

Roger Access Control System 5 v 2

Application note no. 015

Document version: Rev. A

RACS 5 system update

Note: This document refers to RACS 5 v2.0.4 or newer

Introduction

Successively released versions of RACS 5 system offer new functionalities, improve existing ones and they can include corrections of recognized errors. The update of RACS 5 system is done on hardware level and then it concerns firmware of MC16 controller and optionally its peripheral devices such as MCT terminals and MCX expanders and on software level which concerns such configuration and management software as VISO and RogerSVC.

Update from RACS 5 v1 system to RACS v2 system

Essential modifications in regard of licensing functionality and architecture were implemented in RACS 5 v2. Before starting the system update it is necessary to evaluate all costs and following functional differences.

Licensing

In RACS 5 v2 all MC16 controllers require replacement of their license files. Additionally following modules in VISO ST require license purchasing as they are not available in the basic version:

- Integration with CCTV systems (e.g. Dahua, HIK Vision)
- Integration with Integra (Satel) Alarm Panels
- Integration with RKD32 Key Cabinets
- Visitors Log module
- VISO WEB module
- VISO Mobile module

Additionally mentioned below limits are implemented in basic version of VISO ST software. They can be extended by purchase of proper license.

- Max. number of Communication Servers: 1
- Max. number of Persons: 500
- Max. number of Access Doors: 16
- Max. number of objects on Maps: 1
- Max. number of Operator workstations: 1

In case of migration from VISO EX v1 software the scope of license transfer is determined individually by technical department of Roger company.

64-bit version

RACS 5 v2 software is offered in 64-bit version contrary to RACS 5 v1 software which was offered in 32-bit version. Therefore it can be used only in 64-bit Windows OS and the default location for RACS 5 v2 software is changed from C:\Program Files (x86)\Roger\ to C:\Program Files\ROGER\.

Database model

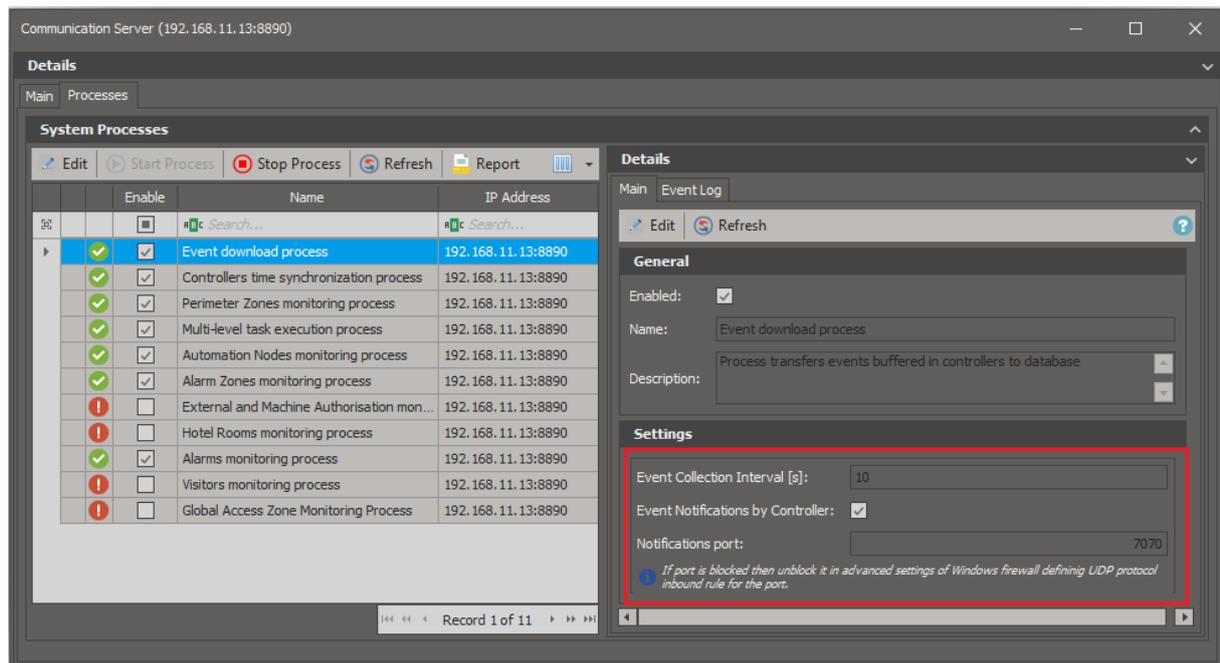
Local type MS SQL Compact database cannot be operated in RACS 5 v2 system and only centralized type MS SQL Server e.g. Express, Standard, Enterprise can be used. This is caused by the fact that Microsoft company no longer supports MS SQL Server Compact databases.

