One Washington
A Business Transformation Program

End-to-End Test Approach

August 16, 2021

Document Control General Information

Type of Information	Document Data
Title	End-to-End Test Approach
File name	OneWa-53-End-to-EndTest Approach - Final.docx
File Location	SharePoint/PMO/Vendor Deliverables/SI – Deloitte Deliverables/53. End-to-End Test Approach
Original Release Date	07/30/2021
Current Release Date	08/16/2021
Vendor	Deloitte
Owner	Stan Thomas
Reviewers	Michael Schaub Mistyjean Brown Stan Thomas Lizzy Drown Liz Colón, ISG John Cook, ISG-PS Thomas Ortiz, ISG-PS Allen Mills, bluecrane Jay Jackson, bluecrane Amy Pearson (OCIO) Stacy Steck (OCIO) Megan Pilon (OCIO) Satish Iyer, Deloitte
Approver	Ann Bruner

Version Control

Version Number	Date	Additions/Modifications	Prepared/Revised By
V0.1	07/30/21	Initial Draft	Jim Warner
V0.2	08/11/21	Accepted edits according to feedback	Erynn Christopherson
V1.0	08/16/21	Final Draft – accepted all changes and deleted comments	Erynn Christopherson

Table of Contents

1. Introduction

1.1 Introduction

This deliverable is for One Washington Phase 1A only. Additional documents will be needed for subsequent phases.

The End-to-End (E2E) Testing Approach defines the overall testing scope and logistics to be covered during the End-to-End Testing Phase. It defines the approach that will adequately verify and validate that the One Washington Workday solution meets its design specifications and acceptance criteria, as well as performs per expected operational requirements.

1.2 Background

As the One Washington program concludes configuration and prototyping activities, the resulting system will need to be tested to ensure that defined requirements are met. Prior to End-to-End testing, each workstream will have completed unit testing of individual components. Individual reports, interfaces, security protocols, etc. will have been tested by the implementing teams. End-to-End testing brings it all together and ensures that these components work together in meeting the One Washington program requirements.

.

1.3 Guiding Principals

The following are the guiding principles for End-to-End testing:

- **Confidentiality** – All Personally identifying Information (PII) and Protected Health Information (PHI) standards are in accordance with the Deliverables # 6A and 6B, Confidential Information Management Plan , System Security Plan and Workday Tenant 1 Controls Memo. Any documentation collected as part of End-to-End Testing will adhere to the CIMP plan. As an example, any data collected with ensure that PII data is "blacked out" within screen shots or is not listed in either a defect or a test result. This will be addressed as part of the testing Kick off meeting and will be monitored throughout testing.
- **Collaboration** – Coordinated testing across all One Washington workstreams, leveraging test scenarios for End-to-End Testing.
- **Flexibility** – Being flexible and ready to adjust schedules to meet testing needs.
- **Documentation of Results** – Confirmation that scenarios representing the One Washington Project requirements are tested, inclusive of testing connection points with integrated systems.
- **Defect Management Process Followed** – All defects will be logged, triaged, retested, and resolved.

1.4 Objectives

The End-to-End Test Approach will describe the testing process for the functionality of the configurations and integrations derived from the configuration and prototyping process along with the overall scope, schedule, and defect process.

End-to-End testing is the process of testing all components of the application in a fully integrated testing environment that mimics real-world use, including functional configurations, business processes, integrations, and critical custom reports.

1.5 Goals of Testing

The following high-level goals have been set for End-to-End Testing:

- Verify that the configured system meets role and user-based security requirements for business processes (End-to-End)
- Confirm all business process scenarios (e.g. purchasing supplies), integrations and reports identified for End-to-End, operate as designed.
- Verify that all test scenarios are mapped to user stories which have been mapped to requirements, fulfilling the requirements traceability.
- Validate all interfaces to external and 3rd party systems function as designed.
- Capture and resolve any defects found during system testing in requirements, design, or code fix.
- Provide supporting metrics for Go-Live readiness

1.6 Overview

The below figure breaks out testing across three main areas:

1. **Plan** – Develop testing approach and strategy
2. **Configure and Prototype** – Create specific testing plans
3. **Test** – Execution of End-to-End and UER test phases

