



MULTI-CHANNEL CALL RECORDING AND MONITORING SYSTEM



Smart Logger is a multi-channel voice and screen recording solution. It allows our customers around the world to capture and analyze all internal and external interactions across various types of communication channels (analogue, TDM, VoIP, etc.).

Smart Logger is intended for quality assurance, performance analysis and can be used for workforce and business processes optimization.

Smart Logger allows solving any practical tasks for call recording in areas of public safety, security, business and in industrial, transport and energy enterprises.

About Smart Logger

Multi-channel call recording solutions of STC Group were presented for the first time at the telecom market in 1997 and since then have been used all over the world.

Smart Logger has gained acceptance in the call center industry due to the intellectual work of scores of developers, engineers and analysts who support Smart Logger at a high technological and functional level.

Applications

- Call centers (public and private entities): record conversations for safety reasons (e.g. threats, terrorist calls), customer satisfaction issues, to monitor and improve staff performance
- Call centers of financial institutions (banks, insurance companies, brokerage firms): record verbal communications for financial security purposes and to monitor call quality
- Energy and Utility providers: record calls for effective risk management
- Police, military and government agencies: record and retrieve recorded calls with reliable call logging solution
- Emergency services (fire, ambulance, rescue): record incoming calls to ensure efficient follow up
- Crisis hotlines

Flexible user-friendly interface



Features

- Total call recording
- Registration of information associated with call
- Playback with noise reduction and automatic gain control
- Real-time audio channel monitoring
- Notifying call parties about recording
- Search grids (filters, sorting)
- Analytics and scorecards tools
- Screen recording
- Data archiving (CD, DVD, external repositories)
- Records export and their playback by usual media player
- Sampling frequency: up to 48 kHz
- System monitoring
- Discretionary access control and user's actions logging and many more
- Authorized-only access
- Virtual environment support (ESXi, Hyper-V)
- User LDAP-authorization
- Internal storage of recorded calls in .sl2 and open .wav formats
- ClickOnce installer support

Main Benefits

Smart Logger supports more than 40 components designed for different practical tasks.

High quality audio recording. Smart Logger records can be used for a person identification by speech and voice.

Unique speech technologies. The best noise suppression filters and emotion detection analytics.

Wide set of registered parameters. Quantity of repeated calls, client/agent interruptions, client/agent speech duration ratio, hold/transfer calls per client, silence percentage, etc.

Single window multi-role interface. Easy-to-use, personalized GUI.

Flexible platform. Universal architecture, different configurations.

Robust solution. Hardware and software redundancy, 24/7/365 readiness.

Seamless integration. CTI, CDR/SMDR support and interaction with information systems (CRM/ITSM) of customers via API.

Infrastructure Integration

Smart Logger is easily implemented and regularly verified for compliance with the latest telecommunication solutions.

Smart Logger successfully interoperates and is compatible with products of world's leading telecom equipment vendors, which guarantees a high quality performance of Smart Logger multi-channel call recording and monitoring systems.

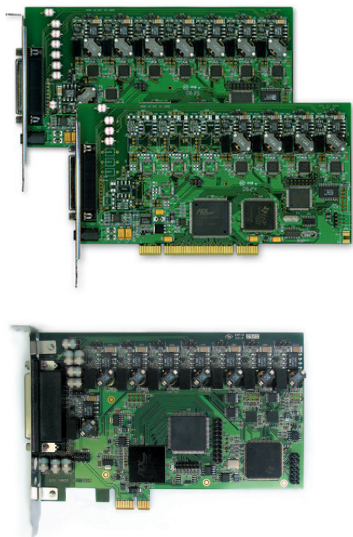
Smart Logger provides great possibilities for integration with third-party systems such as CRM, BI, DLP, etc.

Smart Logger supports a wide range of expansion cards and external input devices for operation with different signal sources.



Interface Boards

Version	Signal Sources	Interface	Daughterboards
STC-H205/4	4 analogue signal sources 16-bit ADC, S/N minimum 80 dB	PCI	–
STC-H205	8 analogue signal sources 16-bit ADC, S/N minimum 80 dB	PCI	–
STC-H433	8 or 16 analogue signal sources 24-bit ADC, S/N minimum 85 dB	PCI Express x1	STC-H465 – extension to 16 signal sources
STC-H537	6 or 12 digital extensions of digital deskphones	PCI	STC-H529 – extension to 12 digital lines
STC-H199.01	ISDN PRI E1 trunk	PCI	–



