

Navy Integrated Collaborative Environment (NICE)



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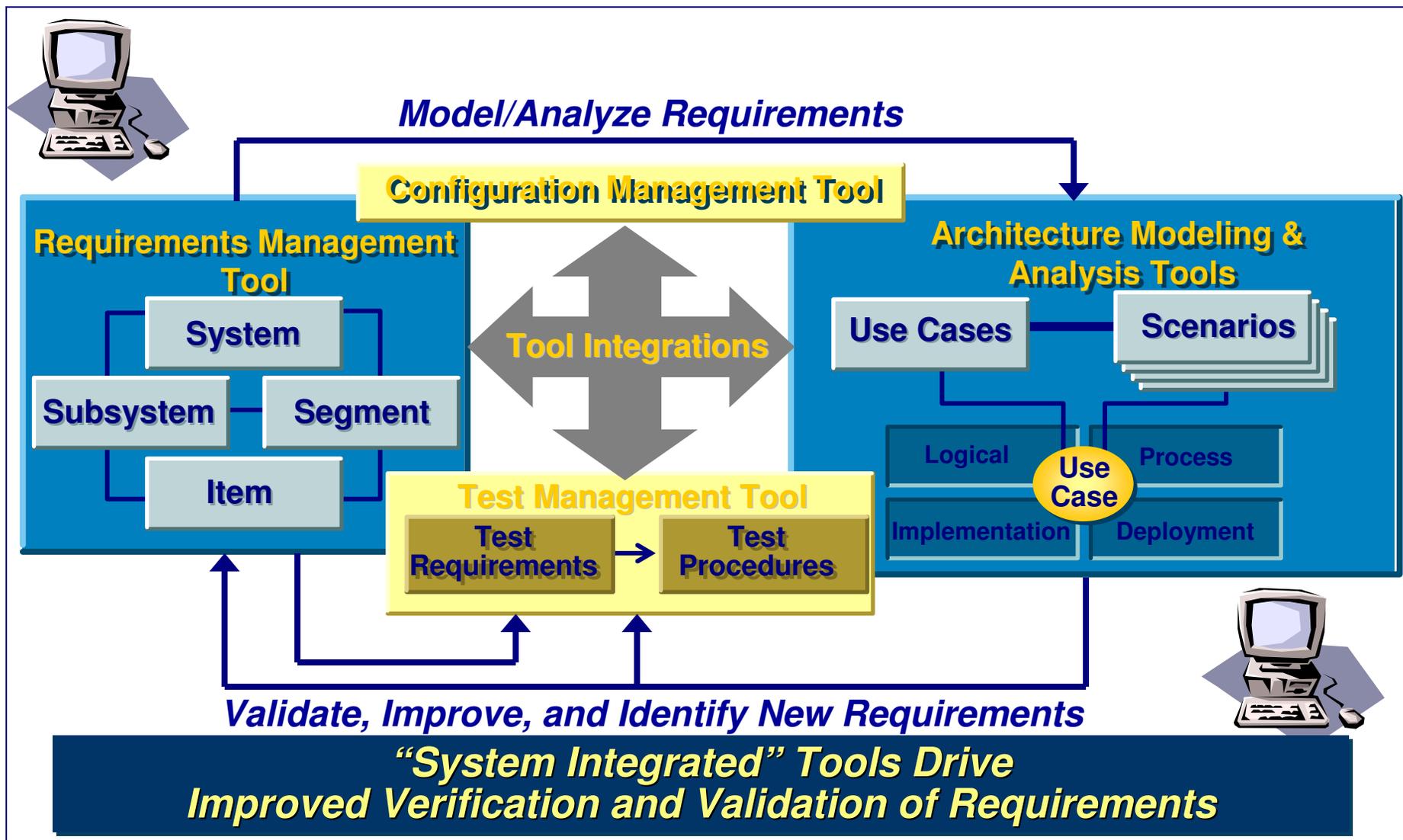
Naval Surface Warfare Center, Dahlgren Division (NSWCDD)

