MULTITECH

Product Change Notification

Conduit® Gateway
Conduit® IP67 Base Station
Conduit® IP67 200 Series Base Station
Conduit® AP Access Point

mPower™ Edge Intelligence Update
    mPower 6.3.0 Now Available

Date: May 25, 2023

Product Change Notification (PCN) Number
PCN 05252023-001 (Conduit - mPower)

Overview
Starting in August 2023, Conduit gateway shipments will include an updated version of the mPower operating system:

- mPower 6.3.0

The latest version, mPower 6.3.0 includes new features and enhancements to the new hardware supported, LoRaWAN support, user experience, and networking and security features.

mPower Software Release Notes can be downloaded: < here >

Schedule
- Starting in August 2023, MultiTech will begin shipping the Conduit gateways with mPower 6.3.0
- See model numbers impacted for details
- See Schedule for Date of Manufacture details

Suggested Action Plan
Customers
1. Prepare to receive Conduit device shipments with an updated version of mPower
2. Download, evaluate and approve the updated mPower version
   - http://www.multitech.net/developer/downloads/
3. Additional information
   - Technical inquiries: support.multitech.com
   - Sales inquiries: email sales@multitech.com

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Distributors
- Forward this announcement to others in your organization who are actively involved in the sale or support of programmable IoT gateways.
- Notify existing customers that Conduit devices are now shipping an updated version of mPower software.
- Encourage customers to evaluate the new mPower version in their environment. Updates to the mPower operating system may result in updates to the customer application.

mPower 6.3.0 Overview

mPower 6.3.0 includes several new features and feature enhancements:
- **Software & Services: BACnet BMS Support**
  - LoRaWAN sensors can be quickly integrated into existing Building Management System (BMS).
  - The MultiTech gateway decodes the data from a LoRaWAN sensor and maps the sensor data into BACnet objects.
  - Uplink and downlink messages are available.
  - Radio Bridge wireless sensor decoders are available natively.
  - Only specific devices are licensed to support the BACnet Connector feature:
    - MTCAP-868-041A-BAC
    - MTCAP-915-041A-BAC
- **Software & Services: LoRaWAN Updates**
  - Cloud Services – The LoRa Default App includes the option to connect to AWS IoT Core and Microsoft Azure IoT Cloud Services.
  - LoRa Join Server – Support for Third-Party Join Servers added.
  - LoRa Basics Station – 16-channel option available when used with two MTAC-003 cards.
  - LoRa Packet Forwarder - ChirpStack Gateway Bridge v4 support.
- **User Experience: New Feature Custom User Roles**
  - The administrator can create custom user roles and set the permissions for each custom user role based on organizational need and use case.
  - *Custom Roles* and *Add Custom Role* are new menus under Administration, User Accounts.
  - The administrator creates a new name and description for each custom user role.
- **User Experience: Web Interface Improvements**
  - Dark and Light Themes **-** mPower detects the user system preferences and enables light or dark scheme automatically.
  - Save & Apply Button Behavior **-** Save & Apply button is displayed ONLY when there are changes that can be saved and applied.
  - Main Menu Behavior - Open/expand all menus and see all submenus available.
  - Date and Time Format - mPower detects the user system preferences for date and time format and automatically matches the system format when date and time are displayed within the user interface.
  - Web Interface – Send and Received SMS - *Send SMS, Sent SMS* and *Received SMS* are combined into a single page called *Send/Received SMS*. *SMS Configuration* and *Send/Received SMS* pages are moved under the *Cellular* main menu.

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- **Networking & Security: LLDP (Link Layer Discovery Protocol) Support**
    - As local area networks expand and include more devices and more types of devices, tools are required to help network administrators locate, monitor, and configure network devices.
    - The Link Layer Discovery Protocol (LLDP) is a vendor-neutral link layer protocol used by network devices for advertising their identity, capabilities, and neighbors on a local area network based on IEEE 802 technology, principally wired Ethernet. The LLDP feature allows the network manager to see on the connected switch which device is connected to which port on the switch, how much power is being requested, what the IP address is, etc. Using this information, they can determine where the Conduit is located and, if necessary, remotely disconnect power to the Conduit in case of PoE-powered device.
- **Networking and Security: Password Complexity Rules**
    - <u>Password Age, Maximum Age Limits</u> - When a user password expires due to the age of the password, the user will be prompted to change their password before their next login.
    - <u>Password Age, Minimum Password Age</u> - The minimum number of days for which a password cannot be changed.
    - <u>Password Complexity, History Length</u> - The number of previous passwords that will be remembered before a specific password can be reused.

