

Intent Classification

draft-irtf-nmrg-ibn-intent-classification-01

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

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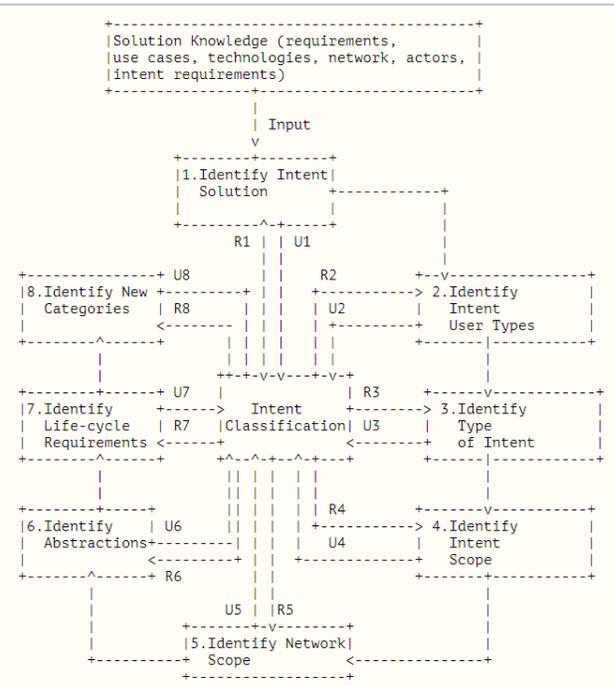
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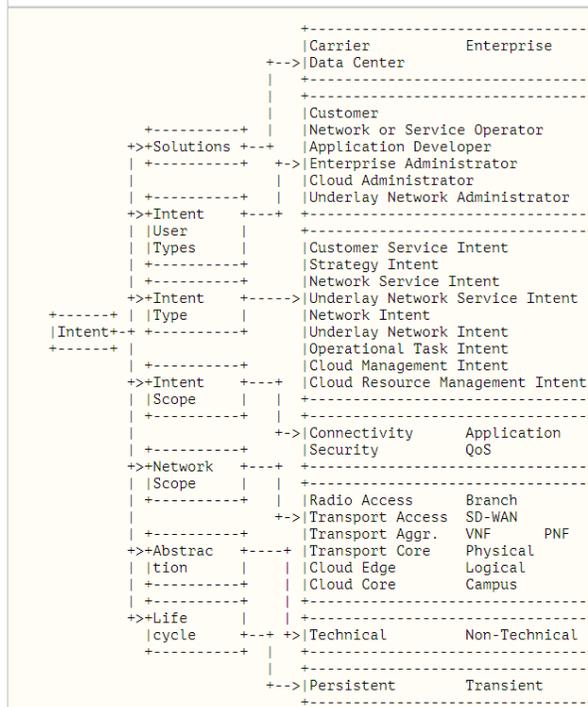
November 2020

Brief introduction

Intent classification methodology



Intent taxonomy



- The draft proposes an intent classification methodology to be used to identify the scope and priorities of individual projects, PoCs, research initiatives, or open-source projects.
- The output of the intent classification is the intent taxonomy, and describes intent solutions, intent user types, intent types, intent scopes, network scopes, abstractions and life-cycle.
- Three classifications have been proposed in this draft following the classification workflow:
 - Carrier solution
 - Data Center solution
 - Enterprise solution
- IETF 108 PoC "A multi-layer approach for IBN"¹ solution has been successfully used as an example for our proposed classification methodology.

[1] Walter Ceroni, Molka Gharbaoui, Barbara Martini, Davide Borsatti, "A multi-level approach to IBN", July 2020,

History

Versions 00 01

draft-draft-li-intent-classification

draft-li-nmrg-intent-classification

draft-irtf-nmrg-ibn-intent-classification



RG Adoption:

- 1st July – Intent Classification draft adopted by the RG

Addressing Comments draft-irtf-nmrg-ibn-intent-classification-01

- 2nd November - uploaded to IETF
- 33 comments addressed since the RG adoption call

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

- Work in progress
- 3 comments addressed and merged into Git
- 2 comments outstanding

Document structure

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Draft -01 updates

- Provided detailed description of the intent classification methodology workflow, and how it can be extended (expanded section 6.1).
- Provided intent classification examples based on the IETF 108 PoC “A multi-layer approach for IBN” ¹, for the Carrier use-case and DC use-case (new sections added: 6.3.3, and 6.4.3).
- Updated intent descriptions with additional information on how intents manifest from an operational point of view (Sections 6.3.1, 6.4.1, 6.5.1).
- Sharpen our draft’s position in relation to “Intent-Based Networking - Concepts and Overview” ² draft .
- Section ‘Involvement of intent in the application of AI to Network Management’ has been removed and would be used in future draft proposals that focus on ‘how’.
- Various readability improvements.

[1] Walter Cerroni, Molka Gharbaoui, Barbara Martini, Davide Borsatti, “A multi-level approach to IBN”, July 2020, <https://www.ietf.org/proceedings/108/slides/slides-108-nmrg-ietf-108-hackathon-report-a-multi-level-approach-to-ibn-02>

[2] A. Clemm, L. Ciavaglia, L. Granville, J. Tantsura, “Intent-Based Networking - Concepts and Overview”, Work in Progress, draft-clemm-nmrg-dist-intent-03, June 2020, <https://tools.ietf.org/html/draft-irtf-nmrg-ibn-concepts-definitions-02>

Draft -02 updates

- Continue discussion on PoC's integration into draft with Barbara and Walter.
- Clarification on requirements for different intent types based on context (Section 4.2)
- Addressing the benefits of intents to network requirements (Section 4.3)

Outstanding:

- Add a scope Section, within Introduction, for identifying the scope and priorities of projects.
- Include a Definitions section.

Acknowledgements

- We thank for all the reviews, suggestions, comments and proposed text 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, Juergen Schoenwaelder, Xiaolin Song.
- We thank to Barbara Martini, Walter Cerroni, Molka Gharbaoui, Davide Borsatti for contributing with their 'A multi-level approach to IBN ' PoC demonstration a first attempt to adopt the intent classification.

Next steps

- We believe the draft is reasonably stable.
- Will address the few remaining outstanding items in -02 version.
- Solicit draft reviews.

Thank You