

Dr. Andreas Müller

Senior Expert and Project Manager

Bosch

Network Slicing for Industry 4.0

– Expectations and Opportunities



Dr. Andreas Mueller
Robert Bosch GmbH



BOSCH

Network Slicing for Industry 4.0 - Expectations and Opportunities

The Role of 5G for Industry 4.0

Industry 4.0



- Increase the **flexibility, versatility, productivity, resource efficiency & usability** of industrial production
- **Connectivity as a key enabler** for cyber-physical production systems

Future Industrial Connectivity Infrastructures

5G



- Strong focus on **machine-type communication** and the IoT
- **URLLC¹ + mMTC²** enable completely new applications, also in industry
- 5G is **more than wireless**

Enabler for new applications & use cases and for lifting Industry 4.0 to the next level



(Mobile) Robots



Factory Automation



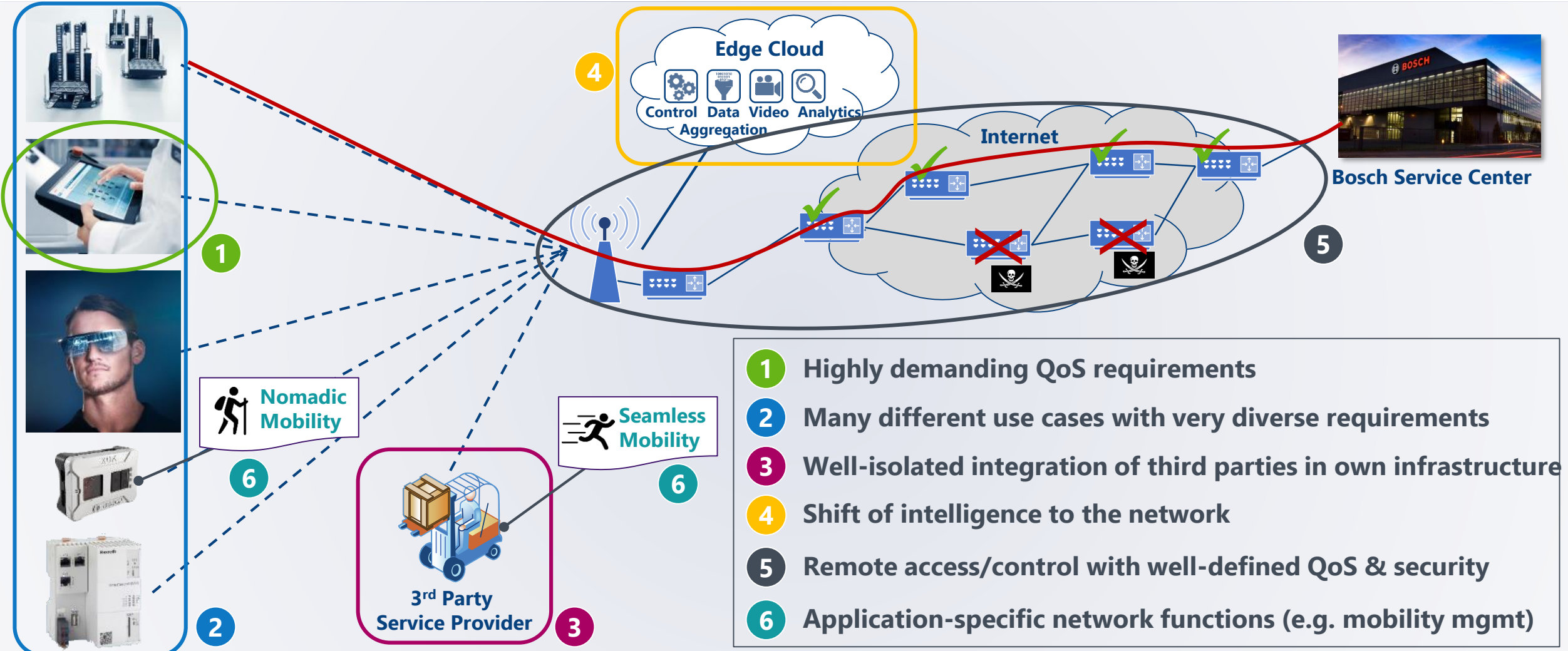
New HMIs³



Logistics

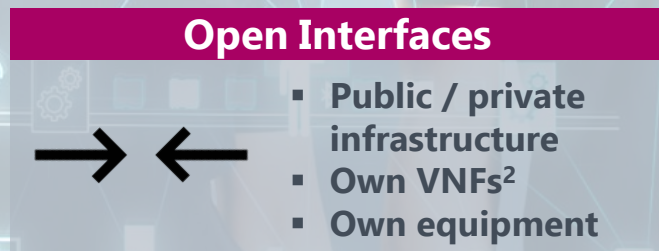
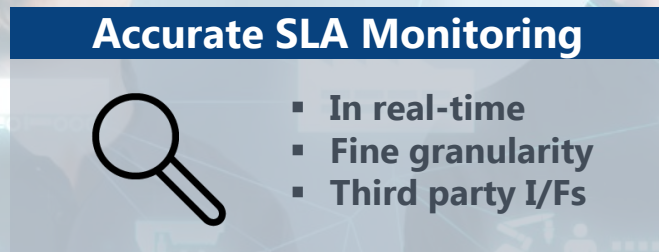
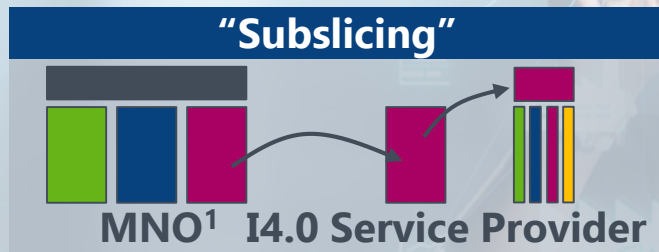
