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March 21, 2023

The Honorable Ronald D. Kouchi President of the Senate and Members of the Senate Thirty-Second State Legislature State Capitol, Room 409 Honolulu, Hawai'i 96813 The Honorable Scott K. Saiki Speaker and Members of the House of Representatives Thirty-Second State Legislature State Capitol, Room 431 Honolulu, Hawai'i 96813

Aloha Senate President Kouchi, Speaker Saiki, and Members of the Legislature:

Pursuant to HRS section 27-43.6, which requires the Chief Information Officer to submit applicable independent verification and validation (IV&V) reports to the Legislature within ten days of receiving the report, please find attached the report the Office of Enterprise Technology Services received for the State of Hawai'i, Department of Human Services, Med-QUEST Division, Health Analytics Program.

In accordance with HRS section 93-16, this report may be viewed electronically at <u>http://ets.hawaii.gov</u> (see "Reports").

Sincerely,

Douglas Murdock Chief Information Officer State of Hawai'i

Attachment



Hawaii Department of Human Services Med-QUEST Division Health Analytics Program

Final IV&V Status Report for Reporting Period: February 1-28, 2023

Submitted: March 10, 2023



Solutions that Matter

Overview

- Executive Summary
- IV&V Findings and Recommendations
- <u>IV&V Engagement Status</u>
- <u>Appendices</u>
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 - <u>B Risk Identification Report</u>
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Executive Summary



Executive Summary



In February, the HAP achieved a major milestone with the IDAP vendor onboarding and the Program evolving from the Planning Phase into the Design, Development and Implementation (DDI) Phase. The HAP Annual Conference was held on February 6th through February 9th and based on participant feedback it was a tremendous success. Immediately following the HAP Annual Conference, as expected the pace of the project significantly increased.

The IDAP vendor scheduled multiple Strategic Alignment sessions to review the high-level IDAP requirements, processes and solution tools planned to be used along with collaboration needs. The Joint Product Alignment Sessions (JPAS) began this month - a detailed review of the IDAP requirements from the contract that were further refined into draft testable and non-testable requirements.

The PMO vendor is currently working with the HAO vendors to develop the draft Integrated Master Schedule (IMS) that will be used to manage the DDI Phase of the program. The PMO vendor also continues to review and restructure the meeting schedule as it moves from the Planning Phase into the (DDI) Phase.

The HAO is working on several HAP support procurements to include Testing, Data Governance and Management, finalizing the contract amendment with the PMO vendor to provide the interim Data Governance services and the contract with the Strategic vendor.

Dec	Jan	Feb	Category	IV&V Observations	
Н	Н	F	Project Management	This category remains as a high criticality rating due to outstanding staffing needs and the need to assess if the project team has the skills necessary to perform in their role now that the IDAP vendor is onboard, and the solution details become known.	
N/A	N/A	N/A	Quality Management	There are no IV&V observations for this category due to the projects current phase in this reporting period.	



Dec	Jan	Feb	Category	IV&V Observations	
N/A	N/A	N/A	Requirements Management	There are no IV&V observations for this category due to the projects current phase in this reporting period.	
N/A	N/A	N/A	Operating Environment	There are no IV&V observations for this category due to the projects current phase in this reporting period.	
N/A	N/A	N/A	Development Environment	There are no IV&V observations for this category due to the projects current phase in this reporting period.	
N/A	N/A	N/A	Software Development	There are no IV&V observations for this category due to the projects current phase in this reporting period.	
N/A	N/A	N/A	System and Acceptance Testing	There are no IV&V observations for this category due to the projects current phase in this reporting period.	
N/A	Ŧ	Н	Data Management	The HAP Data Governance framework is not yet established.	
N/A	N/A	N/A	Operations Oversight	There are no IV&V observations for this category due to the projects current phase in this reporting period.	
N/A	N/A	N/A	CMS Outcomes Based Certification	There are no IV&V observations for this category due to the projects current phase in this reporting period.	



