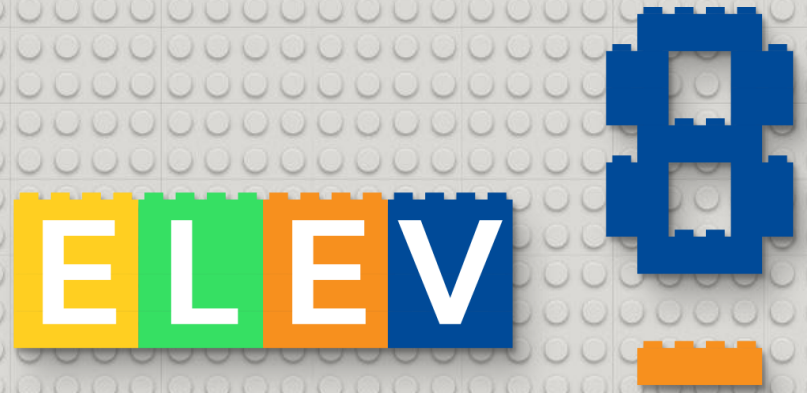
ELEV 8

BUILDING YOUR DIGITAL INFRASTRUCTURE

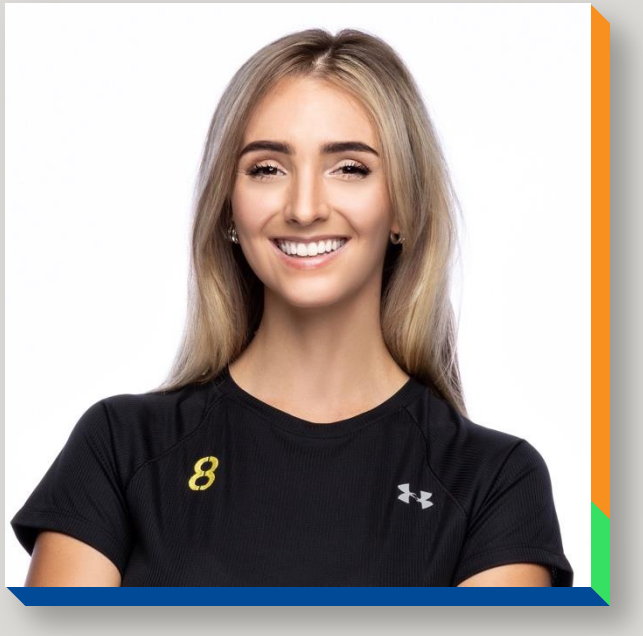


ENABLE

BUILD

EMPOWER

How Digital Transformation Starts With SCADA



Laura Strydom

Customer Success Engineer

Element8

What does “Platform” mean?

A platform is a group of technologies that serve as a foundation for other applications, processes, or technologies.

Why a “Platform”?

