receptionist, Olivia, from the PSTN and asks to speak to Dan.
2. Olivia informs Bob that Dan is currently busy with a customer and does not want to be disturbed with incoming calls. Olivia asks Bob if he would like to leave a voice mail for Dan.
3. Bob agrees to leave a voice mail for Dan, Olivia dials "4+11" and performs a blind transfer to Dan's voicemail using the rule in the Call Routing table.
4. Bob records a voicemail for Dan.

4.5 Multi-Company Receptionist

The configuration described in the [Configuring Quadro as a Multi-Company Receptionist](#) section should be considered for this scenario.

1. An incoming call arrives to the PSTN number of Company1. The receptionist, Olivia, notices that the call is dedicated to the Company1. Olivia answers the call and states the name of Company1 she is representing.
2. The caller is asking for Bob, the company manager of Company1.
3. Olivia transfers the call to Bob.
4. A second call arrives to the PSTN number of Company2. Olivia notices that the call is dedicated to the Company2. Olivia answers the call and states the name of Company2 she is now representing.
5. The caller asks for the technical support.
6. Olivia transfers the call to Matthew, technical support for Company2.

5 References

For more references, refer to the following documents of the corresponding software release:

1. ManualI-InstallationGuide,
2. ManualII-AdministratorsGuide,
3. Quadro features on IP Phones V3-1,
4. Auto Configuration of Quadro LAN IP Phones.