

Release Notes

uaGate SI, uaGate MB, uaGate 840D

Version 1.75

March / 2024

Product/Component	Image name	Tag	Date
uaGate SI, MB, 840D	Firmware 1.75.00.3709.img.bz2	V1.75	15.03.24

1 Important Notes

After a FW update, wait until the update process has been completed, LEDs from the device are in correct state, and access to its Web Interface is again possible before starting to perform changes or power off the unit. This process can take up to 20 minutes.

Please be aware that we only recommend the use of Industrial Grade SD cards. Due to the variety of SD Cards available in market, some of these may not be possible to be correctly initialized and recognized in the external accessible car reader slot. To properly mount the SD Card, it should be mounted while the device is Powered Off, then the device can be Power On. If a failure to recognize the card is present, please try with a different SD card brand.

Devices with Kernel \leq V3.18 should be updated directly by Softing.

2 New or enhanced features

- Update userland to Debian
- Update Linux
- TLS Communication
- Extending Tooling 840D
- Allow configuration for new features after firmware update
- Update to latest paho.mqtt.c release
- Update of the OPC UA toolkit to Version 6.30 / PSIRT 2022-19
- CVE-2023-27334: Unlimited Method Call Resource Exhaustion
 - **Note: The defaults which SDK provides for operation limits have changed from 0 (unlimited) to 1000. Therefore, a client cannot invoke a service (read, write, ...) with more than this number of operations.**
- CVE-2021-40873 - a possible crash in UA server communication
- CVE-2019-11529 uaGate security unchangeable root default password
- Continuous Wireshark option after restart of uaGate
- Display the Wireshark status
- Implement fail2ban functionality on the Webserver

3 Bug Fixes

- ID 1753:** Can not download MQTT server certificate chain via ipv6

- ID 1880:** uaGate does not boot successfully because of malformed Param.xml in device
- ID 2269:** uaGate840D: Enable Alarms button state is not stored after FW-update
- ID 2215:** uagateSI: s7_32 - Chars from area M, I, O can not be written
- ID 2323:** uaGate interface eth0 off
- ID 2321:** UA Server of UaGate crashes when added whole Struct Array from s7-2 connection
- ID 2307:** Security: CVE-2019-10082, CVE-2021-26691 and much more
- ID 2309:** uagate: cannot change ReadOnly parameter after loading of old configuration file
- ID 2316:** PSIRT: 2022-21 Security: Acunetix - Remote code execution
- ID 2328:** Hostname beginning with number not allowed
- ID 2353:** uagate840d plc connection. Error showing node properties in integrated Symbolview
- ID 2371:** NTP Client is requesting x.debian.pool.ntp.org, even if other NTP Server is configured
- ID 2372:** MQTT message grouping missing value changes
- ID 2382:** uaGate SI, 840D provide random value instead of last value on read failure
- ID 2384:** Action Successfully performed message not showing after click on the save

Product/Component	File name	Version	Date
uaGate SI, MB, 840D	Firmware.1.74.00.1880.img.bz2	1.74.00	08.06.22

1 New or enhanced features

- Support of Writing into 840D NCK Area (Only for uaGate 840D)
Special note: This functionality can only be used if the configuration of the connection to the SINUMERIK 840D is deleted and then recreated.
- New Option Enable/Disable Write into PLC
Special note: This functionality can only be used if the configuration of the connection to the PLC is deleted and then recreated.

