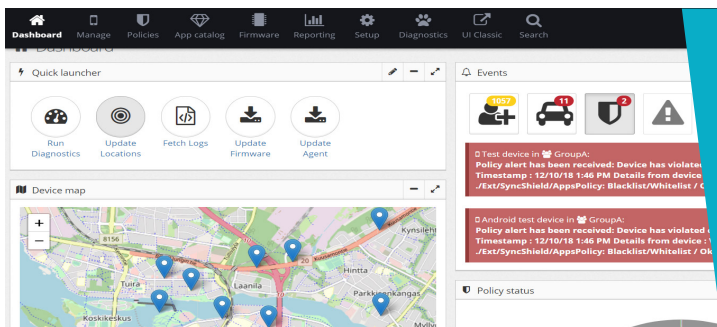# SYNCSHieLD

Simplify the World Connected

SyncShield® is the most flexible device management platform available for providing unprecedented value from services leveraging connected devices.

The solution package includes wide range of functionalities, combined with advanced cybersecurity features and mechanisms, that allow secure connections between connected devices and backend systems.

Flexible integration of connected devices to business processes is the key for your future revenue generation in order to improve customer experience and loyalty.

Ultimately, with our commercial off-the-shelf software product you will save time in R&D phase, save money by automating manual labor and enable new business simultaneously.

SyncShield at a Glance

Powerful tool for Over-the-Air operations and backend integrations to bring connected devices as an integral part of your digitalized business process.

Future Proof

- Over-the-Air (OTA) updates either through dedicated in-device connection, gateway or even via end user's mobile device.

- SyncShield helps to reduce expensive vendor lock-in situations related to e.g. many IoT platforms black box OTA products.

- Comprehensive and secure backend interfaces allow easy integration to business process, IoT platforms, legacy or future backend services and external internet services.

Business Benefits

- New business enabled from paid options and other aftermarket services.

- Software based recall risks are mitigated.

- Warranty and maintenance costs are greatly reduced with Over-the-Air operations.

- Monetization possibilities for the big data collected from connected devices.

- Faster time-to-market.

On Demand

- SyncShield adapts for every customer need.

- Turn-key-delivery with full engineering support thanks to our global partner network.

- Industry standard interfaces and service architecture accelerates integration.

- Different alternatives for deployment model and service levels.

SYNCSHieLD

Why You Need a Device Management Platform?

Security
Mitigate Security Risks

Monitoring and Diagnostics
Streamline field monitoring and troubleshooting

Time-to-Market
Accelerate development and reduce costs

Device updates
Manage Over-the-Air firmware updates

App and Config deployment
Simplify deployment and management of application and configurations

Device provisioning
Enable secure and automatic device on- and off-boarding

Challenges You Might Have

Regardless of IoT Platform, Digital Twins, Car-as-a-Platform or any other tech concept, it all comes down to essentials: manage and maintain device fleets over their entire life cycle and day-to-day activities. All within constantly increasing landscape of regulations.

Most importantly, you want to make more business while reducing risks and costs related to cybersecurity, time-to-market, warranty work and manual labor.

Solution We Are Offering

SyncShield is patented and award-winning solution for automatically enrolling and managing device fleets. It helps you to stay alert with relevant view and notifications of current field situation, as well as to respond with automated Over-the-Air updates and configurations. As a company we have already 20 years of experience in delivering software.

SyncShield is cost efficient and flexible software tool for device management, cybersecurity and integration of devices to your business processes.
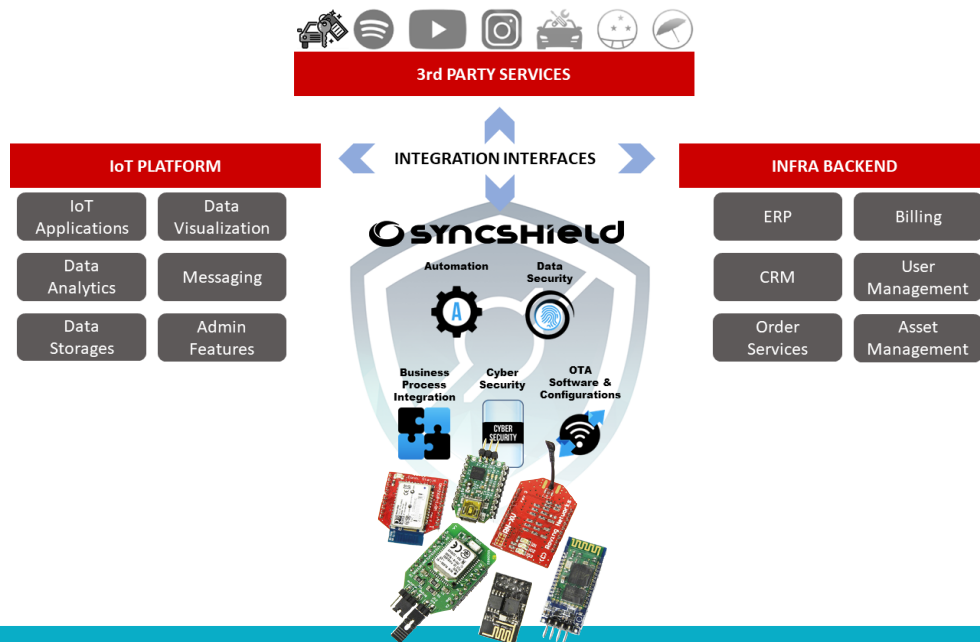
Additional Benefits for You

Fast time-to-market is one of the most essential business factors in competition but that has to be done without too expensive development work. Utilization of Commercial Off-the-Shelf products like SyncShield helps reducing development time and maintenance costs of the systems.

