

Virtual FAX Function in VigorIPPBX 2820 Series

In response to environmental policy of paperless in office, DrayTek introduces a new function of Virtual FAX in VigorIPPBX 2820 series. The built in Virtual FAX machine of VigorIPPBX 2820 series allows to receive a FAX from remote end or send a FAX to remote end via network (SIP or PSTN).

With virtual FAX function, VigorIPPBX 2820 series can be treated as a FAX machine. LAN PCs connecting to VigorIPPBX 2820 series can use DrayTek Smart FAX Agent to send the files to VigorIPPBX series and save the files in the USB Disk. Later, those files will be transferred to the specified remote FAX machine through Internet (SIP) or PSTN line.



In addition, virtual FAX can be used to receive the document sending from remote end through Internet (SIP) or PSTN line. VigorIPPBX 2820's built in FAX machine will save the document from the sender as a file and store in USB Disk. Later, VigorIPPBX 2820 series will send an e-mail attached with the file to the receiver.



For the configuration for Virtual FAX Usage, you have to:

- Configure Vigor router setting. Here we take VigorIPPBX 2820 series as an example.
- Configure DrayTek Smart FAX Agent Utility (for sending FAX only).

I. Send/Receive FAX by using SIP Account



- **User A sends a FAX to User B**

1. User A must insert a USB disk into the USB port of VigorIPPBX 2820 series first before enabling the fax function.
2. Open the web configurator of VigorIPPBX 2820 series (accessing from the end of User A).
3. Open **IPPBX>> Extension**. Add one extension profile for **registered** by DrayTek Smart FAX Agent as follows. This step is very important for the extension profile configured here will be used as **Sender Ext. Number** in DrayTek Smart FAX Agent for sending a FAX.

IP PBX >> Extension

Internal Phone Extension

Index	Ext.	Name	Email Address	Outgoing Call	Status
1.	2003	2003	tptseng@draytek.com	SIP1 PSTN	v
2.	2004	2004	tptseng@draytek.com	SIP1 PSTN	v
3.	2005	2005	tptseng@draytek.com	SIP1 PSTN	v
4.	669	669	iwiz@draytek.com	SIP1	v
5.	---	---			x
6.	---	---			x

- Click Index number 4 to check detailed configuration.

IP PBX >> Extension Profile

Internal Phone Extension Index 4

Internal Phone Extension Active	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
Allow Remote Registration from	<input type="checkbox"/> WAN <input type="checkbox"/> VPN	
Type	SIP	
Extension Number	669	
Display Name	669	
<input checked="" type="checkbox"/> Authentication		
<input type="checkbox"/> Use Display Name as authentication ID		
Password	••••	
<input type="checkbox"/> Enable PPTP VPN Dial-In for this Number/Password		
E-mail Address	iwiz@draytek.com	<input type="button" value="Send a test e-mail"/>
Voice mail Password	••••	
MWI(Message Waiting Indication)		
<input type="radio"/> Notify User who Subscribed	<input checked="" type="radio"/> Force Notify User	
Allow to access these Trunks		
<input checked="" type="checkbox"/> SIP1 <input type="checkbox"/> SIP2 <input type="checkbox"/> SIP3 <input type="checkbox"/> SIP4 <input type="checkbox"/> SIP5 <input type="checkbox"/> SIP6 <input type="checkbox"/> ISDN2-TE <input type="checkbox"/> PSTN		
Default Trunk	Disable	

- User A shall install **DrayTek Smart Fax Agent utility**.

Tip: A PC with **DrayTek Smart Fax Agent** tool can arrange a fax sending job. When the tool is installed, you will have a virtual printer which can print the files with the format of **.doc, .pdf, .bmp, .jpg and etc.** to **tiff** mode which can be supported by VigorIPPBX's fax program.

- Choose one of the files that you want to send to User B. If you want to send a **.doc** file, use Microsoft Word to open it. Then open **File>>Print** and choose **DrayTek Fax Printer** as a printer. Click **OK** to print the file.

