

TekFax

Installation & Configuration Guide
Version 1.9

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<http://www.kaplansoft.com/>

TekFax is built by Yasin KAPLAN

Read “Readme.txt” for last minute changes and updates which can be found under application directory.

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Introduction

TekFax is a SIP (Based on RFC 3261) Fax Receiver Server runs under Windows (Vista/7/8/10/11, 2008-2022 Server). Visit <https://www.kaplansoft.com/TekFax> regularly for updates.

Major features:

- Simple, easy to use interface.
- Supports NAT traversal. TekFax also supports UPnP.
- TekFax can forward incoming faxes to configured recipients via e-mail in TIFF format.
- You can monitor active SIP calls in real-time.
- Supports UDP, TCP and TLS transports for SIP signaling.
- TekFax can recover single packet T.4 image data losses if remote T.38 endpoint sends redundant T.4 data.
- HTTP interface.

TekFax uses UDP port 5012 and above for T.38 traffic. You need to add necessary mappings to your router for incoming T.38 traffic if TekFax installed behind a NAT gateway which does not support UPnP.

System Requirements

TekFax requires Microsoft .NET Framework 4.0 Client Profile installed with the latest patches. Pentium IV class CPU with 2 GB of RAM is ideal for most configurations.

Installation

Unzip “TekFax.zip” and click “Setup.exe” comes with the distribution. Follow the instructions of setup wizard. Setup will install TekFax Manager and TekFax Service, add a shortcut for TekFax Manager to desktop and the start menu.

Configuration

Run TekFax Manager from Start Menu / Program Files / TekFax. TekFax automatically configures itself at first run. TekFax selects the first available IPv4 address and make a reverse lookup of that IPv4 address to obtain SIP domain information. If TekFax cannot resolve selected IP address to an alphanumeric FQDN address, selected IPv4 address is used as SIP domain.

TekFax also checks if it is installed behind an UPnP supported NAT gateway. If so, TekFax automatically detects external IP and displays it on status bar. TekFax also adds a reverse mapping for incoming UDP connections automatically (*Default UDP port 5010*).

Configure your VoIP gateway to route incoming fax calls to TekFax.

Settings / Service Tab

Click Settings / Service Tab to start configuration.