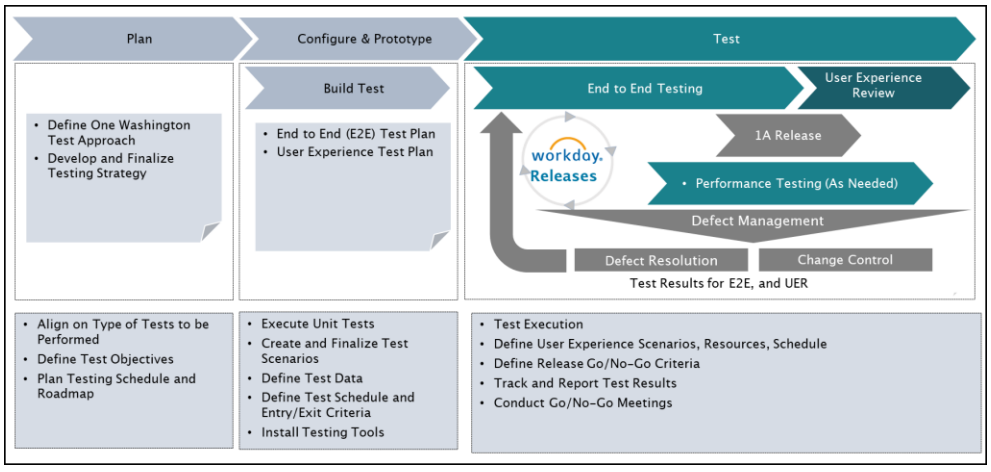

Figure 1. One Washington Project Testing Approach

2. Key Risks

The following risks were identified during the development of this document. Any new testing risk will be documented in the project's RAID log in PMC:

- If there is insufficient representation from relevant end-user groups and agencies in testing events, then system acceptance may be affected adversely.
- Functional Leads / Business Analysts / SMEs are assigned to numerous project activities. Specific to End-to-End, they are expected to execute tests, remediate defects, and provide guidance to other testers. Resource availability will directly impact the ability to complete End-to-End activities as scheduled.
- If State testers are unfamiliar with the assigned Workday business processes represented in the test scenarios and cannot execute them, then test cycles may be delayed.
- If the test management process cannot maintain accurate bi-directional traceability between requirements, solution components, and test scenarios, then the overall coverage of testing against requirements will not be determinable.
- Testing responsibilities between One Washington program and agencies will need to be monitored during execution to minimize the potential for the project test team taking on responsibility for testing and/or defect remediation within agency systems.

2.1 Constraints and Dependencies

The following constraints and dependencies were identified during the development of this document:

Constraints

Technical

- By agreement with the State, Workday provisioned a limited number of tenants to One Washington. The number of tenants to be used for testing are thereby limited as well.
- Conversions, integrations, and reports must be designed, built, and unit tested before entering testing cycles.
- Data required to support scenarios being tested is set up prior to testing and or linked to a predecessor test scenario.

Functional

- Test scenarios are based on user stories.
- Dependent recurring (batch) processes will be identified as specific pre-conditions in each test scenario.

General

- For onsite, in-person testing, availability of equipment and space for testing will impact scheduling of test activity.

- For remote testing, the quality of internet connectivity for system access and collaboration may affect the efficiency of the test cycle execution.
- Availability of external (agency) and internal (One Washington Program) team members for testing will impact scheduling of test activity.
- The planned test cycles must be executed within timelines established in the Project Work Plan.

Dependencies

Technical

- Testing tenants must be provisioned on-time per the tenant management strategy.
- Testing tenants have loaded converted data on-time, in advance of business process, report, and integration testing.
- Integrations and reports are migrated to the testing tenants.
- External vendors and Washington agencies with systems that integrate with Workday must have system owners available to support integration testing. These system owners will be expected to participate in test schedule planning and in execution during planned testing cycles.
- Roles are defined and mapped to the user accounts to be used for testing.

Functional

- Decisions and policies impacting business process configuration must be settled in advance of testing.
- Business process configuration and user role security setup must be confirmed in the testing tenant prior to start of testing.
- Upstream Workday functional areas are ready for testing prior to downstream functional areas that depend on them.
- Functional Leads / Business Analysts / SMEs are available to support testing.
- One Washington Project Management helps drive the core team members to use ALM Octane for staging requirements, user stories, and test scenarios; and for recording test results and test findings.
- Testers (including Subject Matter Experts and super-users who have participated in Workday design) from the Office of Financial Management and impacted agencies are recruited and are available to participate in the testing kick-off meetings where they will receive pre-test awareness and then execute testing.
- Roles are defined and mapped to the user accounts to be used for testing.

2.2 Assumptions

The following assumptions have been made:

