#### Roger Access Control System 4

Application note no. S4001

Document version: Rev. A

# Mobile identifiers in RACS 4 system

Note: This document refers to RACS 4:

- PR Master 4.5.30.1183 or newer
- PRxx2 FW 2.16.1665 or newer
- PRxx1 FW 2.18.1372 or newer

#### *Intruduction*

Users can be identified in RACS 4 access control system by means of proximity cards, PINs, fingerprints and also mobile devices with Android or iOS systems. The mobile identification can be in NFC (Near Field Communication) technology or BLE (Bluetooth Low Energy) technology on such terminals as MCT80M-BLE and MCT88M-IO which must be connected to PRxx1 series or PRxx2 series access controller via MCI-2 interface.

The solution enables to:

- Identify users via their mobiles devices with RMK app installed instead of or in parallel to proximity cards and/or other identifiers.
- Identify users on MCT terminals by:
  - selection of credential on screen and then reading mobile device at the terminal (NFC)
  - selection of credential on screen and then reading mobile device in distance of up to 10 meters from the terminal (BLE)
  - making gesture with mobile device such as rotating and shaking (BLE)

### MCT terminal configuration

According to their installation manuals, the low level configuration of MCT88M-IO and MCT80M-BLE terminals is conducted with RogerVDM software after their connection to computer via RUD-1 interface. In case of terminals for mobile identification except for addressing on RS485 bus with ID=100 address, it is possible to define such parameters as *NFC/BLE authentication factor encryption key* and *NFC/BLE communication encryption key*. Additionally factor class can be defined both for NFC and BLE. It is recommended to apply the option [3]: UCE + REK for both classes.



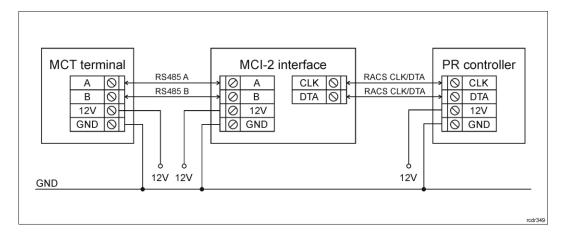
-	RogerVDM – ×				
File	Device Configuration Tools About				
•	21				
	RS485 encryption	[0]: No	^		
	RS485 encryption key	Unknown			
I Г					
	NFC/BLE authentication factor encryption key	**********			
	NFC/BLE authentication factor encryption key NFC/BLE communication encryption key	**********			
	NFC/BLE communication encryption key	*********			
	NFC/BLE communication encryption key BLE authentication factor class	**************************************			

## **MCI-2** interface configuration

According to its installation manual, the low level configuration of MCI-2 converter is conducted with RogerVDM software after its connection to computer via RUD-1 interface. It is necessary to configure RACS CLK/DTA address and Factors conversion format as below. If encryption on RS485 bus is applied then the same settings must be entered on MCT terminal side and MCI-2 interface side.

NogerVDM – ×					
File Device Configuration Tools About					
✓ General settings					
DEV (device) comment					
RACS CLK/DTA address	0				
Factors conversion format	[1]: HEX				
Communication settings					
Communication timeout [s]	20				
RS485 encryption	[0]: No				
RS485 encryption key	Unknown				
▲ Optical signalisation					
LED SYSTEM flash after card read	[1]: Yes				
LED SYSTEM flash after key press	[1]: Yes				

Terminal and converter must be connected to access controller according to the drawing given in MCI-2 installation manual which is also shown below.





## RMK app configuration

Roger Mobile Key (RMK) app for Android and iOS systems can be downloaded and installed respectively from Google Play and

App Store. After its installation, select in the top right corner and then *Settings*. Enter the same encryption keys as in case of previous configuration of MCT terminals or leave empty if they were not defined in MCT

Encryption keys and Factor class will be applied only when credential is defined. Therefore it is possible to have credentials with different keys and class in the app, which can be then used on different MCT terminals.

More information on RMK app is given in its manual which is available at <u>www.roger.pl</u>.

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Settings		
General settings		
Background service		
Logging in method		
Shake sensitivity Small		
Credential settings		
Factor class REK		
NFC/BLE code encryption	key	
NFC/BLE communication	encryption key	
OR code encryption key		

# PR Master software configuration

In order to configure PR Master software in regard of mobile identifiers:

- Start PR Master software and configure the system in regard of typical steps i.e. establish connection with controllers and detect them on RS485 bus of a subsystem.
- In the top menu of PR Master software select *Tools* > *Options* > *Cards* and then select the option 24bit (reduced card number).

CPR32-NET       Fingerprint readers       Misc.[1]       Misc.[2]         Event reports       T&A reports       XML reports and email       AD integration       Cards         Card code length       40 bit (full card number)       • </th <th>otions</th> <th></th> <th></th> <th></th> <th></th>	otions				
Card code length 40 bit (full card number) 24 bit (reduced card number) Important note! As a default the RACS system uses full 40 bit card code. The option 24 bit is dedicated for access systems intended to operate with 24 bit cards. The selection between 24 bit and 40 bit must be made prior any card will be registered in RACS system. Once this	CPR32-NET	Fingerpr	int readers	Misc.(1)	Misc.(2)
<ul> <li>○ 40 bit (full card number)</li> <li>● 24 bit (reduced card number)</li> <li>Important note!</li> <li>As a default the RACS system uses full 40 bit card code. The option 24 bit is dedicated for access systems intended to operate with 24 bit cards. The selection between 24 bit and 40 bit must be made prior any card will be registered in RACS system. Once this</li> </ul>	Event reports	T&A reports	XML reports and email	il AD integra	tion Cards
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## Mobile identifiers defining

• When PR Master software is started with /RMK parameter then RMK code is created in the properties of created or edited user and this code is based on entered card number.

User properties		×
General Identification	Keypad commands Login limits Hotel options	
PIN code PIN: Card code: 40 bit card code: 24 bit card code: 8,16 bit card code:	1234567890           0009831122           RMK Code           150,00722           9602D2           >Read card	Fingerprint templates: Number of fingerprint templates: 0 Left Right
Access period		Clear Clear OK Cancel Report Help

- Start RMK app on your mobile phone.
- In the top right corner select and then *Add credential*.
- On the screen select *Bluetooth* (BLE) or NFC, name the factor and then enter its value as in PR Master software. When the identifier is created then encryption keys and class are applied according to settings in RMK app. They must be the same as in case of terminal where user will identify.



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