TekTape

Installation & Configuration Guide
Version 2.3

Document Revision 1.4

http://www.kaplansoft.com/

TekTape is built by Yasin KAPLAN

Read "Readme.rtf" for last minute changes and updates which can be found under application directory.

Table of Contents

Introduction

TekTape is an audio recorder and call detail records *(CDR)* generator runs under Windows *(XP/Vista/7/8/10, 2003-2016 Server).* Visit https://www.kaplansoft.com/TekTape/ regularly for updates. Major features;

- Simple, easy to use HTTP interface.
- Real time monitoring of SIP or SCCP calls.
- Recording of audio streams of SIP or SCCP calls. Recorded calls are saved in 16 bits, 8 Khz mono format wave files. Audio streams from each parties mixed into a single stream. MP3 encoding is also supported.
- CDR generation for monitored calls. TekTape also creates CDR for failed calls.
- Real time listening of audio for a selected SIP or SCCP call.
- Support for TZSP *(TaZmen Sniffer Protocol).*
- TLS decoding with SRTP decryption for SIP calls.
- Multi-site support

System Requirements

- A Windows system with at least 2 GBytes of RAM.
- Microsoft.NET Framework 4.6.1 *(Min.).*
- Administrative privileges.
- Replication of LAN traffic to the Ethernet port of TekTape installed machine in an Ethernet switching environment.

Installation

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

Configuration

Run TekTape Service Manager from Start Menu / Program Files / TekTape. TekTape automatically configures itself at first run. You can launch web console by right clicking and selecting TekTape Service Manager icon in the system tray after starting TekTape service. You can use Windows accounts in Administrators group to login web console for the configuration.
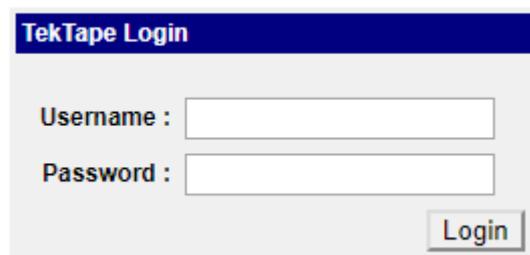
Figure - 1. TekTape login form

Settings Tab

Click Settings Tab to start configuration. Enter following information:

- **Recording Directory:** Set a directory where TekTape saves captured audio conversations. TekTape will create sub folders for each day under this directory.

- **Non-Admin Record Deletion:** Standard domain users can browse their audio conversations but they cannot delete recorded audio files. This option allows standard users to delete audio files recorded for their audio conversations.

- **Generate CDR:** TekTape can generate call detail records for detected SIP calls. CDR files are daily rotated and can be found under CDR sub directory of TekTape application directory.

- **Record Audio:** TekTape default configuration allows it to just monitor signaling traffic and real time listening audio conversation through the HTTP interface. Set this option to record audio conversation.

- **Auto Start Audio Capture:** Set if you wish audio capture to be started automatically when TekTape service starts. You must select correct Ethernet interface prior to set this option. Capture interface can be selected in Sessions tab.

- **Enable TLS Decoding:** TekTape can decode SIP sessions with TLS transport if server certificate used for TLS session is installed Local Windows Certificate Store / Local Machine / Personal folder and the private key is accessible.

- **Safe shutdown:** TekTape will force to terminate active calls by injecting artificial BYE requests to the network on shutdown. If there are still active calls, TekTape will record captured audio for the active session. You can observe 999 as termination code in CDR file for such calls.

- **Operation Mode:** TekTape can run in Master or Remote mode. TekTape will transfer recorded audio file to Master unit when run in Remote mode. You must specify as Master unit address in Address:Port format and a secret key shared between Remote and Master units. Remote Units tab is not visible when this option selected.

  You must select a server certificate and specify remote units when Master mode selected. Server certificate is used to establish TLS tunnels between Master and Remote units. Audio files are transferred from Remote units to Master unit through these TLS tunnels. Transferred audio files are deleted in remote units. Remote units will retry transfer process in every 30 minutes if a transfer process fails.

- **Server Certificate:** Set a certificate for HTTPS connections. TekTape lists certificates found in Windows Certificate Store / Local Machine / Personal Folder with accessible private keys in this option.

- **HTTP Port:** Set HTTP port for login and redirection form.

