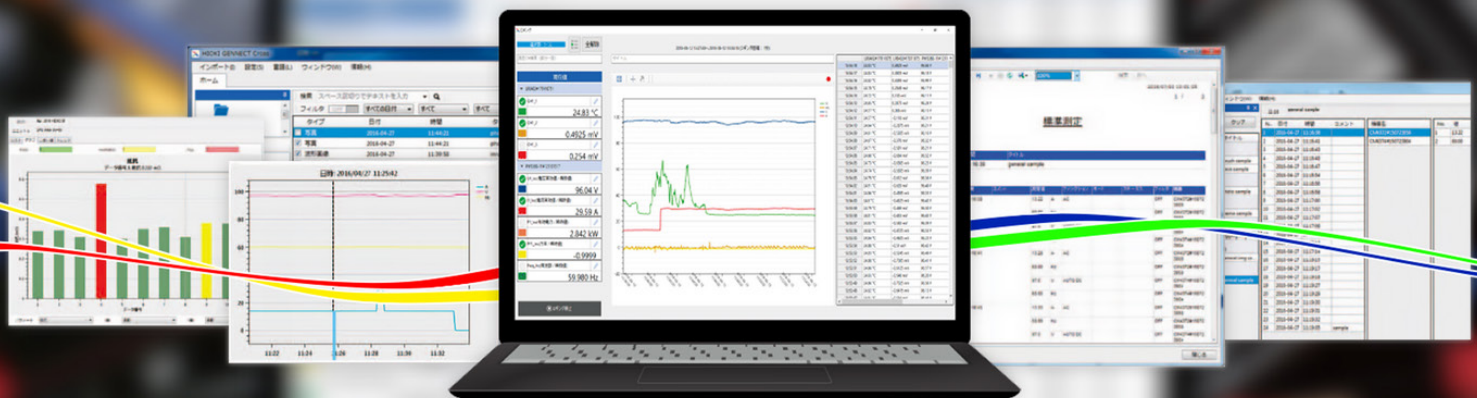


Application Note

HIOKI GENNECT ONE IoT REMOTE MONITORING AND LOGGING ON MULTIPLE DEVICES

A rock-solid control tower for all your measurement operations



 GENNECT One

What is IoT?

IoT stands for the Internet of Things and is a concept of connecting everyday things to the internet^[1]. There are three categories for these things:

- i. Things that collect information and send it e.g. sensors
- ii. Things that receive information and acts on it e.g. printers
- iii. Things that do both e.g. sensors with controllers

An IoT system requires web-enabled devices connected to an internet gateway where the data from the devices are transmitted to the cloud without human intervention^[2], as shown in Figure 1.0.

