



Quadro Communications Manager



Manual:

Installation Guide

for QCM, SW-Version 4.1.x

Table of Contents

About This Installation Guide	4
Introducing the Quadro Communications Manager	5
System Requirements	7
Installation	7
QCM Fast Configuration Wizard	8
Receptionist as a Local Extension of the Quadro	9
Step 1.1: Local Extension Configuration on the Quadro	9
Step 1.2: IP Line Configuration on the Quadro	10
Step 1.3: QCM Configuration as a Quadro Local Extension.....	11
Receptionist as a Remote Extension of the Quadro.....	13
Step 2.1: Remote Extension Configuration on the Quadro	13
Step 2.2: IP Line Activation	15
Step 2.3: QCM Configuration as a Quadro Remote Extension	16
Configuring Lines on the QCM	18
QCM Licensing	19

About This Installation Guide

This guide gives step-by-step instructions on the quick setup of the QCM. For more information on the advanced configuration and use of the phone, please refer to its online Help.

The QCM Installation Guide is divided into the following chapters:

[Introducing the Quadro Communications Manager](#) gives the basic idea of the QCM and describes its main features.

[System Requirements](#) outlines the minimum requirements for the QCM operation.

[Installation](#) explains how to install the QCM.

[QCM Fast Configuration Wizard](#) gives step-by-step instructions on configuring the QCM as a local or remote extension of a Quadro.

[Configuring Lines on the QCM](#) explains line configuration on the QCM using the Advanced Settings.

[QCM Licensing](#) explains QCM license activation for an extension.

The screenshots shown in this guide were taken from the QCM SW Version 4.1.11 and from the Quadro SW Version 4.1.33.

Introducing the Quadro Communications Manager

The Quadro Communications Manager (QCM) is a PC-based software phone that can be configured to work as a remote or local extension of a Quadro IP PBX, thus allowing the QCM user to make full use of Quadro telephony services.

QCM as a receptionist phone

The graphical user interface of the QCM is specifically designed to integrate the Quadro's receptionist functionality - call queuing and extension status watching. These are advanced telephony features particularly useful in office environments with an extensive flow of calls.

- The Call queuing feature allows receiving multiple calls on an extension and placing them in a queue if the extension is busy, i.e. in a call, dialing or on hold. Calls are queued up in the order they have been received and answered on a first received first answered basis. The next call in the queue will ring the phone as soon as the line is idle.
- The Extension status watching allows the status of specified Quadro extensions to be viewed: idle, ringing, busy or not-registered. This simplifies the call handling procedure in a number of ways: when transferring a call to or setting up a conference call with a watched extension, the receptionist can see the current state of the extension and based on that state to decide whether or not to proceed.

Multiple lines support

The QCM supports up to eight lines. This enables the user to configure the QCM as an extension on eight different Quadros.

Profiles

Once the QCM is configured, it stores its configuration in a profile. The user can have multiple profiles and revert to any of them if they need a profile they have previously used.

Receiving voice mail notifications

The QCM automatically indicates the number of new and played voice messages in an extension's voice mailbox on its graphical user interface.

Using the Contacts folder of Microsoft Outlook

The QCM allows SIP calls to be made using the Contacts folder of Microsoft Outlook. This folder is automatically mapped into the QCM's Address book. The user can make a call to a contact by clicking on an appropriate entry in the QCM's Address Book.

Incoming call statistics

The QCM keeps a record of each incoming call enabling the user to view the details of those calls: callers' phone numbers, display names, the date and time the calls were received. With the help of a filter, the user can sort out the incoming calls according to the time they were received.

Call recording

The user can record calls over the QCM directly to their computer's hard drive to a specified location.

Quadro Directory

All extensions on the Quadro to which the QCM is registered are automatically mapped into the Quadro Directory window. Calls to those extensions can be made by a simple double-click on the extension number.

Quick Dialing

To accelerate the dialing of frequently used phone numbers or SIP URLs, the user can add a number to the Quick Dialing list. To make a call to any of the numbers in this list, the user can double-click on the appropriate entry in the Quick dialing window.

Call Auto Answer

Users employing the QCM in hands-free mode can configure it to pick up incoming calls automatically. The incoming calls can be picked up immediately on receipt or after a specified timeout.

Automatic Calling with a Hot Key

This feature allows the user to call a number selected from a computer application, for example, web browsers, text editors, etc. The user specifies a hot key that is pressed to make a call to a selected number over the QCM.

External Call Control

This feature allows the QCM to be used in conjunction with a hardware phone. Both the QCM and a hardware phone are registered to the same extension enabling the user to dial numbers on the QCM and use the hardware phone to talk with called parties.

System Requirements

The following system specifications are the minimum required for the proper operation of the QCM:

- Windows 2000 or higher, including Windows XP and Windows Vista operating systems. DirectX 9.0.x.
- 10 MB free space on hard drive.
- 50 MB RAM.
- Headset or USB phone.
- Internet connection.
- Microsoft Outlook 2000 installed and properly configured (optional, required for using Outlook's Contacts folder in the QCM).

Installation

Before starting the installation of the QCM, ensure no previous versions are currently running.

To install the QCM, run the executable file "setup.exe" and follow the instructions of the Quadro Communications Manager Setup wizard.

On the last page of the wizard, select the Launch Quadro Communications Manager checkbox to launch the QCM immediately. Later you can launch the QCM by running its executable file "QCM.exe" that is by default installed in the C:\Program Files\Epygi Technologies\QCM directory. You may also launch the QCM by clicking on its shortcut in the Start-up menu (by default Epygi Technologies\Quadro Communications Manager), or by double-clicking on its icon on the desktop, or by clicking on its quick launch icon.

QCM Fast Configuration Wizard

Upon the first launch of the QCM, the Fast Configuration Wizard is executed. The wizard allows the QCM to be configured with minimum effort required. If you cancel the wizard, the phone will be configured with the default settings.

Before running through the wizard, understand which scenario you are configuring the QCM for. There are two typical usage scenarios with the QCM. See Figure 1.

- [Receptionist as a Local Extension of the Quadro](#). This option configures the QCM to work as a receptionist phone configured on a local extension of the Quadro. This option should be selected if the QCM resides on the LAN of the Quadro.
- [Receptionist as a Remote Extension of the Quadro](#). This option configures the QCM to work as a receptionist phone configured on a remote extension of the Quadro. This option should be selected if the QCM connects to the Quadro remotely, via the Quadro's WAN interface.

