

# ICP DAS BRK Series IIoT MQTT Communication Server User **Manual**

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**ICP DAS BRK Series IIoT MQTT Communication Server** 



## **Specifications**

• Product Name: BRK-2800 Series IIoT MQTT Communication Server

• Version: V1.0, 2023/08

• Manufacturer: ICP DAS Co., Ltd.

**Product Information** The BRK-2800 Series IIoT MQTT Communication Server is designed to provide Bridge and Cluster functions for MQTT Broker applications. It supports High Availability architecture and Redundancy System to ensure uninterrupted service.

# Product Usage Instructions Introduction

The BRK-2800 Series IIoT MQTT Communication Server offers scalability and flexibility for MQTT Broker applications.

#### **Features**

- **Bridge Function:** Allows forwarding/subscribing messages to other BRK series or third-party MQTT Brokers for expanded data sources.
- Cluster Function: Enables data sharing among BRK series in the same group to meet increased connection and message needs.
- High Availability Architecture: Supports backup between BRK devices to ensure uninterrupted service in case of failure.

 Redundancy System: Provides hardware backup within the MQTT Broker group to maintain service continuity.

#### **FAQ**

#### 1. What is the warranty period for the BRK-2800 Series IIoT MQTT Communication Server?

The product is under warranty for one year from the date of delivery to the original purchaser.

#### 2. Can users modify and distribute the software included with the product?

Users can use, modify, and backup the software on a singlemachine but are not allowed to reproduce, transfer, or distributeit.

## 3. How can I contact technical support for the BRK Series?

You can reach out to technical support via email at <a href="mailto:service@icpdas.com">service@icpdas.com</a> for assistance.

## **BRK Series User Manual**

V1.0, 2023/08 **BRK-2800 Series**IIoT MQTT Communication Server

## Warranty

All products manufactured by ICP DAS are under warranty regarding defective materials for a period of one year, beginning from the date of delivery to the original purchaser.

#### Warning

ICP DAS assumes no liability for any damage resulting from the use of this product. ICP DAS reserves the right to change this manual at any time without notice. The information furnished by ICP DAS is believed to be accurate and reliable. However, no responsibility is assumed by ICP DAS for its use, not for any infringements of patents or other rights of third parties resulting from its use.

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#### **Contact US**

- If you have any problem, please feel free to contact us.
- You can count on us for quick response.
- Email: <u>service@icpdas.com</u>
- For more product information please refer to website: https://www.icpdas.com

#### **BRK Introduction**

#### Introduction

BRK Series is an Communication Server that specially provides Broker function of MQTT protocol for MQTT message distribution and concentrator in M2M and Industrial Internet of Things environments. The BRK Series is compatible with the MQTT version V.3.1, V.3.1.1 and V.5.0 protocol. It supports many functions such as QoS message quality mechanism, retains mechanism, identity authentication, communication encryption, last message (Last Will), and bridge. The method of Web UI settings can quickly set up BRK functions. This reduce the burden of setting up the broker by user oneself and the maintenance cost. Besides, BRK Series provides Bridge, Cluster, Load Balancer, and High Availability functions. By forming multiple BRK Series a group to a better Redundancy system can prevent field systems from stopping services due to hardware or network failures.

#### **Features**

Provide Bridge and Cluster functions, which allows excellent scalability
 The Bridge and Cluster functions can expand the limits of service and data sources for MQTT Broker applications:

#### Bridge function

Allows BRK series to forward/subscribe the messages to other BRK series or third-party MQTT Brokers. By forwarding messages, it can direct the message to other BRK series service side. By subscribing to the remote brokers, it can increase the data sources.

#### **Cluster function**

Allows BRK series in the same group to share data to others with lower resources. When the number of connections and messages exceeds the limit of a BRK, using the cluster function can increase the number of connections to meet the needs.

#### · Support High Availability architecture

When there are more than two BRK devices in the same site, they can be set as backup between each other. When the BRK device that is providing services fails or goes offline, other BRK device can detect and take over in a short time to ensure that the service will not be interrupted for a long time.

• Support Load Balancing Function, which can effectively configure tasks and optimize MQTT communication. The BRK load balancing function can be used in conjunction with the MQTT bridging or clustering function. A BRK device in this group provides a single fixed IP and communication port to connect other BRK clients in the group, which can be effectively allocated to the BRK devices in the group for MQTT communication services. This function simplifies user configuration and maximizes the overall system service capacity: when a single or a small number of devices in the group fail, the connection can be redistributed to other BRK devices to continue to provide communication services.

#### Support Redundancy System

Based on the High Availability architecture and Load Balancing function. This redundancy is hardware backup. In the entire MQTT Broker group, if one of the BRKs fails or disconnects, the other BRKs with normal functions will take over to provide MQTT services, and users do not need to perform other related settings.

