



complement
the digital enablers

Digital Transformation & Agile Innovation for device manufacturers

complement supports companies in realizing their potentials in digitization. In co-innovation with our customers we create new products and business models. We mix coaching, solutions and actual implementation to create added value through software, data and connectivity. The combination of technology expertise and agile methodologies enables complement to perfectly match industry needs.



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ICS – „IoT Core Services“

IoT Platform for smart devices

„Integrating devices into end-to-end solutions to harness the Internet of Things“

Device manufacturers need to transform themselves to become suppliers of „**smart products**“ and digital services to spice up their value proposition.

For this they require a global platform for device connectivity to create the **internet of their things** for their customers.

→ **IoT-Core-Services** is targeted to provide a scalable IoT base platform for the digital service ecosystem of device manufacturers and their value chain.

Quick Facts - IoT-Core-Services (ICS)



Scalable IoT platform for connecting to digital services



Cloud-based Microservices architecture



Utilizes two German data centers and more than 80 other Microsoft Azure DCs globally



Strict separation of IoT infrastructure and customer solution



OEMs and Device Manufacturers operate globally...
... so they need a global IoT Infrastructure ...



OEMs and Device Manufacturers operate globally...
... so they need a global IoT Infrastructure ...

... even if their Digital Services
just live in one cloud data center

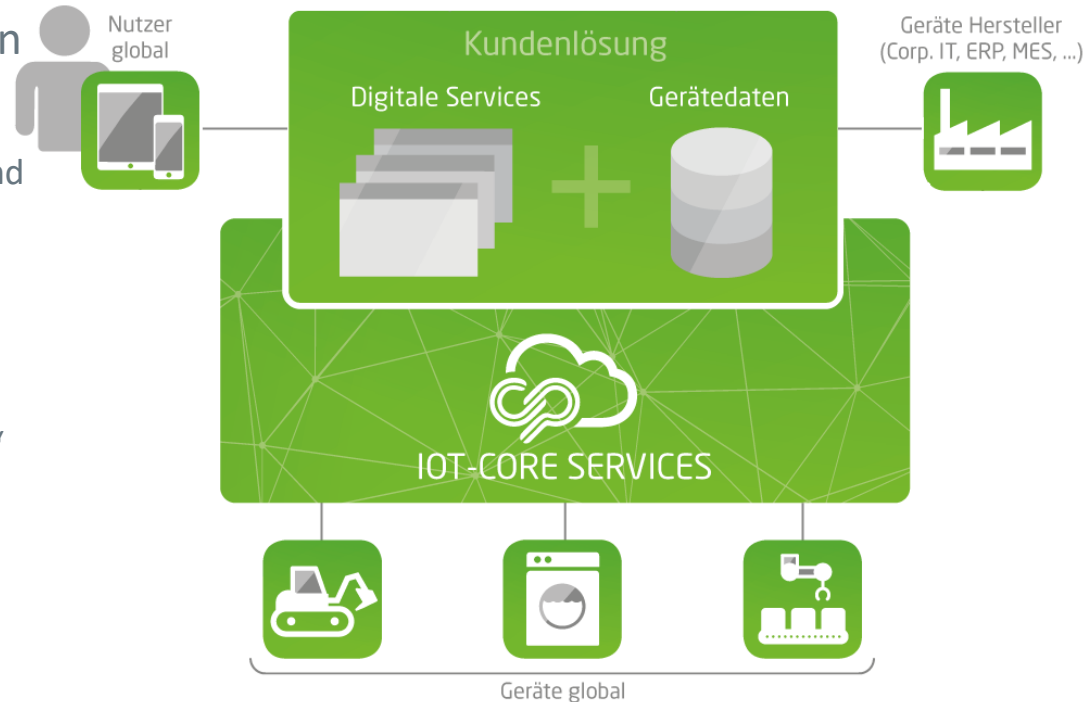
Concept IoT-Core-Services (ICS)

