

Argomento: Inviare FAX dal pc con i PBX Epygi su linee PSTN (T38 to FXO/ISDN/E1/T1) utilizzando il software client VoIP Plug-in for Microsoft Fax (Free Edition)	
Autore: Michele Lunardon	Data: 14/03/2011

In questa breve guida vedremo come installare il software client (gratuito) prodotto da Fax Back Inc. (www.faxback.com) e certificato per i centralini Quadro di Epygi. La possibilità di inviare i fax da pc rende il prodotto Quadro ancora più versatile!

Dove trovare il software: <http://www.faxback.com/msfaxplugin/epygi.aspx?source=epygi>

Come funziona:

Il software viene installato in un pc con sistema operativo Windows e utilizza il servizio “Microsoft FAX” per inviare/ricevere i fax tramite il centralino utilizzato le tradizionali linee telefoniche PSTN. (via FXO, ISDN BRI o E1/T1)
Il protocollo utilizzato è il SIP T.38 VoIP Fax.



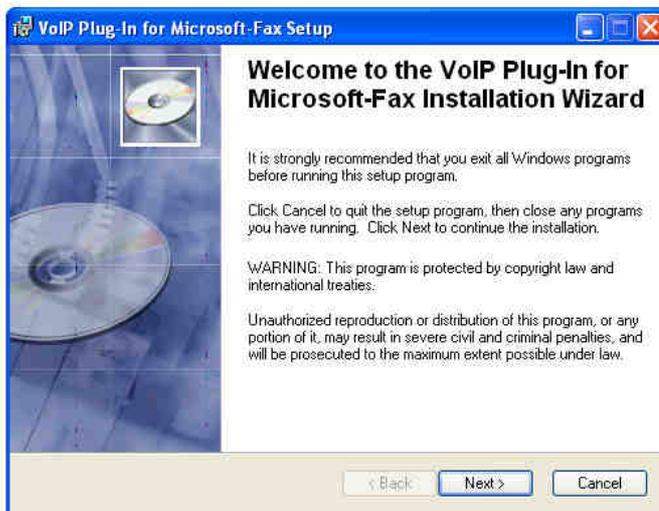
Sistemi Operativi Supportati:

Microsoft Windows:

- 2000 Pro
- XP Home
- XP Professional
- Vista Home Basic and Home Premium – **not supported**
- Vista Business
- Vista Enterprise
- Vista Ultimate
- Windows 7

Installazione del software Client “VoIP Plug-in for Microsoft Fax”

1) Avviamo il software di installazione:



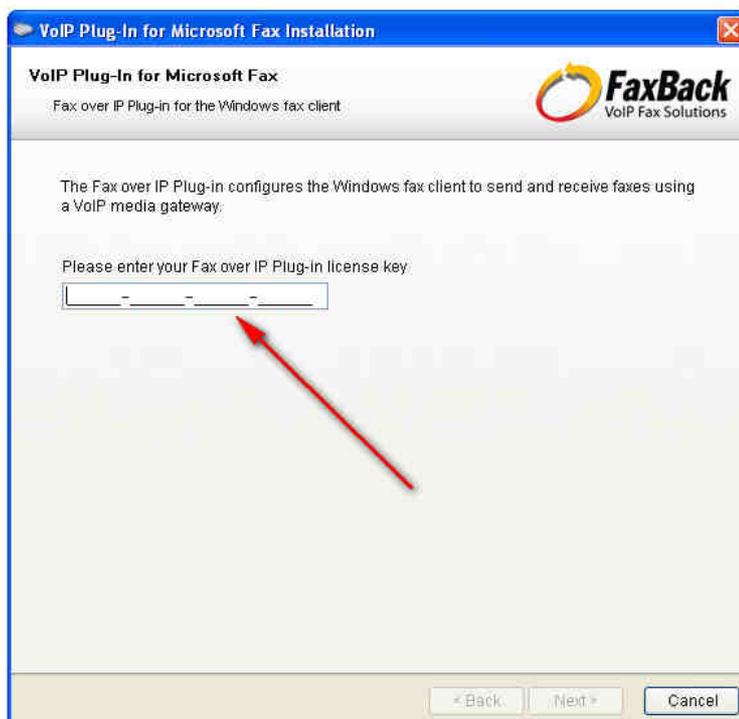
- 2) Se serve, viene richiesto di installare dei componenti aggiuntivi (può chiedere di inserire il CD di installazione Windows) , selezionare “OK”:



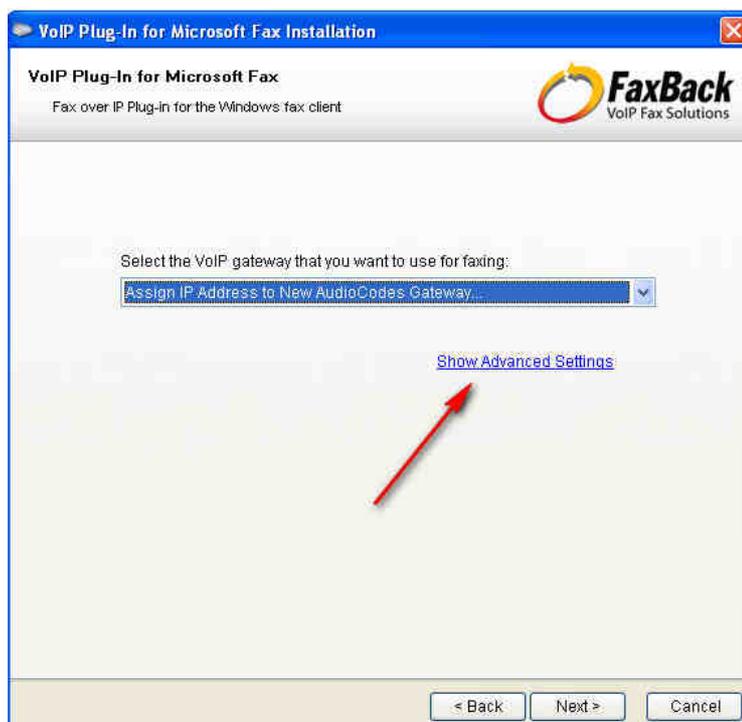
- 3) Terminata l'installazione dei componenti aggiuntivi, si presenta la finestra di selezione del tipo di connessione (ne nostro caso selezioniamo la prima):



4) Inserire il codice di attivazione che vi è stato fornito via e-mail e premere “next”:



