

# Tunneling for third-party SIP devices and apps

## In short

The mtunnel client is a special VPN client application to setup an encrypted connection from your devices (VoIP Servers, ATA, Gateways or other SIP endpoints) to the Mizutech tunnel server(s). You need to run in on the same LAN with your SIP devices in the blocked region.

-Download the app from [here](#). ([Java](#) must be also installed)

-Edit the wpcfg.ini configuration file. Its [content](#) can be generated from MManage or ask from Mizutech if you are using SaaS. Set the "upperserver" parameter to your VoIP server address.

-Start the application from command line with `java -jar mtunnelclient.jar`

-In your sip devices set the serveraddress or outbound proxy to gatewayip:18600 (where gatewayip is the IP address of the PC where you are running the mtunnelclient)

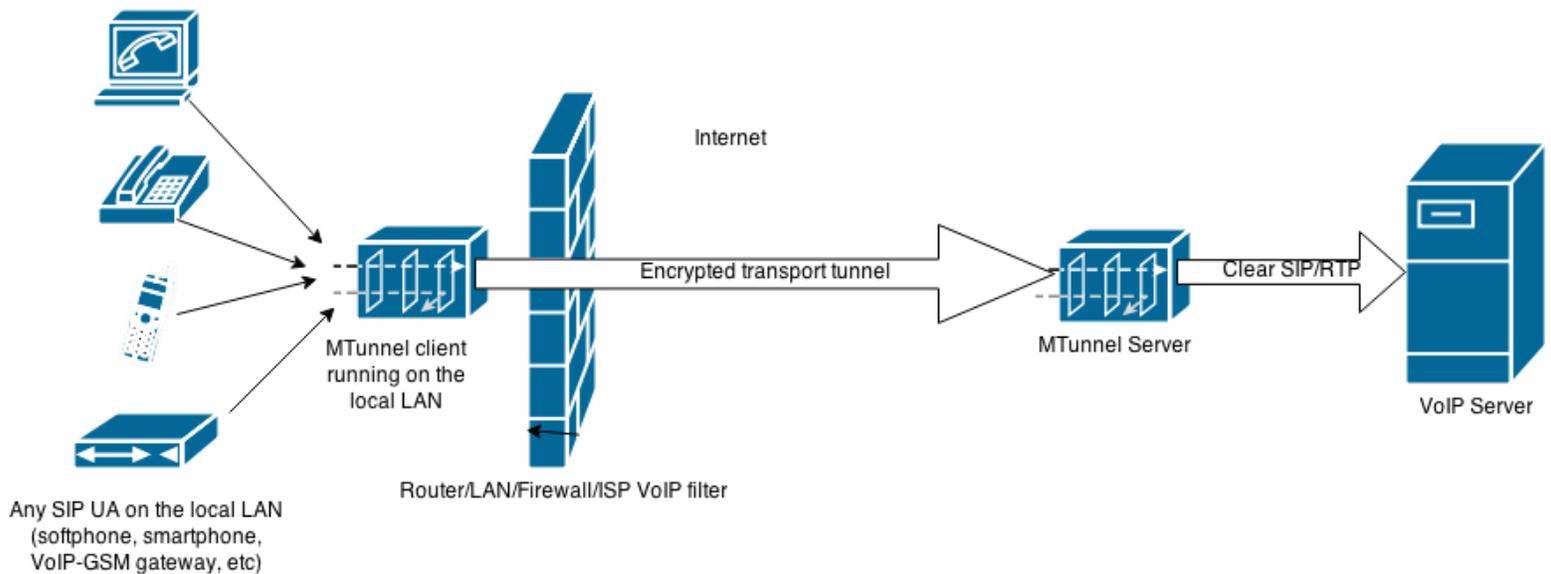
For a more detailed description please read below:

