Celtic-Plus Proposers Day
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Decentralised roaming

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Decentralised roaming

- Direct internet connectivity from each and every edge network (or base station)
  - No more routing through home networks
- Decentralised audit trail for accounting
  - E.g. based on Distributed Ledger Tech
- Viable business model for micro operators
  - Open business platforms with DLT
Aalto University

• #1 Engineering, Business, & Art Uni in Finland
• Within top 1% in Shanghai ARWU-list
• #14 in CWTS Leiden in industry collaboration

• Dept. of Communications and Networking
  – largest unit in Finland in the area
  – multi-disciplinary
  – technology, business, theory, human aspects, …
Why and why now?

SDN Automation + Provisioning

NFV Provisioning

Internet

5G Core Network

5GTN remote site

University of Oulu

Other 5G test networks

VTT

I think we should build a blockchain.

Uh-oh.

Does he understand what he said or is it something he saw in a trade magazine ad?

What color do you want that blockchain?

I think mauve has the most RAM.
Tentative approach

• Create an open "operator blockchain"
  • Apply so-called smart contracts to model operators and subscribers
  • Anyone can become an "operator"
    • Pay a pledge in cryptocurrency
  • Credibility through cryptographically proven visiting
    • An operator without any visitors does not really "exist," nobody cares
Partners

• Only an initial idea, no consortium yet

• What kind of partners are needed:
  • Telecom vendor(s)
  • Telecom operator(s)
    • Preferably also a forthcoming micro-operator, e.g. industrial manufacturer
  • Also expertise in regulation, juridical aspects, and privacy
For more information and for interest to participate please contact:

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