1. Testers have familiarity with Workday terminology and functions.

2. The use of test scenarios for Workday testing assumes that the system is being tested by actual business users who are aware of general Workday functionality and system requirements, and not by any third-party testing team. (Details discussed further in Section 3.2 Training for End-to-End Testers)
3. User stories are created for all Phase 1A functionality to be tested.
4. Test scenarios are developed based on user stories and will include business processes, integrations, and reports.
5. Test scenarios will be developed from user stories that cover functional and technical requirements, which will include mobile and security testing.
6. Phase 1A requirements are mapped to user stories which are then mapped to test scenarios.
7. External system integration testing requirements imposed by third parties (e.g., banks) will be determined when the external system owners are engaged.
8. One Washington functional leads and their respective teams will author End-to-End Test scenarios based on user stories, using agreed-to templates.
9. ALM Octane is the project's test management tool and will serve as the One Washington system of record for documenting testing beyond basic unit testing.
10. Technical solutions required for end user access are fully functional and configured to support the tenant ahead of testing. End user access (including external vendor accounts) is configured to support the tenant ahead of testing. Validation will be done by smoke testing the tenant prior to E2E testing.
11. As part of the entry criteria into E2E testing, test data for scenario testing will be within the tenant and available for testing.
12. Legacy system owners handle test findings related to their converted or transmitted data in a timely manner.
13. Trainers are expected to be a part of the testing cycles for understanding of future training needs (Based on availability, state trainers will be part of the End-to-End testing process)
14. Workday mobile application testing is limited to authentication testing; business processes will be executed to the extent of proving the mobile platform works as expected. No duplicate testing of business process test scenarios is anticipated.
15. The State is responsible for testing the Workday mobile application deployment process on State provided and approved mobile devices.
16. The State will be responsible for accessibility and usability testing as per the SOW section 11.1. The GOV Workday tenant will be used for planning of accessibility testing. Execution of accessibility testing will conclude before exiting End-to-End Testing.

3. Identifying End-to-End Scope

3.1 List of Financials in Scope of Testing Phase 1A

Scope of Testing for Phase 1A is primarily on Financials, with user stories mapped to requirements. User stories are then mapped to test scenarios where the focus of testing will include the Interfacing and Integration of systems. Test scenarios will also cover the conversion process and reporting.

End-to-End Testing will verify the flow of End-to-End business processes (BP) between multiple financial functions, 3rd party integrations.

The following financial functionality along with their business processes will be tested as part of End-to-End Testing for Phase 1A:

Phase 1A	
Suppliers	Financial Accounting
Customer Accounts	General Ledger
Banking & Settlement	Lease Accounting
Budgets	Taxes (Will be covered as part of AP Suppliers and or AR Customers)
Business Asset	

Table 1: Phase 1A Functional Areas

Each functional area will be broken out into user stories based on requirements enumerated in the Phase 1A SOW and elaborated on in the various functional workshops. For a complete list of functional areas along with their business process please refer to Deliverable #27 Business Process Analysis in the reference section in Appendix B for further details.

Note: Requirements for Phase 1a are not static. Some requirements are moving between Phase 1a and Phase 1b, and portions of functional areas may not fall completely within one Phase. Testing Team and Functional Team are tracking these requirements in the Functional Teams Phase 1a User Story folder.

3.2 Interfacing / Integrations of Systems

End-to-End Testing will ensure all integrations within the test scenarios are tested. As part of the End-to-End Testing schedule an Integration schedule will be developed with the owners of the legacy systems. If a defect is found during testing and is identified as part of the One Washington Workday system, then a defect will be created in ALM Octane and tracked within the testing phase as called out in Section 4.2 Defect Management in ALM Octane. Any issues identified will first be logged as a defect, if during the triage process it is determined to not be an issue within Workday, the triage meeting will discuss next steps for that issue and the defect within ALM Octane may be closed.

Additional information regarding Integration Inventory can be found in Deliverable #44 Integration Control Inventory which is noted below in the Reference section.

3.3 Configurable Security Framework

The security framework will not be directly tested, rather the ability to execute business functionality will determine the successful deployment of roles to users within a position. Test scenarios for End-to-End testing will incorporate the roles required to perform specified functions. Through E2E testing the product functionality will be tested which will ensure that the proper roles are established, assigned to positions, and provided permissions to execute specific functionality. There may be exceptions where a specific test scenario exists to test a specific security role. As part of End-to-End testing the security framework will be covered through test scenarios identified by user stories which address Roles and Positions.

- **Roles** – Roles are assigned to positions – Determine function in a business process – What is visible within Workday – Access to data
- **Positions** – Position is the "seat" a specific worker occupies – not specific to a job title – May have multiple role assignments

System access is assigned to end users to ensure they can perform their day-to-day responsibilities after Go-live based on segregation of duties.

Additional information can be found in Deliverable #42 Configuration Security Framework noted below in the Reference section.

3.4 Conversion

End-to-End testing will not have specific test scenarios that cover conversion. Test scenarios will be executed by using the converted data which will be in place. The conversion process will be completed prior to End-to-End testing. The following actions will be in place to validate the conversion process before End-to-End testing begins:

- After the data is loaded, the One Washington Project functional team, BA's and identified SME's will be responsible for full validation of all converted data to ensure accuracy and find any issues to address in subsequent data conversion cycles
- Workday and legacy reports will be used to validate converted data
- One Washington Project will follow a defined issue analysis and resolution process

Additional information can be found in Deliverable # 24 Data Conversion Strategy and Plan which is noted below in the Reference section.

