Ignition EDGE!®

Capture and Visualize More Data With Ignition Edge

Ignition Edge® makes edge computing easier and more affordable with far-reaching features for your field devices and OEM equipment. Extend your system with data syncing and system management. Use unlimited tag and device connections to expand data collection, then see it with versatile visualization tools. Run scripts or interface with applications out at the edge, too. It's all possible with Ignition Edge.

Unlock Your Entire Architecture with Ignition Edge

With Ignition Edge computing software, stranded data is a thing of the past. Seamlessly connect any network edge device, and publish and sync data to your central Ignition system. Install Edge products right onto devices on the plant floor or in the field so you can poll data right at the source.

Meet the Ignition Edge Product Line

Ignition Edge consists of two powerful product options: Edge IIoT and Edge Panel. Each edge computing solution contains different capabilities and functionality to best fit your specific needs so you can build robust local control systems that are future-proof and Industry 4.0-compatible.

Ignition Edge IIoT

For effective data communication and transmission at the edge.

Ignition Edge Panel

For visualization of data and control of processes at the edge.

Includes everything in Edge IIoT

One Solution — Multiple Edge Capabilities

Both Ignition Edge products include the following features:

Unlimited Tags & Device
Includes unlimited tags and device connections for included drivers, and acts as an OPC UA server so it can connect with most PLCs.

Cross-Platform Compatible
Works seamlessly with most computing platforms and can run on virtually any edge device.

Transmit & Synchronize Data
Able to transmit data to any MQTT broker using the Sparkplug specification and acts as a limited remote server that synchronizes data.

Remote Synchronization
Acts as a limited remote server that synchronizes data from the edge to a central Ignition server.

Remote EAM Agent Gateway
Acts as a remote EAM Agent Gateway at the edge, working with a central Ignition server that has the Enterprise Administration Module (EAM).

Run Scripts at the Edge
Able to run scripts and create REST APIs for interfacing with third-party applications from the edge.

Internal Tag Historian
Turn a SQL database into a high-performance time-series tag historian.

Alarm Notifications
Stay aware of what's happening at your facility and sites, wherever you are.

Event Logging
Capture and store critical event information at the edge.

Included Ignition Native Drivers

In addition to the OPC UA Module, Ignition Edge includes a multitude of drivers for connecting with virtually any PLC and device.

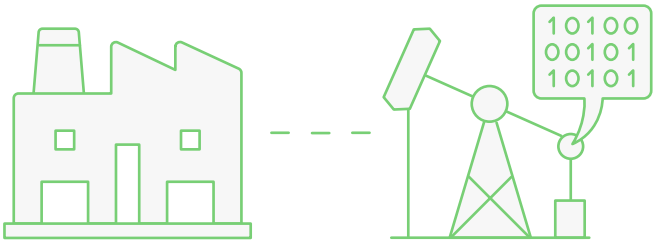
- UDP and TCP Drivers
- BACnet Driver
- Serial
- Allen-Bradley Driver Suite
- Siemens Driver
- Mitsubishi Driver
- Modbus Driver
- DNP3 Driver
- Omron Driver
- Opto 22 SNAP PAC Driver
- IEC 61850 Driver

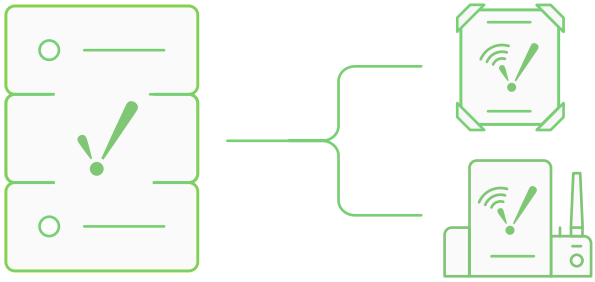
A Piece of the Ignition Architecture

Designed to install and run on edge devices, Ignition Edge is perfect for distributing I/O, providing local visibility of data, collecting data from remote sites over slow connections, and offering robust fiber networks with more scalability and access to data.

