IOT PLATFORM DISCONTINUED? 5 USE CASES FOR SUCCESSFUL MIGRATION.

With numerous tech giants discontinuing their IoT products, we are witnessing a consolidation in the IoT market. Companies are feeling uncertain: what comes after SAP, IBM, and Google? What is the right IoT platform strategy?

However, the justified concerns of the industry, as it searches for future-proof solutions to continue or even realize their digital business models, do not always stem from external market changes. Regardless of the decline of major platform providers, many companies are dissatisfied with their IoT solutions – a recurring theme in our conversations. The reasons for this dissatisfaction are diverse.

MIGRATION
OF COMPLETE SYSTEMS
IN LIVE OPERATION

10,000+

asset groups in 6-12 mo.

PROBLEMS WITH IOT PLATFORMS

Small IoT platform specialists generally lack the capability to provide digital ecosystems. Moreover, their platforms are not designed with modularity, which compromises flexibility and undermines the ability to expand for new applications. Consequently, businesses find themselves trapped in a vendor lock-in situation, unable to move forward.

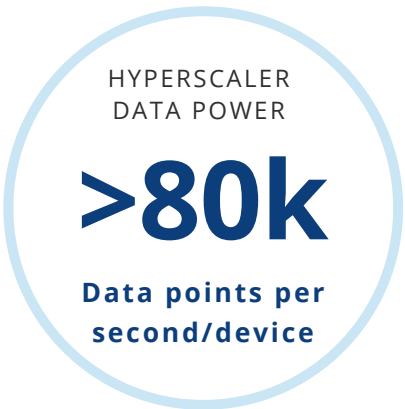
The absence of essential functionalities results in a lack of added value for end customers. Consequently, the digital business case quickly comes to a halt.

Another Achilles' heel often lies in the stability of IoT solutions: Features disappear, functionalities are deficient. When overall performance leaves much to be desired, it is usually due to faulty design or suboptimal monitoring of an IoT platform.

However, the most common complaint from companies revolves around the excessive costs associated with their legacy IoT platforms, which act as operational resource hogs and cause dissatisfaction. Often, this concern arises from the storage and exchange of data, which can quickly consume significant amounts of money in monolithic platforms. This state of affairs is avoidable – we strongly advise embracing change, specifically, migration.

GENERIC CLOUD PLATFORMS GAINING GROUND

From our perspective, less modular, IoT-specific platforms have become obsolete. After two decades in the IoT market landscape, we firmly believe that truly future-proof IoT solutions are those that leverage generic cloud platforms like Microsoft Azure or AWS as their foundation, empowering businesses to build their own custom applications tailored to their unique requirements.



The leading hyperscalers offer highly flexible, secure, and scalable cloud and data services. Azure, in particular, is perfectly suited for processing vast amounts of data. Let's take an example from our IoT practice: A customer's devices transmit 80,000 data points per second. With Azure, these can be effortlessly stored and archived – all at a fraction of the cost compared to our customer's previous provider, who struggled to handle half the data volume and incurred higher expenses.

