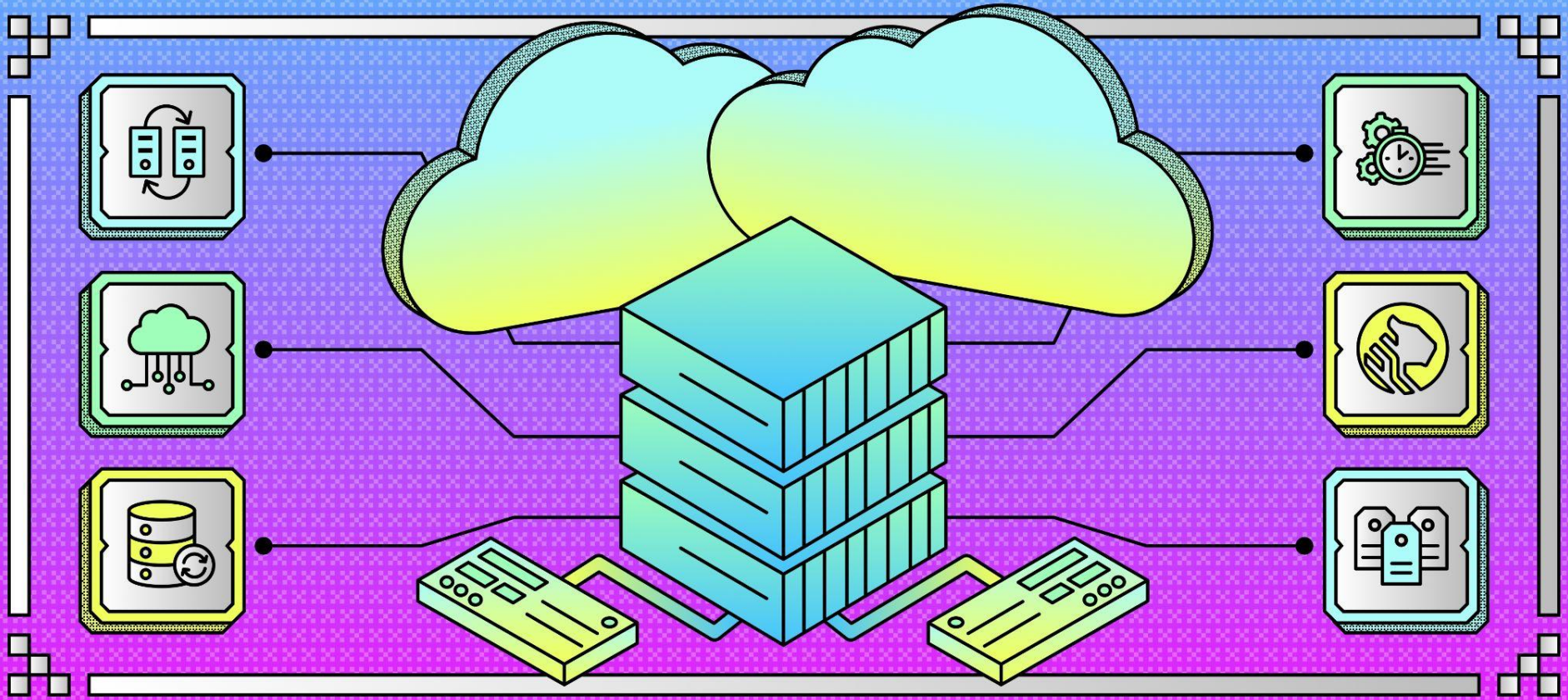
Ignition + Tiger Data:

