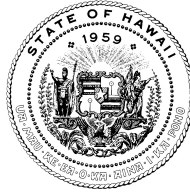


DAVID Y. IGE  
GOVERNOR



DOUGLAS MURDOCK  
CHIEF INFORMATION  
OFFICER

**OFFICE OF ENTERPRISE TECHNOLOGY SERVICES**

P.O. BOX 119, HONOLULU, HAWAII 96810-0119  
Ph: (808) 586-6000 | Fax: (808) 586-1922  
ETS.HAWAII.GOV

October 4, 2022

The Honorable Ronald D. Kouchi  
President of the Senate  
and Members of the Senate  
Thirty-First State Legislature  
State Capitol, Room 409  
Honolulu, Hawai'i 96813

The Honorable Scott K. Saiki  
Speaker and Members of the  
House of Representatives  
Thirty-First 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 Commerce and Consumer Affairs, Business Registration Modernization Project.

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

Sincerely,

  
Douglas Murdock (Oct 5, 2022 10:33 HST)

Douglas Murdock  
Chief Information Officer  
State of Hawai'i

Attachment



STATE OF HAWAII  
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS (DCCA)

# Business Registration Modernization (BRM) Project

MONTHLY IV&V REVIEW REPORT

August 31, 2022 | Version 1.2



An independent member of  
**bakertilly**  
INTERNATIONAL



## *Table of Contents*

### **EXECUTIVE SUMMARY**

|                |   |
|----------------|---|
| Background     | 3 |
| IV&V Dashboard | 4 |
| IV&V Summary   | 5 |

### **IV&V OBSERVATIONS**

|   |    |
|---|----|
| Appendix A: IV&V Criticality and Severity Ratings | 14 |
| Appendix B: Industry Standards and Best Practices | 16 |
| Appendix C: Comment Log on Draft Report           | 19 |

## Document History

| DATE     | DESCRIPTION  | AUTHOR      | VERSION |
|----------|--|-------------|---------|
| 09/09/22 | Monthly IV&V Review Report Draft created   | Sondra Ouye | 0.0     |
| 09/22/22 | Monthly IV&V Review Report Final updated to correct Aalta spelling throughout, to correct observation number reference on page 4, and to reflect no comments submitted in Appendix A.  | Sondra Ouye | 1.0     |
| 09/28/22 | Monthly IV&V Review Report Final updated for public reporting by including a background section, Appendix A: IV&V Criticality and Severity Ratings, and Appendix B: Industry Standards and Best Practices and removing the "internal purposes only" notations. | Sondra Ouye | 1.1     |
| 09/29/22 | Monthly IV&V Review Report Final updated to correct the total budget amount on page 4 and observation number reference on page 5.  | Sondra Ouye | 1.2     |
|          |  |             |         |



## BACKGROUND

The State of Hawaii (State), Department of Commerce and Consumer Affairs (DCCA) contracted Century Computers, Inc. (Pacxa) on July 1, 2022 to provide services for the Business Registration Modernization (BRM) Project to redesign the Business Registration (BREG) Division's business registration processes and modernize its systems. DCCA contracted Aalta LLC (Aalta) to provide project management services for DCCA and also contracted Accuity LLP (Accuity) to provide Independent Verification and Validation (IV&V) services for the BRM Project.

The goal of IV&V is to increase the probability of project success. The benefits of IV&V include identification of high-risk areas early and actionable recommendations. Our IV&V approach includes conducting interviews, observing project activities, reviewing project artifacts, and utilizing IV&V checklists based on industry standards and best practices (refer to Appendix B: Industry Standards and Best Practices).

This is the first Monthly IV&V Review Report which provides an initial assessment of project health as of August 31, 2022. Periodic IV&V review reports will be issued on a monthly basis through December 2023 to update and evaluate continual project progress and performance. The focus of our IV&V activities for this initial assessment was to quickly assess the project's implementation approach, understand the proposed technical solution, and evaluate the early project execution to date. Our IV&V Assessment Areas include People, Process, and Technology.