The installation of centralized type database and migration from local to centralized database is explained in AN017 application note. If RACS 5 v1 system already operates with centralized database e.g. SQL Express then during migration to RACS 5 v2 system no additional actions are required.

Event downloading from MC16 controllers

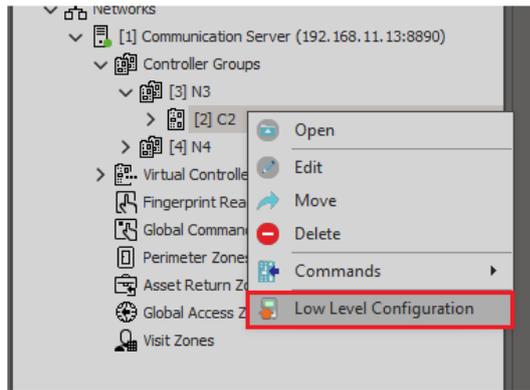
In RACS 5 v1 system, events are regularly collected from MC16 controllers and stored in database every 1s (by default) according to the parameter *Timer Interval* on the level of Event download process which is configured in VISO software.

In RACS 5 v2 system, not only equivalent *Event Collection Interval* parameter with default value of 10s is available but there is also implemented additional channel for events. Therefore events are not only collected regularly but also when controller notifies Communication Server that new events are available which in general perspective improves events collection. The option *Event Notifications by Controller* for the this additional channel is by default enabled and the channel is operated by default on port 7070. If for any reason the port is blocked for example by Windows firewall then most probably slower collection of event will be observed in RACS 5 v2 because according to default settings events will be collected regularly every 10s. In such case unblock the channel in Windows firewall and/or adapt respective settings in the window which is opened by double clicking particular Communication Server in the navigation tree of VISO software.



Low level configuration

In RACS 5 v2 system it is possible to make low level configuration of controllers and such peripheral devices as MCT terminals and MCX expanders on the level of VISO software. In such case, RogerVDM software is used only during the initial configuration of IP address and communication key of MC16 access controller. When peripheral devices are detected in VISO program as explained in AN006 application note then their low level configuration including addresses and keys can be done remotely without access to jumpers, disassembly of enclosure, disconnection ,etc.



Communication Server address

After RogerSVC update the IP address of Communication Server in RogerSVC is automatically reset to default one i.e. 127.0.0.1:8890. It can be changed to required address during configuration of the server.

Multiple Communication Servers and port forwarding

In RACS 5 v2 system, port forwarding for MC16 controllers is disabled and new, more advanced solution is implemented in regard of multiple Communication Servers and communication via router (NAT) as explained in AN008 application note.

CCTV integration

Video Link and Image Links are lost during migration. Therefore it is necessary to configure them once again after the migration to RACS 5 v2 system. Additionally, videos and images stored in database will also be lost after the migration. More information on CCTV integration is available in AN007 application note.

Maps Monitor and VISO SMS

Maps are lost during migration. Therefore it is necessary to configure them once again after the migration to RACS 5 v2 system.

In RACS 5 v2 system, the VISO SMS software is offered as a module of VISO software. The module offers functionalities of SMS (Security Management System) and it operates in connection with Maps Monitor which was significantly expanded and improved in VISO v2 software. New Maps Monitor offers among others such features as hierarchy of maps and link to submaps, zooming, moving, as well as vector, raster and AutoCad background images. Maps Monitor is licensed in regard of the number of displayed objects (Access Doors, detectors, cameras, etc.). More information on VISO SMS and Maps Monitor is given in AN055 application note.

Visitors Log

In RACS 5 v2 system, Visitors cannot be enrolled in the basic version of software but they can be managed within improved and licensed Visitors Log module. Visit Zones which are defined for the purpose of Visitors Log require reassignment of Entry and Exit Points as they are automatically removed after the update.

Access Credentials in Access User Groups

In RACS 5 v2 Access Credentials cannot be assigned to Access User Groups but Access User Persons who possess their Access Credentials can still be assigned to Access User Groups. Any Access Credentials which are assigned to Access User Group in RACS 5 v1 will be unassigned after update to RACS 5 v2.

Partitions

In RACS 5 v2 system, such elements of particular access controller as Access Doors, Access Points, etc. cannot be assigned to multiple Partitions. The whole access controller and its objects can be assigned to particular Partition. It makes the configuration of Partitions more convenient and straightforward.

