Intent Classification
draft-irtf-nmrg-ibn-intent-classification-00

Chen Li, China Telecom
Xueyuan Sun, China Telecom
Olga Havel, Shucheng Liu (Will), Adriana Olariu, Huawei Technologies
Pedro Martinez-Julia, NICT
Jeferson Campos Nobre, Federal University of Rio Grande do Sul
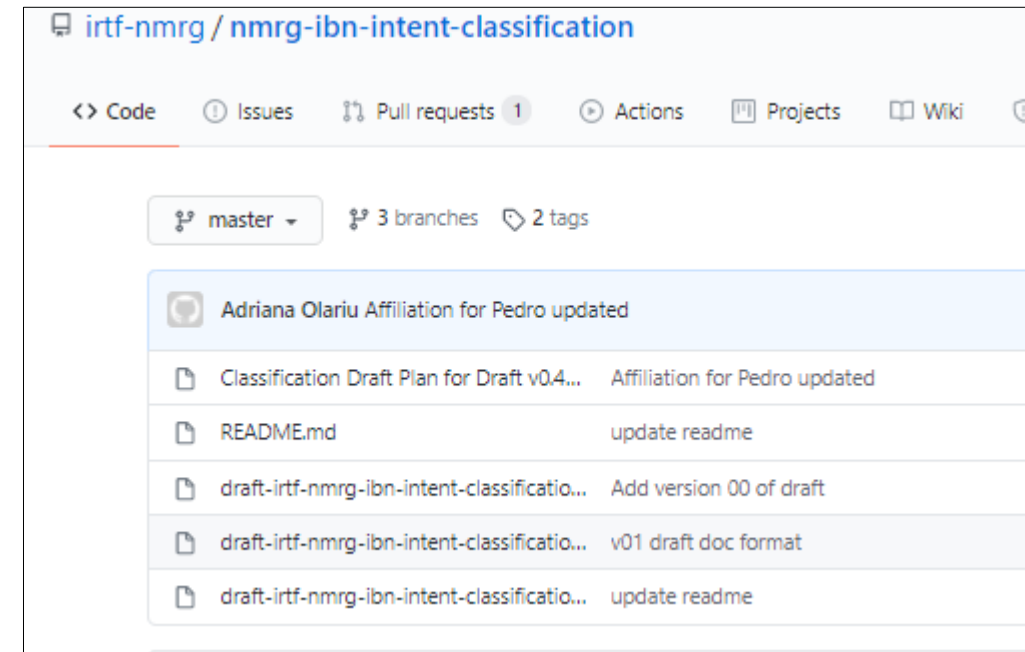Diego R. Lopez, Telefonica I+D
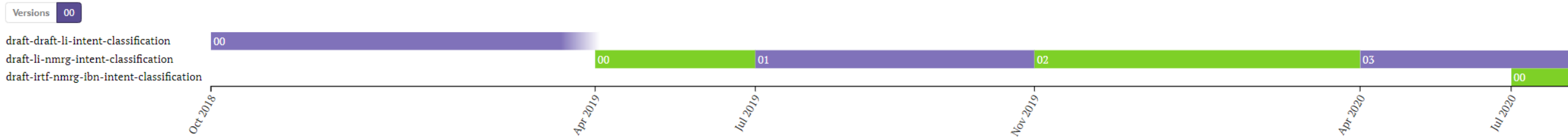
July 2020

Brief Intro and Scope

- Goal of this draft is to bring clarity to **what an intent represents for different stakeholders**, by means of classification on various dimensions, such as solutions, users and intent types.

- This classification would ensure a **common understanding** across all participants and it can be used to identify the scope and priorities of individual projects, PoCs, research or open-source projects.

- This is achieved by proposing initial classification taxonomy and the methodology used for generating the taxonomy. This **methodology** can be used to update the taxonomy by adding or removing different solutions, users or intent types in order to cater for future scenarios, applications or domains.