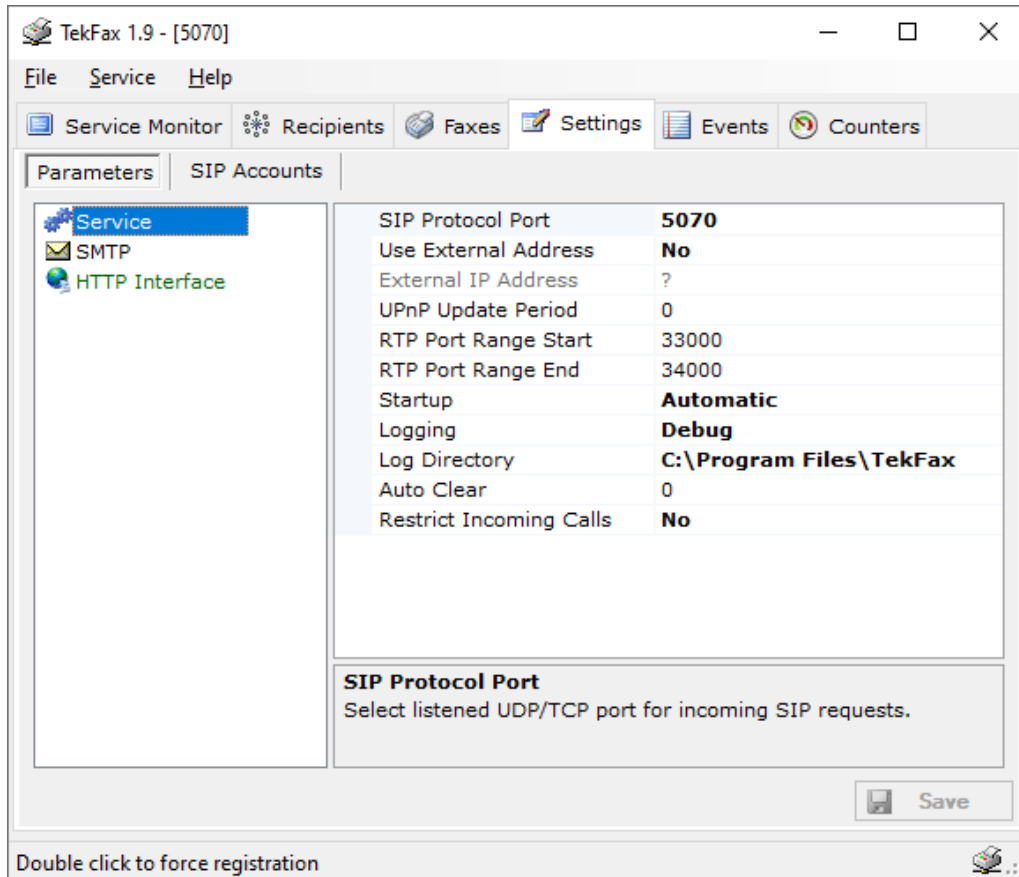


Figure - 1. TekFax Service Settings

Enter following information:

- **SIP Protocol Port:** You can define a port number to be listened (*Default 5070*).
- **Use External Address:** If TekFax is installed behind a NAT gateway which does not UPnP you can set external IP address manually for NAT traversal. If your NAT gateway supports UPnP set UPnP Update Period to value greater than “0”.
- **UPnP Update Period:** You can specify period of querying UPnP Internet Access Gateway. Set “0” to disable UPnP support.
- **RTP Port Range:** Set upper and lower UDP ports for RTP port range.
- **Logging:** Select logging level of TekFax. Select “None” if you do not want logging, select “Errors” to log errors and select “Sessions” to log session information and errors. Log files are located under <Application Directory>\Logs directory by default.
- **Restrict Calls:** TekFax will accept calls only from its upstream routes specified in SIP accounts section if this option is set. TekFax will accept calls from unspecified SIP endpoints if no SIP account is specified even if this option is set.

Settings / SIP Accounts Tab

Click Settings / SIP Accounts settings.

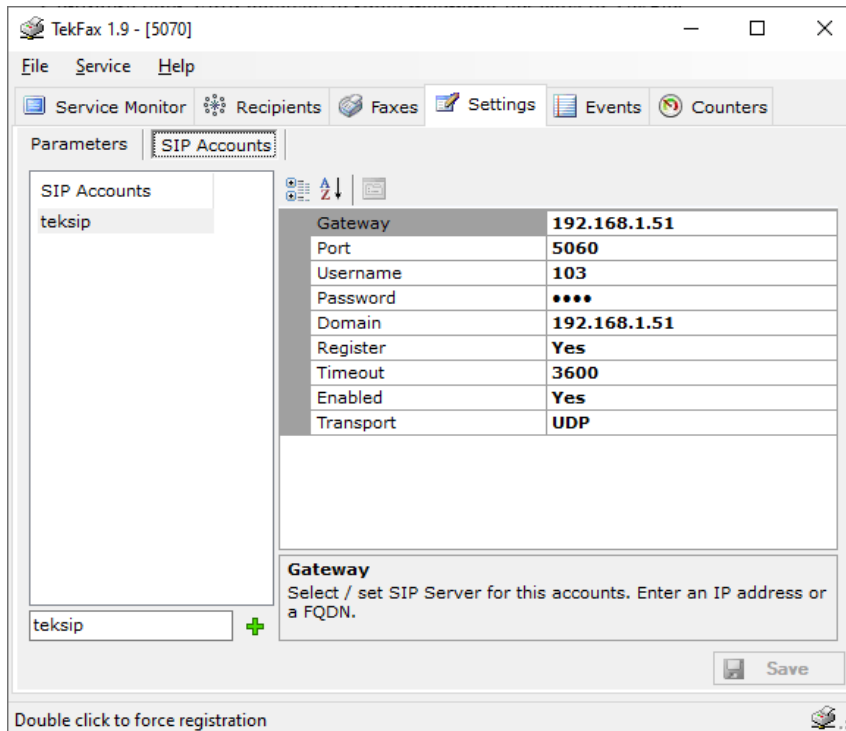


Figure - 2. TekFax SIP Accounts

Type a SIP Account name to left bottom text box and click the add button right to it. Enter the following information for a SIP account.

