

Precise Transport Networking

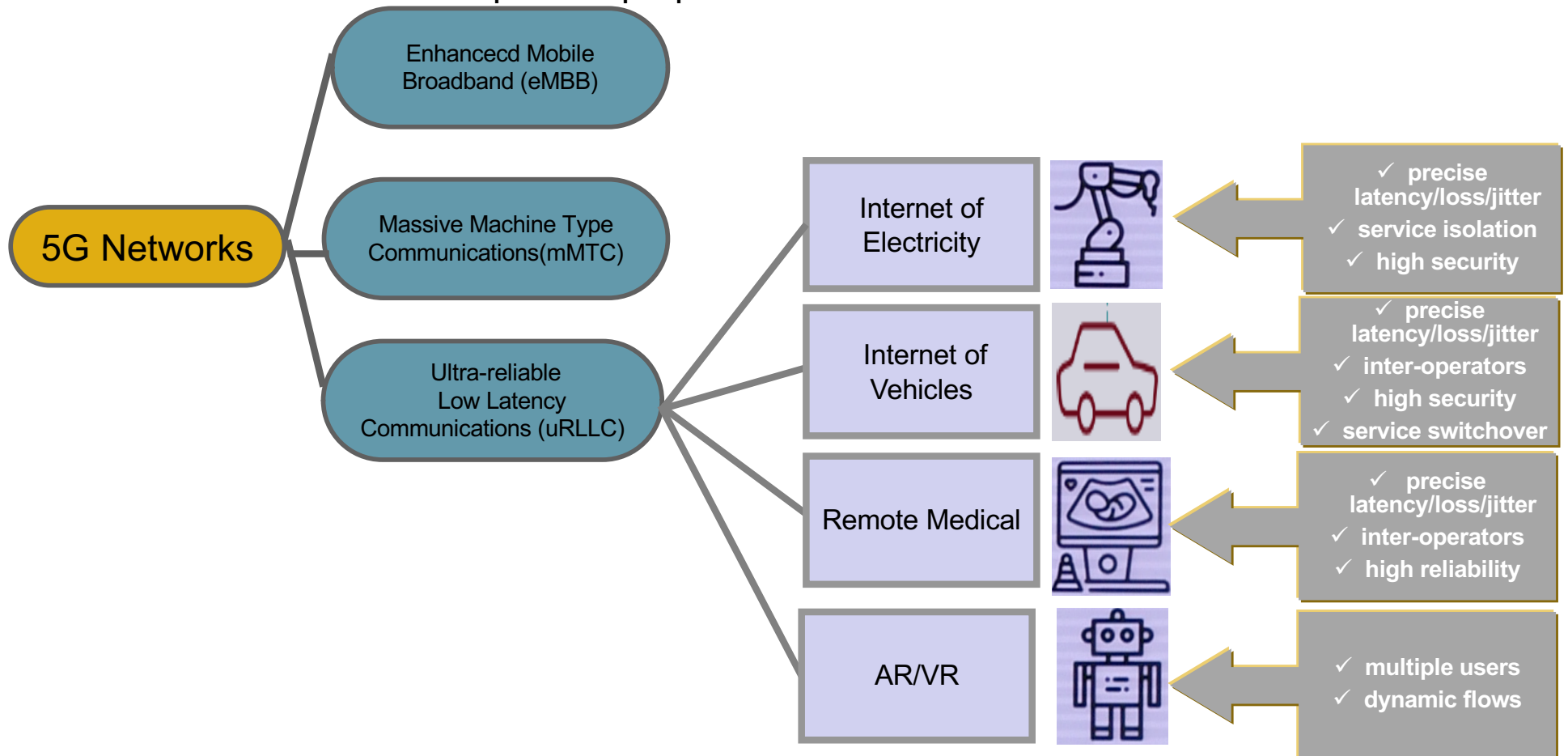
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