SIMPLIFY YOUR DIGITAL TRANSFORMATION
FOR BOTH PRODUCT AND SERVICE PROVIDERS

Our mission is to help businesses build and deploy proprietary in-house solutions or large-scale, multi-client, global service offerings within 5 to 25 weeks.

WalkAbout IoT Platform is our key to enabling innovation in industries. It is technology-agnostic core of any intelligent organisation with a complete set of must-have capabilities (no third-party dependencies).

Our unique Platform as a Product business model supports diverse business cases. By providing excellent cost control, it even allows you to build product-as-a-service offerings without recurring payments to a PaaS provider.
**Agnostic and Independent**

Connect any device, with any protocol, over any network. Deploy solution on-premises, in a public or private cloud, or as a multi-layered hybrid. Integrate with enterprise applications.

**Fast and Simple**

Enjoy a brief learning curve. Prototype rapidly with a free trial, out-of-the-box web and mobile apps, open APIs, libraries, SDKs, and extensive documentation.

**Modular and Flexible**

Choose among the set of functional modules that are used independently. Exploit highly customised offering that is adapted to your needs and existing ecosystem.

**Transparent and Cost-Efficient**

Calculate the total cost of ownership easily. Scale without worrying about hidden fees or complex calculations (number of users, devices, messages, API requests).

**Industry-Ready and GDPR Compliant**

Be prepared for ultra-reliability, availability, low latency and high data throughput. Keep your ecosystem secure and data safe with a robust and proven security model.

**DIFFERENT APPROACH TO BUILDING INTELLIGENT INDUSTRIAL SOLUTIONS**

Gain full control over your digitalisation: Your solution. Your data. Your identity.

**How It Works**

1. **Connect** and **Manage** a vast number of machines and users
2. **Collect** and **Monitor** large volumes of data throughout the lifecycle
3. **Drive Automation** through real-time data and business logic
4. **Protect** and **Comply** with security and privacy requirements
5. **Develop** and **Integrate** custom applications with much ease

**20% Customer Applications**

Custom web and mobile apps that add value to your business.

**80% WalkAbout IoT Platform**

Software core needed to build, deploy and maintain your digital solution successfully.

**80% OF SOFTWARE EVERY DIGITAL SOLUTION NEEDS**

- Data Visualisation and Monitoring
- Rule Engine
- Data Management
- User Management
- Device Management

**80%**

- **Data Visualisation and Monitoring**
- **Rule Engine**
- **Data Management**
- **User Management**
- **Device Management**
NUMEROUS MODULES* JOINED IN THE FIRST PLATFORM AS A PRODUCT ON THE MARKET

IP-Enabled Devices
3G 4G 5G

Non-IP-Enabled Devices
tm lot - zigbee

Legacy Devices

Proprietary LPWA
LoRaWAN Sigfox

Platform Administration
Management of different customers on one instance with secure data segregation

Data Management
Ingestion, storage and management of diverse data from devices and third-party sources

Device Management
Device lifecycle management, gateway management, firmware and software updates

Rule Engine and Geofencing
Real-time actions and process automation based on incoming data

User Management
Management of users, groups and roles; authentication and authorisation

Data Monitoring and Visualisation
Live unified view of all data and processes, data history, customisable alerts

Gateway

Connectivity Platforms

DataManagement

PlatformAdministration

DeviceManagement

RuleEngineandGeofencing

UserManagement

DataMonitoringandVisualisation

AdvancedWeb Modules

Third-Party Tools and Applications

WoRIReact Web

WoRIReact Mobile

* Price is calculated per module and is available upon request
Tenant Management
+ Native multi-tenancy: managing all customers together on one instance with 100% secure data segregation
+ System administration: leveraging built-in tools to administer individual clients/users of your solution
+ Custom white-labelling per tenant

User Management
+ Secure and reliable onboarding, grouping and management of a large number of users
+ Security and authentication management: identity creation, access revocation, as well as audit and reporting capabilities
+ Off-the-shelf permissions scheme: role management and access control lists

Device Connectivity and Edge Processing
+ Support for different device, data and communication protocols
+ Translating non-IP compatible protocols (Modbus, Profinet, Profinet, Bluetooth, Z-Wave)
+ Support for different semantic standards (JSON, Protobuf)
+ Support for SDKs in various programming languages
+ Gateway management: file management, edge event processing and troubleshooting
+ Local buffering for preventing data loss