- This draft together with draft-irtf-nmrg-ibn-concepts-definitions (which defines the intent concept and differences with service and policy) aims to become the **foundation** for future intent-related topic discussions where all participants have the same common understanding

- RG draft: https://tools.ietf.org/html/draft-irtf-nmrg-ibn-intent-classification-00

Summary

- Analysis of received comments

  - Classification based on complexity (0, 1, 2, 3), comments authors & sections

  - Assignment to Editors

- Draft Updates

  - Git project created for the draft (https://github.com/irtf-nmrg/nmrg-ibn-intent-classification)

  - V.00 added to Git

  - V.01 created with 0 and 1 complexity addressed and added to Git

  - Authors of complexity 0 and 1 comments contacted for feedback

  - Other updates in progress

- Target: Submit v.01 in October

History

RG Adoption:

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

- draft-irtf-nmrg-ibn-intent-classification-00 uploaded to IETF

Addressing Comments (draft-irtf-nmrg-ibn-intent-classification-01 in progress):

- 38 comments received since the RG adoption call
  - Mehdi Bezahaf (13)
  - Yehia Elkhatib (4)
  - Pedro Andres Aranda Gutierrez (5)
  - Allexander Clemm (4)
  - Qiong Sun (1)
  - King Daniel (11)
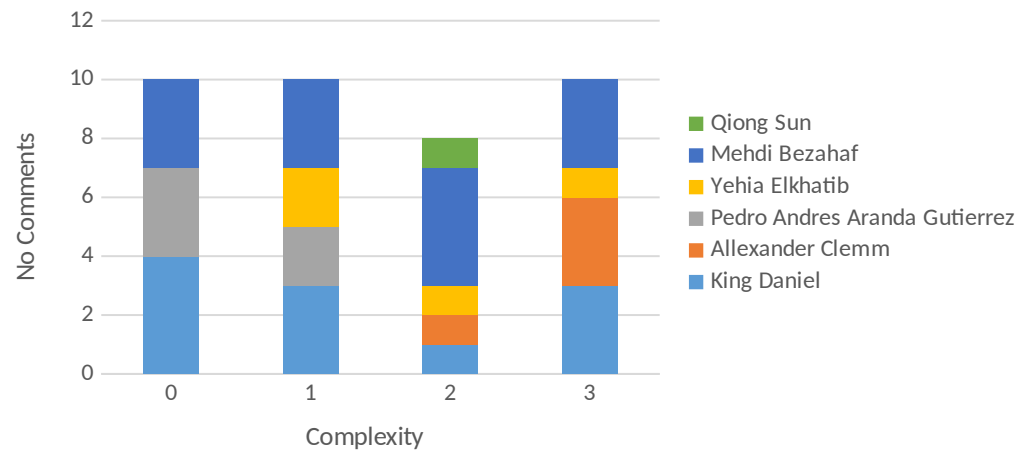
Received Comments Analyzed and Classified

- **Comments are split based on 4 complexity levels**
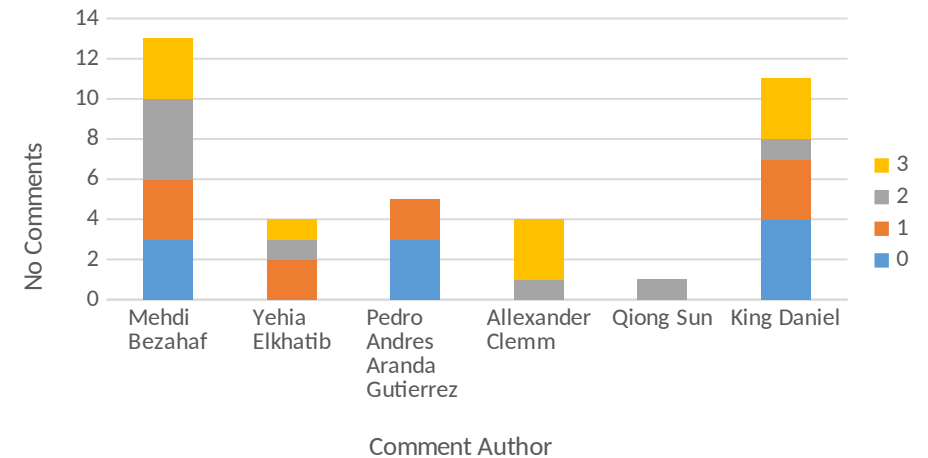 - **0 = Lowest Complexity**
  - **3 = Highest Complexity**

Overall Number of Comments	
Complexity	**Total**
Complexity 0	10
Complexity 1	10
Complexity 2	8
Complexity 3	10

Number of Comments per Author and per Complexity				
Author / Complexity	**0**	**1**	**2**	**3**
Mehdi Bezahaf	3	3	4	3
Yehia Elkhatib	0	2	1	1
Pedro Andres Aranda Gutierrez	3	2	0	0
Allexander Clemm	0	0	1	3
Qiong Sun	0	0	1	0
King Daniel	4	3	1	3