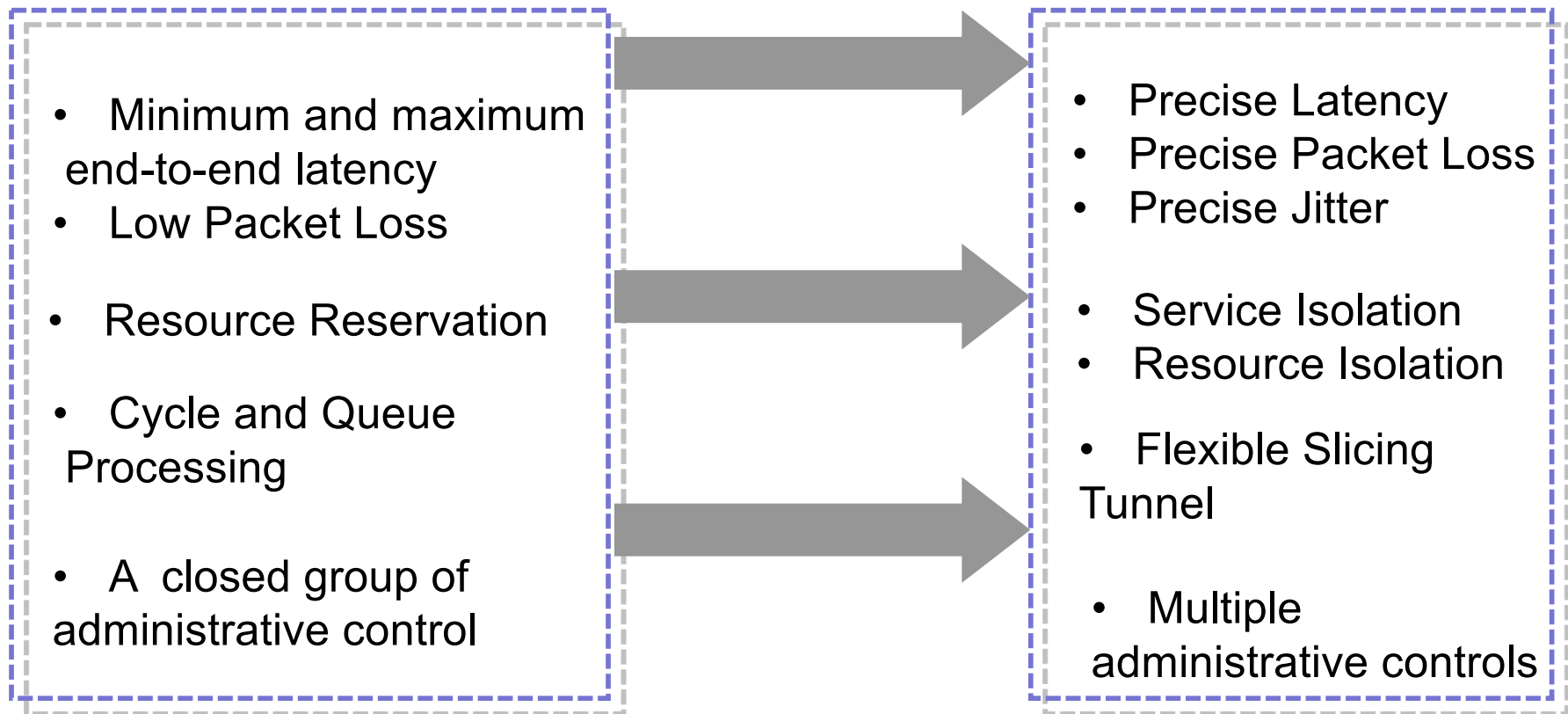
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Motivation