Please note: It is strongly recommended that the QCM option on the Quadro IP PBX's extension should be configured first, prior to configuring the QCM.

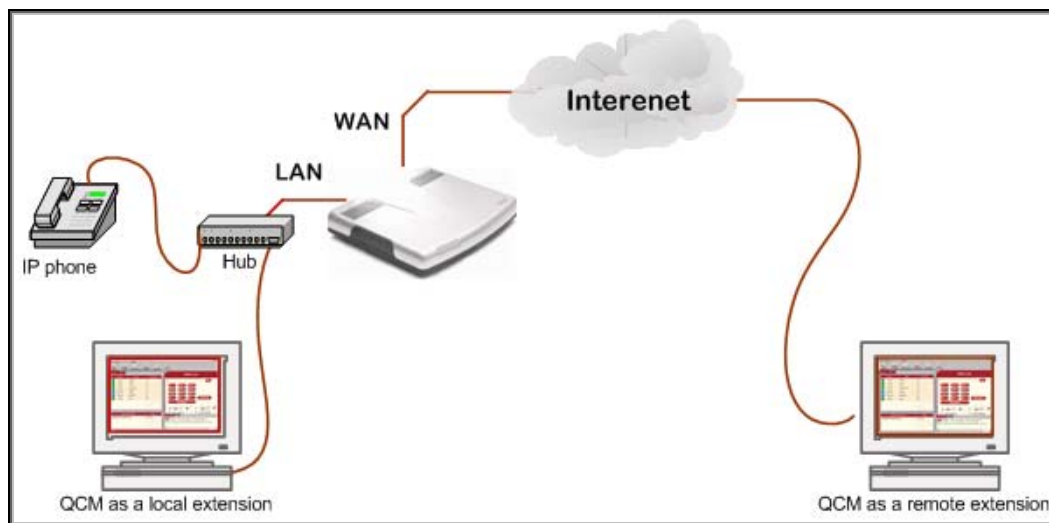


Figure 1 Network diagram for the QCM as a local / remote extension

Receptionist as a Local Extension of the Quadro

To configure the QCM as a local extension of the Quadro, follow these steps:

1. Configure an extension to be assigned to a QCM line on the Quadro. Ensure that an IP line is attached to it. See [Step 1.1](#).
2. Configure the attached IP line. See [Step 1.2](#).
3. Configure the line on the QCM using the Fast Configuration Wizard. See [Step 1.3](#).

Please note: The wizard is basically used on the first launch of the QCM. It creates a new profile (explained below) for the QCM with the first line configured on it. To add more lines to the phone and configure them, use the phone's Advanced Settings. See [Configuring Lines on the QCM](#).

Step 1.1: Local Extension Configuration on the Quadro

To configure an extension on the Quadro, follow these steps:

1. Log into the Quadro as the administrator
2. Select **Extensions Management** from the **Users** menu.
3. Select the extension to which the QCM line is to be registered and click **Edit**.
4. On the **Extensions Management – Edit Entry** page for the selected extension, click the **General Settings** tab and ensure that an IP line is attached to the extension (see Figure 2).
5. Specify the other settings (SIP, Call Queue, etc.) as required for a regular extension configuration. Note that the remote extension functionality should be disabled for the extension as it is assumed that the QCM resides on the LAN of the Quadro. Please refer to the Quadro online help for more information on an extension configuration.
6. Click **Save**.

The screenshot displays the 'Extensions Management - Edit Entry' page. At the top, there is a navigation menu with tabs: Main, System, Users, Telephony, Internet Uplink, and Network. The 'Users' tab is active. The 'epygi D-Quadro' logo is in the top right corner. The main heading is 'Extensions Management - Edit Entry'. Below this, there is a sidebar with a 'General Settings' tab selected. The main content area is titled 'General Settings - 33' and contains the following fields:

- Display Name: Lillian Neal
- Password: [masked]
- Confirm Password: [masked]
- Attached Line: IP Line 3 (highlighted with a red circle)
- Allow Call Relay:
- Show on Public Directory:
- Percentage of Total Memory: 4 %

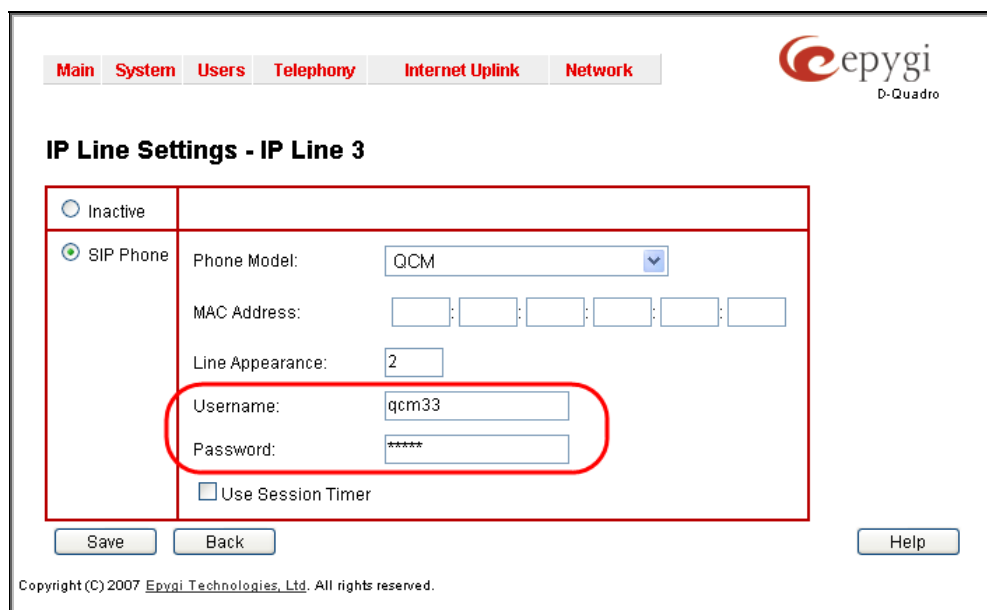
At the bottom of the form are three buttons: Save, Back, and Help. A copyright notice at the bottom left reads: Copyright (C) 2007 Epygi Technologies, Ltd. All rights reserved.