3.5 Reporting

The End-to-End testing will include testing scenarios for Custom Workday reports generated using Workday-provided technology (Business Intelligence, Report and BIRT Development, PRISM). End- to-End Testing specifically tests the identified business process and the various reporting methods used in Phase 1A.

Reports are further detailed in Deliverable # 45 Reporting Strategy and Approach noted below in the Reference section.

4. Mechanics of Testing

4.1 End-to-End Testing Kickoff

Prior to End-to-End Testing, a Kickoff meeting will be held with the identified testing resources along with functional and technical resources. The meeting will detail the following areas:

1. Welcome
2. Objectives of End-to-End Testing
3. Roles and Responsibilities
4. Entrance and Exit Criteria
5. Overall schedule of End-to-End, with breakouts for each test cycle
6. Testing Logistics, Agenda, Labs, etc.
7. Test Data and PII
8. Contingency Planning
9. Defect Management Process
10. ALM Octane Overview
11. Teams and Channels Overview and Demo
12. Next Steps
13. Resources (Links)
14. Who to Contact for follow-up

4.2 Training for End-to-End Testers

All testers are expected to be familiar with basic Workday concepts. A refresher can be found on YouTube as described below. Agency testers and One Washington Functional team will be provided with basic exposure to ALM Octane, including how to log into the test management tool. They will also be provided with "Just in Time" exposure to the Workday functionality in which they will be testing.

Phase 1A End-to-End Testing			
Type of Material	Delivery Method	Delivery Method	Date
Workday Brief Tutorial	https://www.youtube.com/watch?v=CQaX6vuHYGM	YouTube	Prior to Testing Kick Off
Workday Functional Overview	In person	Functional Leads Presentation	Testing Kick off
ALM Octane	In person - Power point	Test Leads Presentation	Testing Kick off
Just in Time	In person	Functional Leads / SME's Presentation	As part of the Process area breakouts which are defined below as part of the daily schedule

Table 2: Phase 1A Test Preparation

4.3 Basic Testing Process

4.3.1 Test Standards

The following standards will be a part of End-to-End testing:

- Anything tested which does not function as expected will be logged initially as a defect.
- End-to-End testing will not execute every possible approach to solving a business problem.
- Test scenarios will be executed in priority sequence wherever possible. Lowest priority scenarios may not get tested if time/resources run out at the end of End-to-End testing.
- End-to-End testing is not expected to conform to software industry testing standards (i.e. ISO 9000). Software industry testing standards generally apply to a system or component being developed and not to an existing system being configured.
- Workday testing focuses on users executing business processes (BP's). This ensures that both roles and business processes are configured correctly.

4.3.2 Test Scenarios

A Test Scenario is a high-level narrative/description of the business processes that cover the requirements of the solution

- It defines the starting conditions required for the scenario to be successful (any special data, roles, etc.)
- It showcases what needs to be tested
- It is an overview of the steps required to test the scenario
- It describes the data variables required to validate the scenario
- Scenarios trace back to user stories

Test scenarios are stored, and execution results are captured within ALM Octane. Testers will be assigned to specific test scenarios in ALM Octane. Testers will need to verify they have familiarity and the ability to log into ALM Octane before testing begins. (This will be covered as part of the End-to-End Kick off meeting)

Test scenarios will be grouped by Functional Areas/ Epics. User tags will be created to group tests within ALM Octane. This will allow tests to be easily assigned and aid in tracking metrics.

4.3.3 Documentation

End-to-End testing documentation will be captured and stored in the testing tool, ALM Octane. Once a scenario has been executed the results are documented in ALM Octane along with supporting documentation such as screen shots. If the results are not as expected, then a defect is created which will go through the defect triage process detailed under Section 4.1 Defect Management in ALM Octane.

4.4 Test Location Logistics (Remote / Onsite)

Test location logistics describes the physical and logical environment required for testers to be able to successfully participate in testing activities, access the Workday solution, and access testing materials.

At this time, logistics will focus on a hybrid approach primarily geared towards remote or virtual testing.

4.4.1 For Both Remote and In-Person End-to-End Testing:

- Functional Leads / Business Analysts / SMEs/ Test Leads and testers will have access to Microsoft Teams (Teams)
- Testers have test scripts assigned in ALM Octane
- Functional Leads / Business Analysts / SMEs/ Test Leads share a screen via Teams to walk through guidance
- Testers will have the application test system, Teams, and ALM Octane open on their computers at the same time

4.4.2 For Remote or Virtual End-to-End Testing:

- Testers access the open Teams meeting or communicate directly with Functional Leads / Business Analysts / SMEs/ Test Leads. Testers communicate with each other through Teams session, email, or phone calls

4.4.3 For In-Person End-to-End Testing:

- Functional Leads / Business Analysts / SMEs/ Test Leads and testers gather in a shared workspace
- Testers can raise their hands to ask a question or solicit advice during test execution
- Testers can turn to each other when they need to coordinate their actions