- Use cases for 5G Networks:
 - The uRLLC services cover the use cases such as Internet of Electricity, Intelligent factory, internet of Vehicles, Industry Automation and other industrial internet scenarios, which is the key demand of vertical domains. These uRLLC services demand SLA guarantees such as latency, loss and jitter and other deterministic and precise properties.



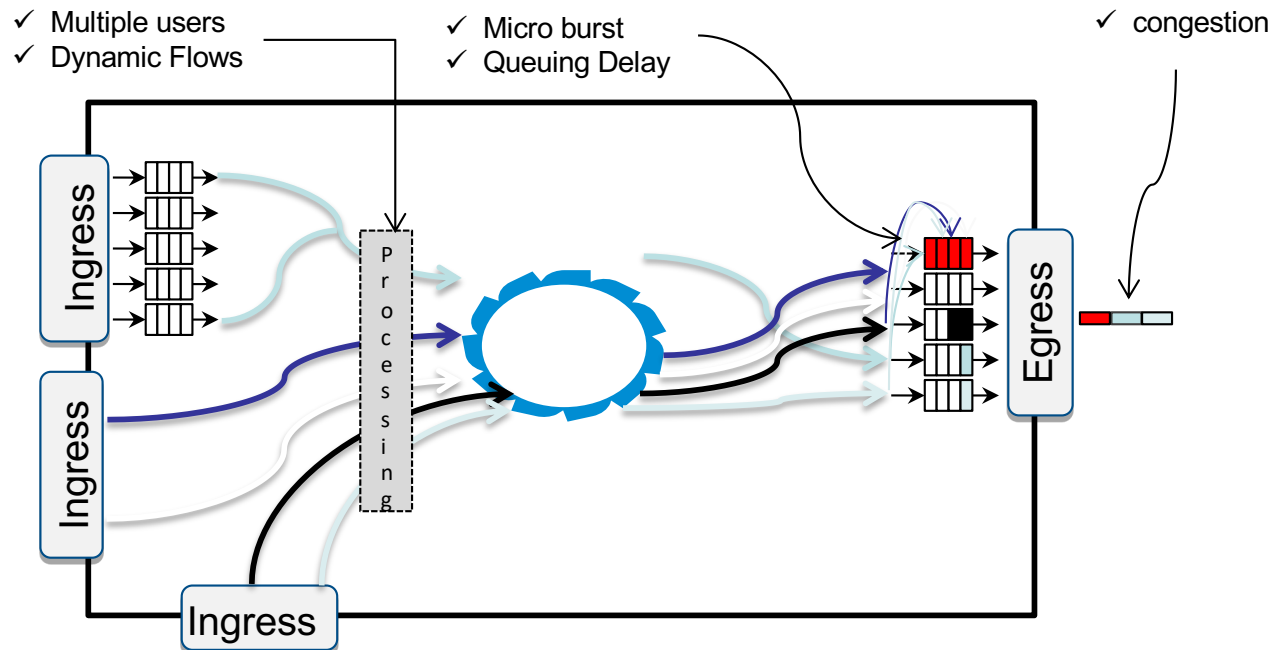
From Deterministic to Precise Network



- ✓ The existing deterministic technologies are facing many controversial issues.
- ✓ And besides precise latency, jitter, and packet loss, more other precise and deterministic properties and performances should be provided such as flexible resource allocation and service isolation and so on.

Problem Statements

- Problem with Traffic Scheduling Mechanisms
- Problem with Long-distance Transmission Delay and Jitter
- Problem with Dynamic Flows for Multiple Users
- Problem with Service Isolation
- Problem with Precise Resource Allocation

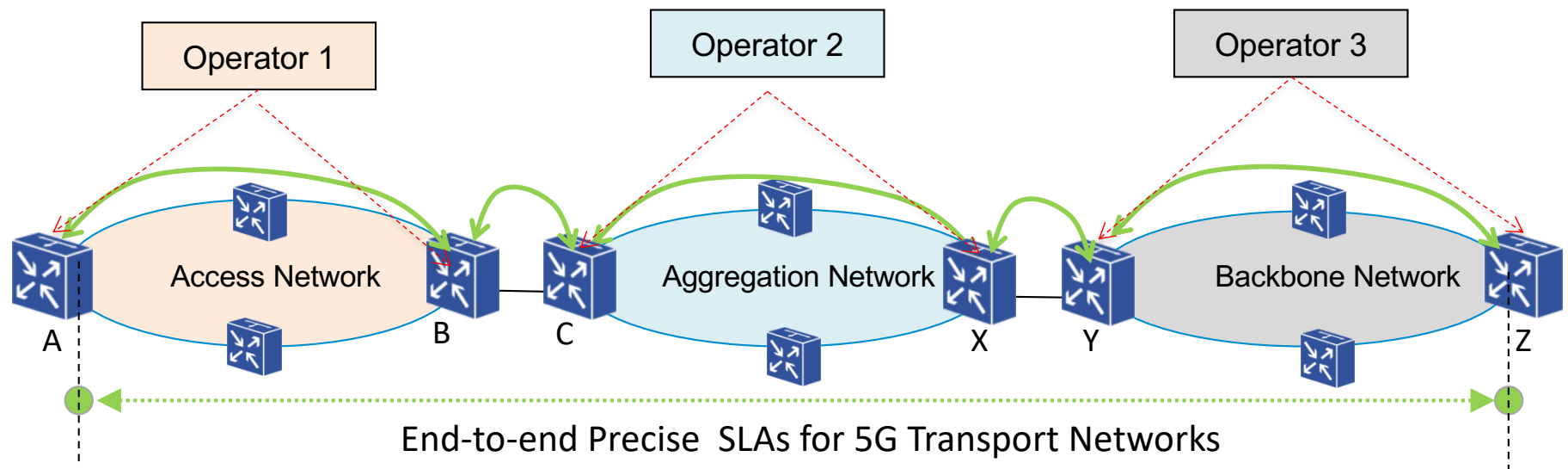


Requirements

- Precise Latency, Jitter, and Packet Loss
- Precise and Flexible Resource Allocation
- Precise Service Isolation
- High Reliability and Precise OAM
- High Security
- Multiple Operators and Administrative Control domains
- Dynamic Flows from Multiple Users

Precise Transport Networking

- Precise Transport Networking
 - to provide precise SLA guarantees such as latency, jitter, packet loss rate, reliability, and precise control such as flexible resource allocation and service isolation and more other precise services intelligently and dynamically.
- Precise SLAs and Controls for Transport Networks including the following scenarios:
 - Single operator for a single administrative control
 - Multiple operators for a closed group of administrative control
 - Multiple operators for multiple administrative controls



Next steps

- Framework and Solutions for Precise Transport Networking.
- Your comments, suggestions, questions are always welcome and greatly appreciated