Figure 2 Extensions Management – Edit Entry – General Settings page

Step 1.2: IP Line Configuration on the Quadro

To configure an IP line attached to an extension, follow these steps:

1. Select **Line Settings** from the **Telephony** menu.
2. On the **Line Settings** page, click on the **IP Line Settings** tab, then on the IP line link that is attached to the extension.
3. On the **IP Line Settings** page for the selected IP line, specify the following settings (see Figure 3):
 - 3.1. Select the **SIP Phone** radio button.
 - 3.2. From the **Phone Model** drop-down list, select **QCM**.
 - 3.3. In the **Line Appearance** text field, enter the combined total of calls on hold and a call in progress to be allowed on the extension. Note that this number depends on the SIP phone's brand and model. For a QCM line it should not exceed two. Please refer to the Quadro online help for more information on an IP line configuration.
4. Specify the **Username** and **Password** settings. These settings will be used on the QCM line registration settings and will need to match exactly.
5. Select the **Use Session Timer** checkbox to enable the SIP session timer for the corresponding IP line. This option allows user agents and proxies to determine if the SIP session is still active.
6. Click **Save**.



The screenshot displays the 'IP Line Settings - IP Line 3' configuration interface. The 'SIP Phone' radio button is selected. The 'Phone Model' dropdown is set to 'QCM'. The 'Line Appearance' field contains the value '2'. The 'Username' field is filled with 'qcm33' and the 'Password' field is filled with '*****'. A red oval highlights the 'Username' and 'Password' fields. The 'Use Session Timer' checkbox is unchecked. The interface includes a navigation menu at the top, a 'Save' button, a 'Back' button, and a 'Help' button. The footer text reads: 'Copyright (C) 2007 Epygi Technologies, Ltd. All rights reserved.'

Figure 3 IP Line Settings for IP Line 3

Step 1.3: QCM Configuration as a Quadro Local Extension

Once an extension is configured on the Quadro, you may continue the QCM setup with the Fast Configuration Wizard.

PAGE 1 – APPLICATION USAGE SCENARIO

Select the **Receptionist as a local extension of the Quadro** checkbox and click on **Next** to continue.

Figure 4 QCM fast configuration wizard: Application usage scenario page

PAGE 2 – LINE REGISTRATION SETTINGS

Specify the following settings and click on **Next** to continue:

- The **User name** and **Password** are identification parameters required for registration to the Quadro.
Please note: These settings must match the **Username** and the **Password** specified on the Quadro (the **IP Line Settings** page of the IP line attached to the corresponding extension, see [Step 1.2](#)).
- The **Register on Quadro** text fields require the IP address of the Quadro's LAN interface and its SIP UDP port.

Figure 5 QCM fast configuration wizard: Line registration settings page

PAGE 3 – WATCHED EXTENSIONS

- Press **Download from the Quadro** button. The extensions and corresponding display names will be displayed in the window below (see Figure 6).
- Select the extensions to be watched and click on **Next** to continue.

Please note: If you do not wish to use the Extension status watching feature on your QCM, click **Next** to skip this step. To disable the feature completely, clear the **Enable extensions watching** checkbox on the **Watched extensions** page after completing the wizard.

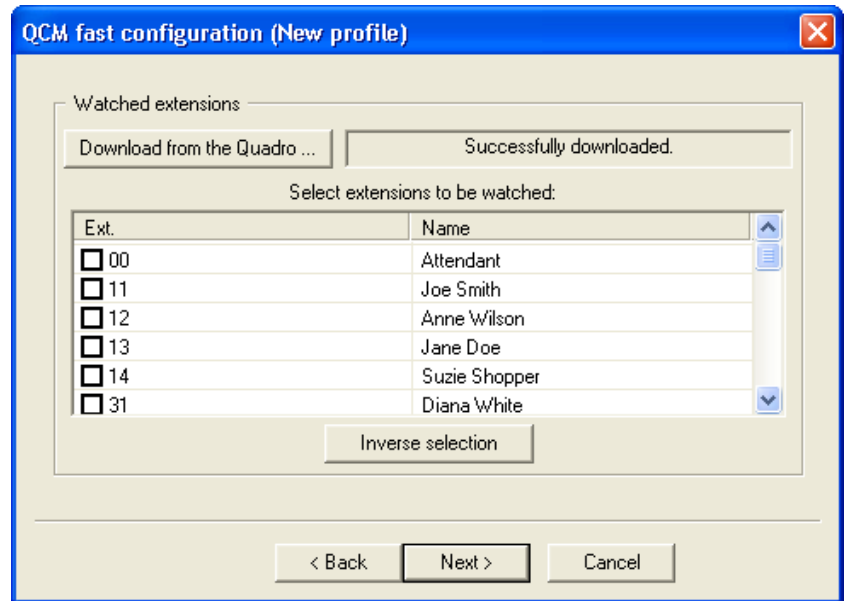


Figure 6 QCM fast configuration wizard: Watched extensions page

PAGE 4 – ASSOCIATED PROFILE

After you complete the wizard, the QCM will create a configuration file (a profile) to keep the new configuration of the phone. The **Associated profile** page is where you specify the settings for the new profile. On this page:

- Enter a name to be associated with your specified configuration into the **Profile name** text field. Note that the profile name must be unique within the existing profiles.
- Enter any useful information to describe the profile into the **Profile description** text field (optional).
- Select the **Make profile active** checkbox to activate the profile. The profile can also be activated later using the Profiles Manager.

Click on **Finish** to complete the wizard.

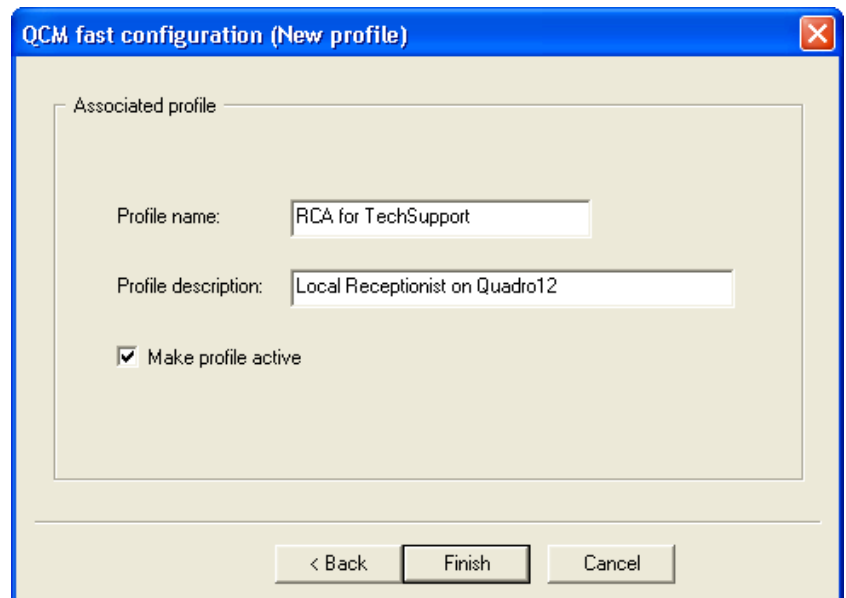


Figure 7 QCM fast configuration wizard: Associated profile page

Receptionist as a Remote Extension of the Quadro

To configure the QCM as a remote extension of the Quadro, follow these steps:

1. Configure the extension to be assigned to a QCM line. See [Step 2.1](#).
 - 1.1. Activate the remote extension functionality on the extension.
 - 1.2. Ensure an IP or FXS line is attached to the extension.
2. In case of an IP line, ensure that the line is active. If it is not, activate the line. See [Step 2.2](#).
3. Configure the line on the QCM using the Fast Configuration Wizard. See [Step 2.3](#)

Please note: The wizard is basically used on the first launch of the QCM. It creates a new profile (explained below) for the QCM with the first line configured on it. To add more lines to the phone and configure them, use the phone's Advanced Settings. See [Configuring Lines on the QCM](#).

Step 2.1: Remote Extension Configuration on the Quadro

To configure an extension and activate the remote extension functionality on it, follow these steps:

1. Log into the Quadro as the administrator.
2. Select **Extensions Management** from the **Users** menu.
3. Select the extension to which the QCM line is to be registered and click **Edit**.
4. On the **Extensions Management – Edit Entry** page for the selected extension, click the **General Settings** tab. Ensure that a line (IP or FXS) is attached to the extension (see Figure 2).
5. Click the **Remote Settings** tab and specify the following settings:
 - 5.1. Select the **Enable** checkbox to activate the remote extension functionality.
 - 5.2. Specify the **Username** and **Password** settings. These settings will be used on the QCM line registration settings and will need to match exactly.
 - 5.3. Select the **Enable RTP Proxy** checkbox to route incoming and outgoing RTP streams through the Quadro. If this checkbox is not selected, RTP packets will route directly between peers.
 - 5.4. Select the **Fallback To Local Extension When Not Registered** checkbox to receive incoming calls on the remote QCM only if it is registered to the Quadro. If for some reason the QCM fails to register to the Quadro, incoming calls will be routed to the phone locally connected to the Quadro.
 - 5.5. Select the **Symmetric RTP** checkbox if the QCM resides behind a symmetrical NAT.

For more information on a remote extension configuration, please refer to the **Quadro Remote Extension Configuration** document posted at www.epygi.com under the support section.

6. Specify the other settings (SIP, Call Queue, etc.) as required for a regular extension configuration. Please refer to the Quadro online help for more information on an extension configuration.
7. Click **Save** to submit the changes.

The screenshot shows the Epygi web interface for configuring SIP Remote Extension Settings for extension 33. The interface includes a navigation menu at the top with options: Main, System, Users, Telephony, Internet Uplink, and Network. The Epygi logo is in the top right corner. The main heading is "Extensions Management - Edit Entry". On the left, there is a sidebar with links to various settings: General Settings, SIP Settings, SIP Advanced Settings, Remote Settings (which is selected), Call Queue Settings, Voice Mailbox Settings, and Licensing. The main content area is titled "SIP Remote Extension Settings - 33" and contains the following options:

- Enable
- Username: (This field is circled in red in the image)
- Password: (This field is circled in red in the image)
- Enable RTP Proxy
- Fallback To Local Extension When Not Registered
- Symmetric RTP

At the bottom of the settings area, there are three buttons: "Save", "Back", and "Help".

Copyright (C) 2007 Epygi Technologies, Ltd. All rights reserved.

Figure 8 SIP Remote Extension Settings for extension 33

Step 2.2: IP Line Activation

This step is required only if an IP line (not FXS) is attached to the extension. To check whether the attached IP line is active, follow these steps:

1. Select **Line Settings** from the **Telephony** menu.
2. On the **Line Settings** page, click on the **IP Line Settings** tab. If the **Type** parameter for the corresponding IP line is set to anything but **Inactive** (see Figure 9), then the line is already active and the following steps can be skipped.

To activate an IP line, follow these steps:

1. Click the IP line link attached to the configured extension (see [Step 2.1](#)).
2. On the **IP Line Settings** page for the selected IP line, specify the following settings (see Figure 3):
 - 2.1. Select the **SIP Phone** radio button.
 - 2.2. From the **Phone Model** drop-down list, select **QCM**.
 - 2.3. Specify the **Username** and **Password** settings. The values for the settings in this scenario can be arbitrary except that the username should be unique within the existing usernames for remote extensions and IP lines.
3. Select the **Use Session Timer** checkbox to enable the SIP session timer for the corresponding IP line. This option allows user agents and proxies to determine if the SIP session is still active.
4. Click **Save** to submit the changes.

The screenshot displays the 'Line Settings' page for IP Line Settings. It features a navigation menu at the top with tabs for Main, System, Users, Telephony, Internet Uplink, and Network. The 'Telephony' tab is active. Below the navigation, there are two checked checkboxes: 'Enable PnP for IP lines' and 'Enable firmware version control'. A table lists available IP lines with their attached extensions and current status. IP Line 3 is circled in red, and IP Line 5 is highlighted in the caption as inactive.

Available IP Lines	Attached Extension	Type	Details
IP Line 1	31	Inactive	
IP Line 2	32	Inactive	
IP Line 3	33	Inactive	
IP Line 4	34	Inactive	
IP Line 5	35	Inactive	
IP Line 6	3b	Inactive	
IP Line 62 (disabled)		Inactive	

At the bottom of the page, there are buttons for 'Save', 'Back', and 'Help'. The footer contains the copyright notice: 'Copyright (C) 2007 Epygi Technologies, Ltd. All rights reserved.'

Figure 9 IP Line Settings page: IP Line 5 is inactive

Step 2.3: QCM Configuration as a Quadro Remote Extension

Once an extension is configured on the Quadro, you may continue the QCM setup with the Fast Configuration Wizard.

PAGE 1 – APPLICATION USAGE SCENARIO

Select the **Receptionist as a remote extension of the Quadro** checkbox and click on **Next** to continue.