New Finding Opened During the Reporting Period

#	Finding	Category
7	 HAP Annual Conference – Positive IV&V Finding: The HAP Annual Conference conducted in Honolulu February 6th through February 9th was successful on many fronts: It set the foundation for the development of the HAP with the Stakeholders including DHS, Med-QUEST, ETS, UH and the HAP vendors The Executives from the lead and supporting organizations demonstrated their commitment to the Health Analytic Program The HAO provided the attendees with the history of the program and planned impact to the citizens of Hawaii The project team met face-to-face, which aids in developing strong working relationships Each HAP vendor presented an overview of their HAP responsibilities and discussed the many touchpoints between the organizations and vendors (integration points) along with initial expectations. The HAP Annual Conference promoted a sense of coordination and collaboration in a multivendor environment prudent for the success of the HAP. The IDAP vendor invested their resources to host the conference and based on the participant feedback it was worth the time and expense. Lastly, the conference provided an opportunity for Med-QUEST and HAO to share their vision of the HAP to improve the health, provide quality care, and lower the cost of healthcare for Hawaii citizens. 	Project Management



Preliminary Concerns Investigated During the Reporting Period

#	Finding	Category
4	 Roles and Responsibilities: The HAP is comprised of several vendors providing specific services to support the program, requiring close communication and coordination of the activities and tasks in all phases of the HAP. Clearly documented roles and responsibilities should be established to ensure that the integration points and decision-makers are identified, and each vendor performs to those expectations. Initially, as the roles and responsibilities are developed, gaps may be identified that require attention. As the earlier gaps are identified and addressed, the risk to the program decreases. Additionally, the roles and responsibilities may also aid the program team to think/act holistically and cohesively, avoiding work compartmentalized by silos. The HAO required each vendor to develop a Project Management Plan which should include the generation of the roles and responsibilities. Once established, IV&V will validate it includes the level of detail and cross-functional aspects that are necessary to minimize risk. February Status Update: Positive progress was observed in February during the HAP Annual Conference each vendor presented their approach to meet contract requirements which included the high-level identification of dependencies and collaboration needed with the vendors and HAO. The IDAP vendor scheduled and conducted several Joint Product Alignment Sessions (JPAS) to align the requirements and expectations. These sessions are intended to discuss and refine the 'who' and 'what' for each activity/task. IV&V will continue to monitor this finding throughout these sessions. 	Project Management



Project Management

#	Key Findings	Criticality Rating
	Issue: The lack of all required HAP project and program staff may cause delays in the HAP start- up/planning and execution phases.	
2	Observation: The Implementation Advanced Planning Document (IAPD) identifies several project resources that have yet to be obtained, including positions within the HAO, the University of Hawaii and AHCCCS. This may have a negative impact on the program and subsequent projects. The resources identified in the IAPD should be available to work on the project prior to the IDAP vendor onboarding to avoid rework, schedule delays, and overall productivity loss of the Program/Project Teams.	
	February Status Update: Staffing remains a concern during this reporting period. Although progress was made with AHCCCS and UH, the loss of the data governance vendor, the slow progression of hiring the HAO internal resources may hinder the projects' ability to complete on time. In addition, the question remains as to whether the individuals that have been hired have the required skill set to meet the roles in which they were hired. As a result, IV&V has upgraded this risk to an issue and will continue to monitor.	

Recommendations	Progress
Continue to take the actions already in progress to hire the required staff.	In process
If feasible, consider filling open positions with contract staff.	In process
 If required work is postponed as priorities are established, plan for the possibility of short- or longer-term additional resource needs to avoid down-stream schedule delays. 	In process



Data Management

#	Key Findings	Criticality Rating
5	 Risk: The HAP Data Governance (DG) framework is not yet established. Observation: The Data Governance vendor planned to have their initial Project Management Plan submitted within 60 days of contract start, establishing how the Data Governance Vendor will manage the project work. The other specific initial Data Governance deliverables (e.g., Roles and Responsibilities, Data Governance Hierarchy, Pilot test) were planned to be complete between four to ten months from contract start date. February Status Update: The HAO is finalizing a contract amendment with the HAP PMO vendor to provide Data Governance and Management services that will support the development of critical data governance artifacts such as the Data Governance framework over the next few months. IV&V recognizes some of the PMO vendor Data Governance team members have been working on the HAP, reducing the ramp-up time. IV&V will review the details of the plans and schedule when they are available. 	H