## **Specifications**

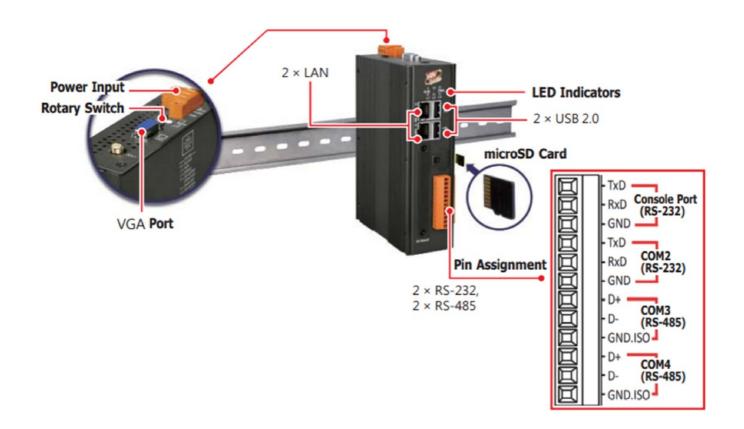
| Model     | BRK-2841M                       |
|-----------|---------------------------------|
| Main Unit |                                 |
| CPU       | Quad-core ARM CPU, 1.6 GHz/Core |

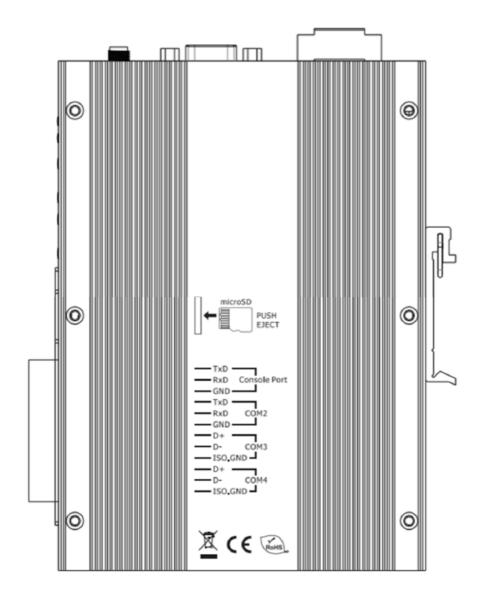
| System Memory       |                          | DDR3 SDRAM 1 GB                    |
|---------------------|--------------------------|------------------------------------|
| Storage             |                          | Flash 8 GB                         |
| Non-Volatile Memory |                          | FRAM 64 KB, MRAM 128 KB            |
| Ethernet            |                          |                                    |
| _                   |                          | RJ-45 x 2, 10/100/1000 Base-TX     |
| Ports               |                          | (Auto-negotiating, Auto MDI/MDI-X) |
| Power               |                          |                                    |
| Input Rang          | е                        | +12 +48 VDC                        |
| Consumption         | on                       | 4.8 W                              |
| Environme           | ental                    |                                    |
| Operating 7         | Temperature              | -25 +75C                           |
| Storage Te          | mperature                | -40 +80C                           |
| Humidity            |                          | 10 90% RH,Non-condensing           |
| Software            |                          |                                    |
| MQTT Clie           | nt Connection Numbers    | Max. 100000                        |
|                     | Basic Features           |                                    |
|                     | Bridge Function          | Support                            |
|                     | Cluster Function         | Support                            |
|                     | QoS (Quality of Service) | Support QoS0, QoS1, QoS2           |
|                     | MQTT Protocol            | Support V3.1 / V3.1.1 / V5.0       |
|                     | Retained Message         | Support                            |
|                     | Last Will Message        | Support                            |
|                     | System Topic(\$SYS/#)    | Support                            |
|                     | Delay Publish            | Available Soon                     |
|                     | Topic Alias              | Available Soon                     |
|                     | Supported Protocol       |                                    |

|             | TCP/SSL                 | Support        |
|-------------|-------------------------|----------------|
|             | Websocket (SSL)         | Available Soon |
| MQTT Broker | STOMP                   | Available Soon |
|             | MQTT-SN                 | Available Soon |
|             | CoAP                    | Available Soon |
|             | LwM2M                   | Available Soon |
|             | Identity Authentication |                |
|             | Client ID               | Support        |
|             | User Account & Password | Support        |
|             | IP Address              | Support        |

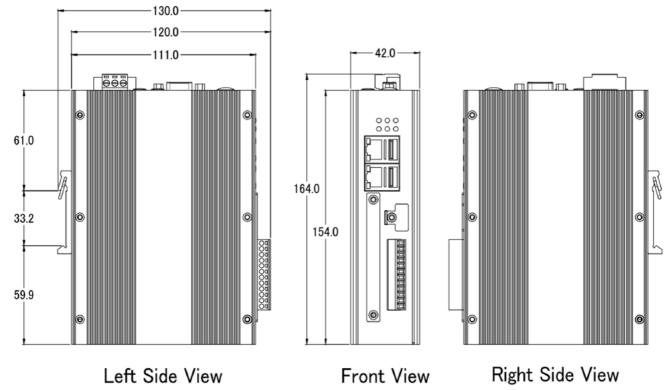
| Load Balancing Function         | Support |
|---------------------------------|---------|
| High Availability Architechture | Support |

# **Appearance**





## **Dimensions**



**Quick Start: Hardware/Network Connection** 

This chapter describes the devices hardware connection, network connection and quick setting for the BRK Controller, and how to connect to the BRK controller web-based UI via a browser. Next chapter will set up web functions, and complete a demo project. (Please refer to Chapter 3).

#### **Hardware Connection**

This section describes the hardware wiring and connection for the BRK Series.

#### **Preparations for Devices**

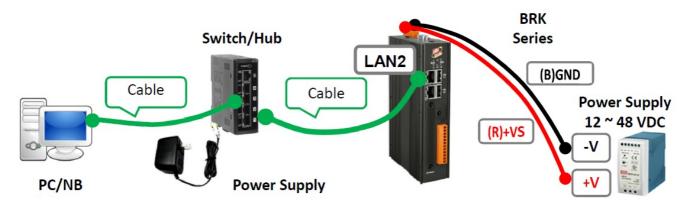
In addition to the BRK controller (Ex: BRK-2841M), please prepare the following:

- 1. Computer: PC/NB Connect to the local network and can set up the network
- 2. Ethernet Hub or Switch: e.g. NS-205
- 3. Power Supply: +12 ~ +48, e.g. MDR-60-24

#### **Hardware Wiring**

Use LAN2 of BRK-2800 to connect to the PC through a network hub/switch, or directly connect to the PC's network interface.