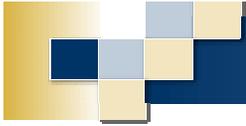


Background

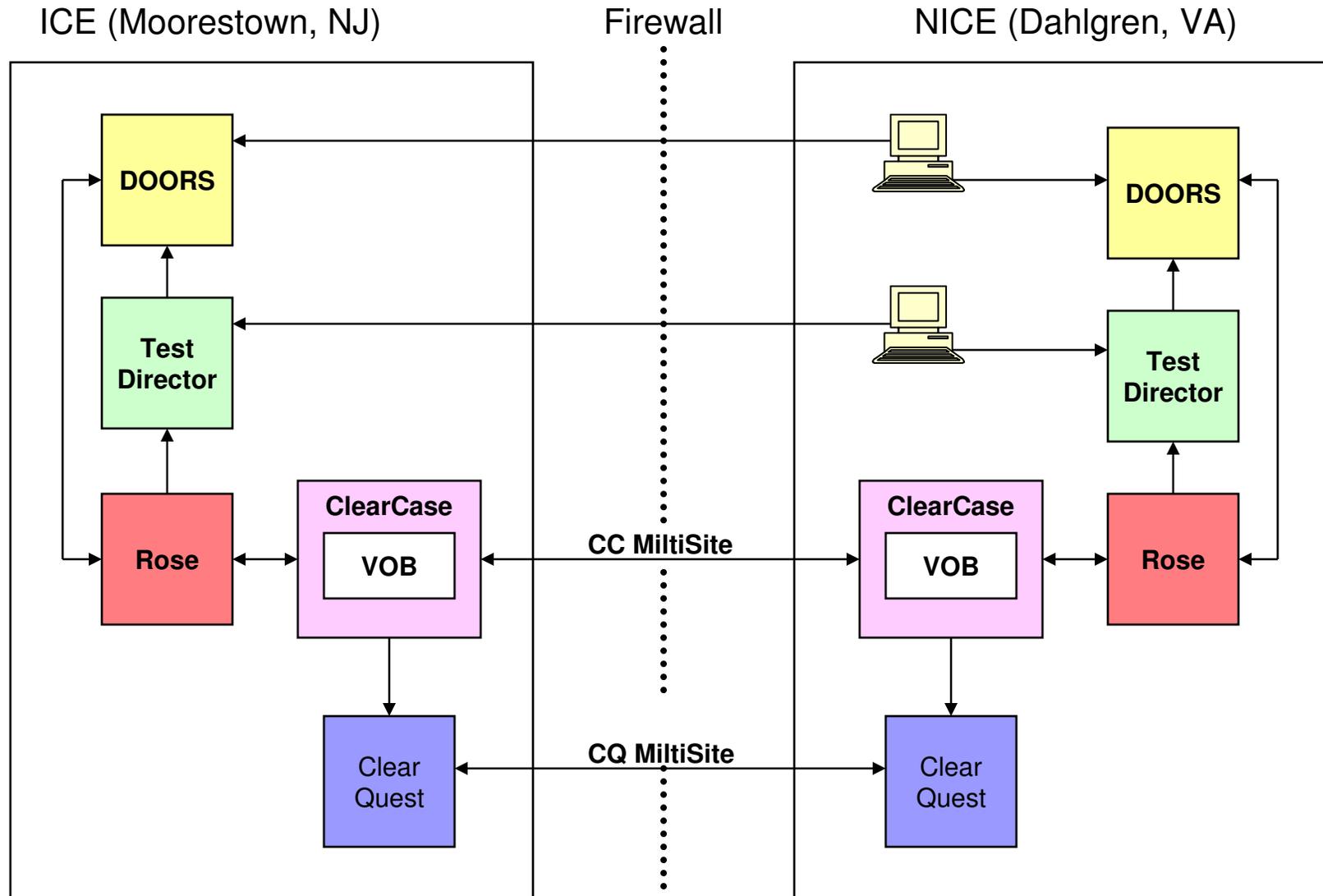
- Navy Integrated Collaborative Environment (NICE)
 - Started when Aegis program moved toward collaborative development between the prime contractor and Navy laboratories
 - Lockheed Martin - Combat Systems Engineering Agent (CSEA)
 - Naval Surface Warfare Center Dahlgren Division (NSWCDD) - Lifetime Systems Engineering Agent (LSEA)
 - NSWC Port Hueneme Division (NSWCPHD) - In-Service Engineering Agent (ISEA)
 - Center for Surface Combat Systems (CSCS) - Fleet Training Center
- Full suite of engineering products that support:
 - Requirements Management
 - Design Verification
 - Collaboration
 - Technical Reviews, Inspections, and Evaluations
 - Change Management
 - Configuration Management (CM)
 - Quality Assurance (QA)
 - Test and Evaluation (T&E)
 - Independent Build and Verification (IB&V)
 - Product Certification
- Technical Library (Virtual Asset Repository)
 - PEO-IWS Surface Ship Combat System Software Library Initiative
 - Reusable Software With Supporting Engineering Information
- Corporate knowledge base for decision makers
 - Review results, metrics, issues, risks, actions, resolutions, etc.
 - Technical design decisions and rationale

