



# WBT

Wide Bandwidth Technologies



## Summary

- WBT will enhance the warfighter's ability to exchange basic reporting information and time-critical mission execution data
- WBT programs will leverage off high bandwidth terrestrial and satellite telecommunications capabilities
- WBT will determine requirements in terms of bandwidth, processing power, and response time
- WBT programs provide research, design, and engineering services in information technology and telecommunications

**WBT will enhance the warfighter's ability to exchange basic reporting information, audio/video transmissions, mission planning/rehearsal data, and time-critical mission execution data.**

Wide Bandwidth Technologies (WBT) programs provide research, design, and engineering services in information technology and telecommunications for missile defense and other military mission areas. These functions include a Collaborative Unified Environment (CUE) for mission planning, algorithm development and/or data analysis, a high bandwidth data transmission capability for the Ballistic Missile Defense System's C2BMC (Command, Control, Battle Management and Communications). WBT enabling technologies are also appropriate for Run Time Infrastructure development and benchmarking. These technologies include quality of service (network application priority) management, imagery transmission, and latency monitoring.

## Overview

Connecting the deployed warfighter to services located in the continental United States (CONUS) requires stable, global communications links. Warfighters require global electronic reach back/reach forward and quick response to improve situational awareness. The technical communications systems for both voice and data available at deployed locations vary widely and range from full telephone and Internet connectivity in urban settings to non-existent or very primitive methods in remote desert/jungle environments. Wide Bandwidth Technologies (WBT) programs provide research, design, and engineering services in information technology and telecommunications to fulfill these needs.

## Benefits for Tomorrow's Defense

WBT will enhance the warfighter's ability to exchange basic reporting information, audio/video transmissions, mission planning/rehearsal data, command and control, and time-critical mission execution data. These functions will reduce the risks associated with unknown, unfriendly, or unexpected situations. Deployed troops will be given properly integrated capabilities with the ability to collect, share, and analyze data in a time-critical manner that supports cooperative decision making between a CONUS home station and remotely deployed elements.

## Technical Concept

WBT programs will leverage off high bandwidth terrestrial and satellite telecommunications capabilities. WBT will determine requirements in terms of bandwidth, storage capacity, processing power, and response time. Data resources, for data warehousing and mining development, will include, but not be limited to, target/threat, image, map, and terrain databases.

## WBT Programs

- A Collaborative Unified Environment (CUE) for mission planning, advanced algorithm development, and data analysis (mission and test).
- High bandwidth data transmission capability for the Ballistic Missile Defense System's C2BMC as well as for the Fusion Toolbox (BFT) team's development efforts for real time testing of Ballistic Missile Defense System algorithms, test data and imagery transmission.
- Mission and resource management support to provide new and innovative ideas for the development of intelligent agents for the Ballistic Missile architecture team.

## WBT Enabling Technologies

WBT enabling technologies are appropriate for:

- Run Time Infrastructure development and benchmarking.
- Network Quality of Service (application priority management).
- Data latency monitoring.



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