After power is connected, please [ wait for 1 minute ] for BRK boot procedure. When the "RUN" and "PWR" lights of the BRK start to flash green and red, it means the boot is completed, and the connection and setting can be performed.



## **Network Connection**

There are three ways to log in to the BRK Web UI (User Interface) through BRK network connection.

## The following is a brief description, and then the steps are described in subsections:

- If the device has just arrived from the factory or is used for the first time (A), it is recommended to use the connection method in Section 2.2.1 (same as the "Quick Start" included with the shipment).
- If the device has been set up to connect but does not know the IP (B), it is recommended to use the connection method in Section 2.2.2 (use Utility to search for the devices).
- If the device has been set up and the connection IP (C) is known, you can directly enter the IP connection in the browser website to log in.

#### The methods to login the BRK Web UI

#### Using Factory Default Setting

This way is suitable for those who is setting a new BRK or the PC network IP is not in the same domain with BRK. This method changes the PC network IP to match the BRK factory default settings to connect and login

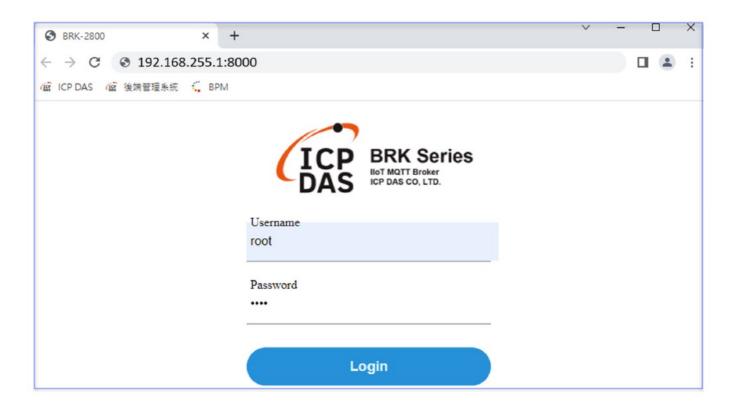
the Web UI. (Refer to Chapter 2.2.1)

#### . Using Software Utility

Suitable for quick setting when multiple BRKs are connected in the same network but each IP address is unknown. BRK products provide a free software utility to automatically search and connect to BRKs on the internet and can Log into BRK Web UI.(Refer to Chapter 2.2.2)

## Using IP Address

Suitable for the situation while BRK has a fixed IP and in the same domain network with the PC. If the BRK has a fixed IP and in the same domain with the PC, users can directly enter the IP in the address bar of a web browser and log in to the Web UI of the BRK.



**Connection by Factory Default Settings (For New BRK)** 

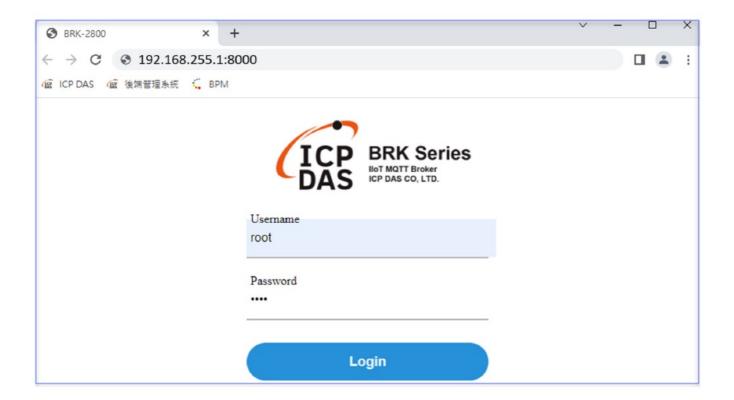
The factory default settings of the BRK series are as the following table:

| Factory Default Settings of BRK |          |                    |                                                          |
|---------------------------------|----------|--------------------|----------------------------------------------------------|
|                                 | IP       | 192.168.255.1:8000 |                                                          |
| Network                         | Netmask  | 255.255.0.0        | Assign BRK-2800 a new IP setting according to your case. |
|                                 | Gateway  | 192.168.1.1        |                                                          |
| Web UI Accou<br>nt              | Username | root               | After the first login, change the default use            |
|                                 | Password | root               | rname/password to use other functions.                   |

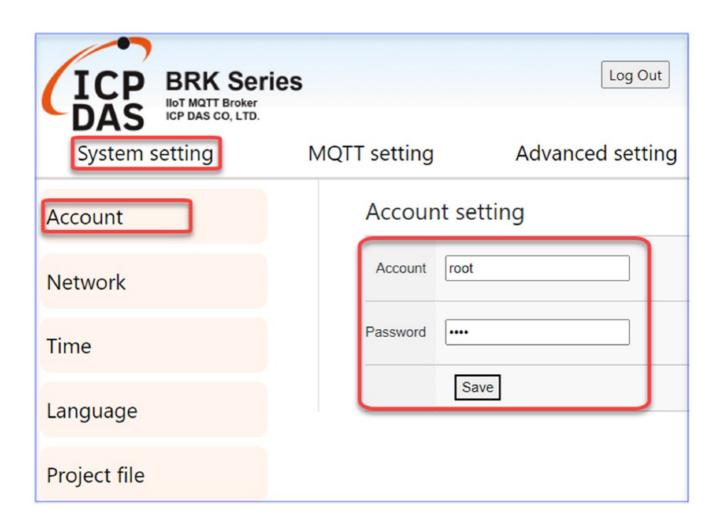
• Change the PC's IP setting as following. (Write down the PC original network settings before modify.)