Device Management
+ Device lifecycle management: (de)provisioning, configuration and control, monitoring, firmware and software management over-the-air
+ Registry for recognising devices (pre-provisioning)
+ Remote device troubleshooting
+ Mass device management features: bulk registration, bulk update schedule and rules definition, bulk roll-out and bulk monitoring features
+ Device simulators

Onboarding and managing users

Connecting and managing devices
**COLLECTING AND MANAGING DATA**

**Data Ingestion, Normalisation and Aggregation**
+ Collect and unify diverse data from different devices and third-party sources (for example, external weather data, road conditions or commodity pricing)

**Data Storage**
+ Use structured databases (MySQL) for devices, users and transactions, as well as high-performance non-relational databases (Cassandra) for the event and telemetry data

**Synthetic Variables (Calculated Feed)**
+ Combine numerous input sources (e.g. sensor, static and third-party data) into a new feed which acts like a regular one

**Data Semantics (Modelling)**
+ Essential component that allows you to turn device data into intelligence that can be utilised across modules, multiple systems and applications
+ Model data to define your business logic and create virtual representations of real-world objects or physical systems

**VISUALISING DATA AND DRIVING AUTOMATION**

**Processing and Action Management**
+ **Rule Engine**: determine how your system should react to a certain event or how to handle a piece of data without writing a line of code
+ **Geofencing**: visually define multiple places of interest for each asset separately and create events whenever assets enter or leave geofence zones

**Data and Event Monitoring**
+ Receive different types of notifications (email, SMS, push notifications) when certain important events occur, or certain conditions are reached in any part of your digital solution

**Data Visualisation**
+ Build and customise operational dashboards to monitor valuable data in real time and gain a unified view of all processes and systems
+ Choose among different widgets: live sensors’ readings, gauges, maps, layout widgets, notifications, charts, various types of actuators, and more
+ Show devices, groups, routes, geofences, and other objects on the maps that use any source, such as Google Maps, OpenStreetMap, or others; add the layers and enable indoor tracking
+ Analyse historical data through reports and integrated analytics tools

**DataIngestion,NormalisationandAggregation**

**DataStorage**

**SyntheticVariables(CalculatedFeed)**

**DataSemantics(Modelling)**
### INTEGRATING SECURITY AND THIRD-PARTY APPS

**External Interfaces**
- Integrations with legacy software, enterprise applications, connectivity platforms, cloud services, business reporting and analytic tools
- Adding new integrations with ease with our APIs
- Platform-to-Platform integrations and shared device provisioning and data management
- Supporting export and import of any system or device data to numerous formats

**Multi-Layered Security**
- Authentication and authorisation at both the user and the device level
- The encryption of data-in-transit and data-at-rest
- TLS protocol to secure communication
- Role-based user provisioning and access control lists
- Audit tracing and trailing
- Strict privacy standards that fully comply with GDPR requirements
- Certified using some of the most rigorous security assessments

### BUILT FOR PERFORMANCE AND AVAILABILITY

<table>
<thead>
<tr>
<th>Scalability</th>
<th>Performance</th>
<th>Interoperability</th>
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<tr>
<td>Elastic scalability of the Platform (enabling scale up and scale out); Docker containers for excellent isolation, small footprint, easy distribution and fast startup</td>
<td>Low-latency bidirectional communication between devices and the Platform, bulk devices registration and deprovisioning, and near-real-time device monitoring status</td>
<td>Effective handling of numerous types of devices over multiple types of communication protocols to feed data into the cloud or in-house servers</td>
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<tr>
<th>Loose Coupling</th>
<th>Extensibility</th>
<th>Reliability</th>
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<tbody>
<tr>
<td>Modules can be added, removed and updated independently, enabling sizing of the Platform servers from embedded environments up to cloud infrastructures</td>
<td>Zero lock-in; no need to configure and modify the core of the Platform for additional functionalities</td>
<td>Tested for availability under the most traffic-intensive work environments, with fault tolerance, efficient failover and disaster recovery solutions</td>
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Open Web and Connectivity APIs
Complete WolkAbout IoT Platform functionality is exposed through programming interfaces (MQTT and REST APIs).