Ethernet Connected Input Devices

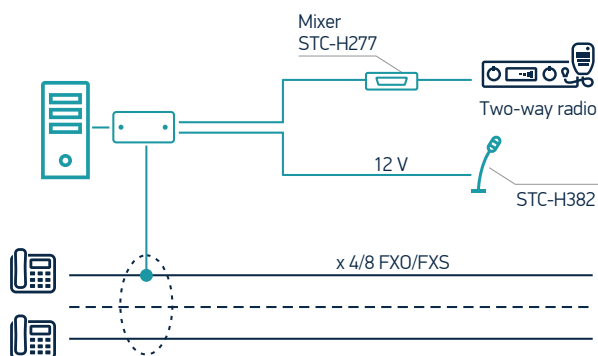
Model	Signal sources	Dimensions	Power supply
STC-H605	Up to 8 analogue sources Up to 6 digital sources Up to 2 E1 streams	111x175x45 mm	External 110-240 VAC / 12 VDC power adapter
STC-H606	Up to 16 analogue sources Up to 12 digital sources Up to 4 E1 streams	188x172x55 mm	
STC-H730	Up to 16 analogue sources Up to 12 digital sources Up to 4 E1 streams	482x199x44 mm	Internal power supply 110-240 VAC
STC-H727	Up to 48 analogue sources Up to 36 digital sources Up to 8 E1 streams	482x199x44 mm	



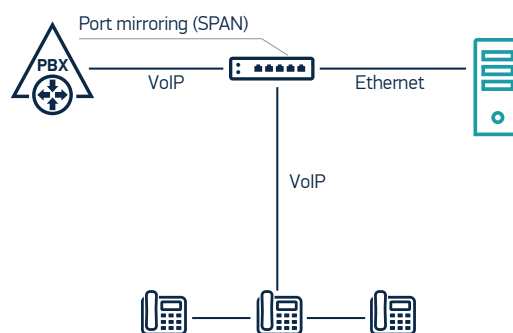
On request, Ethernet connected input devices can be manufactured with any acceptable performance and in any acceptable configuration.



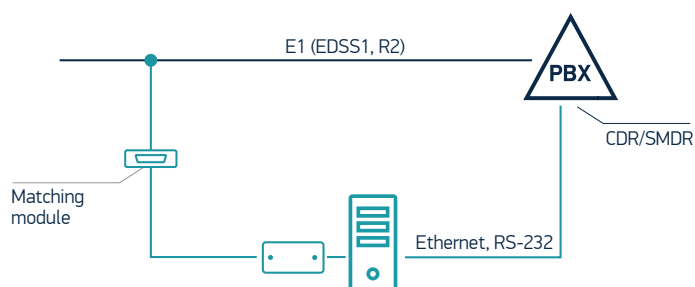
Analogue extensions recording



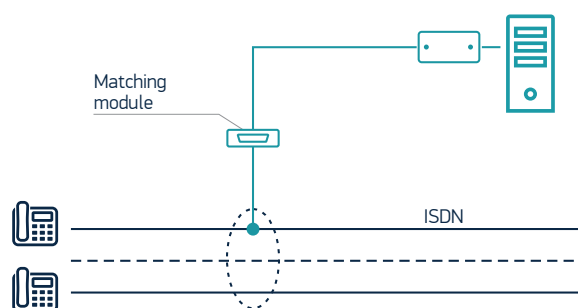
VoIP telephony recording



E1 trunks recording



Digital extensions recording



Specifications&Requirements

Typical record station up to 100 channels

- CPU Intel Core i5-6300
- Two 500 GB hard drives
- 8 GB RAM
- 100/1000 Mbit/s Ethernet

Record station OS

- MS Windows 7/10 x64
- MS Windows Server 2008 R2 SP1/2012 R2/2016

User's workstation OS

- MS Windows 7/8/8.1/10
- MS Windows Server 2008 R2 SP1/2012 R2/2016

DBMS

- MS SQL Server (2008 and above) Express Edition – up to 1,5 million recordings
- MS SQL Server (2008 and above) Standard Edition – up to 100 million recordings

CTI support

- Avaya
- Cisco
- Naumen
- Samsung
- SAP
- Unify

Signal sources

- Analogue and digital extensions
- ISDN PRI E1 trunks (EDSS1,R2)
- VoIP telephony
- Microphones of different types
- Two-way radio and line outputs
- 2-wire and 4-wire digital extensions

Audio file formats

- .wav, mono/stereo, .sl2 (proprietary)
- PCM (8; 11,025; 16 kHz), G.711 (A-,μ-law), ADPCM, GSM 06.10, G.729A
- Multi-track recording for analogue signals

Highlights

Automatic Recording

Recording of each channel can be started by the following:

- Operator command
- Acoustic level (omitting silence while recording from microphones)
- Off-hook detection
- Control commands from external systems and devices

Real-Time Audio Monitoring

Smart Logger displays channel state and allows for real-time audio monitoring with available functions of noise suppression and automatic gain control. A recording channel can be marked for audio monitoring at the moment of the ongoing recording or while waiting for activity. Smart Logger allows for audio monitoring of several channels.

