ICNRG @ IETF-102
Montreal

Information-Centric Networking Research Group
Tuesday, July 17th, 2018

Chairs' Slides

Dirk Kutscher
Börje Ohlman
Dave Oran

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See RFC 3979 (BCP 79) for definitions of "IPR" and "contribution" and for the detailed rules (substituting "IRTF" for "IETF").

ICNRG Administrativia

- IRTF RG on Information-Centric Networking
- Mailing list: icnrg@irtf.org
- Web: http://irtf.org/icnrg
- Wiki: http://trac.tools.ietf.org/group/irtf/trac/wiki/icnrg
- Github: https://github.com/icnrg
- Chairs
    - Dirk Kutscher (Huawei)
    - Börje Ohlman (Ericsson Research)
    - Dave Oran (Network Systems Research Design)
- This meeting
    - Note takers: Marie-Jose Montpetit -- merci!
    - Etherpad: http://etherpad.tools.ietf.org/p/notes-ietf-102-icnrg
    - Meeting
      Materials: https://datatracker.ietf.org/meeting/102/session/icnrg

Tuesday Agenda

- **Chairs Intro**, Agenda Bashing, Minutes taker, Bluesheets, Status
  - Report from the interim meeting on Sunday
  - RG Last call for deployment guidelines?
  - Final IRSG poll on CCNx Semantics and Messages
  - IRSG Review of disaster scenarios
  - RG adoption of MAP-Me? Need more eyes on it
- **Intel/NSF ICN-WEN Program update**: Eve Schooler
- **Discussion on mobility management**, its status in 5G standardization and role of ICN in improving mobility handling for 5G networks: Discussion lead: Luca Muscariello
- **Draft Updates lightning round** (5 mins maximum each)
  - Deployment Considerations Document update: Akbar Rahman (note: will want initial consensus assessment for RG Last Call)
  - Draft-irtf-icnrg-icn-lte-4g[j] - Milan
  - Draft-gundogan-icnrg-ccnlowpan[k] - Thomas & Cenk
  - NRS Drafts: NRS Requirements, NRS on CCNx, Architectural considerations - Jungha
  - CCInfo Draft Update - Hitoshi (given by DaveO)
  - Draft-ravi-icnrg-5gc-icn-02[l] - Ravi
- **Chairs Wrap-up**: planning for next interim (day after the ICN 2018 conference in Boston) and next IETF 103 in Bangkok

Summary of Sunday Interim (1/2)

- **Mobile Data Repositories at the Edge**: Yiannis Psaras
- **ICN Video distribution w/ secret sauce**: Yves Daoust, Martin Benoit, Marie-Jose Montpetit
- **A Transport Layer and Socket API for (h)ICN: Design, Implementation and Performance Analysis**: Luca Muscariello
- **Demo of WebRTC over (h)ICN**: Luca Muscariello
- **Update on CICN implementation ad open source status**: Luca Muscariello
- **DMS: Dynamic Mobility Support Framework for Information Centric Networking**: Aytac Azgin
- **Stateless forwarding in ICN**: Aytac Azgin

Summary of Sunday Interim (2/2)

- **ICN for AR/VR**: Cedric Westphal
- **Demo - Panoramic Video Streaming via Edge-Computing and ICN**: Atsushi Tagami
- **Multi-dimensional Anomaly Reconstruction / 360 degree black box / Ubiquitous Witness** - Eve
- **Producer mobility support with NRS in Live streaming service** : Jungha
- **Supporting QoS aware Data Delivery in Information Centric Networks**: Anil
- QoS in ICN discussion
  - Had seen some (independent) proposals in the past (also see presentation)
  - Discussion as to whether IP networks mechanisms are a good fit
  - Can we do better, leveraging ICN properties?
  - Also see discussion on mailing list

RG Drafts -- Specs

- **Update on CCNx protocol documents** -
  - https://datatracker.ietf.org/doc/draft-irtf-icnrg-ccnxmessages/
  - https://datatracker.ietf.org/doc/draft-irtf-icnrg-ccnxsemantics/
  - Recent updates reflect comments from IRSG review
  - Final IRSG Poll pending - to be started by Allison
  - Will move on with publication after IETF-102