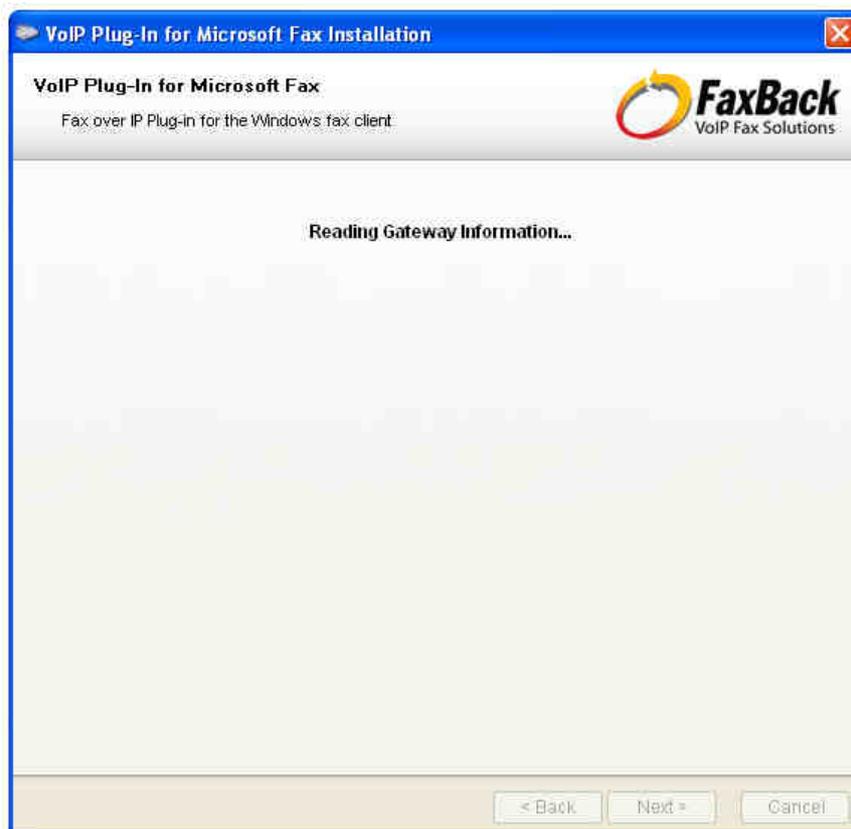
5) Selezionare “Show Advanced settings”



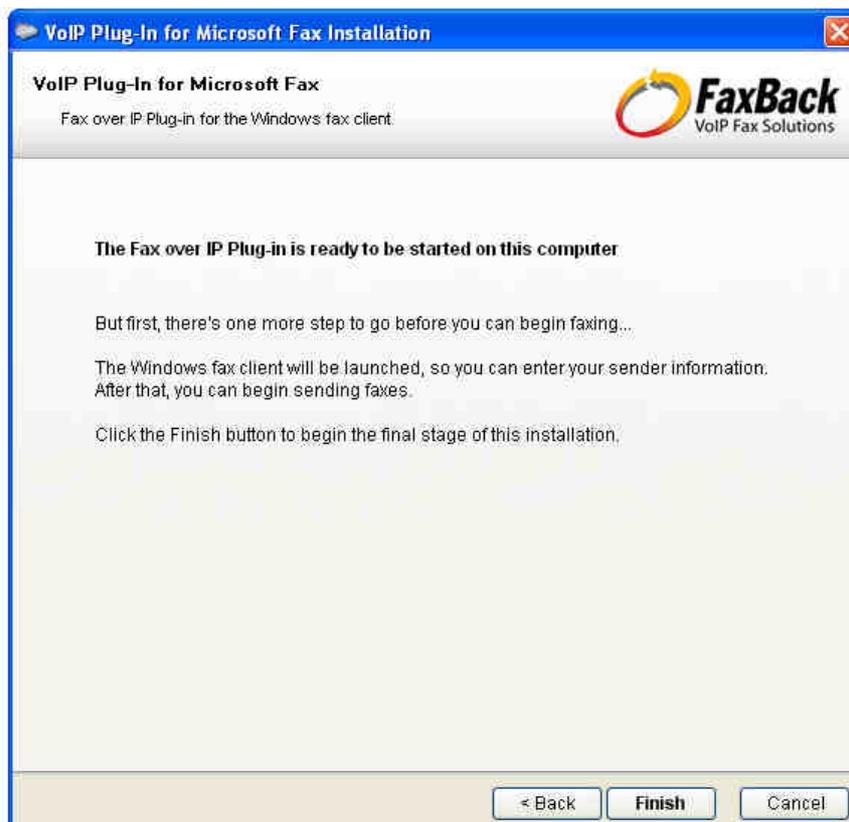
6) Inserire l'indirizzo IP del centralino Quadro e premere "next":



7) Il software verifica la connessione con il centralino:



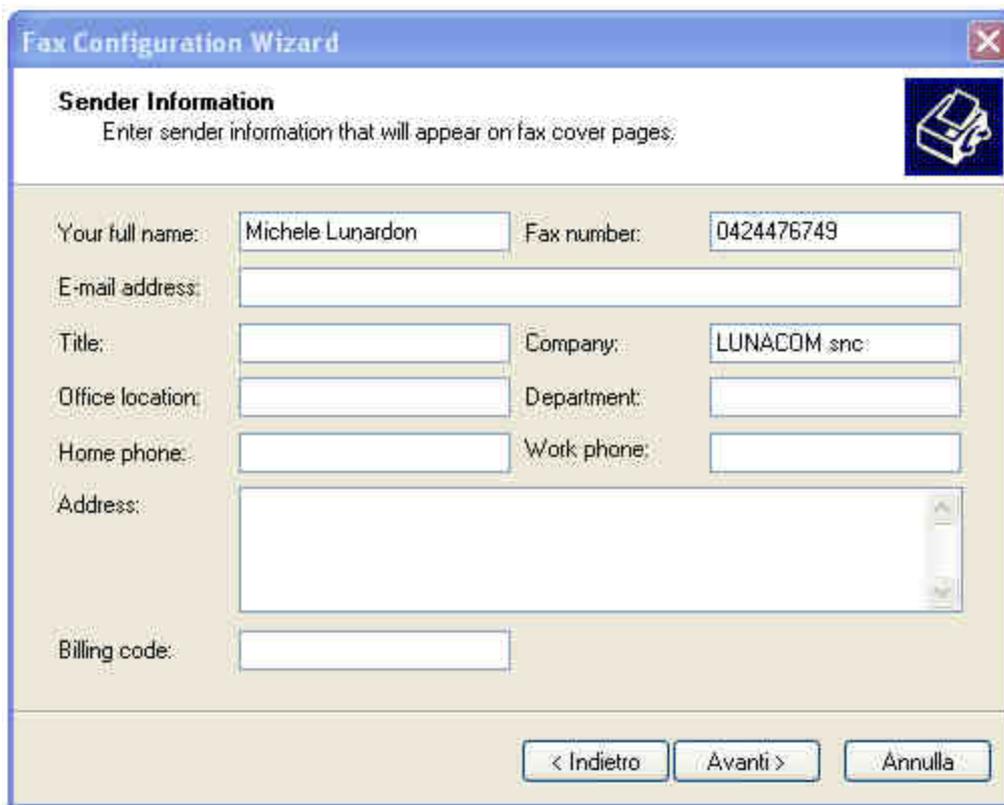
8) L'installazione del software è terminata, premere "finish":



