Cloudlet-Based Processing

S&T Campaign: Computational Sciences
Computing Sciences

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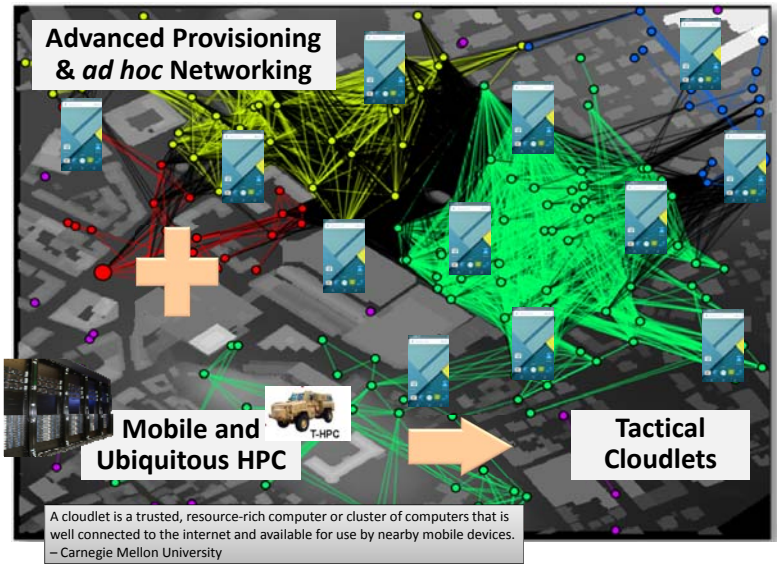
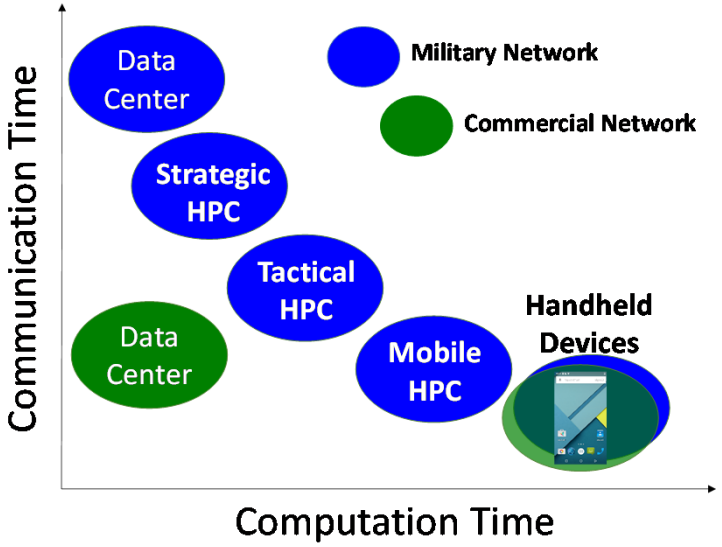
Research Objective

- High performance computing for mobile ad-hoc networks, resource limited solder computing resources.
- To provide high performance computing as a service to resource constrained, power limited, hand-held computing devices.



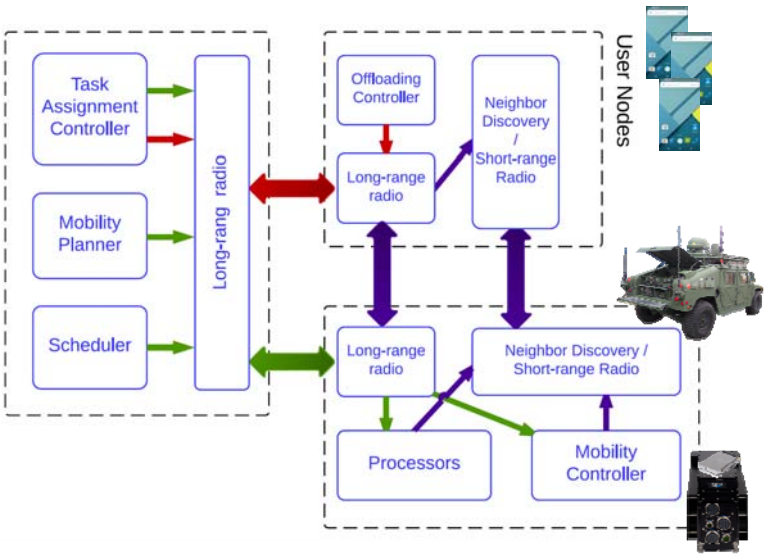
ARL Facilities and Capabilities Available to Support Collaborative Research

- Ability to run complex large scale network simulations
- Network emulation software and dedicated hardware



Challenges

- Disruptive technologies make future computational needs inherently difficult to predict.
- Lack of a unified model which provides an accurate representation of relationships.
- Difficulty in objectively evaluating the effectiveness of distributed computing/HPC on the battlefield.



Complementary Expertise/ Facilities/ Capabilities Sought in Collaboration

- Experience with ad-hoc routing algorithms
- Large network simulation
- Experience in algorithms/heuristics that provide computation on limited resource