



Increasing Agility within the IV&V Process

Introduction and Overview

- Common Misuse of the IV&V Process
- Impacts of the OMB 25 Point IT Reform Plan on IV&V
- How Development Methodologies Influence IV&V
- Increasing Agility into IV&V
- External Programs
- Wrap Up
- Q&A



 Programs often place IV&V at the end of the SDLC

- IV&V becomes a "Big Test" at the end –Slow
 - -Expensive
 - -Fails to maximize IV&V value added



Common Misuse of the IV&V Process Continued

Slow

-Requirements Review, Test Planning, Test Case Creation

Expensive

–Unsustainable levels of High defects uncovered

Failure to Maximize Value

-IV&V cannot do "V" and "V"



OMB 25 Point IT Reform Plan

- Use a modular approach with usable functionality delivered every six months
- Develop flexible budget models that align with modular development
- Modular development delivers functionality in shorter timeframes and has long been considered best practice in the private sector and in some areas of government
- Successful organizations using modular development base releases on requirements they define at a high level and then refine through an iterative process, with extensive engagement and feedback from stakeholders
- Moving forward, Federal IT programs must be structured to deploy working business functionality in release cycles no longer than 12 months, and, ideally, less than six months, with initial deployment to end users no later than 18 months after the program begins



Plan-Driven\Predictive Methods

-Waterfall

Adaptive Methods

- -Agile Unified Process
- -Scrum



How can we implement an IV&V program that can:

- -Assist in producing quality software
- Assist in reaching desired deployment deadlines
- –Mold to fit variations in development practices across an organization
- -Reduce development and operations costs
- -Assist in ensuring customer satisfaction



Ending the 'Final Exam' Mentality

-IV&V needs to be engaged at every step in the Software Development Life Cycle

The Test-First Methodology

Supporting Varying Development Methodologies



Agility in IV&V Continued

Proper IV&V Organizational and Team Structures can and will increase agility

Integrated Program Teams (IPT)

Staffing



External Programs

Central Configuration Management

Process Improvement Group



May 3, 2011 - Willard InterContinental Washington Hotel



The Big Test

•OMB 25 Point IT Reform Plan

- Variations in Development Practices
- Agility in IV&V
- External Programs



In a chart...

End-to-End IV&V Lifecycle Methodology

	ITIL v3	Service Strategy	Service Design				Se	Service Transition Service Operation		
	Continual Service Improvement									
LIFEE 1012 Lifecycle Processes	Process: Acquisition	Process: Supply		Process: Development					Process: Operation	
	Acq. Support V&V	Planning V&V	Concept V&V	Requirements V&V	Design V&V	Implementing V&V	Test V&V	Installing V&V	Operation V&V	Maintenance V&V
			Vi	stronix's End-t	o-End IV8	V Lifecycle M	ethodo	logy		
Key IV&V Tasks IAW IEEE 1012	IV&V Scop	ping >	Requirements Traceability Analysis				\rightarrow	Metrics/SLA Assessment		
	CPIC V&V		Test Planning Test Design Test Cases			Test Execution		Security Analysis		
	IV&V P	lanning	>				Readiness Review		IV&V of S/W maintenance	
Selected Best Practices	Coordinate IV plan with the I Master Sched Review devel contractor's w align IV&V effe plan Evaluate cont process and s	Integrated ule opment ork plan; ort with work ractor's CPI	Review/analyze implementation roadmap Validate applications strategy Review data management strategy Review contents of Service Catalog Validate SLAs/OLAs for consistency with operational needs Verify scenario-based test plans Verify security controls (C&A packages) Review UAT results and user feedback Review Go Live and system cutover plans					ds	Verify all known defects, testing action items, and oper issues are resolved Monitor CM processes Track and report performance metrics, SLAs and OLAs Recommend systemic process improvement initiatives to address chronic problems and risks	







May 3, 2011 - Willard InterContinental Washington Hotel