The IV&V Dashboard and IV&V Summary provides a quick visual and narrative snapshot of both the project status and project assessment as of August 31, 2022. Ratings are provided monthly for each IV&V Assessment Area (refer to Appendix A: IV&V Criticality and Severity Ratings). The overall rating is assigned based on the criticality ratings of the IV&V Assessment Categories and the severity ratings of the underlying observations.

### PROJECT SUCCESS

*"Coming together is  
a beginning;  
keeping it together  
is progress;  
working together is  
success."*

*-Henry Ford*

# PROJECT ASSESSMENT

AUGUST 2022

## SUMMARY RATINGS

### OVERALL RATING



Deficiencies were observed that merit attention and remediation in a timely manner.

### PEOPLE



### PROCESS



### TECHNOLOGY



### CRITICALITY RATINGS



HIGH



MEDIUM

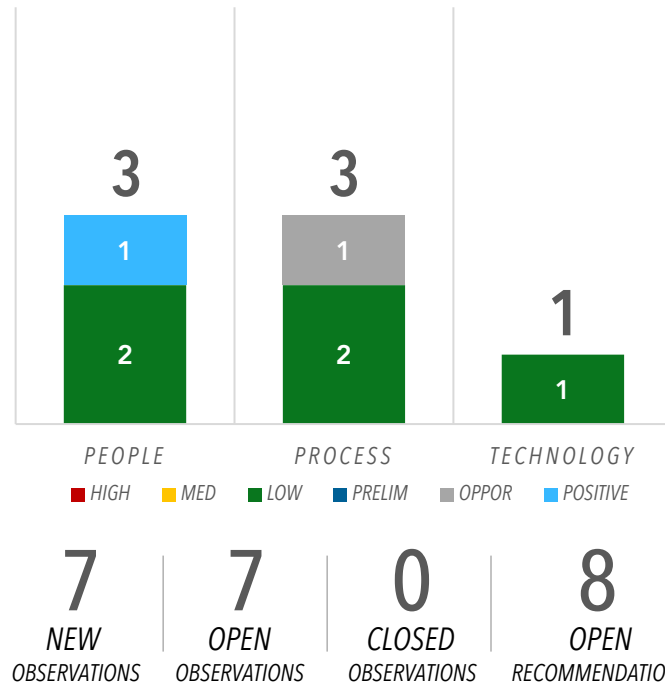


LOW

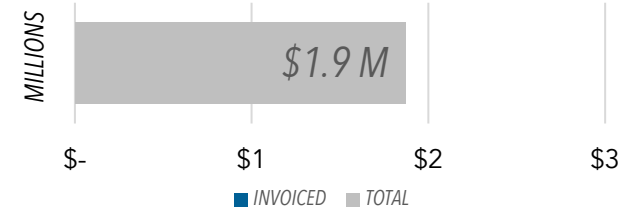


N/A

## IV&V OBSERVATIONS



## PROJECT BUDGET\*



\* Only includes contracts. IV&V unable to validate total budget.

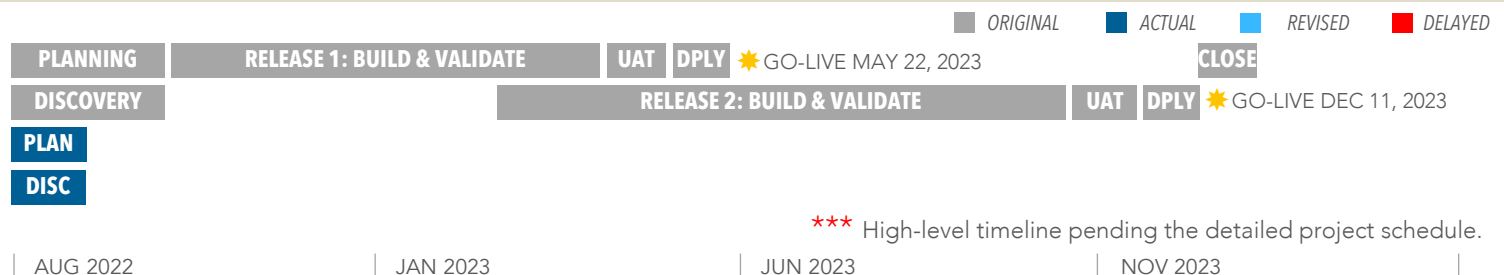
## PROJECT PROGRESS\*\*









\*\* Detailed project schedule to be prepared in the Planning stage.