SyncShield saves your time and money over entire life cycle from development to device end-of-life. At the same time, it enables your new business in terms of aftermarket services and big data monetization.

SYNCSHIELD

From Cloud to Bare Metal

3rd PARTY SERVICES

IoT PLATFORM

IoT Applications	Data Visualization
Data Analytics	Messaging
Data Storages	Admin Features

INTEGRATION INTERFACES

SYNCSHIELD

Automation   Data Security

Business Process Integration   Cyber Security   OTA Software & Configurations

INFRA BACKEND

ERP	Billing
CRM	User Management
Order Services	Asset Management

Integration with Connected Devices

SyncShield resides as an independent agent application in your device or all the way fully integrated to your firmware. We can give support and porting service of our agent software to various device platforms. Alternatively, we deliver an SDK that can be altered and fitted as part of your firmware build in your development process.

Cyber Security is always our number one concern: SyncShield has lots of data encryption, access control and handshaking protocol alternatives.

Integration with Backend

SyncShield can be operated as SaaS, own cloud or on-premises server setup, with full connection and integrations to other internal and external services. In most cases there is need for fetching/pushing device information e.g. with Asset Management, ERP, PDM, CRM, Billing System or IoT Platform. SyncShield is capable of all that.

We give full API definitions and example code for you to make integration OR we can make integrations as a service. We stand by you in integration challenges.

Technical Benefits for You

By choosing SyncShield you can reduce time and effort of both R&D phase and maintenance cost of fleets as well as make sure your systems are enabled and secured for future service business in both device and backend side. We are independent of platforms but are able to utilize them to your full benefit.

SyncShield reduces dependency to platform providers and risk of expensive vendor lock-ins. We are proud to be independent of any services or platforms.

100% European Commercial Off-the-Shelf Software
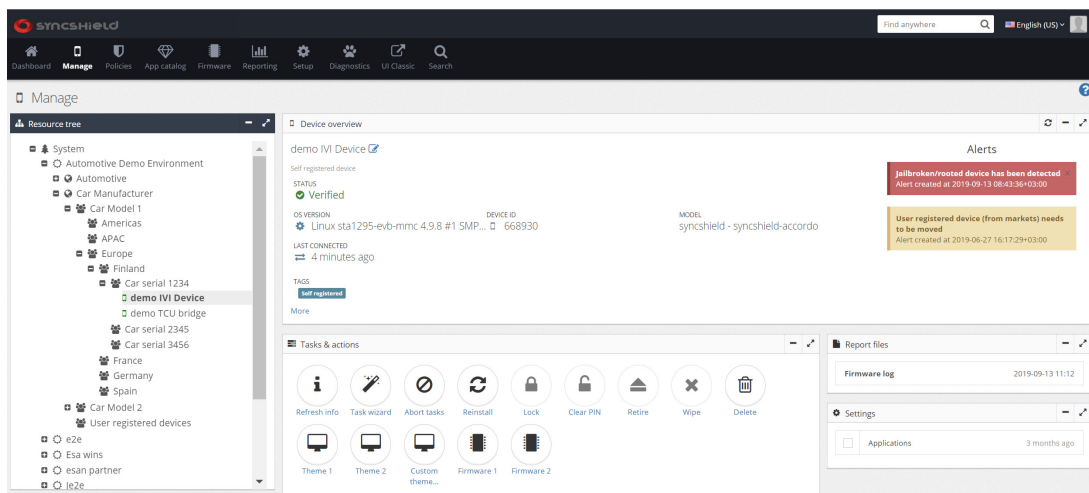
Features

Management Console

Dashboard view for running fleet operations.
Multi-tenant device tree for grouping devices.
Firmware configuration management view.
In-device application management view.
Vast reporting functionalities.
Administrator roles and access control.
Individual device sheets with loads of information.
Scheduled and queued tasks for devices.
Group Policies for combined device rule sets.
Functionality restrictions.
Device status monitor and control with automation.

Flexible Service Integration

Comprehensive REST application interfaces (API).
SaaS, private cloud or on-premises alternatives.
Container support.
Integration and customization service available.

System and Security

Multi-tenancy support.
Granular admin user rights definition.

Device Connection Protocols

Support for various types of connection protocols:
HTTPS, MQTT, CoAP, LoRa, NB-IoT, Satellite ...

Dynamic Over-the-Air (OTA)

Configurations Over-the-Air.
Software Over-the-Air.
Firmware Over-the-Air.
Delta package management.

Device Agent Software

Act as interface between device and cloud.
Manage device side security.
Bridge SyncShield controls to firmware (FW).
Provide secure connection termination to cloud.
Zero touch provisioning.

Flexible Device Integration

Software development kits (SDK) for device FW.
Standalone application or part of FW.
Support for various embedded platforms.
Integration and customization service available.

Example Device Platforms

Linux, Android, Android Automotive,
Windows Embedded, RTOS, Microcontrollers,
... and many more

Cybersecurity Functionalities

Target device monitoring.
Policy control.
Connection encryption.
Secure update management.
Two-way authentication for devices.
Certificate based security for devices and API's.
Attestation and other log/diagnostics collection.
Secure link to Security Operations Center.
Secure link to Asset Management and other tools.
Manage device side cyber security.
Policy enforcement.
Rooting detection
Attestation support.
Connection encryption.
Device level encryption support.
Update packages integrity check.