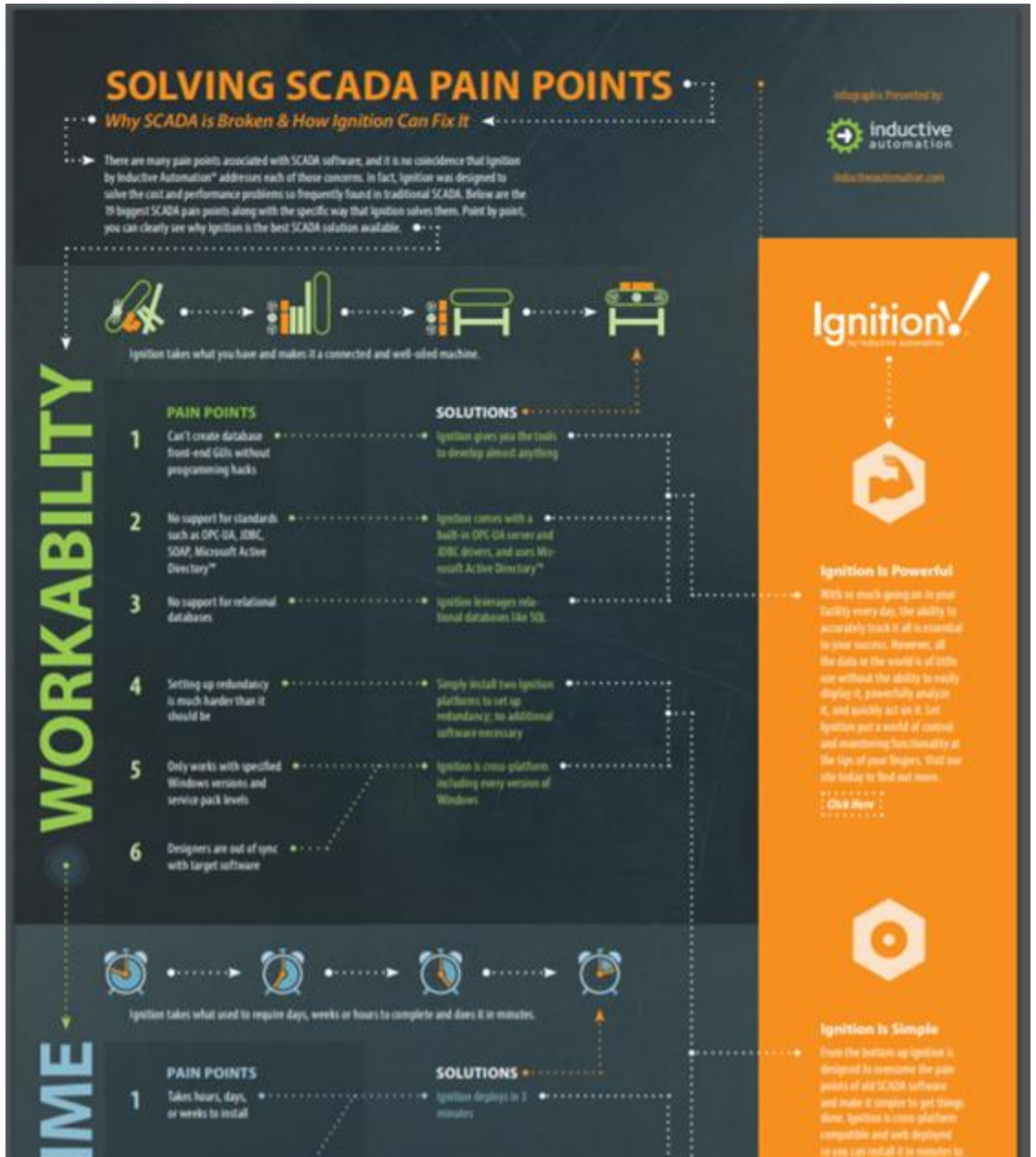
Drivers

- Innovation (ecosystem of users, partners, collaborators, and producers who contribute and generate innovative ideas)
- Faster response times (technology shifts)
- Lesser risk (more stability, more users and contributors)
- Large community (case studies, training, templates)

Why a "Platform"?

Solving Pain Points

- Ease of installation/upgrade
- Open, standards-based
- Cross-platform
- Rapid design & deployment
- Scalable
- Modular
- Extensible
- Backwards-compatible
- Future-proof



Product vs. Platform

Product

- Closed, proprietary
- Keeps only consumers in mind

Platform

- Open, standards-based
- Keeps producers and consumers in mind

Core Platform Tenets

Building Blocks

- Open access & interfaces (but not insecure)
- Connectivity (in & out)
- Modular architecture (easy to build on, extend)
- Provide solutions (endless possibilities)
- Vibrant ecosystem (how value is created around the platform)

Digital Transformation With **Ignition**

20 Years of Transformation

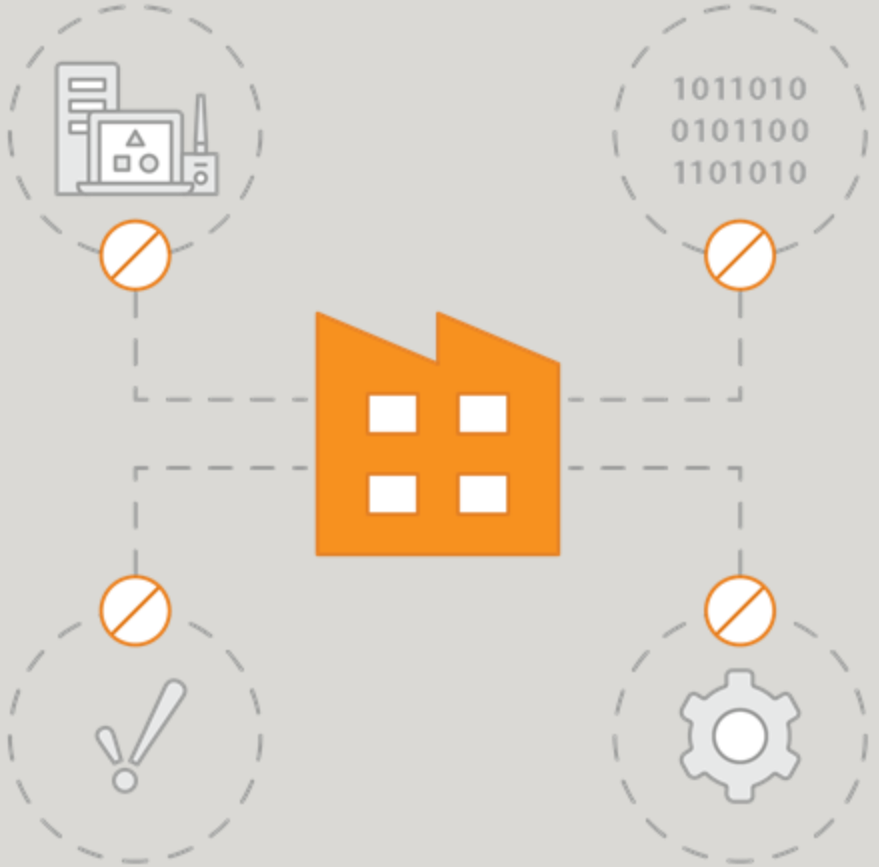
The Practical & Proven Digital Transformation Solution