Solution for digital services based on smart connected products

- Co-Engineered by device manufacturer and complement

ICS acting as a managed IoT Infrastructure with „Global Backbone of IoT endpoints“

- SaaS by complement
- Operated 365 * 24 * 7



Value Proposition for IoT Core Services



High-End IoT: global, scalable, fail-safe infrastructure for the future Cloud-Edge-Device Continuum



Time to Market – Rapidly start your IoT business without large and time-consuming ramp-up



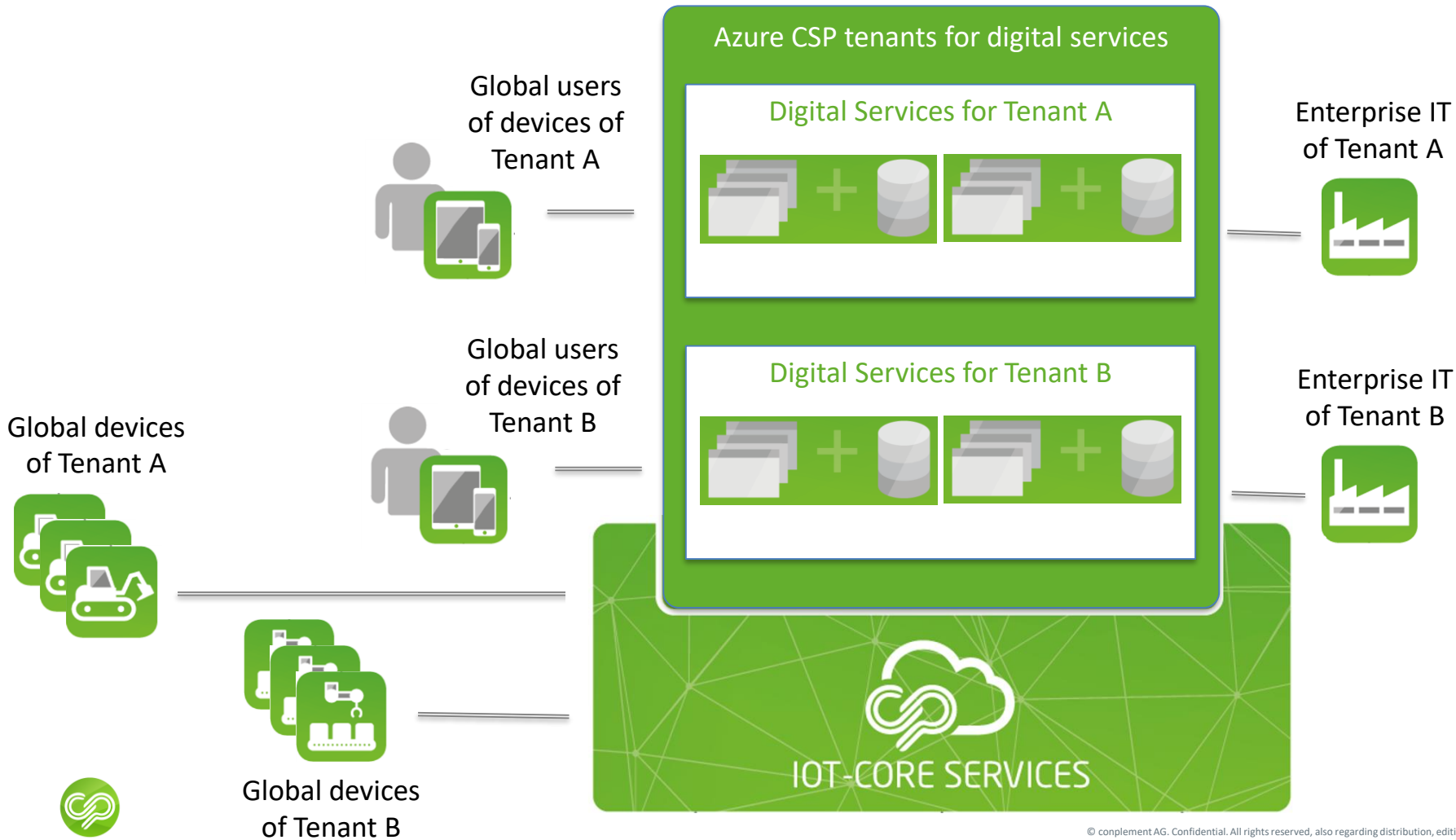
We operate your global IoT platform „365 / 24 / 7“ with high availability and fail-safe