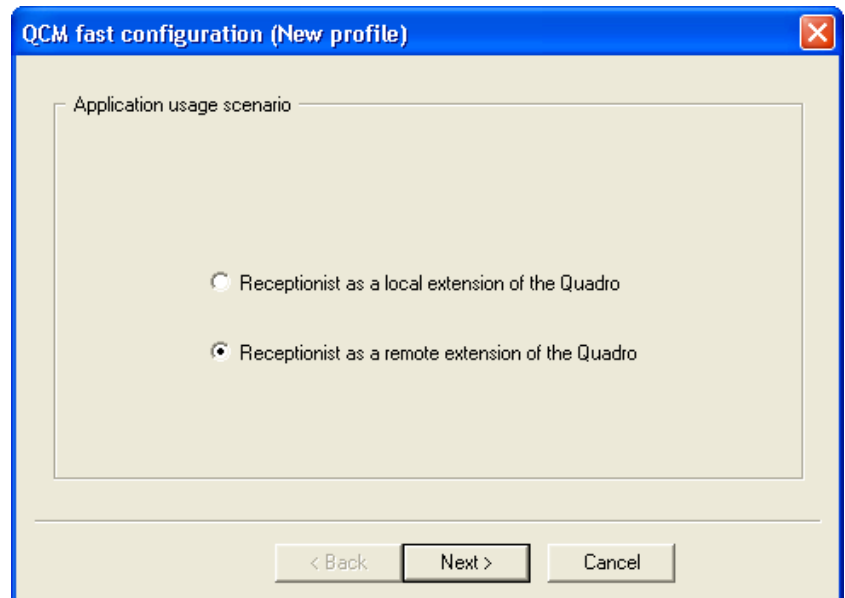


Figure 10 QCM fast configuration wizard: Application usage scenario page

PAGE 2 – LINE REGISTRATION SETTINGS

Specify the following settings and Click on **Next** to continue:

- The **User name** and the **Password** are identification parameters required for registration on the Quadro.
Please Note: These settings must match the **Username** and the **Password** specified on the Quadro (see [Step 2.1](#)).
- The **Register on Quadro** text fields require the IP address of the WAN interface of the Quadro and its SIP UDP port.

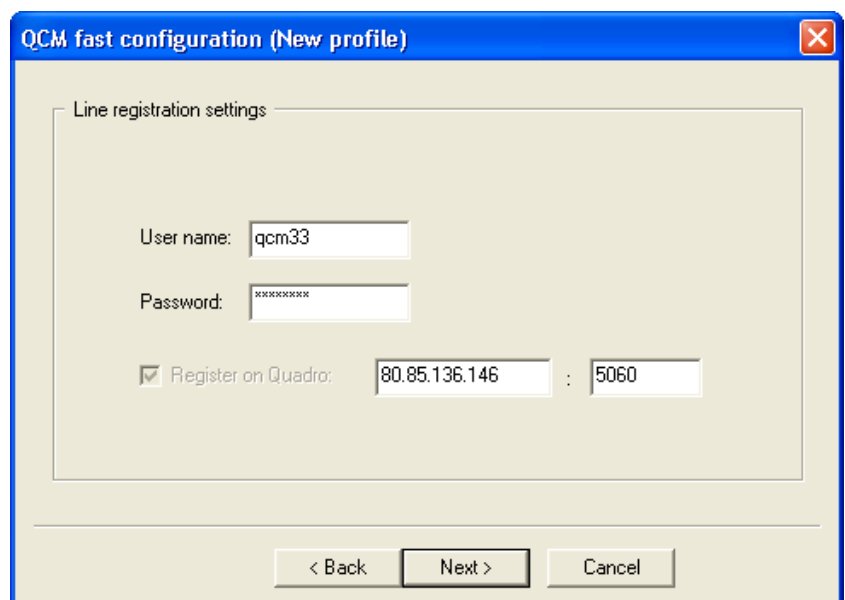


Figure 11 QCM fast configuration wizard: Line registration settings page

PAGE 3 – WATCHED EXTENSIONS

- Press **Download from the Quadro** button. The extensions and corresponding display names will be displayed in the window below.
- Select the extensions to be watched (see Figure 12) and click on **Next** to continue.

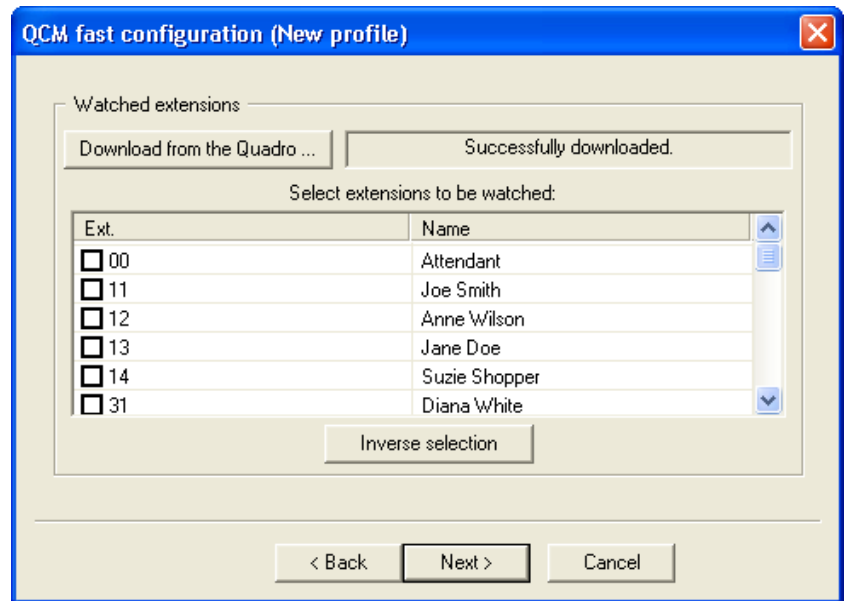


Figure 12 QCM fast configuration wizard: Watched extensions page

PAGE 4 – ASSOCIATED PROFILE

After you complete the wizard, QCM will create a configuration file (a profile) to keep the new configuration of the phone. The **Associated profile** page is where you specify the settings for the new profile. On this page:

- Enter a name to be associated with your specified configuration into the **Profile name** text field. Note that the profile name must be unique within the existing profiles.
- Enter any useful information to describe the profile into the **Profile description** text field (optional).
- Select the **Make profile active** checkbox to activate the profile. The profile can also be activated later using the Profiles Manager.

Click on **Finish** to complete the wizard.

Please note: Depending on the network setup, you may also need to configure the QCM's NAT traversal settings (Tools → Advanced settings → NAT).

