Joint Service Workstation

The JSWS augments the Army's Common Ground Station (CGS)

Near Real-time Connectivity with Multiple (ISR) Platforms

Real-time Decision Making and Targeting

The Joint Service Workstation (JSWS)

The Joint Service Workstation (JSWS) is a real-time, multi-sensor Command, Control, Communications, Computers, and Intelligence (C4I) system. The JSWS was designed to augment the Army's Common Ground Station (CGS) and provide the Joint Surveillance Target Attack Radar System (JSTARS) radar picture. When equipped with the required peripherals and communication hardware, JSWS provides the Air Force near real-time connectivity with multiple Intelligence, Surveillance and Reconnaissance (ISR) platforms.

The JSWS allows AF operators to correlate data from multiple ISR sensors and nominate time critical targets to the Joint Forces Air Component Commander in near real-time. The JSWS' near real-time feed can be provided simultaneously to intelligence systems for intelligence preparation of the battlespace and in support of the collection management plan.

The JSWS acquires, processes, displays and disseminates data from multiple real-time sensors and platforms including Moving Target Indicator (MTI), Synthetic Aperture Radar (SAR), Unmanned Aerial Vehicles (UAVs), Imagery Intelligence (IMINT) platforms, and Signal Intelligence (SIGINT) from Rivet Joint and Guardrail. Its software has a user-friendly Human Computer Interface that provides advanced multi-INT visualization for real-time decision making and targeting. The system is a key element in the Air Force AOC Block 20 upgrade, and can be deployed in Transit cases or as part of the internal rack system within an Air Operations Center (AOC). The JSWS is currently deployed throughout the Department of Defense.

Joint Service Workstation

The Architecture

The JSWS has a truly scalable, open system architecture. The architecture provides a core foundation for the JSWS and is easily applied to a wide variety of systems requiring real-time interfaces, data processing, data management, geo-critical information processing, and user friendly human interfaces. The architecture is scalable and extensible to ensure a simplified migration path for system capability upgrades; growth in processing power, storage, and interfaces;and simplified support and maintenance.

The Hardware

The JSWS uses commercial computer servers, workstations, networking, and industry standard interfaces which allow it to provide scalable functionality as required for specific applications and environments.

The Software

The JSWS software is based on a Real-Time Open System Architecture derived from the Common Ground Station, using modules or engines, which provide an object oriented design approach for applications development. The system software provides:

- A robust set of core components for C4I systems (processing engines for interfaces, data, graphics database, HCI)
- A set of Application Programming Interfaces (APIs) to simplify and accelerate software development
- Portability across major Unix platforms
- Simplified migration path to upgraded system functionality and pre-planned product improvements
- Modular architecture ensures simplified long-term support and maintenance
- Compliant with DII/COE specifications

Real-Time Open System Architecture Software

- Object oriented software foundation
- Complete set of core C4I components: Interfaces, databased, graphics/HCI, data processing, event and data services
- Simplifies new system development
- DII/COE compliant
- Creates distributed applications
- Digital mapping system independent
- Fully configurable base GUI
- Allows simple reuse from other projects

GENERAL DYNAMICS
C4 Systems

12424 Research Parkway • Suite 390 , Orlando, FL 32826 • Phone 866-244-2377 • Email: info@gdc4s.com
Website: www.gdc4s.com/jsws