

Open Source Practice For Unified Namespace



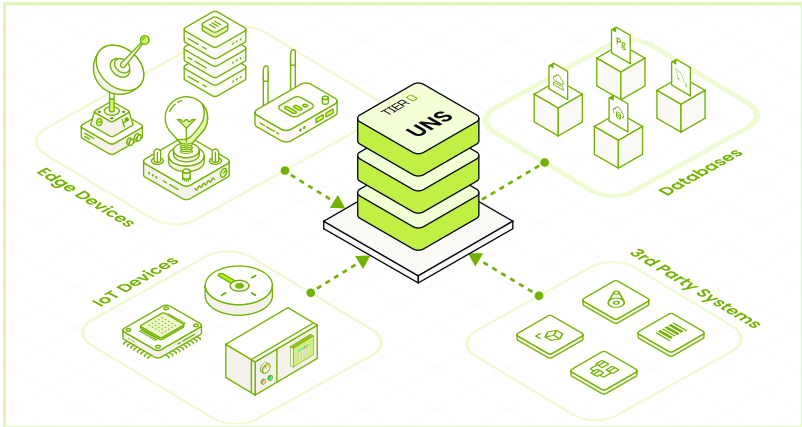
TIER 0

Open Source IIoT Platform

 **FREEZONEX**

<https://tier0.app>

Connect All Data With One Click

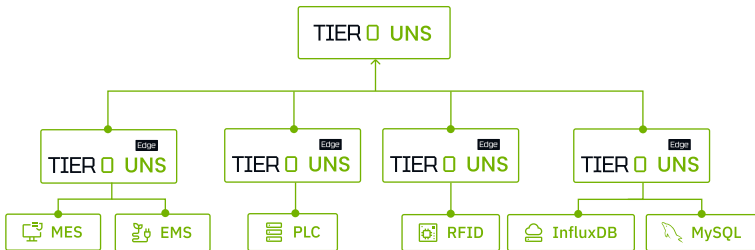


◆ Data Source Auto Discovery

Automatically identify all industrial devices in the network along with their IP addresses, protocol types, device types, etc., without the need for manual input.

◆ Edge-Driven

An open, adaptable technology stack seamlessly integrates Unified Namespace with protocols such as MQTT and Modbus for enhanced connectivity.



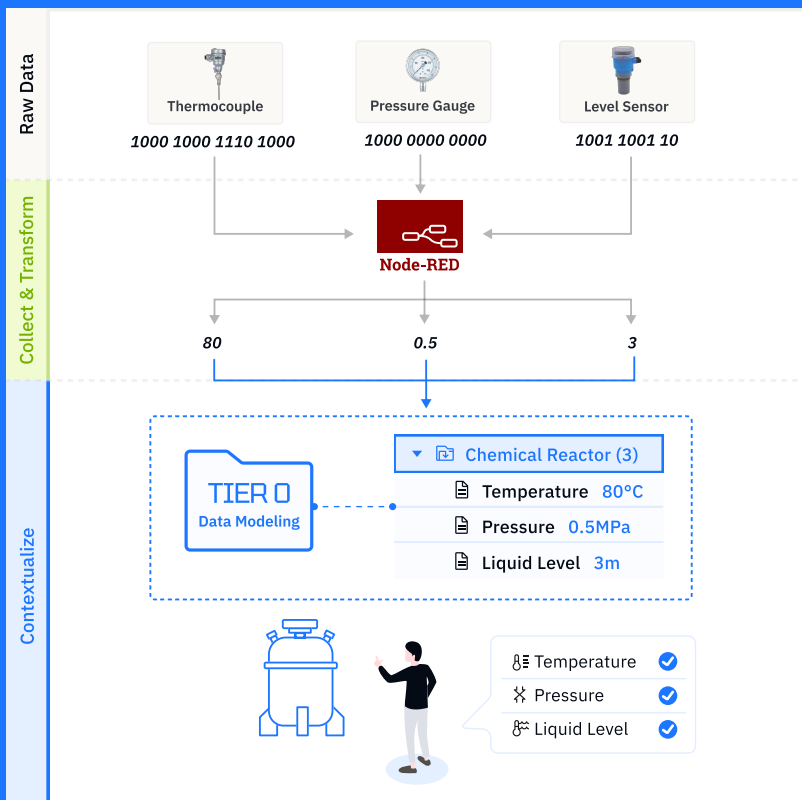
◆ Universal Protocol Support

One platform for seamless integration of major industrial data collection protocols, including non-standard ones. Capture and connect effortlessly using drag-n-drop method.