9) Al termine dell'installazione compare (con Windows XP Pro) la finestra di wizard per configurare Microsoft Fax. (in Windows 7 questo passaggio non è presente in quanto viene visualizzata immediatamente la console di gestione)



10) Inseriamo i dati richiesti :



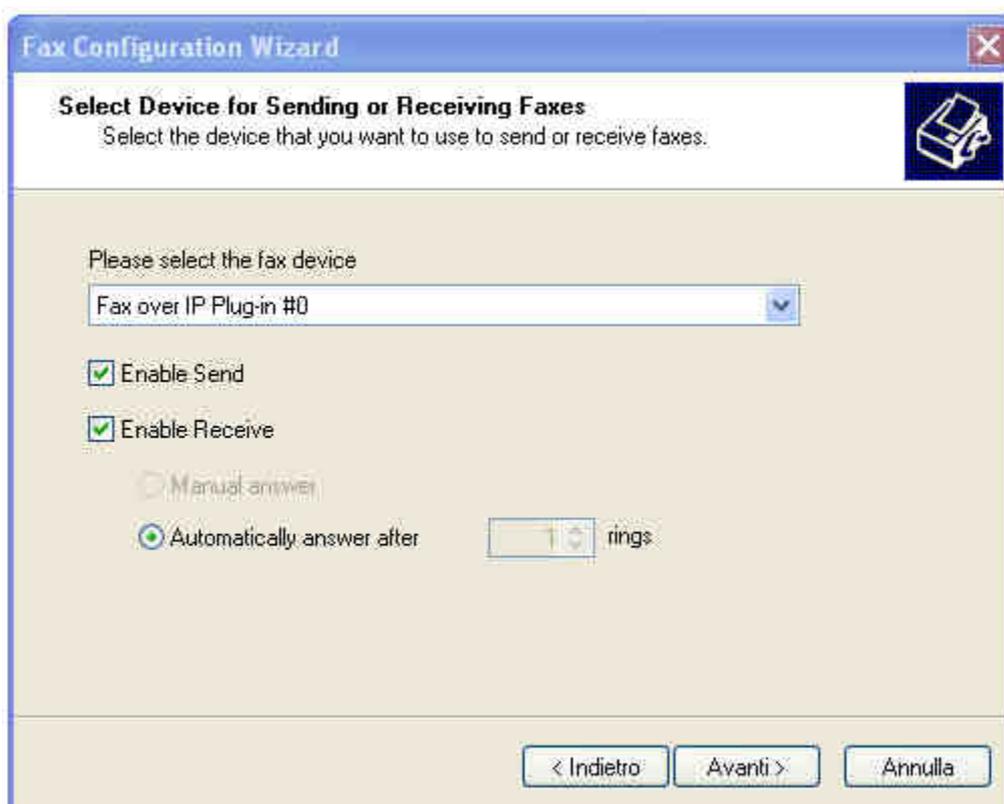
Fax Configuration Wizard

Sender Information
Enter sender information that will appear on fax cover pages:

Your full name: Michele Lunardon Fax number: 0424476749
E-mail address:
Title: Company: LUNACOM snc
Office location: Department:
Home phone: Work phone:
Address:
Billing code:

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11) Configuriamo i parametri di ricezione/invio fax:



Fax Configuration Wizard

Select Device for Sending or Receiving Faxes
Select the device that you want to use to send or receive faxes.

Please select the fax device
Fax over IP Plug-in #0

Enable Send
 Enable Receive

Manual answer
 Automatically answer after rings

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12) Si inserisce il TSID e CSID



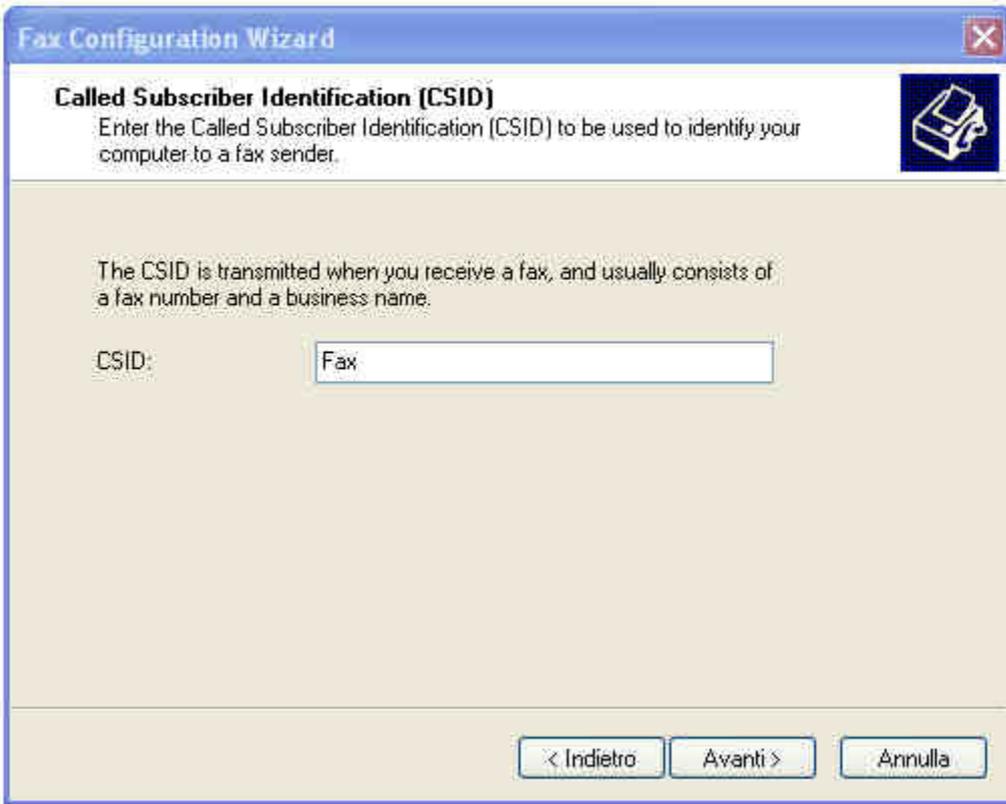
Fax Configuration Wizard

Transmitting Subscriber Identification (TSID)
Enter the Transmitting Subscriber Identification (TSID) to be used to identify your computer to a fax recipient.

