PBXpress Quick Start Guide

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PBXpress Quick Start Guide
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Table of contents

PBXpress Quick Start Guide 0

Preface 3

Pre-requisites 4

Before you start 4
Solution description 5

Hardware setup 6

Networking setup 6
Phone lines 7
Power cable 8
Check that PBXpress has obtained an IP address 8

System configuration 9

Step 1 - phone extensions configuration 10
Step 2 – Provisioning the phones 14
Step 3 – Check phone registration 16
Step 4 – Dialing rules 17
Step 5 – Configure outgoing connection 19
to PSTN network 19
Step 6 - Advanced configuration 28

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Preface

This document provides general information about PBXpress VoIP PBX as well as installation and configuration instructions.

Where to get the latest version of this guide

The online copy of this guide is always up-to-date, integrating the latest changes to the product. You can access the latest copy of this guide at: **www.pbxpress.com/docs**.

Conventions

This publication uses the following conventions:

- Commands and keywords are in **boldface**
- Terminal sessions, console screens, or system file names are displayed in `fixed width font`

Caution means 'reader, be careful!' you are capable of doing something that might result in program malfunction or loss of data.

NOTE: Means *reader take note*. Notes contain helpful suggestions or references to materials not contained in this manual.

Timesaver means the described action saves time. You can save time by performing the action described in the paragraph.

Tips Means the following information might help you solve a problem.

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Pre-requisites

Before you start

Make sure you have the following available before you start PBXpress installation

- There is a DHCP server available on your network. For the home and small office network this function is usually provided by your DSL or cable router.
- There is an Ethernet cable connected to your LAN that PBXpress will be connected to
- IP phones which will be used with PBXpress are powered on and connected to the LAN. Make sure the phones are configured to obtain an IP address from the DHCP server and have successfully done so.

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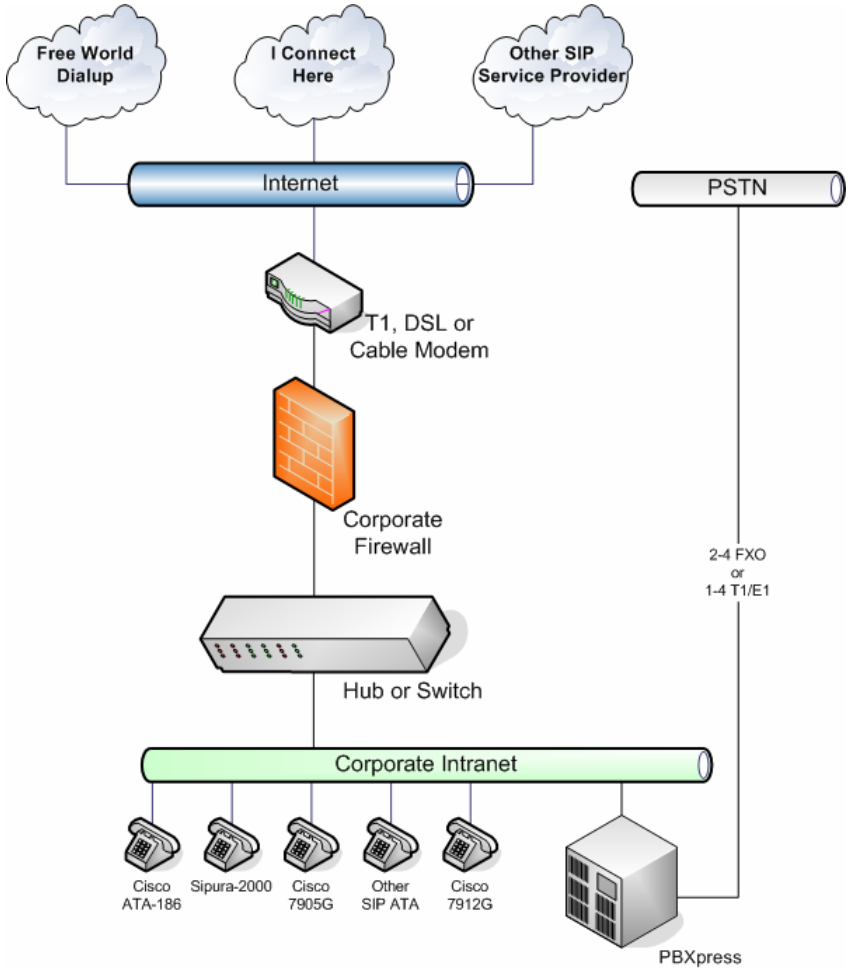
Solution description

This manual provides you with all necessary instructions to setup PBXpress in a way that it is connected only to your internal network (LAN) and optionally existing phone lines. You will be able to make calls between IP phones, outgoing calls to the VoIP carriers and receive incoming calls from the VoIP carriers. Assuming there are phone lines connected to PBXpress you can also send call to and receive calls from the PSTN network.



If you wish to setup a configuration different from the one above (e.g. when PBXpress uses WAN interface to bypass your company's firewall) please see *PBXpress Administrator Guide* for detailed instructions.

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Hardware setup

Unpack PBXpress from the box and follow further instructions in this chapter.

Networking setup

1. Plug the LAN Ethernet cable into an on-board Ethernet socket.

2. Install phone connectors according to instructions in the next chapter

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Phone lines

PBXpress F200, 2 FXO

Use two upper ports

PBXpress F400, 4 FXO

Use all available ports

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Power cable

Connect the power cable as shown on the picture below

Check that PBXpress has obtained an IP address

Upon successful connection to the DHCP server on your LAN PBXpress will obtain an IP address, and this address will be displayed on the LCD

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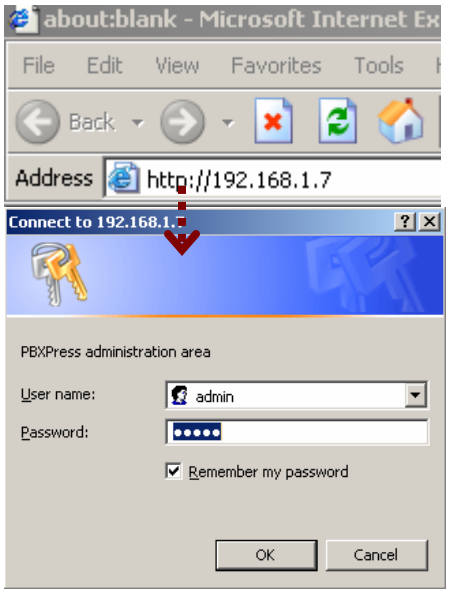
System configuration

Connect internal network interface PBXpress to your LAN, make sure that there is a DHCP server available. Turn the PBXpress on; wait until it will finish booting up. The PBXpress IP address will be visible on the LCD display, as shown below:
Now, on the PC connected to the same LAN, open your web browser and type **http://<IP>**, where <IP> is the IP address you saw on the LCD display (see more about this in the *Check that PBXpress has obtained an IP address* section on the *Hardware setup* part). Admin interface is protected by a password. The default User name is "`admin`" and the Password is "`admin`" as well.