| IP              | 192.168.255.10:8000 |
|-----------------|---------------------|
| Subnet mask     | 255.255.0.0         |
| Gateway address | 192.168.1.1         |

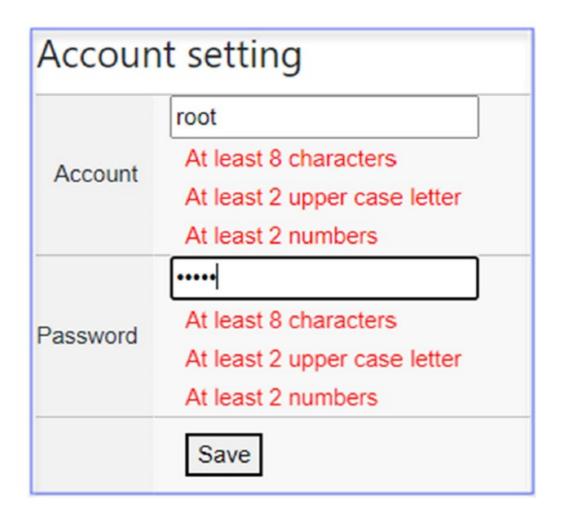
• Make sure the PC and BRK is connecting through Ethernet. Then open a PC side browser (Ex: Chrome, IE...). Type http://192.168.255.1:8000 in the URL address. Use Web UI default username / password "root" / "root" to login the system.



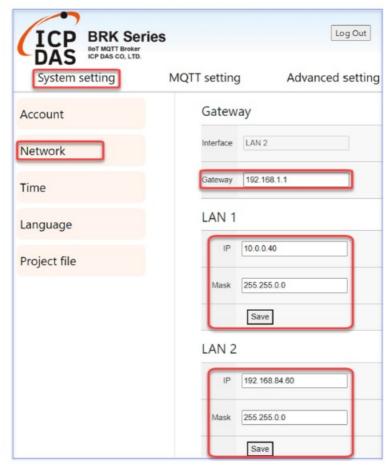
 Click System Setting Account Setting, change the Username/password first, or user cannot use any other function (New design for data security)



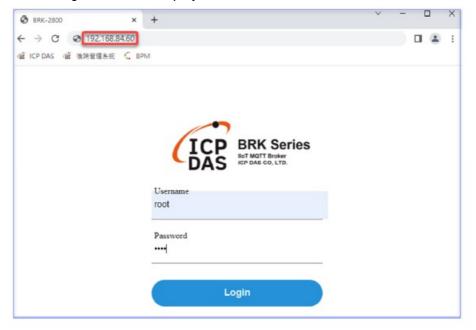
## **Password Setting rules**



- BRK Series User Manual V1.0 ICP DAS
- Click System Setting è Network Setting to change the IP setting by user network.
   Note: While the network cable has been correctly connected to LAN1 and LAN2 will show up setting interface.



• Save the IP setting, restore the PC original IP settings, and type the new IP in the browser as step-2 to login the Web UI of BRK. Then configure user's BRK project.



#### **Connection by Utility Searching**

Setting new BRK or the new user please use the method in the Chapter 2.2.1. (Method A)

• If the BRK has a fixed IP and in the same domain as the PC, users can directly enter the IP in the address bar of a web browser and log in to the Web UI of the BRK. (Method C)

- This section introduces the 2nd method(B) that users use the BRK Utility to search the Network IP. This method is suitable for connecting multiple BRK series controllers to the Internet, but the IP addresses of BRK are unknown or need to modify the BRK quickly.
- The Utility is a free tool software to quickly search each UA/BRK/UA\_IO series in the network and connect to its Web UI for setting UA/BRK/UA\_IO series products and project.
- In the PC, download and install the Utility (EZ-UAQ Utility) suitable for your PC, and then run it to connect the device. Please download the utility program from the website:

https://www.icpdas.com/en/download/show.php?num=8560&model=BRK-



v1.1.1

2023-03-29

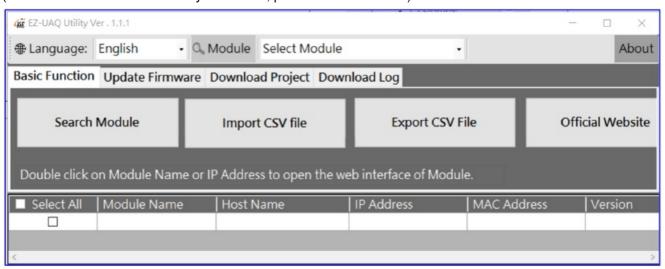
1.68 MB

1. Install and execute the Utility

EZ-UAQ Utility-Framework4.7

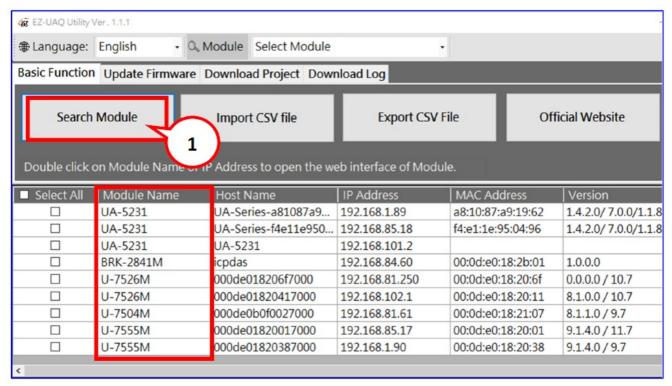
Download and unzip the Utility, double-click the executable file (EZ-UAQ Utility.msi) to install and execute the Utility software.