Recommendations	Progress
 As part of the Freedman Healthcare close down activities, request Freedman Healthcare to upload all HAP project artifacts and deliverables (regardless of the status) to the HAP Program Repository. 	Complete
 Using the procurement options available to the HAO, procure for Data Governance services as soon as possible. Finalize the contract for the interim solution while procuring for Data Governance and Management services. 	ent In process

IV&V Status



IV&V Engagement Status



IV&V Engagement Area	Feb	Comments
IV&V Budget		There are no IV&V budget updates in this reporting period.
IV&V Schedule		There are no IV&V schedule updates in this reporting period.
IV&V Deliverables		The January Draft and Final IV&V Monthly Status Report were delivered on- time. The IV&V team began conducting the Quarterly Assessment, the draft report is planned to be delivered to HAO in March 2023.
IV&V Staffing		Jamila Crockett joined the IV&V team as the IV&V Project Manager, Jolene Strand will transition off the project in March 2023.
IV&V Scope		There are no IV&V scope updates in this reporting period.
		The HAO has and will continue discussions with CMS to ensure the HAP clearly understands and meets CMS' Certification expectations.

Engagement Status Legend							
The engagement area is within acceptable parameters.	The engagement area is somewhat outside acceptable parameters.	The engagement area poses a significant risk to the IV&V project quality and requires immediate attention.					

IV&V Activities



- IV&V activities in the February reporting period:
 - The Draft and Final January Monthly Status Report were delivered
 - Conducted check-in meetings with HAO and PMO Vendor
 - Reviewed the project procurement and contract documents
 - Attended the HAP Annual Conference
 - Attended the HAP PMO meetings
 - Reviewed HAP project artifacts
 - Conducted the IV&V Quarterly Assessment interviews with HAO and the project team.
- Planned IV&V activities for the March reporting period:
 - Continue reviewing the project procurement and contract documents
 - Review project artifacts as they become available to IV&V
 - Attend program status meetings and other project meetings as they are established by the IDAP and PMO vendors
 - Develop IV&V Deliverables
 - Finalize the IV&V Quarterly Assessment Report
 - Conduct meetings with the HAO.



Deliverable or Artifact Name	Deliverable Date	Version
MQD-HAO-2022-D1-TO1_IDAP_Initial-Build.pdf	N/A	N/A
MQD-HAO-2022-D1-TO1_Attachments_A_and_B_Amendment #1.xlsx	N/A	N/A
MQD-HAO-2022-D1-TO1_Attachment C_Cost_Proposal_Worksheet_Amendment #1.xlsx	N/A	N/A
HI-2021-02-10-MMIS-IAPD-Analytics-FFY2021-2022 approval Letter Final.pdf	03/18/2021	N/A
HI-2021-02-10-MMIS-IAPDU-Analytics APD Approval Letter.pdf	10/18/2021	N/A
HI-2021-02-10-MMIS-IAPD-Analytics-FFY2021-2022 approval Letter Final.pdf	03/18/2021	N/A
HI Analytics IAPD_UPDATE_Final_9-21-2021.pdf	09/2021	N/A
HI Analytics IAPD_FINAL.pdf	02/2021	N/A
Data Dictionary Gap Backlog.xlsx	1/10/2023	N/A
Data Source Documentation Organization Strategy 20230120.docx	1/20/2023	N/A
Data Source Summary and Contact Info 20221213.xlsx	1/30/2023	N/A
HAP DG Close-Out Summary - January 2023.docx	1/27/2023	N/A



Deliverable or Artifact Name	Deliverable Date	Version
HAP PMO Monthly Status Report	11/30/2022	1.0
Overview of Med-QUEST Current State Data Governance	N/A	N/A
Med-QUEST Data Governance Gap Analysis	N/A	v.2
HAO AHCCCS Data Extract Weekly Status Report	Multiple	N/A
HAP_UH Weekly Status Report	Multiple	N/A
HAP Data Dictionary & Gap Backlog	1/9/2023	N/A
Access Control - Process & Decision Tree for External Requests.pptx	1/9/2023	N/A
Access Control - Requirements and Limitations on Data Requests.docx	1/9/2023	N/A
UH HAP Potential Roles	N/A	V12.14.22
HAP DDI Available Calendar	N/A	N/A
IDAP Initial Build 2/2023	2/2023	N/A
HAP IDAP TO #1 Data Source Readiness 1/17/231	1/17/2023	N/A