Extend Your Network, Not Your Budget

Easy, affordable, and scalable, Edge products compliment and work seamlessly with Ignition. Add more real-time visibility and control to your Ignition architecture, from the plant floor to independent remote sites, without breaking the bank.





The Difference Between Edge and Standard Ignition

Unlike standard Ignition, Edge runs a limited set of Ignition modules and has no database connectivity. It is meant for one Ignition project and one tag provider at a time. Edge does, however, include 35 days of internal data storage for historical and event logging.

Enhancing Edge Products

Ignition Edge IIoT and Panel come with a predefined set of modules. You can purchase additional Cirrus Link Solutions modules (Emerson ROC, ABB TotalFlow) for an additional cost. Contact your IA account representative for more details.

Ready for Deployment with Select Partner Devices

Ignition Edge products can be purchased by themselves or as part of select Opto 22 devices. Ignition Edge also comes preinstalled on select devices sold by some Inductive Automation Alliance Partners. Ignition Edge Ready devices sold by Alliance Partners do not include Edge licenses but are verified to be fully compatible with Edge.

Ignition Edge Panel

With Ignition Edge Panel, you can easily add HMI functionality to any panel PC to control processes and view real-time data at the edge. Edge Panel is software you can install directly on a device to quickly develop a robust HMI solution that connects and transmits data to an MQTT broker or other data sources or applications.

Complete Edge Computing: Connect, Design, and Visualize

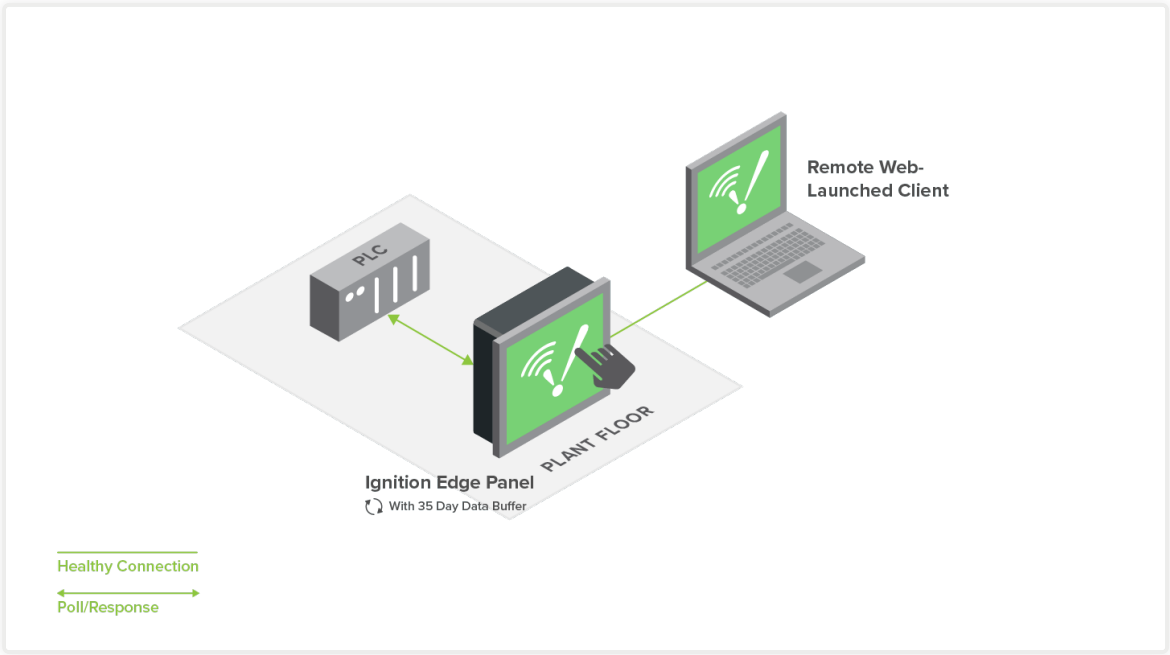
Edge Panel includes powerful development tools for creating your own HMI screens. Its suite of drivers enables fast connections to any industrial device and its built-in designer allows you to create completely custom dashboards. Choose between Perspective (2 sessions) or Vision (one local and one remote client) as your visualization system, and build future-proof Industry 4.0-compatible local control systems.

