



## **Avaya Solution & Interoperability Test Lab**

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# **Application Notes for Empix evolve Connect2 Server with Avaya IP Office – Issue 1.0**

### **Abstract**

These Application Notes describe the compliance testing of Empix evolve Connect2 Server with Avaya IP Office. Empix evolve Connect2 Server is a mobility enhancement program which provides the users of local IP Office extensions with the means to use their mobile handsets to make and receive calls via IP Office.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

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# 1. Introduction

The Empix evolve Connect2 Server is a member of the xtension **evolve** program suite. Empix evolve Connect2 Server can be used alone, or together with the other xtension **evolve** components. Empix evolve Connect2 Server is a PC-resident service which provides mobility service to local IP Office extensions. Empix evolve Connect2 Server provides mobile endpoints which are paired with local IP Office extensions with the following functionality:

- Answer incoming calls which were made to the paired local IP Office extension.
- Hold/retrieve.
- “Call through”, allowing mobile endpoints to use existing connections to IP Office to make calls to PSTN endpoints.
- Initiate a second call.
- Switch between calls.
- Transfer a call to a local IP Office endpoint.
- Remotely activate / deactivate Empix evolve Connect2 service.
- Remotely activate / deactivate Do Not Disturb.

## 1.1. Interoperability Compliance Testing

The following tests were performed as part of the compliance testing.

- Verify the ability to simultaneously signal incoming calls to both the user’s local extension and mobile phone, and to answer such calls from either the local extension or mobile phone.
- Verify the ability to do hold/retrieve from mobile phones.
- Verify the ability of a mobile phone to use the IP Office to make a “call through” to a PSTN endpoint.
- Verify the ability of a mobile phone user to establish a second call and switch between calls.
- Verify the ability of a mobile phone user to transfer a call to another endpoint.
- Verify the ability of a mobile phone to activate/deactivate the Empix evolve Connect2 service that phone.
- Verify the ability of a mobile phone to activate/deactivate Do Not Disturb (DND) that phone.
- Verify that calls to mobile phones which have activate DND are routed to the system attendant.
- Verify the ability of Empix evolve Connect2 Server to recover from power failure without manual intervention.
- Verify the ability of Empix evolve Connect2 Server to recover from interruptions to its LAN interface.

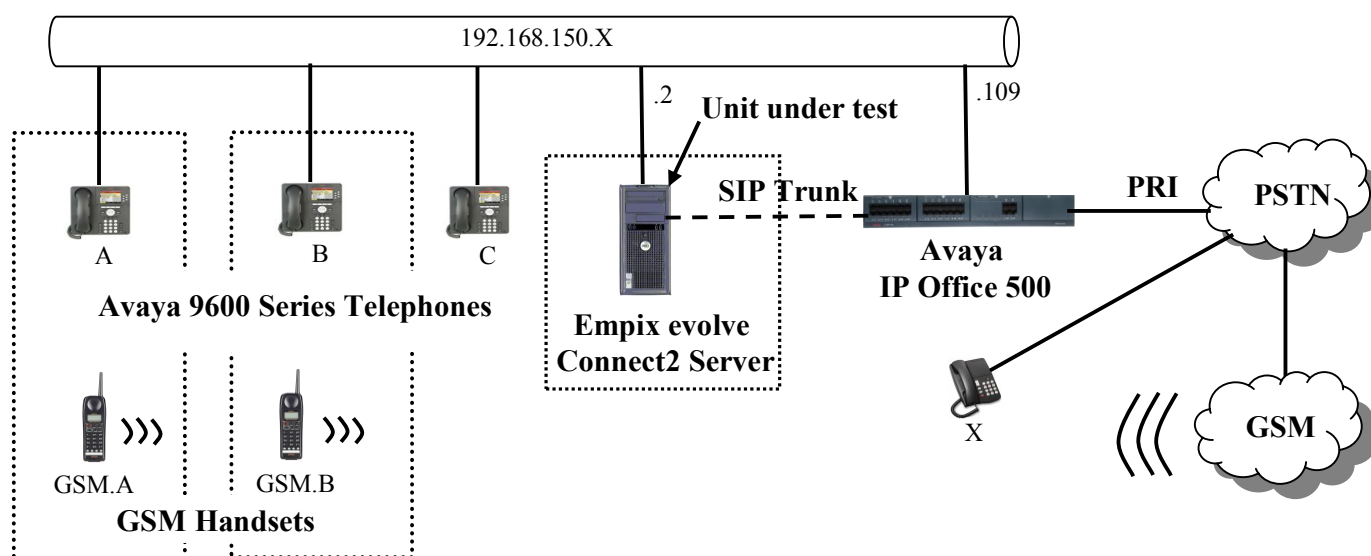
## 1.2. Support

Support is available from Empix at:

Empix evolve srl  
+39 0733 866 870  
[support@empixevolve.com](mailto:support@empixevolve.com)  
<http://www.empixevolve.com>

## 2. Reference Configuration

The following diagram illustrates the configuration which was used for testing.



**Figure 1: Empix evolve Connect2 Server Configuration**

The following table shows the terminal types and extensions assigned to each of the telephone terminals used for these tests.

Endpoint	Ext	Virt Ext	PSTN	Endpoint
A	201	601	+49 69 11111111 201	Avaya 9640
B	202	602	+49 69 11111111 202	Avaya 9640
C	203		+49 69 11111111 203	Avaya 9640
GSM.A			+49 2222222222	GSM
GSM.B			+49 3333333333	GSM
X			+49 44444444	

**Table 1: Extensions Used for Testing**

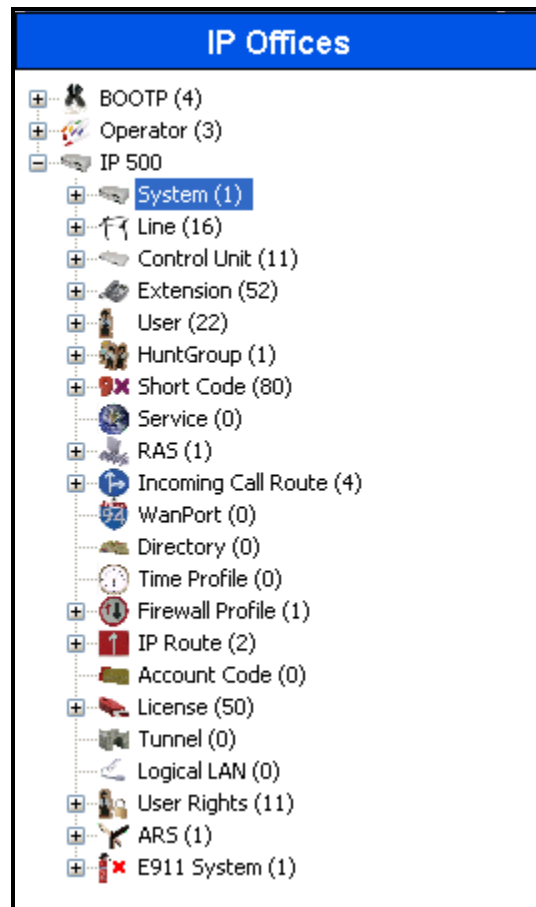
### 3. Equipment and Software Validated

Software Component	Version
Avaya IP Office	6 (8)
Avaya 9600 IP Telephones	S3.110B
MS XP Professional (Evolve Server platform OS)	SP2
Empix evolve Connect2 Server	XTENSION EVOLVE 3.1 BUILD 20100802.013

**Table 2: Version Numbers of Equipment and Software**

## 4. Configure IP Office

The configuration and verification operations illustrated in this section were performed using the Avaya IP Office Manager program. When this program is started, a tree structure consisting of icons representing the configurable components of the system is displayed. When one of these icons is selected, the corresponding system component can be configured.



