NMRG IBN Workplan

NMRG Co-chairs: Laurent Ciavaglia, Jérôme François
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Tentative lifecycle

- Intent expression
- Intent interpretation
- Intent realization planning
- Intent realization
- Network operations and policies

Describe objectives, not how to reach them
Understand the intent and check its feasibility
Prepare how to realize the intents
Communicate with entities to apply operations
Do the practical realization (the «how») and monitor it

Possible feedback loops

• Nothing fully defined yet
• But pave the way of actions to perform in NMRG
Tentative IBN workplan

• How to call stuff
  • document(s) on terminology/taxonomy

• How to express/model intent
  • information model, grammar, languages

• How to realize Intent Based Systems
  • “reference” functional architecture, functional blocks/components, mechanisms/techniques, theory of operations/lifecycle

• Additional work items could also investigate
  • functions and techniques (AI, smart telemetry...) ; use cases ; what are the challenges and corresponding research items

• Extend/Update with:
  • Problem statement, scope, design challenges and goals
  • Concepts definition
  • Intent at design and run time, impact of CI/CD(?)
  • Interoperability
  • Continuous measure/validation of intent realization
  • Evaluation, implementation

Intent classification
draft-li-nmrg-intent-classification

An intent-driven management framework
Draft-sun-nmrg-intent-framework

Intent Based Networking - concepts and overview
draft-clemm-nmrg-dist-intent
How to progress?

• Ongoing discussions to refine the work items pave the way for rechartering by the end of year
• Are we missing some aspects of IBN?
• What are the most valuable aspects to work on?
• Collaborations with other communities:
  • Standardization fora, academic and open-source communities...
  • Mutual benefits
• Documentation to cover work items
• Tool development, hackathon