Secure a Good Fallback (Local-Client) Plan

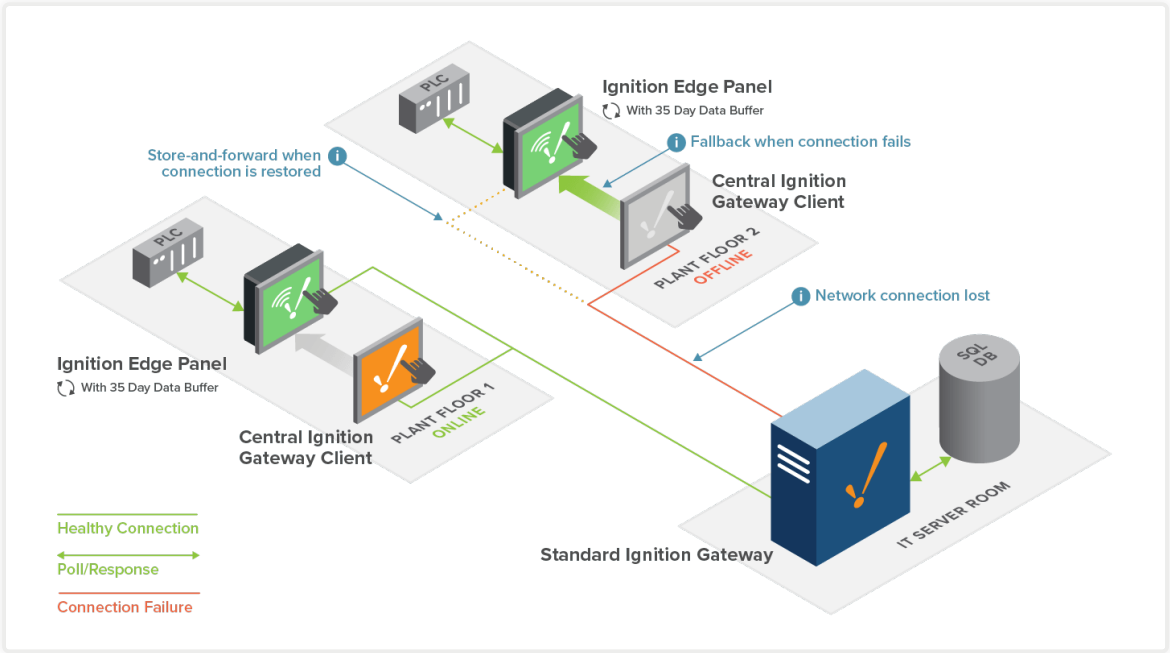
You can stop living in fear of the dreaded failed network connection. This comprehensive edge computing solution re-targets from a central Ignition server to maintain local data visualization and control. With Edge Panel, you can buffer 35 days' worth of data and use store-and-forward practices.

Capture & Transmit Field Data To An MQTT Server

Because it includes all the features and functionality of the Edge IIoT solution, Edge Panel makes it easy and affordable to capture and distribute critical field data at the edge of your network. Set up an infrastructure of secure message-oriented data processing using the publish-and-subscribe MQTT protocol. Then bridge remote device data with the plant floor, and publish it to an MQTT server or other widely accessible endpoint.



Standalone HMI: Use Ignition Edge Panel to create a standalone HMI at the edge of the network.



Hub-and-Spoke with Local Client Fallback: Use Edge Panel to add local client fallback to a hub-and-spoke architecture. Edge Panel provides visualization at the edge, a 35 day data buffer to cache PLC data while a network connection is down, and store and forward functionality for when the connection is restored.

Ignition Edge IIoT

Set up an infrastructure of better device connections and secure message-oriented data transmission at the edge of your network with Ignition Edge IIoT. A remote connection hub, Edge IIoT works with standard Ignition to bridge device data between remote sites and the plant floor by publishing it to an MQTT server or other endpoint.