**Figure 2: IPO Manager Component Tree**

## 4.1. Licensing

IP Telephones included in the configuration each consume an **Avaya IP Endpoint** license, as described in reference [2].

Sufficient IP Office **SIP Trunk Channels** license instances are required to cover the maximum number of simultaneous active Empix evolve Connect2 calls which are to be handled by IP Office.

## 4.2. System

Select the “System” icon shown in **Figure 2** and enter the parameters shown in the following table. Select the tab shown in the “Tab” column to configure the parameters for that tab.

Item	Parameter	Usage
LAN1	IP Address	Specify the IP address to be assigned to IP Office.
	IP Mask	Enter the IP mask to be used by the LAN.
Telephony	Inhibit Off-Switch Forward / Transfer	Uncheck this box.

**Table 3: System Configuration Parameters**

The screenshot displays the 'IP 500' configuration window. The 'System' tab is selected, and the 'LAN1' sub-tab is active. A red rectangle highlights the 'IP Address' and 'IP Mask' fields. The 'IP Address' field contains '192 . 168 . 150 . 109' and the 'IP Mask' field contains '255 . 255 . 255 . 0'. Below these, the 'Primary Trans. IP Address' is '0 . 0 . 0 . 0', 'RIP Mode' is set to 'None', and the 'Enable NAT' checkbox is unchecked. The 'Number Of DHCP IP Addresses' is set to '200'. At the bottom, the 'DHCP Mode' section shows four radio buttons: 'Server', 'Client', 'Dialin', and 'Disabled' (which is selected). An 'Advanced' button is located to the right of the DHCP Mode section.

**Figure 3: System Parameters: LAN1**

**IP 500**

System
LAN1
LAN2
DNS
Voicemail
Telephony
Directory Services
System Events
SMTP
SMDR
Twining

Telephony
Tones & Music
Call Log

**Analogue Extensions**

Default Outside Call Sequence: Normal

Default Inside Call Sequence: Ring Type 1

Default Ring Back Sequence: Ring Type 2

Dial Delay Time (secs): 5

Dial Delay Count: 0

Default No Answer Time (secs): 25

Hold Timeout (secs): 0

Park Timeout (secs): 300

Ring Delay (secs): 5

Call Priority Promotion Time (secs): Disabled

Default Currency: EUR

Automatic Codec Preference: G.711 ALAW 64K

**Companding Law**

**Switch**

☐ ULAW

☒ ALAW

**Line**

☐ ULAW Line

☒ ALAW Line

☐ DSS Status

☒ Auto Hold

☒ Dial By Name

☒ Show Account Code

☐ Inhibit Off-Switch Forward/Transfer

☐ Restrict Network Interconnect

☐ Drop External Only Impromptu Conference

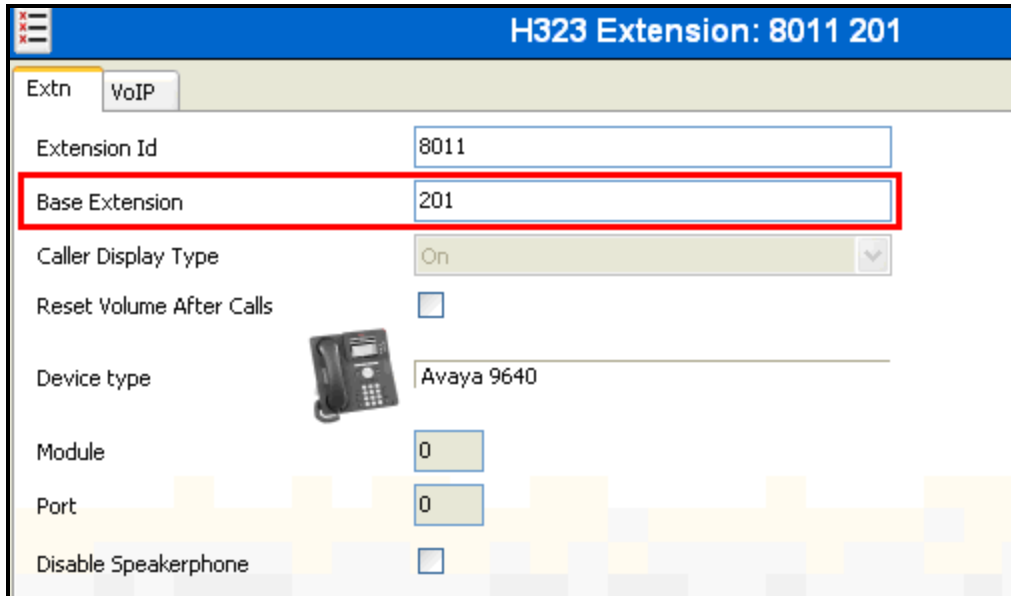
☐ Visually Differentiate External Call

**Figure 4: System Parameters: Telephony**



### 4.3. Extensions

Select the “Extensions” icon shown in **Figure 2** and enter and click “new” to create an extension for each of the telephones A-C shown in **Table 1**. Set the “Base Extension” parameter to the extension to be assigned, and accept the default values for the remaining parameters.



H323 Extension: 8011 201	
Extn	VoIP
Extension Id	8011
Base Extension	201
Caller Display Type	On
Reset Volume After Calls	<input type="checkbox"/>
Device type	Avaya 9640
Module	0
Port	0
Disable Speakerphone	<input type="checkbox"/>

**Figure 5: Extension Screen**

## 4.4. Create Users

Select the “Users” icon shown in **Figure 2** and click “new” to create a user for each of the telephones A-C shown in **Table 1** using the parameters shown in the following table.

Parameter	Usage
Name	Enter a descriptive name to identify the room.
Extension	Enter the telephone extension to be assigned to the endpoint (which was allocated in <b>Figure 5</b> ).

**Table 4: User Configuration Parameters**

The screenshot shows a web interface for configuring a user. The title bar at the top is blue and reads "Ext201: 201". Below the title bar is a navigation menu with tabs: "User", "Voicemail", "DND", "ShortCodes", "Source Numbers", "Telephony", "Forwarding", "Dial In", and "Voice Recording". The "User" tab is selected. The main content area contains several fields for user configuration:

- Name:** A text input field containing "Ext201". This field is highlighted with a red border.
- Password:** A text input field.
- Confirm Password:** A text input field.
- Full Name:** A text input field.
- Extension:** A text input field containing "201". This field is highlighted with a red border.
- Locale:** A dropdown menu.
- Priority:** A dropdown menu with the value "5".
- System Phone Rights:** A dropdown menu with the value "None".
- Profile:** A dropdown menu with the value "Basic User".

