Innovaphone PBX / EasyLynq

INSTALLATION AND CONFIGURATION PROCEDURES

INDEX

About this document

The primary audience for the remaining of this document is installation and support personnel.

It is hereafter assumed that the reader is familiar with the EasyLynq product and the Innovaphone PBX system. Some of the information included in this document may not be accurate or may differ of the one found at a costumer's location. For readability reasons, no indication is provided on how to reach the information in the enclosed pictures.

System requirements

The following tables show the minimum specifications of the EasyLynq computer for several configurations. If being used to support other applications, such as EasyLynq IVTS, these specifications may differ.

EasyLynq Enterprise / Server

Extensions	Intel processor	Memory	Storage	Windows type
100	i3 2.2 GHz	4 GB	60 GB	Workstation
500	i5 2.4 GHz	4 GB	100 GB	Workstation
1000	Xeon 2.2 GHz Quad Core	4 GB	160 GB	Server
5000	Dual Xeon 2.8 GHz Quad Core	8 GB	250 GB	Server

EasyLynq Hotel

Rooms	Intel processor	Memory	Storage	Windows type
100	i5 2.4 GHz	4 GB	80 GB	Workstation
300	i7 2.8 GHz	4 GB	120 GB	Workstation
500	Xeon 2.4 GHz Quad Core	4 GB	200 GB	Server
1000	Dual Xeon 2.8 GHz Quad Core	8 GB	250 GB	Server

EasyLynq is fully compliant with Windows XP SP3, 2003 Server, Vista, Server 2008, 7, Server 2012 and 8. EasyLynq has been certified for Windows 7, Server 2012 and 8.

Conventions

The following special signs are used in this document to point out information that must be carefully read:

Warning: alerts about configuration details that may cause malfunctions or not work as expected.

Notice: indicates additional information as a reference.

The following chapter describes the main steps to set up EasyLynq and Innovaphone PBX for billing purposes both for EasyLynq Enterprise/Server and EasyLynq Hotel.

EasyLynq Office/Server integration
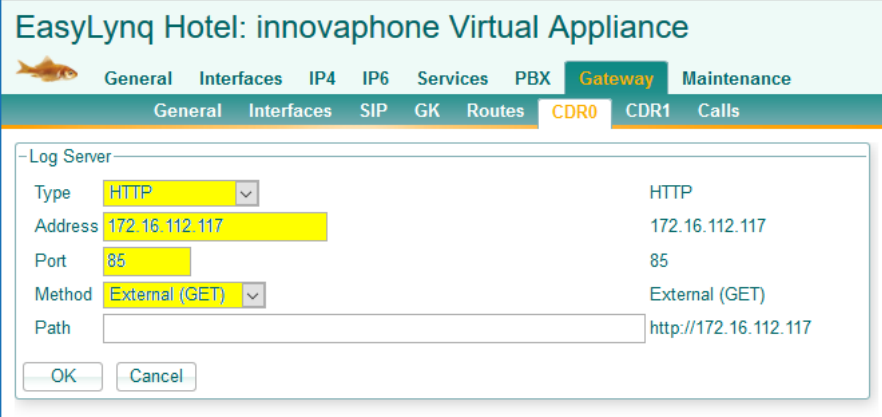
Operation overview

Innovaphone PBX sends call records to the **PBXAgent** computer using an HTTP connection. **Innovaphone PBX** is the client and **PBXAgent** is the server.

Configuring the CDR service in Innovaphone PBX

Start your favourite browser and login to **Innovaphone PBX** administration page.

Under **Gateway** - **CDR0**:
- Select Type **HTTP**.
- Enter the IP address of the **PBXAgent** computer.
- Choose a port (this port will be used later on in the PBXAgent configuration).
- Select Method **External (GET)**.
- Leave the path empty.

Go to **Gateway** - **General** and configure as shown in the picture below.

PBXAgent configuration

This chapter describes the required steps to configure **PBXAgent** in order to put the billing interface up and running.