## KEY PROGRESS & RISKS

- The project is currently in the Planning and Discovery stages to gather information, develop plans, and implement processes.
- Identified risks are low as the project is still in the early stages. However, risks should be mitigated to prevent escalation.
- Collaborative team environment, experienced Pacxa team members, and DCCA employees are engaged.
- Formalization of resource plans, governance, processes, and meetings needed to prevent future delays.



\*\*\* High-level timeline pending the detailed project schedule.

| AUG   | SEP   | OCT   | IV&V ASSESSMENT AREA                                      | IV&V SUMMARY  |
|---|---|---|---|---|
|  |  |  | <b>Overall</b>  | <p>The BRM Project is currently in the Planning and Discovery stages to gather information, develop plans, and implement processes. Identified risks are low as the project is still in the early stages.</p> <p><i>Project Schedule:</i> The project is on track with the high-level timeline. The detailed project schedule will be prepared in the Planning stage at the end of September 2022.</p> <p><i>Project Costs:</i> Major project costs were finalized for the system implementor (Pacxa), project manager (Aalta), and IV&amp;V (Accuity) contracts. A comprehensive project budget needs to be prepared (2022.08.004).</p> <p><i>Quality:</i> The quality management plan is a project deliverable that will be completed in the Planning stage.</p> <p><i>Project Success:</i> Project goals were drafted; however, quantitative success metrics need to be defined (2022.08.006).</p>   |
|  |  |  | <b>People</b><br><i>Team, Stakeholders, &amp; Culture</i> | <ul style="list-style-type: none"> <li>• The project team environment between Pacxa and DCCA is collaborative and respectful (2022.08.001).</li> <li>• The Pacxa team organization and high-level roles and responsibilities were presented at the project kickoff meeting. Pacxa team members appear to be qualified and knowledgeable and the Pacxa team adequately resourced.</li> <li>• DCCA contracted an external full-time Project Manager (Aalta) who officially onboarded at the end of August 2022.</li> <li>• DCCA also appointed resources for the OCM and communications lead roles. The new DCCA Project Manager is working to identify additional DCCA workstream lead roles (e.g., data conversion lead, testing lead) needed and potential candidates within DCCA. It is unclear at this time if there are adequate DCCA project resources to efficiently perform project work. <i>DCCA project roles and responsibilities should be clearly defined and the resource plan completed as soon as possible</i> (2022.08.002).</li> <li>• The DCCA SMEs appear to be engaged in ongoing Discovery sessions and accountable for timely completing required tasks and responding to questions.</li> <li>• Project governance is still pending. <i>Selection of the steering committee members and kickoff of committee meetings should be finalized soon</i> (2022.08.003).</li> <li>• The Pacxa OCM lead kicked off OCM activities in July 2022. The OCM team made significant progress to draft various OCM documents including the stakeholder analysis, change impact analysis, and user identification. The OCM plan and communication matrix drafts are in progress.</li> </ul> |



AUG SEP OCT IV&V ASSESSMENT AREA IV&V SUMMARY

G

NA

NA

## Process Approach & Execution

- Pacxa presented high-level project processes and timeline during the project kickoff meeting. Drafting of the formal project management plan and detailed project schedule is currently in progress and scheduled to be completed at the end of the Planning stage in September.
- Pacxa is clarifying the project scope and requirements in the ongoing Discovery Sessions in order to prepare the project plan and schedule. The initial “As-Is” business processes documents were drafted and provided for DCCA review. Requirements and business processes will continue to be refined throughout the Discovery stage as well as the Joint Application Requirements activities.
- Pacxa is in the process of drafting deliverable expectation documents (DED) for the various project management and technical management deliverables.
- The DCCA SharePoint site was launched for project documents and collaboration.
- *It is unclear how the complete project budget will be managed and how additional costs outside of the primary system implementor, DCCA Project Manager, and IV&V contracts will be identified (e.g., software licenses, data storage, project tools) (2022.08.004).*
- *Recurring meetings such as project management, technical, and risk meetings help to promote frequent and focused discussions (2022.08.005).* The new DCCA Project Manager plans to work with Pacxa to implement meetings in September.
- Project goals were drafted; however, *quantitative success metrics were not defined (2022.08.006).*