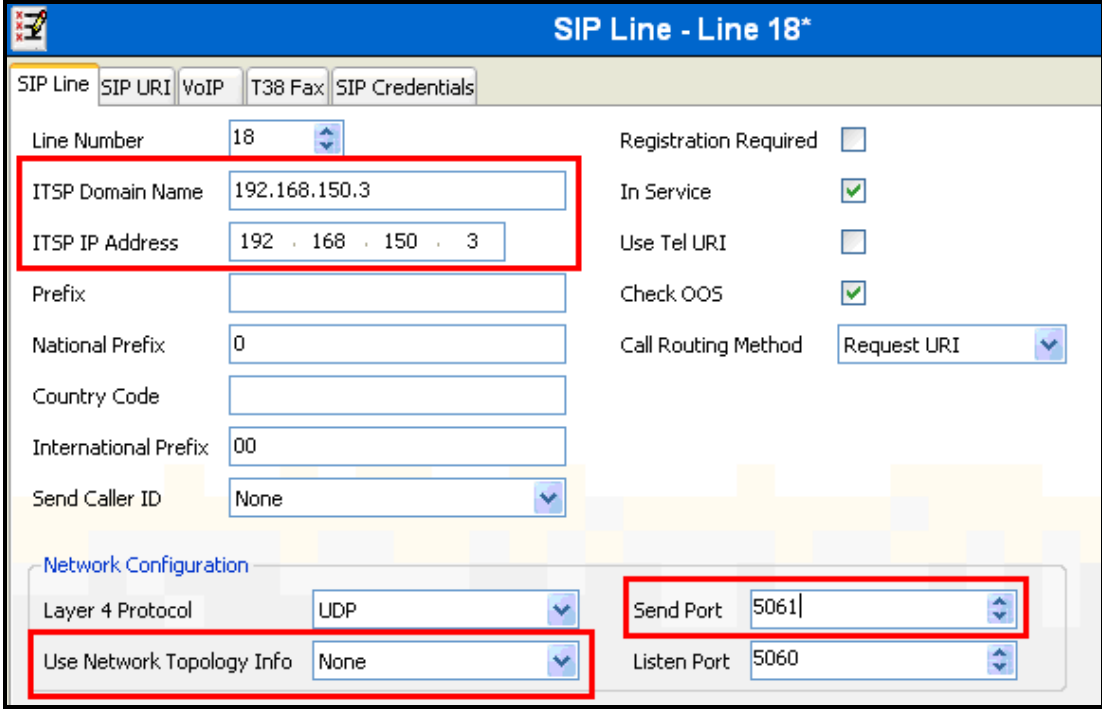
**Figure 6: User Screen**

## 4.5. Create SIP Line

This section contains a description of the configuration of the SIP trunk between IP Office and Empix evolve Connect2 Server. Select the “Line” icon shown in **Figure 2**, click “new”, and enter the parameters shown in the following table.

Tab	Parameter	Usage
SIP Line	ITSP Domain Name	Enter the IP address of the Empix evolve Connect2 Server.
	ITSP IP Address	Enter the IP address of the Empix evolve Connect2 Server.
	Use Network Topology Info	Select “None” from the drop-down menu.
	Send Port	Enter an available port number which matches the port number used for the “Interface” port in <b>Figure 23</b> .
SIP URI	Local URI	Enter “*”.
	Contact	Select “Use Internal Data” from the drop-down menu.
	Display Name	Select “Use Internal Data” from the drop-down menu.
	Registration	Select “None” from the drop-down menu.
	Incoming Group	Enter an available group number. This value must match the group number used in <b>Figure 12</b> and <b>Figure 15</b> .
	Outgoing Group	Use the same value as was used for “Incoming Group”.
	Max Calls per Channel	This value must be sufficient to supply one channel each for the maximum number of simultaneous Empix evolve Connect2 calls, plus one channel each for the maximum number of simultaneous call diversions or call transfers for Empix evolve Connect2 calls.
VoIP	Compression Mode	Check the “G.711” box, and uncheck the others.

**Table 5: SIP Line Configuration Parameters**



**SIP Line - Line 18\***

SIP Line | SIP URI | VoIP | T38 Fax | SIP Credentials

Line Number: 18

ITSP Domain Name: 192.168.150.3

ITSP IP Address: 192 . 168 . 150 . 3

Prefix:

National Prefix: 0

Country Code:

International Prefix: 00

Send Caller ID: None

Registration Required: ☐

In Service: ☒

Use Tel URI: ☐

Check OOS: ☒

Call Routing Method: Request URI

**Network Configuration**

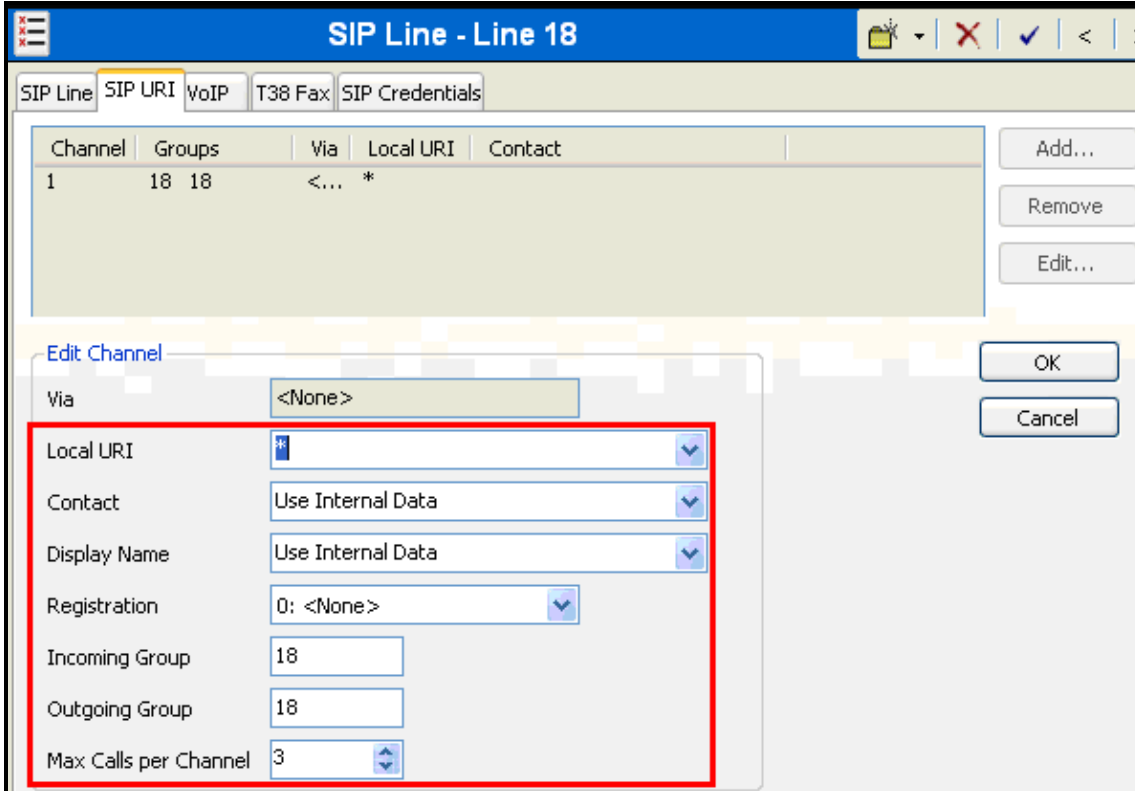
Layer 4 Protocol: UDP

Send Port: 5061

Listen Port: 5060

Use Network Topology Info: None

**Figure 7: SIP Line Configuration Screen**



**SIP Line - Line 18**

SIP Line | SIP URI | VoIP | T38 Fax | SIP Credentials

Channel	Groups	Via	Local URI	Contact
1	18 18	<... >	*	

Add...  
Remove  
Edit...

