

IOS

Informed Orchestration

for a better Slicing

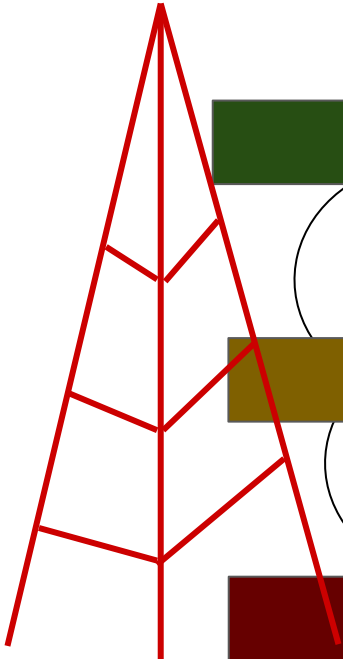
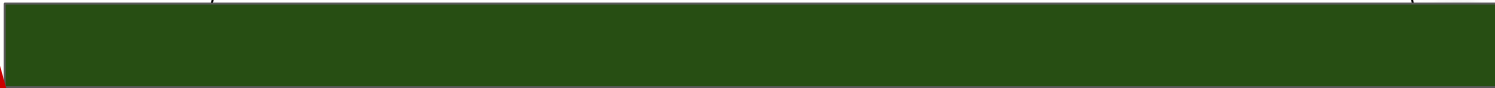
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[**simula** . research laboratory]
- *by thinking constantly about it*



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Automatically steer available radio and network resources in a multi-slice network

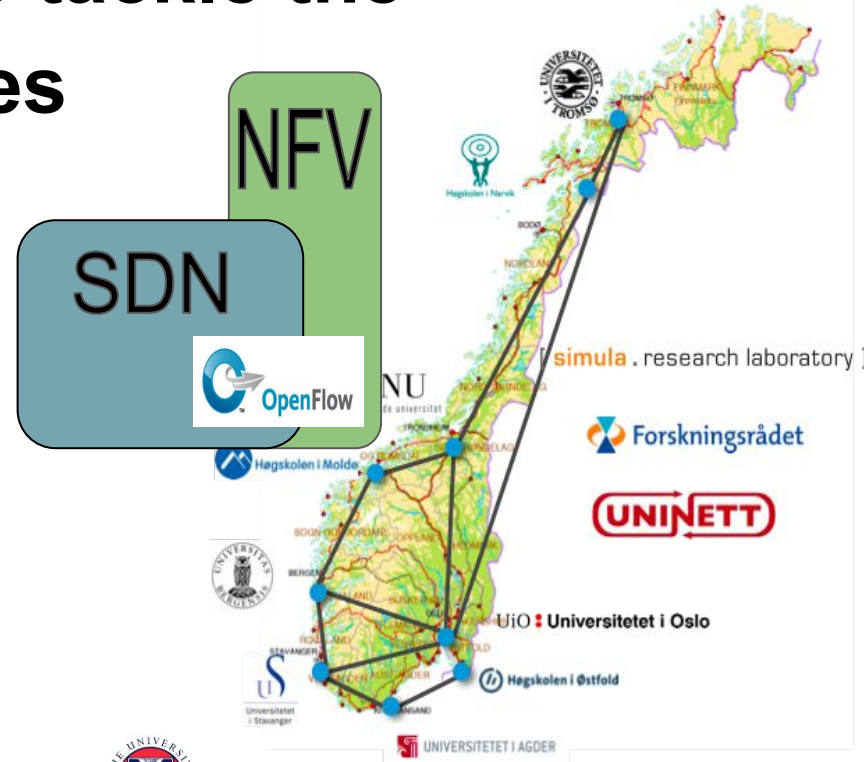


Towards a flexible next-generation multi-service mobile network architecture

- Evolve the current architecture to allow for a more flexible routing and spanning multiple RATs
- Build a management plane for a multi-slice environment that both manages the RAN and the core while also accommodating network/RAN sharing
- The management plane should be capable of monitoring per slice QoS/QoE and provide soft/hard guarantees
- Integrating end-to-end measurement infrastructure and crowd-sourced data into the decisions of individual orchestrators and the management plane as a whole
- Devise slice-aware medium aware scheduling and RAN slice selection algorithms

Experimental approach to tackle the aforementioned challenges

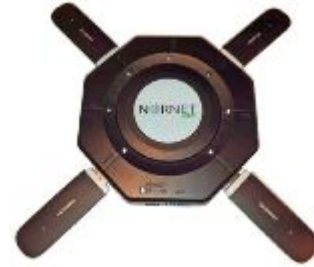
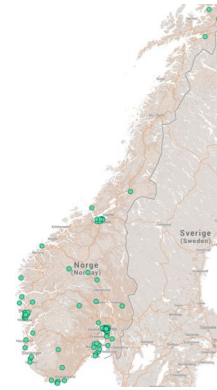
- transform NNC into a distributed cloud with each site resembling a mobile packet core instantiation
- A moderate scale and flexible mobile network testbed under deployment that is built with open- source software and software defined radio platforms



Simula Research Laboratory

Centre for Resilient Networks & Applications (CRNA)

- base funding: Norway's ministry of Transport & Comms
- operate NorNet Edge and NorNet Core
- MONROE: H2020 Mobile BB measurement project



People

- **Dr. Ahmed Elmokashfi**, Senior Research Scientist (manages NorNet)
- **Dr. Thomas Dreibholz**, Senior Research Engineer (NorNet Core)
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