VISO Web

RACS 5 v2 software is offered in 64-bit version. Therefore it is necessary to modify some settings if VISO Web is supposed to be used further for the management of RACS 5 system via web browser. More information on this subject is given in VISO Web operating manual.

Other changes

Other secondary modifications, new functionalities and integrations are implemented in RACS 5 v2. They are listed in readme.txt file in VISO software folder which by default is located in C:\Program Files\ROGER\VISO.

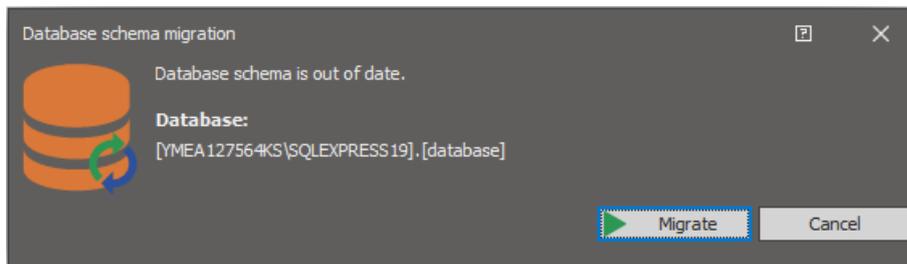
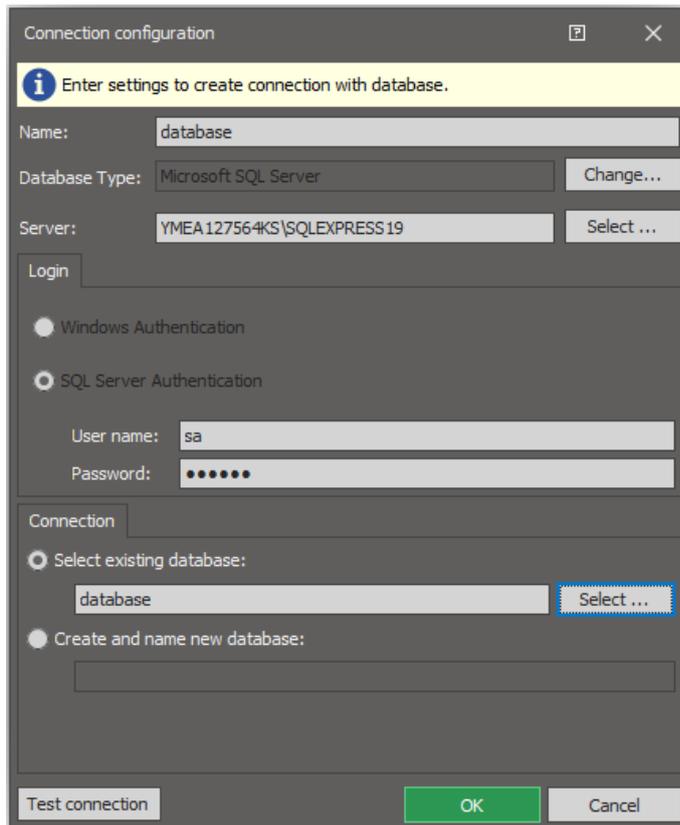
Software update

Before starting the update, contact with Roger technical support and acquire necessary licenses both on the level of VISO software and individual MC16 controllers.

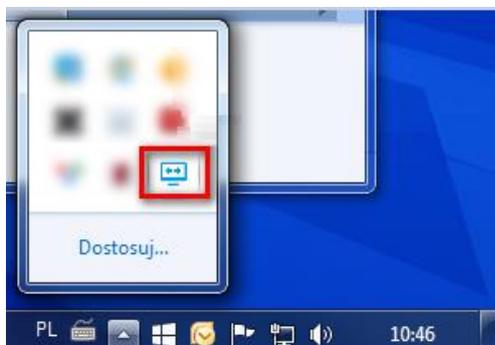
Current license of MC16 controller can be read in *License* tab after double clicking of particular controller in the navigation tree of VISO software. Alternatively controller's license.cfg file can be read from its memory card using standard FLASH memory card reader. Current VISO license (if exists) can be read in RogerSVC program in *License service* tile.

Note: If local type Microsoft SQL Server Compact database is used in RACS 5 v1 then prior to system update it is necessary to migrate the database to centralized type Microsoft SQL Server according to AN017 application note.