The TSID is transmitted when you send a fax, and usually consists of a fax number and a business name.

TSID:

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Fax Configuration Wizard

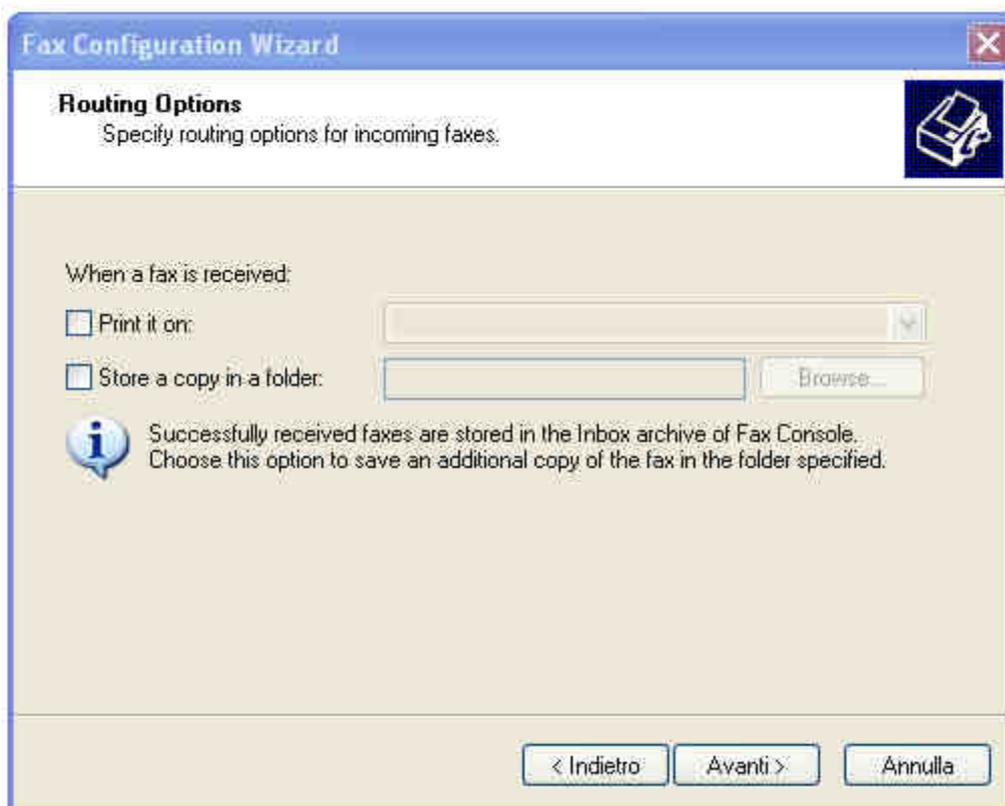
Called Subscriber Identification (CSID)
Enter the Called Subscriber Identification (CSID) to be used to identify your computer to a fax sender.

The CSID is transmitted when you receive a fax, and usually consists of a fax number and a business name.

CSID:

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13) Eventuali opzioni di routing (stampa, invio e-mail) e si seleziona “Avanti” :



14) Si termina il Wizard con “Fine”

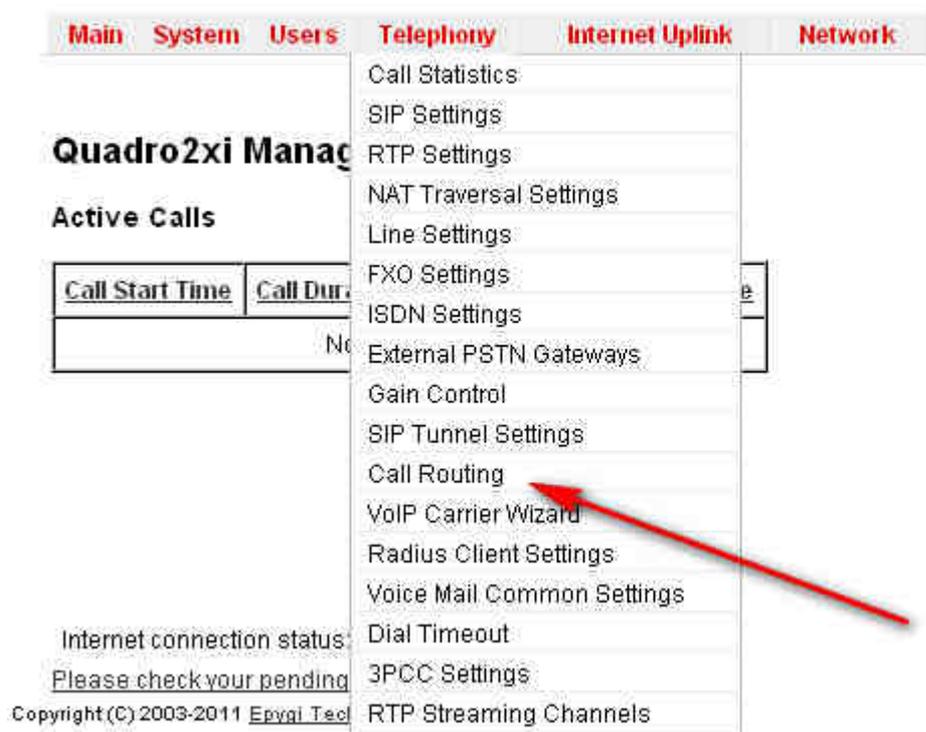


Configurazione del centralino Quadro per l'invio

Aggiungiamo una regola di instradamento (call routing) nel centralino Quadro per poter gestire le chiamate fax ricevute dal pc con FaxBack. Inseriamo un "pattern" (ad esempio *7) per instradare i fax verso la linea PSTN che può essere di tipo FXO-ISDN BRI o E1/T1.