Author Distribution per Complexity

Complexity Distribution per Author

Updates (1) – Completed (Complexity 0 and 1)

	Author	Affiliation	High-level comment	Section	Complexity	Editor	Status	How it was addressed
1	Mehdi Bezahaf	Lancaster University	Consistent use of words.	ALL	0	Huawei	Completed	As per draft-nmrg-ibn-concepts-definitions, we can use the following: life-cycle, end-users. For the rest: intent-driven (as per SLA-driven in draft), task-based.
2	Mehdi Bezahaf	Lancaster University	Missing acronyms.	2	0	Huawei	Completed	Updated the list in section 2.
3	Mehdi Bezahaf	Lancaster University	Clarify intent vs. policy confusion.	3	1	Huawei	Completed	Updated as suggested by Yehia " An intent is mistaken by many to be just a synonym for policy. While it is easier for those familiar with different standards to understand what service, CFS, RFS, resource, policy continuum, ECA policy, declarative policy, abstract policy or intent policy is, it may be more difficult for the wider audience. Furthermore, those familiar with policies understand the difference between a business, intent, declarative, imperative, and ECA policy."
4	Mehdi Bezahaf	Lancaster University	The authors sees the listed intent solutions more as scenarios or contexts	3	1	Huawei	Completed	This has been addressed through email
5	Mehdi Bezahaf	Lancaster University	Clarify whether intent solutions and intents users are covering all posibilities or are just examples/starting point.	3	1	Huawei	Completed	The following sentence has been added after the table: "These intent solutions and intent users represent a starting point for the classification and are expendable through the methodology presented in Section 5.1."
11	Mehdi Bezahaf	Lancaster University	Duplicat entries in the table	5	0	Huawei	Completed	Fixed 5.3.1 table. Removed two entries.
14	Yehia Elkhatib	Lancaster University	Clarify intent vs. policy confusion.	3	1	Huawei	Completed	Updated as suggested by Yehia " An intent is mistaken by many to be just a synonym for policy. While it is easier for those familiar with different standards to understand what service, CFS, RFS, resource, policy continuum, ECA policy, declarative policy, abstract policy or intent policy is, it may be more difficult for the wider audience. Furthermore, those familiar with policies understand the difference between a business, intent, declarative, imperative, and ECA policy."
17	Yehia Elkhatib	Lancaster University	Clarify that the presented intent scopes are extendable.	4	1	Huawei	Completed	The following sentence has been added at the end of Section 4.3 "These intent scopes are expendable through the methodology presented in Section 5.1."
18	Aranda Gutierrez	Paderborn University	Verify the distinction between SDOs and non-SDOs solutions.	1	0	Huawei	Completed	Rewritten as "All SDOs, and open source projects, such as IETF [ANIMA]..."
19	Pedro Andres Aranda Gutierrez	Paderborn University	Re-phrasing of text - "Thus, the goal of this document is to bring clarity to what an intent represents for different stakeholders,..."	1	1	Huawei	Completed	Updated as suggested "The goal of this document is to clarify what an intent represents for different stakeholders"
20	Aranda Gutierrez	Paderborn University	Re-phrasing of text: Review usage of would/could or will/can	1	1	Huawei	Completed	"This classification could"
21	Pedro Andres Aranda Gutierrez	Paderborn University	Re-phrasing of text: Specify the important part of the sentence first: ""This is achieved by proposing initial classification tables and the methodology used for generating them."	1	0	Huawei	Completed	Rephrased as "This is achieved by proposing the methodology and initial classification tables"
22	Aranda Gutierrez	Paderborn University	Re-phrasing of text: "This draft together with [CLEMM] aims"	1	0	Huawei	Completed	Together with CLEMM, this draft aims...
28	King Daniel	Lancaster UK	Re-phrasing of text: Paragraph 2	Abstract	1	Huawei	Completed	Updated as suggested: "This document discusses the concept of intent. Specifically, it highlights stakeholder perspectives of intent, methods to classify and encode intent, the associated intent taxonomy, and defines relevant intent terms where necessary. This document provides a foundation for intent related research and facilitate solution development."
30	King Daniel	Lancaster UK	Section 3 and 6 titles should use capitalised letters for consistency.	TOC	0	Huawei	Completed	Capitalized in TOC and Section Name Section 3: Abstract Intent Requirements Section 6: Involvement of Intent in the Application of AI to Network Management
31	King Daniel	Lancaster UK	Missing acronyms.	1	0	Huawei	Completed	Updated the list in section 2.
32	King Daniel	Lancaster UK	Consistent use of words.	ALL	0	Huawei	Completed	As per draft-nmrg-ibn-concepts-definitions, we can use the following: life-cycle, end-users. For the rest: intent-driven (as per SLA-driven in draft), task-based.
33	King Daniel	Lancaster UK	Re-phrasing of text: Paragrpah 4	1	1	Huawei	Completed	Updated as: "As it can be observed, each of the aforementioned SDOs came up with their own way of specifying an intent, and with their own understanding of what an Intent is. Each SDO defines a set of terms and level of abstraction, its intended users, and the applications and usage scenarios."
36	King Daniel	Lancaster UK	Create Key Words section after Introduction.	1	0	Huawei	Completed	Separated the text "The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in RFC 2119 [RFC2119]." in a new section after Introduction.

