

# REMOTE MANAGEMENT OF COMPUTERS

## RDP

It allows you to connect to another PC on the local network. RDP uses peer-to-peer connections.

## VNC

It is a system that allows the transmission of video from virtual/physical environments graphics. The system uses the RFB protocol (Remote Frame Buffer).

## web RTC

This technology allows real-time communication over the Internet webRTC is an open-source project developed by W3C organizations.

## INTEL vPRO /AMT

It is a powerful platform for managing computers remotely. To use vPro/AMT, a processor, and motherboard supporting Intel vPro/AMT are required.

## MAIN FEATURES

- ✓ Use of stable open source components (webRTC, VNC, free RDP),
- ✓ Integration with Intel vPro/AMT,
- ✓ Ability to manage computers behind NAT,
- ✓ Encrypted data transmission
  - ✓ - the method of encryption depends on the technology,
- ✓ File management capability (RTC),
- ✓ Remote terminal (RTC),
- ✓ Ability to record a remote session (RTC),
- ✓ Operating system independence
  - ✓ - VNC and RTC have a client for Linux and macOS,
- ✓ There is no installation of additional frameworks (e.g. .NET),
- ✓ Possibility to install the client from within AD and eAuditor,
- ✓ Ability to log in as a user or service.

## WHAT IS A REMOTE DESKTOP?

A remote desktop is a solution that allows you to share a user's screen image of another computer. The eAuditor system allows remote connection via RDP, VNC, Intel vPRO/AMT, and webRTC. In addition to providing a remote desktop, webRTC technology allows file management and real-time terminal access. Remote desktop is most commonly used by IT professionals, who use remote sessions to help other employees with computer or software configuration problems. Remote desktop saves time because an IT specialist can do his work remotely without visiting the computer which helps reduce support costs. Remote desktops can be used as a tool for remote work - the service allows connection to a computer located in the office from the employee's equipment.

## SECURITY OF REMOTE CONNECTIONS

eAuditor allows the encryption of data during remote connections. Transmitted data is encrypted using the RSA method with a public and private key and min. 128 bit. AES cipher to secure the sessions.

## TIME-SAVING

eAuditor allows you to establish remote connections using proven technologies available on the market. It takes just a few clicks in the system console to establish a connection to a computer.

## RDP REMOTE DESKTOP PROTOCOL

Allows you to connect to another PC on your local network. RDP uses peer-to-peer connections. RDP requires that the RDP server be installed and properly configured on the target PC.

### Benefits of RDP connection:

- the user has access to the actual monitor image of the remote computer,
- the user has access to and the ability to manage the computer's resources via the devices' output/input.

## VNC VIRTUAL NETWORK COMPUTING

The system uses the RFB (Remote Frame Buffer) protocol. RFB works at the level of the frame buffer, which is the same as the image visible on the screen. This allows it to be used in any windowed operating system. The use of a Remote Frame Buffer requires that a frame buffer program (VNC server) be run on the user's computer to send data to the client (eAuditor console). Frame buffer image transmission generates a lot of network traffic, this protocol works best on high-bandwidth connections.

### Benefits of VNC connection:

- use of open source components,
- access to the user's session (RDP logs out the user when the administrator logs in).

## WEBRTC VIRTUAL NETWORK COMPUTING

The technology is a simple API that, through the use of web sockets, allows the transmission of not only audio or video, but also files. Data transmission is carried out using SRTP (Secure Real-time Transport Protocol), which guarantees secure business communications. To use webRTC in the eAuditor system, installation of the RTC agent (client computer) and RTC server (eAuditor server) is required.

### Benefits of webRTC connection:

- high level of security,
- ability to use a remote file manager or terminal,
- ability to connect to a computer behind NAT.

## INTEL VPRO/AMT

It is a powerful platform for the remote management of computers. Using Intel vPro/AMT, we can conduct a remote desktop, remotely configure the network card, boot a shutdown computer, or reinstall the operating system.

### Benefits of Intel vPro/AMT combination:

- unlimited computer configuration possibilities,
- ability to reinstall the OS,
- technology is developed and supported by Intel Inc.

## COMPARISON OF REMOTE DESKTOP METHODS

	independence from OS	built-in module allowing to record of a remote session	access to source code (possibility of code review)	the need to install the software on the end computer	the need for support on the hardware side	possibility of connecting to a computer behind NAT <sup>3</sup>	access to a remote terminal	access to the file manager from the browser level
RDP	✗	✗	CZĘŚCIOWA	✓ <sup>2</sup>	✗	✗	✗	✗
VNC	✓	✗	✓	✓	✗	✗	✗	✗
RTC	✓	✓	✓	✓	✗	✓	✓	✓
vPRO/AMT	✓	✗	✗	✗	✓ <sup>1</sup>	— <sup>4</sup>	✗	✗

1 - PROCESSOR MUST SUPPORT INTEL VPRO/AMT TECHNOLOGY.

2 - NO SUPPORT FOR BASIC WINDOWS VERSIONS.

3 - APPLIES TO THE EAUDITOR SYSTEM.

4 - DEPENDENT ON PROCESSOR VERSION. FULL SUPPORT FROM ME W 11. X - 6TH GENERAC.

## RDP SUPPORT

	Home	Pro	Enterprise
MS Windows 8	✗	✓	✓
MS Windows 10	✗	✓	✓