Introducing the Enterprise Historian Module for TimescaleDB



Speakers



Travis Cox

Chief Technology Evangelist

Inductive Automation



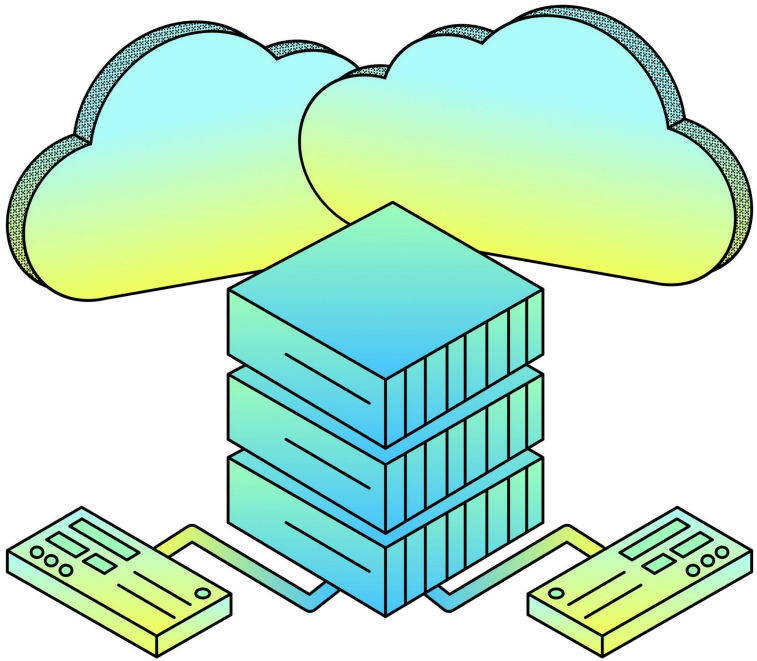
Doug Pagnutti

Industrial Developer Advocate

Tiger Data

Agenda

- Introduction to Inductive Automation & Ignition
- Historical Data
- New Strategic Partnership
- Enterprise Historian Module for TimescaleDB and TimescaleDB for Ignition
- Demo
- Questions & Answers



About Inductive Automation













































Introducing Ignition

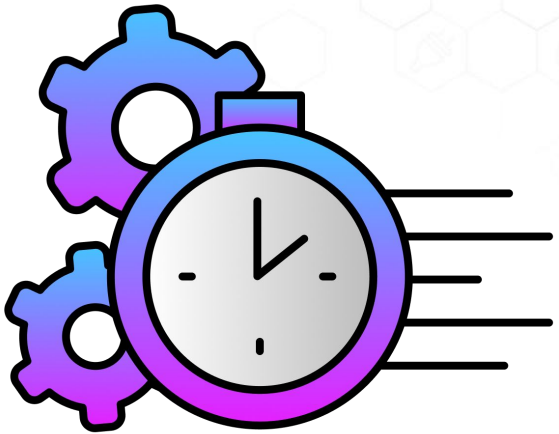
The Unlimited Platform for Enterprise Integration, Industrial Applications, and More:

- One central hub for the plant floor and beyond
- Web-deploy to desktops, industrial displays & mobile devices
- Unlimited licensing
- Cross-platform compatibility
- Industrial-strength security & stability
- Build any kind of industrial application



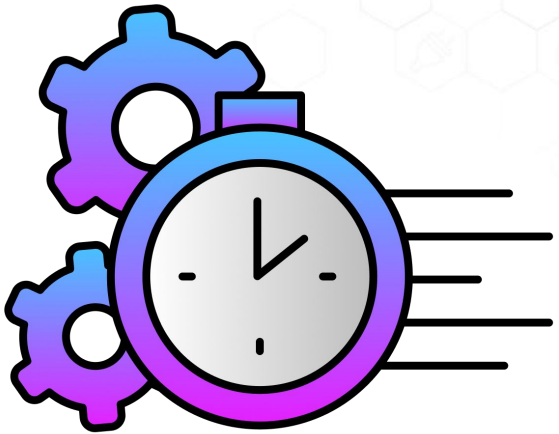
Why Historical Data is Valuable

- Informs your decision-making and fuels artificial intelligence
- Helps you improve processes and predict failures
- It's essential for compliance and audits
- It retains valuable knowledge when staff retire



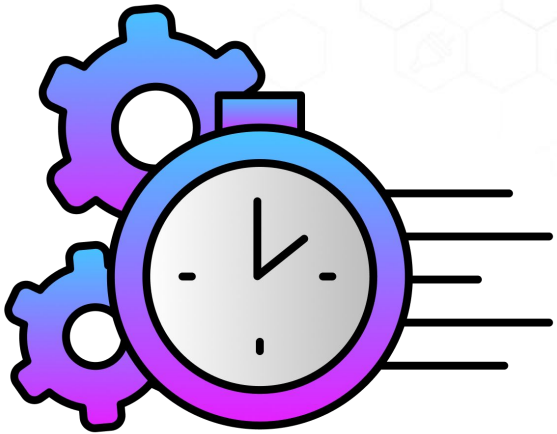
Ignition's SQL Foundation

- Since 2003, Inductive Automation has used open, relational SQL databases as an alternative to expensive industrial historians.
- Leveraging IT-supported technology transformed industrial data management, technically and economically.
- Time-series data sits right next to your other data, opening up new possibilities.



