

TECHNICAL BULLETIN

[1/3]

[Issue No.] GOT-A-0154-A [Title] GOT2000 Series TCP/IP Stack Vulnerabilities [Date of Issue] July 2020 (Ver. A: July 2020) [Relevant Models] GOT2000 Series (GT27, GT25, GT23 Models)

Thank you for your continued support of Mitsubishi Electric Graphic Operation Terminal (GOT). This bulletin informs you that multiple TCP/IP stack vulnerabilities are discovered in CoreOS version Y and earlier installed on GT27, GT25, and GT23 models. The following describes the impact and countermeasure.

1. Affected products

The following lists the products affected by the vulnerabilities.

Model	Version
GT27	CoreOS version Y and earlier
GT25	(GT Designer3 version 1.236W or earlier)
GT23	

1.1 How to check the CoreOS version

- 1) Start the GOT and select [Maintenance] \rightarrow [GOT information] from the menu of the utility.
- 2) Check [CoreOS version].

GOT information		×
GOT system architecture	s S/N	10.010010010
	MAC address (standard port)	10000-000
	MAC address (extension port)	-
	MAC address (wireless LAN)	-
	H/W version	w
	S/W version	0
	CoreOS version	-Y
	BootOS version	0.00.000.000.0

2. Impact

When the GOT receives a TCP packet modified by a malicious third party, the network function may be disabled or malicious program may be executed.

For the details, refer to the following security websites.

Security site	URL
ICS-CERT (Industrial Control Systems Cyber Emergency Response Team)	www.us-cert.gov/ics/advisories/icsa-20-189-02
JVN (Japan Vulnerability Notes)	jvn.jp/en/vu/JVNVU95413676

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TECHNICAL BULLETIN

[Issue No.] GOT-A-0154-A

3. Countermeasures

To strengthen the security function, the vulnerabilities were addressed in CoreOS version Z. Install CoreOS version Z or later on the GOT.

Model	Fixed version
GT27	CoreOS version Z or later
GT25	(GT Designer3 version 1.240A or later)
GT23	

3.1 CoreOS installation

When the CoreOS is installed, all the data in the GOT are deleted. When the data in the GOT is required, read the data in advance.

- 1) Install the GT Designer3 fixed version on the personal computer. To obtain GT Designer3, contact your local sales office.
- 2) Insert an SD card into the personal computer.
- 3) Start GT Designer3 and select [Communication] \rightarrow [Write to Memory Card] from the menu.
- 4) Select the [BootOS/CoreOS Write] tab and configure the following settings.
- [Write Data]: [CoreOS]
- [GOT Type]: Type of the GOT to which the CoreOS is installed
- [Destination Memory Card]: Drive name of the SD card

Write Data: O BootOS (CoreOS)	Write Memory Card Information
Version: -Z	Free Space: 25929772 KB
Memory Card Destination Memory Card: C: *Only A:Standard SD Card is supported for writing CoreOS to the GOT.	CoreOS is written. 2. Follow the instructions shown on the GOT. Wait for a while until the writing of the CoreOS begins. 3. Touch the dialog that appears after the writing process is completed, remove the memory card, and restart the GOT. 4. Write the necessary package data to the GOT after its resta *Data in the C drive of the GOT will be deleted at the time of writing CoreOS. Put the data aside in advance if necessary. *BootOS will be simultaneously written at the time of writing CoreOS.
	Memory Card W

5) Click the [Memory Card Write] button.

TECHNICAL BULLETIN

[Issue No.] GOT-A-0154-A

- 6) When writing to the SD card is completed, remove the SD card from the personal computer and insert it into the GOT.
- 7) Power on the GOT.
- The confirmation message for installing the CoreOS appears. To install the CoreOS, touch the screen for two seconds or longer. To abort the installation of the CoreOS, power off the GOT.
- 9) When the installation of the CoreOS is completed, the completion message appears. Touch the screen to restart the GOT.
- 10) Write the required package data to the restarted GOT.
- 11) Confirm that CoreOS version Z or later is installed as shown below.
 - → 1.1 How to check the CoreOS version

GOT information			\times
GOT system architecture	e S/N	1005700P1000A	
	MAC address (standard port)	345-8-0-0-0	
	MAC address (extension port)	-	
	MAC address (wireless LAN)	-	
	H/W version	01	
	S/W version		
	CoreOS version	-Z	
	BootOS version	0.16-301-801-47	

3.2 Mitigations

Allow only trusted networks to access the products.

REVISIONS

Version	Print date	Revision
-	July 2020	- First edition
A	July 2020	- The URLs of the security websites are provided.