# iMC Machine Panel Remote Panel Agent Installation Manual for Android

Ver. 1.0.4 2020/12/30 KOMATSU

## Change history

Version	Date of update	Update details
1.0.0	2020/2/21	Create New
1.0.1	2020/3/19	Changed the title of the manual that supports Lenovo M10 (Android9)
1.0.2	2020/8/27	Updated for M10 and TD520 (1.4.2)
1.0.2 2020/0/20		Updated screenshot of "Authorization assignment (common for all models)" to
1.0.5	2020/9/30	latest version
		Newly added "Verification method for route certificate (TD520)"
		Newly added "Verification method for route certificate (Lenovo M10)"
		Relocated descriptions concerning installation of route certificate to rear half of
		the manual
1.0.4	2020/12/30	Updated for M10 and TD520 (1.4.7)

#### Preconditions

The apk file, to be used for the procedure, must be available on the PC (Windows).

#### Method for copying the apk file, to be used for the procedure, from PC (Windows) to a terminal device

- 1 Connect the terminal device with the PC (Windows), using a USB cable.
  - \* In case of Lenovo Tab M10 (Android 9.0), the terminal device displays "Connect to PC with USB". Tap the "Media device (MTP)" option.

1:33 PM	4		• • • • • •
<del>~</del>	USE	3 computer connection	٩
		Connect as	
	۲	Media device (MTP) Lets you transfer media files on Windows, or using Android File Transfer on Mac (see www.android.com/filetransfer)	
	0	Camera (PTP) Lets you transfer photos using camera software, and transfer any files on computers that don't support MTP	
	0	Charge Only Just charge this device	
	0	MIDI Lets MIDI enabled applications work over USB with MIDI software on your computer.	
		USB debug mode USB debug mode (ADB) Enable usb debugging Official PC suite software is recommended. This window will not popup next time(You can access through notification bar)	

2 Use the Windows Explorer on the PC (Windows) to double click and open the connected terminal device listed in the "This PC" selection.



\* [Lenovo Tab M10] is displayed in case of Lenovo Tab M10.

3 Double click to open the "Internal storage".



4 Double click to open the "Download" folder.



5 Copy the apk file, copied as a part of the Precondition and used for the procedure, to the "Download" folder.

Internal storage > Download	~	G	Search Download	Q
app-komatsu-release.apk APK File				
24.6 MB				

## Installation Method for Panel Agent

#### Preconditions

1 The route certificate must be already installed.

2 The apk file, used for the procedure, must be in "Download" folder.

3 The switch for "Application with unknown information source" in Security in the terminal device settings must be enabled.

Installation (TD520 Android 6.0)

1 Open "Storage and USB" in Settings and open the "Download" folder in the storage.

Dow	nload	-	۹	F	
×.	<b>app-kom</b> a 14:17	atsu-release.apk 24.86MB			

2 Verify that the apk, copied in advance, is present and tap the file.

Dow	nload	•	۹	F	
I I IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	<b>app-kom</b> a 14:17	atsu-release.apk 24.86MB			

- **3** Tapping displays a dialog box. Tap "INSTALL".
  - \* If the dialog box is not displayed, copy the file to the "Download" folder, then find the file in the "Download" folder of the Application List and tap the apk file.

SMART CONSTRUCT	ΓΙΟN Remote
Do you want to install a application? Your existin It dose not require any s	n update to this existing ng data will not be lost. special access.
CANCEL	INSTALL



 ${\bf 5}$  Installation is completed. Tap "OPEN" and assign authorization.

*	SMART CONSTRUCT	TION Remote	
~	App installed.		
-			
	DONE	OPEN	

Installation Method for Panel Agent

#### Preconditions

**1** The route certificate must be already installed.

2 The apk file, used for the procedure, must be in "Download" folder.

Installation (Lenovo Tab M10 Android 9.0)

1 Select "File" in "Storage" in Settings and open the "Download" folder.

10:40 AN	I ♠		•	) 🗸 🖉
	Lenovo TB-X505F	۹		:
		Na	me	^
	.LenovoReaper			
	Alarms			
	Android			

2 Verify that the apk, copied in advance, is present and tap the file.

		Name
ı∰ı	app-komatsu-release.apk Oct 27 25.89 MB Android applic	

Your phone and personal data are more vulnera unknown apps. By installing this app, you agree responsible for any damage to your phone or lo result from its use.	able to attack e that you ar oss of data th	k by e nat may
	CANCEL	CONTINUE

## Panel Agent Installation Manual for Android.xlsx Installation (Lenovo Tab M10)

4 Tap "INSTALL".



Panel Agent Installation Manual for Android.xlsx Installation (Lenovo Tab M10) Confidential

5 Please standby while installation is performed.



6 Installation is completed. Tap "OPEN" and assign authorization.



#### Preconditions

This procedure must be performed on the very first occasion of starting up the Panel Agent after it is installed.