1. Enter to the **PBXAgent** configuration window and go to the Interfaces tab.
2. Select an interface for editing. In case the Interface type window appears before you, select TCP/IP and click <OK>.
3. Change the Model, if required, to **Innovaphone PBX**.
4. Enter the port number for call logging. This parameter must match that entered during the **Innovaphone PBX** configuration.

Press the **Properties** button.

Property page General

Fill in the outward access prefixes table. These prefixes will be stripped out of the dialled numbers on outgoing calls.

Also fill in the internal numbering plan table.

Enter each and every prefix of the internal extensions, specifying the exact length of the extension and whether you want to remove the prefix.

EasyLynq Hotel integration

Operation overview

The **Innovaphone PBX** interface implements the following basic services:
- Check-in, with the assignment of the guest's name to the room phone sets and permission for outward access.
- Check-out, with restriction for establishing outgoing calls to PSTN.
- Do Not Disturb service.

EasyLynq SIP Messaging interface extends the hospitality service to a higher level, adding the following features:
- Full wake-up service (set / cancel / change / answer control), in nine languages.
- Room-status.
- Minibar/Laundry posting.

Innovaphone PBX configuration

Start your favourite browser and login to **Innovaphone PBX** administration page.

SOAP User

Create a SOAP user as shown in the picture below. PBXAgent will use these credentials to assign call filters, set the display name and control the Do Not Disturb feature.

Call filters

Create call filters as needed. At least two call filters must be created: one for check-in (allowed to make outgoing calls) and one for check-out (no outward access).

The hotel may want to offer intermediate call filters such as access to national or mobile numbers. These call filters can be assigned via the classes of service feature of EasyLynq. Make sure the PBX codes of EasyLynq match the names of those call filters.

Make sure the maximum length of the call filter name does not extend beyond 20 characters. EasyLynq does not support longer names.

Users (room extensions)

Make sure the **Long Name** field matches the extension number for every room.

General	User	License	DECT

Type: User

Description: [ ] Hide from LDAP ☐

Long Name: `301`   Display Name: [ ]

Name: Room301   Number: 301   Critical ☐

E-Mail: Room301☐; [ ]

Password: ••••••••   retype Password: ••••••••

Node: root   Local ☐

PBX: pbx

Send Number: [ ]   URL: [ ]

Group Indications: [ ]

Config Template: standard

Devices

Hardware Id	Name	PBX Pwd	No IP Filter	TLS only	No Mobility	Config VOIP	Reverse Proxy
Room301		☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐

[OK] [Cancel] [Apply] [Delete] [Help]

SIP trunk configuration for SIP Messaging

⚠️ *The access to the SIP trunk for SIP Messaging must be permitted even when the room is check-out state otherwise the housekeeping staff will not be able to change room-status or post minibar/laundry articles.*

Create a gateway according to the following pictures.

⚠️ *The **Max Calls** value must be set to the number of allowed simultaneous calls as defined in the EasyLynq license.*

Make sure the **Prefix** field is checked.

Create a SIP trunk according to the following picture. Enter the IP address of the **PBXAgent** computer in the **Proxy** field and make sure the SIP trunk is assigned to the gateway previously created (field **Name** in the **Internal Registration** group).
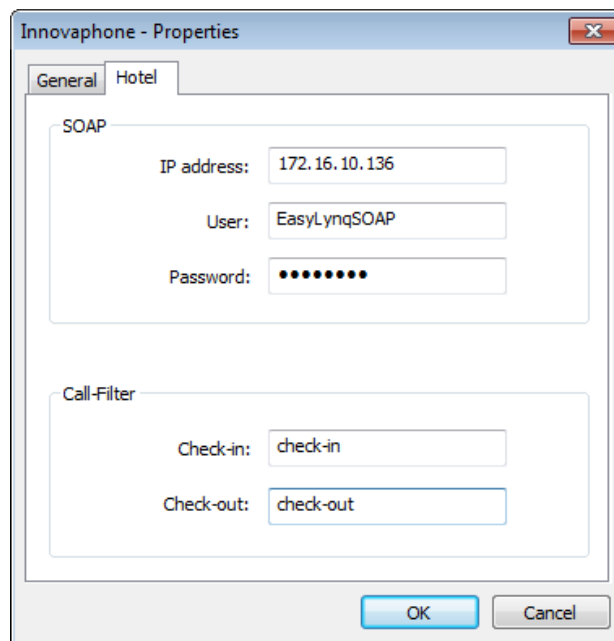
Name	EasyLynq SIP
Disable	☐
Type	Provider ⌄
Transport	UDP ⌄ Without registration ☑
Remote Domain	
Local Domain	
Local Port	
Proxy	172.16.112.117
STUN Server	