WolkConnector and WolkGateway SDKs
WolkConnector is an open-source device SDK incorporated into the device firmware to make it compatible with WolkAbout IoT Platform. It is responsible for handling the communications and normalising data. The available implementations include C, C++, Python, MicroPython, Java, Node-RED, Zerynth, Arduino, and more.

WolkGateway supports connecting devices indirectly via gateways. It allows both telemetry ingestion and control messages, as well as data buffering. WolkGateway modules can talk to non-IP-enabled devices via their supported network communication protocols, such as Bluetooth, Z-Wave, Modbus, Profinbus, Profinet, and more.

WolkWeb SDK for Angular
The web SDK enables you to develop your custom web applications on top of our Platform, communicate through our APIs and exploit WolkModular - a reusable module that provides a layout where multiple independent applications can be hosted.

WolkMobile SDKs for Android and iOS
The mobile SDKs contain a library, samples and documentation for developers to build connected mobile applications using WolkAbout IoT Platform.

COMPREHENSIVE USER AND DEVELOPER GUIDES

ACCELERATING DEVELOPMENT WITH OUR TOOLS

WolkEnterprise
A suite of web applications built on top of WolkWeb SDK and combined together according to your needs. Since WolkAbout IoT Platform is a set of modules, WolkEnterprise renders dynamic content provided by the Platform. It uses modern browser concepts, including a sleek, intuitive design and streamlined workflows.

WolkReact Web and Mobile
A suite of web and mobile (iOS and Android) applications that comes out-of-the-box with the Platform licence. It provides much of the functionality needed to jump-start the IoT solution, from device management to data visualisation.

Create your free account at demo.wolkabout.com and try it out!
DIGITALLY TRANSFORMING FACTORIES

WalkAbout IoT Platform is hardware and communication protocol agnostic, so it is easily connected with a variety of sensors, controllers, industrial PCs and legacy control systems. Also, it enables the secure integration of these assets with the company’s operations and business systems. This allows different parts of a factory to communicate with each other in near real-time and makes the entire production process much easier to monitor, control and automate by using mobile or web applications.

Finally, the Platform is fully capable of process data analytics based on real-time performance. An enormous amount of data which is produced and stored on the Platform helps in identifying failures and inefficiencies rapidly. The data also enables clients to have live monitoring of the metrics that matter the most, like OEE, availability, performance and downtime. Applications are numerous, diverse and easily customisable to specific business eco-systems.

Connected Industry Use Cases

- Unified factory-wide interconnectivity
- Production line real-time monitoring and control
- Multi-site remote asset monitoring
- Remote equipment management
- End-to-end operational visibility
- Real-time workforce tracking
- Failure mitigation and safety control
- Material handling automation
REVOLUTIONISING SUPPLY CHAIN MANAGEMENT

WolkAbout IoT Platform offers a scalable architecture for connecting any device or gateway, from RFID tags and BLE beacons to fleet TCUs and sensors on pallets. The Platform can further integrate with the enterprise systems and provide them with accurate machine data. This enables real-time visibility, tracking and condition monitoring of the entire assets, both in-transit and in-field. Clients can leverage the operational and sensor data to manage assets throughout their lifecycle, as well as historical data to forecast requirements. By doing so, they are optimising the performance of their supply chain and reducing operating costs.

Furthermore, clients can connect their fleets to WolkAbout IoT Platform to be informed of the technical conditions of their vehicles and to ensure compliance with the established routes and schedules. In this way, they are optimising working hours and reducing fuel costs, while ensuring the safety of drivers, vehicles and assets.

Digital Supply Chain Use Cases

- Visibility into packing and filling processes
- Fleet location monitoring
- Storage conditions monitoring and control
- Driver behaviour monitoring
- Full asset health and inventory monitoring
- Cold chain monitoring
- Route optimisation
- Real-time cargo tracking and geofencing
POWERING AGRICULTURE WITH THE IOT

WalkAbout IoT Platform delivers all the modules necessary to operate a smart farming system, whether it includes single-purpose connected products, like livestock trackers, or multi-device solutions, like resource mapping. By tying them together, WalkAbout IoT Platform streamlines the development of such systems.