Build an End-to-End IIoT Solution

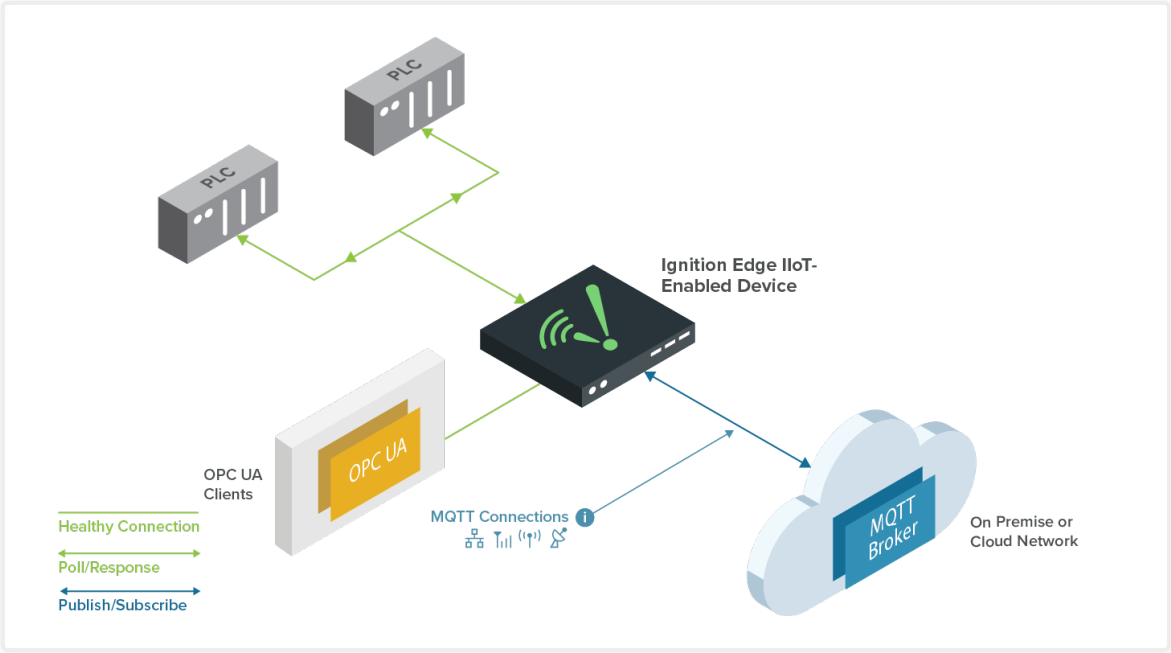
Ignition Edge IIoT is perfect for polling data at the device location and publishing it to a widely accessible server when combined with the MQTT publish-and-subscribe protocol used by our strategic partner, Cirrus Link Solutions. Edge IIoT is part of an end-to-end IIoT solution for capturing and distributing field data, and building and deploying applications across enterprises.