2 Bug Fixes

- ID 2305:** uaGate SI cannot browse SIMATIC S7- 1500 PLC via s7-2 protocol
- Description of PIN Assignment is wrong (German Only)

3 Known issues/limitation

- ID 2095:** MQTT Topic Selection Browser does not check value rank
- ID 2110:** MQTT Topic selection is restored with user madmin
- ID 2139:** Not able to distinguish between SByte and Byte when parsing the NC-Var-Selector AWL file (840D only)
- ID 2144:** FW Update indicates finish message with previous (wrong) version number
- ID 2167:** MQTT does not verify expiration date of certificate [Paho MQTT Lib issue 630]
- ID 2169:** Default IP address/Subnet mask not shown with unconnected eth1
- ID 2229:** Cannot re-establish connection to PLC because of wrong connection status when write request returns with timeout (840D only)
- ID 2232:** Connection can be established if cert is rejected, but signed by trusted CA
- ID 2233:** MQTT Topic selection fails sometimes with HTTP error code 404

Product/Component	File name	Version	Date
uaGate SI, MB, 840D	Firmware.1.73.00.1163.img.bz2	1.73.00	25.10.21
uaGate SI, MB, 840D	Firmware.1.73.01.1439.img.bz2	1.73.01	11.02.22

1 New or enhanced features

- Support of 840D Tooling Data
- Update to new OPC UA SDK Version 5.66.1 (CVE-2021-40873)
- Update/Change Softing Contact Information
- Add timeout settings for connections to Siemens S7-1200/1500 (S7-72)

2 Bug Fixes

- ID 2077:** OPC UA self-discovery shows internal endpoint
- ID 2231:** CVE-2019-15051 Code execution through password change
- ID 2275:** uaGate: Crash when writing on node with invalid namespace index
- ID 2276:** Remote Code Execution
- ID 2277:** Incorrect authorization management
- ID 2279:** Gateway loses connection to PLC after 40 days
- ID 2292:** Wrong "Service Level Value" of UA Server" (Patch 1)
- ID 2296:** OPC UA Address Space Folder are duplicated (Patch 1)
- ID XXXX:** S7-72 connection could not be established

3 Known issues/limitation

- ID 2095:** MQTT Topic Selection Browser does not check value rank
- ID 2110:** MQTT Topic selection is restored with user madmin
- ID 2139:** Not able to distinguish between SByte and Byte when parsing the NC-Var-Selector AWL file (840D only)
- ID 2144:** FW Update indicates finish message with previous (wrong) version number
- ID 2167:** MQTT does not verify expiration date of certificate [Paho MQTT Lib issue 630]
- ID 2169:** Default IP address/Subnet mask not shown with unconnected eth1
- ID 2229:** Cannot re-establish connection to PLC because of wrong connection status when write request returns with timeout (840D only)
- ID 2232:** Connection can be established if cert is rejected, but signed by trusted CA
- ID 2233:** MQTT Topic selection fails sometimes with HTTP error code 404

Product/Component	File name	Version	Date
uaGate SI, MB, 840D, edgeGate	Firmware_v1.72.00.1996.img.bz2	1.72.00	02.10.19
uaGate SI, MB, 840D, edgeGate	Firmware_v1.72.01.1878.img.bz2	1.72.01	19.12.19
uaGate SI, MB, 840D, edgeGate	Firmware_v1.72.03.1603.img.bz2	1.72.03	15.07.20
uaGate SI, MB, 840D, edgeGate	Firmware_v1.72.04.1802.img.bz2	1.72.04	29.03.21
uaGate SI, MB, 840D, edgeGate	Firmware_v1.72.05.1133.img.bz2	1.72.05	16.07.21

1 New or enhanced features

- Write of the PLC variables is now possible (uaGate 840D only)
- Adjustable TSAPs for PLC and NCK connections (uaGate 840D only)
- Support for Sinumerik 840D Power Line (uaGate 840D only) (patch3)
- Added drop down entries for Sinumerik 840D Power Line standard connection settings (uaGate 840D only) (patch3)
- Changed the network capture from 24h to infinite – restart needed to stop the capture (patch4)
- Added Button to access the logs & persistent logs from web interface (patch4)
- Added checkbox to enable/disable the alarms for Sinumerik (uaGate 840D only) (patch4)

2 Removed features

- Removal of Azure proxy and publisher, see also [here](#) (edgeGate only)
- Removed DHCP client settings from Machine Interface (uaGate 840D only) (patch3), see **ID 2137**

