DARPA SHARE Program

Dave Oran
Network Systems Research & Design

What is This?

- A solicitation from DARPA – U.S. Defense Advanced Research Projects Agency

- A "**Broad Agency Announcement** ", which is a non-secret, open request for proposals

- You can find it at https://www.fbo.gov/utils/view?id=a4742ef6ea 3acce9ab33592a85bcf682

What is it about?

- **Secure Handhelds on Assured Resilient Networks at the Tactical Edge**
- Let's unpack this:
    - Multi-level secure system for in-field deployment
    - Tactical (i.e. battlefield) networks with radios
    - Major improvement over existing systems in resilient operation
    - Field-testable system, not a research prototype
- DARPA thinks ICN may be just the ticket for this

Some administrivia

Caveat: don't take my word for all of this – I may have some of it wrong

- Proposal deadline was March 15
- Budget about ~$30M over three years
- Speculation: fund 2 proposals @~$15M each
- Received at least 9 proposals

What might be interesting about this for ICNRG

- How do you do multi-level secure group keying with ICN data-centric approach?

- How do you get differentiated service which captures information importance **and** request importance?

  - And map it to both transmission and caching?

- How do you get strong DTN properties using ICN protocols?

- How do you deal with mobility across both mesh tactical radios and COTS LTE-style radios with satellite uplinks?

You may have questions...but I probably don't have answers.