ICNRG
Survey Draft

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• The goal is **NOT** to provide a characterization of current ICN proposals, for which there is already significant literature.

• The goal is to provide a survey about possible directions for the evolution of ICN solutions, in three steps:
  a) Reach a general consensus about the nature of the ICN paradigm (what are ICNs, what should ICNs be and who are the stakeholders).
  b) Analyze major architectural approaches for the instantiation of the ICN paradigm
  c) Identification of several design choices.

**Correlation with other ICNRG drafts:**
• Special attention is given to applicability areas described in the ICNRG Baseline Scenarios draft.
• The analyzed design choices may be specified by some of the technologic and scientific challenges to be described in the ICNRG Research Challenges draft.
1. Introduction
Next generation Internet should be about interconnecting information in large scale, and beyond the borders of the current wireless Internet. This architectural shift implies rethinking many design choices by places information at the center of the picture. This document aims to help identifying a suitable direction or directions for the investigation of the Information-centric networking paradigm.

1.1. Scope
1.2. Related effort
1.3. Notation

2. Information-centric Networking Paradigm
This document analysis the ICN architectural design shift, starting with a brief analysis of what ICNs are today. This initial study creates the foundations to reach the major goal of this document, which is to answer to the question "what should Information-centric networking (ICN) be and who needs and wants it?".

2.1. What are ICNs?
2.2. What should ICNs be?
2.3. Who should the stakeholders be?

3. Information-centric networking approaches
We analyze alternative approaches to instantiate what ICNs should be. We start by two different approaches: one that follows a declarative networking approach focus on what is being transported; other that follows an internetworking approach focus on how to control data flows.

3.1. Focus on the what: Declarative networking approach
3.2. Focus on the how: Internetworking approach

4. ICN architectural design choices
This section depends on what in find while working on previous sections. For instance, we may end up agreeing that the way to look at a ICN in the future will be a mix of the described paradigms, so the design choices will reflect that.

5. Conclusion
Next Steps

Version -00
First draft of Section 1 and Section 2
Points for discussion: What ICNs should be and who needs and wants it?

Version -01
First draft of Section 3
Points for discussion: How to best instantiate what ICNs should be?

Version -02
First draft of Section 4
Points for discussion: What are the major design choices of identified approaches?