

How do I know how many MQTT clients are connected from MQTT Transmission

Details about the MQTT Clients connected from Transmission can be found in the Transmission Info > Transmitters folder in the MQTT Transmission tag provider.

Each Sparkplug Edge Node Descriptor (which is the Group ID and Edge Node ID combination) will create an MQTT client and a single Transmitter configuration with multiple Sparkplug Edge Node Descriptors will result in multiple Sparkplug MQTT clients.



MQTT Transmission supports an optional RPC Client which is used when publishing MQTT from Ignition Python scripts. This is not included in the MQTT Transmission metrics.

An MQTT Client folder is available for each MQTT Transmission transmitter:

Tag Browser		
MQTT Transmission		
Tags	UDT Definitions	
Tag	Value	Data Type
Transmission Control		
Transmission Info		
History Store		
Transmitters		
Default Transmitter		
Edge Nodes		
G1		
E1		
MQTT Client		
Command Latency	-1	Long
Enable Latency Check	<input type="checkbox"/>	Boolean
MQTT Client ID	MT-233770ec-fa46-46f2	String
Offline DateTime	null	DateTime
Online	<input checked="" type="checkbox"/>	Boolean
Online DateTime	2023-09-22 11:56:17 AM	DateTime
Primary Host ID	IamHost	String
Target Server URL	tcp://localhost:1883	String
Enable Tag Tracking	<input type="checkbox"/>	Boolean
Largest Mesg Xmit	1,502	Long
Largest Mesg Xmit Timestamp	2023-09-22 11:56:17 AM	DateTime
Last Refresh	null	DateTime
Refresh Edge Node	<input type="checkbox"/>	Boolean
Refresh Required	<input type="checkbox"/>	Boolean
Reset Metrics	<input type="checkbox"/>	Boolean
Tag Count	30	Long
Tags Per Second	0	Long
Total Bytes Xmit	1,872	Long
Total Mesg Xmit	2	Long
New Transmitter1		

where:

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

Executing the code below in the Ignition Script Console will print out the values in the MQTT Client folder for review:

```
clients = system.tag.browseTags(parentPath="[MQTT Transmission]Transmission Info", tagPath="*MQTT Client",
recursive=True)
index = 0
count = 0
while index < len(clients):
    data = []
    tagPath = str(clients[index]).split("/")

    data.append(["Sparkplug EdgeNode Descriptor",tagPath[len(tagPath)-3],tagPath[len(tagPath)-2]])
    data.append(["MQTT Client ID", system.tag.readBlocking(str(clients[index]) + "/MQTT Client ID")[0].value])
    data.append(["Online", system.tag.readBlocking(str(clients[index]) + "/Online")[0].value])
    data.append(["Online DateTime", system.tag.readBlocking(str(clients[index]) + "/Online DateTime")[0].value])
    data.append(["Primary Host ID", system.tag.readBlocking(str(clients[index]) + "/Primary Host ID")[0].value])
    data.append(["Target Server URL", system.tag.readBlocking(str(clients[index]) + "/Target Server URL")[0].
value])
    data.append(["Offline DateTime", system.tag.readBlocking(str(clients[index]) + "/Offline DateTime")[0].
value])

    if system.tag.readBlocking(str(clients[index]) + "/Online")[0].value:
        count = count + 1
    print data
    index = index + 1

print ("Number of MQTT Clients: " + str(len(clients)))
print ("Number of connected MQTT Clients: " + str(count))
```

Example results from the Transmission Info > Transmitters above

```
>>>
[['Sparkplug EdgeNode Descriptor', 'G1', 'E1'], ['MQTT Client ID', u'MT-a9502db1-a649-40e6'], ['Online', True],
['Online DateTime', Tue Sep 26 08:58:05 CDT 2023], ['Primary Host ID', u'IamHost'], ['Target Server URL',
u'tcp://localhost:1883'], ['Offline DateTime', Tue Sep 26 08:56:44 CDT 2023]]
[['Sparkplug EdgeNode Descriptor', 'MyGroup', 'MyEdgeNode'], ['MQTT Client ID', u'MT-1d624cea-c810-40e0'],
['Online', True], ['Online DateTime', Tue Sep 26 08:58:04 CDT 2023], ['Primary Host ID', u'IamHost'], ['Target
Server URL', u'tcp://localhost:1883'], ['Offline DateTime', Tue Sep 26 08:56:44 CDT 2023]]
Number of MQTT Clients: 2
Number of connected MQTT Clients: 2
>>>
```

```
>>>
[['Sparkplug EdgeNode Descriptor', 'G1', 'E1'], ['MQTT Client ID', u'MT-a9502db1-a649-40e6'], ['Online',
False], ['Online DateTime', Tue Sep 26 08:58:05 CDT 2023], ['Primary Host ID', u'IamHost'], ['Target Server
URL', u'tcp://localhost:1883'], ['Offline DateTime', Tue Sep 26 08:58:53 CDT 2023]]
[['Sparkplug EdgeNode Descriptor', 'MyGroup', 'MyEdgeNode'], ['MQTT Client ID', u'MT-1d624cea-c810-40e0'],
['Online', False], ['Online DateTime', Tue Sep 26 08:58:04 CDT 2023], ['Primary Host ID', u'IamHost'], ['Target
Server URL', u'tcp://localhost:1883'], ['Offline DateTime', Tue Sep 26 08:58:53 CDT 2023]]
Number of MQTT Clients: 2
Number of connected MQTT Clients: 0
>>>
```

Additional Resources

- Inductive Automation's Ignition download with free trial
 - [Current Ignition Release](#)

- Cirrus Link Solutions Modules for Ignition
 - [Ignition Strategic Partner Modules](#)
- Support questions
 - Check out the Cirrus Link Forum: <https://forum.cirrus-link.com/>
 - Contact support: support@cirrus-link.com
- Sales questions
 - Email: sales@cirrus-link.com
 - Phone: +1 (844) 924-7787
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