- Over 20 years of experience
- Deployed in every major industry
- Used by 57% of the Fortune 100
- Supported by thousands of integrators

Data Problem: Stranded Data

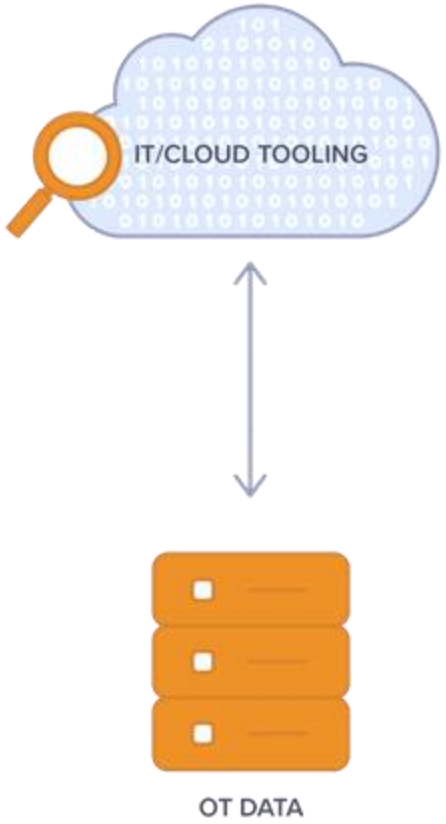
Companies Aren't Getting the Data They Need to Make Better Decisions

- Majority of data is stranded in the field
- Coupling devices with applications stops innovation
- Systems take too much time to set up

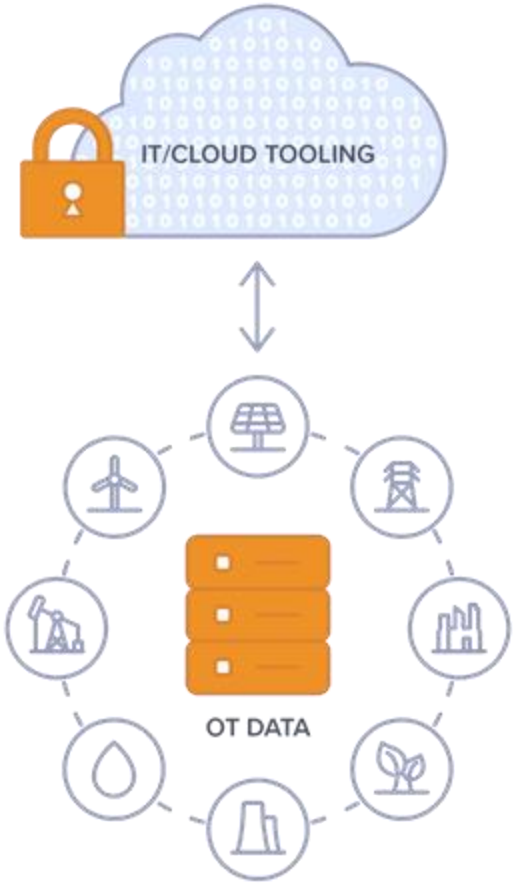


Data Problem: Proposition vs. Reality

The Proposition (Looks Simple)



The Reality (It's Difficult)



Data Problem: OT Data vs. IT Data

OT Data Consists of:

- Proprietary Protocols
- Multiple Data Formats
- No Contextual Information
- Designed for Operations
- Different Across Market Segments
- Poll/Response Date Retrieval
- Directly Coupled to Applications
- Isolated Networks

IT Data Needs:

- Data Objects/Modeling
- Standard Data Formats
- Contextual Information
- Decoupled from Enterprise
- Publish/Subscribe Methodology
- Easy to Integrate
- Secure