Most comments of complexity 0 and 1 addressed
- **19 in total**
- **1 outstanding (in progress by Huawei)**

Comments' authors have been contacted to check if their comments have been addressed satisfactory.

6

Updates (2) - Assigned

- China Telecom

	Author	Affiliation	High-level comment	Section	Complex	Editor	Status	How it was addressed
10	Mehdi Bezahaf	Lancaster University	Consistency between intent user types throughout the document.	5	2	China Telecom	Completed	We will modify the intent user types of enterprise and cloud in section 5.2 into enterprise administrator and cloud administrator for consistency with section 6.2.
12	Mehdi Bezahaf	Lancaster University	Consistency between intent types throughout the document.	5	2	China Telecom	Completed	First, the intent types in section 6.2 are almost the same with the section 6.3.1, 6.4.1 and 6.5.1 except "End-User intent" in 6.5.1. We plan to change above one intent types into "customer service intent" for consistency. The second, we plan to modify the intent type in section 4.4 to be consistent with the intent type in section 6.2 as follows: At last, We are not sure whether to keep "Intents that affect other intents" in Section 4.4 or merge with "Operational Task Intent"
13	Mehdi Bezahaf	Lancaster University	AI is out of scope for intent classification topic.	6	3	China Telecom		TO BE ADDRESSED in October together with 27.
15	Yehia Elkhatib	Lancaster University	Provide more details on some of the intents, such as how the intent would manifest for an operational point of view.	5	3	China Telecom	In Progress	TO BE ADDRESSED Before October
27	Qiong Sun	China Telecom	Role of AI is section 6 needs more explanation.	6	2	China Telecom		TO BE ADDRESSED in October together with 13.

Updates (3) - Assigned

- Prof. Dr. Jéferson Campos Nobre

	Author	Affiliation	High-level comment	Section	Complex	Editor	Status	How it was addressed
16	Yehia Elkhatib	Lancaster University	Clarify the aspect of intent conflict resolution.	1	2	Jeferson	Completed	Updated text to "It should be able to detect and resolve intent conflicts, which include, for example, static (compile-time) conflicts and dynamic (run-time) conflicts."
34	King Daniel	Lancaster UK	Create sub-section 1.1 Scope within the Introduction section.	1	3	Jeferson	In Progress	
35	King Daniel	Lancaster UK	List SDOs scope of work and their output, in order to identify gaps.	1	3	Jeferson	Completed	Section 1 updated to "Several SDOs and open source projects, such as Internet Engineering Task Force (IETF) (by the Autonomic Networking Integrated Model and Approach Working Group [ANIMA]), Open Networking Foundation (ONF) [ONF], Open Network Operating System (ONOS) [ONOS], have proposed intents for defining a set of network operations to execute in a declarative manner. IETF [ANIMA] defines intent as a declarative policy, but still lacks a more complete definition, a tentative format, and a life-cycle. Within ONOS [ONOS], intent is represented as a list of Command-Line Interface (CLI) commands that allows users to bypass low-level details on the network, such as flows or host addresses. ONF through its Boulder and Aspen projects focuses on NorthBound Interface (NBI) semantics and intent models. The SDOs usually came up with their own way of specifying an intent, and with their own understanding of what an intent is. Besides that, each SDO defines a set of terms and level of abstraction, its intended users, and the applications and usage scenarios.
37	King Daniel	Lancaster UK	Include a Definitions section, along the Acronyms one.	1	3	Jeferson	In Progress	