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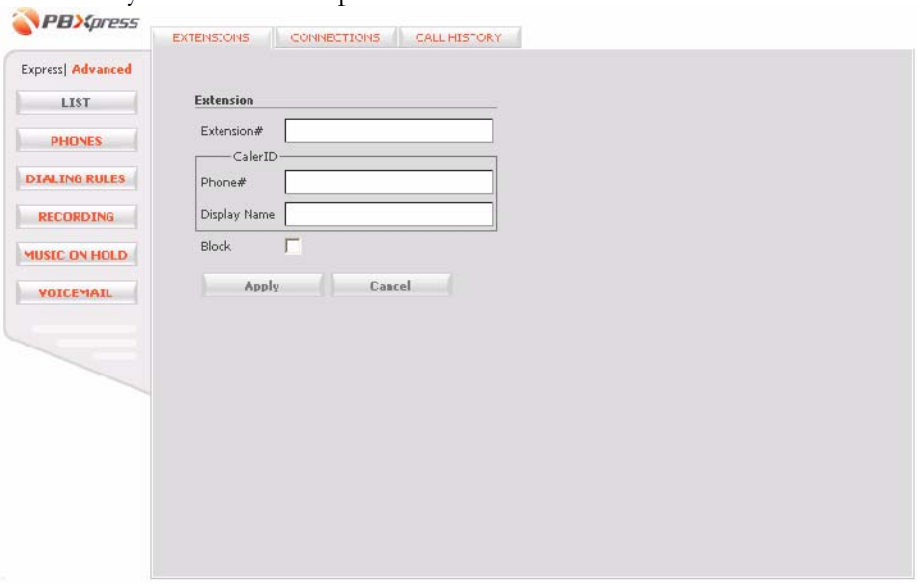
After that you will see PBXpress admin main menu.



All of the further instructions in this manual assume you stay in the **Express** configuration mode. See the *PBXpress Administrator Guide* for details about the **Advanced** mode.

Step 1 - phone extensions configuration

You need to create an extension for every person in your organization that will use IP phone. To do this enter the following information in the available fields

Field	Description
Extension #	Short number for the extension, e.g. 501
Phone #	The full phone number, e.g. 16041234501
Display name	Identity (name, surname) of the user on the phone. When the user will make an outgoing call, the called party may see this information on his phone's display

And then press **Apply** to save this record.

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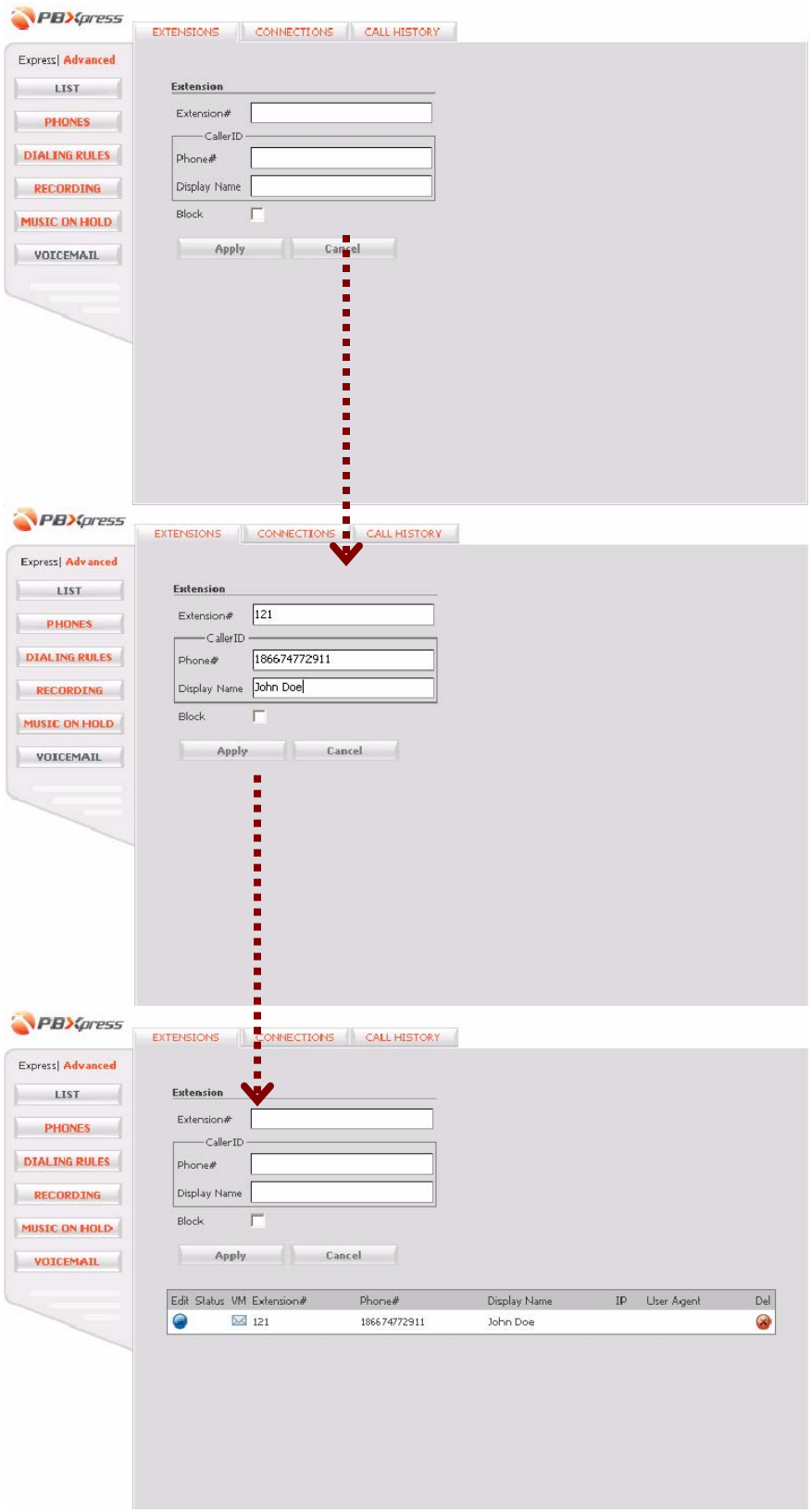

Repeat steps above until all extensions are created.