Bridges The Gap Between IT And OT

Using Ignition for Digital Transformation

Collection

Data Modeling

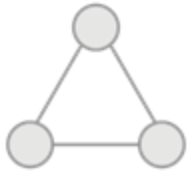
Publication & Subscription

Industrial & Business Applications

Analytics & Machine Learning

Collection

Collection



Data Modeling

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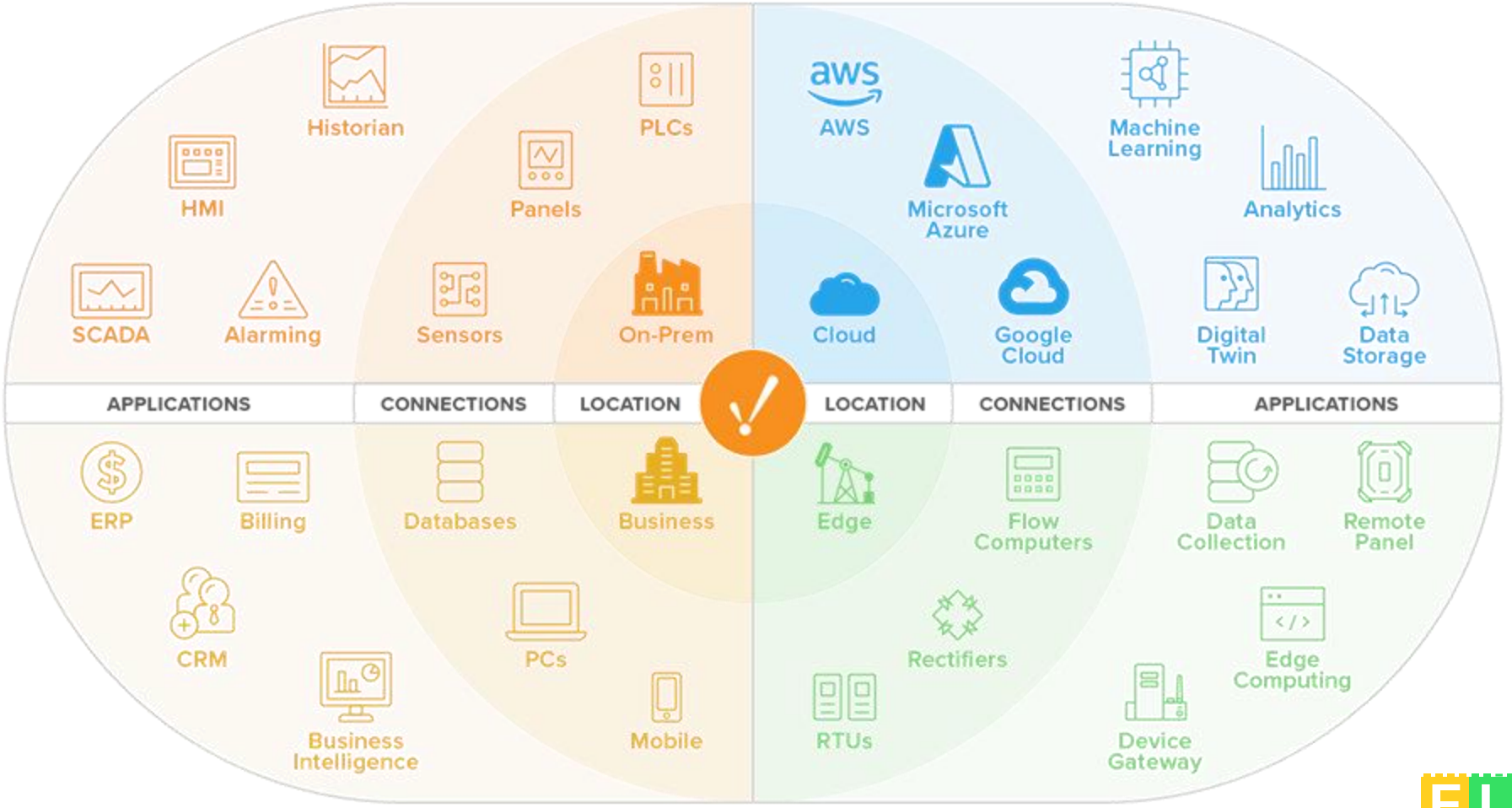
Historian
PLCs
HMI
Panels
SCADA
Alarming
Sensors
On-Prem
APPLICATIONS
CONNECTIONS
LOCATION
ERP
Billing
Databases
Business
CRM
PCs
Business Intelligence
Mobile
aws
AWS
Microsoft Azure
Machine Learning
Analytics
Cloud
Google Cloud
Digital Twin
Data Storage
LOCATION
CONNECTIONS
APPLICATIONS
Edge
Flow Computers
Data Collection
Remote Panel
Rectifiers
Edge Computing
RTUs
Device Gateway

Data Modelling

Collection

Data Modeling

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Analytics & Machine Learning

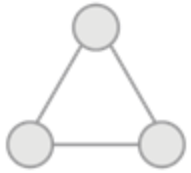
Data Modelling

Sparkplug Provides the Standard for Modelling OT Data

- Defines an *OT-centric* topic namespace, data model structure, and extensible process variable payload
- Defines MQTT state management
- Sparkplug DOES NOT break or modify the MQTT specification
- Sparkplug establishes a Single Source of Truth for models/tags at the origin!