G

NA

NA

## Technology System, Data, & Security

- Pacxa’s high-level system solution is based on the Clariti Business Registration COTS application built on the Salesforce platform.
- The initial fit-gap analysis to estimate the amount of configuration or customization effort is scheduled to be completed during the Discovery stage and continually refined during the Build and Validate stage.
- Pacxa held initial Discovery sessions regarding legacy system databases and data conversion requirements.
- *Technical requirements for integration with existing applications and data conversion from legacy systems need to be further investigated (2022.08.007).*



## IV&V ASSESSMENT AREAS

People

Process

Technology

OBSERVATION #: 2022.08.001

STATUS: N/A

TYPE: POSITIVE

SEVERITY: N/A

### TITLE: STRONG TEAM ENVIRONMENT

**Observation:** The project team environment between Pacxa and DCCA is collaborative and respectful.

**Industry Standards and Best Practices:** PMI Project Management Body of Knowledge (PMBOK) Chapter 2.2 and PMI The Standard for Project Management (SPM) Chapter 3.2 state the importance and benefits of creating a collaborative project team environment.

**Analysis:** The project team members regularly seek feedback, input, and clarification in an open and respectful manner. The experience and knowledge of Pacxa team members combined with the dedication and high level of engagement from DCCA SMEs support the positive project team environment.

**Recommendation:** N/A for positive observation.

## IV&V ASSESSMENT AREAS

### People

### Process

### Technology

OBSERVATION #: 2022.08.002

STATUS: OPEN

TYPE: RISK

SEVERITY: 3

### TITLE: IDENTIFY DCCA PROJECT ROLES AND RESOURCES

**Observation:** Insufficient DCCA project resources may lead to project delays, reduced project performance, or turnover of project resources.

**Industry Standards and Best Practices:** PMI PMBOK Chapters 2.4 and 4.4 provide methods for estimating the resources needed for successful completion of the project.

**Analysis:** It is unclear at this time if there are adequate DCCA project resources to efficiently perform project work to achieve the aggressive high-level timeline. DCCA did contract an external full-time Project Manager (Aalta) who officially onboarded at the end of August 2022. Having a dedicated and experienced resource in the Project Manager role has been shown to increase project success compared to a resource who is often pulled back to perform regular job duties. DCCA also appointed resources for the OCM and communications lead roles; however, other project roles and resources are not yet identified. The new DCCA Project Manager is working to identify the additional DCCA workstream lead roles (e.g., data conversion lead, testing lead) needed to efficiently and effectively perform project work as well as identify potential candidates within DCCA to fill these lead roles. A common issue in SOH modernization projects is that assigned resources must often balance competing priorities of project work and ongoing operational work. Additionally, assigned resources don't always have the necessary experience or knowledge of how to perform the project tasks. It is critical that a resource plan to backfill and train DCCA resources is developed to prevent project delays.

**Recommendation:** 2022.08.002.R1 – *Evaluate project resource needs and acquire additional resources.*

- Estimate resource time requirements and identify required knowledge or skillsets.
- Develop a plan to minimize the impact to operations (e.g., backfill, reassign work) so that assigned project resources are not pulled back from project work.
- Get commitments from resources and management for the time needed to perform project work.

2022.08.002.R2 – *Provide adequate training and support to assigned resources to be able to perform role.*

- Consider performing general project management training so that resources understand general project processes and the purpose of project activities.
- Consider providing additional support and information to resources regarding best practices and common approaches for assigned tasks or areas of responsibility.

