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Dramatically simplifying voice and data networking



edgeBOX

HOW-TO GUIDE

FAX Setup

edgeBOX version 4.6.5
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1 Introduction

Purpose of this guide

This guide is focused on Fax configurations using edgeBOX v4.6.5.

edgeBOX is a Unified Communications Solution or “Office-in-a-box” that provides all the phone and internet communication services a small and medium size business needs.

If you are looking on how to configure other than fax functionality then this guide is not for you.

Getting Additional Information

In addition to this guide you can find information about edgeBOX:

- In edgeBOX Quick Start Guide, which tells you how to initially setup your edgeBOX.
- In online help on your edgeBOX.
- At www.edgebox.com.
- From your edgeBOX supplier.

Understanding the basics

edgeBOX supports several scenarios for fax deployments. The options are:

- **Fax machine connected directly to edgeBOX:** In this scenario you connect your fax machine directly to an analog FXS port in the back panel of your edgeBOX. The fax machine will be seen by edgeBOX as an analog phone extension.
- **Fax machine connected to ATA:** In this scenario you need an ATA (Analog Terminal Adapter). This device has an ethernet port to connect to the LAN, and an FXS port where you connect the fax machine. The fax machine will be seen by edgeBOX as a SIP phone extension.
- **MailFax:** In this scenario you don't need a fax machine at all. edgeBOX will convert fax calls to email messages and vice-versa.

2 Connecting a fax machine directly to edgeBOX

Connecting fax machines to edgeBOX is quite simple. The steps are pretty much the same as for connecting an analog phone, with the exception that you need to enable Fax Support and disable Echo Cancellation for the fax extension.

Note: This scenario is only applicable if your edgeBOX has an analog card included, with FXS ports available.

Step 1: Create an analog extension for the fax machine

- 1 Goto VoIP & IP-PBX > Phones.
- 2 Click New Phone.
- 3 Select Analog option.
- 4 Enter the name for the fax extension (like *fax*) in the Extension Name field.
- 5 Enter the internal number for the fax (like *2030*) in the Extension Number field.
- 6 Select the port where you've connected the fax machine in the Line(FXS) field.
- 7 Select the Advanced tab.
- 8 Disable the Echo Cancel option.
- 9 Enable the Fax Support option.
- 10 Click OK.
- 11 Click Apply to commit settings to edgeBOX.

Step 2: Connect the fax machine to the correspondent FXS port

- 1 Just plug the fax's RJ11 cable to the proper FXS port in the back panel of your edgeBOX.

Step 3: Configure fax inbound call rules

In this step you configure how your fax is reachable from the outside world.

Usually you'll have a dedicated public phone number to your fax machine, so you'll need to create a DID Route to your fax number (like *19732769007*) with a *Dial* action to your fax extension. This is configured in VoIP & IP-PBX > Incoming Calls > DID Routes.

If you need more information see Online Help or How-To Setup VoIP-IPPBX guide.

3 Connecting a fax machine using an ATA

The steps to connect a fax machine through an ATA are pretty much the same as for connecting a SIP phone, with the additional step of connecting the fax RJ11 cable to the ATA.

Step 1: Create a VoIP SIP extension for the fax machine

- 1 Goto VoIP & IP-PBX > Phones.
- 2 Click New Phone.
- 3 Enter the name for the fax extension (like *faxata*) in the Extension Name field.
- 4 Enter the internal number for the fax (like *2040*) in the Extension Number field.
- 5 Enter the password you want for this extension in the Password field.
- 6 Click OK.
- 7 Click Apply to commit settings to edgeBOX.

Step 2: Configure the ATA and connect the fax machine

- 1 Configure the extension you've created above in the ATA.

Note: Make sure you setup your ATA to with G.711 codec and that Echo Cancellation features are disabled.

- 2 Connect the ATA to the LAN of edgeBOX.
At this stage the extension you've configured in the ATA should change to *Registered* in VoIP & IP-PBX > Phones tab in edgeBOX.
- 3 Plug the fax's RJ11 cable to the correspondent FXS port in the ATA.
- 4 Execute a test call from the fax machine to an internal number (like *9000* for the conference bridge). If it doesn't work, review your connections and settings.

Step 3: Configure fax inbound call rules

In this step you configure how your fax is reachable from the outside world.

Usually you'll have a dedicated public phone number to your fax machine, so you'll need to create a DID Route to your fax number (like *19732769007*) with a *Dial* action to your fax extension. This is configured in VoIP & IP-PBX > Incoming Calls > DID Routes.

If you need more information see Online Help or How-To Setup VoIP-IPPBX guide.

4 Configuring MailFax

MailFax allows users to send/receive faxes without purchasing a fax machine and it's associated paper/inks etc.

A fax received from, say, a PSTN line, is converted into an email and delivered at an email account. To send a fax, an email is sent to a mail fax account in the edgeBOX, is then converted to fax format and sent through the phone line.

Step 1: Configure your email server

Before you be able to use the MailFax service, you need to setup the Email service in edgeBOX. If you've already configured the email server, jump to Create a MailFax account.