Publication & Subscription

Collection



Data Modeling

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Cirrus Link Solutions

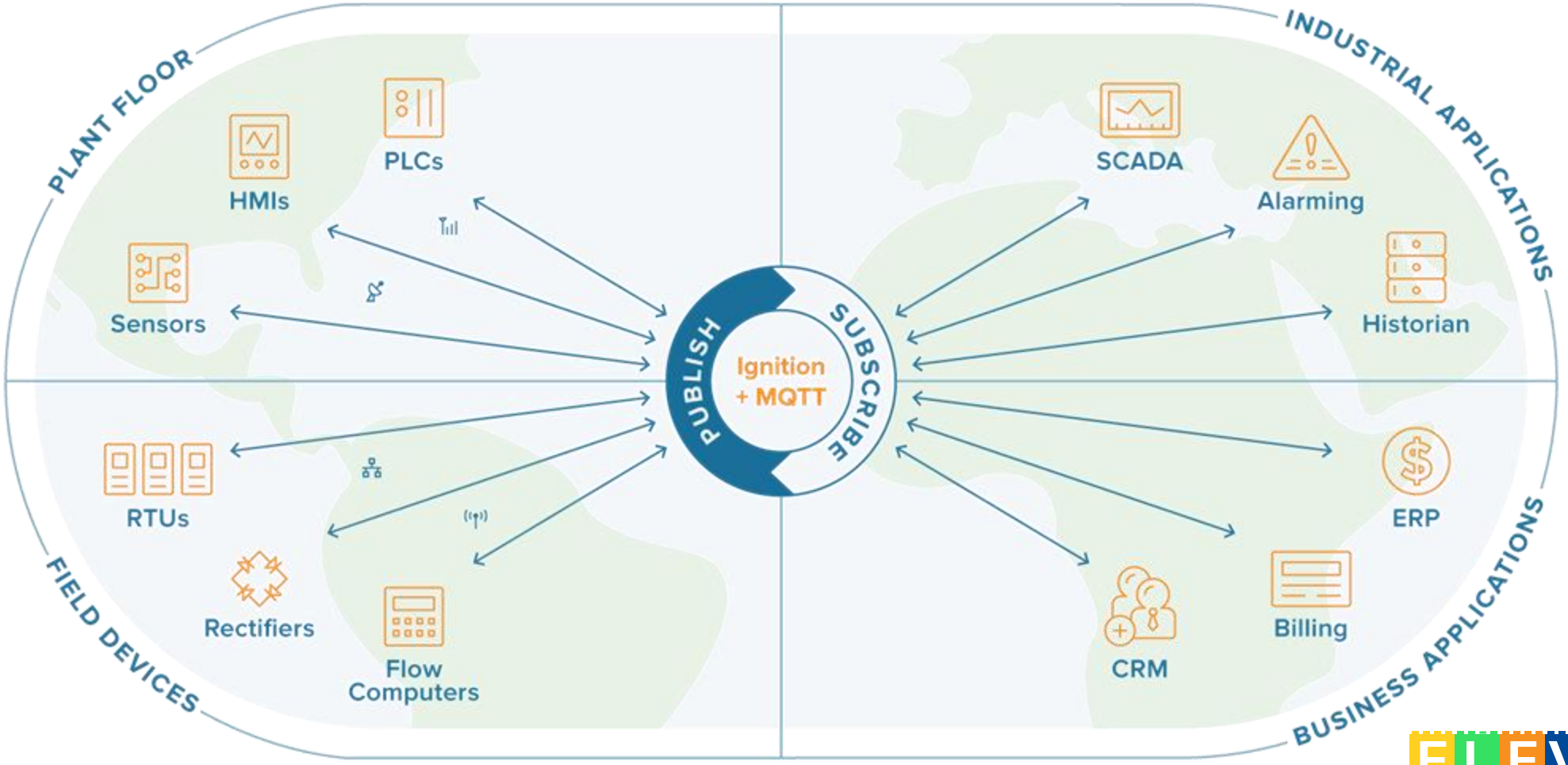
Cirrus Link Provides MQTT-Centric Software for Industrial Automation

- Founded in 2012
- CTO is Co-Inventor of MQTT
- Developed Sparkplug B to create a complete IIoT environment
- Strategic Partners with Inductive Automation since 2016