#### Authorization assignment



2 Tap " " and display "User Country List".



3 Select and set for the intended country from the User Country List.



#### 4 After the user country is set, enter a check mark for "Set the country of use".



- 5 Verify contents and scroll down to the bottom of the Terms of Service, then tap the "Consent" button.
  - \* Entering a check mark for "Do not display again" will prevent displaying of the "Terms of Service" screen from subsequent instance.



6 The "MAC Address Acquisition Agreement" screen is displayed.

1:40 PM					••••
In order to use this se information.	ervice, you mu	st agree to ser	nd the fol	lowing	
[Sending information Communication device	 ce unique ID (	MAC address)			
Agree			_		
Next				Cancel	
-					
	•	•		ů	

7 Enter a check mark for "Agree", then tap the "Next" button.

1.40 FM					
SMART CONSTRUCTIO	N Remote				-
In order to use this information.	service, you	must agree to	o send the fo	llowing	1
[Sending informati Communication de	on] evice unique	ID (MAC addr	ess)		
					l
Agree			_		
Next		_	_	Cancel	
	•			Ø	

Panel Agent Installation Manual for Android.xlsx Authorization assignment (all)

8 Tap "ALLOW" to enable file transfers and operations.



9 Enter a check mark for "Don't show again" and tap on "START NOW" to share screen display for remote support services.

UPM NG	
MART CONSTRUCTION Remote	
Open source license	
MAC Address	
4.be/46.3c:55.07	
Version Information .4.6	
SMART CONSTRUCTION will start capturing everything that's	
displayed on your screen.	
Don't show again	
CANCEL	

10 * In case of TD520 (Android 6.0)		
After tapping, "Ignore battery optimization" is displayed	. Tap '	'YES".

Ignore battery optimization	
Do you want to allow the SMART CONSTRUCTION Remote app to stay connected in the background? If allowed, battery consumption may increase.	
NO YES	
* In case of Lenovo Tab M10 (Android 9.0) After tapping, "Let app always run in background?" is displayed. Tap "ALLC	OW"
Let app always run in background?	
Allowing SMART CONSTRUCTION Remote to always run in the background may reduce battery life.	
You can change this later from Settings > Apps & notifications.	
DENY ALLOW	]

11 Enable the switch to ensure that screens are displayed with other applications, then tap the Home button to return to the Home :

Diani	au auar ath-								-
DISPI	ay over othe	rapps							
	SMA	RT CONSTR	RUCTION	Remote					
	1.4.6								
	Allow display	y over other	apps						٦
							4		
	those apps or	to display on change the w	ay they se	er apps yo em to appe	ar or beh	ave.	rtere with yo	iur use of	
			-						

# Uninstallation Method for Panel Agent

#### Uninstallation

1 Press and hold down on the Panel Agent in the Application List, and drag it to "Uninstall".

O App infomation	Uninstall

### 2 This displays the following dialog box. Tap "OK".

SMART CONSTRUCTION Do you want to install this app?		
	CANCEL	ОК

**3** Verify that the message "Uninstallation Completed" is displayed at the bottom of the screen and the icon is deleted from the status bar.



## Installation Method for Route Certificate of Server Certificate

#### Preconditions

The certificate must be already downloaded on the PC (Windows) from the website described below: https://dl.cacerts.digicert.com/DigiCertGlobalRootCA.crt

#### Method for copying the route certificate, to be used for the procedure, from PC (Windows) to a terminal device

- 1 Connect the terminal device with the PC (Windows), using a USB cable.
- \* In case of Lenovo Tab M10 (Android 9.0), the terminal device displays "USB computer connection". Tap the "Media device (MTP)"



2 Use the Windows Explorer on the PC (Windows) to double click and open the connected terminal device listed in the "This PC" selection.



\* [Lenovo Tab M10] is displayed in case of Lenovo Tab M10.

3 Double click to open the "Internal storage".



Internal storage > Download DigiCertGlobalRootCA.cer Security certificate 947byte

## Installation Method for Route Certificate of Server Certificate

Installation method (TD520 Android 6.0)

1 Open "Security" in Settings and tap on "Install from Storage".

÷	Security
	Device security
	Screen lock Swipe
	Lock screen message None
	Encryption
	Encrypt tablet
	Passwords
	Make passwords visible
	Device administration
	Device administrators View or deactivate device administrators
	Unknown sources Allow installation of apps from unknown sources
	Credential storage
	Storage type Hardware-backed
	Trusted credentials Display trusted CA certificates
	Install from storage Install certificates from storage
	Clear credentials Remove all certificates
	Advanced
	Trust agents

2 Select and tap "Internal Storage", then tap "Download" to select.



**3** Tap the route certificate prepared as a part of the Precondition.



# Panel Agent Installation Manual for Android.xlsx

Route certificate inst.(TD520)

4 Manually enter the name of the certificate, select "VPN and Application" under Use of Authentication Information, then tap "OK".

