Intent Classification

draft-irtf-nmrg-ibn-intent-classification-02

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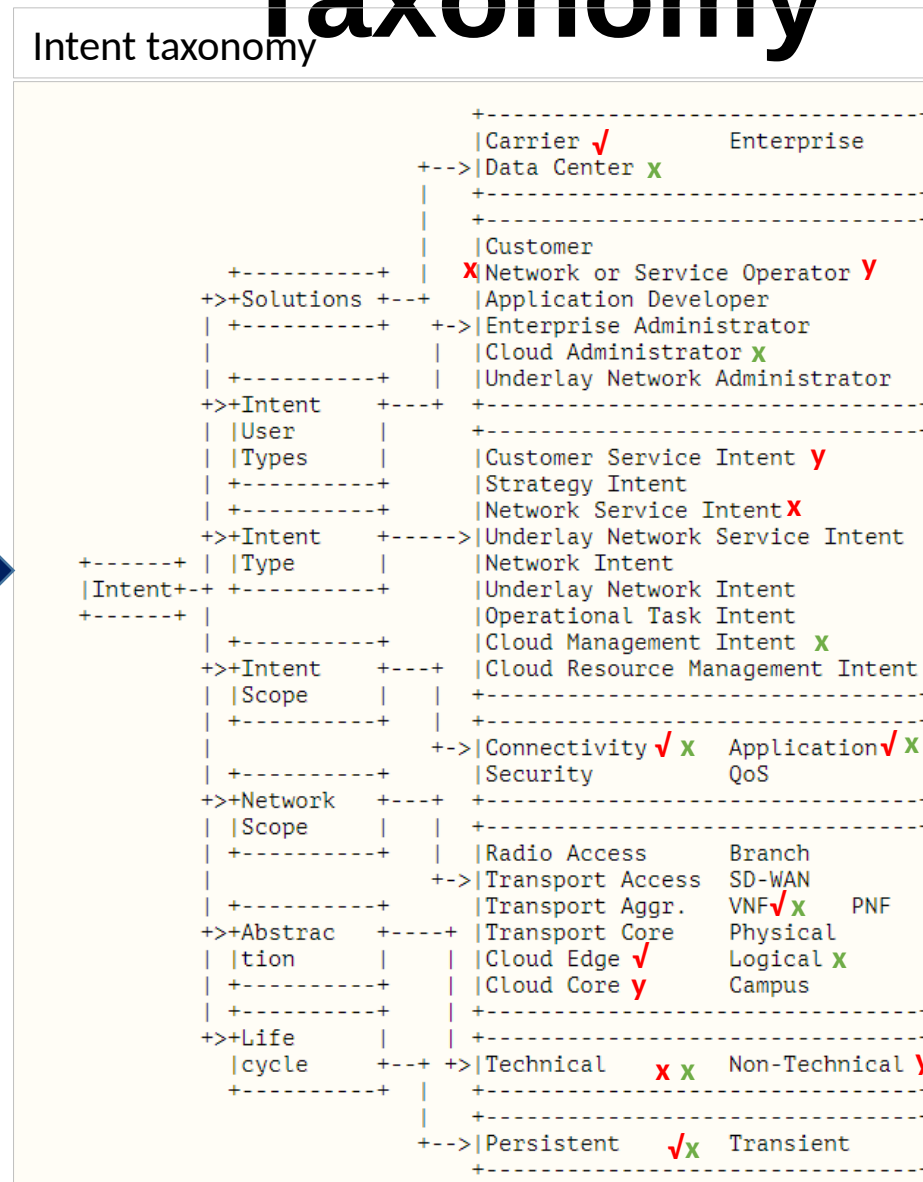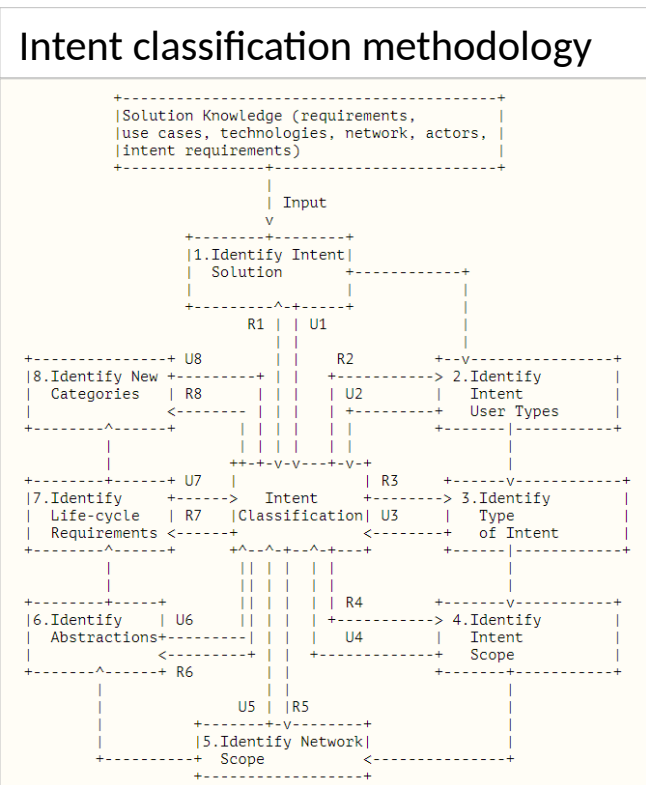D. Lopez, Telefonica I+D

IETF 110 Virtual, March 2021

Why?