## IV&V ASSESSMENT AREAS

People

Process

Technology

OBSERVATION #: 2022.08.003

STATUS: OPEN

TYPE: RISK

SEVERITY: 3

### TITLE: FORMALIZE PROJECT GOVERNANCE

**Observation:** A delay in formalizing the executive steering committee may limit the strategic guidance and support to the project.

**Industry Standards and Best Practices:** PMI research shows that steering committees contribute to project success. PMI PMBOK Chapter 4.4 also identifies the importance of the steering committee role to provide direction and support.

**Analysis:** The Pacxa kickoff presentation noted that a governance model will be developed. The topic of a steering committee was also raised during meetings. However, the selection of the steering committee members and kickoff of the committee meetings are still pending.

**Recommendation:** 2022.08.003.R1 – *Assemble and formalize an executive steering committee.*

- The size and selection of committee members should balance the representation of key stakeholders with the need for efficient decision making.
- Formalize the committee mission, responsibilities, and the types and the thresholds of decisions that need committee approval in a steering committee charter.

## IV&V ASSESSMENT AREAS

People

Process

Technology

OBSERVATION #: 2022.08.004

STATUS: OPEN

TYPE: RISK

SEVERITY: 3

### TITLE: ESTABLISH COST MANAGEMENT PLAN & BUDGET

**Observation:** A lack of cost management practices may lead to unexpected or improper costs.

**Industry Standards and Best Practices:** PMI PMBOK Chapter 2.4 outlines components of the project budget, Chapter 2.7 summarizes common cost measures, and Chapter 4.6 describes the cost management plan.

**Analysis:** Major project costs were finalized for the system implementor (Pacxa), project manager (Aalta), and IV&V (Accuity) contracts. However, it is unclear how the complete project budget will be managed and how additional costs outside of the major contracts will be identified. For example, certain assumptions were made regarding the use of existing enterprise licensing for DocuSign CLM and Salesforce community licenses. As additional information and clarification of technical requirements is obtained, these assumptions and the potential additional costs must be closely managed. Other costs for project tools (e.g., code repository, project management, testing) should also be considered and managed.

**Recommendation:** 2022.08.004.R1 – *Prepare a comprehensive project budget and a schedule of long-term operational costs (e.g., licenses, subscriptions, maintenance, cloud services).*

2022.08.004.R2 – *Develop DCCA cost management processes.*

- Develop processes to prepare cost variance analysis and reports.
- Develop processes to monitor contract deliverables against payment terms.

## IV&V ASSESSMENT AREAS

People

Process

Technology

OBSERVATION #: 2022.08.005

STATUS: OPEN

TYPE: OPPORTUNITY

SEVERITY: N/A

### TITLE: IMPLEMENT RECURRING MEETINGS

**Observation:** Implementation of recurring meetings help to promote frequent and focused discussions.

**Industry Standards and Best Practices:** PMI PMBOK Chapter 4.4 states that meetings are important for engaging the project team and are the primary means of communicating in projects.

**Analysis:** Recurring meetings help to promote collaboration and transparency, engage project team members, and coordinate various workstreams. They also provide regular touchpoints and communication channels to help keep critical project activities moving forward. Recurring project management meetings provide visibility of all project activities to Pacxa, DCCA, as well as IV&V. Recurring technical meetings have worked well in other projects as standing meeting to discuss different technical issues or topics. Recurring risk meetings promote regular and focused discussion of risks and mitigation strategies.

**Recommendation:** 2022.08.005.R1 – *Implement recurring meetings.*

- Ensure meetings are productive and fosters open and safe communication.
- Adjust the cadence as needed depending on the needs and activities of the project.

## IV&V ASSESSMENT AREAS

People

Process

Technology

OBSERVATION #: 2022.08.006

STATUS: OPEN

TYPE: RISK

SEVERITY: 3

### TITLE: DEFINE SUCCESS METRICS

**Observation:** A lack of quantitative success metrics may lead to differences in the interpretation of project success.

