



## Telefónica Germany Modernizes Transport Network for 5G with Infinera DRX Series

### A Networking Case Study

Committed to an open networking strategy as a lever for its network transformation, Telefónica Deutschland (Telefónica Germany) selected the Infinera DRX Series to modernize its nationwide mobile transport network. The Infinera DRX Series, a disaggregated router family that combines a carrier-class white box portfolio with the field-proven and scalable Infinera Converged Network Operating System (CNOS) software, enables Telefónica Germany to prepare its nationwide mobile transport network for 5G mobile services with scale, efficiency, and automation.

Telefónica Germany offers mobile and fixed services for private and business customers, as well as innovative digital products and services including the Internet of Things and data analytics. In the mobile segment alone, Telefónica Germany is responsible for more than 45 million connections – no other network operator connects more people in Germany. With Infinera’s solution, Telefónica Germany continues to scale and improve its transport network to provide its customers with enhanced experience and lay the foundation for emerging 5G services.



#### Customer

Telefónica Germany

#### Challenge

To cost-efficiently scale nationwide mobile transport network for 5G mobile services with scale, efficiency, and automation

#### Solution

Infinera DRX Series of programmable carrier-class white box routers

#### Results

Improves transport network to provide Telefónica Germany customers with enhanced experience and lay the foundation for emerging 5G services

*“Telefónica Deutschland is on the forefront of innovation and expansion to ensure we provide our customers with the best experience and meet them where they live, work, and move. As we continue to improve network experiences for our customers now and into the future, we rely on solutions that are scalable and automated, and the Infinera DRX Series will be a great addition to our future 5G network environment.”*

– Telefónica Deutschland Chief Technology Officer

# THE DRX SERIES OF DISAGGREGATED ROUTER PLATFORMS

The Infinera DRX Series is designed to enable mobile operators to seamlessly evolve their networks to support 4G and 5G services. Telefónica Germany has deployed multiple DRX Series platforms, including configurations that support 300 gigabits per second (300G) and 900G. The DRX Series in combination with the CNOS operating system enables a unique stacking capability that provides simple node expansion and increased resiliency. Multiple DRX Series elements can be connected to double or even triple node capacity while operating as a single routing entity.

This deployment, which also involved collaboration with the Telecom Infra Project (TIP) and Edgecore Networks, marks the industry's first large-scale commercial deployment of Disaggregated Cell Site Gateway (DCSG) technology. The DCSG solution is a white box cell site gateway device based on an open and disaggregated architecture for existing 3G, 4G, and future 5G mobile infrastructures. Infinera and Edgecore Networks collaborated to pioneer and deploy white box solutions to TIP's DCSG specifications, demonstrating the benefits of disaggregation and open networking and offering operators choice and flexibility in high-performance network applications.

The Infinera CNOS, when combined with Infinera or third-party hardware, provides mobile operators with mature IP/MPLS functionality for their cell site gateways. Additionally, the combined CNOS and carrier-class hardware provide a unique stacking capability that delivers simple node expansion and increased resiliency. Multiple gateway elements can be connected to double node capacity while operating as a single routing entity.

## BENEFITS OF THE DRX SERIES

The DRX Series portfolio of white box switches/routers ranging from 300 Gb/s to 9.6 terabits per second leverages standard merchant silicon to provide a cost-effective, software-centric, and flexible solution for network routing. With carrier-class features including hardware redundancy, advanced synchronization, multi-unit scaling, and temperature hardening, the DRX enables network operators to realize the operational benefit of its open networking strategy.

### DRX-30 Single Unit Node



### DRX-90 Multi-unit Node



Unique two/three-unit stacking

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