4.4.4 Preparing Logistics

A. Verify testers' access to:
   i. A desktop or laptop computer
   ii. Microsoft Teams for meetings, collaboration, screen-sharing
   iii. Workday through VPN connection
   iv. ALM Octane for recording test findings
   v. Training materials available as reference

B. Identifying key support people (i.e., Functional Leads / Business Analysts / SMEs) who can answer questions and provide guidance for each process area

4.4.5 Supporting Testers

1. Teams Channels/worksheets are in a centralized virtual location for testers to post questions, Functional Leads / Business Analysts / SMEs to provide updates, and all to receive feedback

2. Create channels/worksheets for each workstream managed by the Test Coordinator
3. Test Coordinator monitors all channels/worksheets to ensure questions are answered in a timely manner
4. The Q&A inventory is reviewed by Functional leads to evaluate where additional future training or communications might be helpful
5. Block time each day for daily status meetings/checkpoints to discuss test case execution progress, defect resolution, blockers, or risks, and overall End-to-End test status
6. Breakout sessions support parallel testing activities
7. Functional leads stay in the Teams conference all day, and testers can check in at any time with questions
8. Test Leads will assist and provide examples of good defect writing as support to the testers

4.4.6 Daily Schedule

Below is a proposed daily schedule for End-to-End Testing:

Time	Activity	Objectives	Leads and Participants
8:30 am to 9:00 am	Daily Kick-Off Meeting	• Review previous day's testing overall • Preview the day's schedule • Report on high-priority defects' status • Communicate general advice, changes in test practices • Q & A	Lead: Testing Leads/ Testing Coordinator Participants: Business / Functional testers, Functional Leads/Business Analysts/ SME's
9:00 am to 9:30 am	Process Area Breakout	• Review previous day's module testing • Demonstrate the day's functionality to be tested • Preview the day's module testing schedule • Report on module defect status • Q&A	Lead: Testing Leads/ Testing Coordinator Participants: Business / Functional testers,
9:30 am to 12:00 pm	Test Execution	Conduct testing according to assigned test scenarios; record test findings	Lead: Testing Leads/ Testing Coordinator Participants: Business / Functional testers,
12:00 pm to 1:00 pm	Break	Refresh for the afternoon Attend to "real" work, check emails, etc.	
1:00 pm to 3:30 pm	Test Execution	Conduct testing according to assigned test scripts; record test findings	Lead: Testing Leads/ Testing Coordinator Participants: Business / Functional testers,

3:30 pm to 3:45 pm	Process Area Breakout	• Review the day's module testing • Q&A	Lead: Testing Leads/ Testing Coordinator Participants: Business / Functional testers,
3:45 pm to 4:15 pm	Daily Defect Triage	• Review daily defects, confirm severity, priority, and assignment	Lead: Testing Leads/ Testing Coordinator Participants: Business / Functional testers, Functional Leads/Business Analysts/ SME's/ Technical and Functional Teams (as needed)
4:15 pm to 4:30 pm	Daily Summary Meeting	• Preview the next day's schedule • Communicate general advice, changes in test practices • Lessons Learned from the day • Q&A	Lead: Testing Leads/ Testing Coordinator Participants: Business / Functional testers, Functional Leads/Business Analysts/ SME's

Table 3: End-to-End Daily Test Schedule

4.4.7 Channel Breakout

- Set up breakout rooms in advance of the meeting with a specific naming convention by Module and assign testers. Include a defined testing schedule.
- The test lead will be assigned to manage the main Team Channel room. The Test Coordinator will monitor the chat, messaging from the breakout rooms, etc.
- Include technical team, security team, and translators as needed.
- Project team members / Functional Leads / Business Analysts / SMEs must be co-hosts to move from room to room.
- Create 'coffee break sessions' with discussion topics once a week to break the monotony of testing and ensure our testers do not get burned out.
- Facilitate daily pulse surveys to receive continuous suggestions and feedback.

4.4.8 Testing Labs

The in-person twice daily, 2.5-hour test labs include the following activities:

- Daily stand-up meeting during the morning lab to review testing scope for the day
- Review Workday business processes that are in scope to test
- Facilitators demonstrate 1-2 business process test scenarios

- Testers will test scenarios for each business process
- Testers will record test scenario status and/or defects in ALM Octane
- Testers will retest (as necessary)
- Testers attend daily defect resolution calls
- Testing debriefs may be needed initially
- Members of the testing support team will be available to assist with instructions on executing test scenarios, reviewing, categorizing, logging, and escalating defect
- The Test Coordinator will provide a weekly status update to PMO on the progress of End-to-End testing

4.5 Test Schedule (Cycles and Dates)

4.5.1 Testing Cycles

End-to-End testing will be conducted over two test cycles. The following is a breakout of each cycle.