7. When the printing job is done, you will see the main window of **DrayTek Smart Fax Agent** tool.

The screenshot shows the 'General Settings' section of the DrayTek Smart Fax Agent interface. It includes the following fields and controls:

- Virtual Fax Server:** A text box containing '172.16.2.233' followed by a colon and a text box containing '80'. A 'Search' button is to the right.
- Sender Ext. Number:** A text box containing '669'.
- Authentication Name:** A text box containing '669'.
- Password:** A text box with four black dots representing a masked password.
- Receiver Settings:** A section containing a 'Receiver Number' text box with '667' and a '>>' button to its right.
- Fax server sends fax during non-office hours.

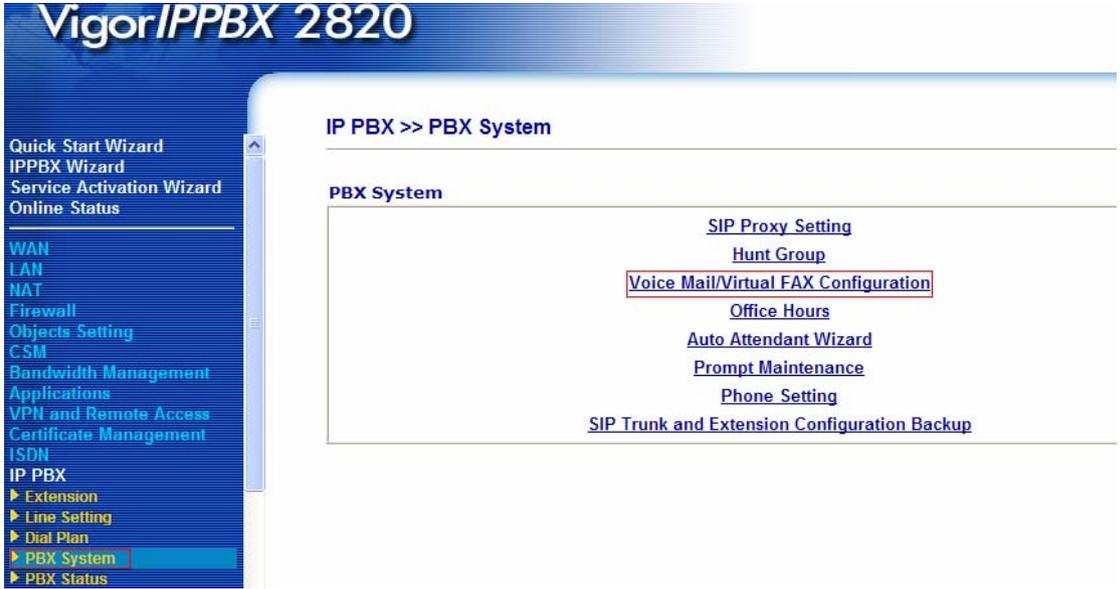
- Type the VigorIPPBX IP address in the field of **Virtual Fax Server** and the HTTP port number (ex: 80).
 - Type the Extension Number of the Sender in the field of **Sender ext. Number**.
 - Type the authentication name and password for the sender's extension number. The authentication name and password will be used for authentication in sending FAX.
8. When you finish settings, you can click the **Preview** button to check.
9. After previewing the content, if all information is correct, you can click **Send** to upload the fax file to VigorIPPBX. Later, the file will be transmitted to User B.

This screenshot shows the 'Title Settings' and 'Send' section of the DrayTek Smart Fax Agent interface. It includes the following fields and controls:

- Receiver Settings:** A 'Receiver Number' text box with '667' and a '>>' button to its right.
- Fax server sends fax during non-office hours.
- Title Settings:** A section with three text boxes: 'From' containing 'carrie', 'To' containing 'iwiz', and 'Subject' containing 'Smart Fax Agent test'. A 'Preview' button is to the right of these boxes.
- Note:** Only send a maximum of 50 pages per fax.
- Status:** A text box for status information and a 'Send' button to its right.

- **User A receives a FAX from User B**

1. Open the web configurator of VigorIPPBX 2820 series (accessing from the end of User A).
2. Insert a USB disk into the USB port of VigorIPPBX 2820 before enabling the fax function.
3. Open **IP PBX >> PBX System**; and click **Voice Mail/Virtual FAX Configuration**.