NICE Functional View





NICE Technical View (Aegis)





PEO-IWS Surface Ship Combat System Software Library Initiative

The near term establishment of a library of surface ship combat system software was directed to be a...

- Library, initially populated with SSDS and Aegis software, and made available to qualified vendors for use
 - Qualified vendors will initially consist of current DoD contract holders with proper security approvals
 - Library access will be NOFORN [Not Releasable to Foreign Nationals/Governments/Non-US Citizens (US government classification control)]
 - Non DoD contractors may be granted access to library by entering into a Cooperative Research and Development Agreement with NSWCCD
 - The initial contents will consist of certified baselines of the combat systems software to which the Government has at least Government Purpose Rights (GPR)
 - The set of artifacts that will constitute a package will be determined to provide a self contained set of useful materials
- Grouping of existing databases and workflows that could be leveraged to achieve near-term fielding of the library
- Other Software candidates: GFCS, SGS, C2P, CDLMS
 - NSWCCD Surface Ship Program Office currently developing this list.



The effort as conceived will rely on a number of assumptions being correct for expeditious fielding to be possible

- The existence of the library, as well as the conditions of use, are published on the OA website as well as in FedBizOps on a regular basis
- Software/data releases deposited in the library are limited to those artifacts in which the Government has GPR or greater rights
- Non-Disclosure Agreements (NDAs) are incorporated into the registration process
- An appropriate license agreement will be executed by users of the library as part of the process of registering for access
 - In exchange for accessing the repository, the license agreement will require at least GPR in derivative works and redeposit of modified artifacts into the library
 - SBIR efforts will require special handling – SBIRs who request access will need to comply with GPR requirements



The effort as conceived will rely on a number of assumptions being correct for expeditious fielding to be possible (continued)

- The selected database is structured with an appropriate security, schema and functionality to support the required major functions
 - User registration and access control
 - Component check-in/check-out
 - Feedback and database administration
 - Configuration management of library components
 - Export control
- A process will be established to add revised components to the library (configuration management) when completed and certified by the appropriate authority
- A listing of the components to be provided back to the Navy is made part of the license agreement (e.g., requirements, code, re-use, testing and interface documentation)
- Funding is in place to support the management of the library



Specific legal assumptions

- Library will be in compliance with Security requirements including but not limited to International Traffic in Arms Regulations (ITAR)
- Prior to being deposited in the repository, artifacts will be physically inspected by appropriate Program personnel to ensure proper markings
- Any artifacts which contain non conforming markings, or markings which provide less than GPR will not be placed in the repository until such markings are justified or replaced
- Government OA checkout license agreements will be executed by companies requesting artifacts
- Any modification or derivative use data and software must be provided to the repository and configuration control mechanisms put into place