**Edit Channel**

Via: <None>

Local URI: \*

Contact: Use Internal Data

Display Name: Use Internal Data

Registration: 0: <None>

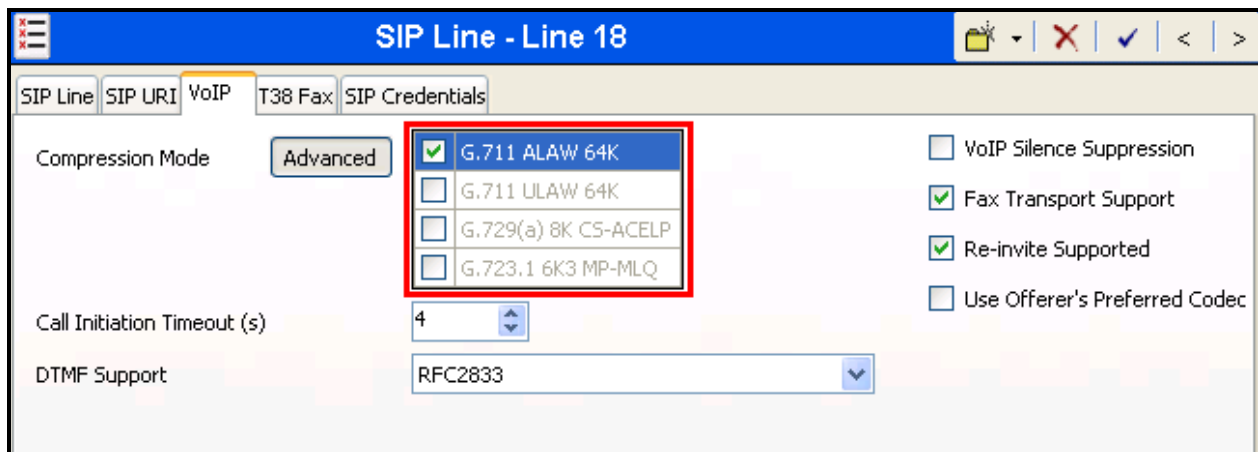
Incoming Group: 18

Outgoing Group: 18

Max Calls per Channel: 3

OK  
Cancel

**Figure 8: SIP: SIP URI Configuration Screen**



**Figure 9: SIP: VoIP Configuration Screen**

#### 4.6. Create PRI Line

This section contains a description of the IP Office configuration for use with a PRI interface to the PSTN, which was used for conformance testing. Other types of PSTN trunks can be used as well. Select the “Line” icon shown in **Figure 2**, click “new”, and enter the parameters shown in the following table.

Parameter	Usage
Incoming Group ID	Assign the number of an otherwise unused Incoming Group ID.
Prefix	Enter the prefix which is used to initiate a local external call via the PSTN.
National Prefix	Enter the prefix which is used to initiate a national external call via the PSTN.
International Prefix	Enter the prefix which is used to initiate an international external call via the PSTN.
Line SubType	Select “ETSI” from the drop-down list, as required for access to the PSTN in Europe.
Outgoing Group ID	Assign the number as was assigned to the Incoming Group ID.

**Table 6: Primary Rate Line Configuration Parameters**

PRI Line

Short Codes

Channels

Line Number

13

Line SubType

ETSI

Card

4

Port

P1

Telephone Number

TEI

0

Incoming Group ID

5

Outgoing Group ID

5

Prefix

0

Number of Channels

30

National Prefix

00

Outgoing Channels

30

International Prefix

000

Voice Channels

30

CRC Checking

☒

Data Channels

30

Clock Quality

Network

Line Signalling

CPE

Add 'Not end-to-end ISDN' Information Element

Never

Send Redirecting Number

☐

Supports Partial Rerouting

☐

Force Number Plan to ISDN

☐

Support Call Tracing

☐

Active CCBS Support

☐

Passive CCBS Support

☐

Cost Per Charging Unit

618

**Figure 10: Primary Rate Line Configuration Screen**

## 4.7. Short Codes

Select the “Short Code” icon shown in **Figure 2** and click “new” to allocate a short code to provide access to the PSTN via the PRI interface, as shown in the following table.

Usage	Parameter	Usage
PSTN Call	Code	Enter <b>0N;</b>
	Feature	Select <b>Dial</b> from the drop-down menu.
	Telephone Number	Enter <b>NSi</b> followed by the telephone number of the PSTN connection, then an <b>E</b> .
	Line Group ID	Enter the group number which was assigned to the PSTN interface in <b>Figure 10</b> .
Empix evolve Connect2 Call	Code	Enter the Empix evolve Connect2 Server routing code configured in <b>Figure 21</b> , followed by “xx”.
	Feature	Select <b>Dial</b> from the drop-down menu.
	Telephone Number	Enter the Empix evolve Connect2 Server routing code configured in <b>Figure 21</b> , followed by “N”, followed by “@<server IP>”, where <server IP> is the IP address of Empix evolve Connect2 Server.
	Line Group ID	Enter the group number which was assigned to the SIP interface in <b>Figure 7</b>

**Table 7: Shortcode Configuration Parameters**

The screenshot shows a web-based configuration interface for a 'Short Code'. The title bar at the top is blue and contains the text '0N;; Dial\*'. Below the title bar is a tab labeled 'Short Code'. The main area contains several form fields: 'Code' with the value '0N;', 'Feature' with a dropdown menu showing 'Dial', 'Telephone Number' with the value 'NSi691111111E', 'Line Group Id' with a dropdown menu showing '5', 'Locale' with a dropdown menu showing 'Germany (German)', and a 'Force Account Code' checkbox which is currently unchecked. A red rectangular box is drawn around the 'Code', 'Feature', 'Telephone Number', and 'Line Group Id' fields.