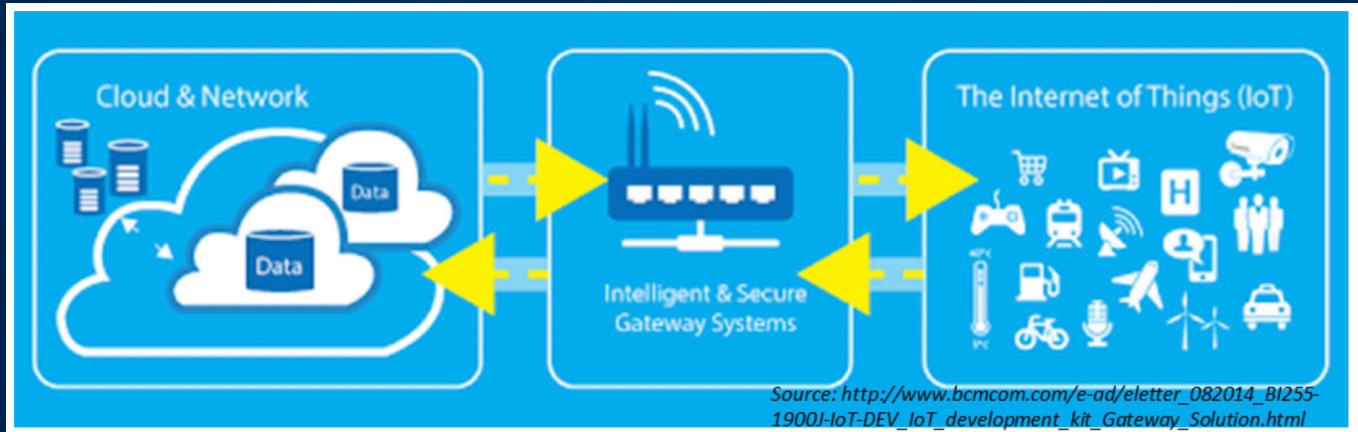


Figure 1.0 Figure 1.0 IoT System Mechanism

IoT Role and Importance

In industry and manufacturing organizations, IoT offers many competitive edges to the business^[3]:

- i. **Enable automated and round the clock data tracking and monitoring without human dependency:**
 - Data tracking and retrieval are done independently from human presence. In the current global situation with movement restrictions worldwide, this helps ensure business continuity with peace of mind.
- ii. **Increases work efficiency in terms of time, money and resources**
 - Since IoT automates the tasks, it cuts down unnecessary time, labour, and budget allocation to get the necessary data.
- iii. **Faster and better business decision making**
 - The speed of targeted data availability enables faster data analysis, leading to better business decisions.

Hioki Gennect One IoT for Remote Monitoring and Logging on Multiple Devices

Hioki's devices* can be integrated as an IoT system through the Gennect One Software SF4000, a freeware downloadable from the Hioki website for all Hioki customers. Figure 2.0 illustrates the Gennect One IoT concept of multiple devices logging.

