

Ignition Edge

This feature is new in Ignition version **8.0.10**
[Click here](#) to check out the other new features

Ignition Edge was revised and expanded significantly as of release 8.0.10. Deprecated pages for earlier functionality can be found [here](#).

Welcome to Edge

Ignition Edge is a lightweight, lean version of Ignition with software solutions designed for devices used in the field and OEM devices at the edge of the network. Ignition Edge solutions work on a wide variety of operating systems such as Linux, Windows (any version), macOS, and more. With support for ARM processors, Ignition Edge can run on devices like a Raspberry Pi or the latest generation of edge-of-network devices.

Core functionality for Edge includes the following:

- All Inductive Automation drivers (AB, Siemens, Modbus, Omron, DNP3, UDP/TCP, serial, BACnet)
- One-week data buffer
- Two device connections
- One-way email notification
- Gateway Network connections (actual Gateway Network services are enabled with IIoT, EAM, and Sync Services)
- Limited to one project, one Tag provider, and one historical Tag provider

Edge Onboard

Ignition Edge comes pre-installed on a range of edge-of-the-network devices that are IIoT ready out of the box. Edge can also be installed on virtually any industrial device.

Licensing

The new Edge version of Ignition has a separate license that works in the same way as a traditional Ignition license. The Edge license will not work if you attempt to activate it on an Ignition Gateway as it is only set up to license an Edge Gateway. However, you can activate a full Ignition license on an Edge Gateway, but this is not recommended due to the limitations of the Edge platform. Additionally, once a license has been activated on an Edge Gateway, the trial time for any unlicensed Edge plugins will be removed, and you will not be able to access them.

Core Functionality

The following features are available on all Edge Gateways, license or unlicensed.

OPC UA Module and Drivers

Edge can create OPC UA client connections. The internal OPC UA server in the Edge Gateway acts only as a client and not as a server. This means Edge can connect to other outside OPC servers as a client to fetch data, but can not act as an OPC UA server for outside programs to connect to. Adding the IIoT plugin extends this functionality.

One Week of Internal Storage

An Edge installation can store certain historical data inside Ignition.

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Edge Architecture

[Watch the Video](#)

- **Tag History** - Up to one week or 10 million data points of history can be stored locally. Pruning will automatically happen, and the historian is automatically enabled and not configurable. An Edge Gateway can only have one realtime Tag provider and one Edge historian. You can learn more about tag history [here](#).
- **Alarm Journal** - The alarm journal will store all alarm events locally for one week of events. There are limited configuration options; the Alarm Journal can be accessed via the Edge Alarm Journal profile. The Edge alarm journal and audit log can sync under EAM.
- **Audit Logs** - Like the Alarms, the Audit log is limited to one week of local storage. It cannot be configured.

Device Connections

By default, Edge Gateways can have two device connections. Once two devices have been configured, the “add device” UI on the Gateway’s Devices config page will be hidden.

Projects

Edge installations have just one project. This project is created automatically if it did not exist, and it cannot be removed. The default project name is "Edge", however as of version 8.0.8, the Edge project can be renamed. For more information, see [Edge Gateway Config section](#).

Edge Plugins

Plugins extend Edge’s capabilities, each adding a unique set of features. There are five Ignition Edge plugins available: **Panel**, **IloT**, **Compute**, **Sync Services**, and **EAM**. Plugins can be mixed and matched to create the system you need. Please note that a license is required to activate each of the Ignition Edge Plugins. Each Edge plugin offers specific functionality that works best in certain scenarios, but because any combination of plugins can be installed, an Edge Gateway may fill multiple roles and help bridge different architectures.

 <p>Panel</p>	<p>Ignition Edge Panel creates a standalone HMI at the edge of network. HMIs run in either a web browser or a dedicated application. Either Vision or Perspective may be selected. The Web Browser module is included with Vision.</p>
 <p>IloT</p>	<p>Ignition Edge IloT turns any device into an edge gateway that publishes data to an MQTT broker. (IloT was formerly Edge MQTT.) The plugin allows access to the MQTT Transmission, Opto22 SNAP PAC driver, and the Emerson ROC driver modules (manual installation required). In addition, Ignition Edge IloT exposes Edge’s OPC UA server to external OPC UA clients.</p>
 <p>Compute</p>	<p>Ignition Edge Compute enables you to remotely run scripts and create REST APIs for interfacing with third-party applications. The plugin allows access to Python scripting, Gateway Event Scripts, and the Web Dev module. The Compute Plugin is new for release 8.0.10.</p>
 <p>Sync Services</p>	<p>Ignition Edge Sync Services synchronizes data from the edge of the network to a central Ignition server. The plugin allows access to Sync Services, remote Tags and alarm pipelines, Tag history sync, alarm history sync, and audit log sync.</p>



EAM

Ignition Edge EAM brings diagnostics, automatic backup and recovery, central licensing, and project synchronization to your edge-of-network device. The EAM plugin allows this Edge Gateway to be an Agent in an EAM architecture.

Edge Gateway

All Edge installations are a limited version of the Ignition platform for a significantly reduced cost. This helps keep things simple, and these installations always work with other full versions of Ignition if you need additional functionality. In an Edge installation there are a lot of visual changes to the Gateway Webpage, and some pages have been removed to avoid confusion. You can see below that after installing Edge, the traditional orange Ignition logos are replaced with new green Edge logos so a Gateway can be easily identified. For more information, see [Edge Gateway](#).

The screenshot shows the Ignition EDGE Gateway Webpage. The header includes the Ignition EDGE logo, a 'Help' button, and a 'Get Designer' button. The sidebar on the left has 'Home', 'Status', and 'Config' options. The main content area is titled 'Get Started' and includes sections for downloading the Ignition Designer Launcher, Vision Client Launcher, and links to learn Ignition through a Quick Start Guide, Inductive University, Product Documentation, and an Appendix.

Ignition Edge Compared with Ignition

Because Edge is a lean solution, it does have some functionality limitations compared to full Ignition. Ignition and Ignition Edge share the same basic platform, but Edge is a leaner version of Ignition made specifically for use in on edge-of-network devices. Ignition comes with unlimited tags, clients, and database connections, while Ignition Edge comes with unlimited tags, two clients (one local and one remote) and no database connectivity.

Database Access

Database access is disabled. This means that any database queries or bindings will not work, and the user sources that require a database connection will not be available. The Status and Configure pages of the Gateway Webpage have been updated to remove these features and reduce confusion. Despite this restriction, some "historical" storage can happen inside of Ignition.

Gateway Scripting

All Gateway level scripting is disabled including Gateway Event Scripts and Tag Event scripts. This does not affect project or client scoped scripts. The Compute plugin allows some of this functionality.

Gateway and Project Backups

A Gateway backup made in an Edge installation will work perfectly in other Edge installations. Edge Gateway Backups are not compatible with Ignition Gateways, so you may not take an Edge Gateway Backup and restore it on an Ignition Gateway. Nor may you take an Ignition Gateway Backup and restore it on an Edge Gateway.

However, you can still export Tags, windows, and other project resources in the Designer from full Ignition Gateways, and import them into an Edge project, or vice versa.

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