Per motivi di sicurezza, abiliteremo inoltre un filtro per il chiamante. (Pc con installato FaxBack)

15) Dal menu selezioniamo "Call Routing":



The screenshot shows the 'Quadro2xi Management' interface. At the top, there are navigation tabs: 'Main', 'System', 'Users', 'Telephony', 'Internet Uplink', and 'Network'. The 'Telephony' tab is active, and a dropdown menu is open, listing various settings: 'Call Statistics', 'SIP Settings', 'RTP Settings', 'NAT Traversal Settings', 'Line Settings', 'FXO Settings', 'ISDN Settings', 'External PSTN Gateways', 'Gain Control', 'SIP Tunnel Settings', 'Call Routing', 'VoIP Carrier Wizard', 'Radius Client Settings', 'Voice Mail Common Settings', 'Dial Timeout', '3PCC Settings', and 'RTP Streaming Channels'. A red arrow points to the 'Call Routing' option. On the left side of the interface, there is a section for 'Active Calls' with a table containing columns for 'Call Start Time' and 'Call Duration'. Below the table, it says 'Internet connection status: Please check your pending events!'. At the bottom left, there is a copyright notice: 'Copyright (C) 2003-2011 Epygi Technologies, Ltd.'.

16) Selezioniamo "Call Routing Table"



The screenshot shows the 'Call Routing' configuration page. At the top, there are navigation tabs: 'Main', 'System', 'Users', 'Telephony', 'Internet Uplink', and 'Network'. The 'Telephony' tab is active, and the 'Call Routing' page is displayed. It features a checkbox labeled 'Route all incoming SIP calls to Call Routing' with a red arrow pointing to it. Below the checkbox, there are three radio button options: 'Call Routing Table', 'Local AAA Table', and 'Global Speed Dial Directory'. A red arrow points to the 'Call Routing Table' option. At the bottom, there are 'Save' and 'Back' buttons. Below the buttons, there is a message: 'Please check your pending events!'. At the bottom left, there is a copyright notice: 'Copyright (C) 2003-2011 Epygi Technologies, Ltd. All rights reserved.'.

1 - **ATTENTION:** Regardless of whether the Route all incoming SIP calls to Call Routing checkbox is checked, calls from external callers will or may go to the Call Routing table, so any unprotected routing rules are strongly recommended to be secured. It is strongly recommended to secure the rules in the Call Routing table by setting the filter for the caller ID.

17) Selezioniamo una nuova “call routing” :

Main System Users Telephony Internet Uplink Network

Call Routing Table

Show Detailed View >>> Hide disabled records

Enable Disable Add Edit Duplicate Delete Select all Inverse Selection Move Up

2	Enabled	11		ISDN trunk: Any Port(User)
3	Enabled	113		ISDN trunk: Any Port(User)
4	Enabled	115		ISDN trunk: Any Port(User)
5	Enabled	116		ISDN trunk: Any Port(User)
6	Enabled	117		ISDN trunk: Any Port(User)
7	Enabled	118		ISDN trunk: Any Port(User)

18) Inseriamo un pattern (nel nostro esempio 7*) per l'istradamento, eliminiamo la prima cifra, selezioniamo come destinazione la porta ISDN (con altri PBX può essere FXO) e abilitiamo per sicurezza un filtro della sorgente. Selezioniamo poi “Next”

Main System Users Telephony Internet Uplink Network 

Call Routing Wizard

Routing Call Type - Edit Entry

Enable Record

Destination Number Pattern: (wildcard supported) Enabler Key:

Number of Discarded Symbols: Disabler Key:

Prefix:

Suffix:

Destination Type: Require Authorization for Enabling/Disabling

Metric:

Description:

Filter on Source / Modify Caller ID

Set Date/Time Period(s)

Set Tracing / Debug Options on This Rule

Previous Next Cancel Help

19) Lasciamo invariata questa pagina e si seleziona “Next”;

Routing Call Settings - Edit Entry

Keep Original Caller ID

Port ID:
ISDN Trunk1

Call Duration Limit
Maximum Duration (sec):

AAA Required:

Local Authentication
 RADIUS Authentication and Authorization
 RADIUS Accounting
 Client Code Identification

Check with 3PCC

Failover Reason(s)

<input checked="" type="radio"/>	None
<input type="radio"/>	Failover Reason(s) <input type="checkbox"/> Cannot Establish Connection
<input type="radio"/>	Any

Previous Next Cancel Help

20) Lasciamo invariata questa pagina e si seleziona “Next”;

Call Routing Wizard

Select Timeslots - Edit Entry

Select all Inverse Selection

	Timeslots
<input checked="" type="checkbox"/>	1
<input checked="" type="checkbox"/>	2

Previous Next Cancel Help

Please check your pending content!

21) Indichiamo che la chiamata è di tipo “SIP” e selezioniamo “Next”;

Call Routing Wizard

Source Filter / Modify Caller ID - Edit Entry

Source Filter

Source Number Pattern: (wildcard supported)

Source Type: **SIP** 

Caller ID Modification

Number of Discarded Symbols:

Prefix:

Discard Non-Numeric Symbols

Display Name:

Remove Display Name

Please check your pending events!
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22) Si inserisce indirizzo IP del PC che ha installato FaxBack e selezioniamo “Next”;

Call Routing Wizard

Source Filter - Edit Entry

Source Host: 

Please check your pending events!

23) Premere “Finish” per completare;

Call Routing Wizard

Summary - Edit Entry

<p>Routing Call Type</p> <p>Destination Number Pattern: 7*</p> <p>Number of Discarded Symbols: 1</p> <p>Prefix:</p> <p>Suffix:</p> <p>Destination Type: ISDN</p> <p>Metric: 10</p> <p>Description:</p>	<p>Routing Call Settings</p> <p>Keep Original Caller ID: No</p> <p>Port ID: ISDN Trunk1</p> <p>Timeslots: 1,2</p> <p>Call Duration Limit: Disabled</p> <p>AAA Required: AAA disabled.</p> <p>Check with 3PCC: Disabled</p> <p>Failover Reason(s): None</p> <p style="text-align: center;">Routing Call Source Information</p> <p>Discard Non-Numeric Symbols: No</p> <p>Source Number Pattern: *</p> <p>Source Type: SIP</p> <p>Source Host: 192.168.10.22</p> <p style="text-align: center;">Caller ID Modification</p> <p>Number of Discarded Symbols:</p> <p>Prefix:</p>
--	---

Previous
Finish
Cancel

Please check your pending events!
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24) A questo punto si deve verificare se sono abilitati i codec necessari alla trasmissione, pertanto dal menu principale selezioniamo “Extensions Management”;



Internet connection status: static IP

Please check your pending events!