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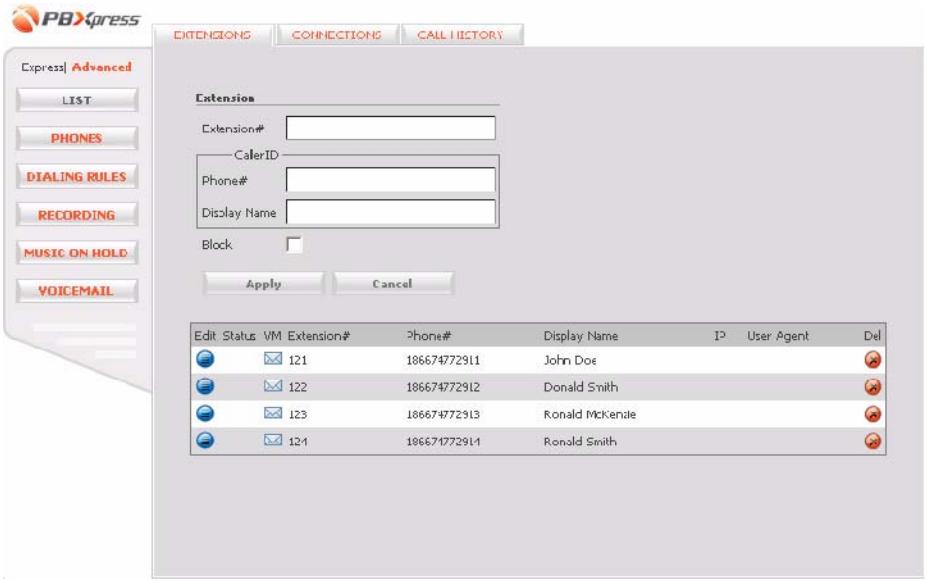

Browser configuration for pop-ups

NOTE: In order to make sure that auto configuration works properly, please, ensure that pop-ups are allowed for this web site in your browser.

Should you see the message similar to the one below:

Right click on the warning text and choose "Allow Pop-ups from this side":

Mozilla/Netscape users may see a message similar to the one below. Click **No**, so the pop-ups will be allowed.

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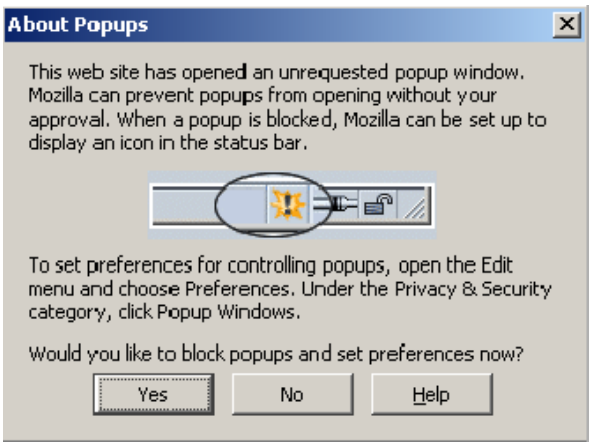

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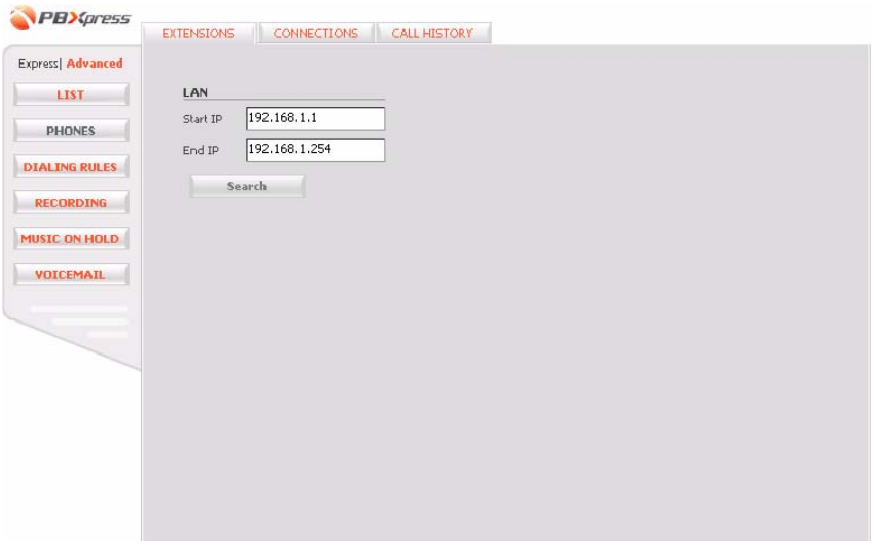
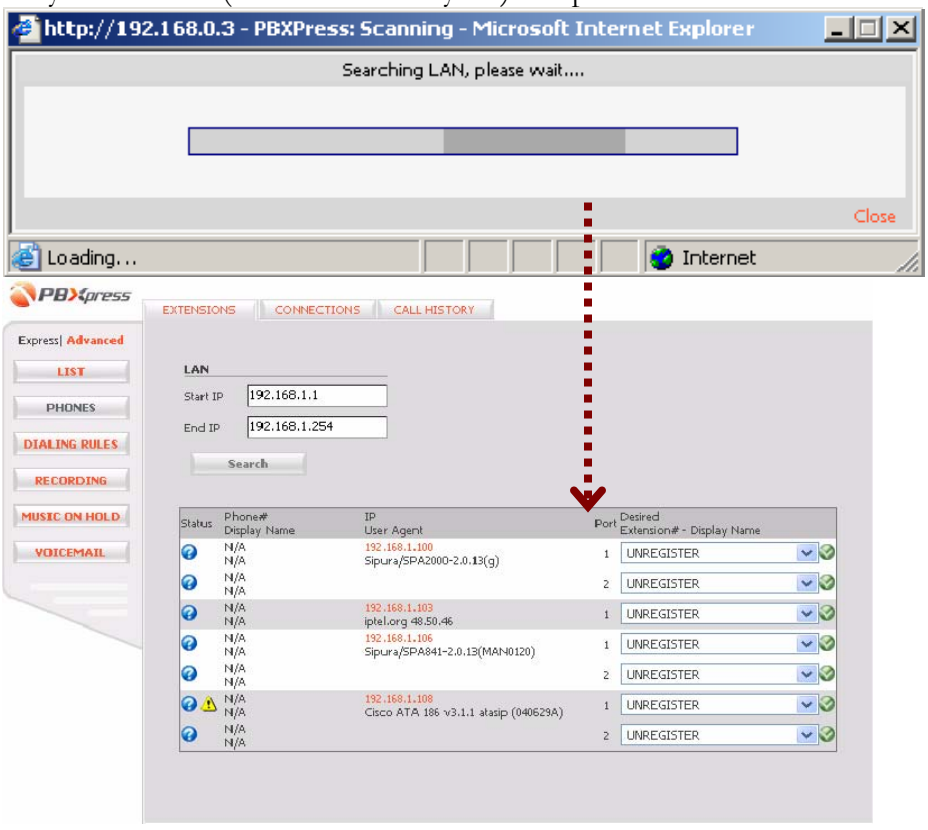
Step 2 – Provisioning the phones