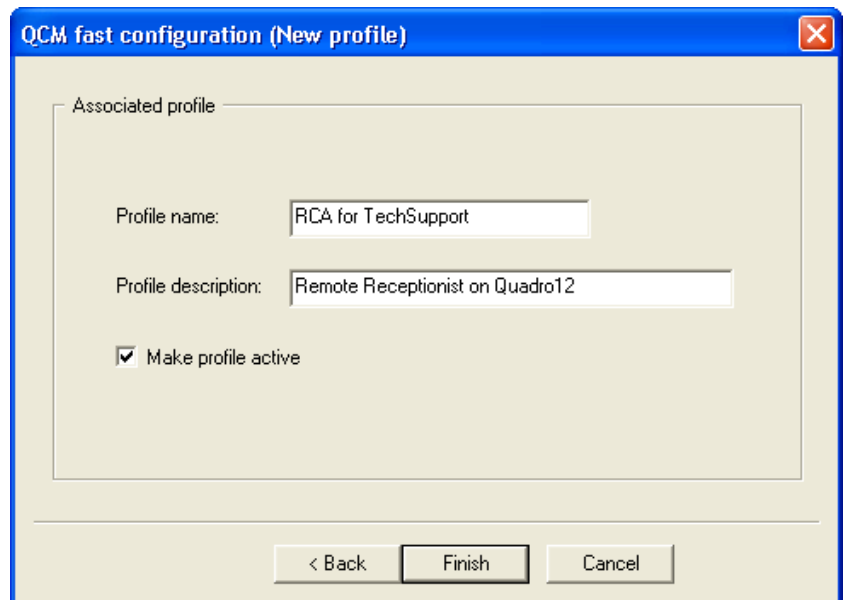


Figure 13 QCM fast configuration wizard: Associated profile page

Configuring Lines on the QCM

If the Fast Configuration Wizard was previously used, a profile was created with one line (Line 1) enabled.

To set up additional lines on the QCM (the profile), follow these steps:

1. Specify the desired number of lines on the **General** page:

- 1.1. Open the **Tools→Advanced Settings→General** page.
- 1.2. From the **Lines Number** drop-down list (see Figure 14), select the desired number of lines and click **OK**.

2. For each line configure an extension on the Quadro. See [Step 1.1](#) and [Step 1.2](#) if the QCM is configured as a local receptionist or [Step 2.1](#) and [Step 2.2](#) if the QCM is configured as a remote receptionist.

3. Configure each line on **Tools→Advanced Settings→Lines** page of the QCM.

- 3.1. Open **Tools→Advanced Settings→Lines** page (see Figure 15).
- 3.2. Select a line from the lines drop-down list.
- 3.3. Choose the **Enable** checkbox to be able to use the line after completing the configuration. If the checkbox is not selected, the line will appear on the QCM's GUI grayed out (disabled) and no calls will be possible to make or accept on the line.
- 3.4. Specify the line registration settings: Username, Password, Quadro IP address and SIP UDP port. For the description of these settings see [Step 1.3](#), PAGE 2 if the QCM is configured as a local receptionist or [Step 2.3](#), PAGE 2 if the QCM is configured as a remote receptionist.
- 3.5. Select the **Auto Answer** checkbox to configure the QCM to automatically go off-hook when receiving a call on the line. Note that the AutoAnswer timeout, the timeout after which the QCM will pick up an incoming call, is set on the **General** page. The feature is useful if the QCM is used in hands-free mode.