Cirrus Link SOLUTIONS

ELEV

Publication & Subscription



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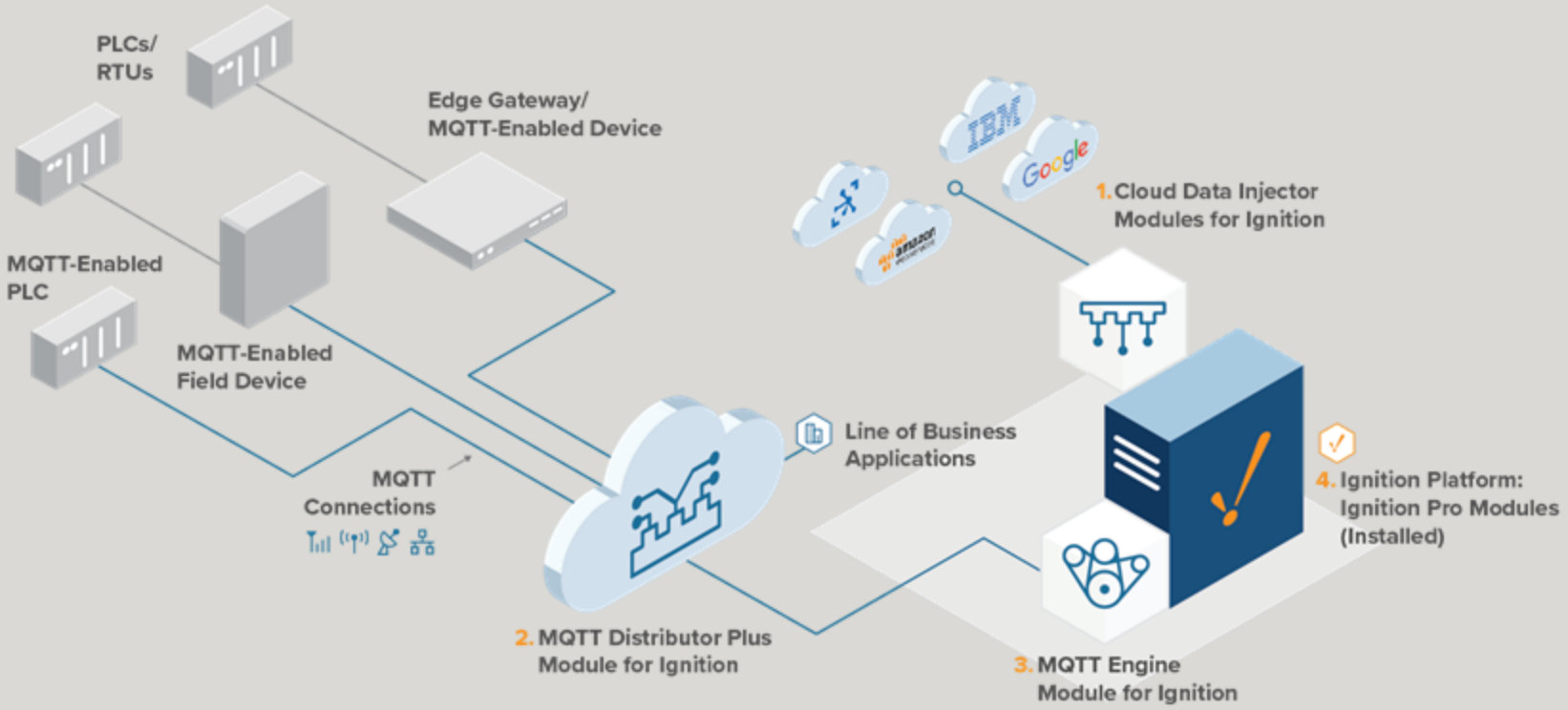
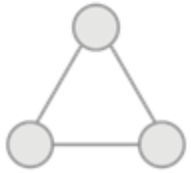
Ignition IIoT Bundle: Cloud Package



Industrial & Business Application

Collection



Data Modeling

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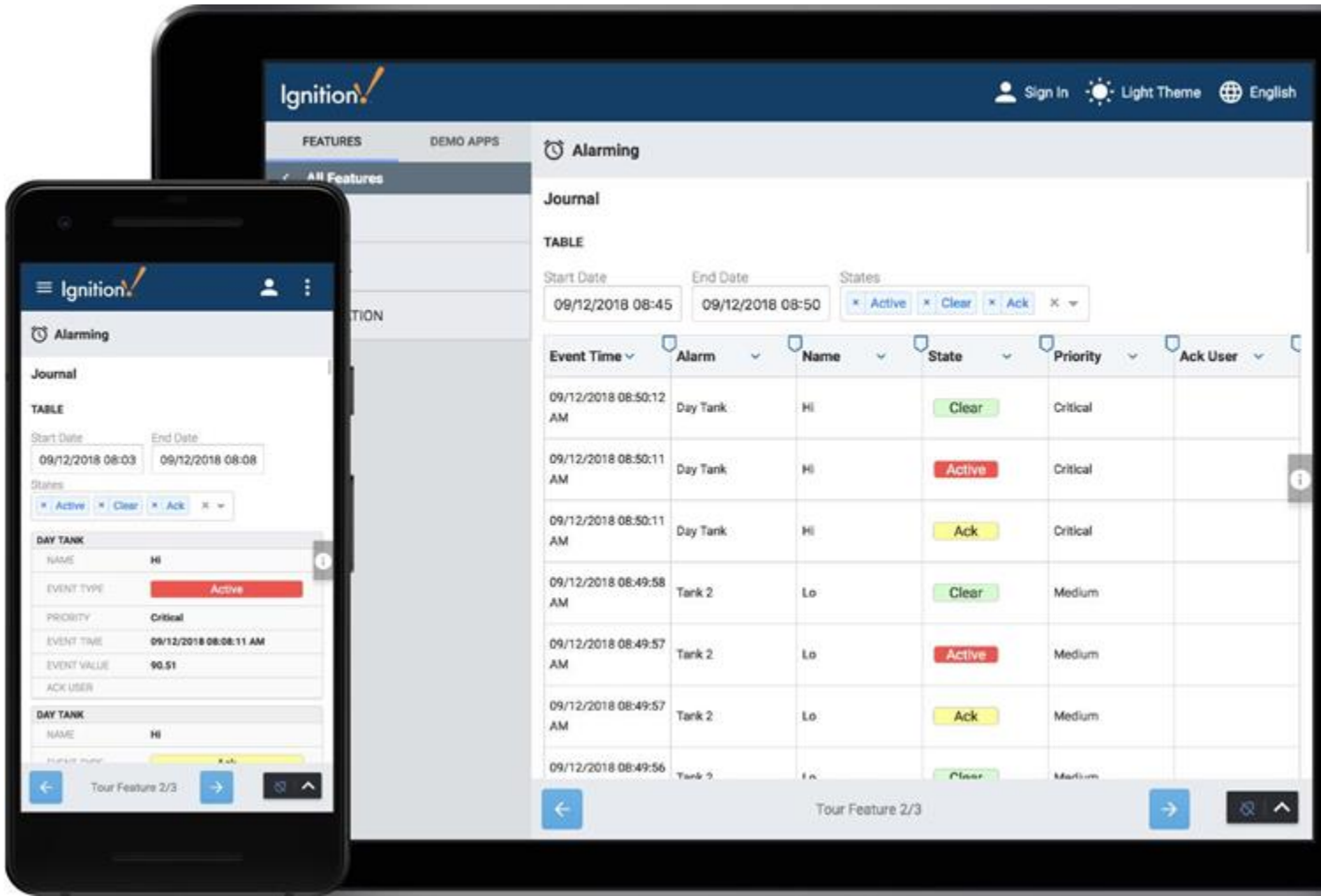
Industrial & Business Applications