mPower Software Release Notes can be downloaded at:

https://www.multitech.com/documents/publications/sales-flyers/mPower%20Software%206.x.x%20Conduit%20Gateways.pdf

Schedule

Conduit devices with mPower 6.3.0:
- Manufacturing: Starting August 2023
    - Date of Manufacture: Starting August 28, 2023
    - See model numbers impacted for details
    - Identifying Date of Manufacture (chassis label)

Model:MTCDT – L4E1
B/O: – 246A – 868 – EU – GB
ORDER P/N: MTCDT – L4E1 – 246A – 868 – EU – GB
SKU #:94557602LF   DOM: 2023.08.28

DOM: 2023.08.28
DOM = Date of Manufacture
2023 = Year
08 = Month (August)
28 = Day

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Models Impacted (mPower 6.3.0)

- MultiTech Conduit® Gateway
  - MTCDT-240A, MTCDT-246A, MTCDT-247A
  - MTCDT-L4E1, MTCDT-L4G1, MTCDT-L4N1, MTCDT-LAT3, MTCDT-LAP3, MTCDT-LDC3, MTCDT-LSB3
    Hardware versions: MTCDT-0.1, MTCDT-0.2
- MultiTech Conduit® IP67 Base Station
  - MTCDTIP-266A, MTCDTIP-267A
  - MTCDTIP-L4E1, MTCDTIP-L4G1, MTCDTIP-L4N1, MTCDTIP-LAP3, MTCDTIP-LDC3, MTCDTIP-LSB3
    Hardware versions: MTCDTIP-0.0, MTCDTIP-0.1
- MultiTech mCard™ Gateway Accessory Cards
  - MTAC-LORA-H-868, MTAC-LORA-H-915, MTAC-LORA-H-923-JP
  - MTAC-003E00, MTAC-003U00
  - MTAC-GPIO, MTAC-MFSER-DTE, MTAC-MFSER-DCE, MTAC-ETH, MTAC-XDOT
  - Note: MultiTech mCard available individually and in select Conduit gateways (MTCDT-series) and IP67 base stations (MTCDTIP- series)
- MultiTech Conduit® IP67 200 Series Base Station
  - MTCDTIP2-EN
  - MTCDTIP2-L4E1, MTCDTIP2-LNA3
  - Hardware Version: MTCAP-0.3
- MultiTech Conduit® AP Access Point
  - MTCAP-868, MTCAP2-868, MTCAP-915, MTCAP2-915
  - MTCAP-L4E1, MTCAP2-L4E1, MTCAP-LNA3, MTCAP2-LNA3
  - Hardware Version: MTCAP-0.0, MTCAP-0.1, MTCAP-0.2

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Upgrade Process (mPower 6.3.0)

To install mPower 6.3.0, the Conduit gateway must be upgraded to mPower 6.0.0 or higher. Customers that are running earlier versions of mPower should use the following upgrade process.

Using an old configuration file on new Conduit devices may result in the new devices becoming non-functional. To successfully update new Conduit devices, create separate configuration templates for each type of Conduit device:

- Hardware model (MTCDT, MTCDTIP)
- Hardware version (MTCDT-0.1, MTCDT-0.2, MTCDTIP-0.0, MTCDTIP-0.1)
- Cellular radio (-L4G1, -L4N1, -L4E1)
- mPower version (mPower 5.3.7, mPower 5.3.8s-s1, mPower 6.0.4)

When upgrading a device fleet:

1. Upgrade the mPower version on one device
2. Modify the user-specific configuration settings
3. Perform in-house testing and adjust settings if necessary
4. Use the newly developed configuration file as part of field updates when the new version of mPower is widely deployed

mPower Edge Intelligence Overview

mPower™ Edge Intelligence is MultiTech's embedded software offering delivering programmability, network flexibility, enhanced security, and manageability for scalable Industrial Internet of Things (IIoT) solutions. mPower Edge Intelligence simplifies integration with a variety of popular upstream IoT platforms to streamline edge-to-cloud data management and analytics, while also providing the programmability and processing capability to execute critical tasks at the edge of the network to reduce latency, control network and cloud services costs, and ensure core functionality – even in instances when network connectivity may not be available.