- **Domain:** Enter FQDN or an IP address of your SIP domain. You must configure a valid SIP domain for proper operation.
- **Gateway:** Enter an IP address or FQDN of your SIP gateway or proxy. Please make sure that this address is resolvable by your SIP client and has a valid entry (*an A record*) in your DNS server if you enter a FQDN. You must configure a valid SIP proxy for proper operation.
- **Port:** Enter signaling port for the SIP server. The default value is 5060.
- **Transport:** Select transport for this SIP server (*TLS, TCP or UDP*).
- **Enabled:** Select “Yes” to enable this SIP account.
- **Register:** SIP endpoint registration is disabled by default. If this option is enabled TekFax tries to register itself to configure SIP Domain.
- **Timeout:** Set registration timeout for this SIP account. TekFax will re-register after timeout.
- **Username:** You must specify a SIP endpoint ID for TekFax. If incoming calls are not destined to the number specified in Account ID parameter, TekFax will reject the calls. This ID is also used by TekFax while registering to SIP registrar.
- **Password:** If SIP registrar requires password authentication specify password.

Registered SIP account will be displayed in **green** color. You can delete a SIP account by pressing the delete key on keyboard after selecting.

Settings / SMTP Tab

Click Settings / SMTP for SMTP mail settings.

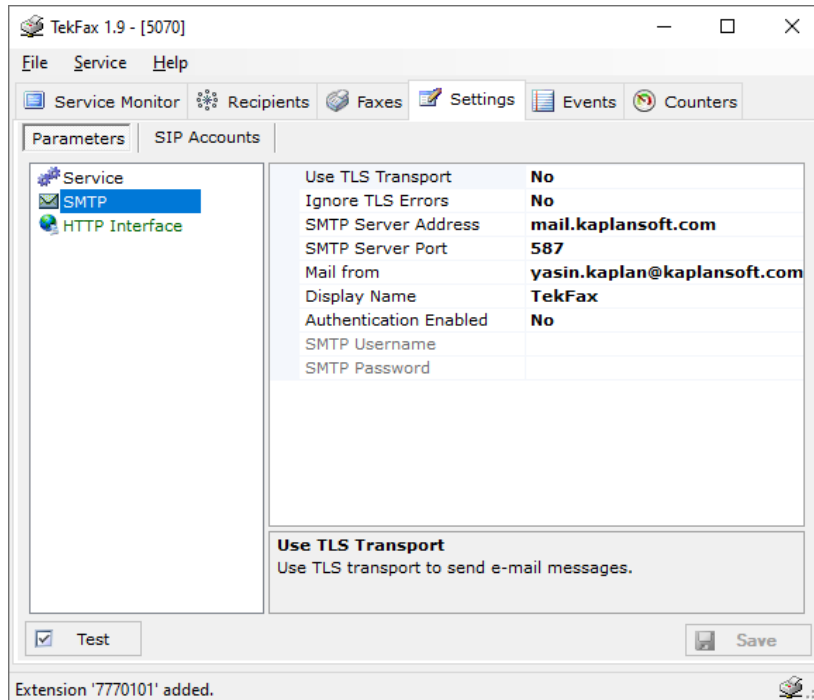


Figure - 3. TekFax SMTP Settings

Enter following information:

- **Use TLS Transport:** Use TLS transport if the SMTP server supports it.
- **Ignore TLS Errors:** Ignore TLS related errors such as caused by expired certificates.
- **SMTP Server Address:** Enter IP address or FQDN of the SMTP server.
- **SMTP Server Port:** Specify SMTP server port, 25 e.g.
- **Mail From:** Enter e-mail address which will be shown as sender address.
- **Display Name:** Enter a string for displayed name to the recipient.
- **Authentication Enabled:** Check it if your SMTP server requires user authentication.
- **SMTP Username:** Enter SMTP username.
- **Password:** Enter password of SMTP user.

If you click [Save] button setting will be saved and activated immediately.

Service Monitor

You can monitor active calls through the service monitor tab. You can clear log entries by right clicking on Call Log.