4. Setup an extension for virtual fax machine (maximum two FAX numbers) as follows:

IP PBX >> PBX System

Voice Mail Configuration

Extension for checking messages	<input type="text" value="888"/> (20 ~ 65535)
<input type="checkbox"/> Send Voice Message by Email	
<input type="checkbox"/> Delete Voice Message after Sending Mail	
Day for keeping voice mail	<input type="text" value="3"/> (1~7)
Maximum messages time	<input type="text" value="30 Sec"/>

Virtual FAX Configuration

<input checked="" type="checkbox"/> Enable Virtual FAX 1	<input type="checkbox"/> Enable Virtual FAX 2
Extension Number <input type="text" value="669"/>	Extension Number <input type="text"/>
Email to <input type="text" value="lanhao@draytek.com"/> <input type="button" value="Test"/>	Email to <input type="text"/> <input type="button" value="Test"/>
<input checked="" type="checkbox"/> Forward Fax file by Email	<input type="checkbox"/> Forward Fax file by Email
<input type="checkbox"/> Delete Fax file after Forwarding Mail	<input type="checkbox"/> Delete Fax file after Forwarding Mail

Email Server Setup

SMTP Server	<input type="text" value="172.16.2.8"/>
SMTP Port	<input type="text" value="25"/>
<input checked="" type="checkbox"/> Authentication	
User Name	<input type="text" value="joelmiao"/>
Password	<input type="text" value="•••••"/>
Mail From	<input type="text" value="2820pbx@draytek.com"/> (optional.63 char max.)
	Example: 123@draytek.com
Max attachment size (M)	<input type="text" value="25"/> (0~65535)

- Check the box of **Enable Virtual FAX 1**.
- Type the **Extension Number**, e.g, 669
- Type the email address in the field of **Email to**. Check the box of **Forward Fax file by Email**.

When you receive a fax, VigorIPPBX will send the fax file as an attachment to your mailbox specified here.

4. Configure **Email Server Setup**.

Email Server Setup

SMTP Server	<input type="text" value="172.16.2.8"/>
SMTP Port	<input type="text" value="25"/>
<input checked="" type="checkbox"/> Authentication	
User Name	<input type="text" value="joelmiao"/>
Password	<input type="password" value="••••••"/>
Mail From	<input type="text" value="2820pbx@draytek.com"/> (optinoal.63 char max.) Example: 123@draytek.com
Max attachment size (M)	<input type="text" value="25"/> (0~65535)

- Type the IP address of SMTP Server and specify the SMTP Port.
- Check the box of **Authentication**.
- Type the User Name, Password for authentication in sending / receiving mail.
- Type the email address that the FAX will be sent to in the field of **Mail From**.

5. When you send a fax to some one from Internet (SIP account), you can use your own extension setting for authentication with VigorIPPBX.

The email address is also very important. When you arrange a fax sending job via DrayTek SmartFAX Agent' tool, the VigorIPPBX needs some time to send it, then VigorIPPBX will inform you if it succeeds or not by an email.

6. Now, the configuration is finished.
7. When User B sends a FAX to User A, User A will get the file with email.

II. Send/Receive FAX through PSTN Line



- **User A sends a file to User C**

1. User A shall insert a USB disk into the USB port of VigorIPPBX 2820 series before enabling the fax function.
2. Open the web configurator of VigorIPPBX 2820 series (accessing from the end of User A)
3. Open **IPPBX>>PBX System>> Phone Setting**. Click the Index number with the Port set with FXO.

IP PBX >> PBX System

Phone List Refresh Seconds: 30

Index	Port	Call Feature	Codec	Tone	Gain (Mic/Speaker)	Extension Number	DTMF Relay
1	Phone	CW,CT,	G.729A/B	User Defined	5/5	901	OutBand
2	ISDN1-S0		G.729A/B	User Defined	5/5	903	OutBand
3	ISDN2-TE		G.729A/B	User Defined	5/5	904	OutBand
4	FXO		G.729A/B	User Defined	5/5	902	OutBand

RTP

Symmetric RTP

Dynamic RTP Port Start:

Dynamic RTP Port End:

RTP TOS:

VoIP Collection Timer: sec

VoIP Collection Timer Length:

4. In the following screen, check to enable **T.38 Fax Function** for sending or receiving a fax through PSTN Trunk and click **OK**.