Click on the Phones button on the left side to proceed to phone provisioning.



Check that the default values provided for starting and ending IP are ok for your network (in most cases they are) and press **Search**.



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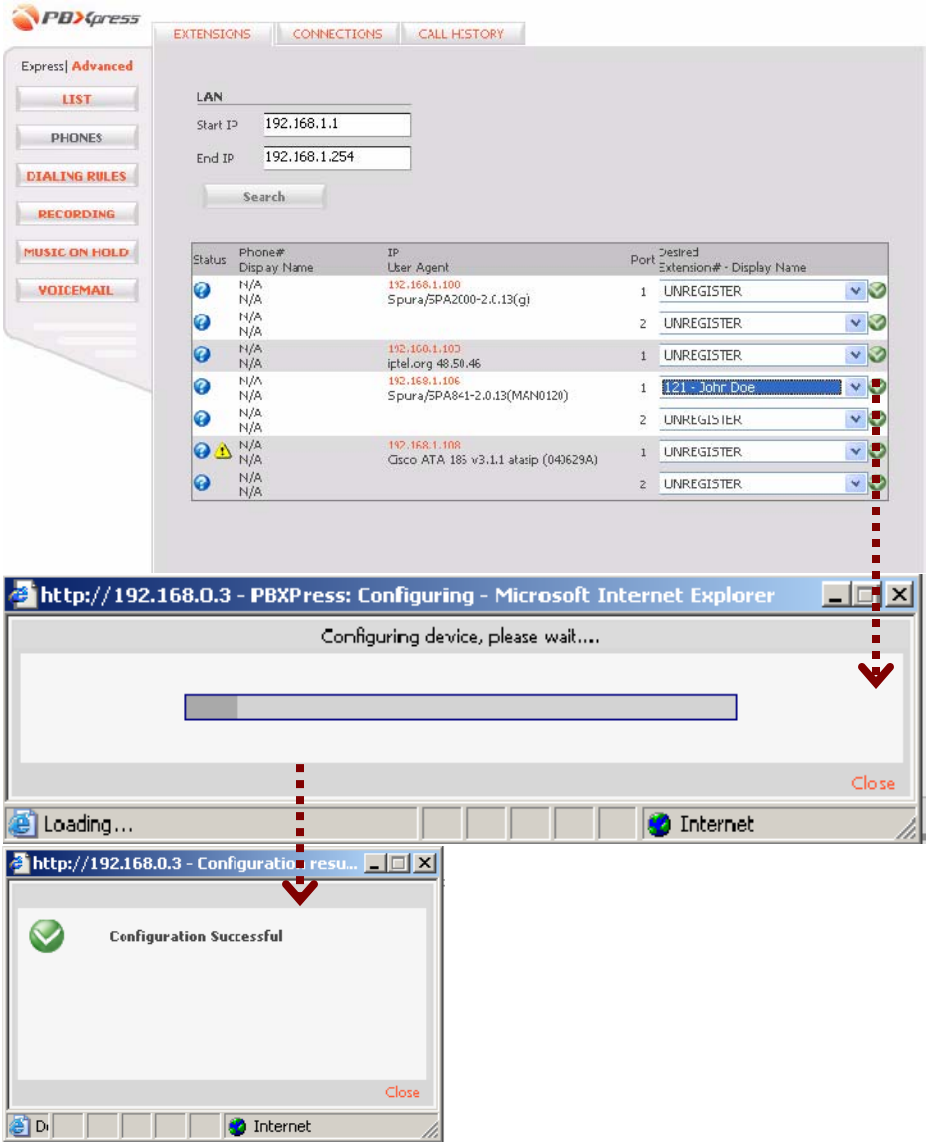
You will see a list of IP phones which were detected on your internal network. Notice, that since these phones are not yet configured, they are marked as unregistered.

1. For the specific phone in the select menu choose which extension should be provisioned on this phone
2. Click on the green Do button
3. **Configuring device** popup will appear
4. Wait until the configuration is finished and **Configuration successful** popup is displayed
5. Press the Close button in the lower-right corner of the popup to return to the phone list
6. Repeat steps 1-5 until you have provisioned all available phones/extensions



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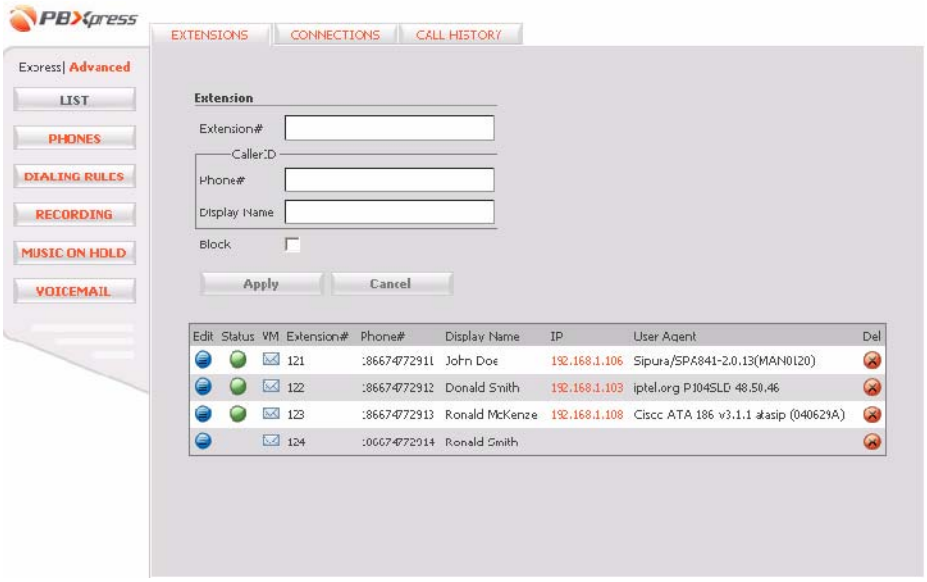
Step 3 – Check phone registration