Transform Any Network Edge Device Into A Gateway

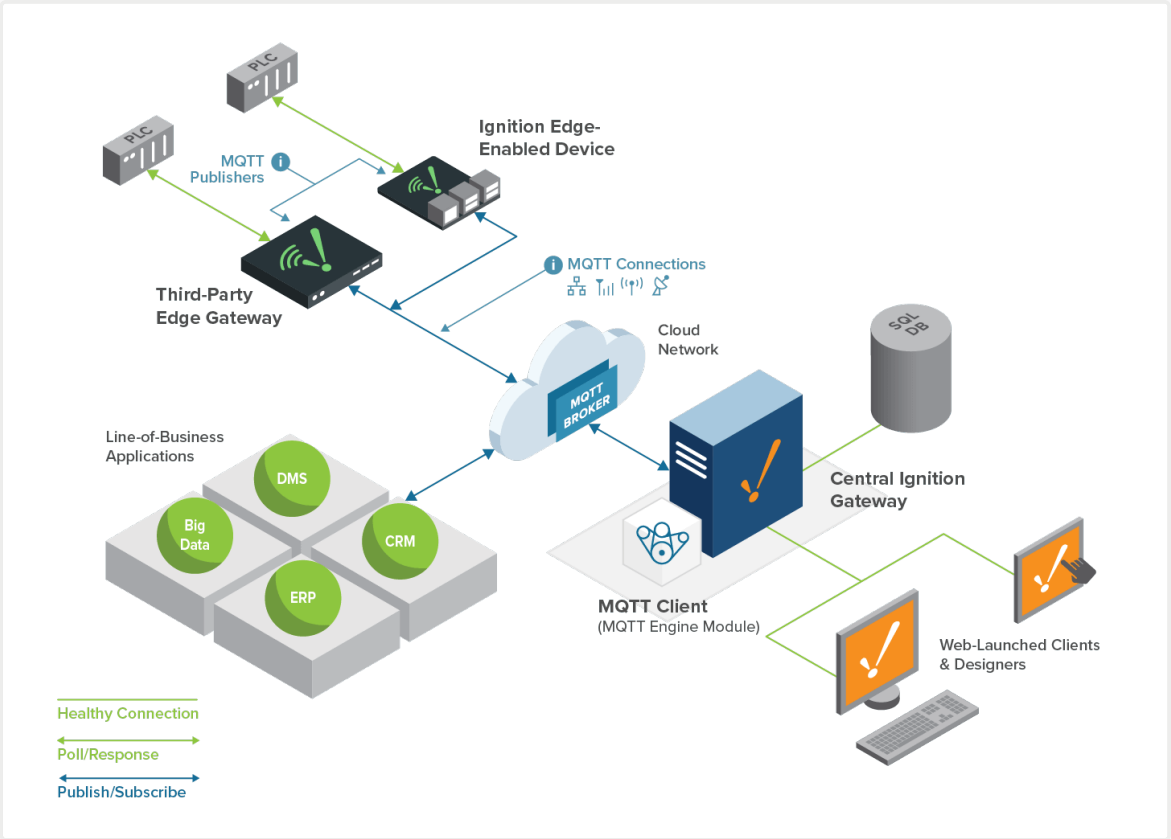
Turn remote devices into a lightweight edge gateway that is MQTT-enabled and works seamlessly with the Ignition platform to provide remote data acquisition and optional secure feedback and control.

Extend Your Ignition System To The Edge

Use Edge IIoT as a remote agent gateway to synchronize data and manage processes through a central Ignition server. Designed to work in tandem with Ignition, Edge IIoT includes unlimited tags and connections for included drivers, plus the ability to run scripts and create REST APIs.



Ignition Edge IIoT Standalone: Use Edge IIoT as a standalone edge gateway to publish device data from the edge of the network to an MQTT broker.



Ignition Edge Remote IIoT: Use Edge IIoT as an edge gateway to publish device data from the edge of the network to an MQTT broker.

Frequently Asked Questions

Q: What are the use cases for Ignition Edge?

A: Ignition Edge has two primary use cases: local I/O with store-and-forward to a central system, and local HMI or fallback client for visibility and control of data.

- **Local I/O with Store-and-Forward:** Easily deploy Ignition Edge IIoT or Panel to provide local I/O with store-and-forward to a central Ignition system.
- **Local HMI or Fallback Client:** Easily deploy Ignition Edge Panel to provide on-site local visibility and control of your data.

Q: When do I use Ignition Edge versus a standard Ignition server?

A: Ignition Edge is perfect for distributing out I/O, providing local visibility of data, efficiently collecting data from remote sites over slow connections, and for robust fiber networks to offer more scalability, access to data, and distribution of I/O. It is limited and designed to work in tandem with a central Ignition system. Ignition Edge is not suitable to run an entire facility or site as a SCADA system, nor is it designed to act as an unlimited I/O server for all of your PLCs. If you need local functionality and have a use case that requires features beyond Ignition Edge, a standard Ignition server is recommended.

Q: Is Ignition Edge meant to be used as a standalone solution?