IP PBX >> PBX System

FXO

Call Feature

Session Timer sec

T.38 Fax Function

Error Correction Mode:

DND(Do Not Disturb) Mode

Index(1-15) in [Schedule](#) Setup: , , ,

Note: Action and Idle Timeout settings will be ignored.

CLIR (hide caller ID)

Codecs

Prefer Codec:

Single Codec

Packet Size:

Voice Active Detector:

Allow to access these SIP Trunks

SIP1 SIP2 SIP3 SIP4 SIP5 SIP6

5. Open **IPPBX>> Extension**. Add one extension profile for **registered** by DrayTek Smart FAX Agent as follows. This step is very important for the extension profile configured here will be used as **Sender Ext. Number** in DrayTek Smart FAX Agent for sending a FAX.

IP PBX >> Extension

Internal Phone Extension

Index	Ext.	Name	Email Address	Outgoing Call	Status
1.	2003	2003	tptseng@draytek.com	SIP1 PSTN	v
2.	2004	2004	tptseng@draytek.com	SIP1 PSTN	v
3.	2005	2005	tptseng@draytek.com	SIP1 PSTN	v
4.	2006	iwiz	iwiz@draytek.com	PSTN	v
5.	---	---			x
6.	---	---			x

10. Click Index number 4 to check detailed configuration.

IP PBX >> Extension Profile

Internal Phone Extension Index 4

Internal Phone Extension Active Enable Disable

Allow Remote Registration from WAN VPN

Type SIP

Extension Number 2006

Display Name iwiz

Authentication
 Use Display Name as authentication ID

Password ●●●●

Enable PPTP VPN Dial-In for this Number/Password

E-mail Address iwiz@draytek.com

Voice mail Password ●●●●

MWI(Message Waiting Indication)
 Notify User who Subscribed Force Notify User

Allow to access these Trunks
 SIP1 SIP2 SIP3 SIP4 SIP5 SIP6 ISDN2-TE PSTN

6. Open **IPPBX>>DialPlan Setup>>Digit Map**. Configure the setting for PSTN trunk the same as Index 1.

IP PBX >> DialPlan Setup

Digit Map Setup

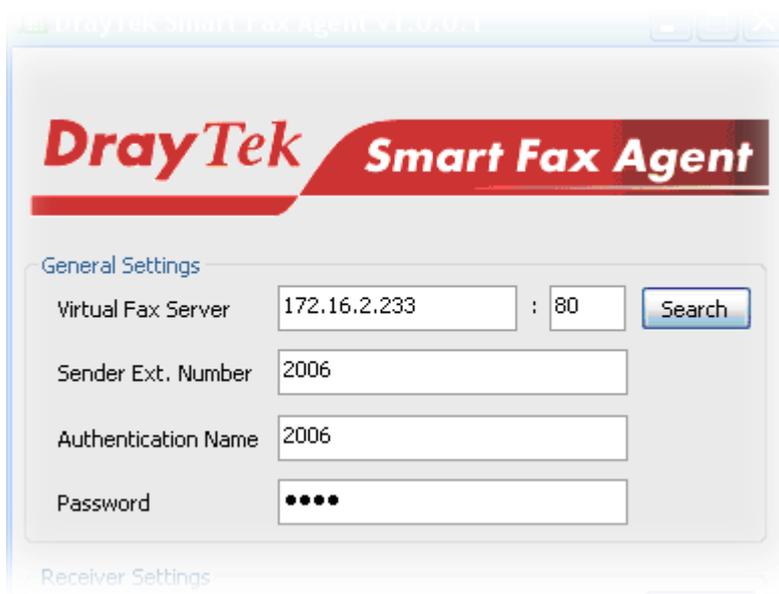
#	Enable	Match Prefix	Method	Operand Number	Min Len	Max Len	Trunk	Backup Trunk
1	<input checked="" type="checkbox"/>	0	Strip	0	1	11	PSTN	None
2	<input checked="" type="checkbox"/>	1234	Replace	8402275	1	10	SIP-1-8402282	None
3	<input type="checkbox"/>	0223717750	None	0223717750	1	10	PSTN	None
4	<input type="checkbox"/>		None		0	0	PSTN	None
5	<input type="checkbox"/>		None		0	0	PSTN	None
6	<input type="checkbox"/>		None		0	0	PSTN	None
7	<input type="checkbox"/>		None		0	0	PSTN	None