**Industry Standards and Best Practices:** PMI project management, benefits realization management, and Prosci organizational change management best practices all include the identification of success metrics and the regular monitoring of progress towards achieving predefined success metric goals.

**Analysis:** Project goals were drafted; however, quantitative success metrics were not yet defined. Clear and measurable success metrics ensure that everyone is working to the same definition of success, that progress can be monitored, and corrective actions can be taken if necessary.

**Recommendation:** 2022.08.006.R1 – *Formalize measurable goals and success metrics.*

- Consider financial, nonfinancial, tangible, and intangible metrics such as operational key performance indicators (KPIs), customer or employee satisfaction, user adoption, return on investment, or cycle or processing times.
- Consider benefits realization management objectives as well as alignment to BREG goals.

2022.08.006.R2 – *Collect baseline data and monitor progress.*

- Consider methods for collecting data such as process mining, surveys, queries, observation, or open forums.
- Consider sources of data such as legacy systems, operations, and internal and external stakeholders.

## IV&V ASSESSMENT AREAS

People

Process

Technology

OBSERVATION #: 2022.08.007

STATUS: N/A

TYPE: PRELIMINARY

SEVERITY: N/A

### TITLE: INVESTIGATE TECHNICAL REQUIREMENTS

**Observation:** Technical requirements for integration with existing applications and data conversion from legacy systems need to be further investigated.

**Industry Standards and Best Practices:** DAMA International's Guide to the Data Management Body of Knowledge (DMBOK), Data Integration and Interoperability describes processes related to the movement and consolidation of data within and between data stores and applications. Institute of Electrical and Electronics Engineers (IEEE) 15288-2015 Section 6.4.5 outlines the various activities and tasks in the design process that includes the refinement and full definition of interfaces. DocuSign CLM also provides best practices for a Salesforce integration in the "DocuSign CLM for Salesforce Administrator Guide".

**Analysis:** Further investigation of technical requirements is needed to determine if there is a potential impact to the project schedule, project budget, or proposed solution. Some examples of the technical requirements that need to be further investigated include:

- DocuSign CLM specifications for integration with Salesforce environments
- Tools and time needed for a migration of documents from the existing DocuSign CLM repository
- HIC contract terms regarding data access and rights
- Migration of files from RDPMS

Pacxa and DCCA are in the process of investigating some of these. IV&V will continue to monitor this preliminary concern as additional information is discovered.

**Recommendation:** N/A for preliminary concerns.



# Appendix A: IV&V Criticality and Severity Ratings

## IV&V CRITICALITY AND SEVERITY RATINGS

Criticality and severity ratings provide insight on where significant deficiencies are observed and immediate remediation or risk mitigation is required. Criticality ratings are assigned to the overall project as well as each IV&V Assessment Area. Severity ratings are assigned to each risk or issue identified.

### Criticality Rating

The criticality ratings are assessed based on consideration of the severity ratings of each related risk and issue within the respective IV&V Assessment Area, the overall impact of the related observations to the success of the project, and the urgency of and length of time to implement remediation or risk mitigation strategies. Arrows indicate trends in the project assessment from the prior report and take into consideration areas of increasing risk and approaching timeline. Up arrows indicate adequate improvements or progress made. Down arrows indicate a decline, inadequate progress, or incomplete resolution of previously identified observations. No arrow indicates there was neither improving nor declining progress from the prior report.

#### TERMS

##### RISK

An event that has not happened yet.

##### ISSUE

An event that is already occurring or has already happened.



A **RED**, high criticality rating is assigned when significant severe deficiencies were observed and immediate remediation or risk mitigation is required.



A **YELLOW**, medium criticality rating is assigned when deficiencies were observed that merit attention. Remediation or risk mitigation should be performed in a timely manner.



A **GREEN**, low criticality rating is assigned when the activity is on track and minimal deficiencies were observed. Some oversight may be needed to ensure the risk stays low and the activity remains on track.



A **GRAY** rating is assigned when the category being assessed has incomplete information available for a conclusive observation and recommendation or is not applicable at the time of the IV&V review.