Industrial Organizations' Historical Data Challenges

- Exploding data scale & maintenance (query performance, high availability, disk usage)
  - Increased tag volume
  - Higher sampling frequencies
  - Longer retention times
  - Growing number of consumers
- Core operational demands
- Standard SQL databases weren't designed to be dedicated time-series historians



Strategic Partnership

- Community members have paired Ignition and TimescaleDB from Tiger Data to deal with these types of challenges.
- And recently, **Inductive Automation officially announced a new Strategic Partnership with Tiger Data!**
- *Let's learn more about Tiger Data …*



Tiger Data

- Founded in 2015 as Timescale, Inc. Rebranded to Tiger Data in 2025.
- Creators of TimescaleDB, an open-source PostgreSQL extension for time-series data.
- Run TimescaleDB as a managed service on Tiger Cloud, or managed on-prem deployments.

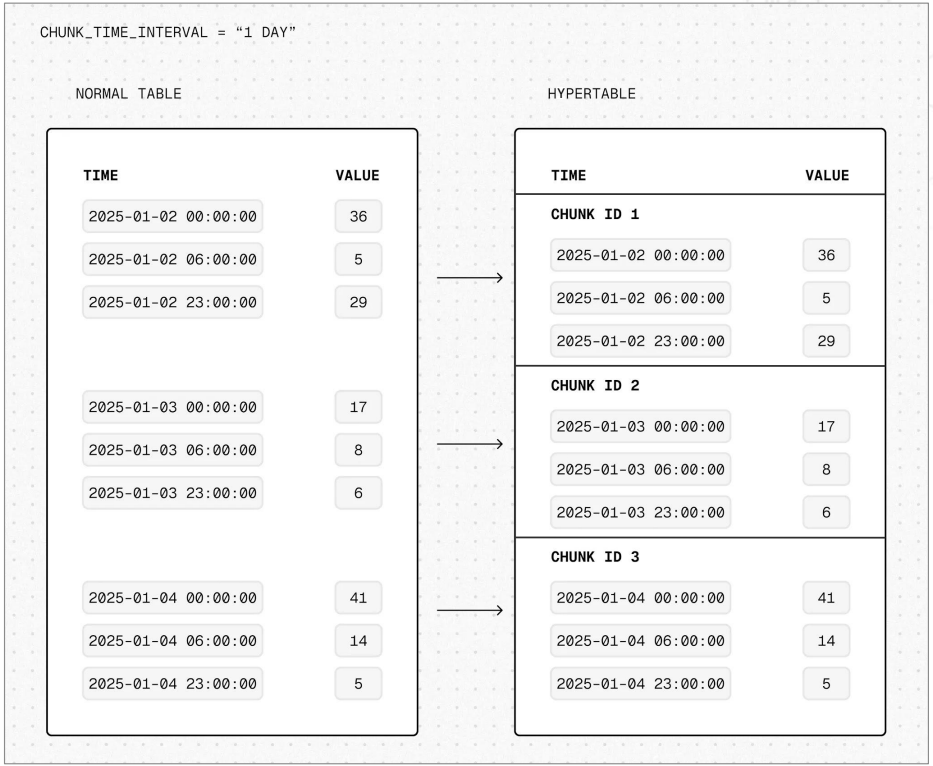


Tiger Data - Our Customers



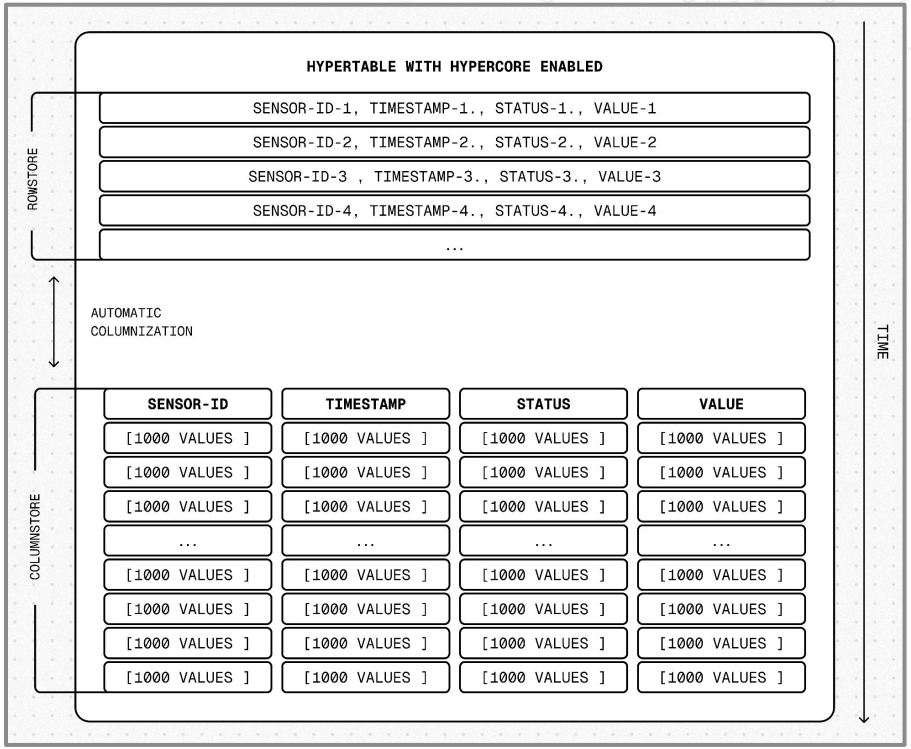
TimescaleDB - Hypertables

- Automatic Time partitioning
- Maintains ingest performance
- Limits Queries to relevant chunks
- Still looks like a normal Postgres table



TimescaleDB - Columnar Compression

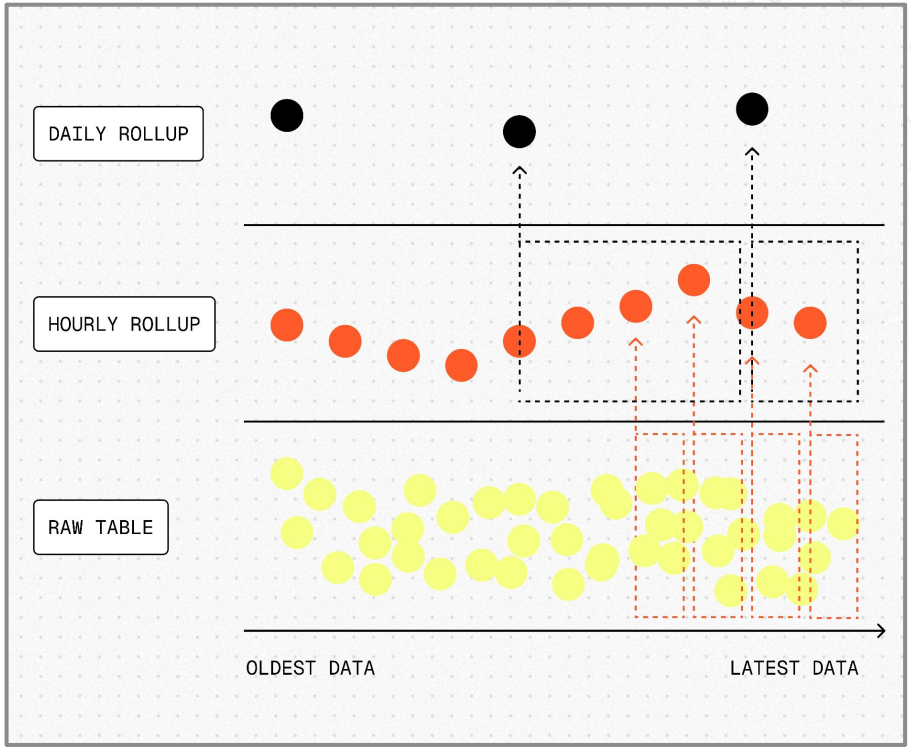
- Data grouped by tag and time for efficient scans
- 90-98% compression
- 10-100x faster queries
- Still looks like a normal Postgres table



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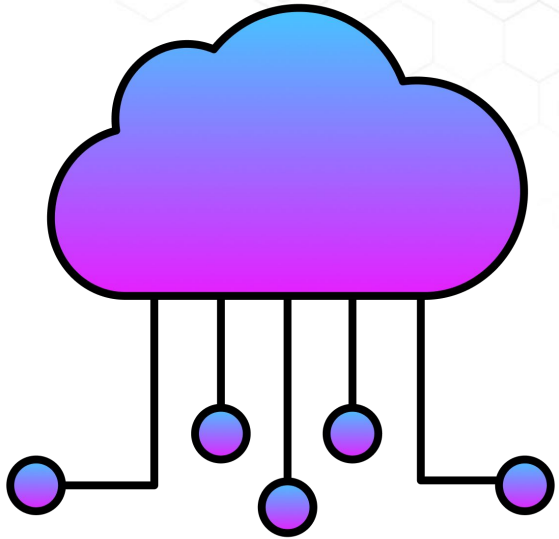
TimescaleDB - Continuous Aggregates

