

MT: Tags

MQTT Transmission automatically creates a known set of folders (in the MQTT Transmission provider) containing tags for Transmission Control and Transmission Info.

The tables below describe the tags.

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Transmission Control

Name	Data Type	Description
Discover Edge Nodes	Boolean	A writeable tag to request the BIRTH sequence for any new Edge Nodes to be published and the info tags created in the Transmission Info folder.
Discover Edge Nodes Required	Boolean	A tag indicating there are new Edge Nodes present on the gateway that have not birthed yet and a Discover Edge Nodes request is required
Last Refresh	DateTime	The time at which the last refresh request was completed
Refresh	Boolean	A writeable tag to request a MQTT Transmission refresh. This will force all Edge Nodes to disconnect and reconnect resulting in the sending of NDEATH, NBIRTH and DBIRTH messages

Transmission Info

Name	Data Type	Description
Redundancy Role	String	The redundancy configuration of the Ignition system that MQTT Transmission is installed on. Options are Independent, Master and Backup
Redundancy State	String	The redundancy status of the Ignition system that MQTT Transmission is installed on. Options are Active or Cold
Refresh Required	Boolean	A tag indicating that new tags have been identified by Transmission and a refresh is required. The refresh can be accomplished with a full refresh of Transmission or by refreshing the individual Edge Node affected
Version	String	The version MQTT Transmission currently installed

Transmitters

For each Transmitter, a tag tree will be created with the tag path of TransmitterName > Tag Path > GroupID > EdgeNodeID

Name	Data Type	Description
Enable Tag Tracking	Boolean	Writable tag to control whether or not to update Tags Per Seconds (added 4.0.17)
Largest Mesg Xmit (bytes)	Long	The largest message size in bytes sent by the Edge Node since the last time the metrics were reset via the Edge Node Reset Metrics tag
Largest Mesg Xmit Timestamp	DateTime	The time at which the largest message was sent by the Edge Node since the last time the metrics were reset via the Edge Node Reset Metrics tag
Last Refresh	DateTime	The time at which the last Edge Node refresh request was completed
Refresh Edge Node	Boolean	A writeable tag to request a refresh of the Edge Node. This will force the Edge Node to disconnect and reconnect resulting in the sending of NDEATH, NBIRTH and DBIRTH messages
Refresh Required	Boolean	A tag indicating the new tags have been identified by Transmission for this Edge Node and a refresh is required.

Reset Metrics	Boolean	A writable tag to reset the metrics for this Edge Node
Tag Count	Long	The number of tags identified for this Edge Node
Tags Per Second	Long	The number of tags changes published per second with the value updated every two seconds (added 4.0.17)
Total Bytes Xmit (bytes)	Long	The number of bytes sent by the Edge Node since the last time the metrics were reset via the Edge Node Reset Metrics tag
Total Mesg Xmit	Long	The number of messages sent by the Edge Node since the last time the metrics were reset via the Edge Node Reset Metrics tag

MQTT Client

Name	Data Type	Description
Command Latency (ms)	Long	The amount of time for a test MQTT command message to be sent and received back by the MQTT Client
Enable Latency Check	Boolean	Writeable tag to enable command latency checking for each MQTT Client
MQTT Client ID	String	The Client ID for the MQTT Client
Offline DateTime	DateTime	The last time at which the MQTT Client successfully disconnected from the MQTT Server
Online	Boolean	A read-only tag showing the connection status of the MQTT Client
OnlineDateTime	DateTime	The last time at which the MQTT Client successfully connected to the MQTT Server
Primary Host ID	String	The Primary Host ID configured for this MQTT Client
Target Server URL	String	The URL of the target MQTT Server to connect to

History Store

For each History Store, a folder will be created with the name of the History Store

Name	Data Type	Description
Disk Used	Long	Created if the History Store type is Disk_Backend and shows the memory used since last module restart. This parameter will never go to zero for the following reasons: <ul style="list-style-type: none"> The initial config of the DB will contain empty seeded tables based on the number of edge nodes and devices (table per edge node and per device) and at least one metadata table. Flushed rows are marked for deletion and will actually be deleted from the DB on its internal schedule. This is to minimize the writes on a flash/SSD drive.
Memory Used	Long	Created if the History Store type is In_Memory and shows the memory used since last module restart

Under each of the History Store folders, for each Transmitter, a tag tree will be created with the tag path of GroupID > EdgeID and/or > DeviceID

Name	Data Type	Description
Metrics Stored	Long	Number of Edge Node or Device level tag change events stored <ul style="list-style-type: none"> For Disk_Backend History Store, this tag is updated every 30 seconds
Records Stored	Long	Number of Edge Node or Device level records stored <ul style="list-style-type: none"> For Disk_Backend History Store, this tag is updated every 30 seconds
Metrics Percentage Used	Float	(Deprecated 4.0.19) Number of Edge Node or Device level tag change events stored as a percentage of the configured Edge Node or Device Tag Capacity
Records Percentage Used	Float	(Deprecated 4.0.19) Number of Edge Node or Device level tag change events stored as a percentage of the configured Edge Node or Device Record Capacity