(If there is an old version of Utility on the PC, please uninstall it first.)



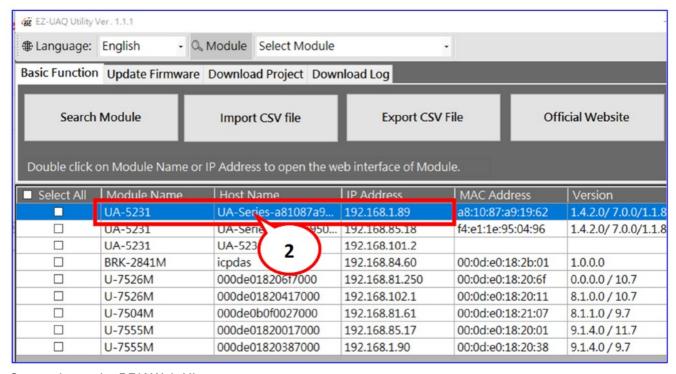
2. Search the UA/BRK/UA-IO series modules

Click the "Search Module" button, the utility will search and list all UA/BRK/UA-IO modules in the network.



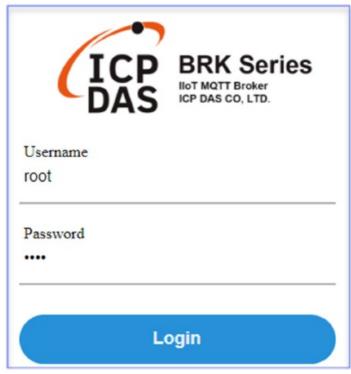
#### 3. Connect to the BRK Series

Double click the module list (from the Module Name to the IP address) you want to connect to, and it will directly link to the UA/BRK/UA-IO webpage via the default Web browser (Chrome, Edge, IE...).



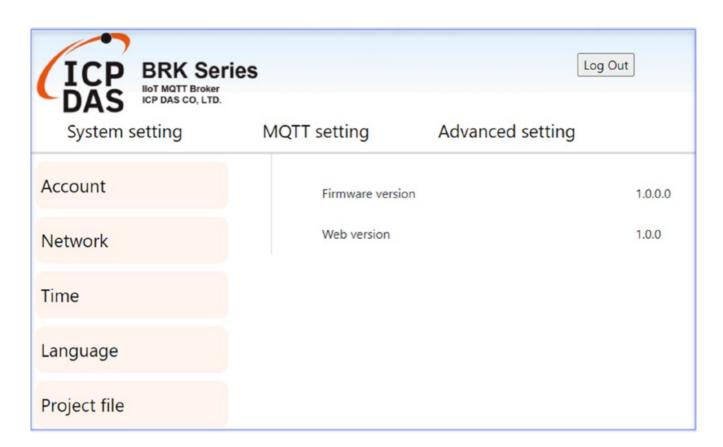
#### 4. Connection to the BRK Web UI

- The default web browser will be run and direct go to the BRK login web site.
- Please enter the username and password to login the BRK Web UI.
- The default username: root.
- The default password: root.
- After login in, change the default Username/password first, or user cannot use any other function (New design for data security).



## 5. Login the Web BRK of the BRK Series

When login into the web interface, the BRK default home page (the main configuration screen) will show as below, and will automatically read setting of that BRK to the webpage.



## **Main Function Settings**

This chapter describes the main function and setting method of the BRK.

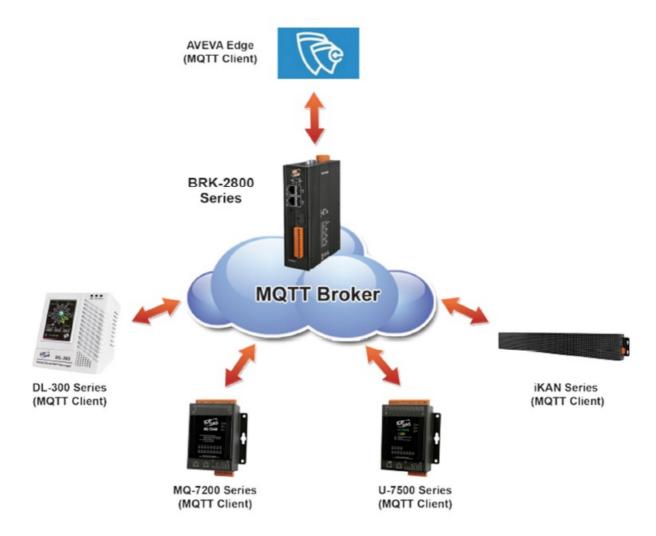
#### **MQTT Introduction**

MQTT (Message Queuing Telemetry Transport) is a communication architecture developed by IBM for the Internet of Things (IoT). It is useful for mobile applications because of its small size, low power usage, minimized data

packets, and efficient distribution of information to one or many receivers, especially in unstable networks. MQTT is implemented based on the publish/subscribe architecture. In its network, there is a server (Broker) responsible for the intermediary layer of information, and other devices can send information to the Broker by publishing a topic, or get information from the Broker by subscribing to a topic.