## About

The Mizutech VoIP tunnel client (MTunnel Client) can be used as a transparent proxy to encrypt and tunnel VoIP traffic (SIP and RTP) from/to any third-party VoIP device, such as softphone, IP phone, GSM gateway, PBX traffic, smartphone with VoIP app or any other SIP capable UA. It can traverse any nat/firewall or VoIP blockage using multiple transport protocols (UDP/TCP/HTTP), distributed network, multiple strong encryption and sophisticated obfuscation. You should run this software on the same LAN with your SIP devices. (It can be also on a different LAN. Important is that there should be no any blockage between your device and the mtunnel client)

The call flow will look like this:

SIP device(s) -> [clear SIP/RTP] -> mtunnel client -> [encrypted transport] -> mtunnel server [clear SIP/RTP] -> VoIP server(s)  
(or inverse for incoming traffic)



*\*Please note that the mtunnel client might not connect directly to the mtunnel server if you are using it in VoIP blocked countries (it might connect trough dedicated proxies, our distributed network or through third part stun or http proxy services, depending on the mtunnelclient and mserver configurations and decisions based on network circumstances).*

## MTunnelClient requirements

- A low end PC or server running on the local LAN (1 CPU/1 GB RAM can handle 100 connected devices / 300 cc calls).
- OS: Windows, Linux or MAC
- Java: [Oracle](#) or [OpenJDK](#)

You will also need the [Mizutech Tunnel](#) server or service. Create your own from [here](#) if you don't have it yet.

## MTunnelClient Setup

**Download** the mtunnelclient from [here](#)

The **configuration** parameters can be passed on the command line or loaded from settings file.

The settings file is in simple ini file format named **wpcfg.ini** and must be located near the mtunnelclient.jar.

You can generate its content from MManage -> Tools menu -> Utilities -> "Generate client config" or if you are using the Mizutech SaaS service, then ask the configuration from Mizutech support. An example configuration can be downloaded from [here](#).

Make sure that the "**upperserver**" setting is set to your VoIP server address (preferably in IP:port format). If you are using this with a device/software which will not/can't register, then set the "deviceaddress" to the device IP:port. You should also set the "licensekey" to match your brand name registered with Mizutech. (If the licensekey is not set, then the tunnel servers will attempt to identify based on the upperserver. Not registered brand names will still work, but only until a limit.)

You will need to **run** the mtunnel client on the same LAN with your SIP devices (or in a way so the network is not blocked between your apps and the mtunnel client). You can launch as many instances as you wish (one per LAN) and one instance can handle all your SIP devices (up to 500 by instance).

- On windows: just double click on the mtunnelclient.jar or run from command prompt as "**java -jar mtunnelclient.jar**"
- On linux: start from the terminal as "java -jar mtunnelclient.jar &"

It is also recommended to increase the maximum available sockets with the -Dsun.net.maxDatagramSockets VM argument.

In this case the command will be: java -Dsun.net.maxDatagramSockets=2048 -jar mtunnelclient.jar

Make sure that the app is not blocked by your firewall (enable java on your firewall).

You can also pass parameters on the command line. For example: webphone.jar upperserver=YOURVOIPSERVERADDRESS licensekey=YOURBRANDNAME username=XXX password=YYY loglevel=5

If you are using the Mizutech softswitch, then you can use the SIP account username/password as an encryption key (The same account what you are using to register from your software/device. This has to be a valid SIP account on the VoIP server). For this, you need to set the following settings: username (SIP username), password (SIP password), encv2\_usedefaultuser = 0

Inbound traffic for gateways:

If you are connecting a gateway then for the inbound calls you can setup the routing rules either on your VoIP server (by routing calls to the gateway account) or on the tunnel server (MManage -> Routing). Otherwise the device will be presented on your VoIP server as usually, registered with the provided username/password. Please note that you can't use IP based routing rules in this case (because the IP on your server will be seen as the tunnel server IP) except from the tunnel server, where a SIP Server user can be linked to a Enduser by setting the PRManager field of the enduser to the SIP Server IP.

## SIP device configuration

In your SIP devices (softphone, ATA, gateway, server, others), change the serveraddress (sip domain) or outbound proxy configuration to **gatewayip:18600** (where "gatewayip" is the IP address of the PC where you are running the mtunnelclient).