- Pre-compute aggregates on old chunks; hourly/daily averages,
- Combine with current chunk for live, accurate aggregates
- Incrementally refresh only what changes
- Still looks like a normal Postgres table



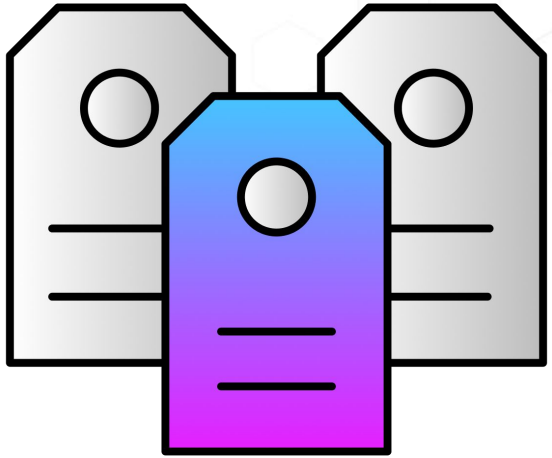
Why Ignition & Tiger Data Align

- Proven Foundation: Backed by Tiger Data's decade of Postgres time-series innovation
- Built for Ignition: Native integration that sets up optimized schemas and storage policies for you
- Trusted Expertise: Industrial know-how from Inductive Automation, database depth from Tiger Data, and SQL as the common language



What It Means for Your Historian

- Performance at Scale: Higher ingest, faster queries, and much smaller storage footprint as your data grows.
- Built-In Reliability: Built-in high availability, backup, and recovery, with data managed locally at each site or across your whole fleet.
- One Vendor, One Price: Unlimited tags, HA clustering included, sold and supported by Inductive Automation.

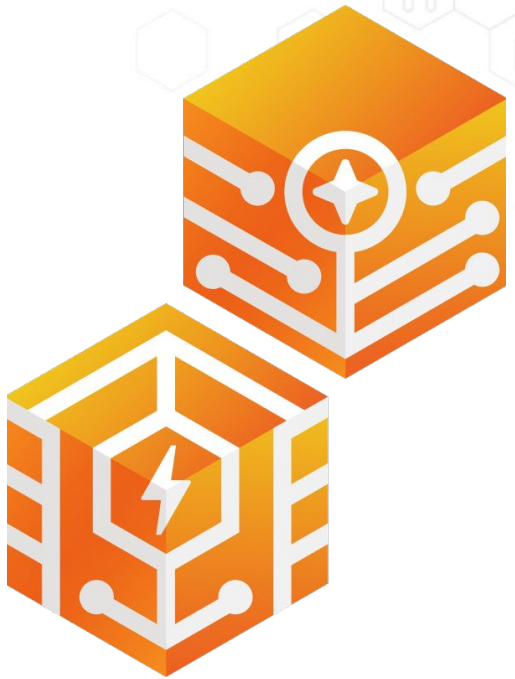


New Solutions from Inductive Automation + Tiger Data

Two new solutions:

- **Enterprise Historian Module for TimescaleDB**
- **TimescaleDB for Ignition**

Let's learn more about each of them ...



Enterprise Historian Module for TimescaleDB

- Massive Data Ingest
- Engine-Accelerated Queries
- Built for TimescaleDB
- Native Enterprise Historian
- And ...



