

# Collect, Structure, and Manage your Data

From raw signals to insights: Your decentralized IoT data platform.

 DEVELOPED IN SWITZERLAND

## Challenges We Address



### Cloud dependency:

Centralized cloud services introduce reliability risks, high recurring cost, and limited data sovereignty. Under the U.S. CLOUD Act, authorities may request access to data even when stored on servers in Europe.



### Vendor silos:

Each vendor provides proprietary IoT solutions, fragmenting data and integration efforts.



### Complexity:

Generic IoT platforms while more powerful, are often expensive and difficult to configure, operate, and maintain.

## Our Approach

**SIOT stands for Secure, Simple, Structured IoT** — a decentralized architecture combining edge autonomy with structured data management. It consists of two complementary components:



### SIOTgateway

- Connects sensors and actuators; translates fieldbus and IoT protocols into a unified format.
- Buffers data during link outages to prevent loss and ensure continuity.
- Forwards data to SIOTcore or cloud platforms such as Azure and AWS.



### SIOTcore

- Enforces consistent, structured data across all connected devices.
- Stores information in a time-series database for monitoring and analysis.
- Organizes data into hierarchical domains that mirror operational structure and ownership.
- Manages access rights per domain to define who can view and modify data.
- Scales from local edge nodes to distributed cloud systems.



