

## **RACS 5 Software and PC Requirements**

### **Introduction**

The RACS 5 software consists of following components:

- VISO Desktop Client
- Roger Services Manager
- RogerVDM
- Communication Server
- Integration Server
- License Server
- Database

All this elements can be installed either in LAN or WAN. Communication between programs in RACS 5 system is conducted by means of WCF technology. Communication between PC software and access controllers is encrypted by AES128 CBC method.

### **VISO Desktop Client**

This program operates as Windows application and is dedicated to configure RACS 5 high-level logic and manage its day-to-day operation. VISO can be used simultaneously by multiple operators. The program operator rights can be set individually. The VISO application is available in two versions: VISO ST and VISO EX. VISO ST is a standard version of VISO application which is distributed free of charge and doesn't require license key. The VISO EX is an extended version of VISO application and requires license and hardware key.

### **Roger Services Manager**

This program operates as a Windows application and is dedicated to manage all RACS 5 system services.

### **RogerVDM**

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

### **Database**

RACS 5 can operate with following type of databases:

- MS SQL Server (2005 and higher)
- MS SQL Server Express
- MS SQL Server Compact

The MS SQL Compact database is automatically installed along with VISO program and doesn't require neither installation nor configuration. The installation and configuration of MS SQL Server or MS SQL Server Express must be provided by IT system administrator. If system operates with MS SQL Server Compact, both VISO application and database must be installed on the same PC machine.

## Integration Server

This program operates as a Windows service and provides an API interface for third party programs. The Integration Server enables access to system database and offers the range of API functions which can be used to configure the system (system synchronization) and trigger system action (e.g. door opening, alarm clearance, automation control etc.).

## Communication Server

This program operates as a Windows service and provides communication between access controllers and RACS 5 software. In case the system is using MS SQL Server Compact the Communication Server must be installed on the same PC as database.

## License Server

This program operates as a Windows service and is responsible for validation of system license. The hardware key must be connected to the USB port of the computer where License Server is running.

## PC Requirements

The data presented below has an informative character. Generally, the more power full PC machine is, the more effective software operates. The PCs used for RACS 5 system should be selected in conjunction to the system size and required dynamic of operation.

Minimal:

- RAM: 1 GB
- CPU: 1 GHz
- HD (minimum): 500 MB

Recommended:

- RAM: 4 GB
- CPU: 3 GHZ (4 cores)
- HD 1GB
- SSD HD in case of SQL Server CE

PC Operating systems:

- Windows Vista (x86 i x64) with Service Pack 2
- Windows 7 (x86 i x64)
- Windows 8 (x86 i x64)
- Windows 10 (x86 i x64)

PC Software:

- MS .NET Framework 4.0 Extended
- MS Visual C++ 2010 Redistributable (x86 lub x64)

Database requirements: <http://msdn.microsoft.com/en-us/library/ms143506%28v=sql.105%29.aspx>