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25) Selezioniamo l'estensione "00" (posto operatore automatico) e quindi "Edit";

Extensions Management

[Add](#) [Edit](#) [Delete](#) [Select all](#) [Inverse Selection](#) [Hide extensions attached to disabled IP lines](#) [Use Epygi SIP server](#)

	Extension ▼	Display Name	Attached Line	SIP Address
<input checked="" type="checkbox"/>	00	Attendant		AA
<input type="checkbox"/>	601	IVRTec		601
<input type="checkbox"/>	602	IVRComm		602
<input type="checkbox"/>	603	IVRSvil		603
<input type="checkbox"/>	604	IVRAmm		604
<input type="checkbox"/>	605	IVRNotte		605
<input type="checkbox"/>	606	Test		606
<input type="checkbox"/>	607			607

[Upload Universal Extension Recordings](#)

[Add Multiple Extensions](#)

Please check your pending events!

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26) Selezioniamo i "Codec Setting";

Extensions Management - Edit Entry

General Settings Attendant Scenario SIP Settings SIP Advanced Settings	<p>SIP Advanced Settings - 00</p> <p>Advanced Settings</p> <p>Authentication User Name <input type="text"/></p> <p><input type="checkbox"/> Send Keep-alive Messages to Proxy</p> <p>Timeout (sec) <input type="text" value="60"/></p> <p>RTP priority level <input type="text" value="medium"/></p> <p><input type="checkbox"/> Do Not Use SIP Old Hold Method</p> <p>Outbound Proxy</p> <p>Host address <input type="text"/></p> <p>Port <input type="text"/></p> <p>Secondary SIP Server</p> <p>Host address <input type="text"/></p> <p>Port <input type="text" value="5060"/></p> <p>Outbound Proxy for Secondary SIP Server</p> <p>Host address <input type="text"/></p> <p>Port <input type="text"/></p> <p><input type="button" value="Save"/> <input type="button" value="Back"/></p>
---	---

[Go To Codec Settings](#)

Please check your pending events!

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27) Abilitiamo i codec usati dal client "FaxBack": G.711U, T.38 FAX e Pass Through FAX.
 Selezioniamo "Save" per terminare

Attendant 00 Codecs

[Enable/Disable](#) [Select all](#) [Inverse Selection](#) [Move Up](#) [Move Down](#) [Make preferred](#)

	Audio Codecs	State
<input type="checkbox"/>	G.711a (PCM audio coding standard, 8 kHz sample rate, 8 bits, 64 kbit/s data rate) (preferred)	Enabled
<input type="checkbox"/>	G.729a (CS-ACELP speech coding at 8 kbit/s rate)	Enabled
<input type="checkbox"/>	G.711u (PCM audio coding standard, 8 kHz sample rate, 8 bits, 64 kbit/s data rate)	Enabled
<input type="checkbox"/>	G.726-16 (ADPCM speech coding at 16 kbit/s rate)	Disabled
<input type="checkbox"/>	G.726-24 (ADPCM speech coding at 24 kbit/s rate)	Disabled
<input type="checkbox"/>	G.726-32 (ADPCM speech coding at 32 kbit/s rate)	Disabled
<input type="checkbox"/>	G.726-40 (ADPCM speech coding at 40 kbit/s rate)	Disabled
<input type="checkbox"/>	iLBC (Internet Low Bit Rate Coder at 13,33 kbit/s rate)	Disabled
	Video Codecs	State
<input type="checkbox"/>	H.263 (Video coding for low bit rate communication)	Disabled
<input type="checkbox"/>	H.264 (Advanced video coding for low bit rate communication)	Disabled

