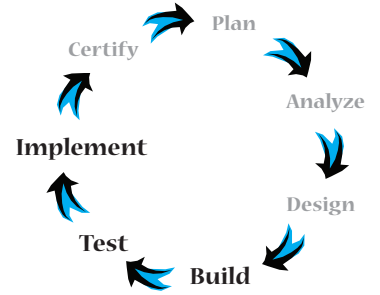




IV & V

Independent Verification and Validation

Verification – build the system RIGHT; and Validation – build the RIGHT system.



Independent Verification and Validation (IV&V) is a best practice that has its roots in the engineering of automated manufacturing and process oriented facilities. As these facilities grew in complexity, the risks associated with developing facilities of this type rose considerably.

To guard against unwelcome and unexpected events, engineering firms began to “look over the shoulder” of those that were tasked to build the automated systems. Specifically, they began to review documentation, design, and programs before they went into production. This “over the shoulder approach” soon spread to independent testing of the logic (many times on a “white box” basis because actual testing with live equipment was not feasible). The Institute of Electronics and Electrical Engineers (IEEE) promulgated a Standard for Verification and Validation (V&V) that, over the years, grew to include programming in both engineering and non-engineering environments.

The original Verification and Validation model (V&V) was not known as IV&V because the effort was not conducted by an independent entity. Process engineers, employed by the same engineering firms as the automation engineers, typically performed the V&V function. However, the potential for inadequate V&V (due to the pressures associated with schedule and cost overruns), and potentially disastrous consequences, led most engineering firms to conclude that an independent third-party was needed to conduct the V&V activities. The autonomy of the IV&V raised the level of confidence associated with the verification and validation activities.

The IEEE Standard also shifted the focus of the V&V effort from programming and testing to the complete Systems Development Life Cycle (SDLC). This ensured that V&V activities were incorporated into the entire development life cycle and brought oversight to the Design, Development, Implementation, Operations and Maintenance cycles of implemented systems.

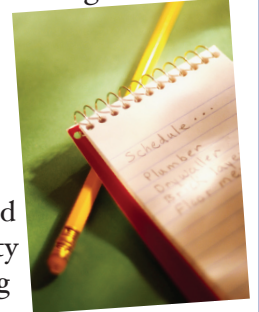
Client Benefits to be Realized from a Successful IV&V Engagement

- The client gains a second set of eyes on the project that help to ensure that the vendor designs, develops, and implements a system that meets specifications
- The client is able to leverage a mix of experienced IV&V consultants – a mix that may not be available from its own staff.
- The IV&V consultants perform independently

- from either the client or the vendor, ensuring that the result of the V&V activities are autonomous and free of outside pressure
- As the project moves through the SDLC, the IV&V team is able to adjust its resources to meet the needs of the current phase

Field Notes

4TG recently assisted with the rollout of a new managed care program. This change focused on moving from Fee-for-Service to Care Management Organizations throughout the Medicaid population.



4TG was contracted to act as IV&V and assess the ability of the following organizations to implement this change:

- Fiscal Agent
- Pharmacy Benefit Manager
- Enrollment Broker
- Three Care Management Organizations
- Pharmacy subcontractor
- Vision subcontractors

This autonomous process allowed the client to identify and resolve gaps in the ability of these organizations to implement the change. The result was a smooth transition for the State and its providers and recipients.

Recipe for a Successful IV&V Project

- Not all IV&V projects are initiated at the same SDLC cycle. The first thing you need to do when you land an IV & V project is to determine the contracts for the current and future cycles.
- Next, read and commit to memory the RFP requirements of the vendor requesting IV&V services. In some cases, Amendments to existing ongoing contracts may also contain new requirements.
- Then, work with State project representatives to identify any changes to the RFP requirements that have been negotiated between the State and the vendor, both in terms of the original contract and any subsequent amendments.
- Mix in an IV&V staff that is proficient at the IV&V activities that lie ahead.
- Develop prospective Progress Metrics to measure how well done the vendor's project is at any point in time.
- Put this mix together and begin to anticipate the possible outcomes.



Paul Ferrell

In May 2006, The FourThought Group hired Paul Ferrell to provide leadership and PQMO support to the organization. Mr. Ferrell has applied his project management skills to the HIPAA and NPI remediation activities for EDS on the Indiana Title XIX account, the DSS/DW Replacement Project for the State of Mississippi, and acted as the PQMO lead for the Alabama Technical Assistance and IV&V project. Prior to joining 4TG, Mr. Ferrell worked for ACS as the Manager of the Business Support staff during the implementation of ACS Medicaid systems and services for several MMIS, POS, and DSS/DW implementations. Mr. Ferrell provided leadership and oversight on the development of requirements, business design, testing, documentation, and training as well as coordinating the execution of client-approved readiness, implementation, and certification plans. Mr. Ferrell has also served as a Senior Project Manager for several large technical firms where he has demonstrated his ability to manage large, complex technical projects, coordinating internal process improvements and aligning them with industry best practices. With extensive project management experience, Mr. Ferrell pursued and received his formal PMP certification in November, 2004.

Dodie Villajoquin

Mr. Villajoquin has over 30 years of experience in claims and provider services including leadership positions in implementing the Medicaid claims processing systems and operations in California, Indiana, Idaho, Texas, Oklahoma, Pennsylvania, Texas and Nevada. Most recently, he was involved in the development of HIPAA security policies and procedures and Business Contingency Planning for the State of Hawaii. His experience includes projects involving structured design and development, quality assurance, project management, systems integration, systems and acceptance testing, operations monitoring, and user training.