

BITS: Broadband Intelligence Training System

Currently Morphing into

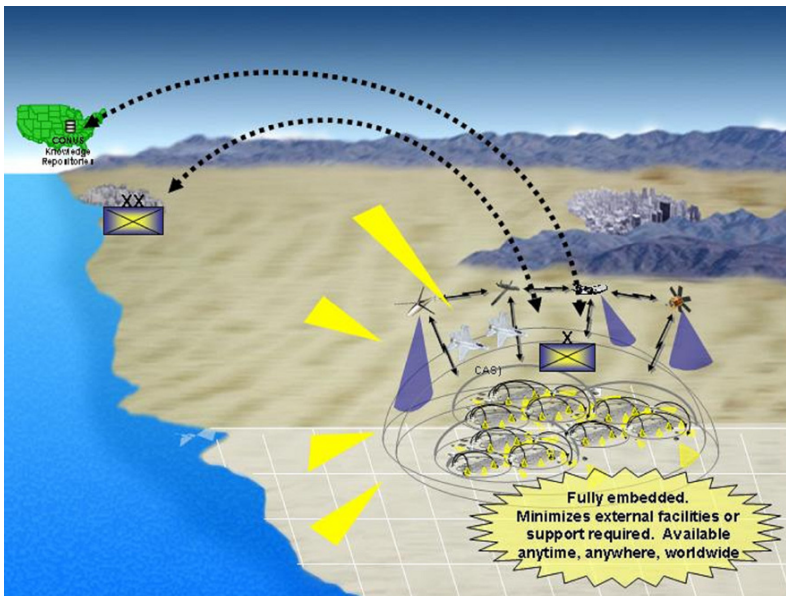
BLTS: Broadband Language Training System and TSS "Reach"

BITS is an Army Intelligence project extending its real-time interactive training offering to arbitrary locations serving both students and instructors. BITS project addresses a critical need with a less expensive and more efficient training infrastructure. The critical features of the project include:

- Use of a mixed landline, wireless, and satellite public (non-secure) IP network
- Integration of self-paced, synchronous, and collaborative learning models
- Use of COTS software infrastructure, with portal and real-time secure collaboration backbone provided by CollabWorx
- Exceeding Army Distance Learning Program security requirements on the application level
- Integration of high-fidelity interactive courseware tightly coupled with the core system

Project history: BITS has been implemented in 2003 by Ft. Huachuca with Progressive Expert Consulting as a prime and CollabWorx as a sub responsible for all BITS software. At present the project is being moved to Defense Language Institute and SOCOM with focus on immersive advanced language instruction over the Internet. BITS "Lessons Learned" are also being used in design of the ATSC Training Support System "Reach".

The concept: "Reach" Anywhere, Anytime, Any Soldier



The vision behind TSS Reach is described as follows:

Provide real-time access to people and knowledge by delivering information anywhere, anytime to authorized and authenticated personnel while synchronizing data.

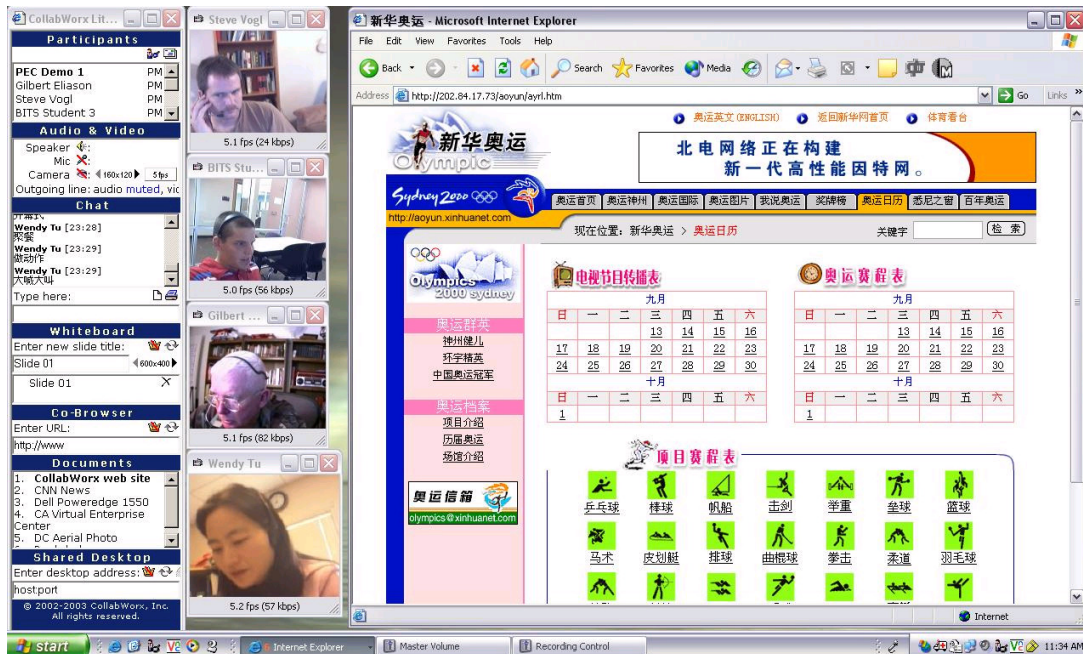
Implementation of such a vision requires seamless integration of the network and application resources across the multi-level technology stack. CollabWorx contribution to this complex process is our ability to provide even most demanding shared multimedia services within the inherently interoperable Web technology framework. The Web-based approach simplifies the architecture, improves interoperability, and very significantly reduces the cost of implementing complex information delivery

systems. This has been proven in BITS as well as in a number of other projects where CollabWorx was able to radically slash development cycles by providing its' collaborative backbone and related technology integration capabilities.

The most promising aspect of BITS turned out to be language instruction. Traditional language instruction requires students at one location with the instructor. This is an expensive and logistically difficult process. It also

does not ensure optimal utilization of the very limited language assets currently available to US DoD. Earlier attempts to move interactive language instruction to the Internet were not encouraging.

BITS approach has been radical: the traditional distance learning approach of using room based VTC with the instructor at one location and a group of students gathered



elsewhere was replaced by an architecture allowing instructor and students to be anywhere and use off-shelf desktop computers instead of expensive VTC hardware. Successful experiments have been conducted with instruction in Chinese (provided by DLI) and Arabic (provided by SOCOM).

The screenshots included here show actual classes conducted over commercial Internet by instructors located either at a DoD facility (DLI) or in her private residence. The students connected from a variety of locations, including DoD facilities but also residential settings. The equipment used during the classes was a set of standard PC from different vendors, along with retail Webcams and microphones. The reliance of COTS equipment is one of the key factors in lowering training cost.

As shown in the screenshots, CollobWorx software supports a variety of teaching tools and document sharing capabilities. The system has built-in support for foreign languages, including alphabets as complex as Arabic and Chinese.

In FY 2005 the project will be continued by DLI and SOCOM under the designation of BLTS (Broadband Language Training System) using a special Congressional award targeted at the improvement of interactive training capabilities in DoD and at lowering the cost of such training. The "lessons learned" are being used in conceptualizing and designing ATSC TSS "Reach".

