

Next steps for draft-zhang-icnrg-icniot-02.txt

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History and Draft Objectives

- Draft first proposed in IETF-89
 - draft-zhang-iot-icn-architecture
 - We split this into two in IETF-90 to increase participation
 - Separated Challenges from Architecture
- Later combined with another challenges drafts
 - draft-Lindgren-icnrg-efficientiot

Draft Objectives

- Identify research challenges on realizing heterogeneous IoT services over ICN.
 - We call it a unified ICN-IoT platform.
- Understand IoT requirements to achieve a unified ICN-IoT infrastructure
- Discuss suitability of ICN for IoT
 - This is considering that, today these are looked in specific application context.
- ICN challenges to meet the IoT requirements.
- Provide discussion on IoT scenarios, challenges and challenges within the specific scenarios.

Recent Call for Adoption and Mailing List Comments

- Going from 00 to 01 version of the draft, several comments were addressed, when call for comments was made by the Chairs.
- More comments since call for Adoption
- Lixia Zhang
 - Security is not well discussed, should be promoted in Section 2
 - In Section 4 on ICN advantages, Security has no mention
 - Too general at this point, need more specific examples
- Marie-Jose
 - More Security Discussion
 - Why ICN-IoT is more useful than IP-IoT ?, we have many IoT systems today
 - Use case scenarios

Mailing List Comments

- Hassana Moustafa
 - Handling delay sensitive applications
 - How ICN can be a better solution for IoT ?
- Dirk Kutcher
 - Discuss more on technical solutions, considering the recent works
 - Lessons learnt, challenges etc.
- Borje Ohlman
 - Section 2.1 on Clarifying the usage of Names, time dependency, relationship to contexts
 - Advantages over host based naming as in IP
 - IoT device classification (Type 1/2/3)
 - Clarifying Sect 5.3 on Caching
 - Section 5.4 on Mobility - Separate Static versus Dynamic Binding, clarify the use of SDN for Mobility
 - Section 5.7 on Security and Privacy – Refrain from specific examples
 - Section 5.10 on Energy Efficiency needs more concrete discussion.

More Comments

- Dave Oran
 - Propose to re-title the document as “design considerations in applying ICN approaches to the Internet of Things”
 - Material too general at this point
 - Section 2.9 - clarifying the need for rich communication patterns like mesh routing compared to tree based routing that ROLL proposes.
 - Section 2.11 – Infrastructure versus Ad-hoc classification
 - Section 4 – provide discussion related to DTN
 - Revisit Section 3.2.1 on Overlay deployment Weakness
 - Section 5.3 on caching/storage needs more examples
 - Section 5.7 on security and privacy, threat related discussion
 - Revisit Section 5.9 on reliability – more concrete discussions
 - Section 6 requires review by experts in those scenarios.

Proposed Revisions to the Document

Retitle “design considerations in applying ICN approaches to the Internet of Things” ?

Proposed New Section

- Discussion on concrete use case scenarios which brings out ICN unique value

Re-ordering/Clarifying/ More details to current Sections

- Promote Security and Privacy discussions in Section 2/4/5
- Section 4 on benefits of ICN - cite recent works with more discussions
- Make Section 2 shorter and address comments in:
 - Section 2.9 (Communication Reliability)
 - Section 2.11 (Support for Infrastructure and Adhoc)
 - Section 2.12 on OpenAPIs
- Section 3, clarify discussion in:
 - 3.2.1 on overlay efficiency as currently discussed in the document
- Section 5, address comments in:
 - 5.3 on Caching and Storage
 - 5.4 on Mobility
 - 5.7 on Security and Privacy
 - 5.9 on Communication Reliability
 - 5.10 on Energy efficiency
- Section 6, review:
 - Scenario discussions needs expert review