Slicing & IOT

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Use Cases

- Mass deployment of sensors
- Critical services
- Control of remote equipment
- Factories
- Networked traffic systems
Useful Access Network Properties from an Internet of Things Perspective

- Separation
- Additional control
- Scaling up or down
- Flexibility
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- Traffic separation
- Resource guarantees
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- E.g., for low-latency cases
- Topology control, e.g., mobility endpoint
- Detnet-style reservations
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- E.g., run your own 5G network inside a factory
Useful Access Network Properties from an Internet of Things Perspective

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- Flexibility
  - Tailor services to the situation
  - Allow evolution (features, sw)

- Traffic separation
  - Resource guarantees

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  - Topology control, e.g., mobility endpoint
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  - E.g., run your own 5G network inside a factory
What is Network Slicing?

• One possible minimal definition:

• “Network slicing is network management pertaining to treating different traffic categories in separate virtual networks, with independent resource, technology, and topology choices”
Observations

• What’s needed? Much is doable with existing tools: network virtualisation, management tools, SDN, service chaining, …

• Are there missing ones? Unclear… can always do more

• Learn to walk before running (short timelines, incremental process?)

• Be careful with assumptions of silos… difficulties of deploying QoS… and keep a system perspective (see draft-arkko-arch-low-latency)