

NDN Community Meeting 2017

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ICNRG Meeting, 3/26/2017

NDN retreat 3/22 before NDNcomm

- ◇ NDN: (close to) 7 years!
- ◇ Has been an exciting journey
 - Great team
 - Right approach:
Application-driven architecture development

“Experiment is the sole judge of scientific truth”

– Feynman

Big strides towards the goal

- ◇ More **applications**
- ◇ Advancing **sync** designs
- ◇ **Wireless ad hoc, mobility**, scaling routing
- ◇ Tightening **security**, easing usage
- ◇ **Tools** development to lower the barrier for entry
- ◇ Engaging **community**

NDN Community Meeting 2017

<https://www.caida.org/workshops/ndn/1703/> (with pointers to the meeting recording)

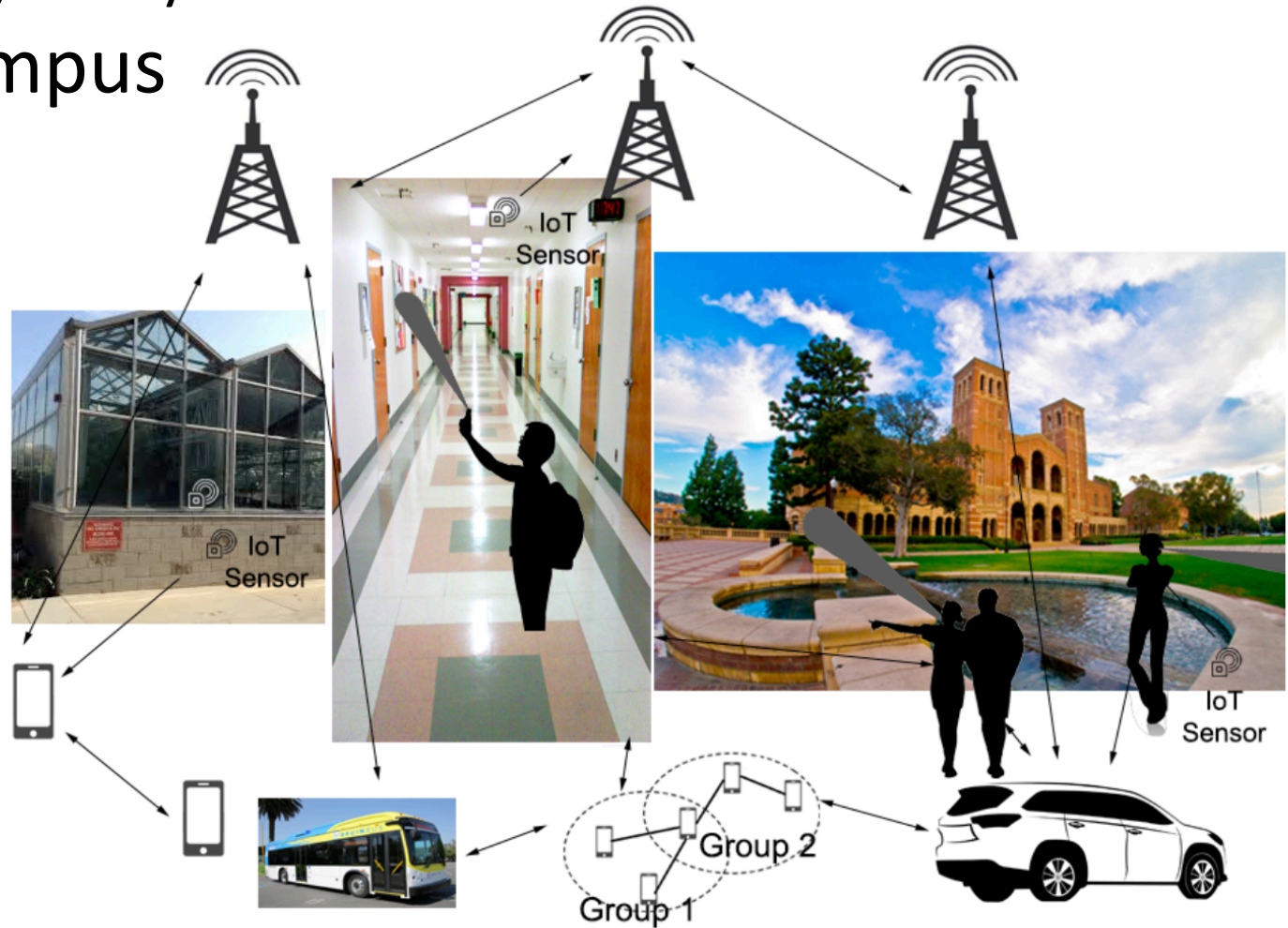
- ◇ Mobile, IoT, and Challenged Environments
- ◇ Data-Intensive Applications
- ◇ Security
 - Controlled content access
 - Content confidentiality, name confidentiality: how much system should help, can help
- ◇ Facilitating deployment
 - NDN Control Center
 - NDN-Android
 - SDN4ICN: connecting up ICN islands

Mobile, IoT and Challenged Environments

- ◇ Low-Rate Communications for Neighborhood Solar Over NDN
- ◇ NDN operation in Opportunistic Wireless Networks
- ◇ Internet of (Named) Things: NDN Protocol Stack for RIOT-OS
- ◇ Opportunities for NDN in Augmented Reality
- ◇ Securing the Cyberspace From Edge In

Exciting new apps

Augmented (and virtual) reality:
Browsing the campus



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- ◇ Facilitating deployment
 - NDN Control Center: **supporting WiFi ad hoc**
 - NDN-Android **supporting WiFi direct**
 - SDN4ICN: connecting up ICN islands

- ◇ Applications, Libraries and Tools
 - Serverless file sharing
 - NDN-RTC
 - NDN testbed
 - ndnSIM (the most popular!)
- ◇ Routing and Forwarding
 - Geohyperbolic Routing
 - Loop-Free Multipath Routes in Named Data Networking
 - A Native Content Discovery Mechanism for NDN
 - ICN Geolocation Beacon Service
- ◇ NDN at the Edge and on the Horizon Panel
- ◇ Community Feedback

Attendee feedback

Thanks again for inviting me. It was a very informative and fruitful forum with many interesting topics and discussions. Thank you for organizing this successful event.

A couple of feedbacks from me following up Friday's community feedback session:

- 1. Can we expand more research and technology developments on NDN security?**
2. To facilitate the NDN adoption and deployment, can we try to put NDN implementation/toolkits in more platforms?

NDN project welcomes feedback and contributions!

- ◇ There is a bar to join the play as in any other open source project; we are working hard to lower that barrier
- ◇ Work on detailing a contribution guide and welcome suggestions

NDN tutorial at SIGCOMM 2017 Aug 21-25@UCLA

Advancing ICN from Edge In

NSF/Intel Partnership on Information-Centric Networking in Wireless Edge Networks (ICN-WEN)

PROGRAM SOLICITATION

NSF 16-586



National Science Foundation

Directorate for Computer & Information Science & I
Division of Computer and Network Systems



Intel Labs University Collaboration Office



**Secure Handhelds on Assured
Resilient networks at the
tactical Edge (SHARE)**

January 2017

2017: a great start

- ◇ ICN-WEN and SHARE programs bringing *ICN awareness* to broader communities
- ◇ Starting to address *real world* challenges
In addition to conventional network areas,
 - IoT broadly defined
 - Wireless D2D, mobility
 - New generation of apps
 - Above all: security, usable security
- ◇ ICNRG: removing the IPR barrier, moving toward greater progress