Overview of the OCSE Independent Verification & Validation Assessment

U.S. Department of Health and Human Services
Administration for Children and Families
Office of Child Support Enforcement

Definition of IV&V

Software Verification and Validation (V&V) is a systems engineering discipline which helps the development organization build quality into the software during the software life cycle. Validation is concerned with checking that the software meets the user's needs, and Verification is concerned with checking that the system is well engineered. This is sometimes expressed as "Are we building the right system?" and "Are we building the system right?"

Independent Verification and Validation (IV&V) is Verification and Validation activities performed by an agency that is not under the control of the organization that is developing the software. The definition of activities included under IV&V in CFR 307.15(b)(10) is quite broad, including both technical and management activities (see Enclosure 1).

Purpose of the IV&V assessment

The Office of Child Support Enforcement conducts IV&V assessments on Child Support Enforcement systems when any of the triggering criteria of CFR 307.15(b)(10) occur (see Enclosure 2). The purpose of the assessment is to determine the extent of the IV&V services that a state program will be required to obtain. A secondary purpose may be to determine if an independent state agency is qualified to perform the IV&V role.

Nature and conduct of the assessment

OCSE will conduct an on-site visit to aid in the assessment. OCSE may provide a list of questions to help the State prepare for the visit. During the on-site visit, the assessors will interview State staff and collect documentation. The goal of the assessors is to understand both the system's development processes and the quality and completeness of the products of those processes. They will also need to understand both the history and the current status of the process. The assessors will need access to all system standards and documentation, and to personnel who understand the process.

Enclosure 3 describes the potential areas of assessment. Not all these areas are applicable to every project.

The State is encouraged to supply any additional information that will help explain the State's development process. The State may do brief presentations by project staff on the project's history, status, and development processes if the State feels it will be helpful to the assessors.

After the on-site visit, the assessors will analyze the documentation and other materials gathered during the on-site visit. They will contact the State if any additional information or clarification is required.

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Results of the assessment

After all the collected information has been analyzed, OCSE will report on the extent of the IV&V services the State will be required to obtain. These services must be obtained from a contractor via RFP or from a State agency, approved by OCSE, which is independent of the Child Support Enforcement program.

If a contractor is used, the RFP and contract (or similar documents if IV&V is performed by another State agency) must be submitted to ACF for prior approval, regardless of the cost or thresholds. The contract must include the names and skills of key personnel who will actually perform the IV&V analysis. The State must submit an APD Update to include IV&V activities and costs eligible for Federal financial participation at the 66 percent matching rate. The contractor or ACF-approved State agency will provide the services described in Enclosure 3.

To be approved as an IV&V provider, a State agency must have both the technical capability to perform IV&V services and managerial independence from the system development agency

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Enclosure 1

Independent Verification and Validation activities from CFR 307.15(b)(10)

1) Develop a project work plan. The plan must be provided directly to OCSE at the same time it is given to the State.

2) Review and make recommendations on both the management of the project, both State and vendor, and the technical aspects of the project. The results of this analysis must be provided directly to OCSE at the same time it is given to the State.

3) Consult with all stakeholders and assess the user involvement and buy-in regarding system functionality and the system's ability to meet program needs.

4) Conduct an analysis of past project performance (schedule, budget) sufficient to identify and make recommendations for improvement.

5) Provide a risk management assessment and capacity planning services.

6) Develop performance metrics which allow tracking of project completion against milestones set by the State.

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Enclosure 2

Criteria from CFR 307.15(b)(10) that trigger an IV&V assessment of a State system

(A) State does not have in place a statewide automated child support enforcement system that meets the requirements of the FSA of 1988

(B) States which fail to meet a critical milestone, as identified in their APDs

(C) States which fail to timely and completely submit APD updates

(D) States whose APD indicates the need for a total system redesign

(E) States developing systems under waivers pursuant to section 452(d)(3) of the Social Security Act

(F) States whose system development efforts we determine are at risk of failure, significant delay, or significant cost overrun.

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Enclosure 3 – IV&V Options

Part I - Project Management
Project Initiation
Business Process Reengineering
Project Planning and Reporting
Project Estimating and Scheduling
Project Personnel
Project Organization
Subcontractors and External Staff
Subcontractor Commitment
State Oversight
Acceptance and Turnover

Part II - Project-Wide Processes
Training and Documentation
User Training and Documentation
Developer Training and Documentation
Process Definition and Standards
Quality Assurance
Configuration Management
Requirements Management
System Security
System Capacity

Part III - Environments, Processes, and Products
Systems Engineering
Requirements Analysis
Interface Requirements
Requirements Allocation and Specification
Reverse Engineering
Operating Environment
System Hardware
System Software
Data Management
Database Software
Data Conversion
Database Design
Development Environment
Hardware
Software
Software Architecture
High-Level Design
Detailed Design
Job Control
Code and Test
Code
Unit Test
Integration Test
Pilot Test

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