

Net-Centric Diagnostic Framework (NCDF) U.S. Patent Number 8,306,689

Technology & Background:

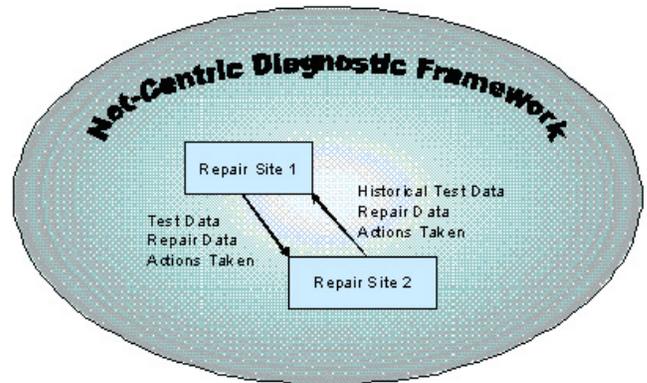
Imagine you're at your general doctor, complaining of dull intermittent pain along your left arm. After running a series of tests, your doctor determines you need a specialist. The specialist, with limited information, runs another series of tests. A diagnosis is made, a remedy provided, and you resume normal activity. Could the specialists have optimized your health, at a lower costs, if vital information was exchanged? Conversely, with future visits to the general doctor, could they benefit from the specialist's information?

Transfer this scenario to the repair of complex avionics systems used in Naval Aviation. Often, the front-line maintainer (general doctor) does not communicate vital information to the back-line maintainer (specialist), thus increasing repair time with unnecessary diagnostic procedures. Similarly, when the back-line maintainer diagnoses and provides a repair solution, this information is frequently not communicated to the front-line maintainer, thereby reducing future diagnostic and repair effectiveness and efficiency.

Enter the Net-centric Diagnostic Framework (NCDF) - a technology enabling the sharing of diagnostic and maintenance information between the repair activities of Naval Aviation. This technology optimizes resource management and provides superior information on events and conditions, needed to empower the maintainer.

Technology Solution:

The NCDR is a suite of software, run on several different computers at different levels of maintenance to allow the flow of information between maintenance levels in a standard message format (TCP/IP) and a standard data format (Automatic Test Markup Language, or ATML).



Summary of Benefits:

- Greater system availability
- Decreased maintenance times at all levels of maintenance
- Decrease logistics costs
- Continuously updated historical test data on which to make maintenance decisions
- Increased maintainer awareness of system repair status and history

Market Opportunities:

- Commercial aviation maintenance
- Automotive maintenance
- Any system which needs to exchange information between a tester and a larger systems or maintenance levels

Status and Opportunity:

- 1.) Full text copy of the issued US patent is available at www.uspto.gov

Net-Centric Diagnostic Framework (NCDF)

Licenses for commercial production and sale of the Net-Centric Diagnostic Framework technology are available.

Cooperative Research and Development Agreements (CRADAs) can be established to focus on a particular application of the technology.

CRADAs may include joint development and testing, cooperative use of NAWCAD facilities, and exchange of information. These agreements have been and continue to be an excellent vehicle for government and industry to work together toward specific technology development goals.

CRADA and PLA:

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For Technology Transfer
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Approved for Public Release