

## Case Study: Deutsche Telekom Selects the Axonize IoT Orchestration Platform

### The Company

Deutsche Telekom is one of the largest telecommunications companies in the world. Headquartered in Germany, the company serves nearly 200 million customers in 50 countries.

### The Challenge

How do you provide IoT services when your customers span dozens of industries, need thousands of sensor types, and each requires a high degree of customization?

That was the challenge Deutsche Telekom (DT) faced in entering the IoT applications market. DT serves its enterprise customers with global broadband connectivity, cloud and data services, security, and more. It quickly realized that providing connectivity for IoT devices is only part of an IoT solution, and therefore began to expand into developing and maintaining IoT applications.

In order to scale application enablement to many customers, DT needed a flexible, secure, and scalable IoT platform. It started developing a platform in-house, taking advantage of its Azure data centers and benefiting from the high degree of inherent security in Azure.

However, DT discovered that development would take years and customer needs were immediate. Therefore, in parallel it began evaluating the IoT platform market. The requirements from external platforms were based on the understanding that for Deutsche Telekom, the IoT market is everywhere. It would need to provide solutions for Smart City, Smart Manufacturing, Smart Building, Smart Home and more.

### Deutsche Telekom examined various platforms' capabilities to:

- Connect devices of various types
- Start small and build fast
- Scale to millions of devices
- Easily add/change sensors, business logic, dashboards, etc
- Orchestrate IoT - Provide and integrate several solutions for each customer
- Create APIs for integrating IoT & IT
- Meet DT's high security standards

### The Big Moment

When the DT team met Axonize, it realized that Axonize shared its vision of IoT platform capabilities, and that the technology was also built on top of the Azure infrastructure. The DT in-house platform would only be able to match Axonize's capabilities in another two years' time.



***"We chose to partner with Axonize to grow our IoT business faster"***

Dr. Ingo Hofacker,  
Senior Vice President,  
Internet-of-Things  
T-Systems, Digital Division

Axonize, however was able to already offer support of any sensor or device, configurable business logic, robust scalability and unique multi-tenancy for IoT applications. This would enable orchestration, as well as management of IoT-applications-as-a-service.

During the evaluation phase, the DT team was blown away by the speed of building an IoT application on Axonize. An initial test app was fully developed on Axonize in just two hours, including device connectivity, business logic, and a dashboard. After a lengthy technical and business evaluation, DT selected Axonize as its platform of choice.

### **DT's Connected Things Hub (CTH)**

Currently DT uses Axonize as the infrastructure for its Connected Things Hub, (CTH). The hub is used to simplify IoT deployments for its customers by allowing them to connect any device in any protocol, manage and store the data, and to develop any application on top of that data. It includes APIs for connectivity to IT systems. Axonize's unique multi-tenant hierarchy capabilities allow CTH users to design granular access permissions by department, geography, etc, as well as to orchestrate several applications for a single customer.

Most importantly, DT is able to offer its customers a rapid prototyping cycle, where one can go from idea to a virtual prototype within hours to help evaluate an idea. Moving a virtual device's settings to a real device is then instantaneous. Customers can start small, identify costs and benefits of IoT early on, and make sure they're investing in ROI-positive projects. Of course, the flexibility of the Connected Things Hub ensures they can scale their digitalization efforts at any point in time.

### **Current Status of Deployment**

The Connected Things Hub is currently open for customer deployments. *"Axonize has great functionality. It's ready to set up from the get-go, easily and flexibly,"* says Ralf Konrad, IoT Product Manager, T-Systems.

Demand for DT's Connected Things Hub is high, and many customers have already started implementing prototypes and initial deployment cycle, with plans to fully digitize their businesses in the near future.