Additional Information

Software Release Notes, mPower 6.x.x:
https://www.multitech.com/documents/publications/sales-flyers/mPower%20Software%206.x.x%20Conduit%20Gateways.pdf

Downloads:
Visit http://www.multitech.net/developer/downloads/

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MultiTech Security Advisories
www.multitech.com/landing-pages/security
MultiTech monitors industry news and announcements to identify security issues that may impact our devices and operating systems and strives to provide the information and tools to keep your deployments secure and online.

MultiTech Developer Resources:
www.multitech.net
An open environment where you can ask development related questions and hear back from MultiTech engineering or a member of this community.

Knowledge Base:
http://www.multitech.com/kb.go
Immediate access to support information and resolutions for all MultiTech products.

MultiTech Support Portal:
support.multitech.com
Create an account and submit a support case directly to our technical support team.

MultiTech Website:
www.multitech.com

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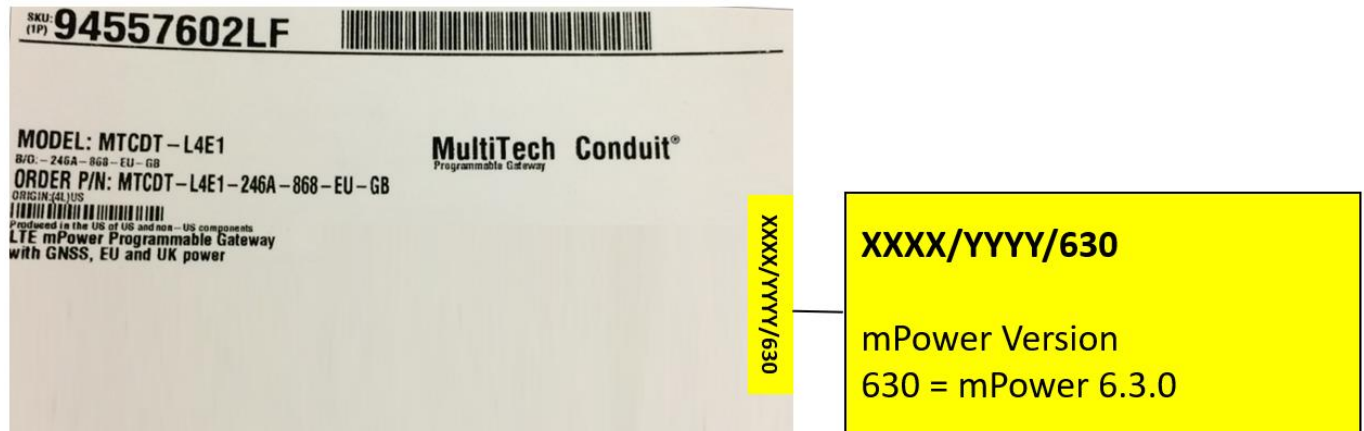
ATTACHMENT I
Identifying mPower Version

There are multiple ways of identifying the mPower version on a Conduit device:
1. **Product Packaging**
   The carton label for each Conduit device includes an indication of the mPower version included.

2. **mPower User Interface**
   - The Homepage (dashboard) displays a summary of the configuration settings for the Conduit device
   - Device-Firmware: mPower Edge Intelligence version

3. **DeviceHQ**
   - MultiTech DeviceHQ® is a cloud-based toolset for managing the latest generation of MultiTech devices, including the Conduit devices.
   - On the **DeviceHQ Device Page**, ensure that the "Firmware" field is chosen as a column selection
   - For all Conduit devices assigned to the account, the mPower version will be displayed

4. **API Command**
   The Conduit uses RESTful JSONAPI for managing configurations, polling statistics, and issuing commands. Executing the following API command will return the mPower version of the Conduit device:
   - API Command: https://192.168.2.1/api/system/firmware
   - Instructions:
     1. Log into the Conduit device using a web browser
     2. Open a new tab and enter https://192.168.2.1/api/system/firmware
        - Command is case sensitive
        - Change the device IP address if necessary
     3. Press Enter
     4. Conduit device returns the following. In this example, the mPower version is mPower 6.3.0:
        "code": 200
        "result": "6.3.0"
        "status": "success"

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Revision History

Version	Author	Date	Change Description
-001	DT	05/25/2023	Original version

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