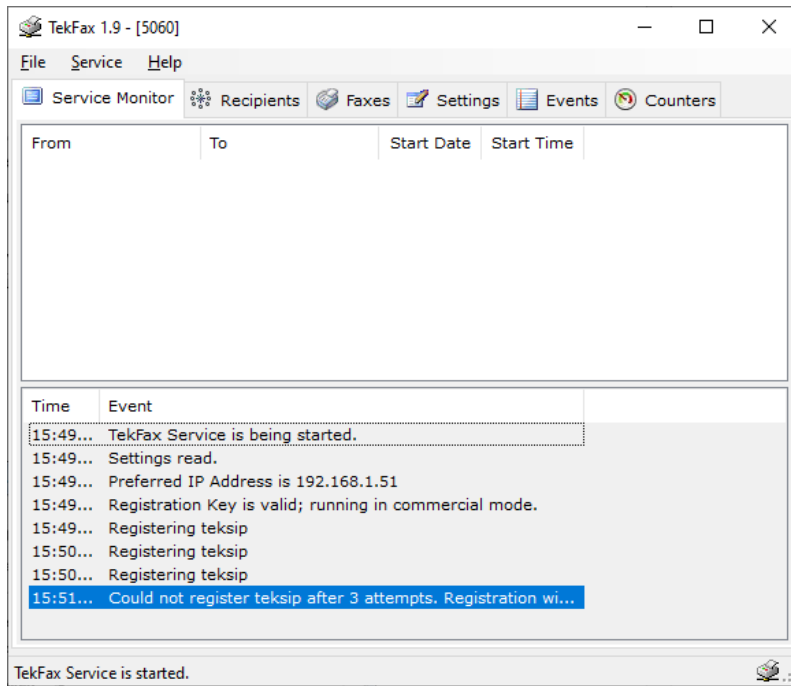


Figure - 4. Service Monitor Tab

Recipients

You can define recipients and their e-mail address for forwarding recorded faxes through the Recipients tab.

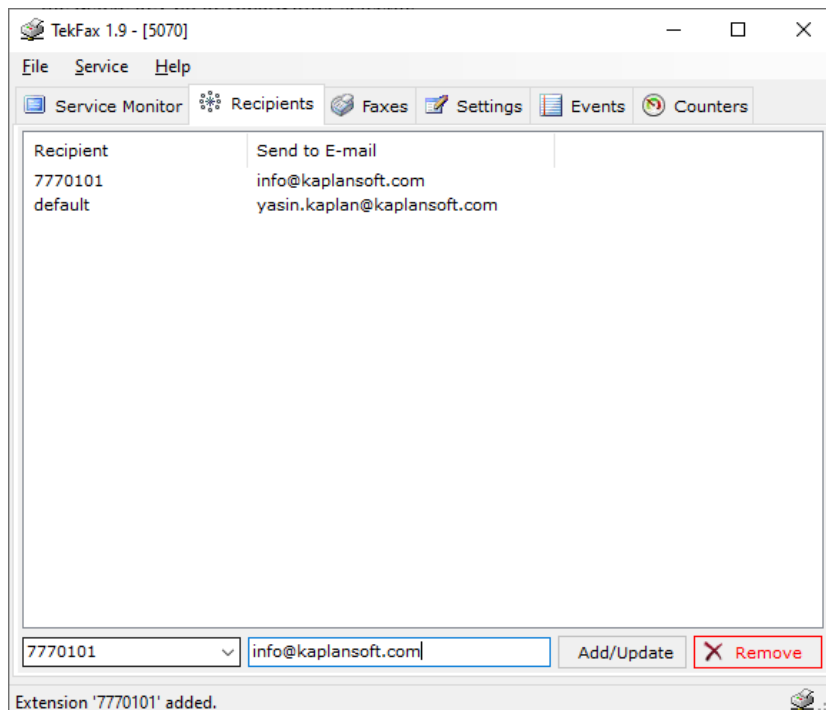


Figure - 5. Recipients Tab

You can have a “Default” endpoint to receive recorded faxes to a default e-mail account. Enter Default as Endpoint ID.

Received Faxes

You can browse received faxes through the Faxes tab.