* Selected models with built-in FTP function and HTTP server only

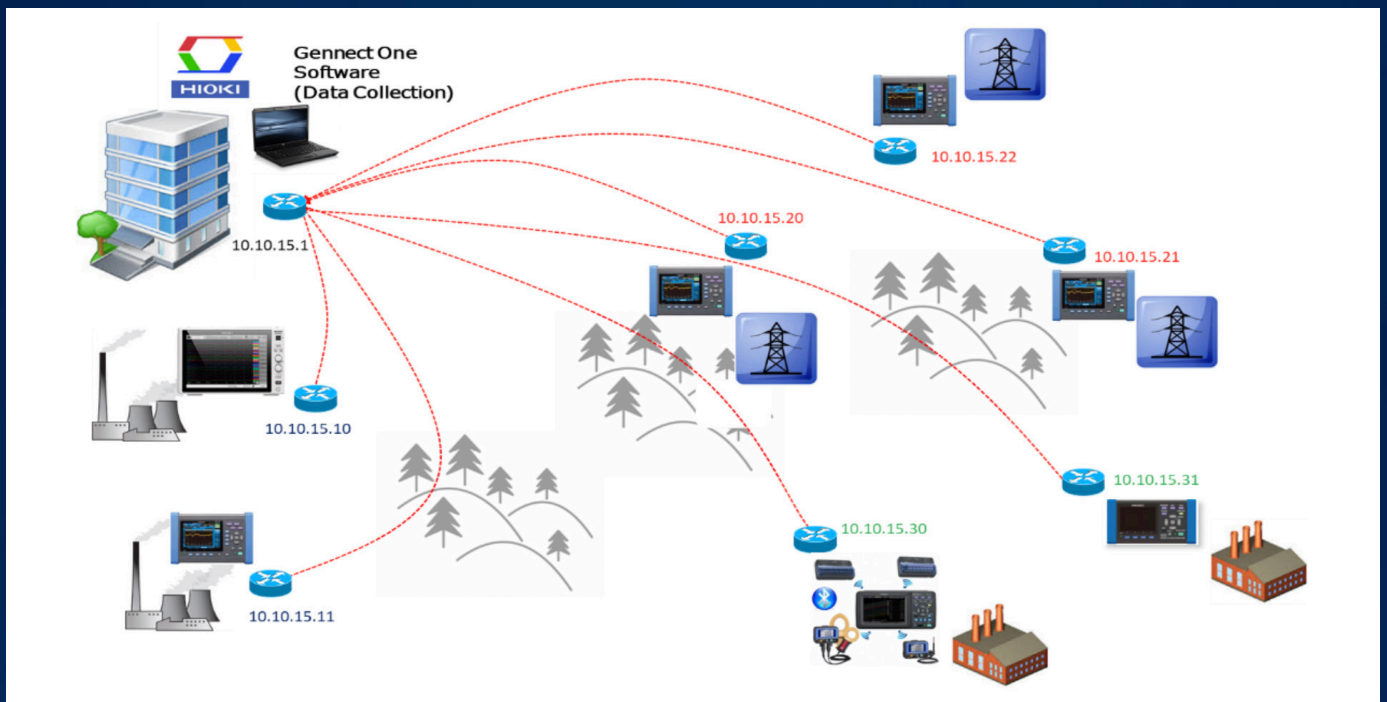


Figure 2.0 Gennect One IoT Concept

The Gennect One software enables the following functions for the connected devices:

1) Remote Monitoring of Devices

This feature enables off-site monitoring at any time and location. Figure 3.0 shows a screenshot of the remote monitoring function of Power Quality Analyzer PQ3100 on the Gennect One software.

