



# **IETF Hackathon**

## **A Multi-Level Approach to IBN**

**IETF 108**  
**July 20-24, 2020**  
**Online**



# Hackathon Plan 1/2

- Problem we were working on
  - Intent Based Networking (IBN) within IRTF Network Management RG
  - **Intent:** *A set of operational goals that a network should meet and outcomes that a network is supposed to deliver, defined in a declarative manner without specifying how to achieve or implement them*
- Involved drafts/RFC's
  - draft-irtf-nmrg-ibn-concepts-definitions-01
  - draft-irtf-nmrg-ibn-intent-classification-00

# Hackathon Plan 2/2

- Specific problem to solve
  - Apply the intent concept at different levels that correspond to different stakeholders
  - Infrastructure provider: provides “slice intent”
  - Service Provider: consumes “slice intent”, provides “service intent”
  - Customer or Vertical: consumes “service intent”
- How we planned to solve it
  - Proof of Concept (PoC) in an NFV framework
  - Demonstration of slice intent setup + service intent setup
  - Simplified scenario (e.g., single VIM or single POP)

# What got done

- Successful demonstration of PoC
  - Jointly developed by UNIBO and CNIT as part of the NMRG activities
- Fruitful discussion on next steps
  - Integration with high-level intent expression/translation techniques
  - Apply methodology for intent taxonomy and classification
- Link to session video recording
  - <https://bit.ly/nmrg108hackathon>

# What we learned

- IBN is still a research green field
- Need to bring together diverse background/expertise
  - Intent translation/refinement beyond simple mapping
  - Intent validation
  - Intent monitoring and observation
  - Interactions with the transport network
  - Extend the implementation to a more complex scenario (e.g., multiple VIMs or multiple POPs)

# Wrap Up

## Team members:

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First timers @ IETF/Hackathon: All of us

Session recording:

<https://bit.ly/nmrg108hackathon>

NMRG meeting @ IETF 108

Wednesday 2020/07/29 11:00 - 12:40  
(UTC) Room 2

<https://datatracker.ietf.org/doc/agenda-108-nmrg>