



Whitepaper

True data driven decisions





We're Gapit Nordics

A company committed to bridge the gap between the automation world and the open source IT world. We do this by standardizing equipment integration as containers.

Our skills within collection, storage and visualization of data combined with extensive electrical knowledge makes us able to quickly help our customers getting full monitoring of their equipment.

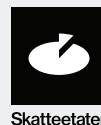
Our services and products span from smart energy data management in small buildings to complex monitoring of large industrial sites. We hold pride in delivering services and products built on open-source tools without licenses.

Integrations delivered by Gapit Nordics are purely software based and manufacturer-independent, meaning we support reading data from all types of equipment regardless of who have made it. Our staff holds the Norwegian communication certification (Nkom) and are certified for offshore work internationally.

Our customers



Business
Services



Green
Mountain

Flexible

In the fast and always changing software ecosystem, flexibility is key. We strive to always use the best possible tools available to solve the task. The platform is built up in modules making it easy to change parts if better tools become available. This also makes it possible to seamlessly integrate with customers already established solutions if needed.

Critical uptime

For our customers, equipment and up-time is their number one priority. They make data driven decisions on a continuous basis.

Data quality is a key factor in this decision-making. Having all data available at the best possible resolution is crucial to take the correct actions.

Correct implementation

Our standardized integrations and dedicated software is combined to optimize data quality at all stages from data collection to storing and visualization.

Data aggregation

Time stamping is key when working with time-series data. Clock drifting on equipment can make it almost impossible to troubleshoot during an incident. The Gapit Nordics platform timestamps all data by using a central clock which enables data aggregation of all collected variables including external data sources. This technique enables your team to more easily find the root cause of an unwanted events or perform integrity-based maintenance. The cause can be isolated from the effects and a correct sequence of events can be determined.



The gap

Gapit Nordics has developed standardized microservices for a wide variety of automation components. Microservices works as a translator between the automation world and the information technology world. It enables state of the art IT solutions to be used together with traditional automation equipment.

Easily scaleable

Our system is scaleable from one to thousands of devices. This is made possible because of our transition of integration from hardware to software. The list of supported equipment is constantly growing.

You will find a fully updated list on <https://gapit.io/resources/wall-of-integration>.

Gapit Nordics quickly implements new devices upon customer requests. We support all hardware from all hardware suppliers.

Powerful visualization

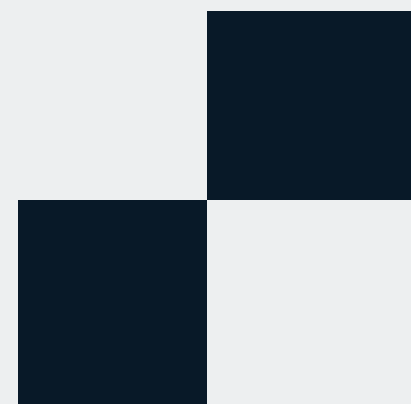
We use the leading tool for visualization and analysis called Grafana. Grafana has built-in support for a range of advanced features. Alerts and predictive visualization based on machine learning, previous data patterns and algorithms. All collected data is stored in historical sequence in order to easily find and compare past events.

The rich plugin system gives the user full flexibility to create any type of dashboard and visualization they want.

Security

The utilization of docker technology enables us to have closed software networks between the core components. This in turn hides most of the systems communication from the physical network.