The minimum steps to configure your email server to support MailFax are:

- 1 Goto Router > Interfaces > Hostname and Domain, and memorize the Domain field (you may copy it to clipboard).
- 2 Goto Collaboration > Email Server > Basic tab.
- 3 Enable Webmail option.
- 4 Select the Domain configured in 1, in the Webmail Domain field.
If it doesn't exists, click Add, enter your domain in the Email/Domain field, click OK.
- 5 Click Apply to submit your settings to edgeBOX.
- 6 Check if Service State is Running. If not click Start Service.
At this point the email server is accepting emails for your domain, and the Webmail engine is configured to read emails from your domain.

See How To Configure edgeBOX as an Email Server guide for more information.

Step 2: Create a MailFax account

- 1 Goto VoIP & IP-PBX > PBX Features > Fax Service.
- 2 Click New.
- 3 Enter the name for your fax account (like *mailfax*) in the FAX Server Account field.
This name will be used as email destination to send faxes. An email account (an alias to be more precise) will be created in the edgeBOX's email server. In the example, assuming your email edgeBOX domain is *example.com*, the email address will be *mailfax@example.com*.
- 4 Enter the email address where you want your received faxes to be sent to (like *user@example.com*) in the Receive Email field. When a fax is received, edgeBOX will convert it to an email message with the document attached and will send it to this address.
- 5 Enter your public fax number in the DDI field.

Note: If your public fax number is in an Analog line, you need to configure the DID field of correspondent analog port in VoIP & IP-PBX > Hardware > Analog.

- 6 Enter the number of your fax in the Fax Number field. This number will be printed in the header of the fax document. It will not affect functionality, it is used for display purposes only.
- 7 Enter your company name in the Company Name field. This name will be printed in the header of the fax document. It will not affect functionality, it is used for display purposes only.
- 8 Select the number of times (like 3) edgeBOX should try to send the fax in case of failure, in the Number Retries field.
- 9 Select the type of authorization to send faxes in the Authorization Type field.
Options are:
 - **Password:** Every mail that goes to the "FAX Server Account" mailbox, must contain this password in the body of the mail, or it won't be sent.
 - **Local:** edgeBOX will allow every client on the LAN (or using Webmail) to send faxes. No password is required.
 - **Local + Password:** Only the LAN clients (or Webmail) will have authorization to send faxes, however they must provide a password.
- 10 Click OK.
- 11 Click Apply to commit your settings to edgeBOX.

Sending a MailFax

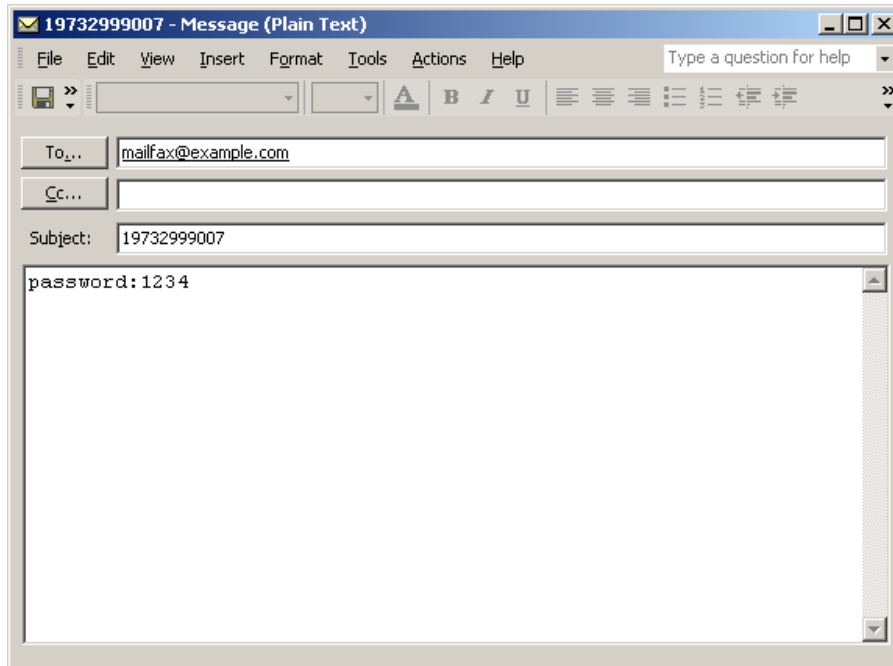
Now that you've configured the MailFax account, whenever you need to send a fax, just send an email with the following format:

- **To:** Enter the email address of mail fax account (like *mailfax@example.com*, in the example above).
- **Subject:** Enter the destination phone number where you want to send the fax to.

Note: Depending on your outbound call rules or VoIP authentication, this number must contain all applicable prefixes to outbound calls.

- **Attachment:** Attach the document to send, either in PDF or TIFF format.
- **Body:** If your mail fax authorization requires a password (*Password* or *Local + Password* authorization types), type the password in the body of the message.

See Picture 1 for an example of a mail fax message using Outlook.



Picture 1: Mail fax message example, using Outlook.

If there were any problems with the authorization procedure, or the fax was not sent, the sender will receive an email message with the problem description.

Reading received faxes

All the received faxes at the number you've specified in the DDI field (see Create a MailFax account, number 5), will be available as email messages in the Receive Email (see Create a MailFax account, number 3) account.

To read the fax mail messages just configure your email client to read from that account, or use the edgeBOX's Webmail engine.