- Goal:

    - Agree on "Intent" related **terminology** and **classification** for NMRG

    - Provide a **foundation** for future intent-related topic discussions where all participants have the same common understanding

- 2 NMRG drafts proposed to address the NMRG goal

    - draft-irtf-nmrg-ibn-concepts-definitions to clarify the concept of Intent and provide an overview of the functionality

    - **THIS DRAFT:** draft-irtf-nmrg-ibn-intent-classification to provide intent classification and develop a taxonomy

Intent Classification: Scope

- There was no clarity about what an intent represents for different stakeholders, high level concept definition and overview of functionality is not enough

- There was no common understanding of how to classify intents and what types of intents exist

- This draft addresses these issues by proposing an intent taxonomy & methodology

Example for Methodology & Taxonomy

Intent classification methodology

Intent taxonomy

- Intent Classification Methodology is used to generate the intent taxonomy

EXAMPLE added to the Draft:

- IETF 108 PoC "A multi-layer approach for IBN" [1] has been used as an example for proving classification methodology
  - Carrier for both √
    - Carrier for Slice Intent X
    - Carrier for Service Chain Intent Y
  - DC for Slice Intent X

[1] W. Cerroni, M. Gharbaoui, B. Martini, D. Borsatti, "A multi-level approach to IBN", July 2020,

Acknowledgements

We are thankful for all the reviews, suggestions, comments and proposed texts provided by the following members, listed in alphabetical order:

- Mehdi Bezahaf, Brian E Carpenter, Laurent Ciavaglia, Alexander Clemm, Yehia Elkhatib, Jérôme François, Pedro Andres Aranda Gutierrez, Daniel King, Branislav Meandzija, Bob Natale, Juergen Schoenwaelder, Xiaolin Song, Jeff Tantsura.

We thank Barbara Martini, Walter Cerroni, Molka Gharbaoui, Davide Borsatti for their contributions and for providing their 'A multi-level approach to IBN ' PoC demonstration, as a first attempt to adopt the intent classification.

Issues Resolved in
[draft-irtf-nmrg-ibn-intent-classification-02](#)

1. Sharpened our draft's position in relation to "Intent-Based Networking - Concepts and Overview" [draft-irtf-nmrg-ibn-concepts-definitions](#)

2. Provided detailed description of the intent classification methodology workflow, and how it can be extended

3. Integrated Barbara and Walter's PoC into the draft & used it as an example for classification

4. Clarified requirements for different intent types based on context

5. Addressed the benefits of intents to network requirements

6. Added a scope section for identifying the scope and priorities of projects

7. Included a definitions section introducing terms related to IBN with reference to IBN Concepts and Overview draft

8. Various readability improvements

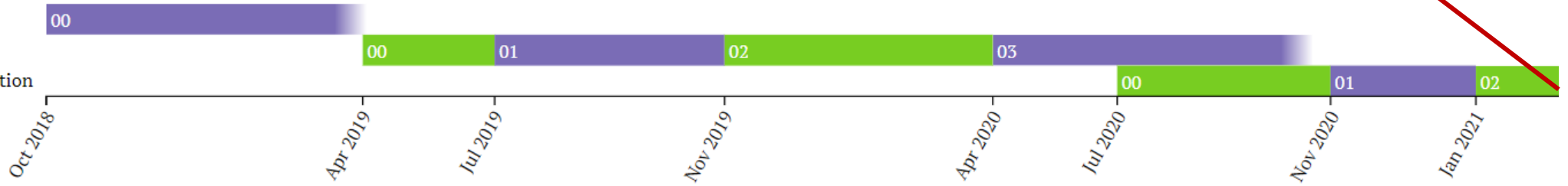NOTE: Above are the main comments, in total 38

RG Last Call

- Shepherd assigned: Ciavaglia, Laurent (Nokia)

- 3-week RG last call

  - Initiated on 23rd Feb

  - Collection of comments until March 15th

Document Timeline & Latest Structure

RG Last Call
(23rd Feb – 15 March)

Versions   00   01   **02**

draft-draft-li-intent-classification — 00
draft-li-nmrg-intent-classification — 00 01 02 03
draft-irtf-nmrg-ibn-intent-classification — 00 01 02

Oct 2018   Apr 2019   Jul 2019   Nov 2019   Apr 2020   Jul 2020   Nov 2020   Jan 2021

The draft has been revised many times and all of the community's comments were addressed.
The document is stable and ready for IRSG Review.

Next Steps

1. The authors believe all reported issues are resolved

2. Collect comments from the RG by 15th March

3. Make one final revision of the document that addresses the comments

4. Shepherd evaluation and finally IRSG Review

Thank You