3 Bug Fixes

- ID 2190:** Malicious files can be placed in cert path of configuration archive
- ID 2210:** The storage of the configuration to the SD card generates a false failure message
- ID 2220:** String length problem (uaGate SI only)
- ID 2222:** GUI improvements/typos
- ID 2223:** different drives grouped in one request (uaGate 840D only)
- ID 2225:** Support of more than 10 drives (uaGate 840D only)
- ID 2230:** Azure-OPC-proxy is obsolete
- ID 2231:** Code execution through password change
- ID 2137:** DHCP client does not work with Sinumerik DHCP server (uaGate 840D only) (patch3)
- ID 2239:** MQTT is publishing data from old .awl File (patch3)
- ID 2243:** The PLC variable address of the DB differs from .sdfi file (uaGate 840D only) (patch1)

- ID 2245:** More than two channels cause problems (uaGate 840D only) (patch1)
- ID 2248:** uaGate SI loses connection to PLC after 24 days (patch5)
- ID 2254:** UA Namespace filter selection does not work (uaGate SI only)
- ID 2261:** uaGate SI: Browse Request with S7-1500 returns in BadSecureChannelClosed (patch4)
- ID 2262:** uaGate SI: Browse with S7-1500 protocol only possible if PLC is in STOP Mode (patch4)
- ID 2263:** uaGate SI: cannot browse the plc through s7-2 protocol (patch4)
- ID 2265:** Communication failure between uaGate 840D, Netlink-Adapter and 840D PL (patch4)
- ID 2268:** Symbol view of PLC connection is showing browsing error - not found (patch5)
- ID 2272:** UA Client does not get values after restarting the tool machine (patch5)
- ID 2273:** uaGate 840D loses connection to tooling machine after 24 days (patch5)

4 Known issues/limitation

- ID 2077:** OPC UA self-discovery shows internal endpoint
- ID 2095:** MQTT Topic Selection Browser does not check value rank
- ID 2107:** All MQTT topic selections are removed if one PLC connection is removed (edgeGate)
- ID 2110:** MQTT Topic selection is restored with user mfadmin
- ID 2121:** Compatibility to Microsoft Azure cloud - only works with 'Suppressed PLC Symbols'
- ID 2139:** Not able to distinguish between SByte and Byte when parsing the NC-Var-Selector AWL file (840D only)
- ID 2144:** FW Update indicates finish message with previous (wrong) version number
- ID 2167:** MQTT does not verify expiration date of certificate [Paho MQTT Lib issue 630]
- ID 2169:** Default IP address/Subnet mask not shown with unconnected eth1
- ID 2229:** Cannot re-establish connection to PLC because of wrong connection status when write request returns with timeout (840D only)
- ID 2232:** Connection can be established if cert is rejected, but signed by trusted CA
- ID 2233:** MQTT Topic selection fails sometimes with HTTP error code 404

Product/Component	File name	Version	Date
uaGate SI, MB, 840D, edgeGate	Firmware_v1.71.00.1225.img.bz2	1.71.00	14.06.19
uaGate SI, MB, 840D, edgeGate	Firmware_v1.71.01.1684.img.bz2	1.71.01	15.08.19

1 New or enhanced features

- Read of scalar data from internal S7 PLC (uaGate 840D only)
- Predefined address space for NCK (uaGate 840D only)
- Mapping of NCK alarm codes to text (uaGate 840D only)
- Optimized read of drive values (uaGate 840D only)
- Update to OPC UA toolkit version 5.58
- Significant optimized Siemens V2 read and write performance (uaGate SI only)

2 Removed features

- Uninstall ssh-server due to security improvement

3 Bug Fixes

- ID 2162:** not all NCK alarms are shown (uaGate 840D only)
- ID 2203:** Gateways sporadically unreachable by IT interface/OPC UA endpoint (**patch1**)
- ID 2185:** Read S7 item String with max length [254] not possible - As workaround, the string/array size is limited to 216 (uaGate 840D only) (**patch1**)