## TERMS

### POSITIVE

Celebrates high performance or project successes.

### PRELIMINARY CONCERN

Potential risk requiring further analysis.

## Severity Rating

Once risks are identified and characterized, Accuity will examine project conditions to determine the probability of the risk being identified and the impact to the project, if the risk is realized. We know that a risk is in the future, so we must provide the probability and impact to determine if the risk has a Risk Severity, such as Severity 1 (High), Severity 2 (Moderate), or Severity 3 (Low).

While a risk is an event that has not happened yet, an issue is something that is already occurring or has already happened. Accuity will examine project conditions and business impact to determine if the issue has an Issue Severity, such as Severity 1 (High/Critical Impact/System Down), Severity 2 (Moderate/Significant Impact), or Severity 3 (Low/Normal/Minor Impact/Informational).

Observations that are positive, preliminary concerns, or opportunities are not assigned a severity rating.



**SEVERITY 1:** High/Critical level



**SEVERITY 2:** Moderate level



**SEVERITY 3:** Low level

## Appendix B: Industry Standards and Best Practices

| STANDARD           | DESCRIPTION   |
|--------------------|---|
| ADA                | Americans with Disabilities Act   |
| ADKAR®             | Prosci ADKAR: Awareness, Desire, Knowledge, Ability, and Reinforcement  |
| BABOK® v3          | Business Analyst Body of Knowledge  |
| DAMA-DMBOK® v2     | DAMA International's Guide to the Data Management Body of Knowledge   |
| PMBOK® v7          | Project Management Institute (PMI) Project Management Body of Knowledge   |
| SPM                | PMI The Standard for Project Management   |
| PROSCI ADKAR®      | Leading organization providing research, methodology, and tools on change management practices  |
| SWEBOK v3          | Guide to the Software Engineering Body of Knowledge   |
| IEEE 828-2012      | Institute of Electrical and Electronics Engineers (IEEE) Standard for Configuration Management in Systems and Software Engineering  |
| IEEE 1062-2015     | IEEE Recommended Practice for Software Acquisition  |
| IEEE 1012-2016     | IEEE Standard for System, Software, and Hardware Verification and Validation  |
| IEEE 730-2014      | IEEE Standard for Software Quality Assurance Processes  |
| ISO 9001:2015      | International Organization for Standardization (ISO) Quality Management Systems – Requirements  |
| ISO/IEC 25010:2011 | ISO/International Electrotechnical Commission (IEC) Systems and Software Engineering – Systems and Software Quality Requirements and Evaluation (SQuARE) – System and Software Quality Models |
| ISO/IEC 16085:2020 | ISO/IEC Systems and Software Engineering – Life Cycle Processes – Risk Management   |
| IEEE 16326-2019    | ISO/IEC/IEEE International Standard – Systems and Software Engineering – Life Cycle Processes – Project Management  |
| IEEE 29148-2018    | ISO/IEC/IEEE International Standard – Systems and Software Engineering – Life Cycle Processes – Requirements Engineering  |