Data  
Sovereignty



Interoperability



Simplicity



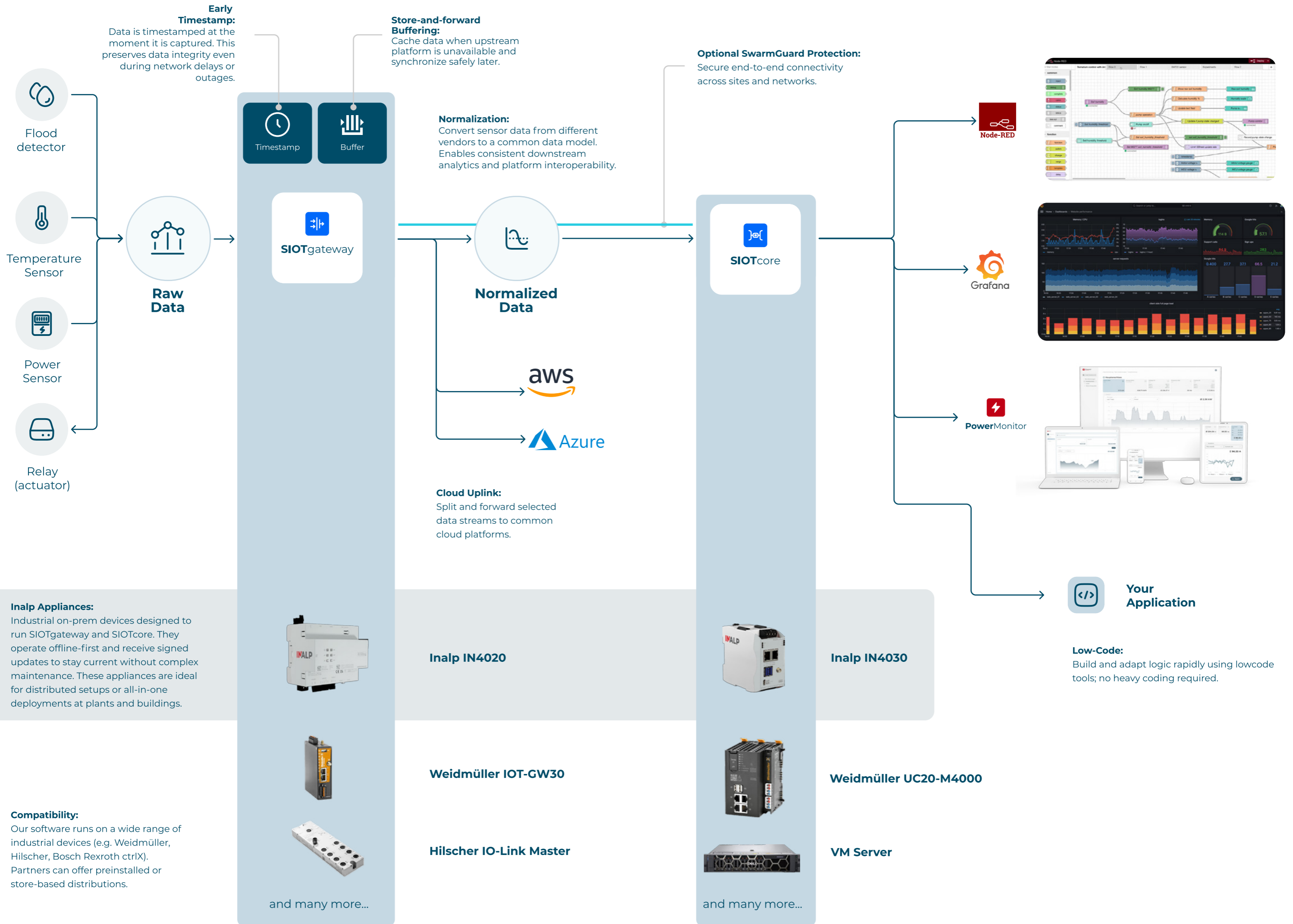
Stability &  
Redundancy



Security



Fair Pricing



# Application Scenarios

SIOT's architecture enables a wide range of use cases across industries.



## Energy Management

SIOT provides a unified data layer for monitoring and optimizing energy use across sites. It helps utilities, facility operators, and energy managers reduce consumption, detect anomalies, and meet sustainability goals. Build your own dashboards and analytics — or extend your setup with Inalp's **Power Monitor**, a ready-made solution for advanced visualization and reporting.

**PowerMonitor**



## Building Management

SIOT brings together data from HVAC, lighting, and environmental systems into one secure, structured platform. It enables facility teams to improve comfort, lower energy costs, and manage multiple buildings efficiently. Create your own monitoring environment — or use Inalp's **Building Manager** for real-time control, automation, and intelligent optimization.

**Building Manager**



## Process Automation

SIOT ensures secure, structured data flows for distributed automation and smart factory environments. It connects and normalizes data from PLCs, sensors, and controllers across vendors and sites — eliminating integration silos. Used by solution integrators, OEM partners, and industrial IT/OT teams to enable cross-system analytics, predictive maintenance, and process control.

## Our Products



### SIOTgateway

- Connects field devices and systems
- Local data buffering/normalization
- Forwarding to cloud platforms



### SIOTcore

- Stores historic data traces
- Manages access rights
- Provides API for applications

#### Deployment Options:

**Container**

Available

Available

**Inalp Appliance**

IN4020, IN4030

IN4030

**Industrial App Stores\***

Coming soon

Coming soon

\* Weidmüller u-OS, Hilscher NETField, Bosch Rexroth ctrlX

## Our Technology Stack

### Separation of Concerns

- Turnkey or custom monitoring and management solutions.
- SIOT provides data models, storage, and APIs for building solutions.
- SwarmGuard secures transport, identity, and access between endpoints, sites, and users.

#### Customer Applications

Dashboards, analytics, condition monitoring, predictive maintenance, digital twins, AI/ML.

#### Inalp IoT Applications

Ready-to-use solutions like Power Monitor and Building Manager

#### Inalp SwarmGuard Applications

SwarmGuard Business  
SwarmGuard Industrial

#### SIOT Data Layer

Ingestion, normalization, time-series storage, pub/sub, APIs

#### SwarmGuard Connectivity Layer

Encrypted overlay, key exchange, peer-to-peer tunnels, policy-based access

#### Existing Networks & Devices

IT/OT, Internet, cellular, sites, PLCs, HMIs, sensors, servers, laptops

## Get Started



Explore SIOT's technology and applications. Normalize data across devices, deploy on prem with ease, and build dashboards, analytics, and automations faster.

Scan the QR code or visit <https://inalp.com/siot/get-started> to contact our team or start a pilot.

# INALP

Inalp Group  
Meriedweg 11  
3172 Niederwangen bei Bern  
[www.inalp.com](http://www.inalp.com)  
[info@inalp.com](mailto:info@inalp.com)