No large invest up-front for infrastructure – grow your IoT services with just „pay-as-you-go“ cost model



Secure and GDPR ready – built on proven Microsoft Azure IoT services

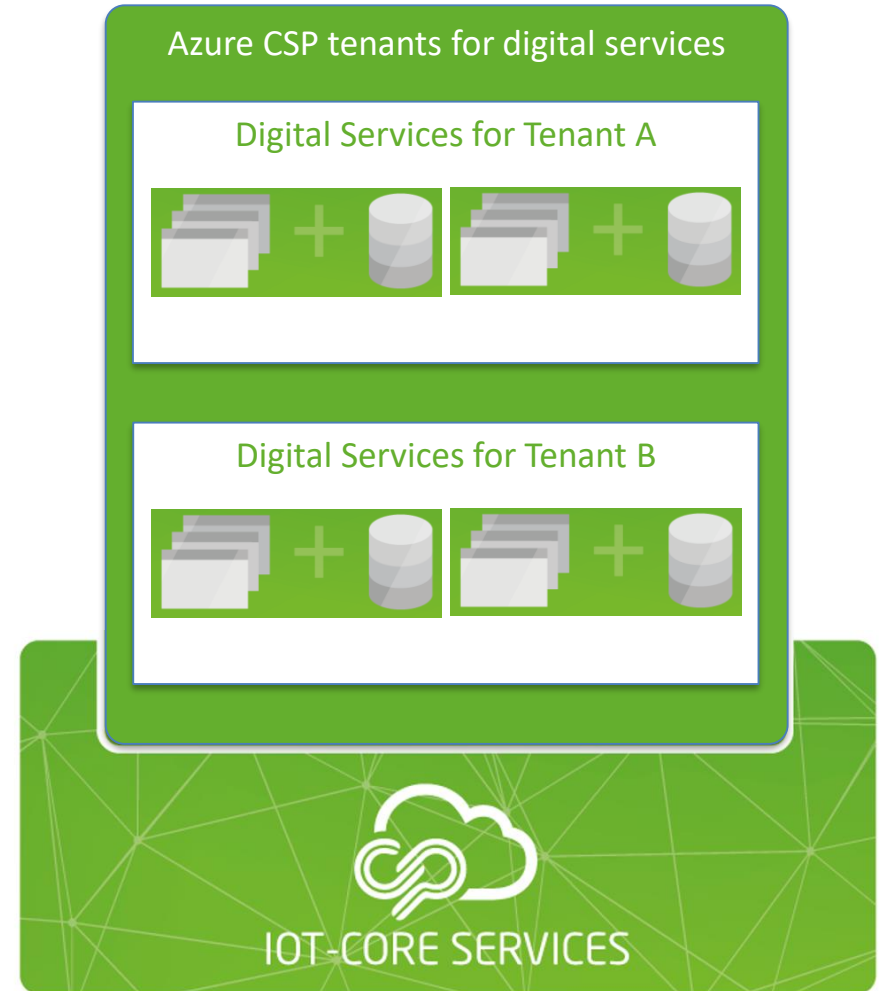


ICS Core Ops:

ICS Core Ops is our implementation of SRE principles for Digital Services operated for multiple tenants based on Kubernetes on Azure.

