

# Network Intent concepts

## **draft-moulchan-nmrg-network-intent-concepts-00**

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# Objectives

- Definitions of Network Intent
- Differentiate Network Policy, Network Configuration
- A proposal for realizing Network Intent
- Some use cases
- Next steps of Research

# Network Intent

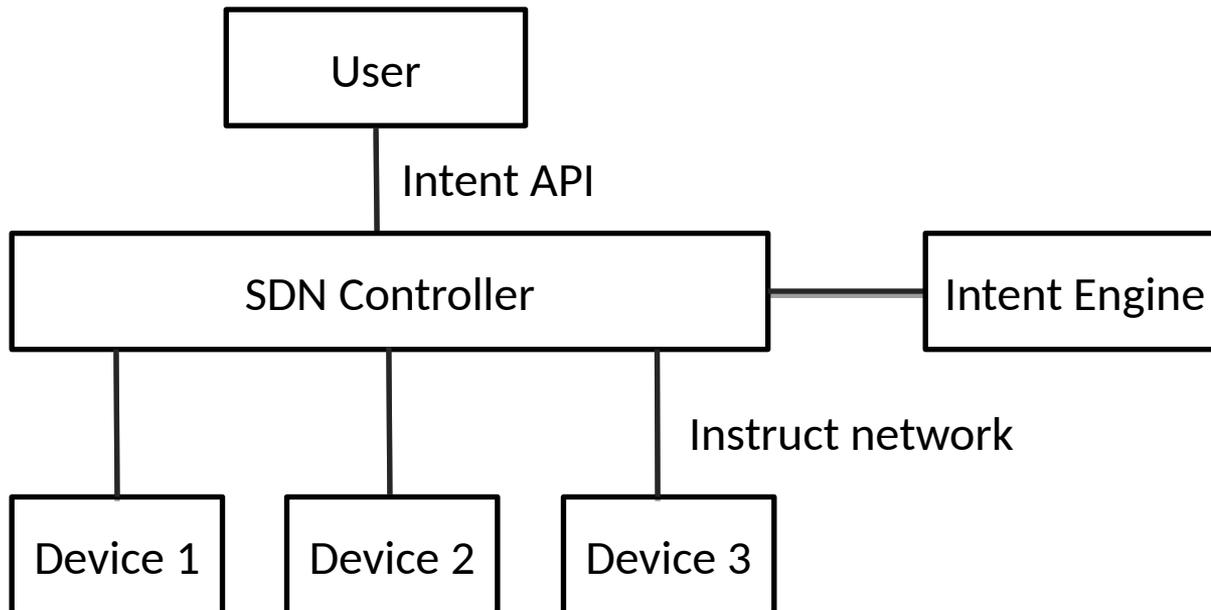
- First, several efforts on this topic
  - “Autonomic” network intent - distributed policy
  - Domain Specific Language based approaches - NEMO , Promise theory
  - Implementations often imply Intent = Network configuration

# Network Intent – Architecture

- Definition

- Network Administrator articulates a desired / expected outcome from the network
- Multiple approaches to realize Network Intent
- Can lead to conflicts with the state of the network or conflicts with previous intents
  
- Confusion with Network Policy, Service Models, Network Configuration

# Network Intent – Architecture



## Network Intent – Use cases

- Place a video call from User A to User B
- What are congested links in the network ?

# Network Intent – Next steps

- Problem definition stage
- Solution approach in research
  - Multiple approaches are pursued
    - Autonomic based techniques
    - DSL based techniques
- We are considering Natural Language Processing, ML and AI
- Suggestions/Collaborations welcome