Out of Band DTMF Transport

Enable T.38 FAX

Enable Pass Through FAX

Enable Pass Through Modem

Force Self Codecs Preference for Inbound Calls

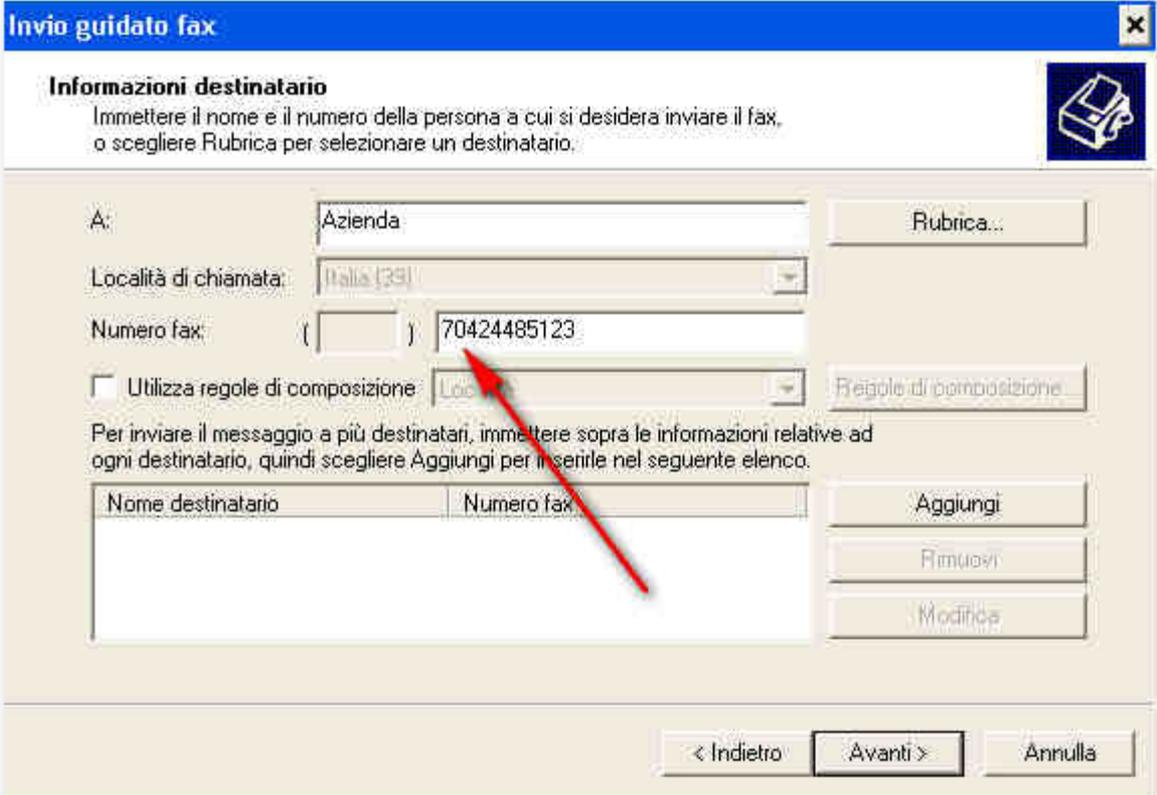
Secure RTP Settings

SRTP Policy:

[Please check your pending events!](#)

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28) Proviamo ad inviare un FAX dal PC, ricordandoci di anteporre il “7” al numero di FAX;



Invio guidato fax

Informazioni destinatario
Immettere il nome e il numero della persona a cui si desidera inviare il fax, o scegliere Rubrica per selezionare un destinatario.

A: Azienda Rubrica...

Località di chiamata: Italia (39)

Numero fax: () 70424485123

Utilizza regole di composizione: Loc... Regole di composizione

Per inviare il messaggio a più destinatari, immettere sopra le informazioni relative ad ogni destinatario, quindi scegliere Aggiungi per inserirle nel seguente elenco.

Nome destinatario	Numero fax
-------------------	------------

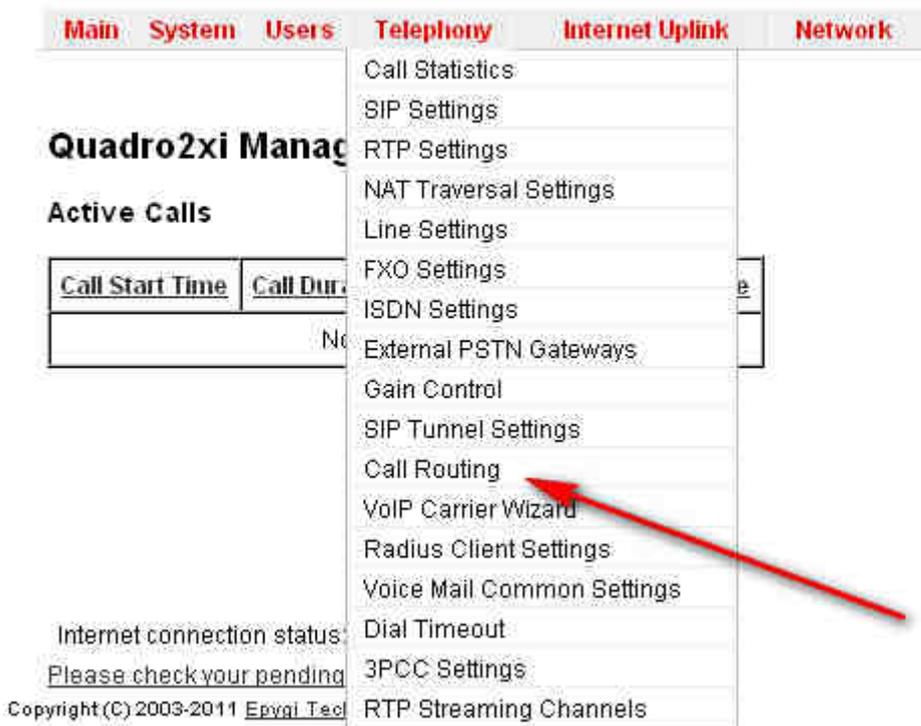
Aggiungi
Rimuovi
Modifica

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Configurazione del centralino Quadro per la ricezione

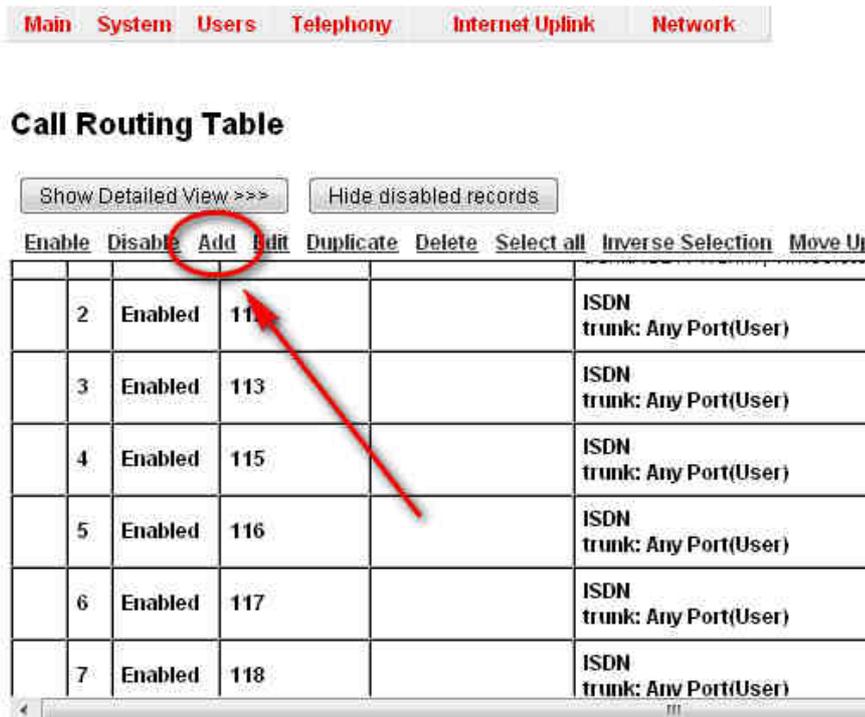
In questa sezione vediamo come configurare il Quadro per la ricezione dei FAX verso il PC.

- 1) Dal menu selezioniamo “Call Routing”:



The screenshot shows the 'Quadro2xi Management' interface. At the top, there are navigation tabs: Main, System, Users, **Telephony**, Internet Uplink, and Network. A dropdown menu is open under 'Telephony', listing various settings. A red arrow points to the 'Call Routing' option in the menu. Below the menu, there is a table for 'Active Calls' with columns for 'Call Start Time' and 'Call Duration'. At the bottom, there is a status message: 'Internet connection status: Please check your pending...' and a copyright notice: 'Copyright (C) 2003-2011 Epygi Tech'.