Currently Completed and In Progress by Prof Dr. Jéferson Campos Nobre

Updates (4) - Assigned

- Pedro Martinez-Julia

	Author	Affiliation	High-level comment	Section	Complex	Editor	Status	How it was addressed
6	Mehdi Bezahaf	Lancaster University	User type and context alone does not define the intent type.	3	3	Pedro	In Progress	
7	Mehdi Bezahaf	Lancaster University	Section 3.1 and 3.2 are related. Picking actor, context and use-case presents a clear definition of an intent.	3	2	Pedro	In Progress	
8	Mehdi Bezahaf	Lancaster University	Title of section 3.3 title mentioning "problems" could be replaced with "benefits" or "improvements"	3	2	Pedro	In Progress	

Currently in Progress by Perdo Martinez-Julia

Updates (5) – Assigned

- Huawei

	Author	Affiliation	High-level comment	Section	Complex	Editor	Status	How it was addressed
9	Mehdi Bezahaf	Lancaster University	Methodology picture is confusing and needs extended description on some of the entities.	5	3	Huawei	In Progress	
23	Alexander Clemm	Futurewei	Referencing of CLEMMs draft and our position in relation to the draft.	ALL	2	Huawei	In Progress	
24	Alexander Clemm	Futurewei	Unclear what is the purpose of the Classification Tables. Provide clarification on their usage.	5	3	Huawei	In Progress	
25	Alexander Clemm	Futurewei	Discussion on how classification might be extended/adjusted as technologies evolve.	5	3	Huawei	In Progress	
26	Alexander Clemm	Futurewei	Discussion on whether low-level intents should be included or excluded. Decision should be made after deliberation.	4	3	Huawei	In Progress	
29	King Daniel	Lancaster UK	Update Introduction and Abstract should mention the focus is on "network intent"	Abstract	1	Huawei	In Progress	
38	King Daniel	Lancaster UK	Fix english nits and improve readability.	ALL	2	Huawei		TO BE ADDRESSED as the last step

Currently in Progress by Huawei

Conclusion and Next Steps

- Complexity 0 and 1 comments are addressed.
- Three complexity 2, and one complexity 3 comments are addressed.
- v00 is available in Git
- Ongoing work for v01 done through Git
- Candidate editors identified for all the comments.
- Next steps:
    - Continue addressing the comments for v01 of the document
    - Engage with comment authors as needed
    - Submit v01 of the document

Thank You

Received Comments (1)