4 Known issues/limitation

- ID 2077:** OPC UA self-discovery shows internal endpoint
- ID 2095:** MQTT Topic Selection Browser does not check value rank
- ID 2107:** All MQTT topic selections are removed if one PLC connection is removed (edgeGate)
- ID 2110:** MQTT Topic selection is restored with user mfadmin
- ID 2121:** Compatibility to Microsoft Azure cloud - only works with 'Suppressed PLC Symbols'
- ID 2137:** DHCP client does not work with Sinumerik DHCP server (840D only)
- ID 2139:** Not able to distinguish between SByte and Byte when parsing the NC-Var-Selector AWL file (840D only)
- ID 2144:** FW Update indicates finish message with previous (wrong) version number
- ID 2167:** MQTT does not verify expiration date of certificate [Paho MQTT Lib issue 630]
- ID 2169:** Default IPaddress/Subnet mask not shown with unconnected eth1
- ID 2210:** The storage of the configuration to the sd card generates a false failure message

Product/Component	File name	Version	Date
uaGate SI, MB, 840D, edgeGate	Firmware_v1.70.00.1819.img.bz2	1.70.00	21.03.19

1 New or enhanced features

- Initial firmware with support to read data from Sinumerik 840D NCK part (uaGate 840D only)
- Subscribe Sinumerik 840D NCK alarms (uaGate 840D only)
- Update of OPC publisher to version 2.3.2 (edgeGate only)
- Upload possibility for adjusted nodesetfile for OPC publisher (edgeGate only)
- The whole command line to start the OPC publisher is configurable by the user (edgeGate only)

2 Removed features

- Removed dataFEED exporter to reduce firmware image size

3 Bug Fixes

- ID 2155:** Azure settings are not stored on SD card
- ID 2163:** Mqtt Topic Settings - PLC Value marker can't be reset
- ID 2166:** Factory reset makes device unusable
- ID 2168:** A German umlaut within a client certificate subject breaks display of client certificates
- ID 2172:** Segmentation fault in OpcUa2MQTTPublisher

4 Known issues/limitation

- ID 2077:** OPC UA self-discovery shows internal endpoint
- ID 2095:** MQTT Topic Selection Browser does not check value rank
- ID 2107:** All MQTT topic selections are removed if one PLC connection is removed (edgeGate)
- ID 2110:** MQTT Topic selection is restored with user madmin
- ID 2121:** Compatibility to Microsoft Azure cloud - only works with 'Suppressed PLC Symbols'
- ID 2137:** DHCP client does not work with Sinumerik DHCP server (840D only)
- ID 2139:** Not able to distinguish between SByte and Byte when parsing the NC-Var-Selector AWL file (840D only)
- ID 2144:** FW Update indicates finish message with previous (wrong) version number
- ID 2162:** If NCK alarms happens the same time, only one is shown (840D only)
- ID 2167:** MQTT does not verify expiration date of certificate [Paho MQTT Lib issue 630]
- ID 2169:** Default IPAddress/Subnet mask not shown with unconnected eth1

Product/Component	File name	Version	Date
uaGate SI, MB, edgeGate	Firmware_v1.60.00.9836.img.bz2	1.60.00	31.10.18
uaGate SI, MB, edgeGate	Firmware_v1.60.01.9879.img.bz2	1.60.01	06.11.18
uaGate SI, MB, edgeGate	Firmware_v1.60.02.10059.img.bz2	1.60.02	20.12.18
uaGate SI, MB, edgeGate	Firmware_v1.60.03.10237.img.bz2	1.60.03	19.02.19

1 New or enhanced features

- New protocol variant Siemens v2 for S7-1200/1500 with optimized blocks (uaGate SI only)
- Replacement of MQTT publisher implementation. The MQTT is now based on OPC UA node-ids
- Automatic conversion from old MQTT selection configuration
- Several PLC values could be grouped into one MQTT message
- The MQTT clean session flag can be configured -> needs to be enabled for Amazon AWS
- Replacement of symbol view, now in hierarchical view