10x

Ingest Speed

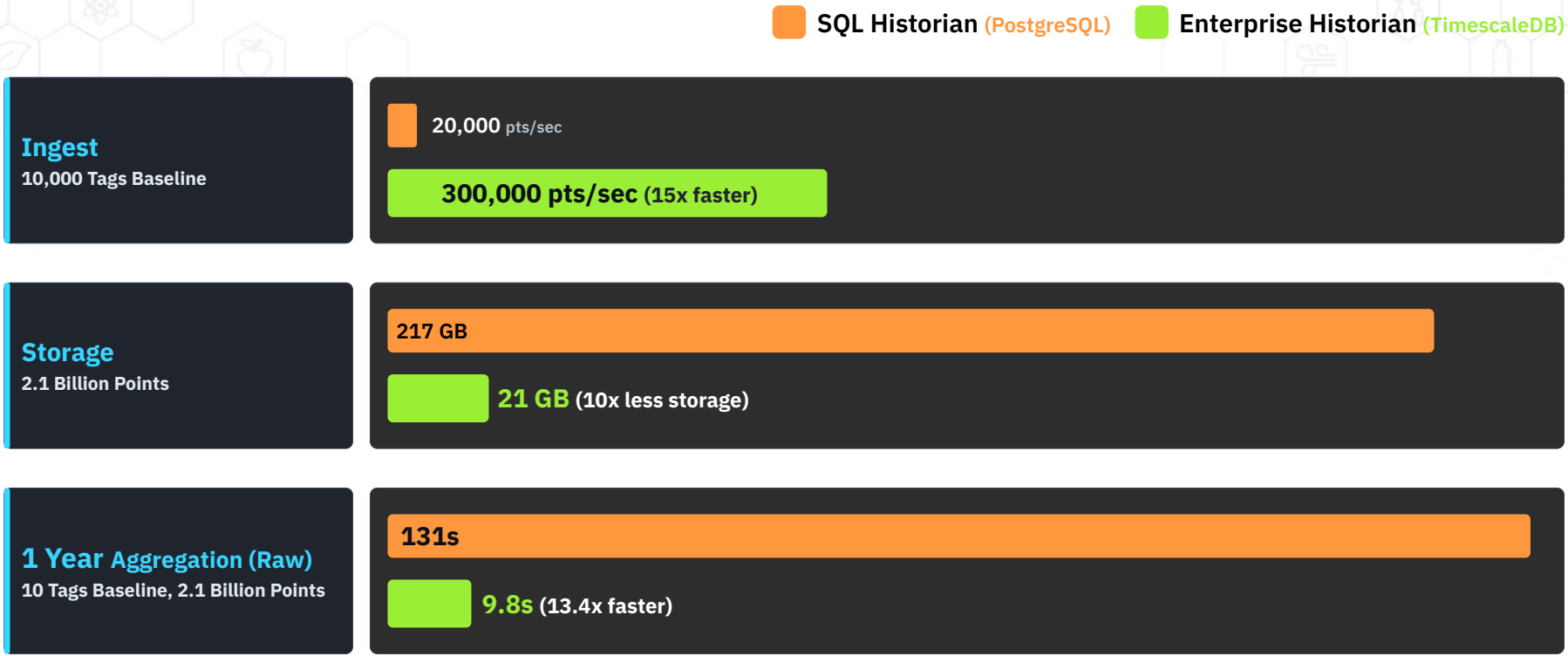
Faster Queries

Storage Efficiency

...ingest 10 times **more data,** query it 10 times **faster,** and use 10 times **less storage**

(based on a dataset of 2.1 billion data points)