Analytics & Machine Learning

Industrial & Business Application

One Universal Platform for IIoT, SCADA and More

- Enterprise
- HMI
- MES
- Alarming
- Reporting
- Mobile



Industrial & Business Application

One Universal Platform for Business Applications

- Easily subscribe to data
- Connects to ERP, CRM, and more

Industrial & Business Application

Develop the Applications Your Organization Needs

Easy Drag-and-Drop Design

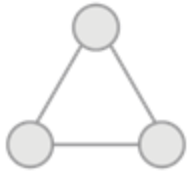
Rapidly Build and Customize Large Projects

Create Custom Graphics and Animations

Unlimited Designers Included

Analytics & Machine Learning

Collection



Data Modeling

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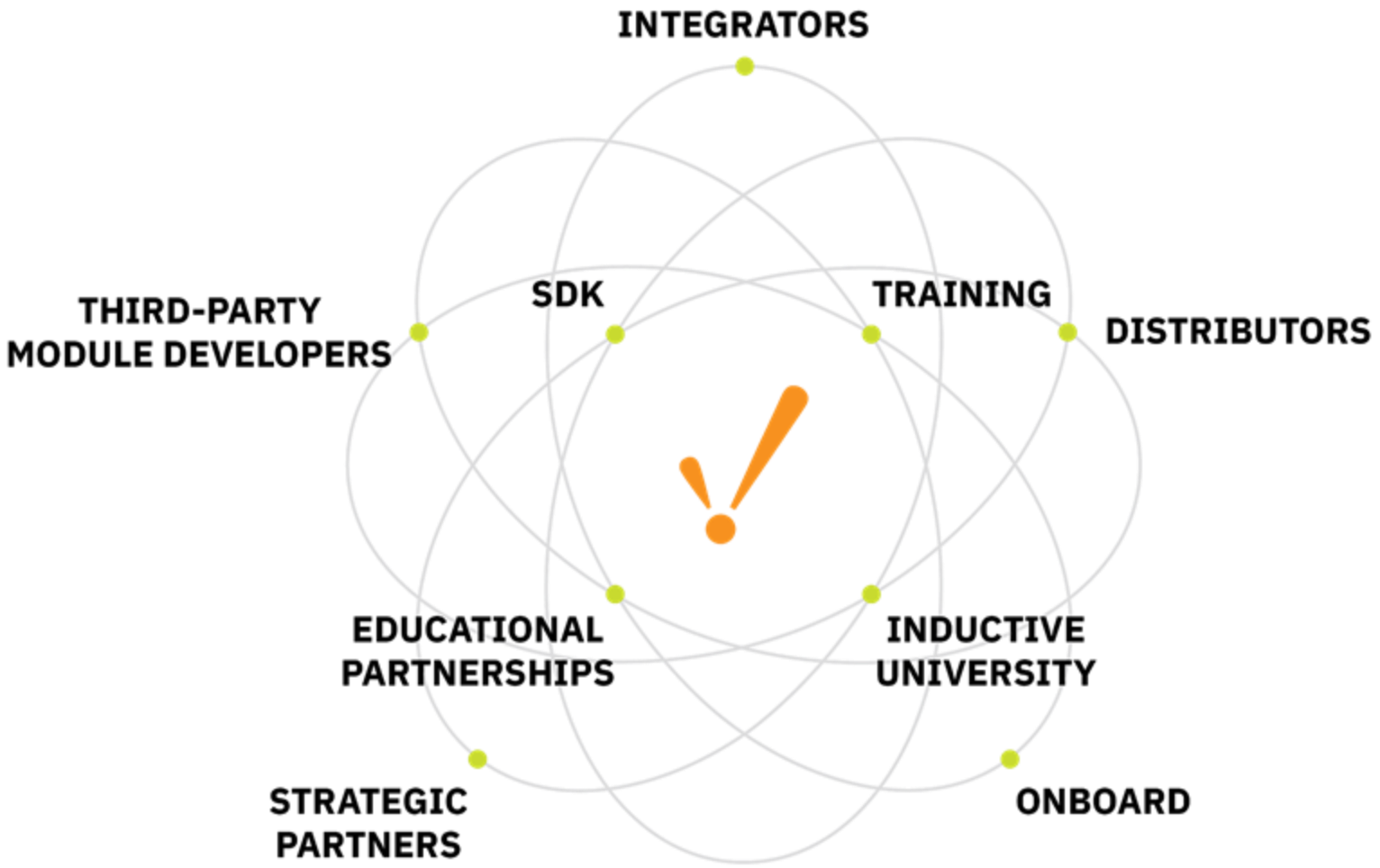
Industrial & Business Applications