| STANDARD                 | DESCRIPTION   |
|--------------------------|---|
| IEEE 15288-2015          | ISO/IEC/IEEE International Standard – Systems and Software Engineering – System Life Cycle Processes  |
| IEEE 12207-2017          | ISO/IEC/IEEE International Standard – Systems and Software Engineering – Software Life Cycle Processes  |
| IEEE 24748-1-2018        | ISO/IEC/IEEE International Standard – Systems and Software Engineering – Life Cycle Management – Part 1: Guidelines for Life Cycle Management   |
| IEEE 24748-2-2018        | ISO/IEC/IEEE International Standard – Systems and Software Engineering – Life Cycle Management – Part 2: Guidelines for the Application of ISO/IEC/IEEE 15288 (System Life Cycle Processes)   |
| IEEE 24748-3-2020        | IEEE Guide: Adoption of ISO/IEC TR 24748-3:2011, Systems and Software Engineering – Life Cycle Management – Part 3: Guide to the Application of ISO/IEC 12207 (Software Life Cycle Processes) |
| IEEE 14764-2021          | ISO/IEC/IEEE International Standard for Software Engineering – Software Life Cycle Processes – Maintenance  |
| IEEE 15289-2019          | ISO/IEC/IEEE International Standard – Systems and Software Engineering – Content of Life Cycle Information Items (Documentation)  |
| IEEE 24765-2017          | ISO/IEC/IEEE International Standard – Systems and Software Engineering – Vocabulary   |
| IEEE 26511-2018          | ISO/IEC/IEEE International Standard – Systems and Software Engineering – Requirements for Managers of Information for Users of Systems, Software, and Services                                |
| IEEE 23026-2015          | ISO/IEC/IEEE International Standard – Systems and Software Engineering – Engineering and Management of Websites for Systems, Software, and Services Information                               |
| IEEE 29119-1-2021        | ISO/IEC/IEEE International Standard – Software and Systems Engineering – Software Testing – Part 1: Concepts and Definitions  |
| IEEE 29119-2-2021        | ISO/IEC/IEEE International Standard – Software and Systems Engineering – Software Testing – Part 2: Test Processes  |
| IEEE 29119-3-2021        | ISO/IEC/IEEE International Standard – Software and Systems Engineering – Software Testing – Part 3: Test Documentation  |
| IEEE 29119-4-2021        | ISO/IEC/IEEE International Standard – Software and Systems Engineering – Software Testing – Part 4: Test Techniques   |
| IEEE 1484.13.1-2012      | IEEE Standard for Learning Technology – Conceptual Model for Resource Aggregation for Learning, Education, and Training   |
| ISO/IEC TR 20000-11:2021 | ISO/IEC Information Technology – Service Management – Part 11: Guidance on the Relationship Between ISO/IEC 20000-1:2011 and Service Management Frameworks: ITIL®                             |
| ISO/IEC 27002:2022       | Information Technology – Security Techniques – Code of Practice for Information Security Controls   |

| STANDARD                          | DESCRIPTION  |
|-----------------------------------|--|
| FIPS 199                          | Federal Information Processing Standard (FIPS) Publication 199, Standards for Security Categorization of Federal Information and Information Systems |
| FIPS 200                          | FIPS Publication 200, Minimum Security Requirements for Federal Information and Information Systems  |
| NIST 800-53 Rev 5                 | National Institute of Standards and Technology (NIST) Security and Privacy Controls for Federal Information Systems and Organizations                |
| NIST Cybersecurity Framework v1.1 | NIST Framework for Improving Critical Infrastructure Cybersecurity   |
| LSS                               | Lean Six Sigma   |



## *Appendix C: Comment Log on Draft Report*

Comment Log on Draft Report

| BRM Project: IV&V Document Comment Log  |        |   |                          |                    |
|---|--------|---|--------------------------|--------------------|
|  |        |  |                          |                    |
| ID #  | Page # | Comment   | Commenter's Organization | Accuity Resolution |
| 1   |        | No DCCA comments.   |                          |                    |
| 2   |        |   |                          |                    |
| 3   |        |   |                          |                    |
| 4   |        |   |                          |                    |
| 5   |        |   |                          |                    |





FIRST HAWAIIAN CENTER

Accuity LLP

999 Bishop Street

Suite 1900

Honolulu, Hawaii 96813

P 808.531.3400

F 808.531.3433

[www.accuityllp.com](http://www.accuityllp.com)



Accuity LLP is an independent member of Baker Tilly International. Baker Tilly International Limited is an English company. Baker Tilly International provides no professional services to clients. Each member firm is a separate and independent legal entity, and each describes itself as such. Accuity LLP is not Baker Tilly International's agent and does not have the authority to bind Baker Tilly International nor act on Baker Tilly International's behalf. None of Baker Tilly International, Accuity LLP, nor any of the other member firms of Baker Tilly International has any liability for each other's acts or omissions. The name Baker Tilly and its associated logo are used under license from Baker Tilly International Limited.

© 2022 Accuity LLP. This publication is protected under the copyright laws of the United States and other countries as an unpublished work. All rights reserved.