The message "Installing DigiCertGlobalRootCA.cer " will then be displayed at the bottom of the screen.

Name the certificate		
Certificate name:		
DigiCertGlobalRootCA.cer		
Credential use: VPN and apps The package contains:		
one CA certificate		
	CANCEL	ок

\* Tap "OK" and when the "Caution" dialog box is displayed, the installation of the route certificate will not be possible if the method for releasing the Screen Lock is other than "Pattern", "PIN" or "Password" and in such instances the "Caution" dialog box is displayed.

Perform setting for the lock releasing method according to the procedure described below:

1) Tap "OK" in "Precaution" dialog box to set the lock releasing method.

Attention	
You need to set a lock screen PIN or password before you can u credential storage.	ise
CANCEL	ок

2) Select one from the three options of "Pattern", "PIN" and "Password".

Unlock selection
None Disabled by administrator, encryption policy, or credential storage
Swipe Commit screen lock
Pattern
PIN
Password

## Panel Agent Installation Manual for Android.xlsx Route certificate inst.(TD520)

3) Tap to select "Display All Notification Details" for the display setting of notifications, then tap "Done". The message "Installing DigiCertGlobalRootCA.cer " will then be displayed at the bottom of the screen, then display returns to the Security screen.

<b>■</b> ~ ■	● ψ			⊖ ↔ 10:32
	Notifications			
	When your device is locked, how	v do you want no	tifications to show?	
	Show all notification content			
	O Hide sensitive notification content			
	O Don't show notifications at all			
			<b>–</b>	
				DONE
	$\triangleleft$	0		

- 5 The installed certificate is stored for the User in the "Reliable Authentication Information" in the Security.
   \* Certificates that are already registered on the system as "Reliable Authentication Information" are not registered for the User.
- 6 If setting of the set lock releasing method is not needed, perform the change with "Screen Lock" in the Security.

## Installation Method for Route Certificate of Server Certificate

Installation method (Lenovo Tab M10 Android 9.0)

1 Open "Security & location" in Settings and tap "Encryption & credentials".



2 Tap "Install from SD Card" and tap the route certificate prepared as a part of the Precondition.



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# Panel Agent Installation Manual for Android.xlsx

Route certificate inst.(Lenovo)

**3** Manually enter the name of the certificate, select "VPN and apps" under Use of Authentication Information, then tap "OK".

The message "Installing DigiCertGlobalRootCA.cer " will then be displayed at the bottom of the screen.

Name the certificate	
Certificate name:	
DigiCertGlobalRootCA.cer	
Credential use: VPN and apps Note: The issuer of this certificate may inspect all traffic to and fr	• om the device.
The package contains: one CA certificate	
с	ANCEL OK

- \* Tap "OK" and when the "Caution" dialog box is displayed, the installation of the route certificate will not be possible if the method for releasing the Screen Lock is other than "Pattern", "PIN" or "Password" and in such instances the "Caution" dialog box is displayed.
  - Perform setting for the lock releasing method according to the procedure described below:

1) Tap "SET LOCK" in "Precaution" dialog box to set the lock releasing method.

Attention	
Before you can use credential storage, your device need to have secure lock screen	ave a
CANCEL	SET LOCK

2) Select one from the three options of "Pattern", "PIN" and "Password".

2:00 PM 🔹	0 <b>V</b> 8
← Choose screen lock	٩
None	
Swipe Current screen lock	
Pattern	
PIN	
Password	

## Panel Agent Installation Manual for Android.xlsx Route certificate inst.(Lenovo)

3) Tap to select "Show all notification content" for the display setting of notifications, then tap "DONE". The message "Installing DigiCertGlobalRootCA.cer " will then be displayed at the bottom of the screen, then display returns to the Security screen.



- 4 The installed certificate is stored in "User Authentication Information" in Encryption and Authentication".
- \* Even those certificates that are already registered on the system as "Reliable Authentication Information" are also registered for the User Authentication.
- **5** If setting of the set lock releasing method is not needed, perform the change with "Screen Lock" in the Security and Current Location Information.

