

LoopEdge FAQ

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What is LoopEdge?

- LoopEdge is an operating system on an Industrial PC (IPC) appliance. See [Why LoopEdge is a Whole OS](#) This edge-level software seamlessly collects data from IoT devices/systems (such as sensors and PLCs) and integrates the data into the cloud or into on-premise enterprise systems. Extensive knowledge of 35+ device drivers, both legacy and newer systems, enables LoopEdge to manage the variety of devices in an industrial environment. LoopEdge software provides support for many protocols/buses (RS232, RS485, CAN, Ethernet, Fieldbus, etc.) via an IPC appliance that is connected to the Internet. The raw or processed data can be visualized and analyzed at the edge or sent to LoopCloud, in near real time.

How can I try LoopEdge?

- Contact Litmus Automation to [Schedule a LoopEdge Demo](#).

How do I access LoopEdge?

- Enter the IP address into a browser running on the same network as the LoopEdge device.
- For example, enter `https://192.168.1.49`, into the address bar.

What browsers does LoopEdge support?


- Google Chrome, Mozilla Firefox, and Safari.

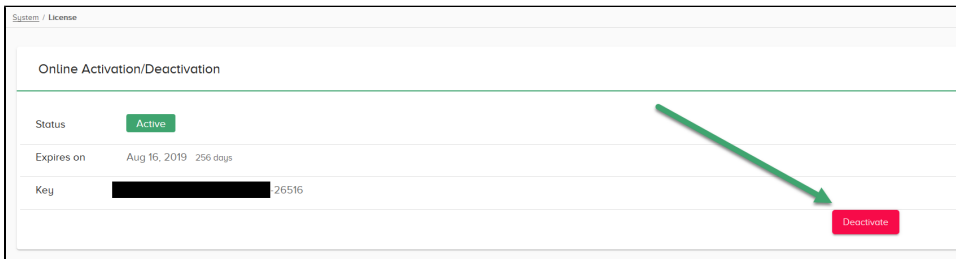
I am new to LoopEdge, how do I get started?

- Try the [LoopEdge Getting Started Guide](#) to start using LoopEdge concepts and procedures.

I Need to Perform a Fresh Install. Can I Reuse the Same License?

- Before uninstalling the current version of LoopEdge, go to **System > License**. Copy the current license key, then click Deactivate.
- When you reinstall LoopEdge after deactivating the key, you can enter the copied license key into the Online Activation form.

 License keys are currently limited to **five Deactivations**.



How Do I Upgrade to a New Version of LoopEdge Without Doing a Fresh Install?

- You will need a .upd file for the new version and a currently installed version of LoopEdge that supports upgrades to the new version. See the [LoopEdge Upgrades](#) page for details on which version you will need to start from and the [Device Reboot and Upgrade](#) for details on how to begin the upgrade process from LoopEdge.

Can I use LoopEdge without LoopCloud?

- Yes, you can use LoopEdge without LoopCloud. You can collect data from a device and visualize data through LoopEdge with the DeviceHub and LoopFlows components.

What devices and drivers are supported?

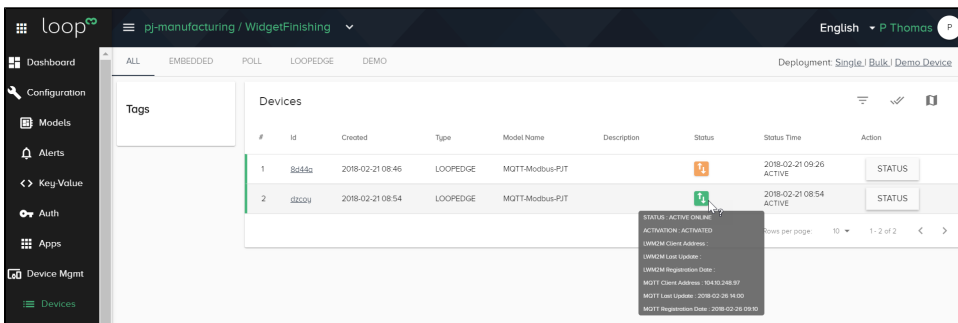
- Check out the extensive lists of [Supported Connectors, Devices, and Drivers](#).

