DXM Firmware Release v2.02.00

Overview
Version 2.02.00 of the DXM Controller firmware requires version 3.1 of the DXM Configuration Tool to use the new features. Version 3.1 should be backwards compatible with earlier versions of DXM controller firmware.

Refer to Updating Your DXM Processor Firmware (p/n b_4474194) for instructions.

New Modbus Capabilities

Modbus TCP Client
The DXM Controller now has Modbus TCP Client Rules. The controller can be programmed to access other Modbus devices using Ethernet. Under REGISTER MAPPING -> MODBUS TCP complete each socket definition with the IP address, Poll rate and Poll timeout of other Modbus TCP server devices. Then create Modbus TCP Write/Read rules to Move register data between devices.

Optimized Memory allocation for Modbus Rules
Memory use for Rules based logic is now dynamically allocated. This creates more efficient memory use for ScriptBasic programming and file operations.

Enhanced Radio Polling
The Automatic Radio Polling (SETTINGS->GENERAL) has four settings to get data from the internal ISM radio into the processors Local Registers. Each setting alters the Local Register data organization and/or the usage of outputs.

Storing data into Local Registers Organized by Devices
This groups register data into Local Registers by radio devices: Local Registers 1-16 = Gateway, 17-32 = Node 1, 33-48 = Node 2, et al. When data is grouped by device there are two options, inputs only or inputs and outputs

Storing data into Local Register Organized by Inputs/Outputs
This setting groups radio register data into Local Registers by inputs/outputs. Local Registers 1-48 = Input 1 for each device (GW, N1-N47), Local Registers 49-96 = Input 2 for each device, et al.

Action Rule Update
Tracker Rules have been updated to allow for the result register to be cleared. Functions for the Tracker Rules are also updated, functions include rising edge counting, Time in milliseconds the register is in high state and time in milliseconds the register is in low state.
DXM Controller Security Updates
Enhanced SSL/TLS Performance
Use the hardware assist within the DXM Controller micro to increase the performance of encrypting and decrypting data payloads.

Updated SSL/TLS stack
Updated the DXM Controller network stack to use the latest version of SSL/TLS for the most reliable and greatest performance possible.

Boot Loading over SSL/TLS
Resolved issue with DXM boot loading over Ethernet using an encrypted data connection

Feature Enhancements and Fixes
Updated LCD scaling with I/O
Extended Modbus addressing for PTL
Modbus RTU Slave port parity
Corrected the DXM Controller Modbus RTU slave port handling of parity for devices that require different parity settings.

Reset Registers in Action Rules
Added the ability to reset the Action rules, Tracker registers and On-Time registers in Threshold rules.

Cellular updates
Cellular updates to enhance LTE and GSM modems
LCD additions for LTE / GSM modems
Correction for GSM formatting of SMS messaging