

## *ADDITIONAL INFORMATION*

To obtain more information about the JITC DII Test Network, its capabilities and procedures, please contact the following individual:

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## **DEFENSE INFORMATION INFRASTRUCTURE (DII) DISTRIBUTED TEST NETWORK**



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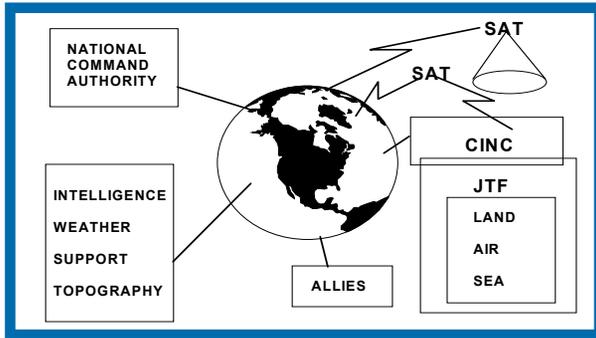
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*Increasing Combat Effectiveness  
Through Interoperability*

## **Joint Interoperability Test Command**

## INTRODUCTION

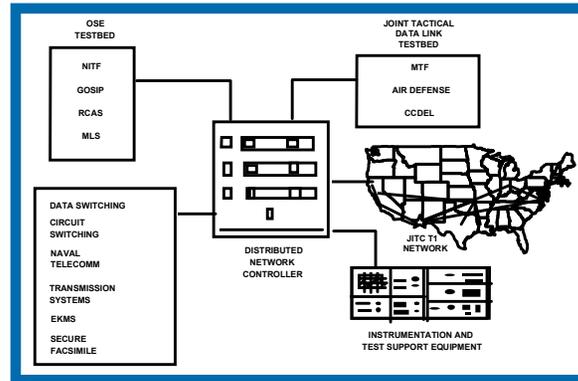
The Defense Information Infrastructure (DII) aggregates all Department of Defense (DOD) communications networks, sensors, data entry devices, computer resources, facilities, and operational and support staff which are organized to provide collection, production, storage, display and dissemination of information for the DOD.



While greatly enhancing the utility, flexibility and efficiency of the information system, this "system of systems" presents the tester with a significant challenge which can only be met through a DOD-wide information technology test program which provides high quality, life-cycle DII testing in an efficient and affordable manner. The JITC's DII Distributed Test Network, which interconnects military, commercial and allied test facilities, is designed to meet this need.

## DII ARCHITECTURE

The DII Test Network is composed of the JITC's facilities at Fort Huachuca, Arizona, interconnected with Service, Agency, commercial and allied testbeds throughout the world. The JITC, as the testing element of the Defense Information Systems Agency (DISA), serves as the focal point for DII testing through the features of a Distributed Network Control Center (DNCC). The DNCC acts as an automated technical control facility, consisting of a system of matrix switches capable of inter- and intra-testbed connections. Remote test sites can access the testbed and network through the DNCC via dial-up circuits, DDN,



HF Radio, leased lines, and government/commercial satellite systems. Connectivity can then be extended throughout the testbed and to other users.

## DII TESTBED CAPABILITIES

The profusion and interaction of sensors, computers, communications networks and user terminals which comprise the DII necessitates a testing program which spans the complete life cycle of the system. The JITC's testing methodology reflects this approach through the following types of tests:

- ◆ **Standards Validation:** Ensures the developed information technology standard is complete, accurate and meets the user's need.
- ◆ **Standards Conformance:** Evaluates the system, one-on-one, with an available test tool, to determine whether the system is built to the approved standard.
- ◆ **Interoperability:** Tests the ability of the conforming system to exchange usable information with similar systems.
- ◆ **Performance:** Tests the ability of the system to meet performance criteria of the user.
- ◆ **System Effectiveness:** Tests the effectiveness and suitability of the system in functioning as part of the overall DII.

JITC testbeds and laboratories provide a major segment of the overall DII Test Network. Functionally arranged and interconnected by the DNCC, local test facilities form the central hub for the network which provides a full range of life-cycle DII testing capabilities.

## DII TESTBED FACILITIES

- ◆ Circuit Switching Testbed
- ◆ Data Switching Testbed
- ◆ Transmission Systems Testbed
- ◆ Command and Control (C2) Testbed
- ◆ National Imagery Transmission Format (NITF) Laboratory
- ◆ Communications Security (COMSEC) Laboratory
- ◆ Digital Facsimile Testbed

The following graphic depicts the connectivity potential of the DII Test Network by integrating network Defense and Service test networks. This integrated network approach will result in an efficient and cost effective means of supporting Joint and Service-unique testing through shared use of capabilities.

