

# NAVY Transition Assistance Program

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## NEED & CUSTOMER REQUIREMENT

**Need:** Navy needs to examine the performance of a broad range of deployment options with respect to maximum achievable data rates for a given set of SATCOM terminals and show the effects of these SATCOM systems in the context of a warfighting scenario.

**Value to the Warfighter:** This study, i.e. the model toolset, enables to assess the bandwidth performance of given sets of SATCOM terminals, or Terminal Fielding Plans, within different SATCOM resource allocation scenarios. It also enables to simulate the performance of a variety of SATCOM terminals and satellite transponders under a number of different constraints.

**Operational Gap:** Navy does not currently have an effective tool to examine the performance of a broad range of SATCOM deployment options.

**Customer Specifications:** The SATCOM bandwidth model must: interface directly with a mission/campaign level warfighting model, have the capability to perform statistically significant bandwidth assessments of maximum achievable data rates for a given field plan, be linked to and capable of maintaining a commercial database of available SATCOM resources, and have a graphical user interface (GUI) to allow an analyst the capability of configuring terminal fielding plans, satellite configurations, and resource allocations.

**Technology Description:** The toolset includes: an analytical model, which enables to assess bandwidth performance of various SATCOM resource allocation scenarios under a number of different constraints, and an OPNET simulation model, which shows the effects of these SATCOM systems in the context of a warfighting scenario.

# N07-112 - XPRT SOLUTIONS, INC.

Modeling and Simulation for Higher Fidelity of Commercial SATCOM Capability as a Design Aid to the Planning and Decision Making Process.

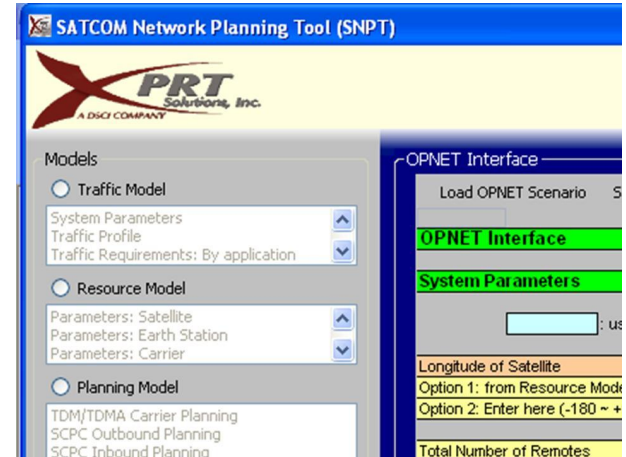
## SPONSORSHIP of original SBIR/STTR Topic

**SYSCOM:** SPAWAR 51100

**Transition Target:** Commercial Broadband Satellite Program (CBSP) and QoL-Sea Warrior/Distance Support Program

**Original Sponsoring Program:** To be determined

**TPOC Phone Number:**  
619 302 3260



## TECHNOLOGY DEVELOPMENT MILESTONES (SBIR/STTR)

Milestone	TRL	Risk	Measure of Success	TRL Date
Phase I	3	Low	Available SATCOM bandwidth computational model	January 2008
Phase I - Option	3	Low	Demonstrated proof-of-concept	September 2008
Phase II - First Year	4	Moderate	Available key functional software components	September 2009
Phase II - Second year	5	Moderate	Implemented software elements	March 2010

**Open contract:** N00039-08-C-0101 ending 7 March 2010

## TECHNOLOGY TRANSITION OPPORTUNITIES (PHASE III)

### Other Potential Applications:

DoD agencies' commercial broadband SATCOM program  
Army's commercial SATCOM procurement under WWSS (World-Wide Satellite Systems)

### Business Model:

Software tool production  
Customization to support specific needs  
Packaging the tool product with technical support

### Objective:

Understand specific needs of potential customers  
Potential customers' initial assessment of our product's features and capabilities