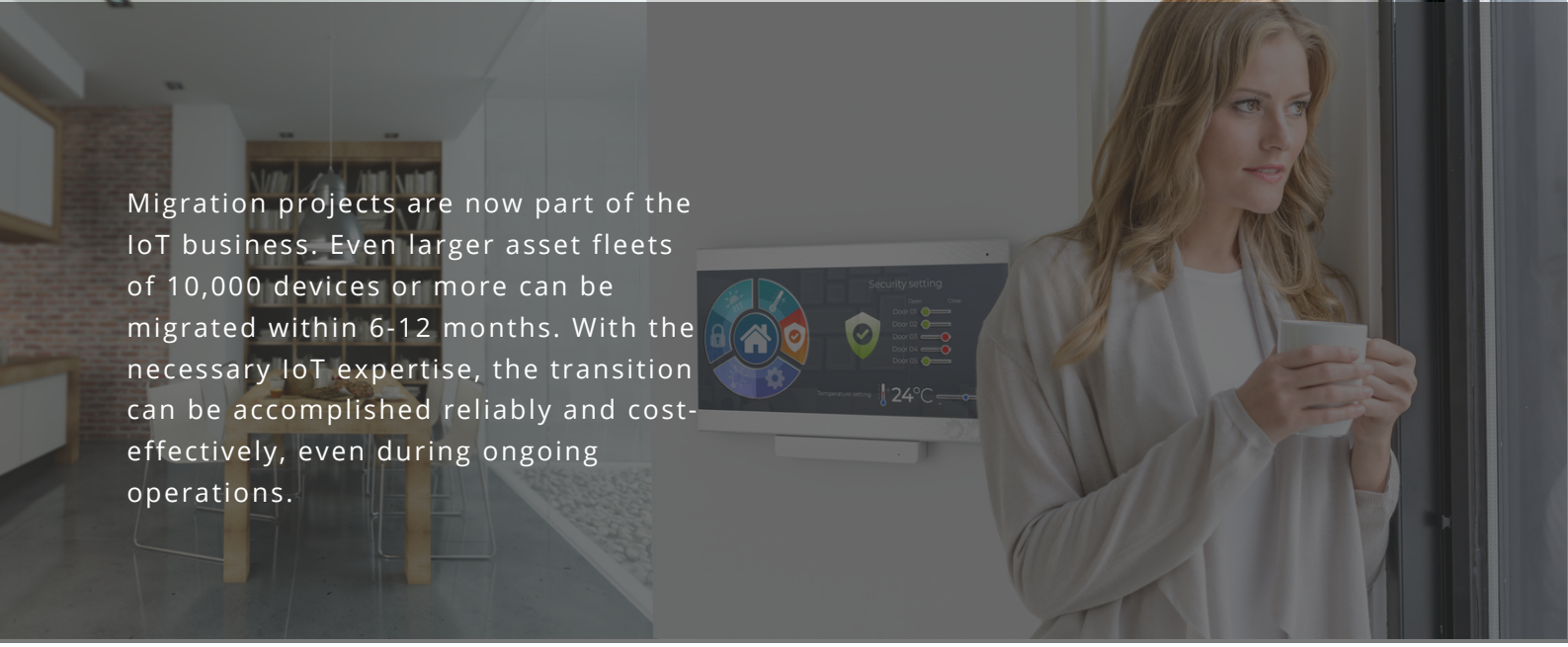
TOP 5 IOT PLATFORM PAINS

- High operating costs
- Instability
- Performance deficiencies
- Insufficient flexibility for new features
- Vendor lock-in preventing customization and expansion

DOMAIN KNOWLEDGE CRUCIAL

What matters in a cloud-based solution is the domain expertise of the IoT specialist, who should be capable of selecting the relevant services from the hyperscalers' service universe that align with the specific use case.

Functions need to be tailored flexibly and individually with a focus on product-market fit. This requires industry-specific knowledge that can only be acquired through implementation projects.



Migration projects are now part of the IoT business. Even larger asset fleets of 10,000 devices or more can be migrated within 6-12 months. With the necessary IoT expertise, the transition can be accomplished reliably and cost-effectively, even during ongoing operations.

5 EXAMPES FOR IOT PLATFORM MIGRATION

Here's an insight into 5 selected use cases from our IoT practice.

HVAC

SAP Leonardo → Microsoft Azure

Challenge: *Our client, an internationally operating heating and ventilation manufacturer, was affected by the discontinuation of SAP Leonardo and needed to quickly transition to a new IoT platform as critical features were no longer available. They chose a cloud solution on Microsoft Azure as their new platform.*

Solution: *Since SAP Leonardo and Azure stacks largely overlap, a data analysis was initially conducted to determine which functions could be adopted and which ones needed to be newly implemented, tailored to the customer's specific requirements. Azure provided the necessary flexibility for implementing all the relevant functionalities, such as multiple hierarchy levels.*

ENERGY

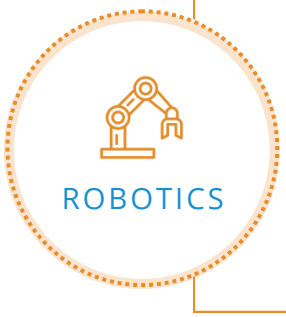
Cumulocity (Software AG) → Microsoft Azure / Amazon Web Services (AWS)

Challenge: *Our client in the energy generation sector found it necessary to transition from the IoT platform Cumulocity to a cloud-based solution that could handle vast amounts of data without limitations while still offering a balanced price-performance ratio.*

Solution: *During the potential assessment ("Potenzialcheck") in the consulting project, it was confirmed that even 80,000 data points per second can be stored and documented without latency or gaps, both with a cloud solution on Azure and AWS, costing only a fraction compared to the previous platform. The final evaluation and decision between the two hyperscalers will be determined through a proof of value.*

“Thanks to Device Insight's IoT expertise combined with cloud-native business applications, we have successfully optimized our solution for cloud operations and dramatically reduced operational costs.”

Robotics manufacturer



AWS-based in-house development → Microsoft Azure

Challenge: *Our client from the robotics industry was in search of a flexible, scalable, and secure IIoT solution that allowed for easy and rapid addition of new applications. At the same time, they aimed to reduce operational costs compared to their existing solution.*

Solution: *The migration to a cloud and IoT-optimized architecture on Azure was completed within 12 months. As a result, the operational platform costs decreased by over 90%.*

Tom Tom → Microsoft Azure

Challenge: *Our client, a mobility specialist, was in search of the right IoT framework for their connected car solution, enabling them to develop new applications and services independently and flexibly. Data sovereignty was a crucial aspect, ensuring that end users had full control over their data.*