After you configure several IP phones, you can go back to the list of extensions (click on the **List** button on the left). Extensions which are registered to the server at the moment will have the green status light :



Try to make a test call between extensions.

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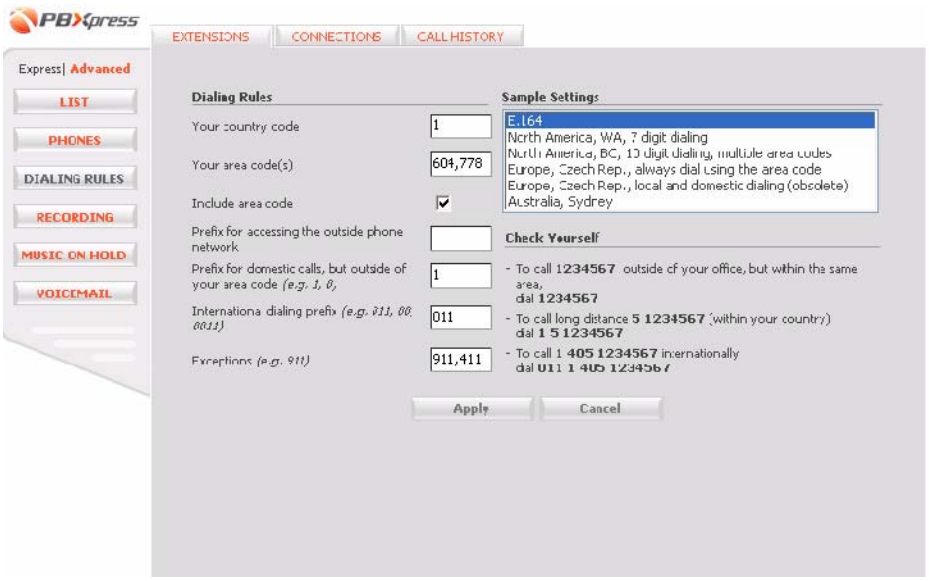
Step 4 – Dialing rules

Click on the **Dialing rules** button on the left side. The goal of this configuration screen is to allow your end-users dial the number on their IP phone in the same way as they currently do it on their traditional telephone. (Dialing rules only apply to dialing the outside phone numbers and not for calls between extensions)



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Most of parameters here are self-explanatory, but if confused, you may load and learn the example settings provided. Also note the **Check Yourself** area – verify that the system "guessed" correctly the way you dial phone numbers.

Field	Description
Your country code	Enter your country's E.164 prefix, e.g. 1 for US or Canada or 420 for the Czech Republic
Your area code(s)	Enter the code for the area or city where your phone belongs to. If there is more than one area code which is considered to be local (as for instance area codes 604 and 778 in Vancouver, BC) enter all of them, separated by comma
Include area code	If checked, it means that you always dial the number including the area code (so called 10 digit dialing in the US & Canada), even when dialing within your "local" area. For instance, even being within 604 area code and dialing a local number, you still must dial 604 NNN-NNNN.
Prefix for accessing the outside phone network	Enter the digit you dial to get an outside line (e.g., when using some office PBX systems you first must dial 0 and then the actual number). Leave it empty if there is no special prefix (your users have direct lines)
Prefix for domestic calls	Enter the digits you dial before the phone number when dialing domestic long-distance. (E.g., 1 in the USA & Canada, 0 in many European countries)
International dialing prefix	Enter the digits you dial before the phone number when making an international call. (E.g. 011 in the USA & Canada, 00 in many European countries)
Exceptions	Enter the special numbers, to which dialing rules should not be applied, so they will be dialed "as is". Usually these are the emergency services numbers – 911 in the US and Canada, 112 in Europe and so on.

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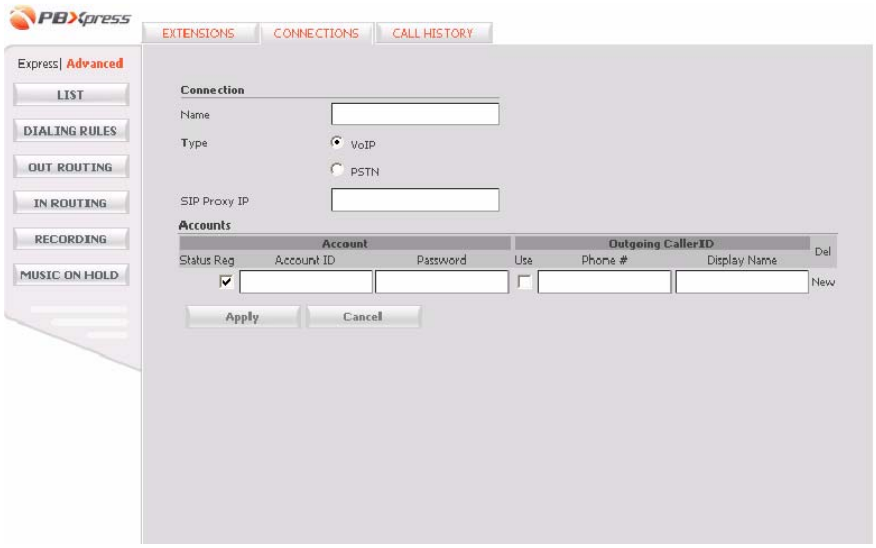
Step 5 – Configure outgoing connection to PSTN network

If at this moment you do not have any PSTN lines connected to PBXpress, proceed to *Step 6 - Advanced configuration*.