Once a digitally-enabled smart farming solution is in place, farmers can easily track real-time data and make informed decisions. Sensors which are deployed across the farm and connected to WalkAbout IoT Platform give farmers a 24/7 visibility of the soil and crop health. On top of that, they provide insight into the status of the farming equipment, warehouse conditions, livestock behaviour and energy consumption level. This abundance of insightful data helps farmers incorporate highly productive ways to raise livestock and cultivate the soil, thus improving operational efficiency.

Smart Farming Use Cases

- Remote soil quality and crop monitoring
- Remote equipment monitoring
- Livestock tracking and geofencing
- Smart watering, irrigation and fertilisation
- Vertical farms and greenhouse automation system
- Indoor facilities monitoring
- Smart warehousing, logistics and distribution
- Environmental monitoring
CREATING CITIES OF THE FUTURE

Distribution of electricity, water and gas, maintenance of utilities, as well as the deployment of emergency services and traffic management are a few of the many places where a city can leverage digital technologies. WolkAbout IoT Platform meets the main requirements for any smart city application: connect, track, communicate and react, always in real time, through its scalable and reliable architecture.

Remote monitoring and control aside, analysing data from these devices and setting triggers based on real-time values can lead to faster decision making at the system level. For example, smart lighting can be implemented for the efficient use of the city’s electricity. The system can dim the lights, turn them on/off according to the number of people on the road, and take the appropriate actions in case of failure, all without any human intervention.

Finally, a rapid implementation of digital technologies, which is our major advantage, allows smart city integrators to build their applications much faster and customise them or integrate with other systems.

Smart Cities Use Cases

- Smart water and waste management
- Pollution and toxicity remote monitoring
- Smart grid automation
- Intelligent transportation and traffic management
- Smart city lighting
- Smart infrastructure
- Smart public safety systems
WHY DO I(O)T ALONE?

To harness the full power of digital technologies, we believe it is essential to find the right business and technology partners. This is why we are continuously expanding our Partnership network by collaborating with the top industry players with complementary skills and knowledge.

The combination of our product and services with devices and services from our partner companies does not only allow rapid deployment of large-scale, innovative applications, but it also brings forth new ideas and products. Thanks to our synergy, we are paving the way for successful implementation of Industry 4.0 initiatives.

Overview of Partnership Benefits

- Increased market awareness and business network footprint
- Increased visibility through PoCs, co-marketing activities and joint participation in events
- Partner enablement tools, sales aids, WolkAbout marketing and campaign elements
- Joint case studies, white papers, solution brief collaborations
- Access to WolkAbout IoT Platform instance for the non-commercial purposes and PoCs
- Synchronised performance when evaluating potential joint projects
- Company listing on the WolkAbout company page
Expert Consulting Services
Wherever you are on your digital transformation journey, we are here to help you with the industry know-how through consulting services, workshops, and more.

Onboarding Workshop
If you want to get familiar with our product rapidly, we are offering a two-day training (in-person or online) to teach you how to use WolkAbout IoT Platform and share our best practices.

Systems Integration and Customisation Services
Develop and deploy IoT applications quickly with our Customisation team that will adapt them to your needs. Moreover, our Embedded team will help you overcome all challenges regarding hardware design, firmware development and connectivity.

Premium Support
Different Premium support plans provide unmatched around-the-clock assistance and high availability for business-critical environments where an immediate response is required.

Advanced Deployment
Get the expertise and services you need to successfully deploy WolkAbout IoT Platform on-premise. Also, we can perform dedicated installations in your Azure, Google Cloud or AWS environments.

EXPLORING OUR ADDITIONAL OFFERINGS

YOUR DIGITAL TRANSFORMATION PARTNER

Founded in 2013 by a team of veterans in the industrial automation and software development industry, WolkAbout is one of the pioneering Industrial Internet of Things companies.

Our innovative spirit, deep industry insights and unmatched digital technology expertise are the foundation of everything we do. We’ve built a complete IoT AEP platform and user-friendly tools to allow system integrators, product and service providers to develop and rapidly bring industrial-grade digital applications to market.

With 50+ employees and 8 centres globally, WolkAbout is simplifying digital transformation journeys worldwide!

Contact us for more information at info@wolkabout.com
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