Authorization

Username	
Password	Retype

Media Properties

General Coder Preference G711A ⌄ Framesize [ms] 20   Silence Compression ☐ Exclusive ☑

Local Network Coder G711A ⌄ Framesize [ms] 20   Silence Compression ☐

Enable T.38 ☐ No DTMF Detection ☐ Media-Relay On ⌄ , Video ☐ No ICE ☑

SRTP Cipher AES128/32 ⌄ SRTP Key Exchange No encryption ⌄

Record to (URL) |

SIP Interop Tweaks

Proposed Registration Interval [s]	
Accept INVITE's from Anywhere	☐
Enforce Sending Complete	☐ (affects outgoing SIP calls only)
No Video	☐
To Header when Sending INVITE	Called Party ⌄ (affects outgoing SIP calls only)
From Header when Sending INVITE	Fixed AOR ⌄
Identity Header when Sending INVITE	CGPN in user part of URI ⌄
Reliability of Provisional Responses	Supported ⌄ (affects outgoing SIP calls only)
Microsoft Presence Format	☐
Advanced	

Internal Registration

Protocol	H.323 ⌄
STUN Server	
Gatekeeper Address	127.0.0.1 (primary)
Gatekeeper Address	(secondary)
Gatekeeper ID	
Name	EasyLynqSIPM
Number	
Password	Retype

[OK] [Cancel] [Apply] [Delete] [Help]

PBXAgent configuration for Innovaphone PBX Hotel interface

When running in Hotel mode, **PBXAgent** provides one additional property page.

Property page Hotel

Enter the IP address of **Innovaphone PBX**. The **User** and **Password** fields must match those of the **Innovaphone PBX** settings (see chapter SOAP User). Enter the call filters for check-in and check-out operations.

PBXAgent configuration for the Innovaphone PBX SIP route

This chapter describes the steps to configure the **EasyLynq SIP Messaging** interface on **PBXAgent**.

SIP connection parameters

1. Enter to the **PBXAgent** configuration window and go to the Interfaces tab.
2. Select an interface for editing. In case the Interface type window appears before you, select TCP/IP and click <OK>.
3. Change the Model, if required, to **EasyLynq SIP Messaging**.
4. Enter an optional description of the interface, the IP address and the SIP port number of the **Innovaphone PBX**.
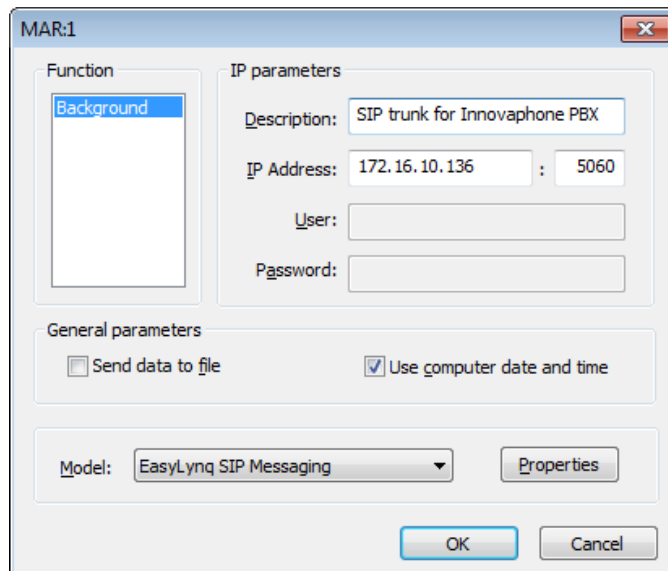
Press the button **Properties** in order to enter in the advanced configuration of this interface.