Deliverable or Artifact Name	Deliverable Date	Version
HAP DG Data Dictionary.xlsx	1/30/2023	N/A
HI_DG_TableList_Descriptions_20221219.xlsx	1/27/2023	N/A
HAP Program Action Item List	N/A	N/A
HAP Program Decision Log	N/A	N/A
HAP Program Lessons Learned	N/A	N/A
HAP Program Risks and Issues	N/A	N/A
HAP_PMO - APDU - 20221107-Annual.pdf	11/7/2022	v2.0
IAPDU-Annual Update for FFY 2022; funding request for FFY2023 and FFY2024	November 2022	2
HAP_PMO-Del 3.01.04 PgMP-Organizational Change management Plan	01/09/2023	0.02
Conditions for Enhanced Funding as published on the GitHub	N/A	N/A
MQD-HAO-2022 -D1-TO1	05/16/2022	N/A
Medicaid Enterprise Systems (MES) Testing Guidance Framework	N/A	N/A
HAP_JPAS Requirement Review – Project Management 02-22 Transcript	02/22/2023	N/A
Health Analytics Program (HAP) – Integrated Program Management Plan (PgMP)	03/23/2022	1.0
Health Analytics Program (HAP) – Human Resource Management Plan	N/A	N/A
Health Analytics Program (HAP) – Deliverable Management Plan	04/26/2022	1.0



HAP Annual Conference Presentations

DAY 1_11 - HAP Annual Conference Presentation - Strategic Planning Partner Overview.pptx

DAY 1_12 - HAP Annual Conference Presentation - Technical Sponsors.pptx

DAY 1_2 - HAP Annual Conference Presentation - Journey and New Beginnings.pptx

DAY 1_3 - HAP Annual Conference Presentation - SHARED COMMITMENT.pptx

DAY 1_4 - HAP Annual Conference Presentation - HAP Partner Overview.pptx

DAY 1_5 - HAP Annual Conference Presentation - UH Partner Overview.pptx

DAY 1_6 - HAP Annual Conference Presentation - MQD Partner Overview.pptx

DAY 1_7 - HAP Annual Conference Presentation - PMO Partner Overview.pptx

DAY 1_8 - HAP Annual Conference Presentation - DG Partner Overview.pptx

DAY 1_9 - HAP Annual Conference Presentation - IDAPV Partner Overview.pptx

DAY 2_1 - HAP Annual Conference Presentation - PROGRAM MANAGEMENT.pptx

DAY 2_2 - HAP Annual Conference Presentation - OCM.pptx

DAY 2_3 - HAP Annual Conference Presentation - DATA GOVERNANCE.pptx

DAY 2_4 - HAP Annual Conference Presentation - Platform Build.pptx

DAY 3_1 - HAP Annual Conference Presentation - Analytics & Evaluation .pptx

DAY 3_2 - HAP Annual Conference Presentation - JPAS Sample Session Materials.xlsm



HAP Annual Conference Presentations

DAY 3_2 - HAP Annual Conference Presentation – JPAS.pptx

DAY 3_3 - HAP Annual Conference Presentation - Data and System Security.pptx

DAY 3_4 - HAP Annual Conference Presentation - Solution & Design (Data Model).pptx

DAY 3_5 - HAP Annual Conference Presentation - Business Intelligence and Dashboards.pptx

DAY 3_6 - HAP Annual Conference Presentation - Quality Assurance and Testing.pptx

DAY 3_7 - HAP Annual Conference Presentation - IVV Cert and Eval.pptx

DAY 3_8 - HAP Annual Conference Presentation – OPERATIONS.pptx

DAY 3_9 - HAP Annual Conference Presentation – 30-60-90 DAYS.pptx

Additional Inputs



Meetings and/or Sessions Attended/Observed:

- 1. HAO/IV&V Weekly Touch Base Meeting 2/13/2023, 2/27/2023
- 2. Planning HAP Annual Conference 2/1/2023
- 3. IV&V Team Meeting 2/1/2023, 2/2/2023, 2/3/2023, 2/13/2023, 2/23/2023, 2/27/2023
- 4. IV&V Team Onboarding Session 2/2/2023
- 5. HAP Annual Conference 2/6/2023-2/9/2023
- 6. HAP Strategic Alignment Infrastructure and Architecture 2/13/2023
- 7. HAP IV&V Monthly Status Report Review with HAO and ETS 2/14/2023
- 8. HAP Strategic Alignment Project Management 2/14/2023
- 9. HAP_PMO UH Touchpoint 2/15/2023, 2/22/2023
- 10. HAP Strategic Alignment Business Intelligence and Portal Part 1 2/16/2023
- 11. HAP IV&V Quarterly Assessment Interview OCM and Training 2/17/2023
- 12. HAP Strategic Alignment Business Intelligence and Portal Part 2 2/17/2023
- 13. HAP_AHCCCS Data Solutioning 2/17/2023, 2/24/2023
- 14. HAP IV&V Quarterly Assessment Interview Data Governance 2/17/2023
- 15. HAP IV&V Quarterly Assessment Interview PMO 2/21/2023
- HAP IV&V Quarterly Assessment Interview Data Governance and Certification - 2/21/2023

Additional Inputs



Meetings and/or Sessions Attended/Observed:

- 17. IV&V Review of IV&V Reports and Processes with the IDAP Vendor 2/22/2023
- 18. HAP DDI Bi-Weekly Status Discussion 2/22/2023
- 19. HAP JPAS Requirement Review Project Management 2/22/2023
- 20. HAP Strategic Alignment Testing Part 1 2/22/2023
- 21. HAP JPAS Requirement Review Project Management (Continued) -2/22/2023
- 22. HAP IV&V Quarterly Assessment Interview System and Acceptance Testing, CMS Certification, Training, OCM, Project and Quality Management -2/23/2023
- 23. HAP IV&V Quarterly Assessment Interview Inputs, Program Management, Quality Management, Training and OCM and System/Acceptance Testing – 2/23/2023
- 24. HAP Certification Review IDAP Vendor 2/23/2023
- 25. HAP Strategic Alignment Security 2/23/2023
- 26. HAP Strategic Alignment Data Governance Part 1 2/23/2023
- 27. HAP Strategic Alignment Support and Training 2/27/2023
- 28. HAP Strategic Alignment Data Governance Part 2 2/27/2023
- 29. HAP Strategic Alignment Support and Training Part 2 2/28/2023

Appendices





Appendix A – IV&V Criticality Ratings

Criticality Rating	Definition
Н	A high rating is assigned if there is a possibility of substantial impact to product quality, scope, cost, or schedule. A major disruption is likely, and the consequences would be unacceptable. A different approach is required. Mitigation strategies should be evaluated and acted upon immediately.
M	A medium rating is assigned if there is a possibility of moderate impact to product quality, scope, cost, or schedule. Some disruption is likely, and a different approach may be required. Mitigation strategies should be evaluated and implemented as soon as feasible.
L	A low rating is assigned if there is a possibility of slight impact to product quality, scope, cost, or schedule. Minimal disruption is likely, and some oversight is most likely needed to ensure that the risk remains low. Mitigation strategies should be considered for implementation when possible.

Appendix B – Findings Log



• The complete Findings Log for the DHS Health Analytics Project will be provided in a separate file in future reports when findings are defined.

Appendix C – Acronyms and Glossary



Acronym	Definition
AHCCCS	Arizona Health Care Cost Containment System
APD	Advance Planning Document
BAA	Business Associate Agreement
CFR	Code of Federal Regulations
CM	Configuration Management
СММІ	Capability Maturity Model Integration
CMS	Center for Medicare and Medicaid Services
CR	Change Request
DDI	Design, Development and Implementation
DED	Deliverable Expectation Document
DCCA	Hawaii Department of Commerce and Consumer Affairs
DHS	Hawaii Department of Human Services
DLIR	Hawaii Department of Labor and Industrial Relations
DOTAX	Hawaii Department of Taxation
EA	Enterprise Architecture
EFT	Electronic Funds Transfer
EPHI	Electronic Protected Health Information
ETS	State of Hawaii Office of Enterprise Technology Services
FAR	Federal Acquisition Regulation
HAR	Hawaii Administrative Rules
HHDC	Hawaii Health Data Center
HHS	U.S. Department of Health and Human Services
HIPAA	Health Information Portability and Accountability Act of 1996