7. Install **DrayTek Smart Fax Agent** utility.

Tip: A PC with **DrayTek Smart Fax Agent** tool can arrange a fax sending job. When the tool is installed, you will have a virtual printer which can print the files with the format of *.doc, .pdf, .bmp, .jpg and etc.* to *tiff* mode which can be supported by VigorIPPBX's fax program.

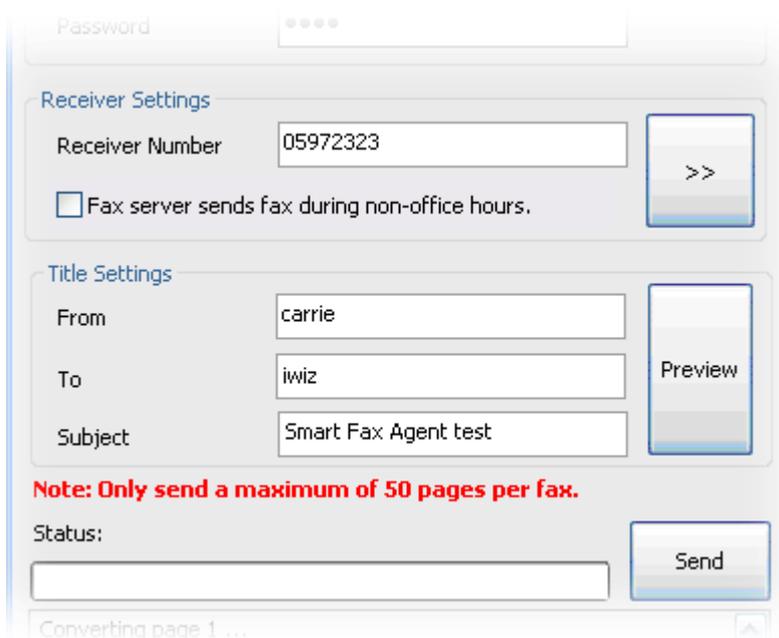
8. Choose one of the files that you want to send to User C. If you want to send a *.doc* file, use Microsoft Word to open it. Then open **File>>Print** and choose **DrayTek Fax Printer** as a printer. Click **OK** to print the file.

9. When the printing job is done, you will see the main window of **DrayTek Smart Fax Agent** tool.



- Type the VigorIPPBX IP address in the field of **Virtual Fax Server** and the HTTP port number (ex: 80).
- Type the Extension Number of the Sender (in the case, it should be the telephone number of User C) in the field of **Sender ext. Number**. *Such number shall be the same as set in Step 6.*
- Type the account number and password for authentication which should be the same as the settings configured in VigorIPPBX 2820. *Such number shall be the same as set in Step 6.*