- **Startup Mode:** You can set startup type of TekTape Service.
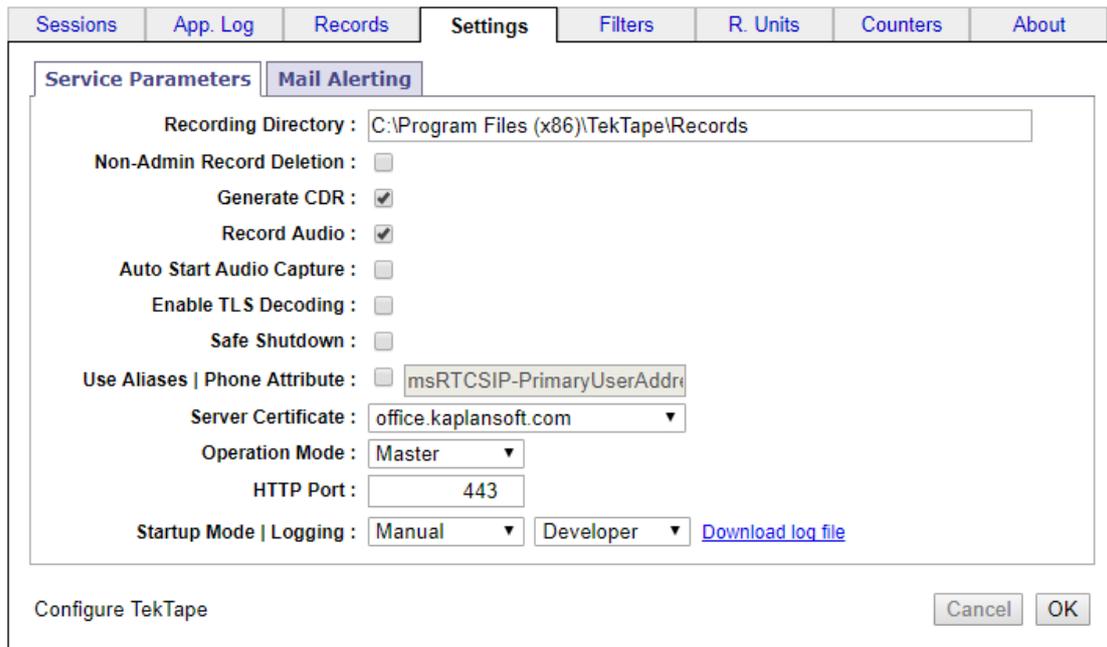
Figure - 2. TekTape Settings / Service Parameters tab

You can enable e-mail alerting in Settings / Mail Alerting. TekTape will inform you vial e-mail messages for critical system failures and errors such as alerting when recording disk capacity reaches to 70%.
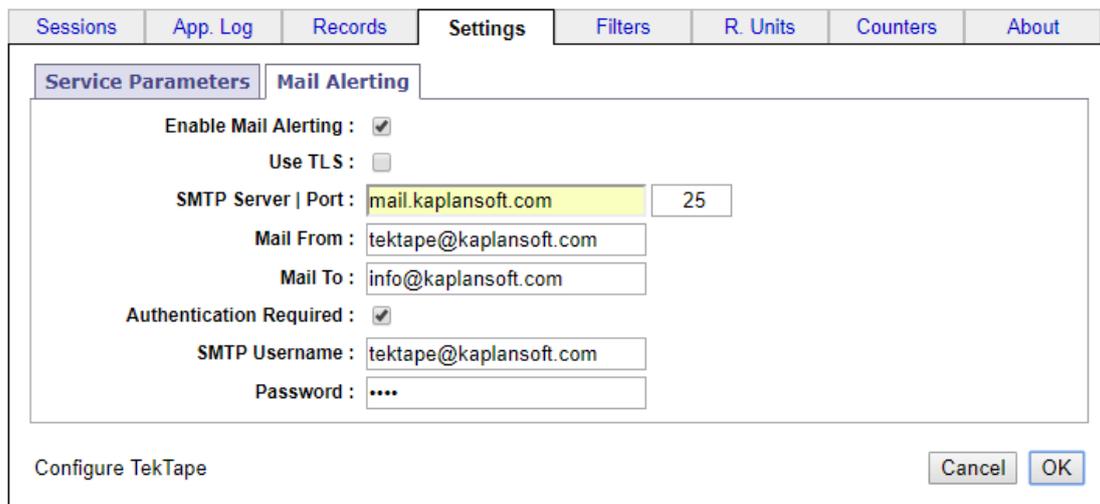
Figure - 3. TekTape Settings / Mail Alerting tab

Filters

You can specify capture filters based on IP address, called number, calling number and SIP user agent based at Filters sub tab. Specified filter is verified as you type.