Appendix C – Acronyms and Glossary



Acronym	Definition
HPMMIS	Hawaii Pre-paid Medical Management Information System
HRS	Hawaii Revised Statutes
HST	Hawaii Standard Time
IDAP	Integrated Data And Analytic Platform
IEEE	Institute of Electrical and Electronic Engineers
IRS	Internal Revenue Service
ITIL	Information Technology Infrastructure Library
IV&V	Independent Verification and Validation
KOLEA	Kauhale On-Line Eligibility Assistance
M&O	Maintenance & Operations
MQD	Hawaii Department of Human Services MedQuest Division
NIST	National Institute of Standards and Technology
OE	Operating Environment
OBC	Outcomes Based Certification
OIT	Department of Human Services Office of Information Technology
PHI	Protected Health Information
PIP	Performance/Process Improvement Plan
PMBOK [®]	Project Management Body of Knowledge
PMI	Project Management Institute
PMO	Project/Program Management Office
PMP	Project Management Plan
QA	Quality Assurance
QM	Quality Management

Appendix C – Acronyms and Glossary

Acronym	Definition
RMP	Requirements Management Plan
RTM	Requirements Traceability Matrix
SEI	Software Engineering Institute
SLA	Service-Level Agreement
SME	Subject Matter Expert
SOW	Statement of Work, Scope of Work
VVP	Software Verification and Validation Plan
XLC	Expedited Life Cycle

Appendix D – Background Information



HI DHS Health Analytics Program

The State of Hawaii through the Department of Human Services (DHS) is building a health analytics program by developing an integrated data and analytics platform to consolidate multiple data sources into a single integrated analytic platform, evolving its capacity for advanced analytics, and maturing the data governance processes of Medicaid data sources that will contribute data to the platform.

Health Analytics IV&V Project

IV&V performs objective assessments of the project beginning with the oversight and evaluation of the design, development, and implementation (DDI) phase of the establishment of the health analytics project. IV&V will support DHS in developing an evaluation framework that will endure beyond the scope of the DDI phase of the project, into future maintenance and operations (M&O) phases. This project shall establish an evaluation strategy and structure that continues to facilitate the growth, evolution, optimal operations and maturity of DHS' health analytics project.

The six key areas of the IV&V scope of work are:

- 1. Planning
- 2. Implementation
- 3. Recommendations
- 4. Evaluation
- 5. Reporting
- 6. Other Requirement

Appendix D – Background Information



What is Independent Verification and Validation (IV&V)?

- Oversight by an independent third party that assesses the Project against industry standards to provide an unbiased view to stakeholders
- The goal of IV&V is to help the State get the solution they want based on requirements and have it built according to best practices
- IV&V helps improve design visibility and traceability and identifies (potential) problems early
- IV&V objectively identifies risks and communicates to project leadership for risk management

PCG's Eclipse IV&V® Technical Assessment Methodology

- Consists of a 4-part process made up of the following areas:
 - 1. Discovery Discovery consists of reviewing documentation, work products and deliverables, interviewing project team members, and determining applicable standards, best practices and tools.
 - 2. Research and Analysis Research and analysis is conducted in order to form an objective opinion.
 - 3. Clarification Clarification from project team members is sought to ensure agreement and concurrence of facts between the State, the Vendor, and PCG.
 - 4. Delivery of Findings Findings, observations, and risk assessments are documented in this monthly report and the accompanying Findings and Recommendations log. These documents are then shared with project leadership on both the State and Vendor side for them to consider and take appropriate action on

Logic Model Approach

PCG will leverage the Eclipse Assessment Methodology described above to perform traditional IV&V activities and blend it with a project logic model to focus on project outcomes (answering the question, "Is the integrated data and analytic platform and Data Governance Program helping DHS' Medicaid program achieve its desired outcomes?") with the underlying objective of achieving CMS certification through the OBC process. Using this blended approach, we will evaluate the inputs, activities, outputs, short-term outcomes, intermediate outcomes, and long-term outcomes of the project and will inform project stakeholders of significant risks or issues as the Health Analytics Project is planned, developed and deployed.

Appendix D – Background Information



IV&V Assessment Categories for the Health Analytics Project:

- Project Management
- Quality Management
- Training
- Requirement Management
- Operating Environment
- Development Environment
- Software Development
- System and Acceptance Testing
- Data Management
- Operations Oversight

Ending Slide



Solutions that Matter