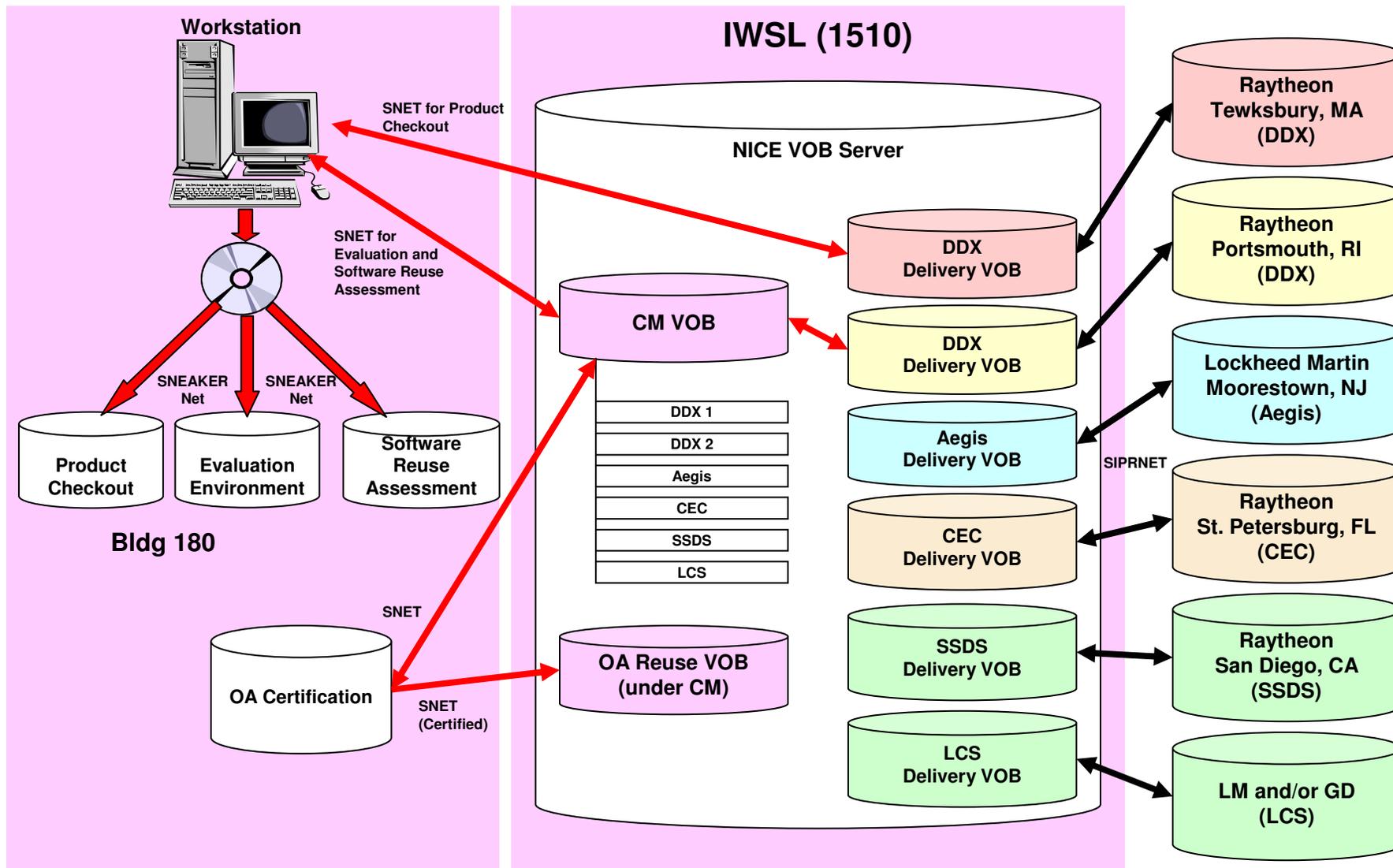


The Navy Integrated Collaborative Environment (NICE) at Dahlgren is initially being used for this purpose

- Developed to support SNSC2I effort
- Is physically constituted and has the appropriate schema and work flow for this purpose
- Possesses the appropriate user management and security infrastructure
- Can be leveraged immediately to field the library



Future Concept for the Surface OA Asset Repository





...fulfilling a vision of an enterprise level repository that has applicability to all domains while preserving the domains' needs for a tailored process within their span of control

- The AEGIS/SSDS library could form the basis for a surface domain library
- At the start, only "certified" products should be included in this library
 - AEGIS and SSDS certified baselines will seed the library
 - Eventually we will want to make data available on programs that are in development (e.g., DDX, LCS, CVN-21, AEGIS OA)
- The "asset repository" could be operated in a similar fashion to a university library
 - Access would be controlled via a "library card" qualification process
 - Once qualified, a user should have access to the library's content
 - Library contents would be organized in a "library catalog"
 - Inter-domain network connections and interface schema will be required