BUILD A SINGLE SOURCE OF TRUTH

Data consumers can get everything anytime from one place

Translate Data Into Human Language

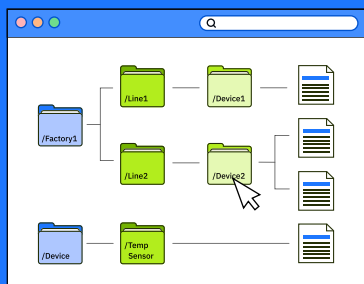


◆ Simple

Manage your data like managing file folders on windows.

◆ Flexible

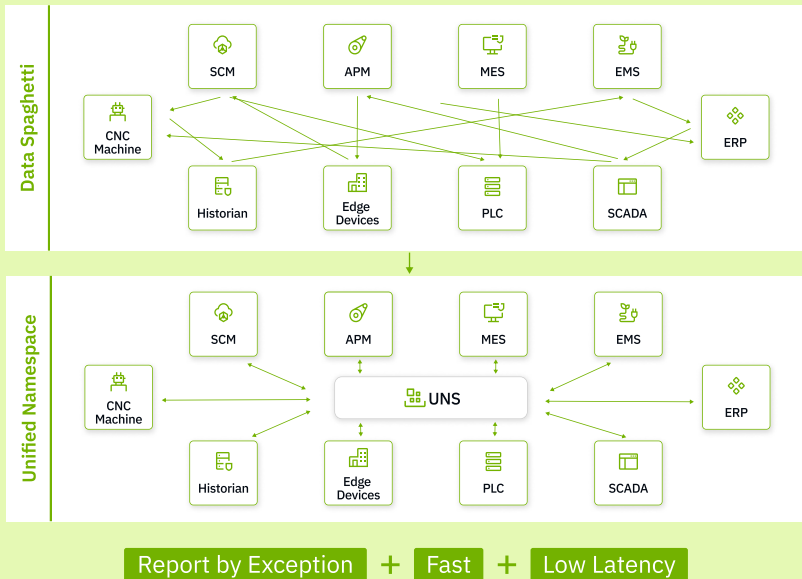
Build them however you want, with no restrictions!



TRANSFORM DATA INTO INSIGHTS

Deploy and maintain solutions at scale

Plant-Wide Data Pub-Sub Through MQTT



◆ MQTT

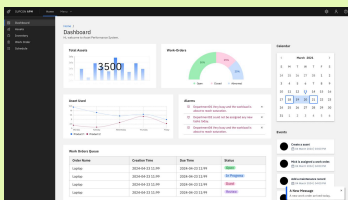
For real-time data, all you need to know is MQTT!

Experience vanilla MQTT in its purest form - no prior learning needed.

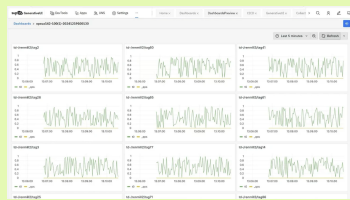
◆ SQL

For historical data accessing.

Data Consumers



[3rd-Party Apps]



[Data Visualization]

LIGHTWEIGHT PUB-SUB MESSAGING TRANSPORT

Data synchronization and visualization

Open Source



Tier0 is built using open-source components. Each of them plays a pivotal role in Tier0 development.

We appreciate the contributions of the open-source community and will continue to uphold the open-source philosophy.



Data Collection



Node-RED



EMQX



Data Contextualization

TIER 0

IIoT Platform



Data Storage



PostgreSQL



Timescale



Data Visualization



CopilotKit



Grafana



Data Application



Elastic



Gitea



Konga



Portainer



Keycloak



Infrastructure



Docker

Instant Event-Driven Actions

◆ When Internet Companies Respond to Clicks, Factories Respond to Events.