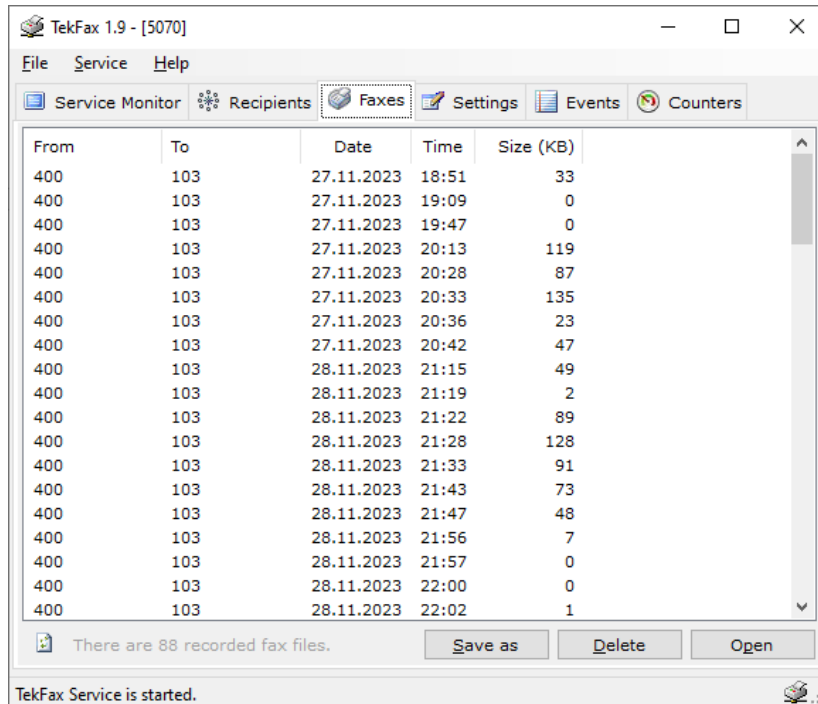


Figure - 6. Faxes Tab

Troubleshooting

TekFax provides many messages when problems occur. You can see error messages on TekFax Status bar or in the log file of TekFax service. You can enable logging in to the Settings Tab. There are four levels of logging: None, Errors, Sessions and Developer. If you select Errors TekFax logs just error messages. If you select Sessions both Session and Error messages will be logged. You must save or apply settings changes if you change logging level setting. Log files are located under <Application Directory>\Logs directory.

Recorded faxes are saved under Faxes subdirectory of TekFax application directory.

TekFax Messages

**Settings could not be loaded. Initializing with default values.
TekFax Service is being started with default values.**

You get this message at first run of TekFax. If TekFax cannot find or read TekFax.ini initializes itself with default settings.

Unable to initialize UDP/TCP thread [5060]

If another application is configured to use the same UDP/TCP port with TekFax, TekFax cannot initialize respective thread.

New setting(s) applied and activated. Check default route.

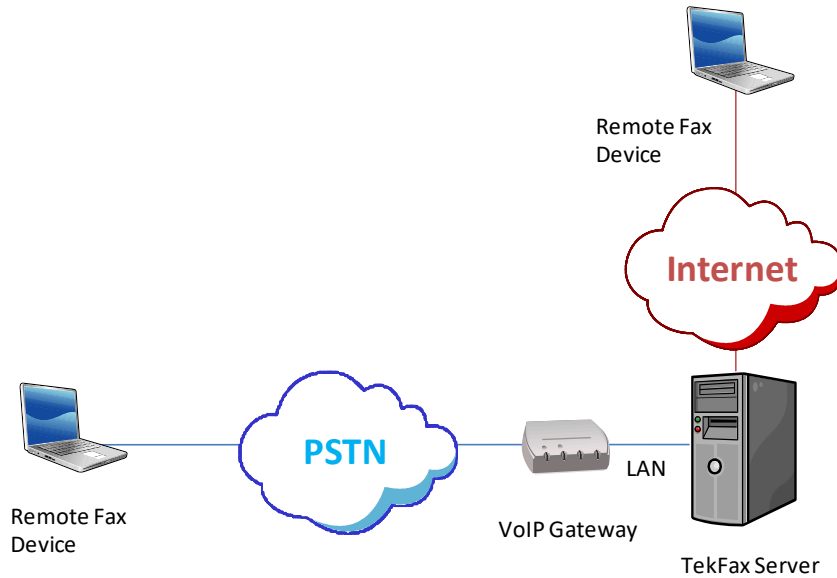
There is a problem with the IP address or FQDN of the default route.

Cannot apply changes; enter minimum configuration.

There is missing configuration data.

Typical Usage Scenario

You can receive incoming faxes from PSTN via a VoIP gateway which supports T.38 protocol or if you have a VoIP account you can directly receive faxes through Internet if your provider supports T.38 protocol.



Configure your VoIP gateway to forward fax calls to TekFax server.