Telecommunication Voice Recording System
ATIS VC-MDx

General description

The Registrophone (digital voice recorder) Pupin-Atis VC-MDx is used for recording and archiving conversations between participants on telephone and radio links. It consists of a computer with an associated peripherals (keyboard, mouse, monitor, external speakers) and an alarm (external) unit.

In the computer itself, there are interface boards in the form of PCI cards whose basic function is to detect and record traffic on telephone and radio lines. Dedicated software installed on the computer processes recordings that interface boards collect from telephone and radio lines and archive them as such on internal hard drives. This software allows you to listen to conversations that are in progress, those that have already been archived, and to transfer archived recordings to some permanent memory.

The alarm unit is located at the dispatcher's desk and its role is to monitor the operation of the registrophone and in the event of any irregularity in the operation of the registrophone audibly and visually inform the dispatcher about the malfunction.

The registrophone computer is in the form of a standard desktop housing with an associated peripherals (keyboard, mouse, monitor, external speakers), and is mounted within the railway station room where telephone and radio connections used by the dispatcher in daily work are located.

The registrophone can record and archive up to 256 telephone or radio channels. Telephone and radio connections that are recorded are routed from the terminal block with the cable to the 50-pin connector on the registrophone interface boards. The recordings on the registrophone can be accessed locally and remotely (provided there is a LAN connection between the registrophone and the client computer with the appropriate software).

Hardware requirements

The computer needs to be of some standard configuration with a 500W power supply module and the following hardware features:

- industrial motherboard with Intel chipset
- intel i3 processor or higher
- RAM minimum 8 GB
- minimum 2 hard drives, each with 1TB capacity in RAID1 configuration (mirror mode)
- LAN connection (to access recordings from a remote location)
- minimum 1 free USB port (for USB dongle)
- PCI port (as many as there are interface boards)

Software

The following software can be installed on the computer:

- Windows 10 Professional or later
- Microsoft NET Framework 3.5
- SQL Server (for database storage)
- drivers for interface boards
- application Configurator (for working with system users and recordings databases)
- application Recorder for use of registrophone (system setup and working with recordings themselves)

Alarm unit

The alarm unit is realized in the form box with visual (in the form of 3 LEDs) and sound signaling (piezo buzzer with several sound frequency). Inside the registrophone (on one of the interface boards) there is a piece of hardware with 3 relays that transmits information through the 15-pin connector (on the back of the computer case) to the alarm unit in the event of any irregularities in the operation of the registraphone itself.

The errors that this hardware (together with the software) detects and forwards to the alarm board refer to software, hardware errors and global (critical) errors.