2 Bug Fixes

- ID 2060:** MQTT to AWS cloud: CleanSession must be true
- ID 2066:** FW update - no finish indication
- ID 2087:** The folder objects of the OPC UA Server are not according to the OPC UA specification
- ID 2098:** No input validation for connection name
- ID 2058:** Real from Standard variable table is interpreted as UInt32
- ID 2041:** Special characters '<' and '>' in DB name cause un-browsable sub nodes on OPC UA
- ID 2072:** importing certificates with UTF-8 charset may lead to error on loading certificate page
- ID 2124:** PLC type in connection name drop down could be confusing (patch1)
- ID 2130:** uaGate SI cannot connect to S7-1500 after Firmware upgrade v02.06.00 (patch2)
- ID 2142:** Extended/Improved Open Source license information (patch3)

3 Known issues/limitation

- ID 2077:** OPC UA self-discovery shows internal endpoint
- ID 2095:** MQTT Topic Selection Browser does not check value rank
- ID 2107:** edgeGate: All mqtt topic selections are removed if one PLC connection is removed
- ID 2110:** Mqtt Topic selection is restored with user mfdadmin
- ID 2121:** Compatibility to Microsoft Azure cloud - only works with 'Suppressed PLC Symbols'

Product/Component	File name	Version	Date
uaGate SI, MB, edgeGate	Firmware_v1.50.00.8509.img.bz2	1.50.00	16.11.17
uaGate SI, MB, edgeGate	Firmware_v1.50.01.9138.img.bz2	1.50.01	18.05.18
uaGate SI, MB, edgeGate	Firmware_v1.50.02.9728.img.bz2	1.50.02	08.10.18

1 New or enhanced features

- Initial firmware of dataFEED uaGate MB
- Supports of Modbus TCP connections (edgeGate and uaGate MB only)
- Configuration and usage of up to 5 PLC Connections (edgeGate only)
- Microsoft Azure OPC-Publisher (edgeGate only)
- Update of edgeGate only component iot-edge-opc-publisher to v2.1.4 (patch1)

2 Bug Fixes

- ID 1631:** Display problems with Internet Explorer and Edge
- ID 1771:** (Google Chrome) - The error/warning messages are displayed for less than a second
- ID 1919:** IT Network configuration - default gateway should be optional
- ID 1941:** Sanity check for Siemens Expert settings
- ID 1947:** Sanity check for MQTT Broker Configuration
- ID 1967:** The OPC UA application URI is not unique
- ID 1977:** MQTT Publishing stops
- ID 1988:** Itadmin and Mfadmin have no access to the sd card page
- ID 1977:** UA Endpoint can't be opened with NONE of security and UserNameAuthentication
- ID 2041:** special character by the DB' Name of a S7 causes a malfunction by the PLC Communication (patch2)
- ID 2060:** MQTT to AWS cloud: CleanSession Flag must be true (patch2)

3 Known issues/limitation

- Microsoft Connected Factory** - The host name of the device needs to be "publisher"
- ID 1948:** ModbusTCP suffix KA not supported
- ID 1951:** ModbusTCP bit writing not supported
- ID 1960:** ModbusTCP byte masking not supported
- ID 1969:** edgegate: Azure IoT Publisher cannot be unregistered from Device Explorer
- ID 1990:** OPC UA - The status code of folder type items is "BadConnectionClosed" - wrong code

Product/Component	File name	Version	Date
uaGate SI, edgeGate	Firmware_v1.40.00.7940.img.bz2	1.40.00	22.06.17
uaGate SI, edgeGate	Firmware_v1.40.01.8103.img.bz2	1.40.01	03.08.17
uaGate SI, edgeGate	Firmware_v1.40.02.8139.img.bz2	1.40.02	08.08.17