4.5.1.1 Cycle # 1 (Jan 7, 2022 – Feb-10-2022)

- The first cycle concentrates on testing all important business processes inside the system, starting with business processes, and ending with End-to-End-scenarios across functional teams
- Test scenarios will be sequenced based on priority. An exception may occur with any predecessors or successors which are identified within scenarios
- Integrations tested in Cycle 1 will be identified based on business process dependencies. Inbound integrations will be included to support business process
- Test scenarios will cover the full range of business scenarios with some variation and include the business' critical, custom-developed objects, and critical reports
- Test scenarios may be updated. A test scenario will be updated depending on its ability to: be executed, incorporate business processes, and incorporate end-to-end business scenarios that include security profiles, roles, and manual data entry.

4.5.1.2 Cycle # 2 (Feb. 11, 2022 – Mar 11, 2022)

- The second cycle will be driven from previous testing efforts. The integration testing will continue to focus on the cross-functional integration points and end-to-end business processes.
- An additional focus is the critical cross-enterprise scenarios with touch points to external components and legacy applications; this includes testing of all security profiles and roles.
- Cycle #1 test scenarios that have outstanding defect remediation and are considered to still be "In Testing" will be prioritized.

- Test scenarios not executed in Cycle #1 will continue to be executed in priority sequence as described in Cycle #1.

4.6 Test Schedule

Each user story will be traced to its requirement(s). All user stories will be stored in the ALM Octane test management system. User stories will be written and collected across identified phases July to October 2021. User stories will then be grouped into test scenarios by processes. Test scenarios are planned to be completed by end of October 2021. The test scenarios will be loaded into ALM Octane and then organized into test suites for testing.

The following is the weekly timeline for Phase 1A Testing.

Phase 1A End-to-End Testing				
#	**Activity**	**Testing Focus**	**Week**	**Dates**
	Test Cycle # 1			1-7-2022 to 2-10-2022
1	Kick Off		Week # 0	1/7/2022
2	Initial Testing Daily Prep Calls Daily Wrap Up Defect Triage	Specific weekly focus TBD as part of the Test Plan Deliverable # 62	Week # 1	1-10-2022 to 1-14-2022
3	Continued Testing Daily Prep Calls Daily Wrap Up Defect Triage	Specific weekly focus TBD as part of the Test Plan Deliverable # 62	Week # 2	1-17-2020 to 1-21-2022
4	Continued Testing Daily Prep Calls Daily Wrap Up Defect Triage	Specific weekly focus TBD as part of the Test Plan Deliverable # 62	Week # 3	1-24-2022 to 1-28-2022
5	Continued Testing Daily Prep Calls Daily Wrap Up Defect Triage	Specific weekly focus TBD as part of the Test Plan Deliverable # 62	Week # 4	1-31-2022 to 2-4-2022
6	Defect Wrap Up Tenant Build		Week # 5	2-7-2022 to 2-10-2022
#	**Activity**	**Testing Focus**	**Week**	**Dates**
	Test Cycle # 2			2-11-2022 to 3-11-2022
1	Initial Testing Daily Prep Calls Daily Wrap Up Defect Triage	Specific weekly focus TBD as part of the Test Plan Deliverable # 62	Week # 1	2-14-2022 to 2-18-2022
2	Continued Testing Daily Prep Calls Daily Wrap Up Defect Triage	Specific weekly focus TBD as part of the Test Plan Deliverable # 62	Week # 2	2-21-2020 to 2-25-2022

3	Continued Testing Daily Prep Calls Daily Wrap Up Defect Triage	Specific weekly focus TBD as part of the Test Plan Deliverable # 62	Week # 3	2-28-2022 to 3-04-2022
4	Continued Testing Daily Prep Calls Daily Wrap Up Defect Triage	Specific weekly focus TBD as part of the Test Plan Deliverable # 62	Week # 4	3-07-2022 to 3-11-2022
5	Defect Wrap Up		Week # 5	2-7-2022 to 2-10-2022

Table 4: Phase 1A Test Cycle Timelines

4.7 Roles and Responsibilities

Roles and Responsibilities have been identified as part of the End-to-End Test Approach.