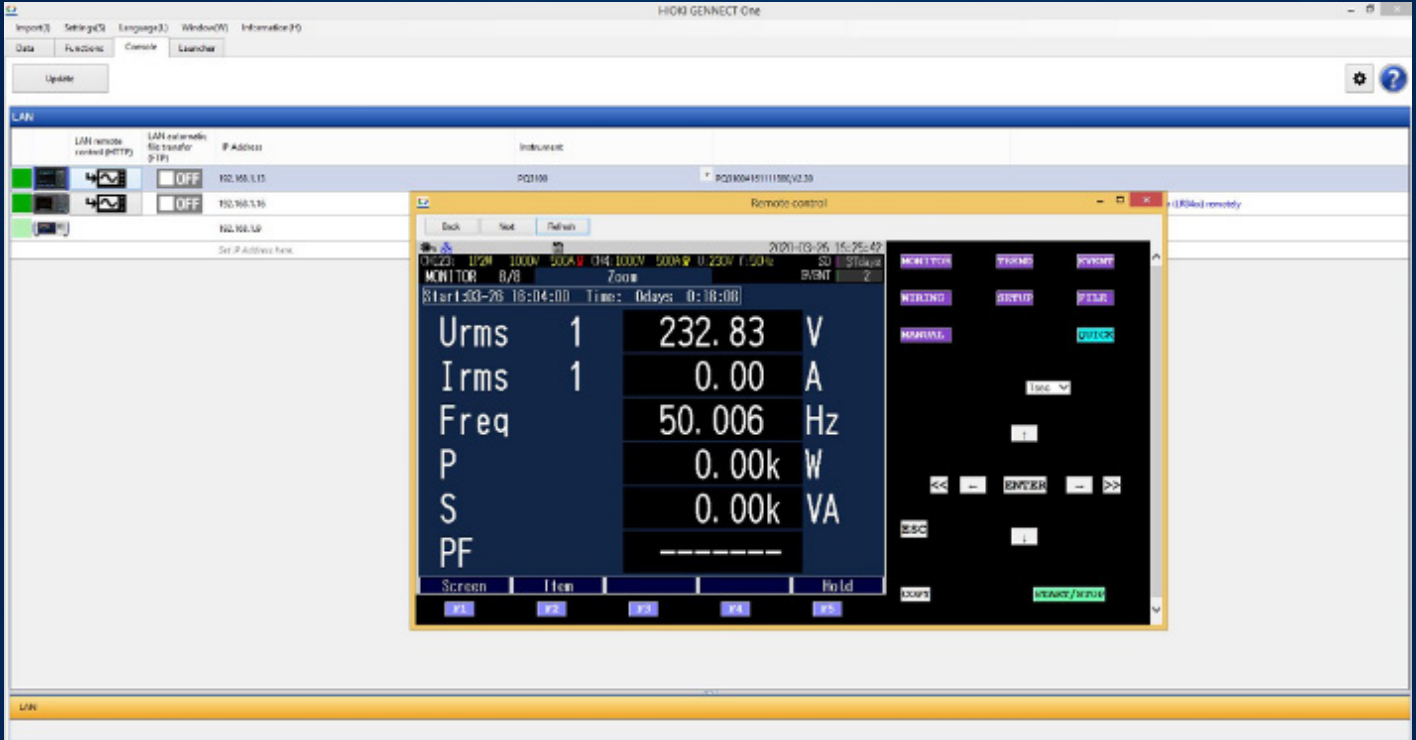


Figure 3.0 Remote Monitoring Screenshot

2) Real-Time Logging on Selected Parameters

All data and parameters are recorded automatically for standalone Hioki logging devices. The Gennect One software enables the user to select only the required data for logging and report generation on a real-time basis (Figure 4.0).

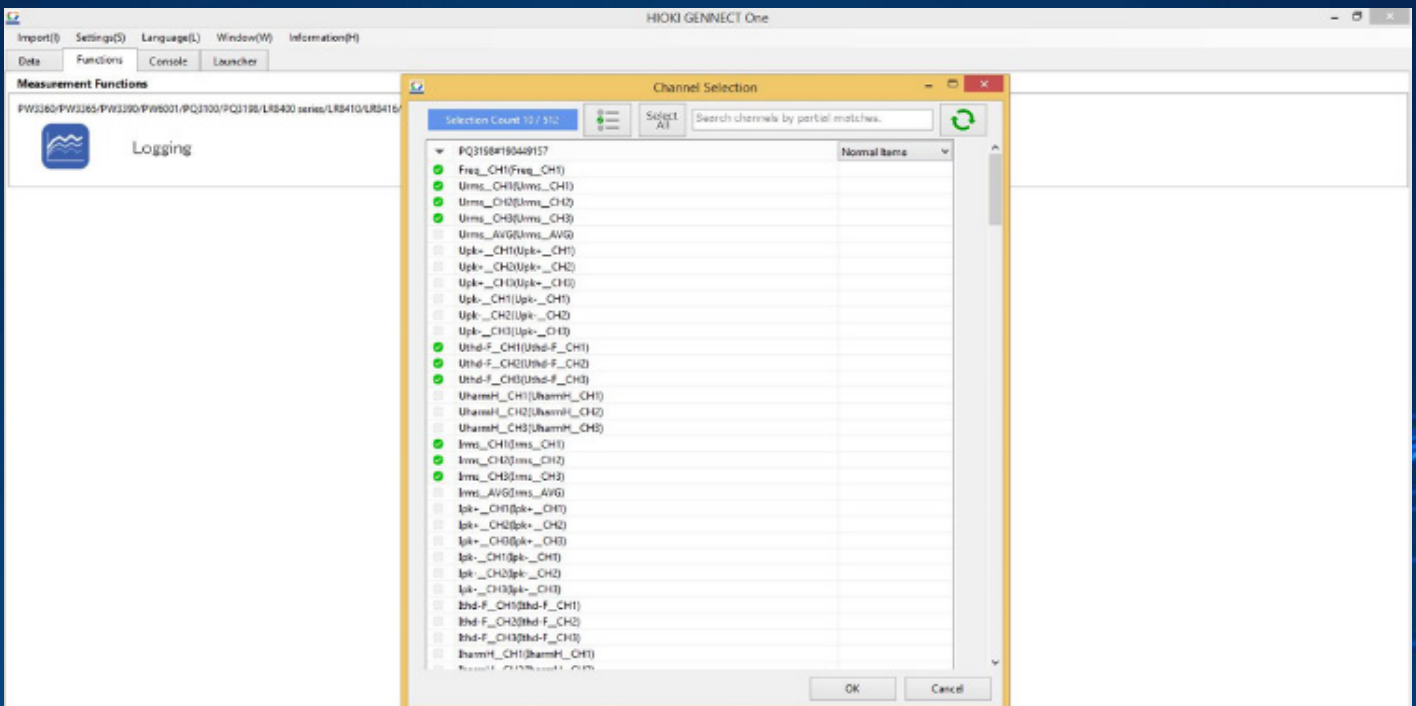


Figure 4.0 Real-Time Selected Parameters Logging

3) Up to Fifteen Devices Real-Time Logging Simultaneously

The Gennect One software enables up to fifteen (15) devices of real-time data logging simultaneously from different locations. Figure 5.0 shows the various Hioki devices that are compatible with Gennect One software.

