Open Architecture Test Facility

The Open Architecture Test Facility (OATF) is the first mainstream Commercial-Off-The-Shelf (COTS) computing equipment suite instantiation as part of the Navy's Open Architecture initiative. It provides an extensive and varied computing plant for the validation of key aspects of OA initiative by Navy and Navy defense contractors. This facility is located in Building 180 at the Naval Surface Warfare Center, Dahlgren, VA.

Among the key tenets to be explored in this facility are:

Validate Open Architecture Computing Environment (OACE)

This involves validating that OACE meets the warfighting system's computing requirements (capacity, throughput, latency, etc.). This will be accomplished using benchmarking, prototyping, system scale tests or a combination depending upon the system or application(s) under test. The most stringent of the various warfighting systems computing requirements will be identified and tested in the OATF to determine whether the OACE provides the computing environment needed by the various warfighting systems.

Validate Systems' Use of OA Functional Architecture (OAFA) and OACE

This involves the validation of systems' use of common services and common functions as they are developed. As common services and common functions are to be used across many warfighting platforms and thus across many computing environments, portability and interoperability validation is required. The services and functions will be validated across several computing environments to ensure that the functionality and performance is maintained. Also envisioned is the testing of these common services and functions within multiplatform systems early on as a risk reduction effort for the development and implementation of common services and common functions. Portability of selected unique applications of the various warfighting systems will also be validated in an effort to identify any technology refresh concerns or issues.

Validate new S&T still works in OAFA and OACE

The validation of new Navy S&T efforts in the OACE is to determine if new computing requirements imposed by the new developments are still properly met by the OACE and that the new capabilities interoperate with the common services and common functions where they intersect. This effort is envisioned to be part of the Rapid Technology Insertion (RTIP) effort to shorten the time from S&T application development to fleet introduction.

The current OATF configuration contains:

- 49 Sun Blade 2000 Dual UltraSPARC II 1.05 GHz CPUs Workstations with 1 GB RAM, 73 GB Hard Disk, 10/100 Mb Ethernet, 2 Gb Fiber Optic Ethernet
- Sun Solaris 8 Operating System
- 30 PCs Dual Intel Xeon 2.4 GHz CPUs with 4 GB RAM, 60 GB Hard Disk, 2 Gb copper Ethernet
- Linux Operating System (Red Hat 7.3, 2.4.20 Kernel)
- Windows 2000/XP
- 69 PCs Single Athlon 2.4 GHz CPU, 1 GB RAM, 60 GB Hard Disk, 2 10/100 Mb Ethernet, 1 Gb Fiber Optic Ethernet
- Linux Operating System (Red Hat 7.3, 2.4.20 Kernel)
- LynxOS 3.1 & 4.0
- TimeSys Linux
- Windows 2000/XP
- 3 Cisco Catalyst 6513 Network Switches providing a switch based environment with each computer host having full bandwidth capability to the switch
- 3 GPS Network Time Servers providing time synchronization via NTP and IRIG-B
- 1 Sun StorEdge 3910 SAN w/Netra 20 and L25 Tape Backup – System File Storage
- 1 Cisco PIX 525 Firewall, 1 Cisco 2600 Router, 1 Network Sniffer, Virus Protection Software for security and diagnostics
- 5 Christi Large Screen Displays, 70 inch diagonal demonstration displays
- 1 Audio/Visual Matrix switch rack with 32 video inputs and 5 video outputs for presenting the displays on the large screens
- Middleware Components – CORBA, RTI NDDS, Totem, Ensemble, F-T CORBA ORB
- Development Systems – Ada95, C++, Java

NOTE: This is a selection of equipment that meets or appears to be on a path to meeting the OA standards as currently identified and documented. This equipment selection does not constitute a buy list for the developer nor a government-specified qualified products list, as this equipment is a subset of the possible equipment that could be purchased to meet OA standards.

The support software available in the OATF is described below.

Description
NetBackUp BusinesServer, Solaris License, v.4.5 Standard License
NetBackUp BusinesServer, Solaris, Server License, v.4.5 Standard License
2 Port GIG (SX) and 1 Port EN Hardware and Software Bundle - Perpetual Software License
HP Open View Network Manager 250 6.4 for Solaris LTU Inc: 1
HP OV NNM EXTD Top 250 2.0 Solaris LTU Includes license
HP Open View Network Node Manager, multicast
TAO V1.2A Distribution for Unix(Solaris 8, Linux 7.2, HP-UX 11, Irix & TRU64 4.0)
TAO V1.2A Distribution for Windows(NT, 2000, & XP)
ORBexpressRT C++ v2.5.1(Solaris v.2.8, Linux 8.0,HP-UX 11)
ORBexpressRT Ada V2.4.3 (Solaris 8, Linux 7.2, HP-UX 11)
Enterprise Server 5.2 Visibroker Develop/Java-Multiplatform. License per developer (Windows platforms)
Development License -BES 5.1 Windows
BES - VisiBroker 5.2 Development per CPU License
Jbuilder 8 Enterprise (Includes Visibroker V5.2)
C++ Builder 1 Enterprise new user (Includes Visibroker V5.2)
NDDS V3.0i WaveWork
NDDS Runtime Target Licenses
TEMFT/FTORB DEVELOPMENT KIT for Lynx OS.
Oracle LableSecurity Named User License
Oracle Data Mining Named User License
Oracle Advanced Security Named User License
Real Secure Network Sensor 7.0 including Management
Real Secure Gigabit Network Sensor including Management
Real Secure Server Sensor 7.0 with Management
Real Source SiteProtector
Sun Forte C/C++ Workshop 6 Update 2 (Forte C++Enterprise Edition 6 Update 2, 1-RTU Slim Kit
Rational Rose 2002 Enterprise Edition (Rose-Windows) License Floating

The following items provide additional information concerning the OATF.

Item	Description	Access Location
Entrance Process	Process for installing, testing, and validation of applications, new technology products, common services and common functions, and warfighting systems	DRAFT Available
Proposal Package	Initial package submitted by provider to initiate OATF entrance process	DRAFT Available
OATF Users' Manual	Describes the security and system administration policy and procedures for installation of applications, new technology products, common services and common functions, and warfighting systems	DRAFT Available
OATF Schedule	Microsoft Outlook Calendar for OATF (Read Only)	To be provided

Points of Contact for OATF

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