Your production floor and business already speak the language of events. Every machine startup, pressure change, quality check, and maintenance alert demands immediate action.

In manufacturing, waiting for scheduled updates isn't just inefficient—it's dangerous.

◆ When Factory Speaks, Tier0 Listens.

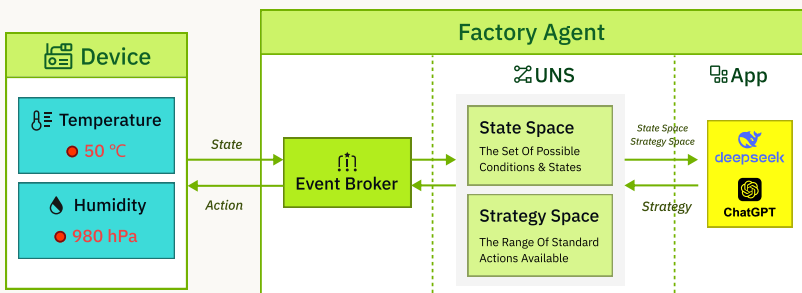
In manufacturing, events are vital signals - temperature spikes, production milestones, and quality deviations aren't just data but calls to action. With MQTT, Tier0 captures these moments for immediate responses, eradicating blind spots.

Stop polling your machines. Let them tell you what matters.

◆ Fabricate Events into Industrial Super Apps with Tier0.

A temperature drift triggers analysis and adjustment. A quality deviation prompts recipe modification.

A machine anomaly initiates predictive maintenance - all automatically.

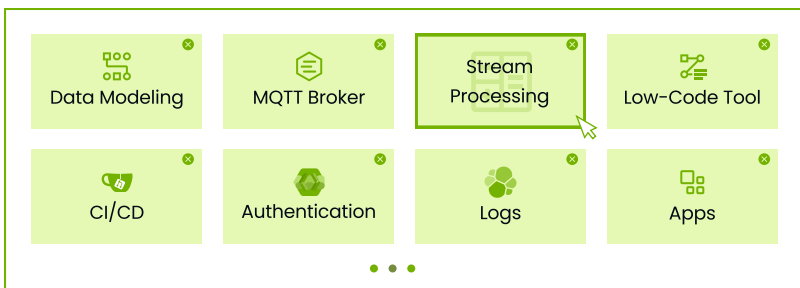


REAL-TIME INSIGHTS & DYNAMIC REPORTING

Real-time responses with event-driven architecture

Enterprise-Level Features

Seamlessly integrate, utilize, and manage **all data, applications, and software** from a **centralized platform**. Customize your desktop workspace to suit your needs and preferences.



◇ 1

Unified Login Authentication

No need to build application access control modules from scratch. With controlled access, Tier0 guarantees stability, quality, and maintainability.

◇ 2

Unified Data Management

Efficiently manage all data through a unified treemap, ensuring secure access for relevant end users. Monitor data lineage and track changes for full transparency and control.

◇ 3

Unified Resource Management

Full lifecycle resource scheduling includes development resources, login control, MQTT broker management, interface management, system configuration, and more.



SECURE & SIMPLE ACCESS TO THE CONNECTED INDUSTRY

Deploy quickly with ease—no coding required

Industrial App Space

—Apps On UNS

We use a **Platform+App** architecture for application development.



Pre-built event infrastructure, pure application focus.
The industrial middleware you'd build if you had unlimited time.

◆ Eliminate Infrastructure Hassles

- No need to spend development cycles on MQTT brokers, data parsers, persistence layers, or message routing.

◆ Streamlined Access to Industrial Events

- Access standardized industrial events through clean topics and APIs.
- Subscribe to event streams with a single subscription.
- Publish responses back to physical systems without protocol or connectivity concerns.

◆ Accelerated Development Experience

- Tier0 streamlines development experience—empowering your team to build AI-powered predictive maintenance, adaptive process control, and intelligent resource optimization in a fraction of the time.

Industrial Apps

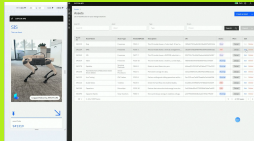
WMS

[Warehouse Management System]



APM

[Asset Performance Management]



EMS

[Energy Management System]

