All times are US Eastern Time (UTC – 5)

Thursday March 2, 2023

10:00am **Opening**
Lotfi Benmohamed (NIST)

10:10am **Panel 1: Lessons Learned**
Chair: Ken Calvert (University of Kentucky)
Panelists: Alex Afanasyev (Florida International University)
Jeff Burke (UCLA REMAP)
Luca Muscariello (Cisco)
Lan Wang (University of Memphis)
Beichuan Zhang (University of Arizona)
Lixia Zhang (UCLA)

11:40am **Session 1: Vehicular and Public Safety**
Chair: Davide Pesavento (NIST)

- Resilient Edge Ecosystem for Collaborative and Trustworthy Disaster Response (REsCue): An Information-Centric Approach, Abde Mtibaa (UMSL)
- In-vehicle networking with NDN, Zach Threet (Tennessee Tech)
- Secure Truck-Tractor to Trailer Communications based on NDN, Ahmed Elhadeedy (Colorado State University)

12:40pm Break

1:30pm **Session 2: Security**
Chair: Christos Papadopoulos (University of Memphis)

- To know the road ahead: A Forward-Looking Analysis of Lessons to Learn from IP DDoS, Eric Osterweil (George Mason University)
- Schema-Based Automation of Name-Based Access Control, Alex Afanasyev (Florida International University)
- A Security Bootstrapping Package for Hydra, Tianyuan Yu (UCLA)
- A Review of Defined Trust Transport (DeftT), Turan Vural (UCLA)
- Identity Authentication Security Strategies using TPM private key storage in an NDN Publish/Subscribe Industrial Energy Control System, Randy King (Operant Networks)

3:10pm Break

3:40pm **Session 3: Applications**

Chair: Susmit Shannigrahi (Tennessee Tech)

- A Secure mHealth Infrastructure for Real-Time Data transfer with Fine-grained Access Control, Saurab Dulal (The University of Memphis)
- A Dataset of NDN Traffic Traces for the Research Community, Davide Pesavento (NIST)
- NDN Sync API Overview, Varun Patil (UCLA)
- Steering New Applications Away from Centralized Realization, Lixia Zhang (UCLA)

5:00pm Day 1 Closing

Friday March 3, 2023

10:00am **Session 4: Forwarding and Applications**

Chair: Lotfi Benmohamed (NIST)

- iStack: An in-Kernel Networking Stack for Named Data Networking, Tian Song (Beijing Institute of Technology)
- Bringing Named Data Networking to Internet Livestreaming, Teng Liang (Peng Cheng Laboratory)
- Towards First Data Centric Medium Access Control Multicast Rate Control, Mohammed Elbadry (Stony Brook University)

11:00am **Panel 2: Named Data Metaverse**

Chair: Dirk Kutscher (Hong Kong University of Science and Technology)
Panelists: Jeff Burke (UCLA REMAP)
Todd Hodes (Eluvio)
Paulo Mendes (Airbus)
Michelle Munson (Eluvio)

12:30pm Break

1:30pm **Panel 3: Time for Standardization?**

Chair: Christos Papadopoulos (University of Memphis)
Panelists: Randy King (Operant Networks)
Suzanne Lightman (NIST)
Luca Muscariello (Cisco)
Kathyayani Srikanteswara (Intel)

3:00pm Break

3:15pm **Session 5: Applications and Services**

Chair: Tamer Refaei (MITRE)

- mGuard: a Secure mHealth Data Sharing Infrastructure over NDN, Suravi Regmi (The University of Memphis)
- NDN Opportunities in 5G/6G Core Networks, Junxiao Shi (NIST)
- N-DISE: NDN-based Data Distribution for Large-Scale Data-Intensive Science Experiments, Edmund Yeh (Northeastern University)
- Edge Information Management - Demand is Only Growing, Jeff White (Dell Technologies)

- SPAN-AI federated UCDN PoC - the first commercial ICN network at scale, Rhett Sampson (GT Systems), Jaime Llorca (GT Systems and NYU)

4:50pm Closing

Panel Abstracts:

- **Panel 1: Lessons Learned**

The "10 years of NDN - Lessons Learned" panel at the 2020 NDNComm emphasized the utility of the basic building block (semantically named, secured data) and the importance of driving the architecture through application building and understanding application needs. In this panel, members will present insights about specific aspects of the NDN architecture, including for example namespace structure and API features.

- **Panel 2: Named Data Metaverse**

This panel will discuss opportunities and challenges for building Metaverse systems with a Named Data Networking approach. Specific discussion questions include: What are architectural, security-related, and performance-related issues in Metaverse systems today? What communication patterns could be supported by NDN platforms? How can the data-oriented model and decentralized trust establishment help in developing better Metaverse systems and at what layer would NDN technologies help? What are gaps, challenges and research opportunities for NDN evolution to address Metaverse system requirements?

- **Panel 3: Time for Standardization?**

After 13 years, Named Data networking (NDN), is the only NSF Future Internet Architectures (FIA) project still active. While NDN has substantial research and development under its belt, with running code, hundreds of mostly academic research papers, a global testbed, and a sizable community, it has not yet made an equally strong impact in the commercial space.
Industry adoption typically requires some form of standardization or agreed upon specification. This panel will explore whether such activities are needed to transition NDN into a commercial success. More specifically, the panel will address two questions: (a) is it time to pursue some form of NDN standardization? and (b), if the answer is yes, what is the appropriate path for NDN?

Abstracts for Presentations (compiled in separate document)