Analytics & Machine Learning

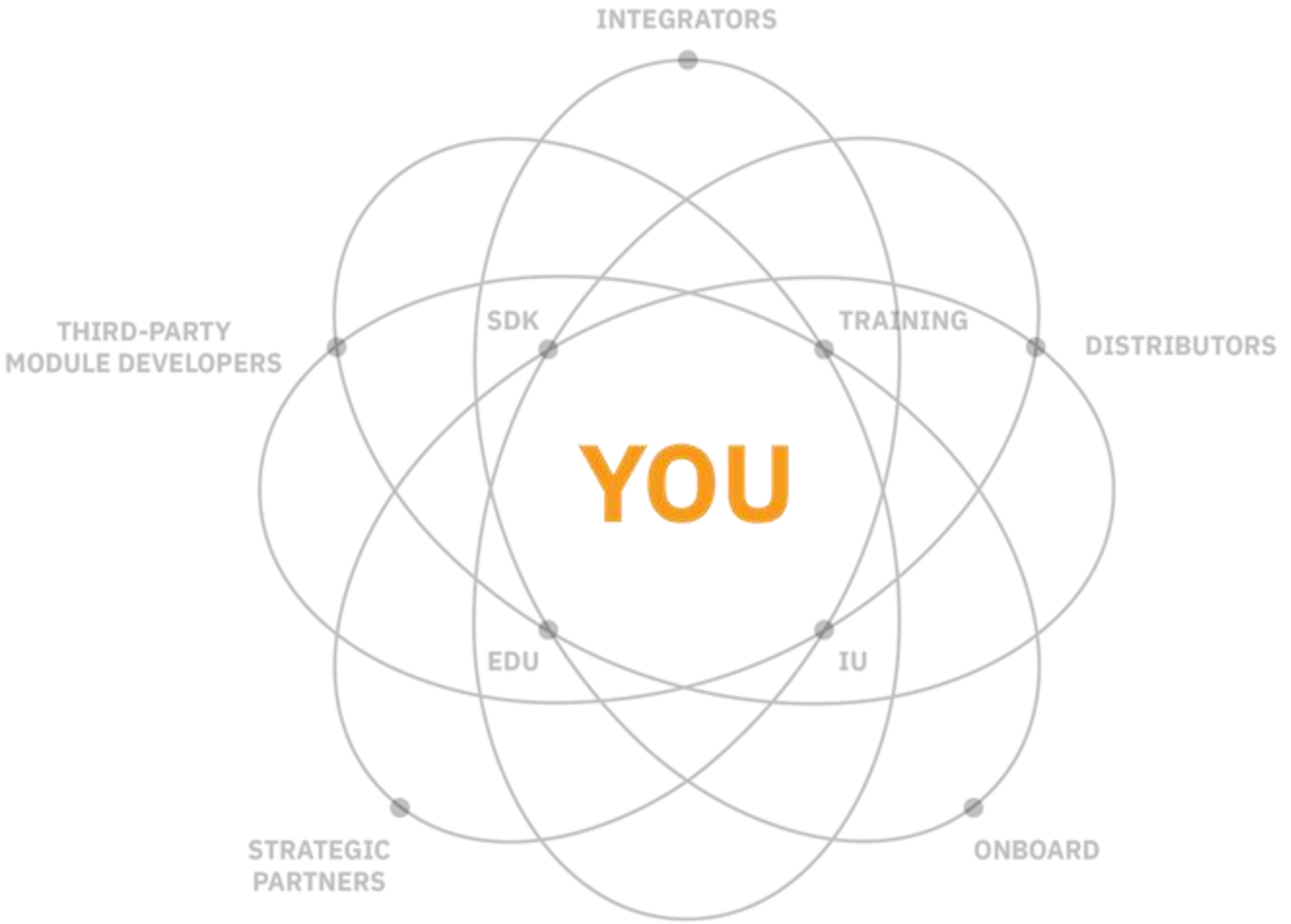
Analytics & Machine Learning

- Ignition has built-in data visualization tools and machine learning algorithms
- Ignition provides connections for using external systems
- Ignition is open source, empowering users to leverage best-of-breed tech
- Users can leverage popular external analytics and ML tools

Ignition Ecosystem



Center Of The Ecosystem



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THANK YOU.