- **File-Like ICN Collection (FLIC)**
  - https://datatracker.ietf.org/doc/draft-irtf-icnrg-flic/
  - Describes a bare bones "index table"-approach for organizing a set of ICN data objects into a large, File-Like ICN Collection (FLIC)
  - Somewhat orphaned due to Chris Wood's new non-ICN focus. Need people to step up if this is to move forward

Recently Finished Drafts

- **Research Directions for Using ICN in Disaster Scenarios**
  - https://datatracker.ietf.org/doc/draft-irtf-icnrg-disaster/
  - Outlines some research directions for ICN wrt applying ICN approaches for coping with natural or human-generated, large-scale disasters
  - IRSG Review in progress - one set of comments received, more expected
  - Next step is to address comments, reissue draft, then send for final IRSG Poll

Recently Adopted RG Drafts

- **ICN CCN/NDN Terminology**
  - https://datatracker.ietf.org/doc/draft-irtf-icnrg-terminology/
  - Overview of the terminology and definitions that have been used in describing concepts in CCN&NDN
- **Deployment Considerations for Information-Centric Networking (ICN)**
  - https://datatracker.ietf.org/doc/draft-irtf-icnrg-terminology/
  - Provides a number of deployment considerations in the interest of helping the ICN community move forward to the next step of live deployments
  - Authors wnat assessment of how close to ready for RG last call this work is

Other RG Drafts

- **Native Deployment of ICN in LTE, 4G Mobile Networks**
  - https://datatracker.ietf.org/doc/draft-irtf-icnrg-icn-lte-4g/
  - Allow ICN to be enabled natively over the current LTE stack comprising of PDCP/RLC/MAC/PHY or in a dual stack mode (along with IP) help optimize the mobile networks by leveraging the inherent benefits of ICN
  - Presentation later
- **Design Considerations for Applying ICN to IoT**
  - https://datatracker.ietf.org/doc/draft-irtf-icnrg-icniot/
  - How IoT can leverage ICN features
  - See mailing list for latest update

New Stuff

- **MAP-Me : Managing Anchorless Mobility in Content Centric Networking**
  - https://datatracker.ietf.org/doc/draft-irtf-icnrg-mapme/
  - an anchor-less solution to manage micro-mobility of content producers via a name-based CCN/NDN data plane, with support for latency-sensitive applications
  - Individual submission -- needs to be renamed
  - IPR declaration underway
- **CCNinfo: Discovering Content and Network Information in Content-Centric Networks**
  - https://datatracker.ietf.org/doc/draft-asaeda-icnrg-ccninfo/
  - Discovering information about the network topology and in-network cache in ICN
  - Update to be presented today
- **Consideration on Applying ICN to Edge Computing**
  - https://datatracker.ietf.org/doc/draft-wang-icnrg-icn-edge/
  - Analyzes the reasons and opportunities of applying ICN to EC

Now - time for today's presentations

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Wrap-Up

RIOT Summit

September 13 – 14, 2018

Meet in Amsterdam!

We already support the Summit!

RIPE NCC
RIPE NETWORK COORDINATION CENTRE

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Get involved too!

Call for Sponsors & Contributions

https://summit.riot-os.org/

Named Data Networking Community Meeting 2018

MEETING

📅 September 19, 2018 to September 20, 2018

📍 NIST, 100 Bureau Drive, Gaithersburg, Md 20899

ACM Conference on Information-Centric Networking 2018

News

March 16, 2018	Please check ACM **visa support letter request** policy.
March 6, 2018	**TPC Members** list published.
January 30, 2018	**Call for Tutorials** published.
January 12, 2018	**Call for Papers** published.
December 12, 2017	**Call for Supporters** published.
September 18, 2017	Web site is up.

Wrap-Up

- Future ICNRG meetings
    - Interim at ACM-ICN 2018, Boston
        - Monday Sept 24, 2018?
    - ICNRG @ IETF-103, Bangkok, November 3-9, 2018
        - Regular?
        - Sunday Interim?
- AOB?