	Author	Affiliation	High-level comment	Section	Complexity	Editor	Status	How it was addressed
1	Mehdi Bezahaf	Lancaster University	Consistent use of words.	ALL	0	Huawei	Completed	As per draft-nmrg-ibn-concepts-definitions, we can use the following: life-cycle, end-users. For the rest: intent-driven (as per SLA-driven in draft), task-based.
2	Mehdi Bezahaf	Lancaster University	Missing acronyms.	2	0	Huawei	Completed	Updated the list of acronyms in section 3 (nowsection3, after adding section 2 with Keywords).
3	Mehdi Bezahaf	Lancaster University	Clarify intent vs. policy confusion.	3	1	Huawei	Completed	Updated as suggested by Yehia " An intent is mistaken by many to be just a synonym for policy. While it is easier for those familiar with different standards to understand what service, CFS, RFS, resource, policy continuum, ECA policy, declarative policy, abstract policy or intent policy is, it may be more difficult for the wider audience. Furthermore, those familiar with policies understand the difference between a business, intent, declarative, imperative, and ECA policy."
4	Mehdi Bezahaf	Lancaster University	The authors sees the listed intent solutions more as scenarios or contexts	3	1	Huawei	Completed	This has been addressed through email communication.
5	Mehdi Bezahaf	Lancaster University	Clarify whether intent solutions and intents users are covering all posibilities or are just examples/starting point.	3	1	Huawei	Completed	The following sentence has been added after the table in updated section 4.2: "These intent solutions and intent users represent a starting point for the classification and are expendable through the methodology presented in Section 5.1."
6	Mehdi Bezahaf	Lancaster University	User type and context alone does not define the intent type.	3	3	Pedro		
7	Mehdi Bezahaf	Lancaster University	Section 3.1 and 3.2 are related. Picking actor, context and use-case presents a clear definition of an intent.	3	2	Pedro		
8	Mehdi Bezahaf	Lancaster University	Title of section 3.3 title mentioning "problems" could be replaced with "benefits" or "improvements"	3	2	Pedro		
9	Mehdi Bezahaf	Lancaster University	Methodology picture is confusing and needs extended description on some of the entities.	5	3	Huawei		
10	Mehdi Bezahaf	Lancaster University	Consistency between intent user types throughout the document.	5	2	China Telecom	Completed	We will modify the intent user types of enterprise and cloud in section 5.2 into enterprise administrator and cloud administrator for consistency with section 6.2.
11	Mehdi Bezahaf	Lancaster University	Duplicat entries in the table	5	0	Huawei	Completed	First, the intent types in section 6.2 are almost the same with the section 6.3.1, 6.4.1 and 6.5.1 except "End-User intent" in 6.5.1. We plan to change above one intent types into "customer service intent" for consistency. The second , we plan to modify the intent type in section 4.4 to be consistent with the intent type in section 6.2 as follows: At last, We are not sure whether to keep "Intents that affect other intents" in Section 4.4 or merge with "Operational Task Intent"
12	Mehdi Bezahaf	Lancaster University	Consistency between intent types throughout the document.	5	2	China Telecom	Completed	First, the intent types in section 6.2 are almost the same with the section 6.3.1, 6.4.1 and 6.5.1 except "End-User intent" in 6.5.1. We plan to change above one intent types into "customer service intent" for consistency. The second , we plan to modify the intent type in section 4.4 to be consistent with the intent type in section 6.2 as follows: At last, We are not sure whether to keep "Intents that affect other intents" in Section 4.4 or merge with "Operational Task Intent"
13	Mehdi Bezahaf	Lancaster University	AI is out of scope for intent classification topic.	6	3	China Telecom		TO BE ADDRESSED later together with 27.

Received Comments (2)

	Author	Affiliation	High-level comment	Section	Complexity	Editor	Status	How it was addressed
14	Yehia Elkhatib	Lancaster University	Clarify intent vs. policy confusion.	3	1	Huawei	Completed	Updated as suggested by Yehia " An intent is mistaken by many to be just a synonym for policy. While it is easier for those familiar with different standards to understand what service, CFS, RFS, resource, policy continuum, ECA policy, declarative policy, abstract policy or intent policy is, it may be more difficult for the wider audience. Furthermore, those familiar with policies understand the difference between a business, intent, declarative, imperative, and ECA policy."
15	Yehia Elkhatib	Lancaster University	Provide more details on some of the intents, such as how the intent would manifest for an operational point of view.	5	3	China Telecom		TO BE ADDRESSED Before October
16	Yehia Elkhatib	Lancaster University	Clarify the aspect of intent conflict resolution.	1	2	Jeferson	Completed	Updated text to "It should be able to detect and resolve intent conflicts, which include, for example, static (compile-time) conflicts and dynamic (run-time) conflicts."
17	Yehia Elkhatib	Lancaster University	Clarify that the presented intent scopes are extendable.	4	1	Huawei	Completed	The following sentence has been added at the end of Section 5.3 "These intent scopes are expendable through the methodology presented in Section 6.1." Section numbering changed due to adding a new section 2 with Keywords.
18	Pedro Andres Aranda Gutierrez	Paderborn University	Verify the distinction between SDOs and non-SDOs solutions.	1	0	Huawei	Completed	Rewritten in Section 1 as "All SDOs, and open source projects, such as IETF [ANIMA]...".
19	Pedro Andres Aranda Gutierrez	Paderborn University	Re-phrasing of text – "Thus, the goal of this document is to bring clarity to what an intent represents for different stakeholders,…."	1	1	Huawei	Completed	Updated as suggested in Section 1: "The goal of this document is to clarify what an intent represents for different stakeholders".
20	Pedro Andres Aranda Gutierrez	Paderborn University	Re-phrasing of text: Review usage of would/could or will/can	1	1	Huawei	Completed	Updated in Section 1: "This classification could".
21	Pedro Andres Aranda Gutierrez	Paderborn University	Re-phrasing of text: Specify the important part of the sentence first: ""This is achieved by proposing initial classification tables and the methodology used for generating them."	1	0	Huawei	Completed	Rephrased in Section 1 as "This is achieved by proposing the methodology and initial classification tables".
22	Pedro Andres Aranda Gutierrez	Paderborn University	Re-phrasing of text: "This draft together with [CLEMM] aims"	1	0	Huawei	Completed	Rephrased in Section 1: "Together with [CLEMM], this draft aims..."

