Independent verification And validation

Public sector organizations can greatly benefit from utilizing **Independent Verification and Validation (IV&V)** in their IT project planning and program management. IV&V provides an unbiased, third-party perspective that helps ensure the accuracy, reliability, and effectiveness of IT solution. By incorporating **IV&V**, organizations can mitigate risks associated with:



SOFTWARE DEVELOPMENT
SOFTWARE DEPLOYMENT
ENSURING TIMELY PROJECT DELIVERY
MAINTAINING BUDGET
MEETS EXPECTED REQUIREMENTS

This independent oversight is particularly valuable in the public sector, where accountability, transparency, and the prudent use of resources are paramount. **IV&V** helps to identify potential issues early in the project life cycle, allowing for timely adjustments and reducing the likelihood of costly errors or project failures.

Corvano's unique **IV&V** process enhances the technical quality of IT projects and plays a crucial role in evaluating and improving management processes in the organizations we serve. We provide a comprehensive and objective assessment of how well all reliant processes align with the organization's established goals



and standards.

By independently reviewing project management practices, Corvano's **IV&V** process ensures that all public sector projects are not only technically sound but also strategically aligned with broader organizational objectives and any constraints within the organization's ecosystem. This alignment is essential for achieving long-term success and delivering value to stakeholders.

Ultimately, Corvano uses **IV&V** to foster a culture of continuous improvement, drive more efficient and effective program management, and to ensure that IT initiatives contribute positively to our customers' mission and goals.

Learn more about Corvano's capabilities: CORVANO.COM

Independent Verification and Validation (IV&V) plays a critical role in program management for software projects in the public sector by providing an objective assessment of management processes and independent oversight that ensures that projects align with established goals and standards. This particularly vital in the public sector where accountability, transparency, and effective use of taxpayer funds are paramount.

IV&V helps identify and mitigate risk early, ensuring compliance with regulatory and organizational standards.
IV&V enhances project performance and reliability by conducting thorough evaluations of project planning, risk management, quality assurance, and stakeholder engagement. It also helps in maintaining the integrity of project deliverables through rigorous configuration management and performance monitoring.



DISCOVERY/ASSESSMENT

Defines the project, its objectives, and the current state of its processes and deliverables:

- **Project Familiarization:** Reviewing project documentation, including plans, schedules, requirements, and design documents, to understand the project's scope, goals, and context
- **Stakeholder Interview:** Conducting interviews with key project stakeholders to gather insights on their expectations, concerns, and perspectives on the project
- **Process Assessment:** Evaluating the project's processes ad methodologies to identify strengths, weaknesses, and areas for improvement
- Risk Identification: Identifying potential risks and issues that could impact the project's success
- **Baseline Establishment:** Establishing a baseline of the current project status and performance metrics to measure future progress and IV&V impact
- **Planning:** Developing an IV&V plan outlining the scope, objectives, schedule, and deliverables for the engagement
- **Deliverable Design:** Defining the preliminary IV&V deliverable templates, including Deliverable Validation Reports, Deliverable Trackers, Traceability Matrices and Status Reports
- Statement of Work/Contract Review: Determine next steps



REQUIREMENTS/DESIGN

Crucial for ensuring that the design meets the requirements and is free from significant flaws. Typically involves:

- **Requirements Verification:** Ensuring traceability and validation of requirements
- Design Review and Inspection: Evaluating design adherence to requirements and standards
- Standards and Compliance Checks: Verifying design compliance with standards and regulations
- Risk Assessment: Identifying and mitigating potential design risks
- **Documentation Review:** Ensuring design documents are clear and traceable
- Configuration Management: Implementing version control and change management for design documents
- Interface Analysis: Verifying smooth integration of system components
- Performance Analysis: Predicting system performance and identifying bottlenecks



PROGRAM MANAGEMENT

An objective assessment of the management processes, ensuring alignment with the project's goals and identifying and mitigating risks, ensuring compliance with standards, and enhancing performance.

- Project Planning and Scheduling: Evaluating plans, schedules, resource allocation, and risk management
- Risk Management: Identifying, evaluating, and mitigating risks
- Quality Assurance: Auditing for compliance and monitoring quality metrics
- Stakeholder Management: Assessing communication and engagement strategies
- Change Management: Ensuring control and versioning of project artifacts
- Configuration Management: Ensuring control and versioning of project artifacts
- Resource Management: Reviewing allocation and capacity planning
- Performance Monitoring and Reporting: Tracking progress and evaluating metrics
- Contract Management: Overseeing vendors and ensuring contractual compliance
- Budget and Cost Management: Monitoring expenditures and ensuring financial compliance
- Process Improvement: Recommending best practices and applying lessons learned
- Compliance and Standards Verification: Ensuring adherence to regulations and standards
- Training and Development: Assessing and enhancing team skills
- Documentation and Reporting: Ensuring accurate and current documentation
- Independent Assessment and Reporting: Conducting objective reviews and evaluations



PROJECT IMPLEMENTATION

Ensure software is built according to design and requirements, identifying and addressing issues early for higher quality and reliability.

- Code Reviews and Inspections: Ensuring quality through static analysis, peer reviews, and formal inspections
- Unit Testing: Ensuring test case development, automation, and coverage analysis are followed
- Integration Testing: Ensuring test plans are executed, interfaces functions, and data is accurate
- Regression Testing: Ensuring comprehensive, automated test cases verify changes don't introduce defects
- Performance Testing: Implementing load testing, stress testing, and performance profiling
- Security Testing: Implementing SAST, DAST, and penetration testing
- Configuration Management: Ensuring effective version control, build, and release management
- Documentation Verification: Ensuring all documentation is clear, complete, and current
- **Defect Tracking and Management:** Ensuring processes for defect reporting, resolution, and root cause analysis
- Compliance and Standards Verification: Ensuring code complies with industry standards and regulations
- Risk Management: Identifying and mitigating new risks during implementation

EXAMPLE DELIVERABLES

- Deliverable Tracker
- Document Based Deliverables
- Code/Configuration Based Deliverables



Schedule a no-risk, no-cost technology review

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Post-project evaluation is a critical step in the life cycle of public sector IT projects, software development, and technology integration programs. By comparing the quantifiable results of a completed project against the **Independent Verification and Validation (IV&V)** assessments made prior to its initiation, organizations can gain valuable insights into the effectiveness and accuracy of their planning and execution processes. This comparison allows for the identification of discrepancies between expected and actual outcomes, providing a clear understanding of where the project met, exceeded, or fell short of its objectives. Such analysis is crucial for fine-tuning the **IV&V** process for future projects, ensuring that lessons learned are incorporated into subsequent assessments and leading to more accurate predictions and better-aligned project goals.

Post-project evaluation best practices:



At Corvano, post-project evaluation provides the essential opportunity to identify obstacles or constraints that may have been overlooked during the **IV&V** process, as well as to recognize highly valuable outcomes that exceeded initial expectations. This reflection not only helps in understanding the root causes of any challenges faced but also highlights areas of success that can be replicated in future projects. By systematically analyzing these factors, Corvano helps our public sector customers improve their project management practices, enhance the accuracy of future **IV&V** assessments, and ultimately increase the likelihood of delivering successful IT initiatives that provide significant value to the organization and its stakeholders. This continuous improvement cycle ensures that the organization remains agile, responsive, and capable of adapting to the evolving demands of technology and public service.



Unlock the true potential of your business

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