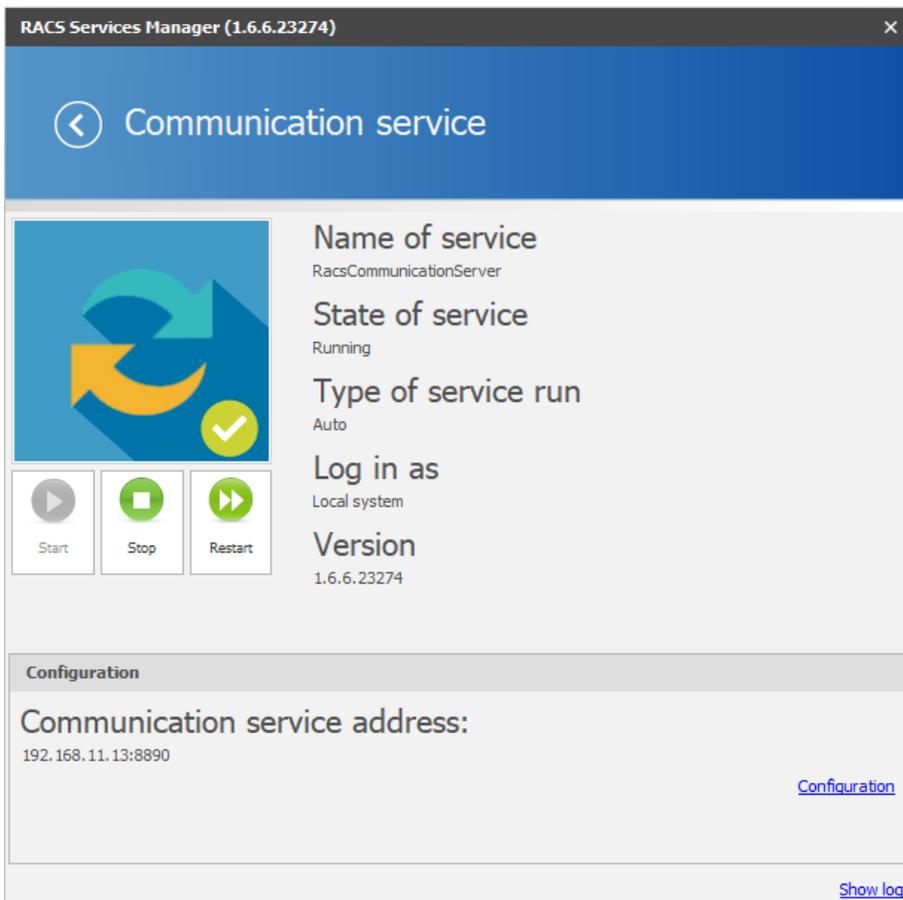
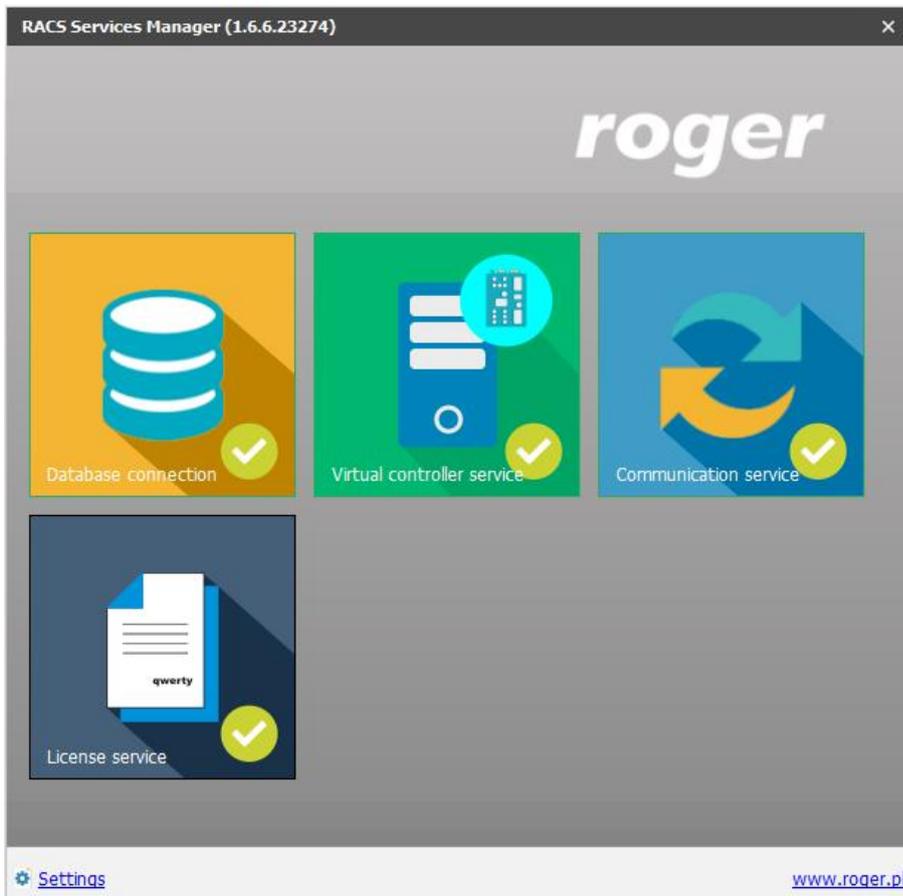
- It is necessary to manually uninstall VISO v1 by opening its default folder i.e. C:\Program Files (x86)\Roger\VISO and then starting uninst000.exe with Windows administrator rights.
- Download and install VISO v2 program from www.roger.pl.
- Start VISO v2 software and define connection to your existing database as in example below and then confirm database scheme migration and database backup. If needed, the database can be restored according to AN017 Application note which is available at www.roger.pl.