A: No. Ignition Edge is designed to work seamlessly with a central Ignition server for optimal performance, and to synchronize data to a centralized system and provide critical functionality.

Q: How does Ignition Edge communicate to a central Ignition server?

A: Ignition Edge can communicate with a central Ignition server in two ways: through the Gateway Network and MQTT. You can configure both connection methods at the same time.

For more information about how to configure the Gateway Network and the MQTT protocol, please visit the user manual:

https://docs.inductiveautomation.com/

Q: Is Ignition Edge a good option for data collection in my industry?

A: It depends on your needs. For many industries, such as manufacturing, oil & gas, automotive, and food & beverage, Edge can be a great option for local data collection. In industries with large numbers of simple devices, Ignition Edge typically isn't a good fit. Examples of these are applications like inverter connections in the solar industry, certain municipality connections, power distribution, building automation, or other industries where connections to hundreds of simple devices are standard. For these industries, a full version of Ignition is a better alternative to Edge.

Q: Does Ignition Edge support OPC UA?

A: Yes. Ignition Edge supports OPC UA as a server and client. Ignition Edge can communicate to any external OPC UA (or OPC COM) server to bring in data. Ignition Edge can also expose data through OPC UA locally. However, Ignition Edge is not designed to be a full-blown OPC UA server.

Q: Where can I deploy Ignition Edge to?

A: Here are some of the many devices, services, and systems on which you can deploy Ignition Edge:

- **Devices:** Embedded PCs, laptops, desktops, high-grade servers, fog computing
- **Managed Services:** AWS EC2, AWS ECS, AWS Outposts, Azure Virtual Machines, Azure Containers, Google Compute Engine
- **Virtual Machines & Containers:** VMware, Parallels, VirtualBox, Hyper-V, Docker

Q: Does Ignition Edge support ARM?

A: Yes. With support for ARM processors (32-bit HF and 64-bit), Ignition Edge can run on devices like Raspberry Pi or the latest generation of edge devices.

Q: Can Ignition Edge work with SQL databases?

A: No, Ignition Edge cannot communicate to external SQL databases. It is designed to synchronize data to a central Ignition server that is communicating with a SQL database. Ignition Edge has everything built-in to store and forward data to a central Ignition server with ease.

Frequently Asked Questions Continued

Q: Can I deploy Ignition through Docker or orchestration platforms?

A: Yes. Inductive Automation has an official Docker hub image that allows you to quickly deploy Ignition or Ignition Edge on any device. You can also use orchestration platforms such as Zededa, Balena, Azure Stack Edge, edgeIQ, and more.

For more information on Ignition's official Docker hub image:

https://hub.docker.com/r/inductiveautomation/ignition

Q: Is it possible to upgrade Ignition Edge to a standard Ignition server?

A: Yes, it is possible. Ignition and Ignition Edge share the same basic technology. To learn more about how you can upgrade, please contact our sales representatives at 1-800-266-7798.

Q: Where can I purchase Ignition Edge?

A: You can purchase Edge directly through Inductive Automation or from our Solution Partner, Opto 22. When purchasing from Inductive Automation, you will be responsible for installing Ignition. When purchasing an Ignition Edge Included device from Opto 22, Edge will come preinstalled and pre-licensed on your device for faster development.

For more details about our Solution Partner, Opto 22, go to:

https://inductiveautomation.com/solution-partners/opto22/

Ignition Edge Specs & Requirements

1. Ignition Edge products cannot be installed on a central Ignition Gateway.
2. Ignition Edge Panel's 35 day data buffer is based on average data usage. Data buffer is limited to 10 million rows, does not include database support.
3. Some features require the EAM module to be installed on the central Ignition Gateway.
4. Ignition is compatible with any Java 17-enabled OS. Full support is only offered for listed OSes.
5. Requirements vary by usage

Requirements

1024 MB RAM

1GB free HD space

Supported Operating Systems

Windows Server 2016/2019/2022

Windows 10/11

macOS (10.16+)

Linux (support for popular distributions, tested with Ubuntu 20.04)