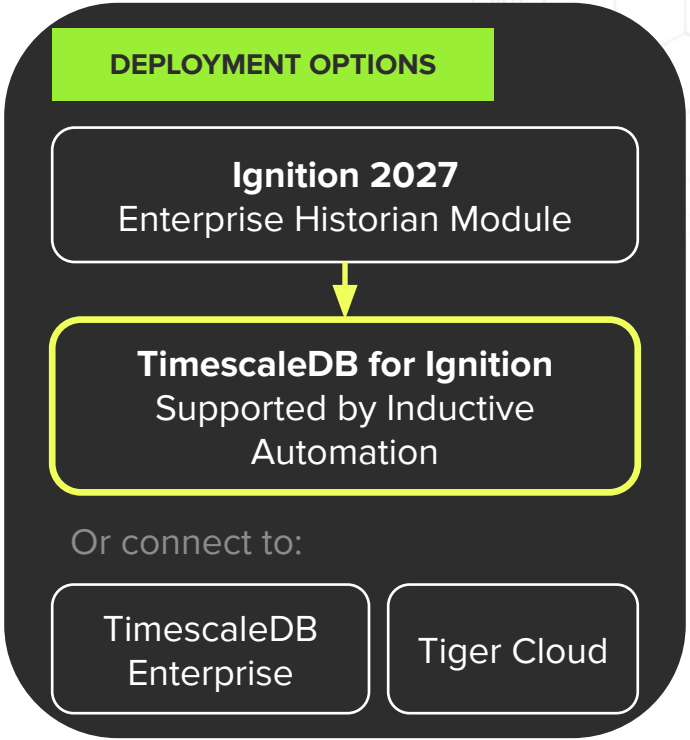
Performance Comparison



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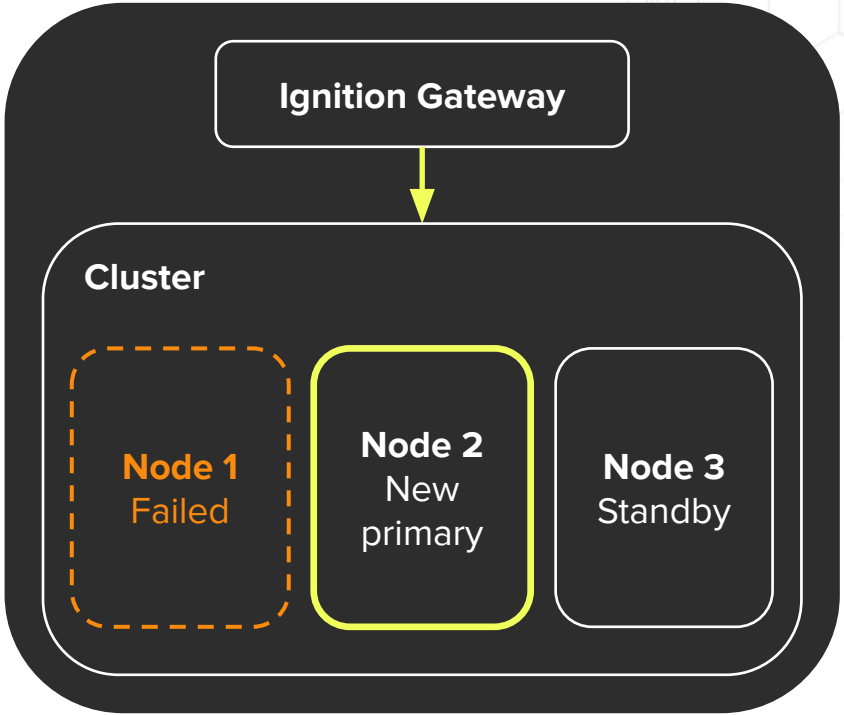
TimescaleDB for Ignition

- The first version of TimescaleDB made specifically for Ignition
- Supported by Inductive Automation
- Unlimited tag pricing model



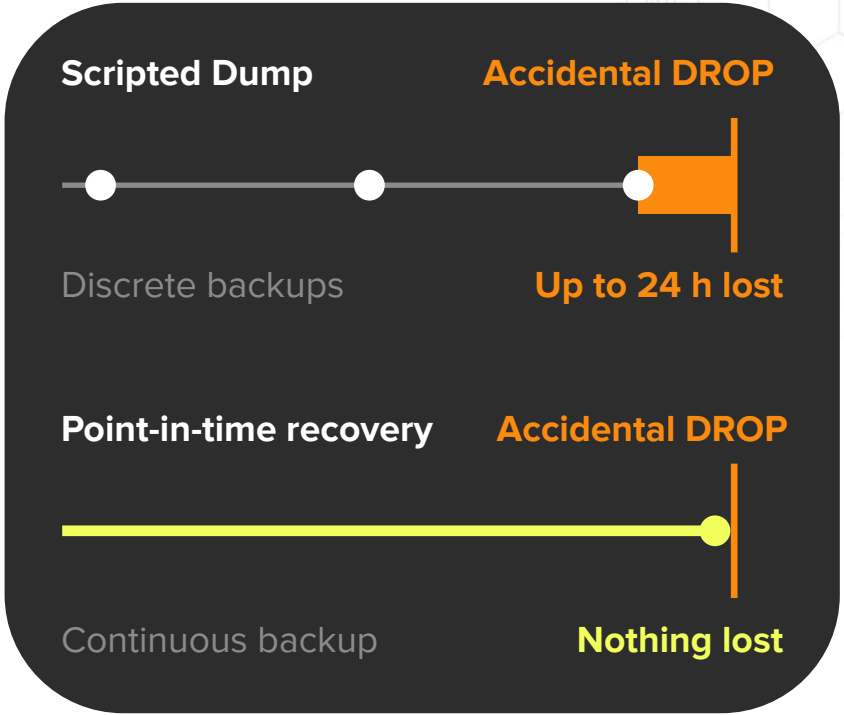
TSDB for Ignition - High Availability

- Nodes join into one cluster, and the database runs across it
- If a node fails, a standby takes over automatically
- HA clustering is included at no extra cost