Property page SIP Trunk

Select the appropriate interface (if more than 1 NIC is installed on the computer) and adjust the number of allowed simultaneous calls to the maximum value permitted by the EasyLynq license. You may also want to modify the **User** and **Display** fields.
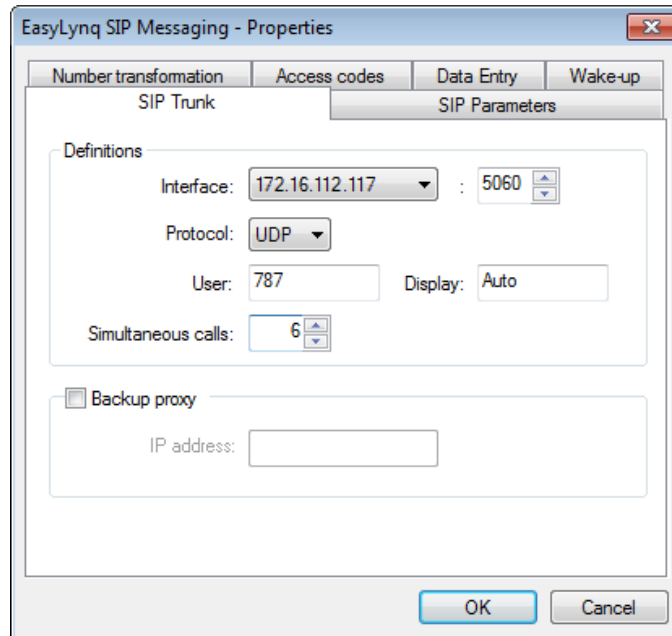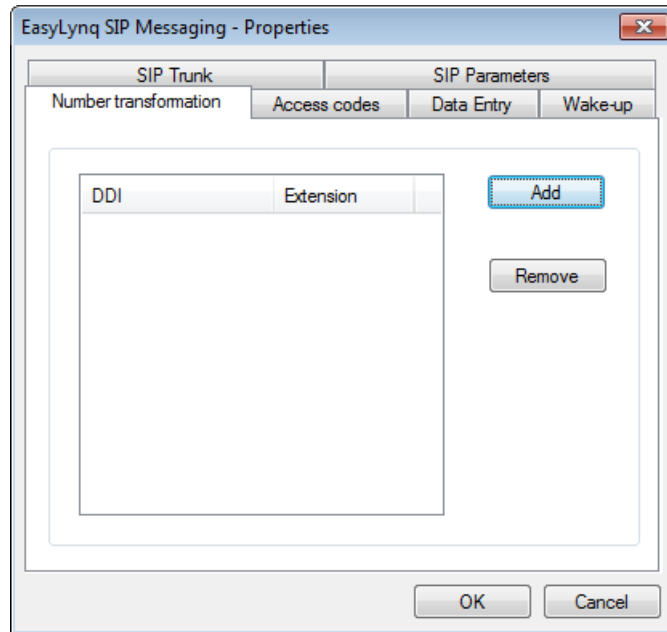