ICS Core Ops provides a self-healing CaaS & serverless compute environment for stateless workloads based on Azure PaaS and IaaS services.

- Secure-by-default Kubernetes cluster (AKS)
- Provides blueprints for common scenarios based on „12 factor apps“
- Based on proven common architecture patterns
- Production-ready disaster recovery and full-featured Day0-Deployments built-in
- Compensated current shortcomings with getting solutions with MicroService based architectures production-ready

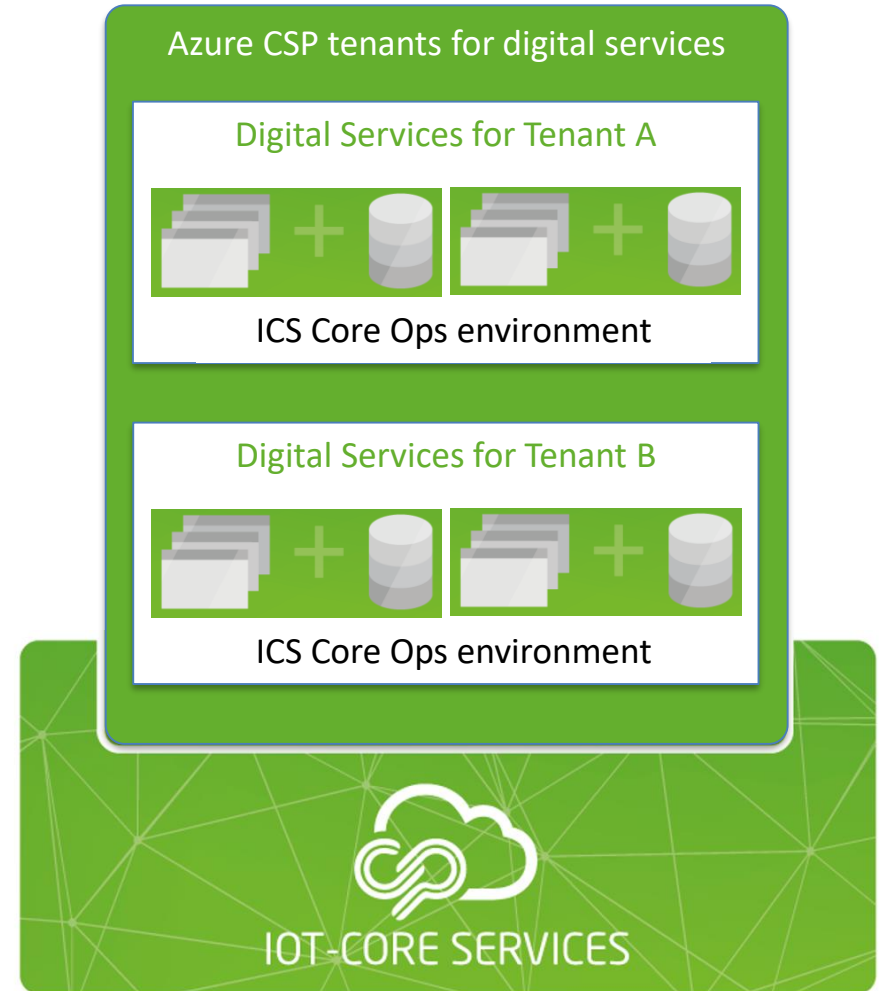


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ICS Core Ops provides a self-healing CaaS & serverless compute environment for stateless workloads based on Azure PaaS and IaaS services.

Services deployed and orchestrated:

- Azure Active Directory
- Azure Kubernetes Services
- Azure Container Registry
- Application Gateway
- Storage Account
- DNS Zone + DNS Manager
- TLS Manager
- Virtual Network (>= 3 Subnets)
- Prometheus DB
- EFK Stack (ElasticSearch, FluentD, Kibana)
- Ingress Controllers (Nginx on edge)
- Alert Manager
- ...



Wir machen Digitalisierung nutzbar.

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