TSDB for Ignition - Disaster Recovery

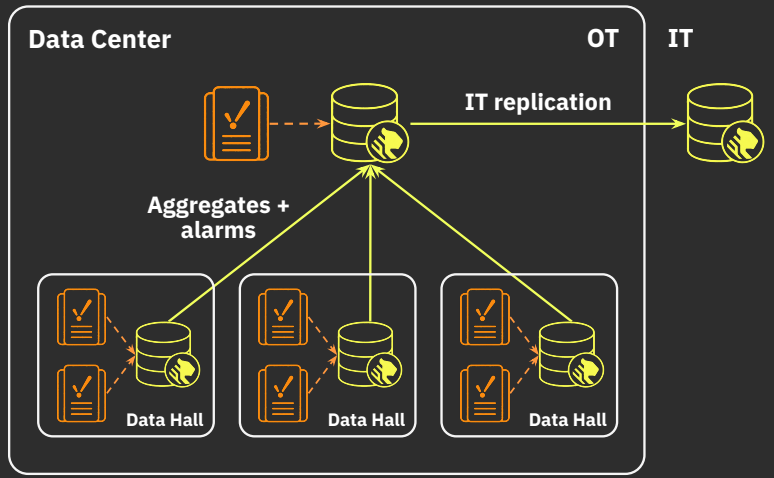
- HA covers hardware failure, not human error
- TSDB for Ignition has continuous backup
- Point-in-time recovery restores to the moment before the mistake



TSDB for Ignition - Enterprise Management

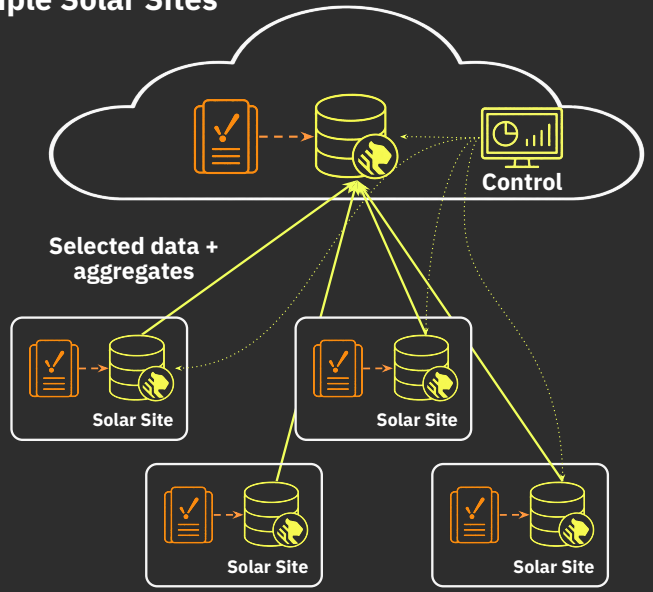
ARCHITECTURE

Large-Scale Data Center



ARCHITECTURE

Multiple Solar Sites



TSDB for Ignition - Sizing

TimescaleDB for Ignition

PROCUREMENT
Through Inductive Automation

PRICING MODEL
Fixed price, perpetual license

CONFIGURATION
One standard configuration

TARGET DEPLOYMENT
Designed for medium-scale deployments

TimescaleDB Enterprise

PROCUREMENT
Through Tiger Data

PRICING MODEL
Fixed price by server configuration

FLEXIBLE SIZING
M / L / XL / XXL

ARCHITECTURE ROLE
Can serve as a LiveSync destination

Tiger Cloud

PROCUREMENT
Through Tiger Data

PRICING MODEL
Usage-based pricing

MANAGEMENT
Fully managed by Tiger Data

SUPPORTED CLOUDS
AWS · Azure · GCP

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Demo



The Evolution of SQL in Ignition

The Strategic Partnership with Tiger Data represents the evolution of Ignition's long association with SQL:

- Same commitment: open, standard SQL with no proprietary lock-in.
- New capability: time-series performance built in, so SQL scales with your data.



Also Coming in Ignition 2027

- Catalyst Core Module: securely connect AI models to Ignition Designer or Gateway (optional)
- Catalyst Agent Module: design AI agents for your OT processes (optional)
- 16 new charts components
- Official Ansible collection
- And much more!
- *Public beta: Early November (pricing information coming soon)*
- *Full release: February 2027*





Ready To Try Ignition For Yourself?

Download the full version for free at:

inductiveautomation.com



inductiveuniversity.com

Ignition User Manual also available at:
docs.inductiveautomation.com

‘Ignited’ Podcast

- Check out our conversation with Tiger Data CTO Mike Freedman and Inductive Automation CEO Colby Clegg
- On YouTube or wherever you get your podcasts



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Questions & Answers

Ignition by inductive automation

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