



IV&V AND SOFTWARE ASSURANCE

White Paper

The goal of independent verification and validation (IV&V) is to ensure the intended outcome and work product of a project meets the formal specifications and that progress is being made according to plan. It can be thought of as "Project Due Diligence" since it is an investigation of performance and risk based on standards and best practices. This is also sometimes referred to as "Independent Project Oversight," although that is typically more of an ongoing effort than independent verification and validation.

VALIDATION

Validation is the process of evaluating artifacts to ensure that the right behaviors have been defined in the artifacts. The right behaviors are those that adequately describe what the system is supposed to do, what the system is not supposed to do, and what the system is supposed to do under adverse conditions. Validation ensures that the software system performs to the Client's needs under operational conditions.

VERIFICATION

Verification is the process of determining if the software of each development activity fulfills the requirements or conditions imposed by a previous development activity. This goal is achieved by showing that each functional and non-functional requirement has been implemented within the system. Verification flows from a set of validated requirements and formally or informally shows, based on risk, that the implementation of those requirements (e.g., desired system behavior/non-behavior) is correct and complete. Verification does not strictly focus on functional requirements; it also includes non-functional requirements.

Our Services Include:

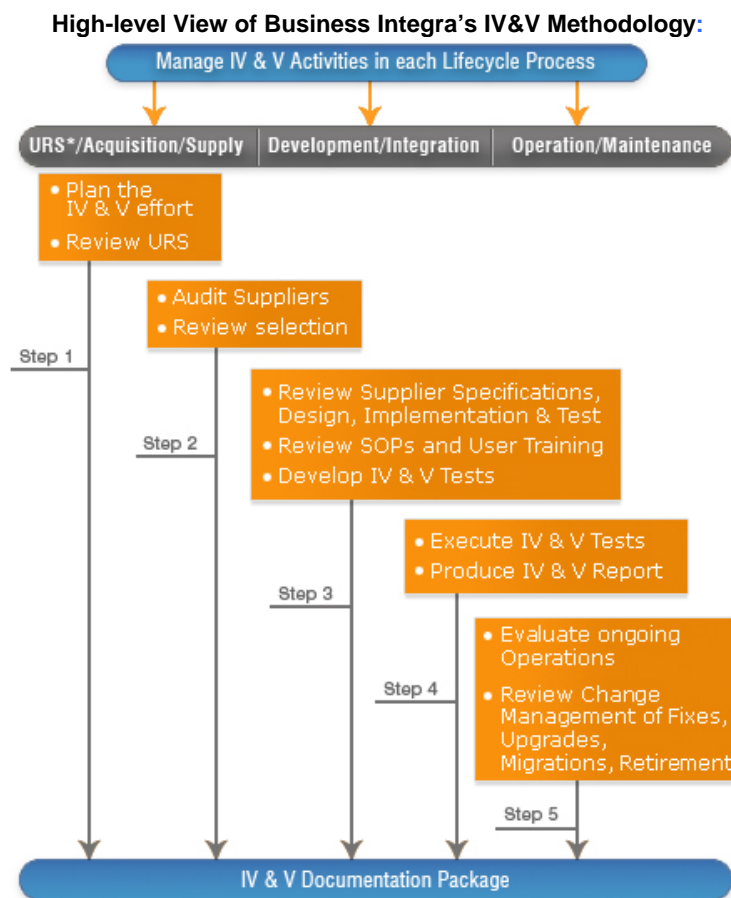
- Assessment of processes (management, technical, governance, business) for risk, best practices and adherence to standards;
- Assessment of products (e.g. technical architectures, designs, plans, applications, Request for Proposals - RFPs) for risk, adherence to standards, fitness for intended use, correctness and completeness;
- Independent risk assessments;
- Independent testing;
- Ongoing monitoring of processes and products; and,
- Establishing in-house IV&V programs or Centers of Excellence.

OUR APPROACH:

The key to success is making a lot of progress quickly while being thorough enough to really get a good understanding of what needs to be done, where things are, and what the problems are:

High - Level Outline of Our Process Followed Includes:

- An in-depth review of the fundamental project document
- A review of the project status documents, meeting minutes, analysis reports, etc.
- A review of the various planning documents
- Interviews with the Project sponsors, stakeholders, Project Managers, Technical Team Leads, and other team members.
- Define IV&V plan
- Validate selection of Supplier
- Validate System Development and Integration
- Execute IV&V tests
- Maintain IV&V status



Throughout the process we will refine our understanding, validate our findings, and focus on identifying specific improvements that will make a tangible difference to the project. We will also provide project management tools, templates, and sample plans as appropriate as part of an IV&V engagement.