



Network Science Research Center (NSRC)

BACKGROUND

The Army battlefield of the future will be a complex, dynamic heterogeneous network involving multiple interacting actors and agents, generating a massive volume of data. The Army will require a means of controlling, channeling, directing and reshaping this dynamic and cluttered information field. ARL formed the Network Science Research Center (NSRC) to foster collaborative research needed to assess, model, predict & influence the complex behaviors & interactions between large scale and small scale communication, information and social-cognitive networks.

PARTICIPANTS

Open to national and defense labs, universities and industry.

CONCEPT OF OPERATION

The NSRC will utilize CRADAs, MOUs, and/or MOAs to define the extent of collaboration under the center, the disposition of intellectual property, and the sharing of research outcomes and laboratory resources.

COLLABORATIVE FOCUS

The NSRC provides a collaborative environment for jointly understanding the complex behaviors and interactions of large scale multi-genre networks.

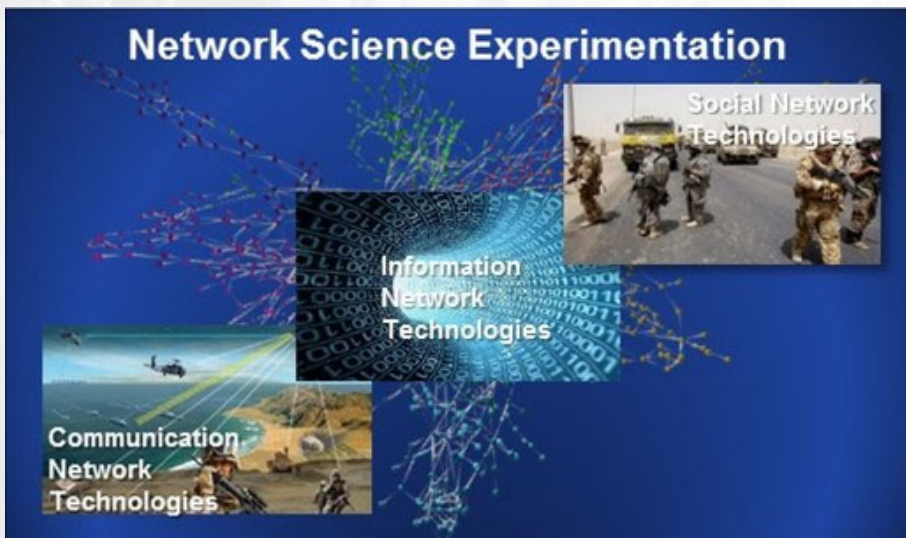
BENEFITS

The NSRC brings together a multi-disciplinary team of researchers from across ARL's Information & Human Sciences Campaigns to advance network science across several fronts including:

- Design and Control of Complex Multi-Genre Networks
- Semantically & Quality Aware Networking
- Heterogeneous Information Fusion
- Trust Management Theory
- ARL Experimentation Framework: Provides an integrated environment capable of modeling & visualizing complex network science experiments
- ARL Dynamically Allocated Virtual Clustering Management System: A cloud environment for experimentation
- ARL Visualization Framework: A suite of visualization tools

UNIQUE FACILITIES

- Network Science Research Laboratory - infrastructure for modeling of mobile network systems providing a controlled, repeatable emulation and simulation environment for network algorithms and protocols
- Cognitive Assessment and Simulation Engineering Laboratory (CASEL)
- Sensor Integration Testbed Collaborative Research Environment (SITCORE)



POINT OF CONTACT

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