4. Click **OK** or **Apply**.

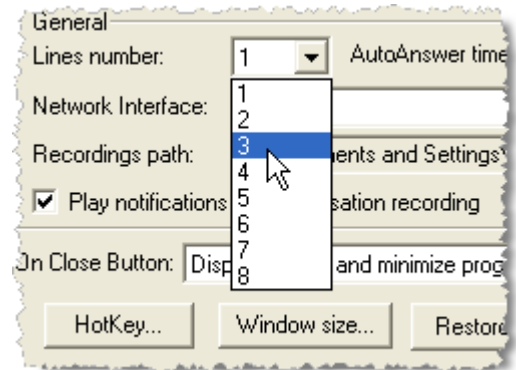


Figure 14 Specifying the number of lines

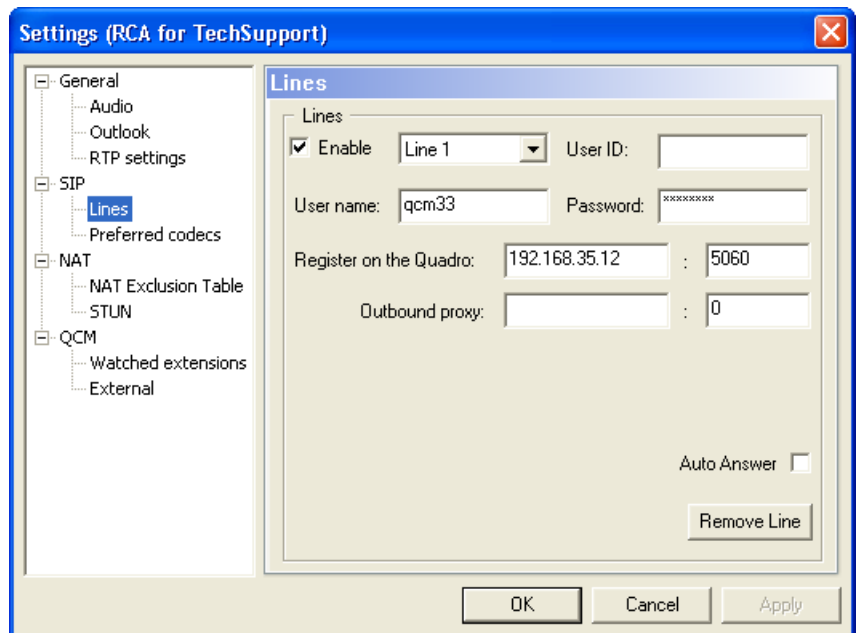


Figure 15 Configuring Lines on the QCM

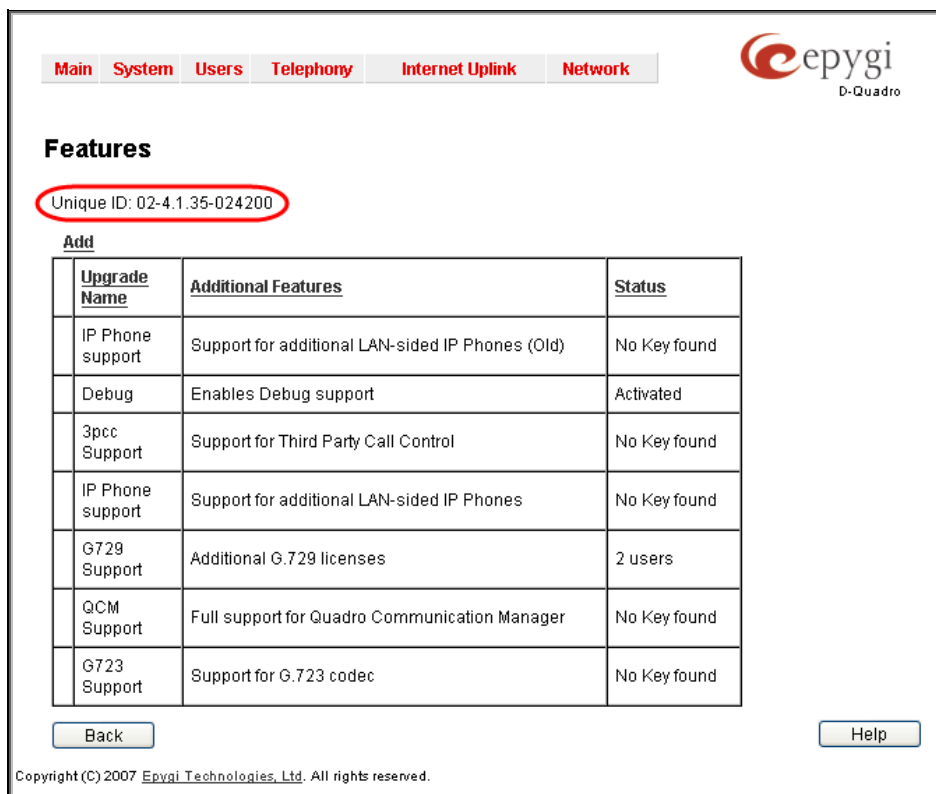
QCM Licensing

By default, each Quadro allows only one QCM (line) to be registered to it. This is because only one free QCM license is included in a Quadro that can be used by a single extension at a time.

Please note: The free license does not allow the use of G.729 codec.

Once the free license is used by an extension, the subsequent QCMs (lines) can be registered to the same Quadro only for a trial period of 45 days counted from the QCM installation day. After this period expires, the QCM will require that the corresponding Quadro extensions use a license.

To allow more QCM (lines) to be used as extensions on a Quadro, an optional software feature key should be purchased to expand the number of available licenses in multiples of 4 or 10 and enable G.729 codec. To purchase a key, please contact your distributor. In your request, include the **Unique ID** displayed on the **Features** page of the Quadro web management (see Figure 16).



The screenshot shows the 'Features' page in the Quadro web management interface. At the top, there is a navigation menu with tabs for 'Main', 'System', 'Users', 'Telephony', 'Internet Uplink', and 'Network'. The 'epygi D-Quadro' logo is in the top right corner. The 'Features' section is titled 'Features' and displays a 'Unique ID: 02-4.1.35-024200' which is circled in red. Below the Unique ID is an 'Add' button. A table lists various features and their status:

Upgrade Name	Additional Features	Status
IP Phone support	Support for additional LAN-sided IP Phones (Old)	No Key found
Debug	Enables Debug support	Activated
3pcc Support	Support for Third Party Call Control	No Key found
IP Phone support	Support for additional LAN-sided IP Phones	No Key found
G729 Support	Additional G.729 licenses	2 users
QCM Support	Full support for Quadro Communication Manager	No Key found
G723 Support	Support for G.723 codec	No Key found

At the bottom of the page, there are 'Back' and 'Help' buttons, and a copyright notice: 'Copyright (C) 2007 Epygi Technologies, Ltd. All rights reserved.'

Figure 16 The Features page on the Quadro

After receiving a software key, follow these steps to activate the feature. For more information on Quadro feature keys and their activation, please refer to the Quadro online help.

1. Open the **System**→**Features** page and click the **Add** button (see Figure 16).
2. Enter the key in the **Feature Key** text field and Click **Save**.

Once the key is inserted, the **Features** table will list the QCM upgrade and the number of QCM licenses activated (see Figure 17).

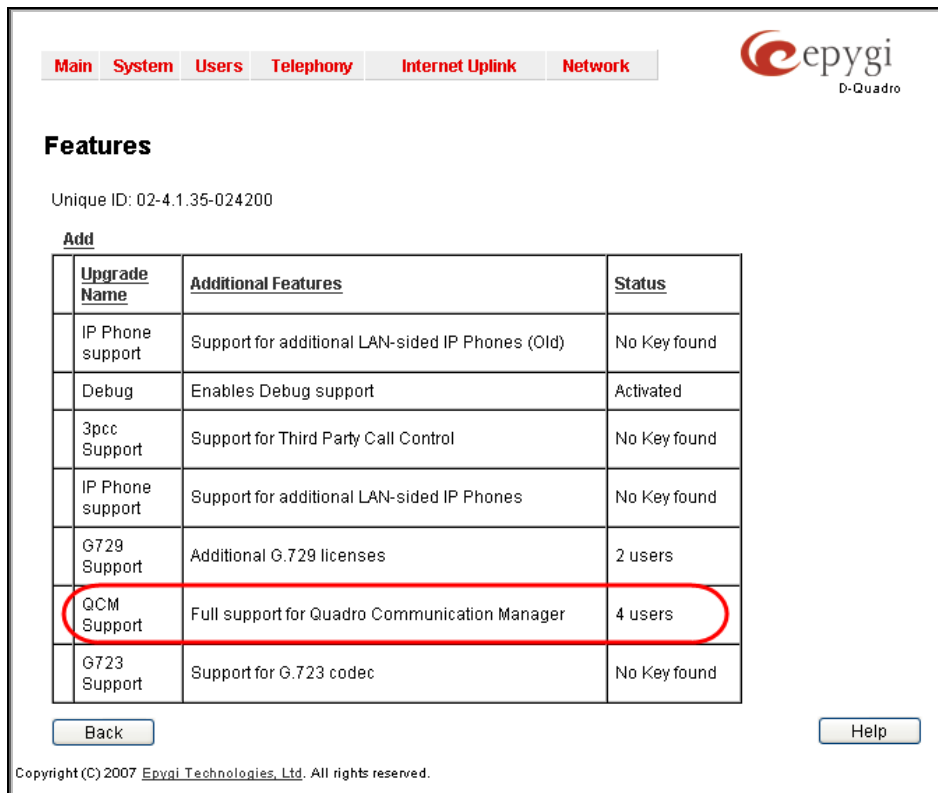


Figure 17 QCM support activated

Except for a free license that is used automatically by a first extension assigned to a QCM line, other activated licenses should be bound to the corresponding extensions explicitly.

