Product Change Notification—PCN# PCN000993

December 20, 2023

Dear Valued Customer,

We would like to inform you that Moxa is going to make changes to the AIG-101 Series and AIG-301 Series. These changes will be implemented by December 2023. Please review the details below to determine how these changes will affect your products and/or operations.

What will change?

Changes will be made to the AIG-101 Series and AIG-301 Series to comply with the new firmware version.

The following changes will be implemented on the new versions of AIG-101 Series:

New Features:

- Supports web GUI based Modbus TCP slave traffic monitoring and diagnostics, including monitoring connection status and traffic logs.
- Supports OpenVPN Client v2.4.0.
- Supports scheduled retrieval of tags from the Blockly tool.
- Supports the following ioLogik models: ioLogik E1211/E1211-T, E1213/E1213-T, E1240/E1240-T, E1241/E1241T, and E1242/E1242T

Fixed Issues:

- An issue of the Ethernet (eth0) link going down unexpectedly.
- An issue of the GPS interface not displaying after a configuration import.
- An issue with the GPS auto-mode not functioning.
- An issue of UPort devices not being detected and the web GUI not showing devices.
- Tags of float type that use function code 16 should not be writable.
- An issue of decimal points being allowed in the Modbus TCP Slave ID and port values.
- The Login Policy is not enabled after configuration import wherein the Login Policy is enabled.
- An issue of the 'Backup Logging File' list displaying an incorrect file list after its path has been modified.
- The 'Auto Arrange Tags' function under Data Mapping > Input Register (R) is not functioning correctly as per the sorting priority 'Provider → Tag Name → Source'.
- An issue wherein Modbus TCP Master devices are automatically selected at the "Add Tags" step in Modbus Slave when creating a telemetry message.

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- Incorrect status "TroubleshootingPage.Protocol-Card.Status.Null" displayed on the Protocol Status page for Modbus TCP Slave and Modbus Master.
- Enabling the Internet Check Alive service results in a surge in traffic.
- The event log entries should be intuitive to enable easy identification and filtering. The entries added when the storage usage reaches 90% or above use "System". If the storage device is USB, then the event log entries should show "USB" instead of "System".
- The Wi-Fi IP address set in an AIG in the access point (AP) mode is not retained when the AIG has been rebooted.
- The web GUI does not display properly on a PC/NB when it is not connected to the Internet.
- The "Ignore Server Certificate" function does not work when the MQTT connection enables SSL/TLS.

Known Issues:

- The UPort COM status is not displayed properly in Tag Management when a connected UPort device is unplugged. The status should be "-2147483648" but "0" is displayed.
- When the system log cache size entered is 4096 or higher, it results in an incorrect range being applied. The actual range should be 1 to 4095.

Enhancements

- Cellular spectrum can be set to 3G, 4G, or auto mode.
- Device-to-cloud message policy redesigned to enable customized tag value sampling and triggering value changes in selected tags.
- The maximum number of Modbus RTU/ASCII connected devices per serial port has been increased to 31.
- The maximum number of ioLogik devices that can be connected has been increased to 4.
- New RESTful API reference resources are available in the repository at: https://github.com/TPE-TIGER/TPE-TIGER.github.io

Changes

- When using X.509 certificate to authenticate the Azure IoT Device connection, you must add the prefix "Hostname=" in the Connection String.
    - Original Format: "{iothub name}.azure-devices.net;DeviceID={device ID};x509=true"
    - Updated Format: "Hostname={iothub name}.azure-devices.net;DeviceID={device ID};x509=true"
- The flow control for RS-485-2W, RS-485-4W, and RS-422 are now available only for "none".
- The filename format of the exported files for Modbus traffic monitoring have been changed to: 'modbus_traffic_master_yyyymmdd' and 'modbus_traffic_slave_yyyymmdd'.

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Notes:

- The initial telemetry message may not include all the selected tags, but the subsequent messages will include all the selected tags. This is because the system requires an additional process for the initial message transfer, which may cause all the selected tags not being included in the first message.
- The time displayed in Tag Management is the local time at the client site.