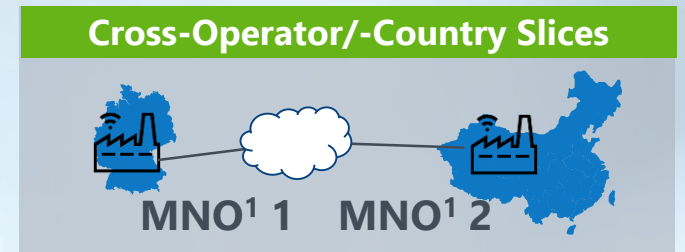
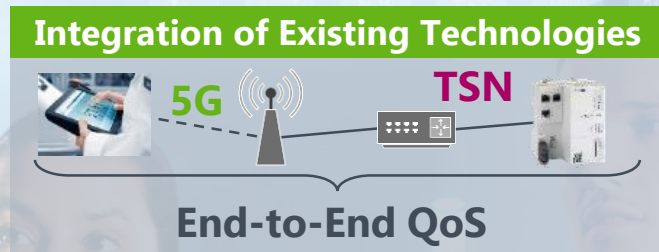
Network Slicing for Industry 4.0 - Expectations and Opportunities

Why Network Slicing Is Needed (Selection)



Network Slicing for Industry 4.0 - Expectations and Opportunities

Expectations / Requirements from the I4.0 Perspective



Network Slicing for Industry 4.0 - Expectations and Opportunities

Take-Away Messages

- 1 **5G may be disruptive for the manufacturing industry**
- 2 **Many different use cases w/ highly diverse requirements**
- 3 **Network slicing as a key enabler to support Industry 4.0**
- 4 **Many industrial requirements not addressed yet**
- 5 **Close interaction of the whole ecosystem needed**
- 6 **Industry 4.0 may become THE killer application for 5G 😊**

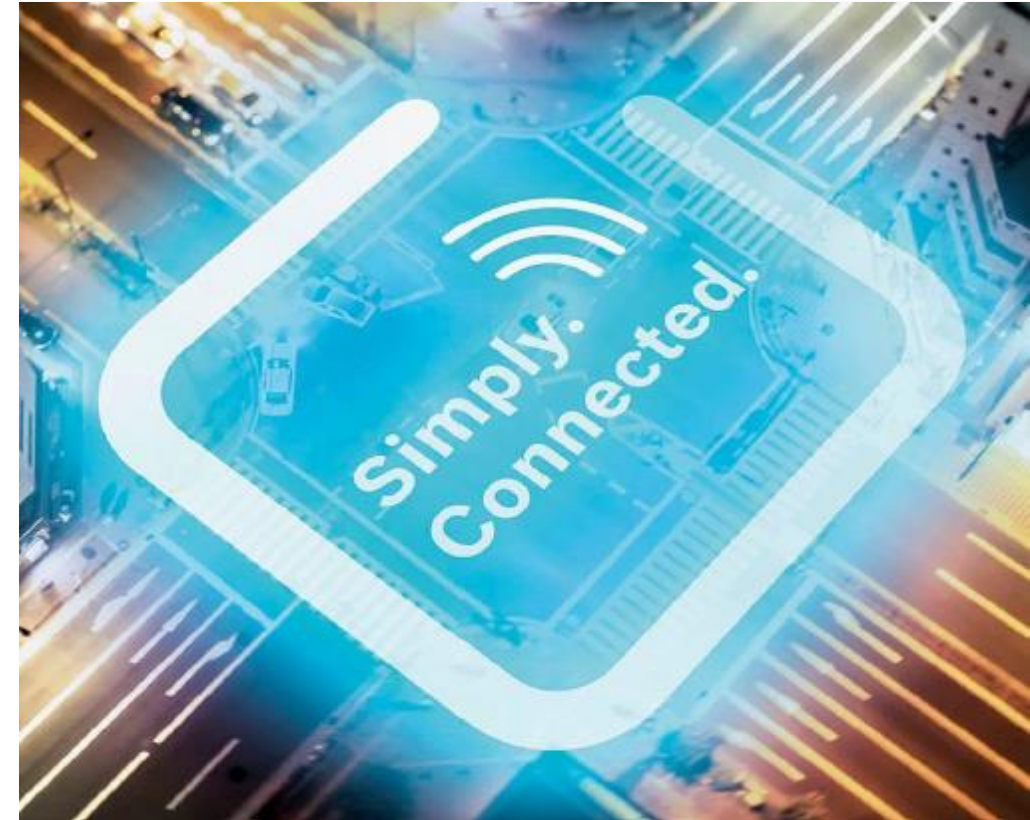


Image: BOSCH

Thank you



Dipl.-Ing., M.Sc.
Dr.-Ing. Andreas Müller

Corporate Sector Research and Advance Engineering
Communication and Network Technology (CR/AEX1)

andreas.mueller21@de.bosch.com
Tel.: +49-711-811-20836