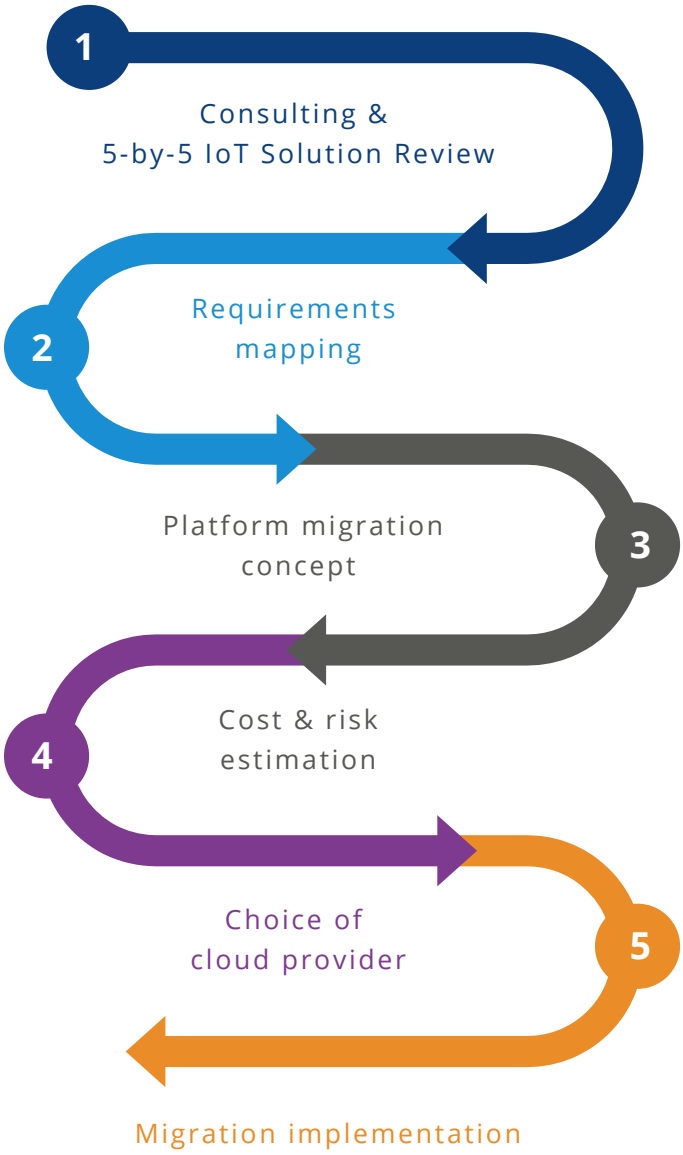
Solution: *The migration from the legacy system to the Azure-based solution took place seamlessly during ongoing operations and was completed in just 12 months.*

On-premises solution → Microsoft Azure

Challenge: *Our client, a renowned elevator manufacturer, opted to transition from their existing on-premises solution due to the inability to meet requirements for remote service updates and configurations, despite costly customizations to the system.*

Solution: *In the proof of concept, both issues were successfully addressed and implemented using standard components of Microsoft Azure. The new cloud-based approach also uncovered additional use cases that are currently being validated.*

THE SETUP: 5 STEPS TO MIGRATION



When implementing a platform migration, we follow a proven 5-step system:

After a multi-stage consulting process within our 5-by-5 IoT Solutions Reviews, we systematically map the requirements and necessary cloud services for the client.

We create a concept for the platform migration from the old to the new system and provide an assessment regarding the expected costs and potential risks.

Subsequently, we conduct an unbiased evaluation to determine whether a cloud architecture on Microsoft Azure or AWS is better suited. In the final step, our IoT experts carry out the migration to the new cloud solution.

CONSULTING INSTEAD OF "CODING DOWN"

It is important to not simply implement project requirements blindly but rather question them critically, in order to establish the foundations for a stable and sustainable implementation early on, and to alert customers to potential cost pitfalls with cloud services.

This foresight is part of our consulting mandate, which we uphold throughout all project phases, from solution design to software development. We bring in our extensive experience, consolidated from hundreds of projects, as well as our blueprints and tools, to provide comprehensive support.

With this commitment, we can not only streamline the daily development work but also meet our own quality standards.

We would be happy to provide advice and support on topics related to the migration of your IoT platform.

About Device Insight
Device Insight supports companies in digitization in the environment of Internet of Things, Industry 4.0, Artificial Intelligence & Data Analytics and has already successfully implemented more than 200 IoT projects. Based on a flexible IoT framework, Device Insight combines ready-to-use IoT building blocks with suitable Cloud Services for customized IoT Solutions. The IoT specialist has received several awards as "Internet of Things (I4.0) Leader Germany". Since 2019, Device Insight is a wholly owned subsidiary of KUKA AG.
www.device-insight.com

YOUR ADVANTAGES

- → Mapping of requirements & consulting on suitable cloud services
- → Platform migration concept incl. cost & risk assessment
- → Migration implementation & performance testing
- → Experience with migration of complete systems & domain know-how
- → Over 80% of clients still trust Device Insight after 3 years

Questions about platform migration?

Martin Dimmler, Head of Solution Strategy & Solution Engineering

TALK TO AN EXPERT