# Verification method (TD520 Android 6.0)

### Verification method (TD520 Android 6.0)

1 Open "Security" in Settings and tap "Reliable Authentication Information".

÷	Security
	Device security
	Screen lock
	Swipe
	Lock screen message
	None
	Encryption
	Encrypt tablet
	Passwords
	Make passwords visible
	Device administration
	Device administrators View or deactivate device administrators
	Unknown sources Allow installation of apps from unknown sources
	Credential storage
	Storage type Hardware-backed
ſ	Trusted credentials
	Display trusted CA certificates
	Install from storage
	Install certificates from storage
	Clear credentials
	Advanced
	Trust agents

2 Select and tap "System" and verify that the switch for "DigiCert Global Root CA" is enabled.

Trusted credentials			
SYSTEM	USER		
Deutsche Telekom AG Deutsche Telekom Root CA 2	•		
Dhimyotis Certigna			
DigiCert Inc DigiCert Assured ID Root CA	•		
DigiCert Inc DigiCert Assured ID Root G2	•		
DigiCert Inc DigiCert Assured ID Root G3	•		
DigiCert Inc DigiCert Global Root CA	•		
DigiCert Inc DigiCert Global Root G2			
DigiCert Inc DigiCert Global Root G3			
DigiCert Inc DigiCert High Assurance EV Root CA			
DigiCert Inc DigiCert Trusted Root G4			
Digital Signature Trust DST ACES CA X6	•		

## Panel Agent Installation Manual for Android.xlsx Verification method (TD520)

## **3** Tap "DigiCert Global Root CA" and verify that the certificate information is installed. Refer to "Panel Agent Installation Manual" (a separate document) for details.

Security certificate DigiCert Global Root CA	*
Issued to:	
Common name: DigiCert Global Root CA	
Organization: DiglCert Inc	
Organizational unit: www.digicert.com	
Serial number: 08:3B:E0:56:90:42:46:B1:A1:75:6A:C9:59:91:C7:4A	
Issued by:	
Common name: DigiCert Global Root CA	
Organization: DigiCert Inc	
Organizational unit: www.digicert.com	
Validity:	
Issued on: 11/10/06	
Expires on: 11/10/31	
Fingerprints:	
SHA-256 fingerprint: 43:48:A0:E9:44:4C:78:CB:26:5E:05:8D:5E:89:44:B4:D8:4F:96:62:BD:20 89:34:A4:43:C7:01:61	6:DB:25:7F:
SHA-1 fingerprint: A8:98:5D:3A:65:E5:E5:C4:B2:D7:D6:6D:40:C6:DD:2F:B1:9C:54:36	
	DISABLE
	ок

Verification method (Lenovo Tab M10 Android 9.0)





Panel Agent Installation Manual for Android.xlsx Verification method (Lenovo)

:03 PM 🔹		• 🕈 û
← End	ryption & credentials	٩
	Encryption	
	Encrypt tablet	
	Encrypted	
	Credential storage	
	Storage type Hardware-backed	
	Display trusted CA certificates	
	User credentials	
	View and modify stored credentials	
	Install from SD card	
	Clear credentials Remove all certificates	

# 3 Select and tap "System" and verify that the switch for "DigiCert Global Root CA" is enabled.

SYSTEM	USER
D-Trust GmbH D-TRUST Root Class 3 CA 2 EV 2009	4
Deutsche Telekom AG Deutsche Telekom Root CA 2	4
Dhimyotis Certigna	•
DigiCert Inc DigiCert Assured ID Root CA	
DigiCert Inc DigiCert Assured ID Root G2	4
DigiCert Inc DigiCert Assured ID Root G3	4
DigiCert Inc DigiCert Global Root CA	4
DigiCert Inc DigiCert Global Root G2	4
DigiCert Inc DigiCert Global Root G3	4
DigiCert Inc DigiCert High Assurance EV Root CA	4
DigiCert Inc DigiCert Trusted Root G4	4
Digital Signature Trust Co. DST Root CA X3	4
Disig a.s. CA Disig Root R1	4
Disig a.s. CA Disig Root R2	

**4** Tap "DigiCert Global Root CA" and verify that the certificate information is installed. Refer to "Panel Agent Installation Manual" (a separate document) for details.

igiCert Global Root CA	*
Issued to:	
Common name: DigiCert Global Root CA	
Organization: DigiCert Inc	
Organizational unit: www.digicert.com	
Serial number: 08:3B:E0:56:90:42:46:B1:A1:75:6A:C9:59:91:C7:4A	
Issued by:	
Common name: DigiCert Global Root CA	
Organization: DigiCert Inc	
Organizational unit: www.digicert.com	
Validity:	
Issued on: Nov 10, 2006	
Expires on: Nov 10, 2031	
Fingerprints:	
SHA-256 fingerprint: 43:48:A0:E9:44:4C:78:CB:26:5E:05:8D:5E:89:44:B4:D8:4F:96:62:BD:26:DB 89:34:A4:43:C7:01:61	:25:7F:
SHA-1 fingerprint: A8:98:5D:3A:65:E5:E5:C4:B2:D7:D6:6D:40:C6:DD:2F:B1:9C:54:36	
DISABLE	ок