**Figure 11: PSTN Access Short Code**

6xx: Dial

Short Code

Code 6xx

Feature Dial

Telephone Number 6N"@192.168.150.3"

Line Group Id 18

Locale

Force Account Code ☐

**Figure 12: Empix evolve Connect2 Server Access Short Code**



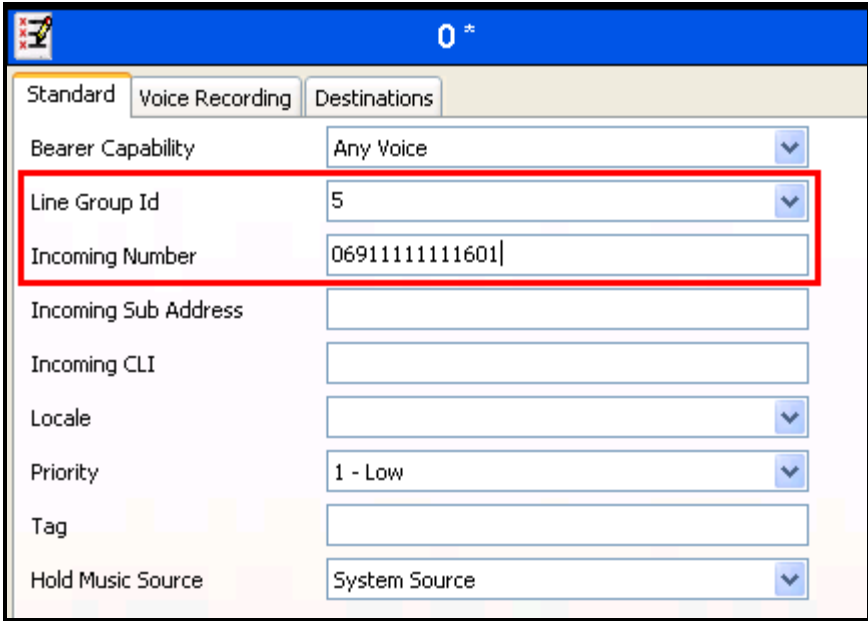
## 4.8. Incoming Call Route

### 4.8.1. PSTN Incoming Call Routes

For each of the local extensions A and B, select the “Incoming Call Route” icon shown in **Figure 2** and click “new” to create an Incoming Call Route for routing calls from the PSTN for the local extensions. Assign parameters to this call route as shown in the following table. It routes calls from the PSTN to local extensions to Empix evolve Connect2 Server.

Tab	Parameter	Usage
Standard	Line Group Id	Enter the Group Id of the PRI line, as shown in <b>Figure 10</b> .
	Incoming Number	Enter “0” followed by the PSTN number assigned to the PRI interface, followed by the Empix evolve Connect2 Server routing code configured in <b>Figure 21</b> , followed by the last two digits of the local extension.
Destinations	Destination	Enter the Empix evolve Connect2 Server routing code configured in <b>Figure 21</b> , followed by the last two digits of the local extension..
	Fallback Extension	Select the local extension from the drop-down menu.

**Table 8: Parameters for Incoming Call Routes**



The screenshot shows a web-based configuration interface for an Incoming Call Route. At the top, there is a blue header bar with a small icon on the left and the text "0 \*" in the center. Below the header, there are three tabs: "Standard" (selected), "Voice Recording", and "Destinations". The "Standard" tab contains several configuration fields:

- Bearer Capability:** A dropdown menu set to "Any Voice".
- Line Group Id:** A dropdown menu set to "5".
- Incoming Number:** A text input field containing "06911111111601".
- Incoming Sub Address:** An empty text input field.
- Incoming CLI:** An empty text input field.
- Locale:** A dropdown menu.
- Priority:** A dropdown menu set to "1 - Low".
- Tag:** An empty text input field.
- Hold Music Source:** A dropdown menu set to "System Source".

A red rectangular box highlights the "Line Group Id" and "Incoming Number" fields.

**Figure 13: Incoming Call Route - Standard Parameters**

TimeProfile	Destination	Fallback Extension
Default Value	601	201 Extn201

**Figure 14: Incoming Call Route - Destinations Screen**

#### 4.8.2. SIP Trunk Incoming Call Route

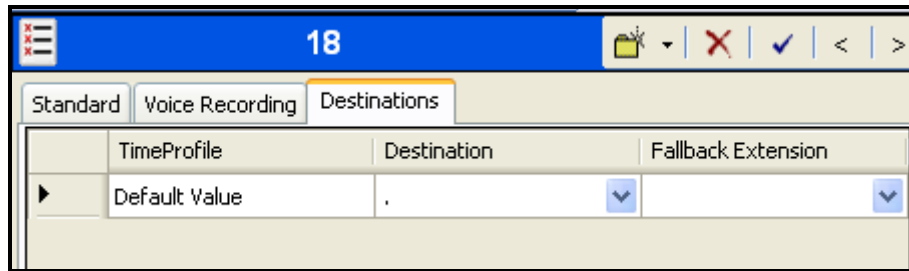
Select the “Incoming Call Route” icon shown in **Figure 2** and click “new” to create an Incoming Call Route for routing calls from the SIP trunk to local extensions. Assign parameters to this call route as shown in the following table:

Tab	Parameter	Usage
Standard	Line Group Id	Enter the Group Id of the SIP line.
	Incoming Number	Leave this field blank.
Destinations	Destination	Enter “.”.

**Table 9: Parameters for Incoming Call Routes**

Bearer Capability	Any Voice
Line Group Id	18
Incoming Number	
Incoming Sub Address	
Incoming CLI	
Locale	
Priority	1 - Low
Tag	
Hold Music Source	System Source