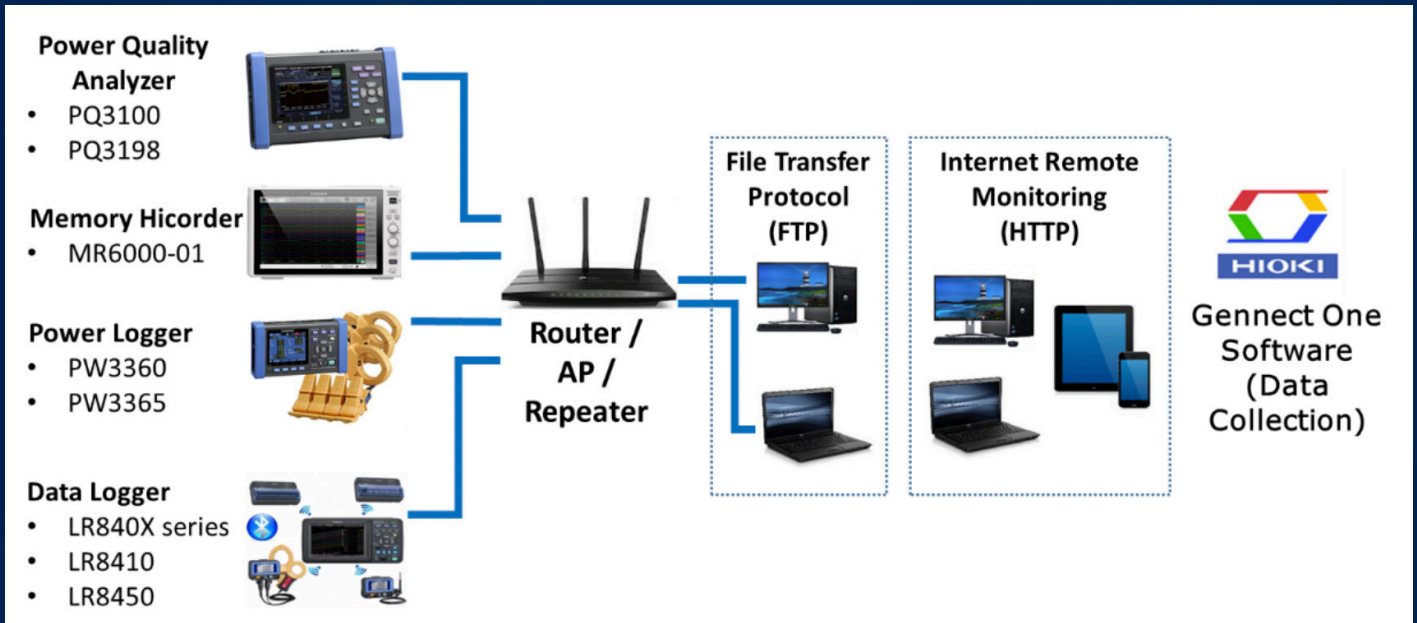


Figure 5.0 Hioki Devices Supported by Gennect One Software for IoT System

The data logging overview of the Gennect One software displays the data in three different forms, as shown in Figure 6.0 below.