Web-Interface

The web-client provides an access to recordings and statistical information from computers of any configuration with any operating system. New tools will be highly valued by users:

- Calls flow intensity analysis on a user-friendly visual calendar
- Customizable set of statistical indicators
- Direct link from statistics to recordings
- Text queries for recording search, e.g. "last month, outgoing"

Playback

Playback functions include the following:

- Noise suppression
- Automatic gain control
- Slowing down/speeding up without pitch change
- Loop playback
- Voice activity detection
- Consecutive playback of several recordings
- Playback of several recordings in accordance with record start time
- Automatic marking of played back recordings

Screen Recording

With Smart Logger, your employees' desktops can be monitored and recorded. Screen recording is synchronized with the recording of related call. The recording quality can be adjusted. Video frame capture frequency is from 2 up to 10 frames per second, data compression is performed using modern compression codecs.

Supervision and Processing

Audio recordings can be marked or commented. Colored marks can have various meanings customized by the user. Audio recordings marked as important are not deleted in loop recording mode. All the information is stored in the database and can be accessed by authorized users.

The screenshot displays the Smart Logger web interface. The top navigation bar includes 'Calendar', 'List', and 'Reports' tabs. The left sidebar contains filters for 'Common', 'Today', 'Yesterday', 'Current week', 'Current month', and 'Important'. The main content area shows a list of recordings for February 18, 2018. Each entry includes a star icon, a timestamp, a phone number, a name, and a status. A detailed view of a recording is shown on the right, including fields for 'Recording ID', 'Date and time', 'Duration', 'Recording station', 'Call information', 'Additional information', and 'Comments'. The bottom section shows a waveform and a play button.

Date and time	Subscriber 1	Subscriber 2	Status	Call information
2/20/2018 5:39:52 PM	"6924" <sip:6924@192.168.2.40>	"2036" <sip:2036@192.168.2.40>	FORGETM	20131003173952_579E7BF
2/20/2018 5:35:49 PM	"6628" <sip:6628@192.168.2.40>	sip:6666@192.168.2.40	FORGETM	20131003173549_79028E5
2/20/2018 5:33:14 PM	"6924" <sip:6924@192.168.2.40>	"2036" <sip:2036@192.168.2.40>	FORGETM	20131003173314_2E038BE
2/20/2018 5:29:39 PM	"6232" <sip:6232@192.168.2.40>	sip:988432217486@192.168.2.40	FORGETM	20131003172939_6968074
2/20/2018 5:26:05 PM	"6924" <sip:6924@192.168.2.40>	"Lyokov K." <sip:6675@192.168.2.40>	FORGETM	20131003172910_138FB7E
2/20/2018 5:16:46 PM	sip:6707@192.168.3.62	"Secretary" <sip:6115@192.168.2.40>	FORGETM	Houston, we have a problem
2/20/2018 5:15:29 PM	sip:6246@192.168.2.163	"Secretary" <sip:6115@192.168.2.40>	FORGETM	20131003171646_8C0D0E0
2/20/2018 5:15:29 PM	sip:6707@192.168.2.40	"Semenov N.N." <sip:6904@192.168.2.40>	FORGETM	20131003171529_137ECAE
2/20/2018 5:15:04 PM	sip:6269@192.168.3.236	"Voronov A." <sip:6718@192.168.2.40>	FORGETM	20131003171504_D5668EE
2/20/2018 5:14:02 PM	"6697" <sip:6697@192.168.2.40>			
2/20/2018 5:12:10 PM	"6628" <sip:6628@192.168.2.40>			
2/20/2018 5:09:44 PM	"6924" <sip:6924@192.168.2.40>			
2/20/2018 5:09:39 PM	"6733" <sip:6733@192.168.2.40>			
2/20/2018 5:08:00 PM	"6269" <sip:6269@192.168.2.40>			
2/20/2018 5:07:31 PM	"6628" <sip:6628@192.168.2.40>			
2/20/2018 5:03:28 PM	"6269" <sip:6269@192.168.2.40>			
2/20/2018 5:02:10 PM	"6628" <sip:6628@192.168.2.40>			
2/20/2018 5:02:06 PM	"6924" <sip:6924@192.168.2.40>			
2/20/2018 4:59:02 PM	sip:6733@192.168.4.147			
2/20/2018 4:53:14 PM	"6754" <sip:6754@192.168.2.40>			
2/20/2018 4:53:06 PM	"6734" <sip:6734@192.168.2.40>			



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