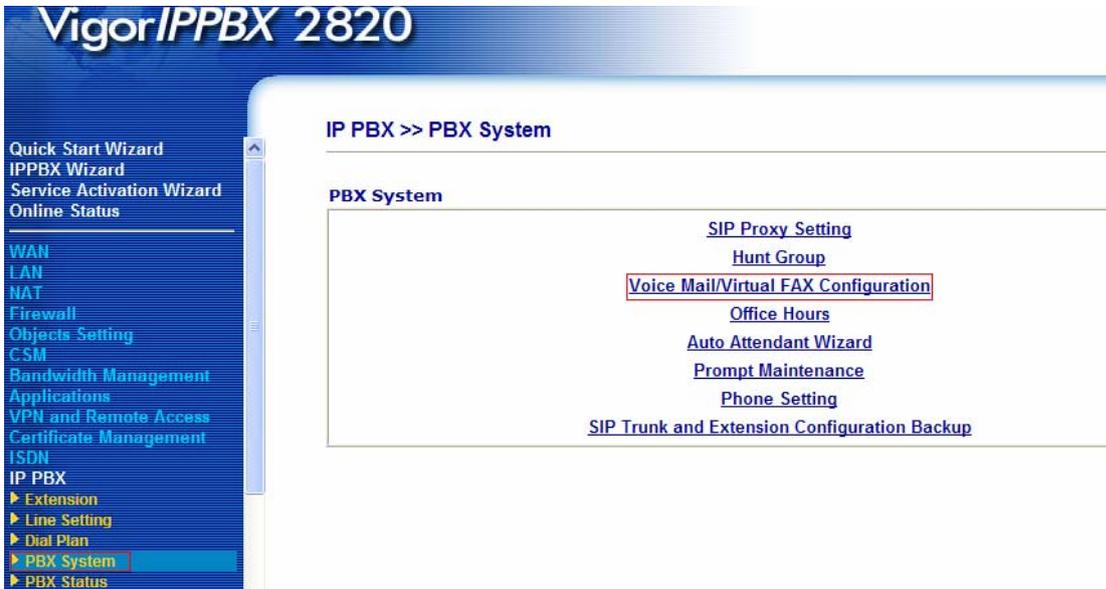
9. You can click the **Preview** button to check.



10. After previewing the content, if all information is correct, you can click **Send** to upload the fax file to VigorIPPBX. Later, the file will be transmitted to User C via his FAX machine.

- **User A receives a FAX from User C**

1. User A must insert a USB disk into the USB port of VigorIPPBX first before enabling the fax function.
2. Open the web configurator of VigorIPPBX 2820 series (accessing from the end of User A).
3. Open **IP PBX >> PBX System**; and click **Voice Mail/Virtual FAX Configuration**.



4. Setup an extension for virtual fax machine (maximum two FAX numbers) as follows:

IP PBX >> PBX System

Voice Mail Configuration

Extension for checking messages	<input type="text" value="888"/>	(20 ~ 65535)
<input type="checkbox"/> Send Voice Message by Email		
<input type="checkbox"/> Delete Voice Message after Sending Mail		
Day for keeping voice mail	<input type="text" value="3"/>	(1~7)
Maximum messages time	<input type="text" value="30 Sec"/>	

Virtual FAX Configuration

<input checked="" type="checkbox"/> Enable Virtual FAX 1	<input type="checkbox"/> Enable Virtual FAX 2
Extension Number <input type="text" value="777"/>	Extension Number <input type="text"/>
Email to <input type="text" value="lanhao@draytek.com"/> <input type="button" value="Test"/>	Email to <input type="text"/> <input type="button" value="Test"/>
<input checked="" type="checkbox"/> Forward Fax file by Email	<input type="checkbox"/> Forward Fax file by Email
<input type="checkbox"/> Delete Fax file after Forwarding Mail	<input type="checkbox"/> Delete Fax file after Forwarding Mail

Email Server Setup

SMTP Server	<input type="text" value="172.16.2.8"/>
SMTP Port	<input type="text" value="25"/>
<input checked="" type="checkbox"/> Authentication	
User Name	<input type="text" value="joelmiao"/>
Password	<input type="text" value="*****"/>
Mail From	<input type="text" value="2820pbx@draytek.com"/> (optioanal.63 char max.) Example: 123@draytek.com
Max attachment size (M)	<input type="text" value="25"/> (0~65535)

- Check the box of **Enable Virtual FAX 1**.

- Type the **Extension Number**, e.g, 777 for Virtual FAX 1.
- Type the email address in the field of **Email to**. Check the box of **Forward Fax file by Email**.

When you receive a fax, VigorIPPBX 2820 series will send the FAX as an attachment to your mailbox specified here.