Figure - 4. TekTape Settings / Filters tab

Sessions

You can monitor active SIP calls in Sessions tab. You can also specify capture type and capture interface in Sessions tab. Session interface allows you to terminate SIP calls established using UDP and TCP transports; TekTape can send artificial SIP BYE requests to call endpoints. You can listen ongoing SIP call by clicking play button in the session entry. Sessions list refreshed automatically. You can stop packet capturing without stopping TekTape service by clicking Stop button. You will be logged out when you click Logout button.
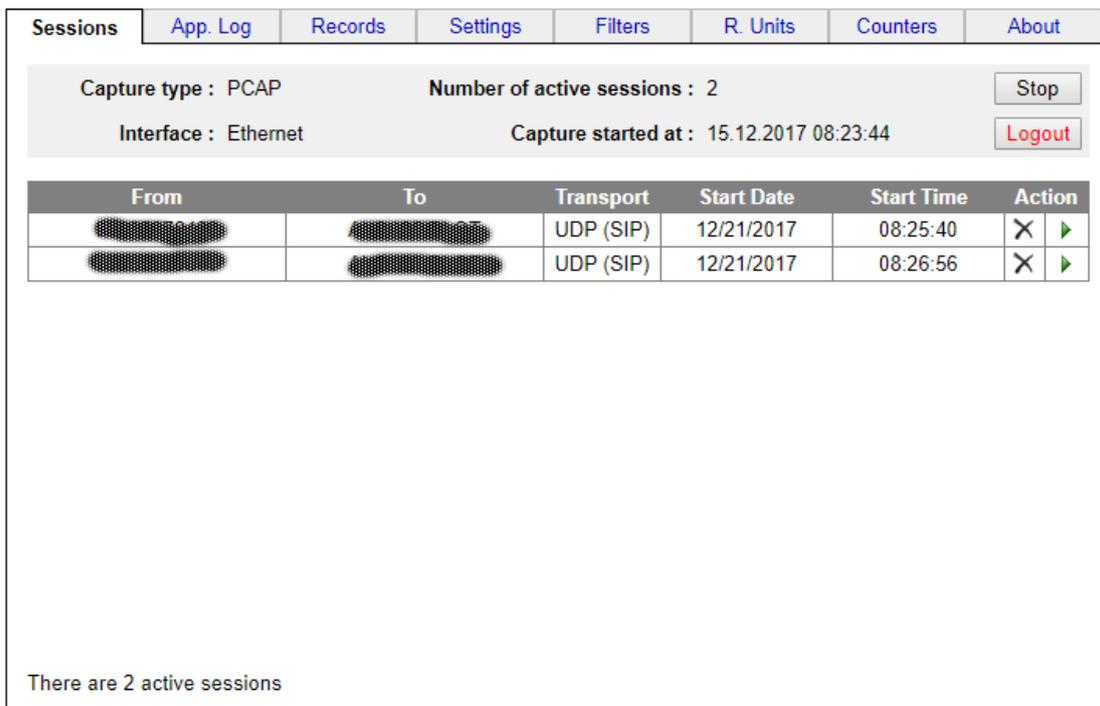
Figure - 5. Sessions Tab

Please set following filter in Mikrotik for proper operation when you use TZSP;
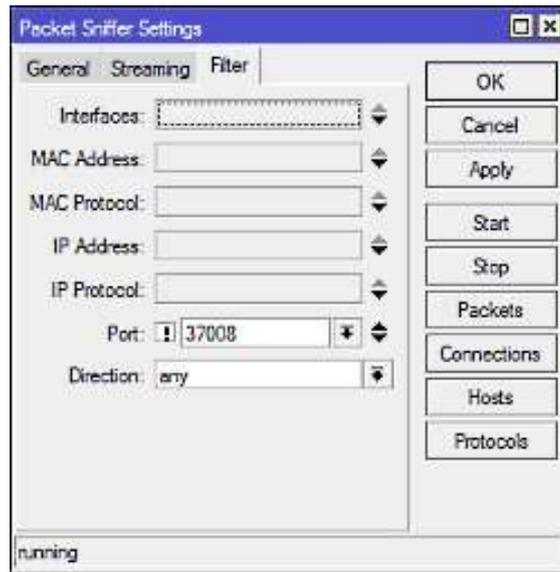
Figure - 6. Mikrotik Packet Sniffer Settings

Recordings

You can browse recorded audio files through Recordings tab. You can filter based on calling, called number, date/time range and call duration. You can play, save and delete listed audio recordings.

Figure - 7. Recordings

When a standard us logged only this tab will be displayed.

Application Log

You can monitor system events in Application Log tab.

Figure - 8. Application Log Tab

Remote Units

You need to specify remote unit which will send recorded audio files to the master unit. Every remote entry must have a description, valid IP address and a secret for authentication. Connected unit will be marked with a green icon.

Figure - 9. Remote Units

Counters

Figure - 10. TekTape service counters

You can monitor service activity through counters tab. You can see number of audio files waiting in transfer que when your run TekTape in Remote mode. You can initiate file transfer manually by clicking Send button in counters tab when operating in Remote mode. TekTape will not allow you to initiate files transfer if there is already active transfer process.

TekTape periodically checks available disk space in recording disk and issue an alarm in Windows Event Log / Application if used space exceeds 70%.

Index