**Figure 15: SIP Incoming Call Route - Standard Parameters**

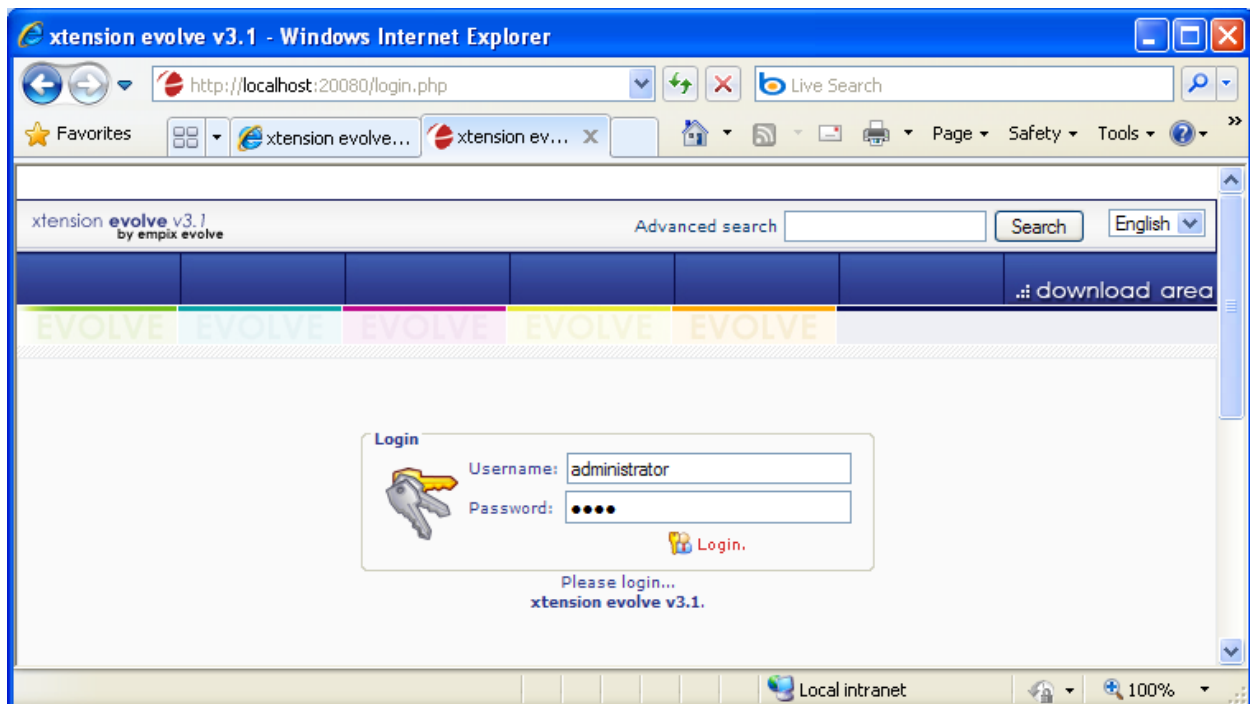


**Figure 16: SIP Incoming Call Route - Destinations Screen**

## 5. Configure Empix evolve Connect2 Server

The Empix evolve Connect2 Server installation process also installs MySQL and the Apache server. The installation procedure is beyond the scope of this document. However, the installation used for compliance testing was done using the prompted default values.

Empix evolve Connect2 Server uses a Web-based tool for configuration, which can be accessed from the server via <http://localhost:20080/login.php>. The initial login credentials are for Username “administrator, with Password “1234”. These values should be changed subsequently for security reasons.



**Figure 17: Xtension evolve Login Screen**

## 5.1. Install Updates

Navigate to “Administrative tools” → “Updates”. Click the “Check Updates” button to check for new updates, and the “Download & install” button to install needed updates.

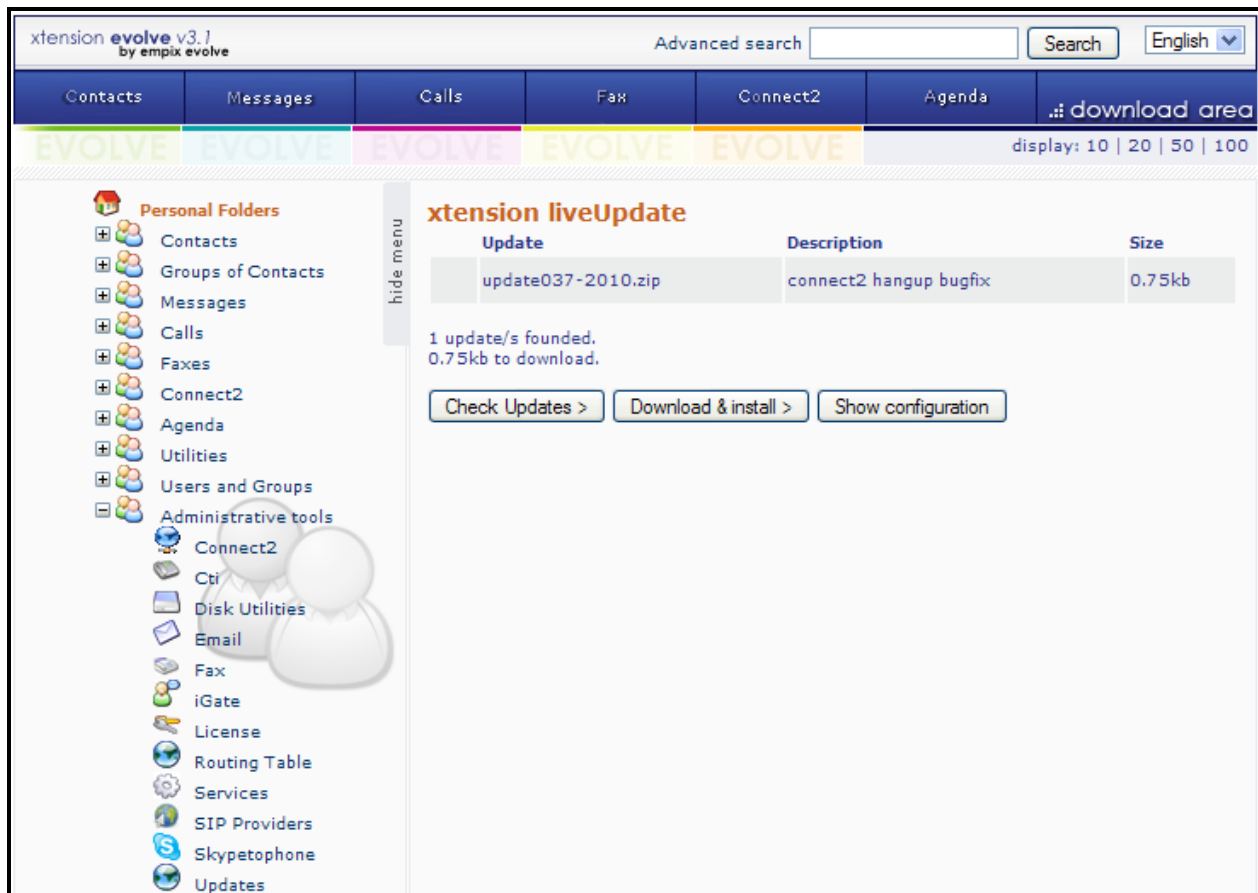


Figure 18: Xtension evolve Update Screen

## 5.2. Install License

Navigate to “Administrative tools” → “License” and enter the appropriate identification information. If a permanent license is available enter the license code into the “Serial Number” field and click the “Activate” button. If no license is available, a thirty-day trial license can be obtained without charge by clicking the “Request try’n buy” button.

The screenshot displays the 'Xtension evolve v3.1 by empix evolve' web interface. The top navigation bar includes links for Contacts, Messages, Calls, Fax, Connect2, and Agenda, along with a 'download area' and a 'display: 10 | 20 | 50 | 100' selector. The left sidebar lists 'Personal Folders' (Contacts, Groups of Contacts, Messages, Calls, Faxes, Connect2, Agenda, Utilities, Users and Groups) and 'Administrative tools' (Connect2, Ctl, Disk Utilities, Email, Fax, iGate, License, Routing Table). The 'License' section is active, showing a 'Simple' radio button selected. The form fields are as follows:

Field	Value
Name	DevConnect
Address	Kleyerstr 94
Postal Code	12345
City	Frankfurt
Province	FR
Country	Germany
empixevolve Login	mrowe@avaya.com
Serial Number	

At the bottom of the form are two buttons: 'Activate' and 'Request try'n buy', both with a question mark icon.