1 New or enhanced features

- Microsoft Azure OPC-Proxy (only for edgeGate)
- Display of device IPv6 addresses
- Universal plug and play support
- Display of the imported PLC name space
- Access rights to PLC symbols could be reduced
- Configuration backup to the external SD-card
- Read/browse access to the external sd-card
- Access to the chip temperature through web and OPC UA
- Support of CA signed server certificate for OPC UA and https server
- Security mode basic256sha256 (SHA2) for OPC UA
- Warning for unsecure default password usage
- Update of edgeGate only component iot-edge-opc-proxy to v1.0.2 (patch1)

2 Bug Fixes

- ID 1631:** Display problems with Internet Explorer and Edge
- ID 1771:** (Google Chrome) - The error/warning messages are displayed for less than a second
- ID 1929:** No login to configuration web page with Microsoft Edge 40.15063.0.0 (patch1)
- ID 1935:** logout does not work (patch2)
- ID 1954:** uagate/edgate cannot connect to Azure MQTT broker (patch2)

3 Known issues/limitation

- ID 1753:** Cannot download MQTT server certificate chain with IPv6 address
- ID 1924:** dataFEED exporter: Context help of Oriole sdfi generation opens echocollect specific help page
- ID 1925:** dataFEED exporter: Application selection does not allow to choose edgeGate

Product/Component	File name	Version	Date
uaGate SI	Firmware_v1.30.00.6896.img.bz2	1.30.00	08.11.16
uaGate SI	Firmware_v1.30.01.7100.img.bz2	1.30.01	16.12.16

1 New or enhanced features

- New feature -> MQTT publisher
- Reload button added to web pages
- OPC UA communication port is now adjustable (default: 4840)

2 Bug Fixes

- ID 1670:** Default gateway cannot be set: Sanity check improved
- ID 1637:** Menu doesn't work correctly in Firefox/Internet Explorer with madmin and itadmin
- ID 1674:** UA Server doesn't provide the source Timestamp
- ID 1731:** The administrator password is corrupted after configuration upload into the device
- ID 1626:** Pending changes message does not disappear on config reset, config upload
- ID 1685:** Loading of large symbol files only loads 20000 symbols without warning
- ID 1633:** The user has no means to verify the OPC UA server certificate
- ID 1744:** reset to factory settings (dependent on HW) -> hostname is not reset to default
- ID 1769:** syslog continues to write into old logfile
- ID 1772:** Bad connection diagnostic message (patch1)
- ID 1773:** Cannot display Gateway-Status page when /var/tmp is full (patch1)
- ID 1776:** Watchconfig.pl reads each 5 seconds the OPC UA port from configuration file (patch1)
- ID 1780:** Syslog message pollutes the messages file on SD-card partially fixed (patch1)
- ID 1784:** CPMainSrv crash when ETH cable is unplugged and replugged with QoS=1 (patch1)

3 Known issues/limitation

- ID 1631:** Display problems with Internet Explorer and Edge
- ID 1753:** Cannot download MQTT server certificate chain with IPv6 address
- ID 1764:** Browser complain about "unsecure" self-signed certificate
- ID 1767:** Wait message won't disappear after changing Ip with Google Chrome
- ID 1771:** (Google Chrome) - The error/warning messages are displayed for less than a second

Product/Component	File name	Version	Date
uaGate SI	Firmware_v1.10.00.5360.img.bz2	1.10.00	19.10.15
uaGate SI	Firmware_v1.10.01.5689.img.bz2	1.10.01	15.03.16
uaGate SI	Firmware_v1.10.02.5993.img.bz2	1.10.02	03.05.16

1 New or enhanced features

- Release version for uaGate SI
- Update/Security fixes for Debian base system

2 Bug Fixes

- ID 1680:** dataFEED exporter TIA with UDT structs and struct arrays (patch2)
- ID 1684:** Error when loading large symbol file. The number of imported symbols is now limited to 20.000 (patch2)
- ID 1655:** sporadic watchdog reset on Oriole device
- ID 1670:** Default gateway cannot be set

3 Known issues/limitation

- ID 1670:** The gateway sanity check is to be relaxed: It fails for netmask 255.255.254.0
- ID 1685:** Limitation is stated on "Machine Settings" -> "Symbol Import" page and help page