Received Comments (3)

	Author	Affiliation	High-level comment	Section	Complexity	Editor	Status	How it was addressed
23	Alexander Clemm	Futurewei	Referencing of CLEMMs draft and our position in relation to the draft.	ALL	2	Huawei		
24	Alexander Clemm	Futurewei	Unclear what is the purpose of the Classification Tables. Provide clarification on their usage.	5	3	Huawei		
25	Alexander Clemm	Futurewei	Discussion on how classification might be extended/adjusted as technologies evolve.	5	3	Huawei		
26	Alexander Clemm	Futurewei	Discussion on whether low-level intents should be included or excluded. Decision should be made after deliberation.	4	3	Huawei		
27	Qiong Sun	China Telecom	Role of AI is section 6 needs more explanation.	6	2	China Telecom		TO BE ADDRESSED later together with 13.

Received Comments (4)

	Author	Affiliation	High-level comment	Section	Completed	Editor	Status	How it was addressed
28	King Daniel	Lancaster UK	Re-phrasing of text: Paragraph 2	Abstract	1	Huawei	Completed	Abstract updated as suggested: "This document discusses the concept of intent. Specifically, it highlights stakeholder perspectives of intent, methods to classify and encode intent, the associated intent taxonomy, and defines relevant intent terms where necessary. This document provides a foundation for intent related research and facilitate solution development."
29	King Daniel	Lancaster UK	Update Introduction and Abstract should mention the focus is on "network intent"	Abstract	1	Huawei		TO BE ADDRESSED
30	King Daniel	Lancaster UK	Section 3 and 6 titles should use capitalised letters for consistency.	TOC	0	Huawei	Completed	Capitalized in TOC and Section Name Section 4: Abstract Intent Requirements Section 7: Involvement of Intent in the Application of AI to Network Management Section numbering changed due to adding a new section 2 with Keywords.
31	King Daniel	Lancaster UK	Missing acronyms.	1	0	Huawei	Completed	Updated the list in section 3. Section numbering changed due to adding a new section 2 with Keywords.
32	King Daniel	Lancaster UK	Consistent use of words.	ALL	0	Huawei	Completed	As per draft-nmrg-ibn-concepts-definitions, we can use the following: life-cycle, end-users in the document. For the rest of similar workds we used: intent-driven (as per SLA-driven in draft), task-based.
33	King Daniel	Lancaster UK	Re-phrasing of text: Paragraph 4	1	1	Huawei	Completed	Text updated in Section 1 as: "As it can be observed, each of the aforementioned SDOs came up with their own way of specifying an intent, and with their own understanding of what an Intent is. Each SDO defines a set of terms and level of abstraction, its intended users, and the applications and usage scenarios."
34	King Daniel	Lancaster UK	Create sub-section 1.1 Scope within the Introduction section.	1	3	Jeferson		IN PROGRESS
35	King Daniel	Lancaster UK	List SDOs scope of work and their output, in order to identify gaps.	1	3	Jeferson	Completed	Section 1 updated to "Several SDOs and open source projects, such as Internet Engineering Task Force (IETF) (by the Autonomic Networking Integrated Model and Approach Working Group [ANIMA]), Open Networking Foundation (ONF) [ONF], Open Network Operating System (ONOS) [ONOS], have proposed intents for defining a set of network operations to execute in a declarative manner. IETF [ANIMA] defines intent as a declarative policy, but still lacks a more complete definition, a tentative format, and a life-cycle. Within ONOS [ONOS], intent is represented as a list of Command-Line Interface (CLI) commands that allows users to bypass low-level details on the network, such as flows or host addresses. ONF through its Boulder and Aspen projects focuses on NorthBound Interface (NBI) semantics and intent models. The SDOs usually came up with their own way of specifying an intent, and with their own understanding of what an intent is. Besides that, each SDO defines a set of terms and level of abstraction, its intended users, and the applications and usage scenarios.
36	King Daniel	Lancaster UK	Create Key Words section after Introduction.	1	0	Huawei	Completed	Separated the text "The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in RFC 2119 [RFC2119]." in a new section 2 named Key Words after Introduction.
37	King Daniel	Lancaster UK	Include a Definitions section, along the Acronyms one.	1	3	Jeferson		IN PROGRESS
38	King Daniel	Lancaster UK	Fix english nits and improve readability.	ALL	2	Huawei		TO BE ADDRESSED as the last step