5. Configure **Email Server Setup** and click **OK**.

Email Server Setup

SMTP Server	<input type="text" value="172.16.2.8"/>
SMTP Port	<input type="text" value="25"/>
<input checked="" type="checkbox"/> Authentication	
User Name	<input type="text" value="joelmiao"/>
Password	<input type="password" value="•••••"/>
Mail From	<input type="text" value="2820pbx@draytek.com"/> (optinoal.63 char max.) Example: 123@draytek.com
Max attachment size (M)	<input type="text" value="25"/> (0~65535)

- Type the IP address of SMTP Server and specify the SMTP Port.
- Check the box of **Authentication**.
- Type the User Name and the Password which will be asked to enter for authentication.
- Type the email address that the FAX will be sent to as an attachment in the field of **Mail From**.

6. Now, the configuration is finished.

7. When User C sends a FAX to User A, User A will get the file with email.

Detailed Information for DrayTek Smart FAX Agent

Settings typed in DrayTek Smart FAX Agent shall be consistent with the settings configured in VigorIPPBX 2820 series.

Settings for the tool explained as below:

General Settings	Virtual FAX Server: Type the public IP address for VigorIPPBX 2820 series and the HTTP port number (ex: 80).
	Sender ext. Number: Type the extension number of the sender. <i>Such number shall be set in VigorIPPBX 2820 series first.</i> If you forget the number setting, simply access into VigorIPPBX 2820

series for checking the configuration of the profile.

[IP PBX >> Extension](#)

Internal Phone Extension

Index	Ext.	Name	Email Address	Outgoing Call	Status
1.	2003	2003	tptseng@draytek.com	SIP1 PSTN	v
2.	2004	2004	tptseng@draytek.com	SIP1 PSTN	v
3.	2005	2005	tptseng@draytek.com	SIP1 PSTN	v
4.	2006	iwiz		PSTN	v
5.	---	---			x

Authentication Name: Type the account number for authentication. It must be set with the same value configured in VigorIPPBX 2820 series.

Password: Type the password for authentication. It must be set with the same value configured in VigorIPPBX 2820 series.

Receiver Settings

Receiver Number: (User B)

If it is a PSTN number or SIP number via SIP Trunk, you need to setup **Digit Map** to make sure the fax sender is able to send a fax to the receiver end.

[IP PBX >> DialPlan Setup](#)

#	Enable	Match Prefix	Method	Operand Number	Min Len	Max Len	Trunk	Backup Trunk
1	<input checked="" type="checkbox"/>	0	Strip	0	1	11	PSTN	None
2	<input checked="" type="checkbox"/>	1234	Replace	8402275	1	10	SIP-1-8402282	None
3	<input type="checkbox"/>	0223717750	None	0223717750	1	10	PSTN	None
4	<input type="checkbox"/>		None		0	0	PSTN	None
5	<input type="checkbox"/>		None		0	0	PSTN	None
6	<input type="checkbox"/>		None		0	0	PSTN	None
7	<input type="checkbox"/>		None		0	0	PSTN	None

For example, you have a digit map rule: prefix 0, send via PSTN trunk, and strip 0. If you want to send a fax to PSTN number of 12345678, you must set **012345678** here.

You can also specify multiple receiver in this field, for example, "012345678;087654321".

Fax server sends fax during non-office hours: If you check this box, the FAX server will send the fax during non-office hours.

Title Settings

From, To, and Subject will be printed as the header of your fax file.

Note: The FAX will be converted as a TIFF image for sending to the remote one.

Detailed Information for USB Storage Folder

In regard to the application of FAX, three different folders will be created and seen on USB disk.

Access into the web configurator of VigorIPPBX 2820 series (accessing from the end of User A) and open **USB Application >> File Explorer**. The following page will be displayed.

USB Application >> File Explorer

File Explorer

Current Path: /VFAX/

Name	Size	Delete	Rename
..			
Outbox		X	📁
Sent		X	📁
Inbox		X	📁

Upload File

Select a file:

Note: The folder can not be deleted when it is not empty.

The path for these three folders will be under VFAX.

- **Outbox** – The folder for saving fax files uploaded by Smart FAX Agent Folder. Then, the fax sender sends files one by one.
- **Sent** – The folder for backup fax files which have been sent.
- **Inbox** – The folder for incoming fax files, with subfolders for fax extensions.