- 2) Selezioniamo una nuova “call routing” :



The screenshot shows the 'Call Routing Table' interface. At the top, there are navigation tabs: Main, System, Users, **Telephony**, Internet Uplink, and Network. Below the tabs, there are two buttons: 'Show Detailed View >>>' and 'Hide disabled records'. Below these buttons is a table with columns: Enable, Disable, **Add**, Edit, Duplicate, Delete, Select all, Inverse Selection, and Move Up. The 'Add' button is circled in red, and a red arrow points to the first row of the table. The table contains the following data:

Enable	Disable	Add	Edit	Duplicate	Delete	Select all	Inverse Selection	Move Up
	2	Enabled	111					ISDN trunk: Any Port(User)
	3	Enabled	113					ISDN trunk: Any Port(User)
	4	Enabled	115					ISDN trunk: Any Port(User)
	5	Enabled	116					ISDN trunk: Any Port(User)
	6	Enabled	117					ISDN trunk: Any Port(User)
	7	Enabled	118					ISDN trunk: Any Port(User)

- 3) Inseriamo il numero di telefono che corrisponde alla linea Fax di ricezione (esempio 424476749), indichiamo che la chiamata di destinazione è di tipo “SIP” e abilitiamo il filtro. Selezioniamo poi “Next”;

Call Routing Wizard

Routing Call Type - Edit Entry

Enable Record

Destination Number Pattern: (wildcard supported) Enabler Key:

Number of Discarded Symbols: Disabler Key:

Prefix: Require Authorization for Enabling/Disabling

Suffix:

Destination Type:

Metric:

Description:

Filter on Source / Modify Caller ID

Set Date/Time Period(s)

Set Tracing / Debug Options on This Rule

[Please check your pending events!](#)

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- 4) Inserisco indirizzo IP del PC che ha installato FaxBack e la porta di destinazione.
I campi “username” e “password” devono rimanere vuoti. (FaxBack non usa credenziali)
Selezioniamo poi “Next”;

Call Routing Wizard

Routing Call Settings - Edit Entry

Use Extension Settings: Keep Original Caller ID

Add Remote Party ID

Destination Host:

Destination Port:

Username:

Password:

Enable Activity Timeout

Activity Timeout:

Use RTP Proxy

Call Duration Limit

Maximum Duration (sec):

AAA Required:

Local Authentication

RADIUS Authentication and Authorization

RADIUS Accounting

Client Code Identification

Check with 3PCC

Failover Reason(s)

<input checked="" type="radio"/>	None
<input type="radio"/>	Failover Reason(s)
<input type="checkbox"/>	Busy
<input type="checkbox"/>	Wrong Number
<input type="checkbox"/>	Network Failure
<input type="checkbox"/>	System Failure
<input type="checkbox"/>	Other
<input type="radio"/>	Any

SIP Privacy

<input checked="" type="radio"/>	Default Privacy
<input type="radio"/>	Disable Privacy
<input type="radio"/>	Enable Privacy
<input type="checkbox"/>	Session
<input type="checkbox"/>	Header
<input type="checkbox"/>	User
<input type="checkbox"/>	ID
<input type="checkbox"/>	Require Privacy

Transport Protocol for SIP messages

<input checked="" type="radio"/>	UDP
<input type="radio"/>	TCP
<input type="radio"/>	TLS

Lasciare campi vuoti

Previous Next Cancel

Please check your pending events!

- 5) Indichiamo che la chiamata è di tipo “ISDN” e selezioniamo “Next”;

Call Routing Wizard

Source Filter / Modify Caller ID - Edit Entry

Source Filter

Source Number Pattern: (wildcard supported)

Source Type:

Caller ID Modification

Number of Discarded Symbols:

Prefix:

Discard Non-Numeric Symbols

Display Name:

Remove Display Name

[Please check your pending events!](#)

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- 6) Indichiamo il fascio e selezioniamo “Next”;

Call Routing Wizard

Source Filter - Edit Entry

Port ID:

[Please check your pending events!](#)

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7) Lasciamo invariato e sezioniamo “Next”;

Call Routing Wizard

Select Timeslots - Edit Entry

[Select all](#) [Inverse Selection](#)

	Timeslots
<input checked="" type="checkbox"/>	1
<input checked="" type="checkbox"/>	2

Previous
Next
Cancel
Help

Please check your pending events!

8) Selezioniamo “Finish” per terminare;

Call Routing Wizard

Summary - Edit Entry

Routing Call Type	Routing Call Settings
Destination Number Pattern: 424476749	Use Extension Settings:
Number of Discarded Symbols:	Keep Original Caller ID: Yes
Prefix:	Add Remote Party ID: No
Suffix:	Destination Host: 192.168.10.22
Destination Type: SIP	Destination Port: 5060
Metric: 10	Username: admin
Description: Fax to Faxback	Transport Protocol for SIP: UDP
	SIP Privacy: Default
	Use RTP Proxy: Yes
	Activity Timeout: Disabled
	Call Duration Limit: Disabled
	AAA Required: AAA disabled.
	Check with 3PCC: Disabled
	Failover Reason(s): None
	Routing Call Source Information
	Discard Non-Numeric Symbols: No
	Source Number Pattern: *
	Source Type: ISDN
	Port ID: ISDN Trunk1
	Timeslots: 1,2
	Caller ID Modification
	Number of Discarded Symbols:
	Prefix:

Previous
Finish
Cancel

Please check your pending events!

NOTA: Nel caso si usi MSN, si devono inoltrare le chiamate tramite una
“Routing with inbound destination number”

Vedi esempio configurazione fascio ISDN Trunk 1:

Routing Settings

Trunk: 1

MSN Number(s)	Route Incoming Call to
424471528	Routing with inbound destination number ▼
424476749	Routing with inbound destination number ▼
424476750	613 ▼
	00 ▼
	00 ▼
	00 ▼
	00 ▼
	00 ▼
	00 ▼
	00 ▼
	00 ▼
	00 ▼
	00 ▼
	00 ▼
	00 ▼
	00 ▼
	00 ▼
	00 ▼
	00 ▼

Use Default outgoing Caller ID

Default outgoing Caller ID

Advanced Settings

Please check your pending events!

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