Property page SIP Parameters

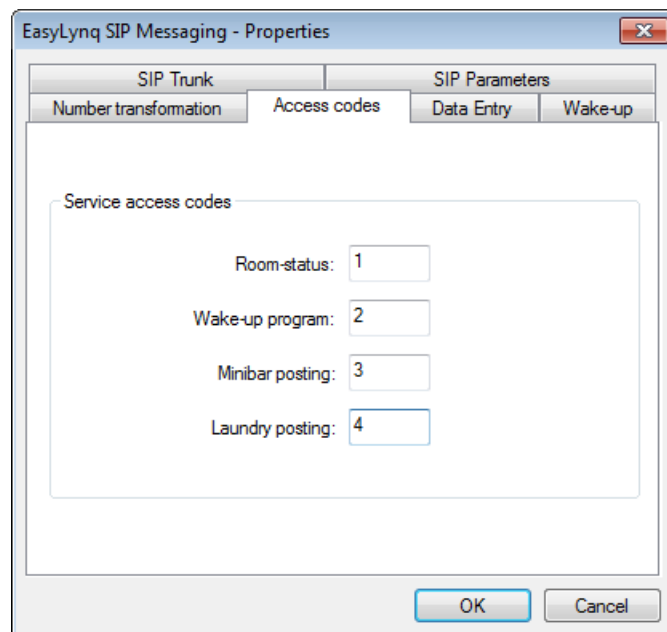In general, you do not need to change the default parameters of this page.
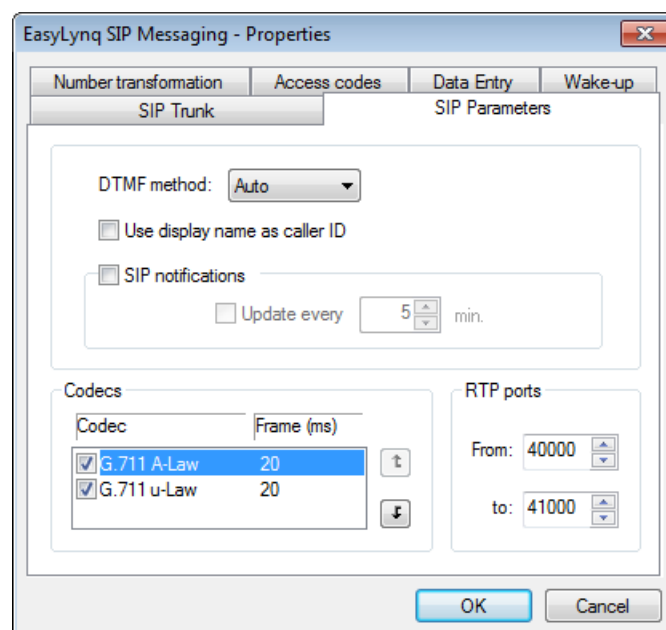
Property page Number transformation

In general, you do not need to add any rules for number transformation.
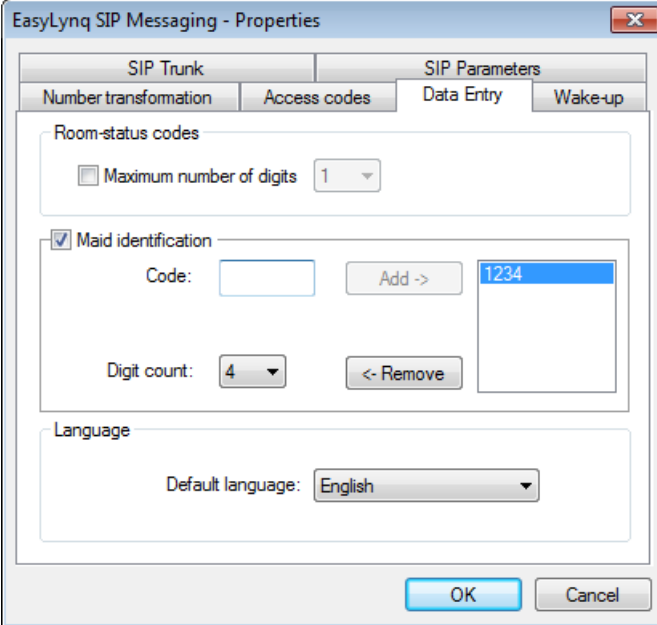

Property page Access codes

Enter the digits to access the various services. For a better understanding of the meaning of these digits, please refer to chapters Examples of room-status and minibar posting and Wake-up programming at the phone set.

