Edge and IoT

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T2TRG Edge Refresher

- [Breakout on Edge Computing](#) at IETF 98 in Chicago

- [Compiled results](#) at IETF 99 in Prague

- [Survey and gap analysis](#) and [BEC problem statement](#) ("Beyond Edge Computing" operator view) at IETF 100 in Singapore

- [Use cases](#), [engineering items vs research topics](#), and [COIN meeting](#) at IETF 103 in Bangkok

BEC: Beyond Edge Computing

- Operators view, where "beyond" means outside their network edge

- Just a mailing list, not much traffic recently…

- … but 23 subscribers interested in the topic

COINRG: Computing in the Network

- Themed around the "[Serverless Computing](#)" paradigm
- Current discussions
  - "continuum of cloud computing" vs "application logic on switches etc."
    - [Pushback](#) on the latter
    - Identify application-independent architectural components and functions
  - How can end-to-end security and the new model of in-network computation co-exist?
    - Think about different model than compute terminating transport and application layer sessions
    - Consider privacy-preserving analytics in the networks
  - What should COIN's unique role be in the edge/fog compute or "cloud continuum"?
    - Achieve scalable resource management
    - Could the network help with certain decisions (load management, "retransmission", replication etc.)
  - Can we have a good abstraction to cover different use cases?
    - Conduct experiments in DCN, industrial networks, edge/fog, etc.
    - Assess (and better define) the "common abstraction" concept after some time

"Work Meeting"!

Questions

- Can we define a Thing-centric view on Edge Computing to form a concrete T2TRG activity?
    - Do we have enough people to form a concrete T2TRG activity?
    - Can T2TRG get more academic involvement in general?

- How is our relation to COINRG?
    - Provide Thing-centric input?
    - Move Edge Computing topic there?

(Still Open) Next Steps from Gap Analysis

- We are seeking help from the community to gather more input...
- ...and to brainstorm about what the IRTF should do...

- Is T2TRG the right research group?
  - Possibly with regards to the distributed and lightweight aspects of some challenges
- Which challenges are most related to IRTF?
  - Internet-related protocols are not within the scope of other organizations looking at IoT EC