BRK-2800 is Sever of MQTT, can connect with large amount of ICP DAS modules with MQTT protocol: for example, the DL-300 series of data Logger sensors which can measure CO, CO2, Temperature, Humidity and Dew Point information. The communication mechanism that supports MQTT publishes the collected on-site environment parameters to the BRK-2800, and can simply monitor the on-site environment from a long distance by subscribing to the BRK-2800 using a mobile device or SCADA software that supports MQTT Client. The Ethernet I/O modules of the MQ-7200M series can automatically publish the collected digital I/O values to the BRK-2800 through MQTT. The MQTT Client only needs to subscribe and publish to the BRK-2800 to monitor or change remotely DO status of the Ethernet I/O modules.

#### **MQTT Architecture of the BRK**



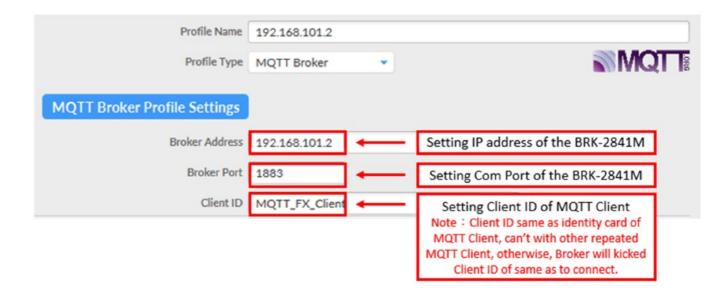
## Forward the MQTT messages for BRK-2800

This chapter use the DL-302 (Client) as an example, to perform "Forward the MQTT message by BRK-2800 (Broker)".

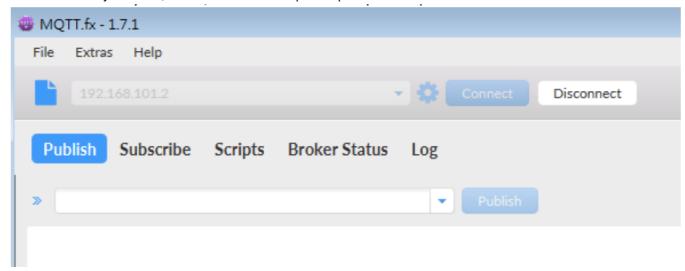
DL-302 need to set up the IP and Port of Broker Just communication, please refer to the DL-302 user manual chapter 4.5 MQTT

 $(\ \underline{https://www.icpdas.com/web/product/download/iiot/sensor/dl-300/document/manual/DL-300UserManualv1.2.0en.pdf\ )$ 

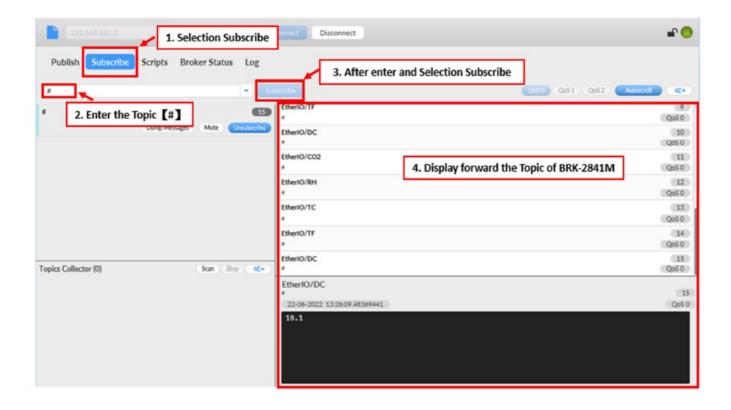
After setting is completed, DL-302 will automatic publish message for the BRK-2800; any MQTT Client device can subscribe to BRK-2800 to receive messages published by DL-302. Here we take the MQTT\_fx\_Client as an example: enter the IP address and Communication Port of BRK-2800, and connect to the BRK-2800 after the settings are correct.



After successfully connect, now BRK-2800 can operate publish and subscribe.



In order to make sure that the DL-302 has correctly published the environmental information to the BRK-2800, subscribe to the Wildcards character [#] of the topic to see the information published by the DL-302. Please refer to the following capture for the steps.



## **Main Menu: Parameter Descriptions**

## Main Menu - System Setting

System Setting is the first item of the Main Menu. This item is about the settings related to the hardware and operating system.

## **Account Setting**

Function: Display and set up the login username and password of the BRK Web UI.

Menu Path: System Setting è Account Setting



| System Setting > Account Setting |                                                                                                                                                                                                                                                                |  |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                                  | The username for login the BRK Web UI. Factory default: root. Cannot be null. After the first I ogin with the factory default settings, change the default username/password first, or us er may not be able to use any other function. Account setting rules: |  |
| Account                          | 1. At least 8 characters                                                                                                                                                                                                                                       |  |
|                                  | 2. At least 2 upper case letter                                                                                                                                                                                                                                |  |
|                                  | 3. At least 2 numbers                                                                                                                                                                                                                                          |  |
|                                  | The login password for the BRK Web UI. Factory default: root. Cannot be null. After the first login with the factory default settings, change the default username/password first, or use r may not be able to use any other function. Password setting rules: |  |
| Password                         | 1. At least 8 characters                                                                                                                                                                                                                                       |  |
|                                  | 2. At least 2 upper case letter                                                                                                                                                                                                                                |  |
|                                  | 3. At least 2 numbers                                                                                                                                                                                                                                          |  |
| Save                             | Click to save the settings of this page.                                                                                                                                                                                                                       |  |

## **Network Setting**

Function: Display and set up the network settings of the BRK.