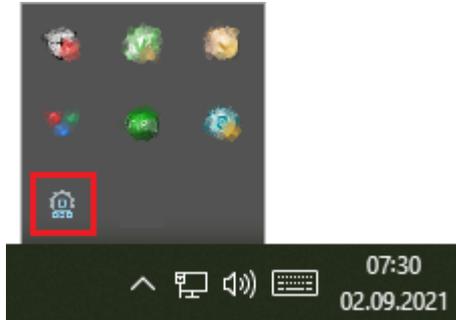
- When VISO is started, enter your login and password (by default, 'Admin' login and empty password). If no password was defined for Operator in the previous version of software then the software will force the Operator to define new password.
- Start RogerSVC selecting *Start->ROGER->RogerSVC* in Windows menu.
- Click RogerSVC icon in Windows tray.



- In the window of RogerSVC verify what servers/services are installed in the system and what is the IP address of Communication Service. Exemplary settings are shown below.



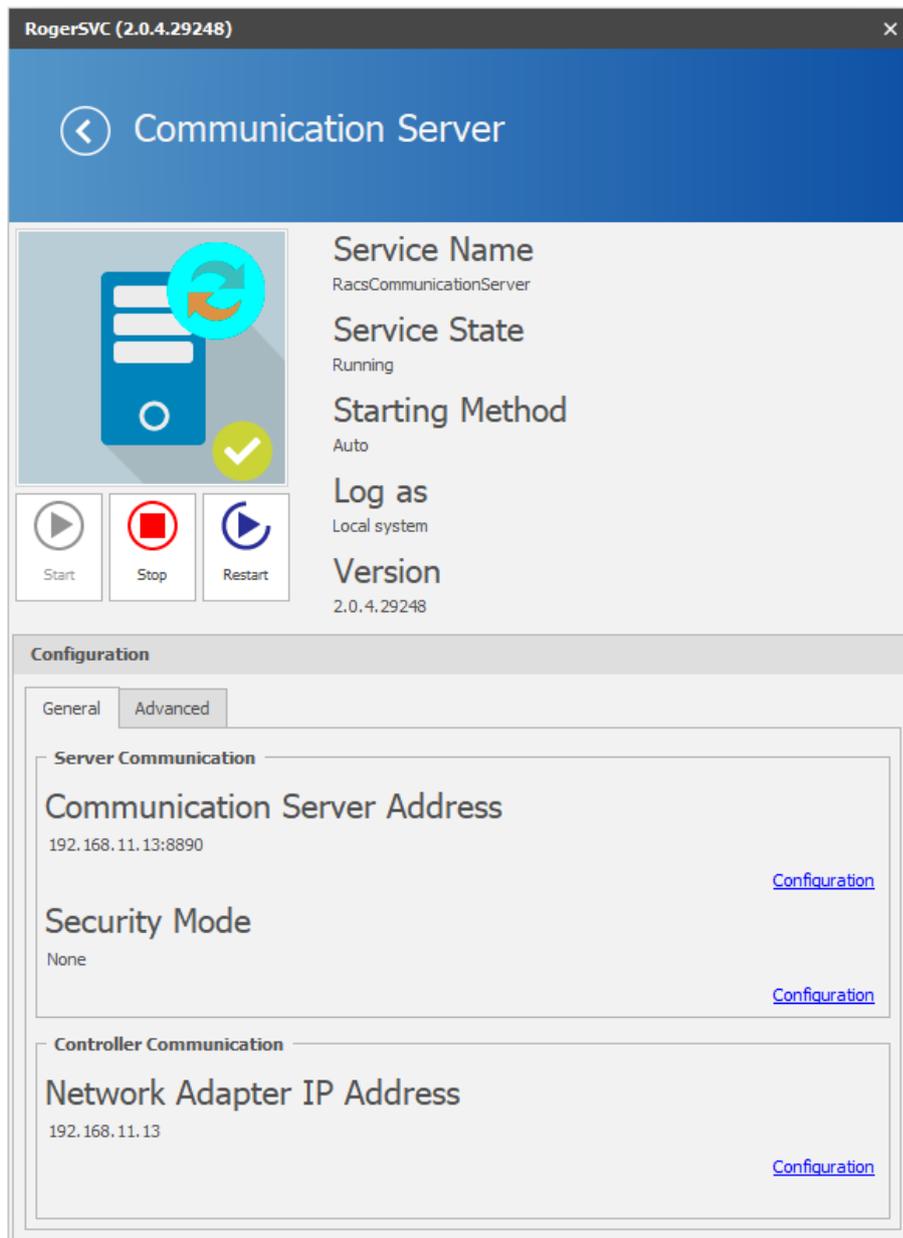
- It is necessary to manually uninstall RogerSVC v1 by opening its default folder i.e. C:\Program Files (x86)\Roger\RogerSVC and then starting unins000.exe with Windows administrator rights.
- Download and install RogerSVC v2 program from www.roger.pl. During installation select the same servers/services as installed previously. Additionally License Server can also be installed even if it was not used previously.
- Start RogerSVC and click its icon in Windows tray.