Step 5a - Create a new PSTN connection

1. Click on the **Connections** tab on top.



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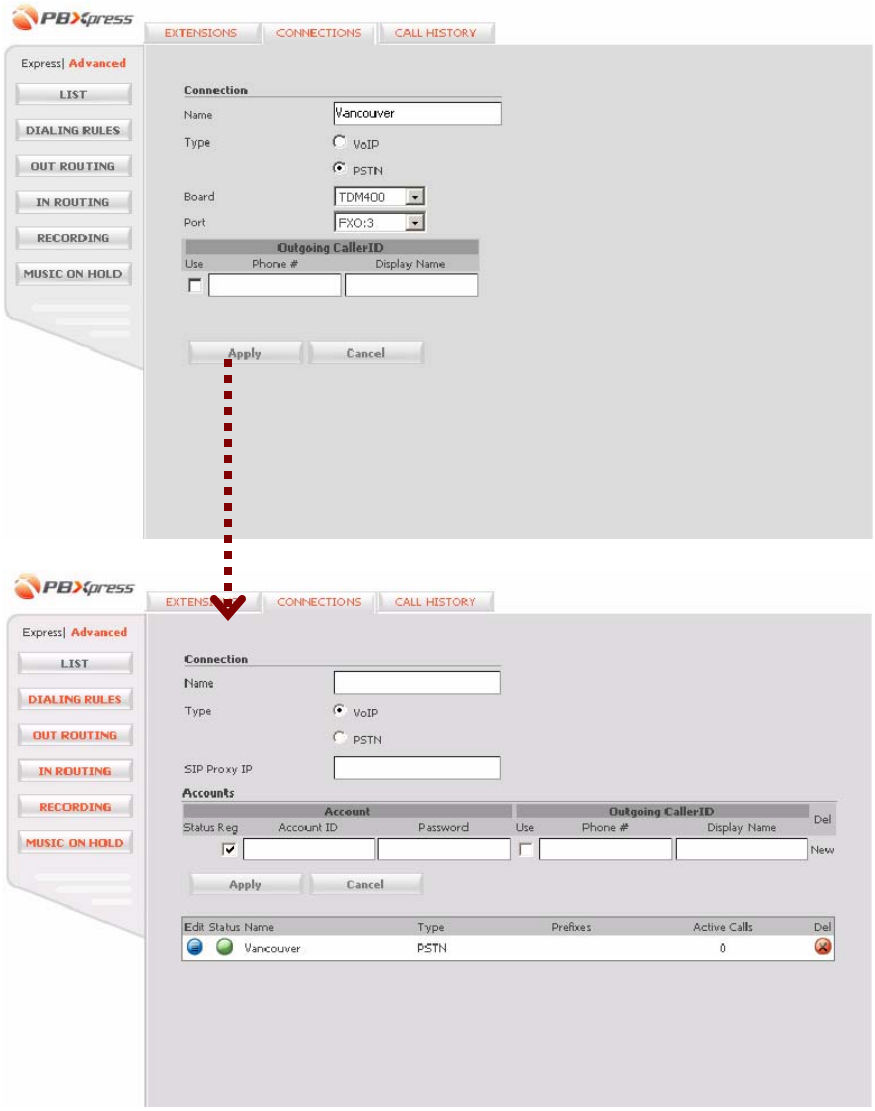
2. Enter the connection parameters

Name	Enter the unique name for the connection
Type	Choose **PSTN**
Board	Leave the default value there
Port	If you are creating the first connection, then do not change anything. If this is your second, third, etc connection – then choose the second, third, etc value accordingly in the select menu



3. Press **Apply** to save the new connection.
4. If necessary repeat steps 1-3 to create any other required connections (e.g. for your second phone line)

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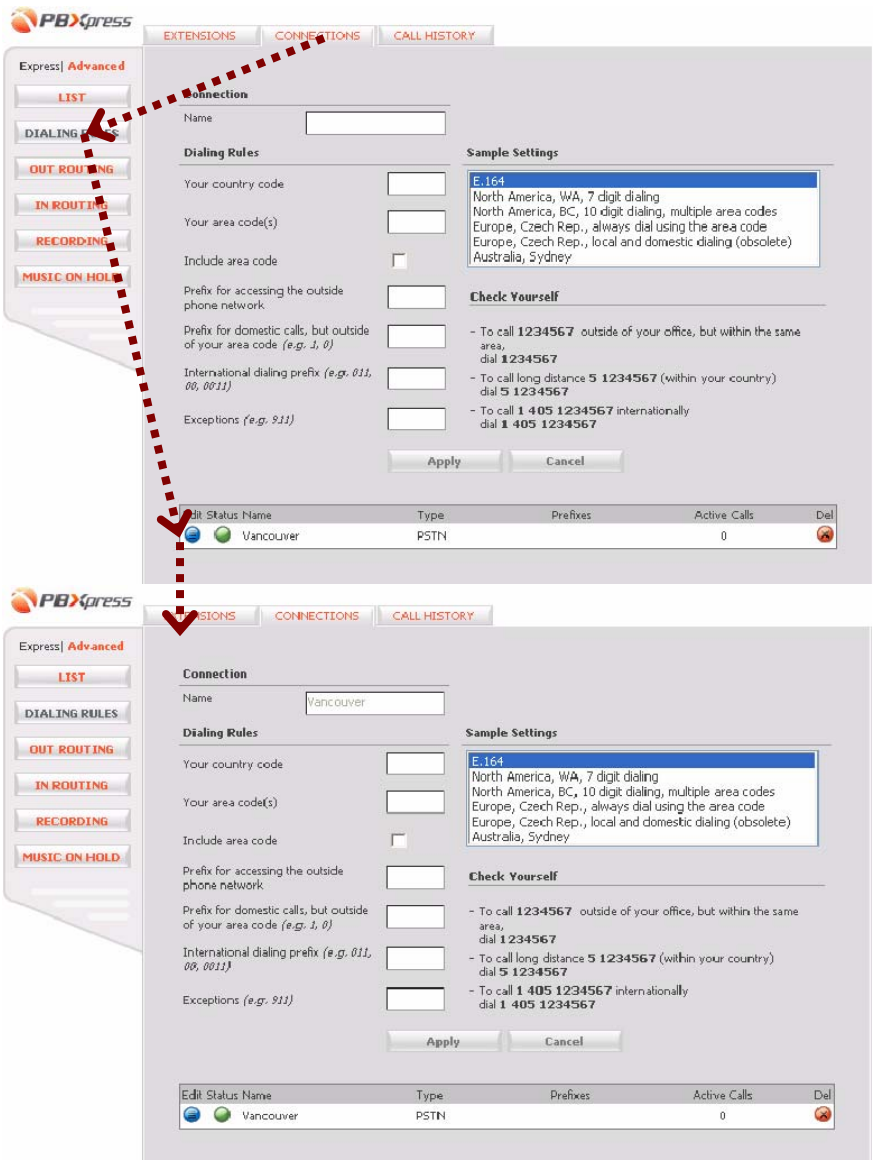
Step 5b – define dialing rules for this connection

In order to be able to successfully terminate calls via this phone line PBXpress must know the correct number format.
You man use the sample setting provided to simplify your task (for instance in case of US and Canadian users you may just load the corresponding example and change the area code). Double-click on the corresponding row in the **Sample Settings** list box to load the sample settings.