Menu Path System Setting è Network Setting

Note: While the network cable has been correctly connected to LAN1 and LAN2 will show up setting interface.



| System Setting > Network Setting - Network Setting (LAN) |                                                                     |
|----------------------------------------------------------|---------------------------------------------------------------------|
| IP                                                       | The LAN IP address of this BRK. Factory Default: 192.168.255.1:8000 |
| Mask                                                     | The LAN mask address of this BRK. Factory Default: 255.255.0.0      |
| Gateway                                                  | The LAN gateway address of this BRK. Factory default: 192.168.1.1   |
| Save                                                     | Click to save the settings of LAN item.                             |

# **Time Setting**

Function: Display and set up the date and time of the BRK. Menu Path: System Setting è Time Setting

• Display Date and Time



| System Setting > Time Setting - Date and Time Display |                                                                         |
|-------------------------------------------------------|-------------------------------------------------------------------------|
| Date                                                  | Display the date of the BRK, including year, month and day.             |
| Time                                                  | Display the current time of the BRK, including hour, minute and second. |

• Set the date manually

| Set date manually |        |  |
|-------------------|--------|--|
| Date              |        |  |
| Time              |        |  |
| Time zone         | Taipei |  |
|                   | Save   |  |

| System Setting > Time Setting - Set date and time Manually |                                                                                                        |
|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Date                                                       | Set the system date of the BRK by manually. Directly enter the year/month/day, and the n click "Save". |
| Time                                                       | Set the system time of the BRK manually. Directly enter the hour : minute                              |

|           | second, and then click "Save".                                                                                                        |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------|
| Time Zone | Select the time zone of your location.                                                                                                |
| Save      | Click to save the settings of this item and update the data of "Time Setting" to the "Date And Time Display" on the top of this page. |

# Language

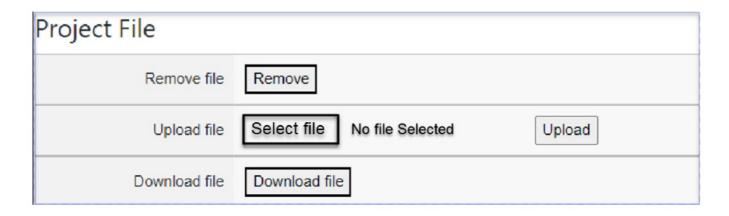
Function Change the Language settings of the BRK. Menu Path System Setting è Language



| System Setting > Language |                                          |
|---------------------------|------------------------------------------|
| Language                  | Select to change the language.           |
| Save                      | Click to save the settings of this page. |

## **Project File**

Function: Provide back-up and restore setting for the BRK project. Menu Path: System Setting è Project File



Remove the project

Remove the current project and recover to factory setting.

· Upload the project

Upload the project file to the BRK. This function can quickly replace the previously backed up project file.

| System Setting > Project File > Upload the project |                                     |
|----------------------------------------------------|-------------------------------------|
| Select File                                        | Select to restore the project file. |
| Upload                                             | Upload project file.                |

· Download the project

Download the project file, for easily back up the project settings.

## Main Menu - MQTT Setting

This main menu represents all information of MQTT Broker and provide related settings of MQTT services.

#### **Local broker Setting**

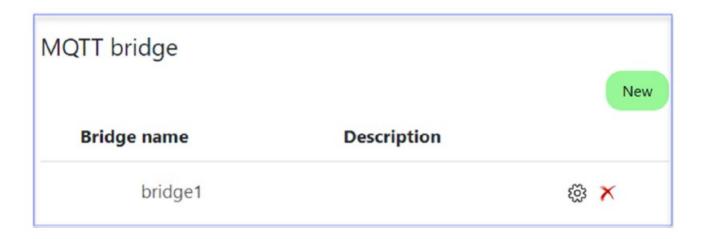
Function: Provide built-in Broker setting of the BRK. Menu Path: MQTT Setting è Local broker Setting

| Local broker    | r setting |
|-----------------|-----------|
| Node name       | brk2841   |
| Port            | 1883      |
| Allow anonymous |           |
|                 | Save      |

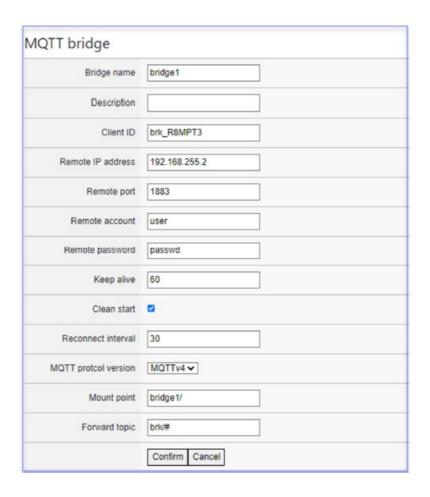
| MQTT Setting > Local broker Setting |                                                                                                                                                                                                                                         |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Node name                           | The name of local Broker.                                                                                                                                                                                                               |
| Port                                | COM Port of Broker, default: 1883.                                                                                                                                                                                                      |
| Allow anonymous                     | Check the box: it can connect without a username and password.(Login anonymously)     Uncheck the box: the connection requires to set up the username and password.  (Please refer to 4.2.3 Broker Account Setting- Add Broker Account) |