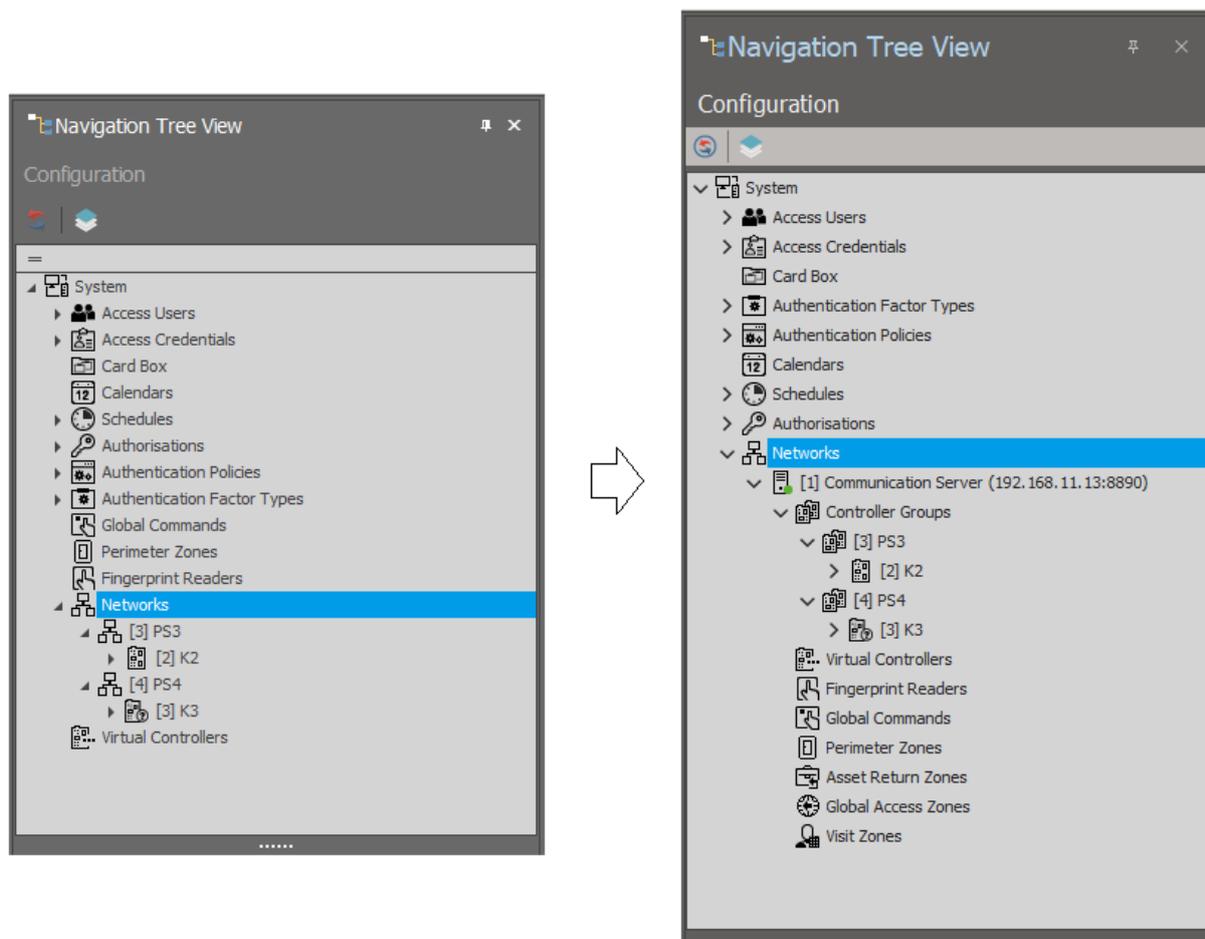
- If necessary, in the RogerSVC window click *Database Connection* tile, then *Configuration* and indicate proper database for the system. Return to the main window.



