

# **R o g e r   A c c e s s   C o n t r o l   S y s t e m   5 v 2**

Application note no. 005

Document version: Rev. C

## **RACS 5 software and PC requirements**

Note: This document refers to RACS 5 v2.1.2 or newer

### ***Introduction***

The RACS 5 software consists of following main components:

- RogerVDM
- VISO and VISO SMS
- RogerSVC
  - Communication Server
  - Integration Server
  - Virtual Controllers Server
  - License Server
- MS SQL Server database

All mentioned programs can be installed and operated either in LAN or WAN. Communication between programs in RACS 5 system is conducted by means of WCF technology. Communication with access controllers is encrypted with AES128 CBC method while communication between Communication Server (RogerSVC) and VISO can be encrypted with TLS 1.2.

### ***Roger VDM***

This program operates as a Windows application and is dedicated to so called, low-level configuration of RACS 5 hardware (controllers, reader, expanders). It is used during system installation and does not need connection neither to database nor any other RACS 5 software. Usually it is installed on installer's laptop.

### ***VISO and VISO SMS***

VISO operates as Windows application and is dedicated to configuration of RACS 5 high-level logic as well as management of RACS 5 day-to-day operations. In case of RACS 5 v2 it can also be used for low level configuration instead of RogerVDM. VISO can be installed and started on multiple workstations enabling simultaneous management of RACS 5 by multiple operators. The program operator rights (roles) can be defined individually. The VISO application is available in various versions which can be complemented with additional functionalities based on purchased licenses. In case of such licensed functionalities it is necessary to use License Server from RogerSVC software and RUD-6-LKY or RLK-1 hardware license key.

VISO SMS is based on VISO software and it offers functionalities of Security Management System. It is mainly used to visualize, monitor and control such security systems as fire alarm system,

intruder alarm system, perimeter protection system, access control system and CCTV system. The essential component of VISO SMS is Maps Monitor which can be used to localize all kinds alarms and faults in a facility. More information on VISO SMS is give in AN055 application note.

## ***Roger SVC***

### **Communication Server**

Communication Server (Windows service) provides communication between access controllers, VISO software and database.

### **Virtual Controllers Server**

Virtual Controllers Server (Windows service) is required for integrations developed by Roger company and concerns among others the integration with fire alarm and intruder alarm systems.

### **Integration Server**

Integration Server (Windows service) provides the API interface for third party programs. The server allows them to access system database and offers range of API functions which can be used either to configure the system (system synchronization) or trigger system action (e.g. remote door opening, alarm clearance, automation control etc.).

### **License Server**

License Server (Windows service) is responsible for validation of system license particularly when additional functionalities or integrations with other systems are required. It requires RUD-6-LKY hardware key which is connected to USB port or RLK-1 hardware key which is connected to LAN.

## ***Database***

RACS 5 v2 can operate with centralized type MS SQL Server 2012 SP4 (or higher) e.g. Express, Standard, Enterprise. Contrary to RACS 5 v1 system, the local type MS SQL Compact database cannot be operated because it is not supported by Microsoft company anymore.

In case of centralized MS SQL Server database it is necessary to download and install SQL Server system from Microsoft webpage and then to create the database in such system using VISO program as explained in AN017 and AN006 application notes.

## ***Hardware requirements and operating system***

The information presented below has an informative character. Generally the more powerful computer/server the more effectively the software is operated. The computers used for RACS 5 system should be selected in conjunction to the system size and required responsiveness.

### **Operating system**

Windows operating system with MS .NET Framework 4.8 installed

Required dependencies:

- MS Visual C++ 2010 Redistributable (x86 or x64)
- MS Visual C++ 2015 Redistributable (x86 or x64)

### **RogerVDM**

- RAM: 4 GB
- CPU: Intel i3 or equivalent
- HDD: 100MB

## VISO

- RAM: 8 GB (16 GB for large systems\*)
- CPU: Intel i5 or equivalent (i7 for large systems\*)
- SSD: 500 MB for VISO
- Recommended screen resolution: min. 1280x1024

\* more than 50 access controllers

## VISO SMS

- RAM: 16 GB (32 GB for large systems\*)
- CPU: Intel i5 or equivalent (i7 for large systems\*)
- GPU: dedicated, min. 2GB VRAM
- Recommended screen resolution: min. 1920x1080

\* large maps in SVG format and more than 100 objects per map

## RogerSVC

Small systems (up to 50 access controllers)

- RAM: 8GB (16GB recommended)
- CPU: Intel i5/i7 (6 cores) or equivalent
- SSD: 500 MB

Large systems (more than 50 access controllers)

- RAM: 16 GB (32GB recommended)
- CPU: Intel i7/i9 (8 cores) or equivalent
- SSD: 500 MB

In VISO SMS systems with multiple integrated fire panels and intruder alarm panels it is recommended to divide the communication with them between two Virtual Controllers Servers from RogerSVC software. In such case each Server must be installed on individual computer/server.

## Centralized database

MS SQL Server Express is dedicated to smaller systems where the number of registered events is relatively limited. Prior to selection of the version of MS SQL Server it is necessary to analyse limitations and requirements of Microsoft company:

<https://docs.microsoft.com/en-us/sql/sql-server/install/hardware-and-software-requirements-for-installing-sql-server-ver15?view=sql-server-ver15#hwswr>

In large systems especially in EX version it is recommended to apply MS SQL Standard or Enterprise instead of free of charge Express.

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