Figure 19: Xtension evolve License Activation Screen

Click the “Activate” button to activate the license.

xtension **evolve** v3.1  
by empix evolve

Advanced search  Search English

Contacts Messages Calls Fax Connect2 Agenda download area

EVOLVE EVOLVE EVOLVE EVOLVE EVOLVE display: 10 | 20 | 50 | 100

**Personal Folders**

- Contacts
- Groups of Contacts
- Messages
- Calls
- Faxes
- Connect2
- Agenda
- Utilities
- Users and Groups
- Administrative tools
- Connect2
- Cti
- Disk Utilities
- Email
- Fax
- iGate
- License
- Routing Table
- Services
- SIP Providers

**License**

☒ Simple ☐ Advanced

Client fax	Client cti	Canali ip
15	15	8

Name: DevConnect

Address: Kleyerstr 94

Postal Code: 12345 City: Frankfurt Province: FR

Country: Germany

empixevolve Login: mrowe@avaya.com

Serial Number: E22X-0FX7-SM61-MONK-2GTX

Warning: you are using a try'n buy license.  
You license will expire in 30 days on 02/09/2010.

Activate Request try'n buy

**Figure 20: Xtension evolve Try’n Buy License Activation Screen**

### 5.3. Configure Call Routing

Navigate to “Administrative tools” → “Routing Table” and enter the parameters shown in the following table.

Parameter	Usage
connect2	Enter the leading digit which is used to route connect calls.
faxserver skypetophone SIP gateway Recorder	If any of these services are used, this field should be set appropriately. If the service is not used, a digit should be entered which does not correspond to any numbers in the IP Office dialing plan, as none of these fields can be left blank.
Digits number	Enter the number of digits to be used for Empix evolve Empix evolve Connect2 Server extensions.

**Table 10: Routing Table Configuration Parameters**

The screenshot displays the 'Routing Table' configuration page in the Xtension evolve application. The left sidebar shows a navigation tree with 'Administrative tools' expanded, revealing 'Routing Table'. The main panel has a 'Simple' radio button selected. Under 'Calls Handler', the dropdown is set to 'Use GnuGK to handle calls'. The 'System prefix' section contains the following values:

Service	Prefix
skypetophone	5
connect2	6
faxserver	7
SIP gateway	8
Recorder	9

The 'Digits number' is set to 3.

**Figure 21: Xtension evolve Routing Table**

## 5.4. Configure System Parameters

Navigate to “Administrative tools” → “Connect2” and enter the parameters shown in the following table.

Parameter	Usage
Country code	Enter the country dialing code preceded by a “+” character.
Operator	Enter the number of the extension to which calls are to be routed if a user is unable to answer.

**Table 11: Empix evolve Connect2 Server Configuration Parameters**

xtension evolve v3.1  
by empix evolve

Advanced search  Search English

Contacts Messages Calls Fax Connect2 Agenda download area

EVOLVE EVOLVE EVOLVE EVOLVE EVOLVE display: 10 | 20 | 50 | 100

**Personal Folders**

- Contacts
- Groups of Contacts
- Messages
- Calls
- Faxes
- Connect2
- Agenda
- Utilities
- Users and Groups
- Administrative tools

**Connect2 configuration**

**System parameters**

Number for outside calls: 0

Country code: +49

Dialtone wave: xts/c2/dialtone.wav

Hold music wave: xts/c2/holdmusic.wav

Greetings wave: xts/c2/greeting.wav

Help wave: xts/c2/help.wav

Operator: 203

Autoreject: ☐ on ☒ off

Save Configuration

**Figure 22: Empix evolve Connect2 Server Configuration Screen**



## 5.5. Configure iGate

Navigate to “Administrative tools” → “iGate” and enter the parameters shown in the following table.

Parameter	Usage
Gateway	Enter the IP address of IP Office, and click the SIP radio button.
Interface	Enter “*.” followed by the port number used to receive SIP messages. This should match the “Send Port” value configured for <b>Figure 7</b> .

**Table 12: iGate Configuration Parameters**

xtension evolve v3.7  
by empix evolve

Advanced search  Search English

Contacts Messages Calls Fax Connect2 Agenda download area

EVOLVE EVOLVE EVOLVE EVOLVE EVOLVE display: 10 | 20 | 50 | 100

**Personal Folders**

- Contacts
- Groups of Contacts
- Messages
- Calls
- Faxes
- Connect2
- Agenda
- Utilities
- Users and Groups

**Administrative tools**

- Connect2
- Cti
- Disk Utilities
- Email
- Fax
- iGate
- License
- Routing Table
- Services
- SIP Providers
- Skypetophone
- Updates
- Trash

**iGate Configuration**

☐ Simple ☒ Advanced

Gateway: 192.168.150.109 H.323 ☐ SIP ☒

**H.323**

Local Username: iGate Interface: \*:1721

Tos: 0x010 Codec: G.711-Alaw-64k

Gatekeeper: localhost

☐ Disable FastStart: ☐ Disable H245 Tunneling:

☐ Disable H245 during setup:

**SIP**

Local Username: iGate Interface: \*:5061

Tos: 0x010 Codec: G.711-Alaw-64k

Register: Register User: Register Password:

**Figure 23: iGate Configuration Screen**

## 5.6. Add Users

Navigate to “Users and Groups” → “New User”, select the “Advanced” radio button, select the “Info” tab, and enter the parameters shown in the following table.

Parameter	Usage
Username / Password	Enter authorization credentials to be used by the user.
Name	Enter the first name of the user.

**Table 13: User Info Parameters**

The screenshot shows the 'Insert new user' interface. On the left is a sidebar with 'Personal Folders' (Contacts, Groups of Contacts, Messages, Calls, Faxes, Connect2, Agenda, Utilities) and 'Users and Groups' (New User, Show Users). The main panel has a 'hide menu' button and the title 'Insert new user'. Below the title are radio buttons for 'Simple' and 'Advanced' (selected), and a checked checkbox for 'Visible as contact'. A tab bar shows 'Info' (selected), 'Phone numbers', 'Addresses', 'Groups', 'Cti', 'Fax', 'Connect2', and 'SIP'. Two red boxes highlight the 'Login' and 'Name' sections. The 'Login' box contains 'Username: Extn201' and 'Password: \*\*\*\*\*'. The 'Name' box contains 'Name: Extn201'. Below these are fields for 'Surname', 'Middle Name', and 'Title'.

**Figure 24: User Info Screen**

Select the “Phone numbers” tab, and enter the parameters shown in the following table.

Parameter	Usage
Telephone	Enter the PSTN number of the user’s local extension.
Mobile	Enter the user’s cell phone number.

**Table 14: User Phone Numbers Parameters**

**Figure 25: User Phone Numbers Screen**

Select the “Cti” tab, and enter the parameters shown in the following table.

Parameter	Usage
Line ID	Select the IP Office device name for the user from the drop-down menu.
Line numeric id	Enter the user’s extension number.

**Table 15: User Cti Parameters**

The screenshot displays the 'Insert new user' form in a web application. The sidebar on the left lists 'Personal Folders' including Contacts, Groups of Contacts, Messages, Calls, Faxes, Connect2, Agenda, Utilities, Users and Groups, and Administrative tools. The main area is titled 'Insert new user' and has tabs for Info, Phone numbers, Addresses, Groups, Cti, Fax, Connect2, and SIP. The 'Cti' tab is active. The form includes fields for Area, Line id, Line type, Ip Address, Client license active, Record, Operator, Line numeric id, and Port. The 'Line id' field is set to 'IP Office Phone: 201' and the 'Line numeric id' field is set to '201'. Both fields are highlighted with red boxes. The 'Line type' is set to 'EXT'. The 'Client license active' and 'Record' checkboxes are checked. The 'Operator' checkbox is unchecked. The 'Port' field is empty.