- In the RogerSVC window select *Communication Server*, click *Configuration*, enter the same IP address and port for Communication Server as before (during update the previous IP address and port will be reset to default 127.0.0.1:8890). Additionally indicate network adapter for Communication Server. If there is only one network adapter on server then it should be selected.
- Select *Start* and return to the main window. The server will be started and operated in the background whenever the computer is switched on even if RogerSVC window is closed.



- Connect RUD-6-LKY hardware key to USB port of computer with License Server installed.
- In the RogerSVC window select *License Server* tile, click *Configuration*, enter IP address of the computer with the server installed e.g. 192.168.11.13 and define port (8891 by default).
- Select *Load license file* and indicate purchased license file for RUD-6-LKY hardware key.
- Select *Start* and return to the main window. The server will be started and operated in the background whenever the computer is switched on even if RogerSVC window is closed.
- Start VISO software, in the top menu select *System*, then *Select Licensing Server* and indicate previously defined License Service from RogerSVC software in order to start the program in VISO EX version.
- After database migration the structure of controllers and networks in the navigation tree will be modified. In RACS 5 v2 it is possible to define and install multiple Communication Servers (as individual RogerSVC program installations on individual computers), each with its controller groups. Such division into individual servers is especially beneficial in geographically dispersed systems which encompass multiple company departments. After update, all networks and controllers will be moved to current Communication Server. The server in VISO will be offline so it is necessary to edit its properties and adapt its settings, particularly in regard of IP address, port and security mode so they would be the same as in RogerSVC program.



Hardware update

When new VISO software is released then it is accompanied by release of new firmware for MC16 access controllers. In order to update MC16 firmware:

- Download the latest 1.7.4.x version firmware of MC16 controller from www.roger.pl.
- Download, install and start the latest version of RogerVDM software from www.roger.pl.
- Establish connection with MC16 controller according to its operating manual.
- Save (backup) low level configuration to a file.

Note: Depending on the range of differences between previous and actual firmware, the update may restore default low level settings of MC16 controller including 192.168.0.213 IP address and empty communication key.

- Update controller's firmware according to its operating manual.
- Establish connection with MC16 controllers using RogerVDM software and previous communication parameters (IP address and communication key) or if necessary using default parameters.
- If necessary, restore low level configuration from backup file and define communication key.
- Upload low level configuration and disconnect so the controller would return to normal mode (LED2 is off).

Firmware update in case of terminals and expanders is optional and it is usually done only in case of essential reasons, e.g. to eliminate errors which are visible and are corrected by Roger in the newer firmware.

In case of update to RACS 5 v2 it is strongly recommended to update firmware of peripheral MCT/MCX devices because it will enable their low level configuration from VISO v2 software.

Otherwise they can be only individually programmed via RUD-1 interface after their disconnection from the system. Firmware update procedure is explained in installation manual or operating manual of particular device.