1. Click on the **Dialing rules** button on the left side.
2. Click on the Edit icon next to the connection name



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3. Enter the required values in the fields

Field	Description
Your country code	Enter your country's E.164 prefix, e.g. 1 for US or Canada or 420 for the Czech Republic
Your area code(s)	Enter the code for the area or city where this phone line belongs to. If there is more than one area code which is considered to be local (as for instance area codes 604 and 778 in Vancouver, BC) enter all of them, separated by comma
Include area code	If checked, it means that the number must be dialed including the area code (so called 10 digit dialing in the US & Canada), even when dialing within your "local" area. For instance, even being within 604 area code and dialing a local number, you still must dial 604 NNN-NNNN.
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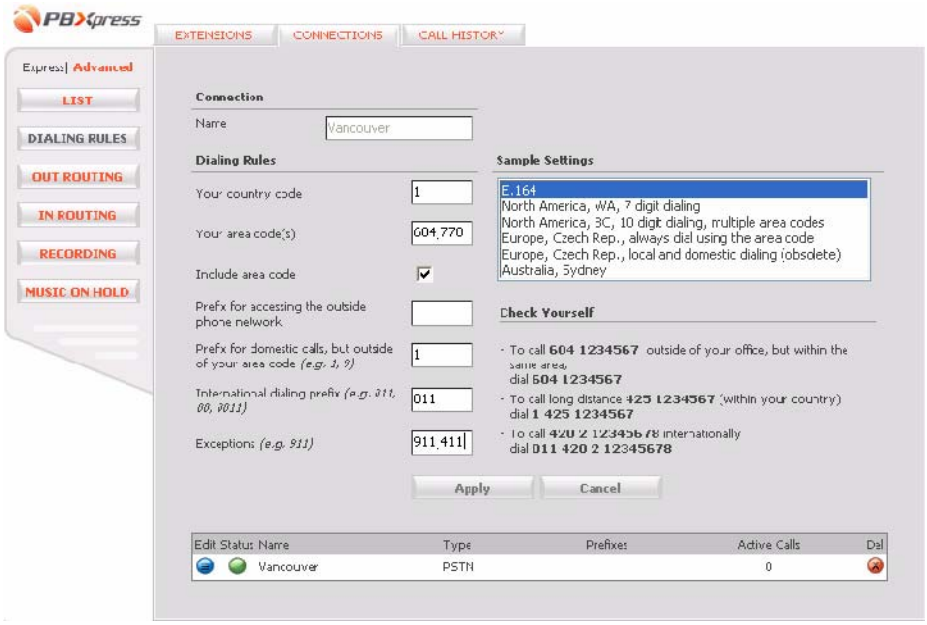

4. Press **Apply** button to save your changes.
5. Repeat steps 1-4 to configure dialing rules for any remaining connections.

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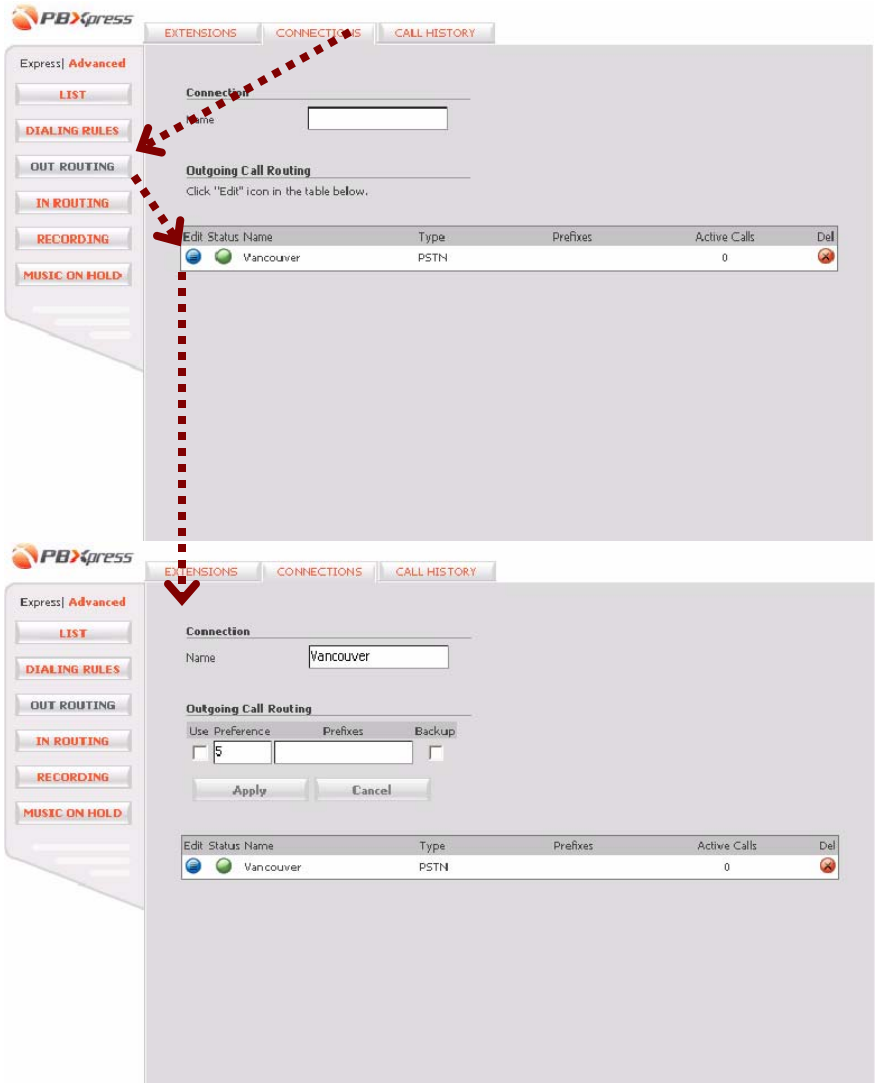
Step 5c – Outgoing calls via PSTN connection