You should also configure your device to register (enable registration and set SIP username/password to a valid account on your VoIP server). If this is not possible, then in the mtunnelclient config you need to set the "deviceaddress" parameter to the address of your device (IP:port).

Set the register expire time (expire timer) to 2 minutes (120 seconds) or below (but not below 30 seconds). All other settings can be left as before (as it would be without tunneling).

## Example

### Example configuration with retail endusers:

- [Order a trial tunnel service](#) if you don't already have your own setup.
- On your order the tunnel server is automatically configured to route the traffic from/to your VoIP server.
- Offer the softphones to your endusers. If you are on trial, then the users have to type also your VoIP server address. In final customized/branded build this is preconfigured and users have to type only their usual SIP username/password
- Traffic flow is like this:  
Softphone -> [encrypted tunnel] -> Tunnel server -> [standard/clear SIP/RTP] -> Your VoIP server(s) -> Your carriers or other users

### Example configuration if you wish to route traffic from unblocked region (for example USA) to blocked region (for example Iran):

- [Order a trial tunnel service](#) if you don't already have your own setup
- Install the mtunnel client on your server in Iran (or you can run it on a separate windows or linux box)
- Get the mtunnel client configuration:
  - if you are on trial, you can use [this file](#)
  - if you have your own server then login to MManage and click on File menu -> Tools -> Utilities -> Generate client config
  - if you are using the Mizutech hosted solution then ask the configuration from [Mizutech support](#)
- In the config file make sure that the "upperserver" option is set to your SIP server address (domain name or IP or IP:port)
- Save the config file near your mtunnelclient.jar in a file named wpcfg.ini.
- Configure your device (gateway, server or any other SIP device) to register with a SIP username/password valid on your VoIP server (even if previously you have used direct to IP calls, now you need an account to be registered).
- Configure your VoIP server routing to route traffic to this registered extension (Alternatively you can just send the traffic to the tunnel server IP and setup the proper routing on the tunnel server)

### Reselling:

- Just add different users from MManage -> Tools menu -> Add or Import users -> Add upper server
- 3 accounts will be generated: Owner, SIP server, Traffic sender. You might have to set the max lines for each of these accounts on the Users and Devices. Alternatively you can also use the full billing (so you need to add credit to users which will be deducted based on your billing configuration)
- Offer the white label client to your customers
- The endusers will have to type their server address or OP CODE or Brand name

### Using without register:

If you are using the mizutech softswitch with built-in tunneling, then there is no reason to use the tunnel client without registration. However if you are using the tunnel server with third party VoIP server and the VoIP server or the client device can't handle registration, then you can use the tunnel in the following way:

- Create a few enduser accounts which will be used without registrations
- Add these account username's to the "noregforward" global config setting separated by comma
- For incoming calls setup the proper routing (to endusers or with the prmanager trick)
- Set in the mtunnel client wpcfg.ini:
  - encv2\_usedefaultuser=1
  - username=USERNAME
  - password=PASSWORD
  - deviceaddress=the sip client or gateway IP:port

### Example configuration for companies with corporate firewall or users behind HTTP proxy:

- [Order a trial tunnel service](#) if you don't already have your own setup.
- On your order the tunnel server is automatically configured to route the traffic from/to your VoIP server.
- Offer the softphones to your endusers. If you are on trial, then the users have to type also your VoIP server address. In final customized/branded build this is preconfigured and users have to type only their usual SIP username/password
- Traffic flow is like this:  
Softphone -> [encrypted tunnel] -> {traversing trough firewall/sock or http proxy} ->[encrypted tunnel] ->Tunnel server -> [standard/clear SIP/RTP] -> Your VoIP server(s) -> Your carriers or other users

If you are not sure how to setup, please contact Mizutech support on [email](#) or [skype](#).

If you are experiencing connectivity issues, please set the “loglevel” setting in the wpcfg.ini to 9 and send us the detailed logs.

## Resources

Mtunnel client: [download](#)

Template config: [download](#)

More documentation: [PDF](#)

Tunnel homepage: [VoIP tunnel](#)

Contact: [serversupport@mizu-voip.com](mailto:serversupport@mizu-voip.com)