The following changes will be implemented on the new versions of the AIG-301 Series:

New Features

- Supports OpenVPN Client v2.4.0.
  Provides web GUI based configuration of the built-in OpenVPN client to enable connection to your OpenVPN Server.
- Supports GPIO with web GUI based configuration of the built-in digital input and output interfaces.
- Supports web GUI based diagnosis of cloud protocol related issues for MQTT, Azure IoT Device, Sparkplug, and AWS IoT Core.
- Supports web GUI based Modbus master traffic monitoring and diagnosis of issues, including monitoring the connection status and traffic logs.
- Upgrades to Azure IoT Edge runtime version v1.4.10 (preinstalled).
- Releases thingspro-agent v2.2.3 for Azure IoT Edge v1.4.10.

Fixed Issues:

- Enabling the Internet Check Alive service results in a surge in traffic.
- The external storage name displayed in the Event Log when the storage usage reaches 90% or above is "System". For example, the event log related to the USB storage should use the word "USB" to enable easy access to and filtering of logs.
- The status of the MQTT client is shown as "unknown" when an invalid key is used to establish the connection.
- An issue of the GPS interface not displayed after importing the configuration.
- Invalid characters allowed for the cellular APN via the RESTful API.
- An issue of the signal and connection indicators for the cellular interface not displaying correctly.
- A cellular connection restore issue that requires AIG to be rebooted.
- An issue of the GPS auto mode not functioning.
- After upgrading to firmware v1.4, the model name and version information is displayed as "unknown".
- The Wi-Fi IP address set in the access point (AP) mode is not retained after the AIG has been rebooted.

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- A case of the web GUI not displaying properly when accessed from a PC/NB without Internet connectivity.
- The "Ignore Server Certificate" function does not work when the MQTT connection enables the SSL/TLS.

Known Issues:

- When the system log cache size entered is 4096 or higher, it results in an incorrect range being applied. The range should be 1 to 4095.
- A new firewall rule is created when you change the action of an existing firewall rule from "Allow" to "Forward" or vice versa.
- An expired account cannot be re-activated via the RESTful API.
- The cellular interface page in the web GUI may appear as "Unavailable" when the device is still in the booting stage. Workaround: Wait for a few minutes and refresh the page.
- When using X.509 certificate to authenticate the Azure IoT Device connection, remove the prefix "Hostname=" in the Connection String.
    - Original Format: "Hostname={iothub name}.azure-devices.net;DeviceID={device ID};x509=true"
    - Updated Format: "{iothub name}.azure-devices.net;DeviceID={device ID};x509=true"
- For the data type float validation in the web GUI is incorrect. Recommend using the API to enter such values.

Enhancements

- The maximum number of Modbus TCP connections has been increased from 32 to 64.
- The maximum number of Modbus commands per serial port has been increased from 32 to 256.
- The maximum number of Modbus RTU/ASCII connected devices per serial port has been increased to 32.
- Device-to-cloud message policy redesigned to enable customized tag value sampling and triggering of the value change of the selected tags.
- Cellular spectrum can be set to 3G, 4G, or auto mode.
- New RESTful API repository reference at https://github.com/TPE-TIGER/TPE-TIGER.github.io

Changes

- AIG-301 v1.5 proactively monitors the connection between ThingsPro Agent and edgeHub. If ThingsPro Agent fails to connect with edgeHub for 10 minutes, AIG-301 will force a restart of edgeHub. (Note: This could affect Moxa's Azure IoT Edge module because the edgeHub restart may take a minimum of 30 seconds.)

Notes

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- The size of the upgrade package is approximately 406 MB, and the upgrade process may take 40 minutes or more.
- If you want to upgrade the AIG-301 Series, you can download the guideline at the link:

https://files.thingsprocloud.com/package/AIG_301_v1.5_UpgradeNotes_final.pdf

Which products will be affected?

Product Name	Current Version	New Version
AIG-101 Series	V1.0.0	V1.1.0
AIG-301 Series	V1.4.0	V1.5.0

When will the new versions be available?

Product Name	New Version	Available for Order
AIG-101 Series	V1.1.0	December 31, 2023
AIG-301 Series	V1.5.0	December 31, 2023

If you have any questions, please contact Joshua Lin at joshua.lin@moxa.com, or contact your regional sales representative.