1. Click on the **Out routing** button on the left side
2. Click on the Edit icon next to the connection name



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3. Enter the call routing parameters

Field	Description
Use	Make sure this checkbox is on (checked), so this connection will be used for the call routing
Preference	Leave the default preference 5
Prefixes	Since this connection will be used to route all of the outgoing calls, place ***** (star) there.
Backup	Turn this checkbox on, so in future (if you will add VoIP connections) this connection will be used as a backup

4. Press **Apply** button to save your changes
5. Repeat steps 1-4 to configure outgoing call routing for other connections, if necessary

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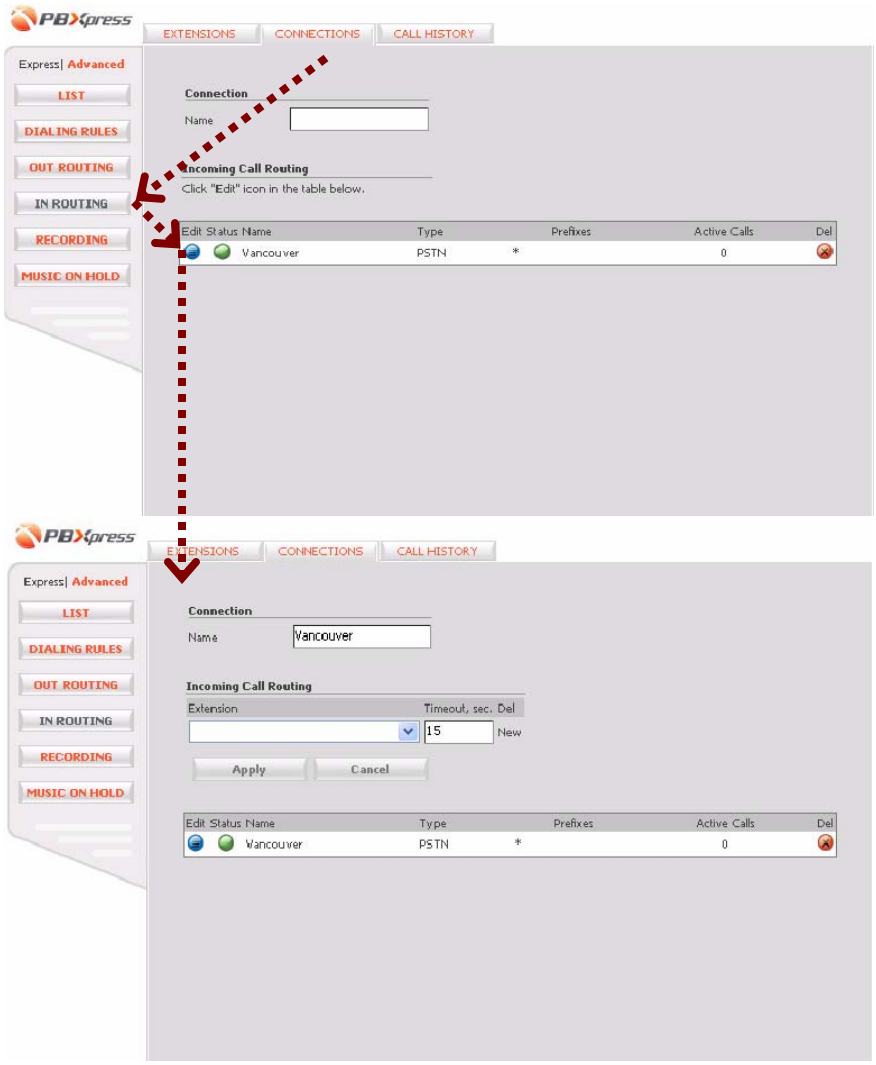
Step 5d – Incoming call routing

1. Click on the **In routing** button on the left side
2. Click on the Edit icon next to the connection name



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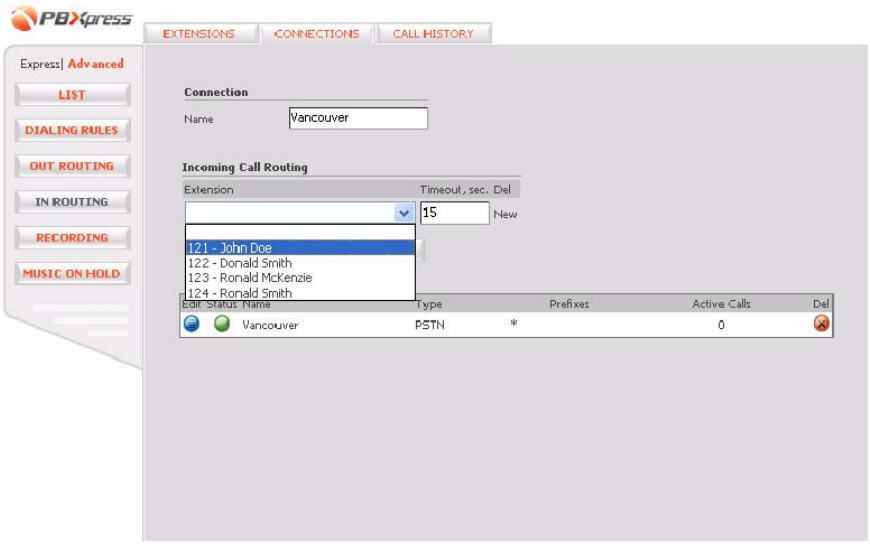
3. Choose to which extension the incoming call will be connected to



4. Press **Apply** button to save your changes
5. Repeat steps 1-4 to configure outgoing call routing for other connections, if necessary

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Step 6 - Advanced configuration

Congratulations! Now you have PBXpress configured for the basic operations, but there are many options which you can configure further. For example you may:

- Change admin password for improved security
- Activate call recording
- Customize your "call will be recorded" prompts and music on hold
- Configure outgoing connections to VoIP vendors
- Define queues to forward an incoming call to several extensions

All these options and many others are covered in *PBXpress Administrator Guide*, available at **http://www.pbxpress.com/docs/**.

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