IETF-124 NMRG Meeting

Use Cases and Practices for Intent-Based Networking

(draft-irtf-nmrg-ibn-usecases-02)

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Major Updates of from 00 Version to 02 Version

- Addressing the comments of Jérôme Francois (NMRG Chair) during the RG adoption call (November 26, 2024).

- New Additions
  - Section 3.8 (IBN for Green Service Management)
  - The Enrichment of Discussion Section
  - The Filling of Security Considerations Section

Major Updates of from 00 Version to 02 Version

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Jerome's Comments (1/3)

- Adding References to technologies mentioned in Section 2 (Methodologies for Building IBN Systems)
  - This is done.
- Usage of Methodologies in Section 2 for Use Cases in Section 3
  - This is partially done.
  - Will specify which methodologies are used for each use case.
- Self-contained Explanation for Each Use Case
  - This is done.
  - Some drafts will be developed as separate documents.

Jerome's Comments (2/3)

- Relation between RFC9315 (concepts) and IBN System in Section 2
  - This is done.
  - Section 2.3 (Mapping between IBN System and Intent Life Cycle) is added.
- Relation with RFC9316 (taxonomy) and IBN Use Cases in Section 3
  - This is not done.
  - Will add each subsection for intent taxonomy for each use case.
    - Solution, Intent User Type, Intent Type, Intent Scope, etc.
- Enhancement of Section 4 (Practice Learnings) Section
  - This is not done.
  - Will add other use cases for learnings with numerical or qualitative results along with SFC use case.

Jerome’s Comments (3/3)

- Difference between Verification and Validation
  - This is done.
  - In Section 2.2, Policy Verification and Policy Validation are explained.
- More Freedom for Intent Translator with not only GUI (templates) but also Non-GUI tools
  - This is done.
  - In Section 2.2, LLMs (e.g., Flan-T5 and GPT-3) and DSLs (e.g.,Nile and NEMO) can be used as a Non-GUI tool.
- Balanced and Consistent Explanation among Use Cases
  - This is partially done.
  - Will enhance the On-Path Telemetry use case with IBN workflow.

New Additions

- **Section 3.8 (IBN for Green Service Management)**
  - Support of a green service intent for sustainability in network services

- **The Enrichment of Discussion Section**
  - 5.2. The Integration of IBN and Network Digital Twin
  - 5.3. IBN with AI
    - 5.3.1. Transfer Learning
    - 5.3.2. AI Agent-Enabled IBN

- **The Filling of Security Considerations Section**
  - Insider Attacks and Outside Attacks
  - Necessity of IBN Defense System

Next Steps

- We will reflect the remaining comments of Jérôme Francois and possible comments before IETF-125 meeting (March 2026).

- We aim at the RG last call in IETF-126 meeting (July 2026).

Thanks and Any Comments?

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