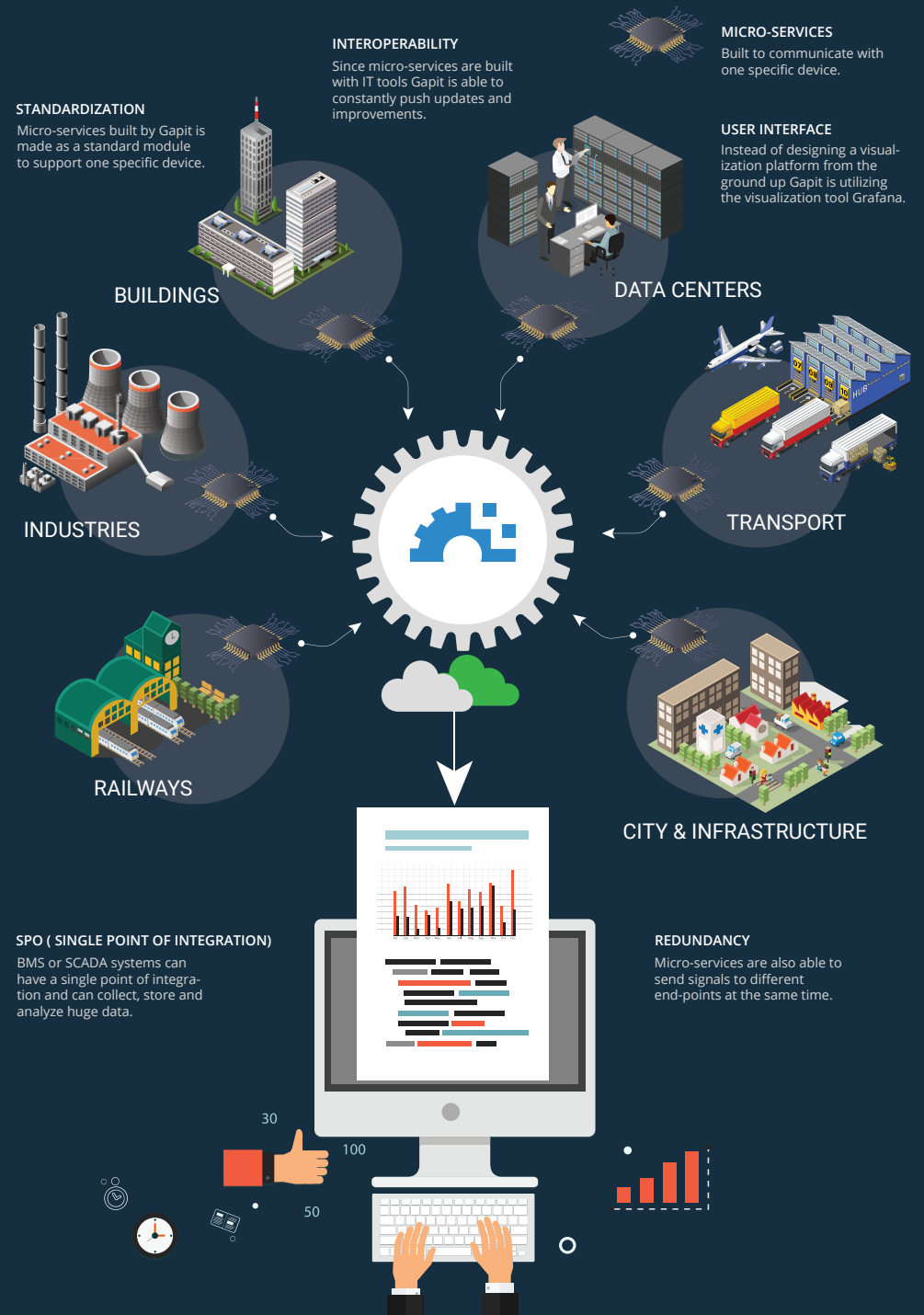
Opening parts of the system for external access is certainly possible if preferred. The whole system is designed to run on a closed network with no access from the outside world. If opening for external access the system supports the latest cryptographic standards and user based access control.



PROBLEM



SOLUTION





Dedicated server

- Redundant SSD harddrives (RAID configuration)
- Redundant power supplies with automatic failover
- Redundant network adapters with automatic failover
- Pre-installed with Ubuntu LTS OS (Linux)



Virtualized server

- Applications running virtualized on customer infrastructure
- Runs on Linux based distributions (Ubuntu/Debian and Redhat)
- Modules delivered using Docker technology



- All SW managed in GIT repository
- Running on enterprise systems
- Docker Containers for fast deployment
- WEB API with SSL cryptography for integration with 3rd party systems



- Enterprise ready open source time series DB
- Leading open source software for timeseries analytics
- TLS/SSL cryptography

Implementation on site

The solution is available in three versions:

1. Locally running in your network on dedicated steel delivered by us
2. Locally running on your network in your virtual environment
3. Hosted by us in our Gapit cloud

Our solution unlocks a new dimension in reporting, analytics and more. It's designed to be used across your different locations, making comparison of collected data easier. By using a central collecting point for several sites, the system can easily be scaled to your needs. Maintenance is centralized to one point.

- All systems include a predefined dashboard for peripheral equipment
- Dashboards are easy to modify (on-site training is available)
- High resolution data enables detailed analyzing and root/cause troubleshooting
- Intuitive user interface
- No additional hardware required for data collection
- Central server used for data collection and storage
- All communication is done via Ethernet
- Open, documented API





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Want to know more?

www.gapit.io

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