

ICN Harmonization Activity Update

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ICNRG Interim Meeting
Sep 29, 2016
Kyoto, Japan

From Meeting at IETF 96 (Berlin)

- Point raised that the broader community would benefit from an effort to harmonize the currently incompatible sets of ICN specifications.
- Idea: Start a collaborative effort in ICNRG to directly address this issue
- Proposed way forward:
 - Step 1: Understand and document current differences
 - Kick-off a focused team that frequently reports to and collects feedback from ICNRG
 - Study would include not only syntax and mechanisms – also semantics and motivation for design decisions
 - Step 2: Try to resolve differences with goal to:
 - Lay groundwork that would enable one set of specifications
 - Allow for evolvability for new ideas in the future

Harmonization Activity Update

- Preliminary list of difference areas created
- Weekly calls to successively discuss each area individually
 - 5 calls held since ICNRG Berlin –
 - minutes, materials and recordings posted on ICNRG
 - <https://trac.tools.ietf.org/group/irtf/trac/wiki/icnrg/convergence/meetings>
 - Discussions focused simply on understanding and documenting differences
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 - Raw material from difference discussions needs to be distilled into a coherent summary
 - Some areas yet to be discussed; others to be revisited

Topics

- Naming
 - Referencing (Data Retrieval)
 - Interest payloads - Carrying data in an interest packet
 - Packet encoding
 - Packet Structure
 - Link and Network Adaptation
 - Forwarding / Interest Looping
 - Interest Aggregation
 - Data Centric Security
 - Data Digest
 - Name Discovery, Interest Refinement (& Selectors)
 - Cache Verification
 - Cache Control
- Black topics discussed at high level; some need revisiting – all need coherent summary
- Fragmentation

Harmonization Activity Update

- Proposed way forward:
 - Pre-IETF Seoul (Nov 19)
 - Continue weekly calls to complete discussion of differences
 - Document (RFC?) to ICNRG; draft ready by Seoul
 - Present technical summary of differences at ICNRG Seoul
 - Post-IETF Seoul
 - Identify and document potential harmonization paths for significant difference areas
 - Decide about next steps