What is the function of DataHub?

- DataHub enables *northbound* cloud connectivity. Use DataHub to send edge-level data securely to LoopCloud.
- DataHub enables *local* connections to the cloud using the MQTT protocol. DataHub buffers the data and if the connection drops out, no data is ever lost. DataHub enables LoopEdge to run offline, but can push all offline data to the cloud once an internet connection is established. This helps in situations where network connectivity is not always reliable.
- The capacity of the data is limited by the hardware footprint and the data is discarded on a first-in first-out basis. To visualize these connections: [Use LoopEdge Flows to Visualize Data Flows](#).

What happens when I configure a DataHub Cloud Connector?

- DataHub extensively supports LoopCloud features. Once a DataHub Cloud Connector is configured, the device will appear online in LoopCloud.



What is the DeviceHub?

DeviceHub provides the mechanism for connecting to physical devices (PLCs, sensors, etc.) to collect data from them.

- DeviceHub needs to be configured for *southbound* connections, including connections to PLCs.
- DeviceHub collects data from physical devices and publishes it to an internal message broker. The data can be sent securely to the cloud via DataHub, or it can be managed locally and sent to any desired destination, or both.
- DeviceHub's main purpose is to collect data from PLCs (Programmable Logic Controller), classify the data by adding OMA tagging, and publish it to a Message Broker subject for further distribution.
- PLC-level statistics and input/output data can be obtained at the edge using DeviceHub.
- There are 35+ device drivers included in DeviceHub. DeviceHub supports many PLC manufacturers, such as Siemens, Allen-Bradley, Mitsubishi, Omron, etc. See also, [Supported Connectors, Devices, and Drivers](#).

Do I need to configure both DeviceHub and DataHub or are they independent?

- These LoopEdge components are independent and need separate configurations. Both configurations are required to get the maximum value out of LoopEdge.
- **DeviceHub** needs to be configured for *southbound* connections to PLCs.
- **DataHub** needs to be configured for *northbound* connections. Activation from LoopCloud will configure a DataHub Cloud Connector. Enable the cloud connector to send data to the cloud and connect local topics to the cloud connector in DataHub.

What is LoopFlows?

- LoopFlows offers flow-based programming with a drag-and-drop flow editor. It is for data manipulation, data normalization, and visualization.

How can I push a flow to many devices?

- LoopFlows has an import/export feature to share flows.

Why doesn't the LoopFlows "export to clipboard" option copy the data to the clipboard?

- Before exporting nodes, select the nodes and connecting wires within a flow tab. See [Export and Import Flows](#).

What is the purpose of a Device Tag in DeviceHub?

- A DeviceHub device tag refers to the PLC tag/register. PLC registers hold PLC runtime information.
- Tags are the actual input and output registers in a device to which sensors are connected. Every PLC has a tag and tags differ from PLC to PLC.

- Examples of tags include: digital input, digital output, analog input, analog output, timers, counters, etc.

Why is my device not connecting to LoopEdge?

- Try double-checking connection parameters and firewall settings.

Why don't I see all device attributes, such as manufacturer and model number, in the device INFO tab?

- Devices send these attributes to LoopEdge. There is a special OMA object designated for this purpose.
- You can always update these attributes manually with the Device Details form

How can I remotely manage the device?

- Use the Loop RemoteAccess service, along with LoopEdge and LoopCloud configurations.

Is it possible to connect via external authentication?

- Yes. You can use LDAP/Active Directory. In the LoopEdge navigation panel, select **System > LDAP/AD Auth**.

Can we program a PLC using LoopEdge?

- The PLC (Programmable Logic Controller) needs to be already programmed. LoopEdge reads the PLC data.

Can I SSH into the machine running LoopEdge software?

- No, you should only access the machine via the WebUI or the provided [Terminal User Interface \(TUI\)](#)

Why is LoopEdge using a lot of my networks bandwidth or data limit?

- Try setting the polling interval for [DeviceHub Tags](#) to be a longer amount of time. Polling PLC registers too often may cause too much data to be sent over the network that LoopEdge is connected to.