**Figure 26: User Cti Screen**

Select the “Connect2” tab, and enter the parameters shown in the following table and enter the parameters shown in the following table.

Parameter	Usage
Connect2 Number	Enter the virtual extension to be assigned to the user. This must match the short code created in <b>Figure 12</b> .
Number or id	Add the user’s cell phone number to the list.
Twin calls	Check this box.
Destination 1	Enter the user’s cell phone number.
Destination 2	Enter the user’s local extension.
Extension Number	Enter the user’s local extension.

**Table 16: Empix evolve Connect2 Server User Parameters**

The screenshot displays the 'Insert new user' configuration page in the Empix evolve Connect2 Server User interface. The 'Connect2' tab is selected in the top navigation bar. The sidebar on the left shows 'Personal Folders' including Contacts, Groups of Contacts, Messages, Calls, Faxes, Connect2, Agenda, Utilities, Users and Groups, and Administrative tools. The main content area is titled 'Insert new user' and includes options for 'Simple' or 'Advanced' configuration, a 'Visible as contact' checkbox, and a breadcrumb trail: 'Info | Phone numbers | Addresses | Groups | Cti | Fax | Connect2 | SIP'. Three sections are highlighted with red boxes: 1. 'Connect2 configuration' with fields for 'Connect2 Number' (601) and 'Active' (checked). 2. 'Incoming phone numbers' with a 'Number or id' field (002222222222) and 'Add'/'Remove' buttons. 3. 'Outgoing phone numbers - Twin calls' (checked) with fields for 'Destination 1' (002222222222), 'Destination 2' (201), and 'Extension number' (203). A status bar at the bottom left shows a welcome message and a 'Logout' button.

**Figure 27: Empix evolve Connect2 Server User Screen**

## 5.7. Start Service

Navigate to “Administrative tools” → “Services, check the “connect2” box, and click the “Start xtension evolve service” button.

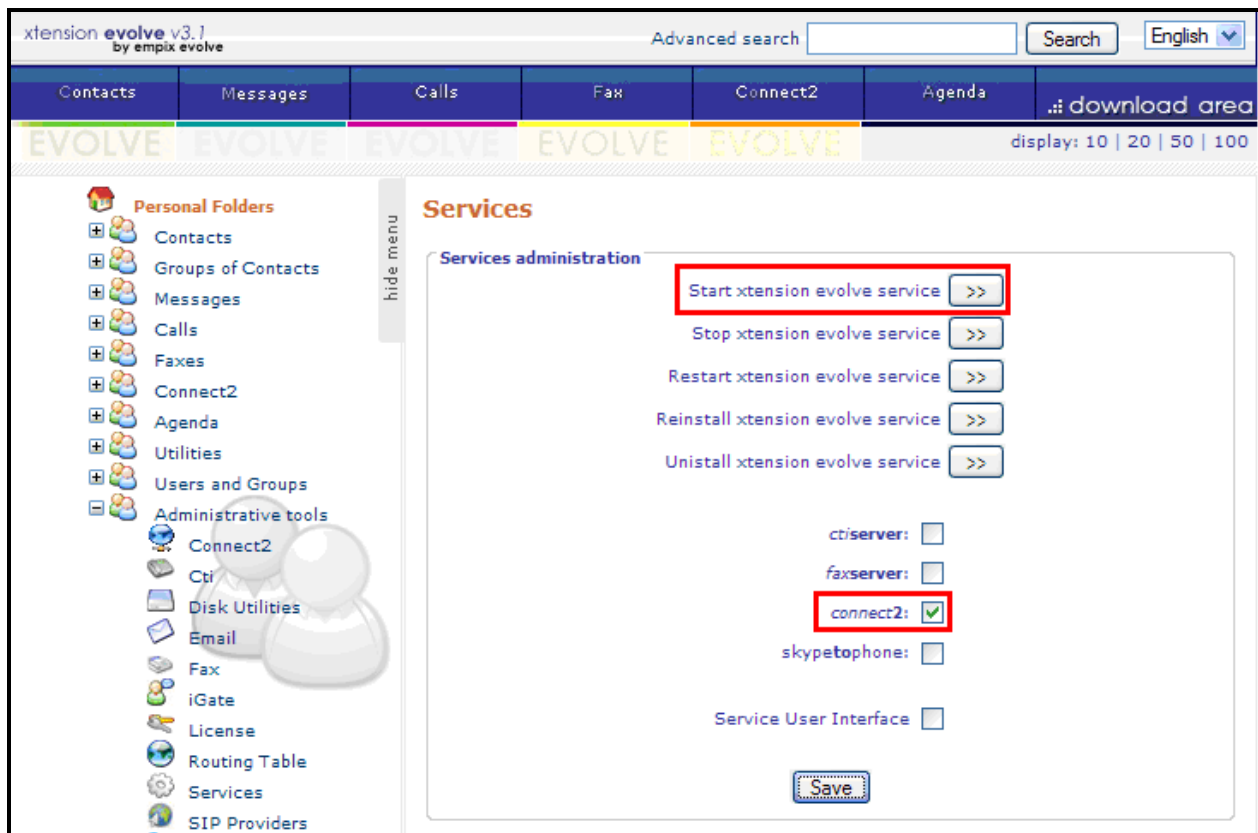


Figure 28: Services Configuration Screen

## 6. General Test Approach and Test Results

All tests were performed manually. Only functional testing was performed: no performance testing was done. All tests produced the expected result.

## 7. Verification Steps

Use the following steps to verify that User Connect2 Server and Avaya IP Office are each configured correctly.

- Click on the “iGate” icon in the Windows shortcut tray in the low right corner of the server display.
- The xtension iGate status screen is displayed.
- Make a call from a PSTN endpoint to a local IP Office extension which is “twinned” to cell phone.
- The call progress can be seen on the screen, as shown below.

Id	Ch	Calling	Called	Status
1329	2		201	Alerting
1328	1		0015	Alerting
1327	0	601	0069	100

**Figure 29: iGate Status Screen**

## 8. Conclusion

These Application Notes describe the compliance testing of Empix evolve Connect2 Server with Avaya IP Office. The various features of Empix evolve Connect2 Server which involve interaction with telephony were tested. A detailed description of the configuration required for both the Avaya IP Office and the Empix evolve Connect2 Server is documented within these Application Notes.

## 9. Additional References

This section references documentation relevant to these Application Notes. The Avaya product documentation is available at <http://support.avaya.com>.

- [1] *Avaya Office 6.0 Manager 8.0*, May 2010, Document Number 15-601011
- [2] *Avaya IP Office Release 6 H323 IP Telephone Installation*, March 2010, 15-601046
- [3] *Installing and configuring xtension evolve*, July 2010, ver 2.2



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