



CampusOS // 21. & 22. Juni 2022

Satelliten-Workshop

Block 2 – Betreibermodelle & Wertschöpfungsketten

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DLR

Gefördert durch:



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Operator Models & Value Chains: Technical View

- Campus network for larger enterprise
 - Own IT department – should be able to manage 5G campus network
 - Certain requirements with respect to auto-management, resource orchestration etc.
 - Middleware for application integration: needs to be open, sufficiently user-friendly for onboarding new applications etc.
- User groups
 - Company staff
 - Visitors (contractors, customers etc.)
 - Other user groups
- Multi-site
 - Replicated networks at multiple sites
 - Roaming
 - User-identity independent of network access

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Operator Models & Value Chains: Economics View

- Campus network could be turn-key application
 - Under control of enterprise
 - Like WiFi today...
- Could also think of third-party operator
 - Risk: cost explosion through rent-seeking business models...
- Open interfaces
 - ORAN: should enable disaggregation and interoperability: need to assess performance, general feasibility and ORAN future during course of the project
 - Other interfaces/platforms that could be standardized for disaggregation and operator independence:
 - Orchestrators (REST APIs etc.)
 - In-Network Computing platforms and modern protocols

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Ideas for Future Work and Challenges

- Potentially interesting: self-operated 5G campus network
 - Auto-configuration
 - Auto-optimization
 - Still some flexibility with respect to extensions etc.
 - Consider in-network computing and integration into enterprise network
 - Relatively easy for small deployments – more challenging for larger ones
- Potential follow-up idea: community 5G networks
 - Toolkit for communities
 - Work with whatever backhaul available (Starlink etc).