Property page Data Entry

Adjust these parameters accordingly.

⚠️ *It is highly recommended to use maid identification in order to prevent the housekeeping services to be accidentally accessed by the guest.*

✏️ *If the number of digits for every room-status code is the same, you may choose to set the value **Maximum number of digits** . This will slightly ease the input by the housekeeping staff since it is no longer required to dial the validation digit (see chapter Examples of room-status and minibar posting).*

Property page Wake-up

Adjust the wake-up timings accordingly and assign the EasyLynq languages to the supported voice messages. The number of wake-up retries is configured at the complex properties in the EasyLynq administration module.

Examples of room-status and minibar posting

The following examples assume the digit **8** as the access code for the EasyLynq SIP trunk.

Room-status input, according to the previous snap-shots:

Operation	Digits	Comments
Maid lifts the handset	☎	
Maid dials SIP Trunk access code plus "Room-status" service code	**8** **1** **SEND**	Message "Room-status" is heard
Maid dials an invalid ID	**4** **4** **4** **4**	Message "Code rejected" is heard
Maid dials ID again	**1** **2** **3** **4**	Message "Code accepted" is heard
Maid dials room-status code	**5**	
Maid dials validation digit *	**#**	Message "Code accepted" is heard
Maid hangs up	☎	Room changes to status PBX code 5

* may not be required, see chapter [Property page Data Entry](#).

Example of minibar posting:

Operation	Digits	Comments
Maid lifts the handset	☎	
Maid dials SIP Trunk access code plus "Minibar" service code	**8** **3** **SEND**	Message "Minibar" is heard
Maid dials a valid ID	**1** **2** **3** **4**	Message "Code accepted" is heard
Maid dials article code	**5** **4** **1**	Code for article #1
Maid dials intermediate digit	**✱**	Message "Code accepted" is heard
Maid dials article code	**2** **7** **4**	No such article
Maid dials intermediate digit	**✱**	Message "Code rejected" is heard
Maid dials article code	**2** **7** **5**	Code for article #2
Maid dials termination digit	**#**	Message "Code accepted" is heard
Maid hangs up	☎	2 articles are charged to the room

Wake-up programming at the phone set

This chapter presents several voice messages and exemplify how to mark, modify and cancel an automatic wake-up service using the interactive voice response system of EasyLynq.

Wake-up times must be entered in 24 hour format and refer to a time in the 24 hour period starting at the current time. The following examples assume the access code for the EasyLynq SIP trunk is the digit **8** .

a) <u>Wake-up mark (no wake-up is set)</u>

Guest lifts the handset	☎	
Guest dials SIP Trunk access code plus "Wake-up" code	**8** **2** **SEND**	"*Welcome to the automatic awakening call service. Please enter the time for the awakening call in 24 hour clock notation.*"
Guest dials	**0** **7** **1** **5**	"*Your awakening call has now been set.*"
Guest hangs up	☎	

b) <u>Wake-up modification</u>

Guest lifts the handset	☎	
Guest dials SIP Trunk access code plus "Wake-up" code	**8** **2** **SEND**	"*Welcome to the automatic awakening call service. You have a service for awakening set for 7 hours and 15 minutes. Press 1 to modify this call or press 3 to delete it.*"
Guest dials	**1**	"*Please enter the time for the awakening call in 24 hour clock notation.*"
Guest dials	**0** **7** **3** **0**	"*Your awakening call has now been set.*"
Guest hangs up	☎	

c) <u>Wake-up cancellation</u>

Guest lifts the handset	☎	
Guest dials SIP Trunk access code plus "Wake-up" code	**8** **2** **SEND**	"*Welcome to the automatic awakening call service. You have a service for awakening set for 7 hours and 30 minutes. Press 1 to modify this call or press 3 to delete it.*"
Guest dials	**3**	"*Your awakening call has been deleted.*"
Guest hangs up	☎	