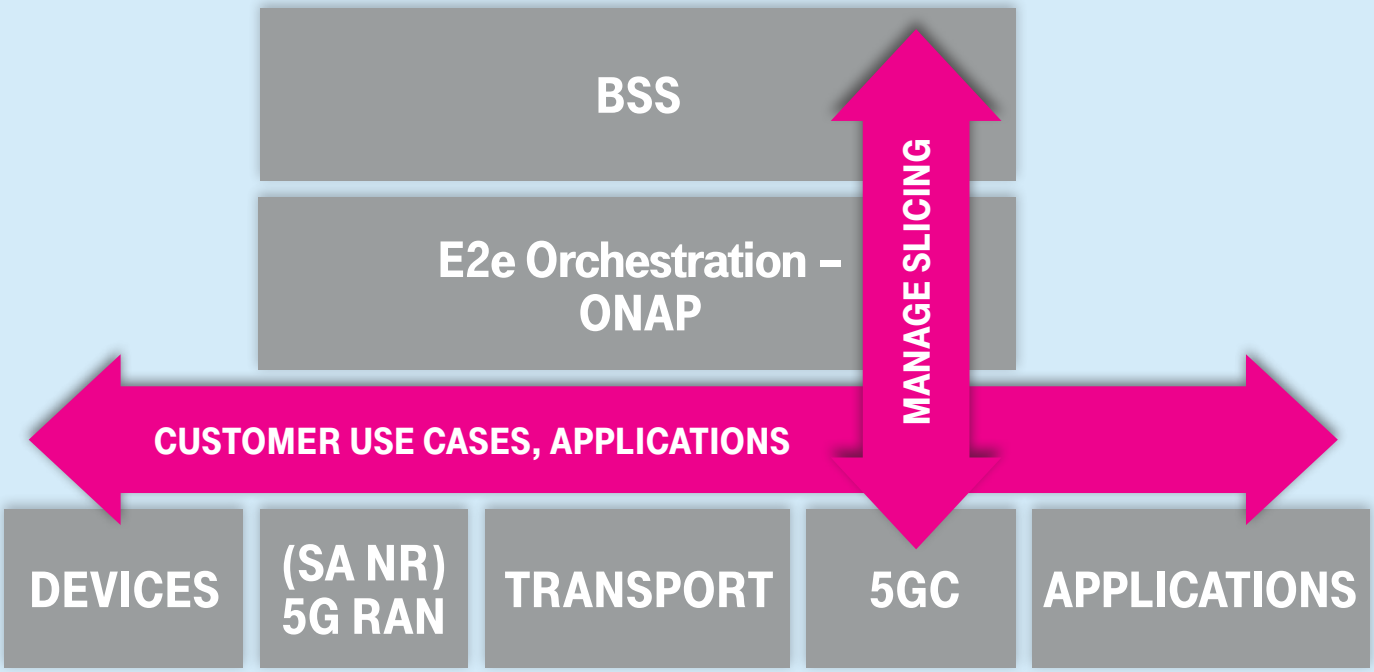
5G NETWORK SLICING
END-TO-END NETWORK SLICING FOR TAILORED ENTERPRISE NETWORKS

Customer behavior and expectations evolve. They expect fully digital and on-demand services adapted to their needs. Imagine a gamer ordering the network type they need – with just a click – to guarantee a consistent cloud gaming experience. Or an industry customer who operates a fleet of automated guided vehicles (AGVs) on the production floor. 5G end-to-network slicing is the future proposition to enable these services for Deutsche Telekom customers.

KEY FACTS:

- End-to-end slicing is a key future proposition for customized enterprise networks
- The enhanced Mobile Broadband (eMBB) slice type meets the requirements of the industry AGV case
- Network slicing integrates Standalone 5G NR (New Radio) and 5G Core
- Fully automated end-to-end slicing guarantees service quality
- ONAP provides the open-source platform for end-to-end orchestration
- Achieved in unique multi-vendor trial setup for device to 5G core

END-TO-END 5G NETWORK SLICING TRIAL – BUILDING BLOCKS



Network slicing is among the most important architectural advantages foreseen in 5G. It is about virtually splitting network resources and paths into so-called network slices. Different service characteristics and quality of service (QoS) parameters can then be provided per slice according to customer needs. This is a virtual split across the entire network, ranging from the device across the radio, the transport, the core, and the underlying infrastructure. So it provides a high degree of flexibility for operators to tailor services and maximize the use of resources. Full end-to-end network slicing requires the deployment of the so-called 5G Standalone New Radio (SA NR) and the 5G Core (5GC) and full automation to guarantee service quality for enterprise customers.

Network slicing promises a completely new way for operators to offer services. They can move from a one-size-fits-all approach to selling customized services with certain characteristics and quality guarantees. Deutsche Telekom initiated an end-to-end 5G slicing trial with partners to demonstrate the feasibility of the concept within the industry, and also to prove its value as a business proposition for its enterprise customers. Deutsche Telekom uniquely implements the trial in a multi-vendor environment with integrated 5G SA NR and 5G Core from two separate vendors. Furthermore, it uses a newly developed Business Support System (BSS) complemented with Open Networking Automation Platform (ONAP) open source for end-to-end orchestration.

SHOWCASING THE 5G NETWORK SLICING CONCEPT

A Deutsche Telekom showcase derives from the unique multi-vendor 5G Slicing Trial. It demonstrates the slicing concept based on an enhanced Mobile Broadband (eMBB) slice type designed to meet the business requirements of an industry AGV use case.

Deutsche Telekom takes its visitors on a customer journey. The journey starts with the selection of either basic slices or more advanced slices to meet more stringent requirements, such as a higher throughput for a more demanding AGV case.

Slice assurance is a critical feature for industry customers. Deutsche Telekom shows how the customer can monitor slice performance through a dashboard. The journey also visualizes how slice assurance orchestrates the resources in the Deutsche Telekom network to guarantee service quality for the selected customer slice.

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