Updates (1)

- All Complexity 0 and Complexity 1 comments have been addressed by Huawei

ID	Author	Affiliation	High-level comment	Section	Complexi	Candidate Editor	Completed (YES/NO	How was it addressed
1	Mehdi Bezahaf	Lancaster University	Consistent use of words.	ALL	0	Huawei	YES	As per draft-nmrg-ibn-concepts-definitions, we can use the following: life-cycle, end-users. For the rest: intent-driven (as per SLA-driven in draft), task-based.
2	Mehdi Bezahaf	Lancaster University	Missing acronyms.	2	0	Huawei	YES	Updated the list in section 2.
3	Mehdi Bezahaf	Lancaster University	Clarify intent vs. policy confusion.	3	1	Huawei	YES	Updated as suggested by Yehia " An intent is mistaken by many to be just a synonym for policy. While it is easier for those familiar with different standards to understand what service, CFS, RFS, resource, policy continuum, ECA policy, declarative policy, abstract policy or intent policy is, it may be more difficult for the wider audience. Furthermore, those familiar with policies understand the difference between a business, intent, declarative, imperative, and ECA policy."
4	Mehdi Bezahaf	Lancaster University	The authors sees the listed intent solutions more as scenarios or contexts	3	1	Huawei	YES	This has been addressed through email
5	Mehdi Bezahaf	Lancaster University	Clarify whether intent solutions and intents users are covering all posibilities or are just examples/starting point.	3	1	Huawei	YES	The following sentence has been added after the table: "These intent solutions and intent users represent a starting point for the classification and are expendable through the methodology presented in Section 5.1."
11	Mehdi Bezahaf	Lancaster University	Duplicat entries in the table	5	0	Huawei	YES	Fixed 5.3.1 table. Removed two entries.
14	Yehia Elkhatib	Lancaster University	Clarify intent vs. policy confusion.	3	1	Huawei	YES	Updated as suggested by Yehia " An intent is mistaken by many to be just a synonym for policy. While it is easier for those familiar with different standards to understand what service, CFS, RFS, resource, policy continuum, ECA policy, declarative policy, abstract policy or intent policy is, it may be more difficult for the wider audience. Furthermore, those familiar with policies understand the difference between a business, intent, declarative, imperative, and ECA policy."
17	Yehia Elkhatib	Lancaster University	Clarify that the presented intent scopes are extendable.	4	1	Huawei	YES	The following sentence has been added at the end of Section 4.3 "These intent scopes are expendable through the methodology presented in Section 5.1."
18	Pedro Andres Aranda Gutierrez	Paderborn University	Verify the distinction between SDOs and non-SDOs solutions.	1	0	Huawei	YES	Rewritten as "All SDOs, and open source projects, such as IETF [ANIMA]…"
19	Pedro Andres Aranda Gutierrez	Paderborn University	Re-phrasing of text - "Thus, the goal of this document is to bring clarity to what an intent represents for different stakeholders,…"	1	1	Huawei	YES	Updated as suggested "The goal of this document is to clarify what an intent represents for different stakeholders"
20	Pedro Andres Aranda Gutierrez	Paderborn University	Re-phrasing of text: Review usage of would/could or will/can	1	1	Huawei	YES	"This classification could"
21	Pedro Andres Aranda Gutierrez	Paderborn University	Re-phrasing of text: Specify the important part of the sentence first: ""This is achieved by proposing initial classification tables and the methodology used for generating them."	1	0	Huawei	YES	Rephrased as "This is achieved by proposing the methodology and initial classification tables"
22	Pedro Andres Aranda Gutierrez	Paderborn University	Re-phrasing of text: "This draft together with [CLEMM] aims"	1	0	Huawei	YES	Together with CLEMM, this draft aims…
		Lancaster UK	Re-phrasing of text: Paragraph 2	Abstract	1	Huawei	YES	Updated as suggested: "This document discusses the concept of intent. Specifically, it highlights stakeholder perspectives of intent, methods to classify and encode intent, the associated intent taxonomy, and defines