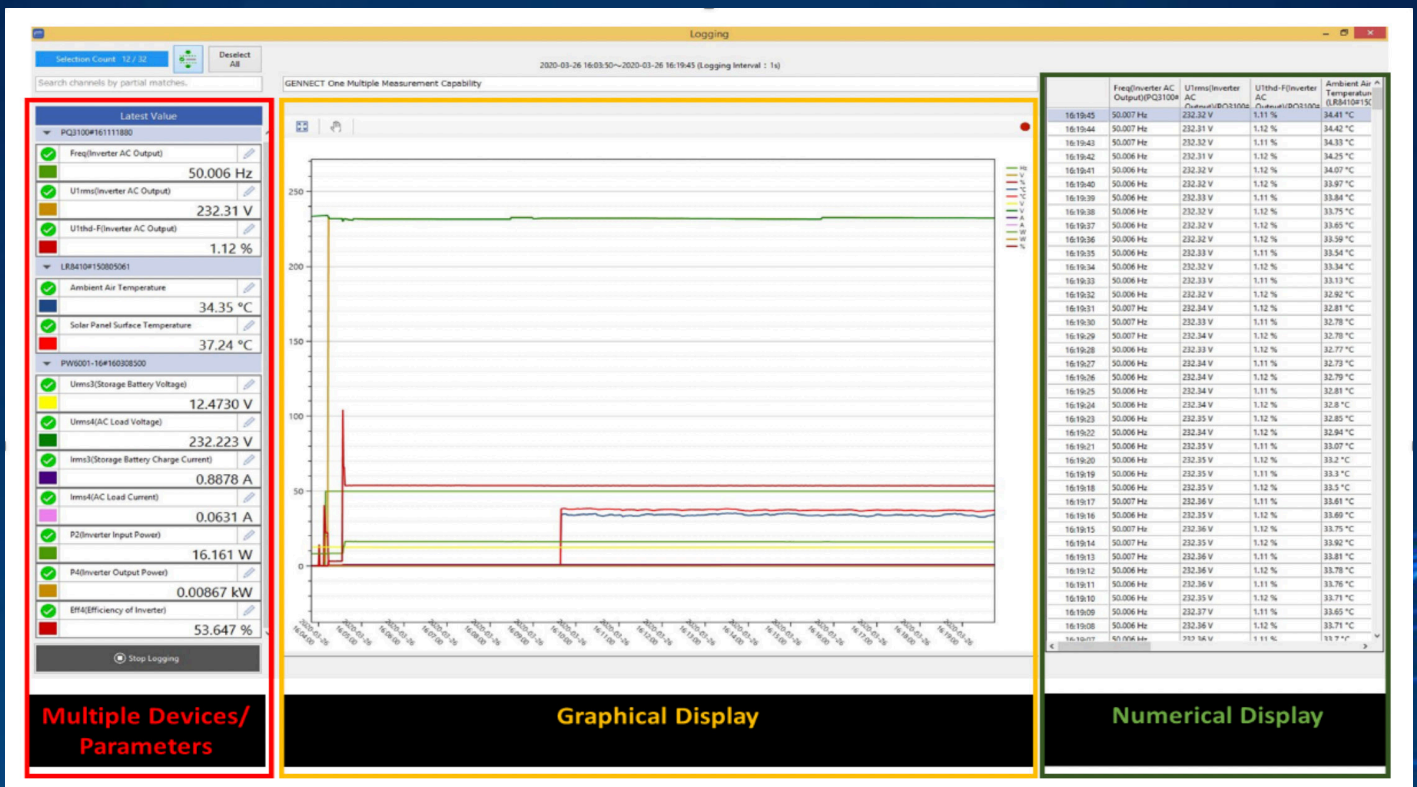


Figure 6.0 Gennect One Data Logging Overview Form

Hioki uses proprietary port forwarding for the remote monitoring function; this ensures an exclusive and reliable data connectivity. Please check with Hioki's representative should you need any help on the port forwarding.

To commemorate Hioki's 10 Years Anniversary, we're having a special promotion to enable our customers to explore the IoT capability offered by Hioki devices. This promotion covers various Hioki models (including the new Memory HiLogger LR8450/ LR8450-01) compatible with the IoT system setup with the Gennect One software. Grab this golden opportunity to transform your processes into an IoT system. Kindly contact our Hioki's sales representatives for more details of the promotion. Promotion ends on 30 September 2020.

References

1. <https://www.iotforall.com/what-is-iot-simple-explanation/>
2. <https://internetofthingsagenda.techtarget.com/definition/Internet-of-Things-IoT>
3. <https://medium.com/zeux/the-internet-of-things-iot-5-reasons-why-the-world-needs-it-125fe71195cc>

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