The following steps describe how to bind a license to an extension:

1. Select **Extensions Management** from the **Users** menu.
2. Select the extension to which the QCM line is registered and click **Edit**.
3. On the **Extensions Management – Edit Entry** page for the selected extension, click the **Licensing** tab and select the **Enable QCM (Quadro Communication Manager) license** checkbox. See Figure 18.
4. Click **Save** to submit the changes.

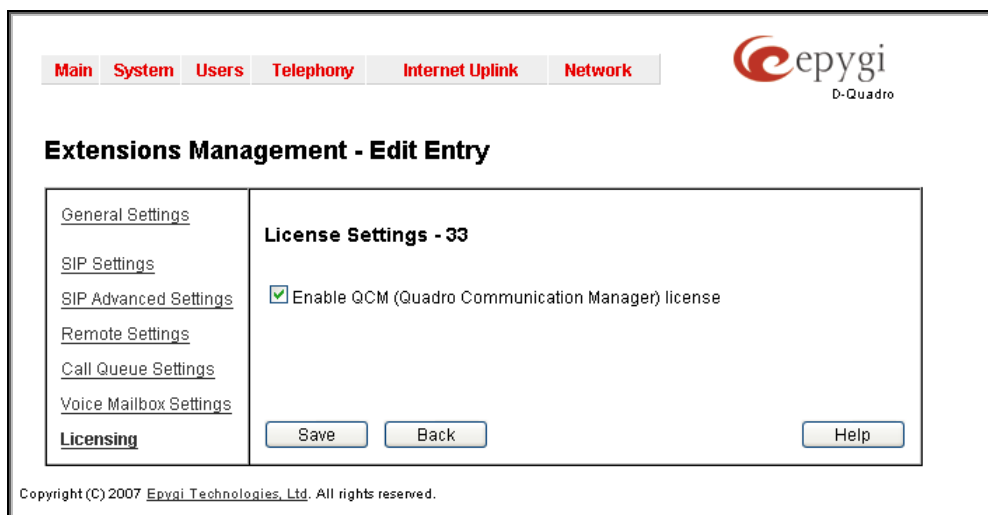
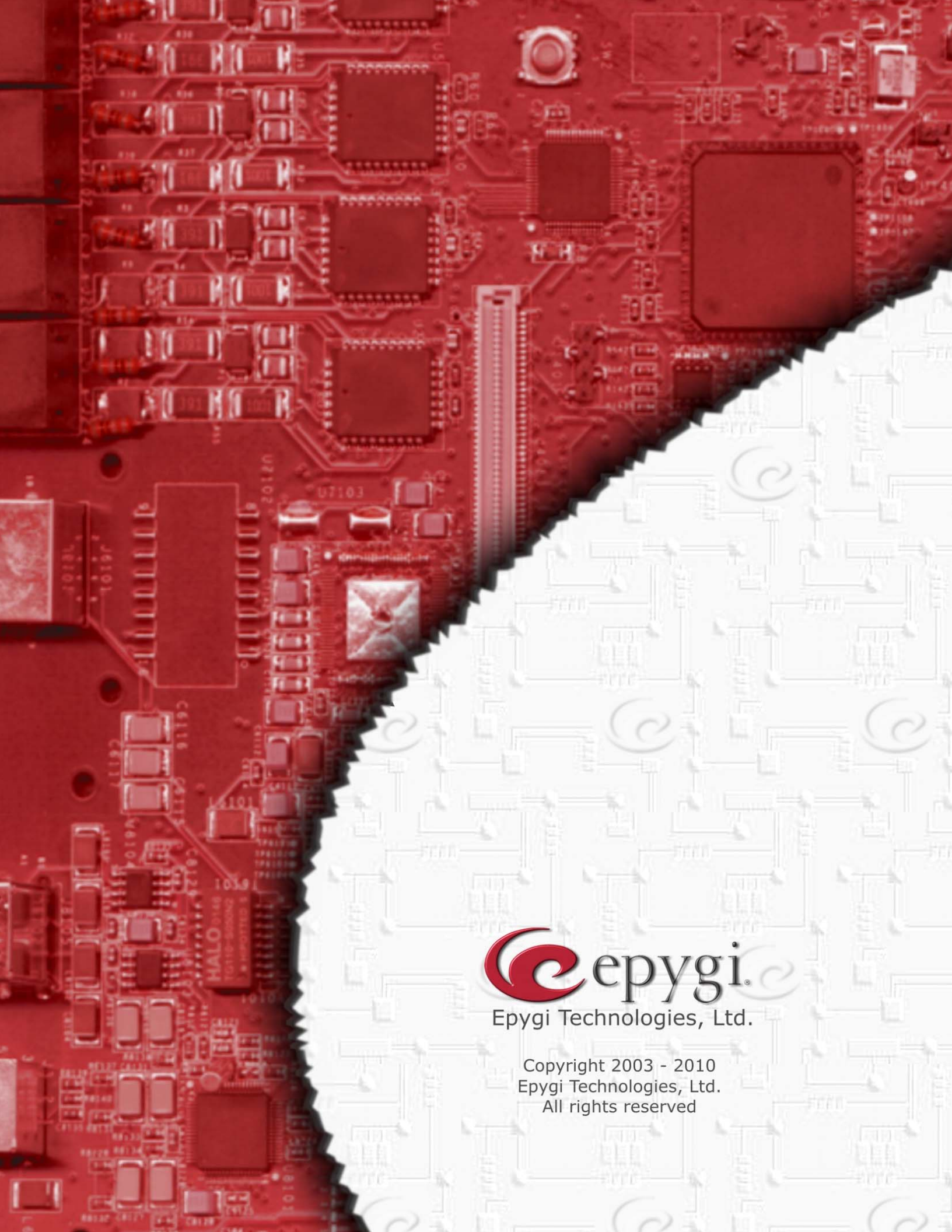


Figure 18 QCM License Settings for extension 14



Epygi Technologies, Ltd.

Copyright 2003 - 2010
Epygi Technologies, Ltd.
All rights reserved