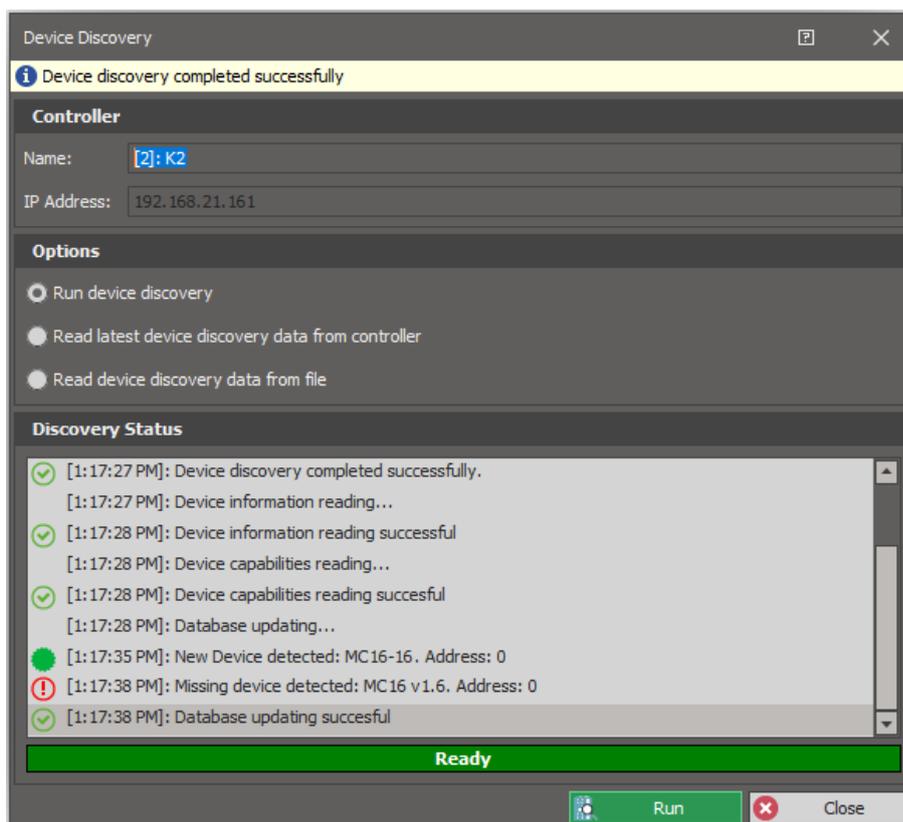
- Start VISO v2 software.

Note: If the communication key of particular controller was changed during its update then right click the controller in the navigation tree of VISO software, then select *Commands->Set Communication Key* and enter new key in VISO.

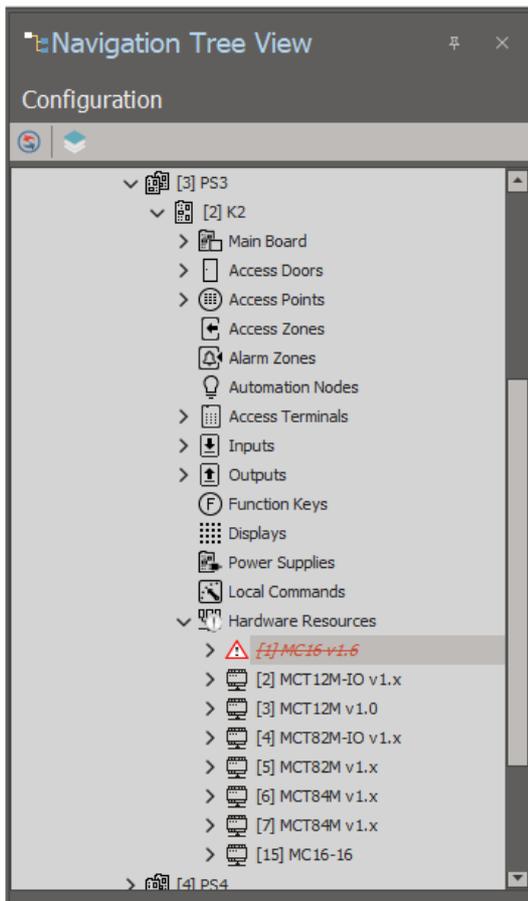
- Right click particular controller e.g. K2 in the navigation tree of VISO software and then select *Commands->Load License File*. In the opened window select license file acquired from Roger company and load it into controller.

Note: Alternatively, the license can be loaded into MC16 controller by copying license.cfg file into memory card of controller by means of typical Flash memory card reader.

- Right click the controller in the navigation tree of VISO of software and then select *Commands -> Run Discovery*.
- In the opened window select *Run*. This will start process of detecting modifications in low level configuration and firmware of controller and possibly in connected peripheral MCT/MCX devices.



- In the navigation tree of VISO software within the controller expand *Hardware Resources*, right click crossed out MC16 controller and select *Replace*. Then in the opened window select new MC16 controlled to replace the old one. Do the same procedure for MCT/MCX devices if they are crossed out on the list.



- Right click the controller in the navigation tree of VISO of software and then select *Commands* -> *Synchronise*.
- Repeat above steps in regard of firmware, license and detection for the next MC16 controller. When each controller is updated separately then access controller system can still be operated in the building as only the controller which is currently updated cannot offer its access control functions while remaining updated and not updated controllers still offer access control in the building based on their internal settings.

Optionally, by right clicking particular controller and then selecting *Move*, it is possible to relocate the controller with all its settings to another Controller Group or Communication Server. In such case, target Communication Server must have at least one Controller Group defined.

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