# **MQTT Bridge**

Function: Provide MQTT Bridge setting. Menu Path: MQTT Setting è MQTT Bridge



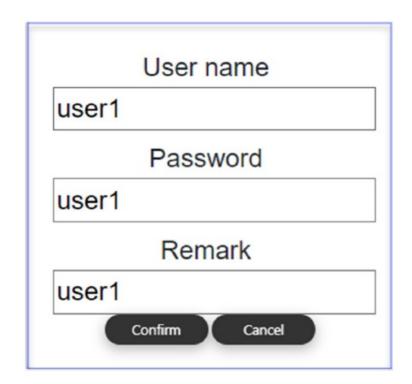
| MQTT Setting > MQTT bridge |                                                             |
|----------------------------|-------------------------------------------------------------|
| Bridge name                | Name of connection of Local Broker bridge to remote Broker. |
| Description                | The note of bridge name.                                    |
| Edit                       | Edit setting of remote Broker bridge .                      |
| Remove                     | Remove the remote Broker bridge.                            |



| MQTT Setting > MQT    | T bridge                                                                                                                                      |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Bridge name           | Name of connection of Local Broker bridge to remote Broker.                                                                                   |
| Description           | The note of bridge name.                                                                                                                      |
| Client ID             | Client connection to remote Broker ID.                                                                                                        |
| Remote IP Address     | The IP address of the remote Broker.                                                                                                          |
| Remote Port           | The COM port number of the remote MQTT Broker, default: 1883.                                                                                 |
| Remote account        | Account of remote Broker. (This field can be null if remote Broker allow Anonymous log in)                                                    |
| Remote password       | Password of remote Broker. (This field can be null if remote Broker allow Anonymous I ogin)                                                   |
| Keep Alive            | Diagnosis whether local Broker and remote Broker interrupt. unit time: second.                                                                |
| Clean Start           | Clean Cloud to Device(C2D) Message Some IoT platforms require to Clean it.                                                                    |
| Reconnect interval    | The interval for resetting the connection after the connection between the local broker and the remote broker is disconnected. (unit: second) |
| MQTT protocol version | Select the version of MQTT.                                                                                                                   |
| Mount Point           | Prefix of the Topic.                                                                                                                          |
| Forward Topic         | Forward the Topics                                                                                                                            |



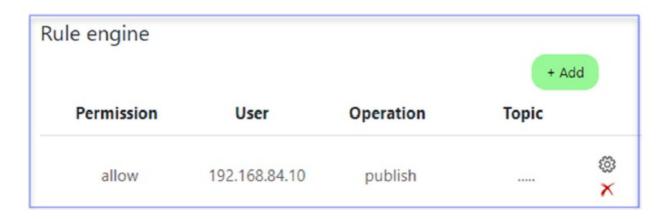
| MQTT Setting > Users |                                           |
|----------------------|-------------------------------------------|
| User name            | The local Broker account in use.          |
| Remark               | Remarks of the Account.                   |
| Edit                 | Edit password and remarks of the account. |
| Remove               | Remove the account from local Broker.     |



| MQTT Setting > Broker Account – Add User |                                    |
|------------------------------------------|------------------------------------|
| User name                                | Add account name for local Broker. |
| Password                                 | Add password for local Broker.     |
| Remark                                   | Remarks of the Account.            |

# Rule engine

Function Manage read and write permissions of MQTT Topic. Menu Path MQTT Setting è Rule engine



| MQTT Setting > Rule Management |                                                                                                                                                                                                                                                                                  |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Permission                     | Permissions after enabling the rule. allow: allow deny: deny                                                                                                                                                                                                                     |
| User                           | <ul> <li>The objects for which this rule takes effect can be selected from following three objects.</li> <li>User Broker account can only display account that is created by 4.2.3 Broker account.</li> <li>Client ID Client ID of MQTT session IP Address IP Address</li> </ul> |

| Operation | <ul> <li>Set the MQTT operations allowed after the rule is enabled. There are three options below.</li> <li>publish publish are limited to MQTT publish. subscribe subscribe are limited to MQTT subscribe. publish/subscribe Allows MQTT publish and subscribe.</li> </ul> |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Topic     | MQTT Topic applied to this rule.  Note Topic string longer than 7 characters (including symbols) will be represented by "".                                                                                                                                                 |

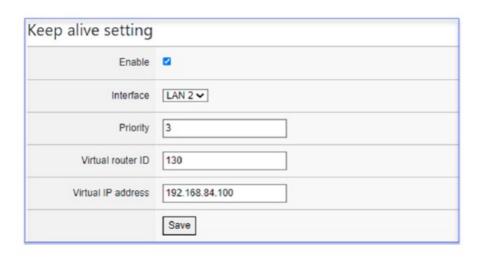
# Main Menu - Advanced Setting

This main menu is a collection of the advanced setting, such as the BRK device redundancy settings and more advanced functions will be developed in the succession.

# **Keep alive Setting**

Function Set up the redundancy function of BRK device.

Menu Path Advanced Setting è Keep alive Setting



| Advanced Setting > Keep alive Setting |                                                                                                                                                                                                                |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enable                                | Decide whether to enable BRK redundancy service                                                                                                                                                                |
| Interface                             | Network card interface for communication.                                                                                                                                                                      |
| Priority                              | Set the BRK redundancy service takeover order. The larger the number, the higher the takeover priority, and vice versa.  Note: Please set up the range value within 0 to 255, if it exceeds, it will automatic |
|                                       | ally switch to default value.                                                                                                                                                                                  |
| Virtual router ID                     | Set the ID numbers of the redundancy BRK devices in the same group. MUST be the same.                                                                                                                          |
| Virtual IP address                    | Set the IP Address of redundancy group. MUST be the same.                                                                                                                                                      |

#### **Documents / Resources**



ICP DAS BRK Series IIoT MQTT Communication Server [pdf] User Manual BRK-2800, BRK Series IIoT MQTT Communication Server, IIoT MQTT Communication Server, MQTT Communication Server, Server, BRK-2841M

#### References

- GE ICP DAS
- @ UA Utility For all UA Server & OPC UA I/O \$ BRK Server
- User Manual

Manuals+, Privacy Policy

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