

RUT955 Data to Server

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The information in this page is updated in accordance with firmware version [RUT9_R_00.07.06.13](#).

Note: [click here](#) for the old style WebUI (FW version RUT9XX_R_00.06.09.5 and earlier) user manual page.



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Summary

The **Data to Server** feature provides you with the possibility to set up data senders that collect data from various sources and periodically send it to remote servers.

If you're having trouble finding this page or some of the parameters described here on your device's WebUI, you should **turn on "Advanced WebUI" mode**. You can do that by clicking the "Advanced" button, located at the top of the WebUI.



Data Senders

A **Data Sender** is an instance that gathers and periodically sends collected data to a specified server. The Data Senders list is empty by default so, in order to begin configuration you must add a new data sender first. To add a new data sender, click the 'Add' button.



After this you should be redirected to the newly added data sender's configuration page.

Sender Settings

Refer to the table below for descriptions on data sender configuration fields.

Note: these tables have coloring schemes to indicate which fields can be seen with different configuration.



General

| Field | Value | Description |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | string; default: none | Name of the data sender. Used for easier data senders management purposes only (optional). |
| Type | Base GSM Mobile usage MNF info Modbus* Modbus Alarms Wifi scanner* DNP3* MQTT ; default: Base | Source of the data to be sent to server. |
| JSON format | Json Custom; default: Json | Arranges the format of the sent JSON segment. |
| Segment count | integer [1..10]; default: 1 | Max segment count in one JSON string sent to server. |
| Send as object | off on; default: off | When turned on, sends JSON segment as object and not as an array element. |
| Data filtering | All Server ID Alarm ID Register number; default: All | If Data type: Modbus alarms data . Choose which data this sender will send to server. |
| Data filtering | All Server IP address Server ID Request name ; default: All | If Data type: Modbus data . Choose which data this sender will send to server. |
| Data filtering | All Name MAC address Signal strength ; default: All | If Data type: Wifi scanner . Choose which data this sender will send to server. |
| Data period | Day Week Month ; default: Day | If Data type: Mobile usage . Choose for which time period to send info from. |
| Data filtering | All Address IP ; default: All | If Data type: DNP3 . Choose which data this sender will send to server. |
| Database | RAM Flash; default: RAM | Database location |
| Port | integer [0..65535]; default: 1883 | Port number for connecting to MQTT. |
| Keepalive | integer [1..640]; default: 60 | MQTT Keepalive period in seconds. |
| Topic | string; default: none | MQTT topic to be used for publishing the data. |
| Client ID | string; default: none | Client ID to send with the data. If empty, a random client ID will be generated |
| QoS | integer [0..2]; default: 0 | MQTT Quality of Service. Allowed values: <ul style="list-style-type: none"> • 0 - when we prefer that the message will not arrive at all rather than arrive twice, • 1 - when we want the message to arrive at least once but don't care if it arrives twice (or more), • 2 - when we want the message to arrive exactly once. A higher QoS value means a slower transfer. |

| | | |
|---------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enable secure connection | off on ; default: off | Enables the use of TLS certificates. |
| On: TLS type | Certificate based Pre-shared key based; default: Certificate based | Select type of TLS. |
| Certificate based: CA File | .ca file; default: none | Certificate authority is an entity that issues digital certificates. A digital certificate certifies the ownership of a public key by the named subject of the certificate. |
| Certificate based: Client Certificate | .crt file; default: none | Certificate file is a type of digital certificate that is used by client systems to make authenticated requests to a remote server. If client certificate is not needed, leave both client certificate and client key fields empty. |
| Certificate based: Private Key | .key file; default: none | File containing private key for this client. This file needs to be not encrypted. |
| Pre-shared key based: Pre-Shared-Key | string; default: none | The pre-shared-key in hex format with no leading "0x". |
| Pre-shared key based: Identity | string; default: none | The identity of this client. May be used as the username depending on the server settings. |
| Require password | off on ; default: off | Enables use of username and password for authentication. |
| On: Username | string; default: none | Username used in authentication. |
| On: Password | string; default: none | Password used in authentication. |

* This is additional software that can be installed from the **System** → [Package Manager](#) page.

Collection general settings



| Field | Value | Description |
|----------------------|---------------------------------------------|---------------------------------------------------------------|
| Enabled | off on; default: on | Enables data to server collection instance. |
| Format type | Json custom ; default: Json | Data collection objects formatting. |
| Format string | Default: Instance name | Specifies custom format string |
| Empty value | Default: N/A | A string which will be placed if any value cannot be received |

Collection advanced settings



| Field | Value | Description |
|--------|-------------------------------|--------------------------------------------------------------------------------|
| Period | Default: 60 | Interval in seconds for collecting/sending data to destination. |
| Retry | off on; default: off | In case of a failed attempt, retry to send the same data to destination later. |

Retry count Default: **10**

Retry to send the same data N times

Timeout Default: **1**

Timeout in second between retry attempts

Server configuration



| Field | Value | Description |
|---------------------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type | HTTP MQTT ; default: HTTP | Interval in seconds for collecting/sending data to destination. |
| Server address | Default: empty | Hostname or IP address of the broker to connect to. |
| HTTP headers | Default: empty | Allows to add custom headers to the HTTP requests. |
| Enable secure connection | on off; default: off | Enables the use of TLS certificates. |
| Port | integer [0..65535]; default: 1883 | Port number for connecting to MQTT. |
| Keepalive | integer [1..640]; default: 60 | MQTT Keepalive period in seconds. |
| Topic | string; default: none | MQTT topic to be used for publishing the data. |
| Client ID | string; default: none | Client ID to send with the data. If empty, a random client ID will be generated |
| QoS | integer [0..2]; default: 0 | MQTT Quality of Service. Allowed values: <ul style="list-style-type: none">• 0 - when we prefer that the message will not arrive at all rather than arrive twice,• 1 - when we want the message to arrive at least once but don't care if it arrives twice (or more),• 2 - when we want the message to arrive exactly once. A higher QoS value means a slower transfer. |
| Enable secure connection | off on ; default: off | Enables the use of TLS certificates. |
| On: TLS type | Certificate based Pre-shared key based; default: Certificate based | Select type of TLS. |
| Certificate based: CA File | .ca file; default: none | Certificate authority is an entity that issues digital certificates. A digital certificate certifies the ownership of a public key by the named subject of the certificate. |
| Certificate based: Client Certificate | .crt file; default: none | Certificate file is a type of digital certificate that is used by client systems to make authenticated requests to a remote server. If client certificate is not needed, leave both client certificate and client key fields empty. |
| Certificate based: Private Key | .key file; default: none | File containing private key for this client. This file needs to be not encrypted. |
| Pre-shared key based: Pre-Shared-Key | string; default: none | The pre-shared-key in hex format with no leading "0x". |

| | | |
|-----------------------------------|-------------------------------|--------------------------------------------------------------------------------------------|
| Pre-shared key based: Identity | string; default: none | The identity of this client. May be used as the username depending on the server settings. |
| Use credentials | off on; default: off | Enables use of username and password for authentication. |
| On: Username | string; default: none | Username used in authentication. |
| On: Password | string; default: none | Password used in authentication. |