Role	Responsibilities	Deloitte / One Washington
Testing Leads	• Responsible for leading and coordinating testing efforts that validate One Washington project deployments • Works with the Subject Matter Experts (SME's) to develop the test strategy, test plans, identify test requirements, create test scenarios, and oversee the execution of the test scenarios • Communicate summarized test results to Key Stakeholders • Evaluate entry / exit criteria for advancement to next test stage • Obtain final sign-off for all testing types • Develop and distribute test metrics and coordinate testing status meetings • Communicate Workday Release Notes as needed • Manage day-to-day testing activities and report daily status • Escalate issues, risks, and roadblocks to project leadership • Monitor test execution, and defects	Jim Warner – Stan Thomas
Test Coordinator	• Coordinate testing logistics (e.g. test room, computers) • Organizing daily touch point meetings • Assist tester in the recording of defects • Support test leads in status reporting and defect meetings • Prepare test results reports • Test tool administration and maintenance and password resets of ALM Octane tool • Escalate issues, risks, and roadblocks to testing lead	Madalyn Ford
Work Stream Leads	• Provide sign off on testing • Review and approve test scenarios	Satish Iyer – Michael Schaub

	• Communicate summarized test results to testing lead • Escalate issues, risks, and roadblocks to testing lead • Drive defect resolution for tests owned and understand status of defects	
PMO	• Monitor testing progress • Monitor "readiness" state • Develop a Go/No-Go procedure • Coordinate Security Access Testers	
Functional Leads / Business Analysts / SMEs	• Responsible for creation of test scenarios • Review and approve test scenarios • Identify Business/Functional Testers • Ensure test data supports test scenarios • Coordinate testing efforts for specific functional areas • Escalate issues, risks, and roadblocks to testing leads and workstream leads • Monitor defects and assign for resolution within their functional areas • Drive defect resolution for tests owned and understand status of defects • Attend daily defects review meeting • Ensure compatibility of incoming Workday Release	
Technical Team	• Scenario development assistance • Responsible for test execution support • Responsible for defect resolution • Provide integration execution assistance • Responsible for providing mobile specific test scenarios	One Washington
Functional Team	• Scenario development • Responsible for test execution support • Responsible for defect resolution • Provide integration execution assistance as needed	
Business/Functional Testers	• Responsible for test execution • Responsible for capturing test results • Responsible for capturing defects and retest resolved defects	Agency Testers/ One Washington
Security Access Testers	• Responsible for ensuring secure access methods meet state requirements • Responsible for reporting concerns with secure access methods • Responsible for retesting any remediation of secure access concerns	One Washington
Integration Team	• Responsible for external systems, load, stress and integrations communications and coordination	

Table 5: Phase 1A Roles and Responsibilities

4.8 End-to-End Test Meetings

The following meetings will be conducted as part of End-to-End Testing: Note, all metrics will be pulled from ALM Octane regarding test scenarios and defects.

Meeting Name	Description	Frequency	Participants	Metrics
End-to-End Kickoff	Detailed description located in section 3.1	One Time	Agency Testers, Functional Testers, Test Leads, Test Coordinator, PMO, Tech Leads, and any other identified roles	•
Daily Kickoff	Detailed description located in section 3.4.3	Daily	Agency Testers, Functional Testers, Test Leads, Test Coordinator, Tech Leads, and any other identified roles	• # of tests planned
Defect Triage Meeting	This meeting will be held daily to triage the defects and assign it to respective workstream team	Daily	PMO members Project Test Leads Workstream leads and team members	• # Open Defects • Defect Aging • Defect Severity
Daily Summary	Detailed description located in section 3.4.3	Daily	Agency Testers, Functional Testers, Test Leads, Test Coordinator, Tech Leads, and any other identified roles	• # of tests executed vs. planned • # of defects created
Weekly Project Meeting	This meeting will be held to update the Testing Status for the week	Weekly	PMO members Project Test Leads	• # Test Cases Designed • # Test Cases Executed • #Defects Open • Defect Aging

Table 6: Phase 1A Scheduled Meetings

5. Defect Resolution Process

The One Washington project will follow these **guidelines** to address defects:

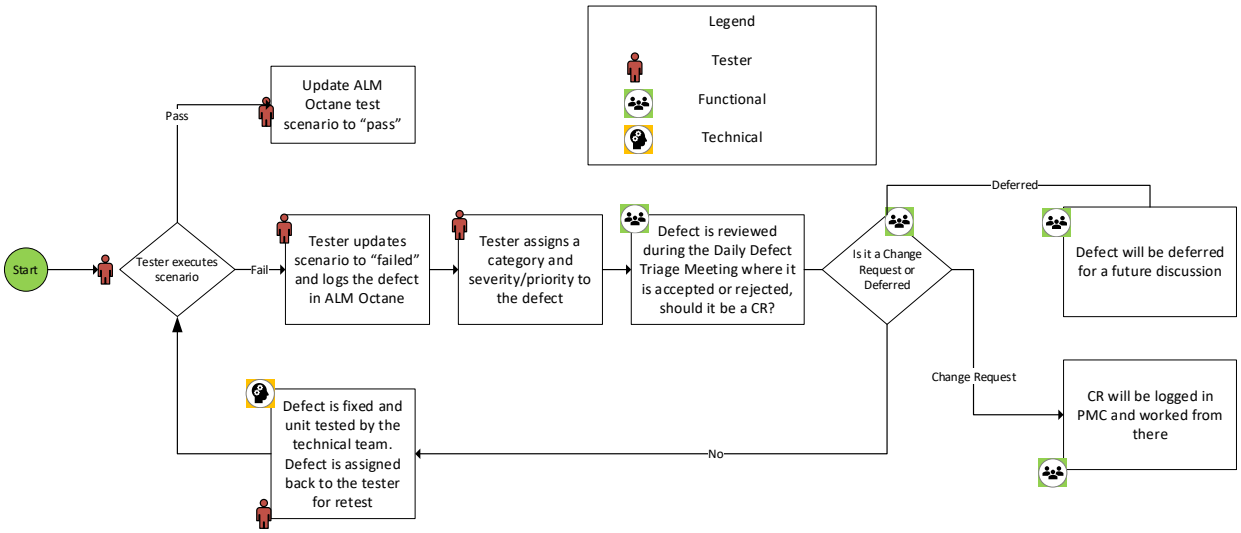

Figure 2: Phase 1A Defect Process

5.1 Defect Management in ALM Octane

The following is an overview of the Defect Management Process for ALM Octane:

- ALM Octane will be used to report defects and assign defect remediation tasks to the appropriate One Washington and Deloitte functional teams
- Supporting documentation such as screen shots or detailed test data that explains the defect will be included to help the assigned resource remedy the defect as needed. Supporting documentation will be placed in a secured location (possibly Teams). Screen shots will have Personal Identifiable Information (PII) obscured. Additional information regarding documentation can be found in Section 3.3.3 Documentation
- Defects will be opened in ALM Octane for any issues detected while running the test scenarios
- Once defect is opened it will undergo triaging to get assigned to the right team/team members (See section 3.8 End-to-End Test Meetings for further details)
- For defects where the assigned team/team members resolve the issue, the defects are put back for re-testing in the test tenant (End-to-End Test Tenant)
- In exception cases the defect may need a vendor case to be logged or a Change request to be submitted, which then becomes dependent on the resolution of a CR/Cases to enter back into

re-testing and closure. The defect should include the CR or Case # (Discussed further in Section 4.1.3 Defect vs. Requirement Change)

- Once the defect is re-tested, it is assigned back to the tester for a final verification at which point the tester may re-run the entire scenario or a section of it based on the impact of the issue
- Once verified successfully, the defect can be closed by the state tester
- If a resolved defect is not verified successfully, then it goes back to "Open" status and the defect cycle is repeated
- Before the completion of the End-to-End Testing, a defect must have a final status of "Deferred", "Closed" or "Rejected"
- At the end of each cycle, defects without a final status will be reviewed by the Test Leads, Functional Leads and PMO to determine the risk and schedule a resolution
- Defects that have a final category of "Change Request" must have an associated Change Request and tracked via ALM Octane
- The defect will be assigned and scheduled for resolution and its progress tracked using the following statuses:

Octane Status	Octane Description
New	Defect Detected
Deferred	Defect to be reviewed at a later date
Open	Defect Assigned
Reject	(from open status) determined not a "true" defect
Fixed	Defect fixed
Closed	Fix verified (if possible, by the original author) and considered resolved
Re-open	(from Fixed status) not resolved satisfactorily (from Closed status) defect detected again

Table 7: Phase 1A Defect Status

The following are the **defect category** along with their description and corrective action within ALM Octane.

Defect Category	Description	Corrective Action
Functional	An issue with the system behavior when executing a task or a business process	• Assign defect to a configuration functional lead • Once the update is made to the defect, reassign back to original tester for re-Testing
Reporting	Issue with a Report and/or Dashboard	• Assign defect to reporting lead, reviewed & re-assigned to analyst developer • Once update is made to the defect, reassign back to original tester for re-Testing
Integration	Issue with an integration functionality between different systems	• Assign defect to integration lead, reviewed & re-assigned to analyst developer • Once update is made to the defect, reassign back to original tester for re-Testing

Conversion / Data Error	Issue related to data converted in the tenant	• Assign defect to a conversion lead, defect is updated with ALM Octane # • Conversion team either fix the data and reload or take note for the next release
Change Request	Defects are identified issues where system configuration or development meets documented requirements but does not work for the intended business purpose	• Assign defect to functional lead • All requirement changes will be evaluated through a change review process
Security	An issue with a security role when executing a task or a business process	• Assign defect to technical resource • Once the update is made to the defect, reassign back to original tester for re-Testing

Table 8: Phase 1A Defect Categories

5.1.1 Defect Severity

Defect severity is agreed to during defect triage based on the effects the defect has on the solution's functionality.

Severity	Definition	Target Turnaround Time
1. Critical	Very severe Entire application, component, or function will not work Client, system, or environment is unavailable. No work-around available Severe data loss or corruption Data integrity issue related to security, confidentiality, legal, or regulatory non-compliance "Blocking defect" Intermittent defects that result in any of the above are also classified as Critical.	8-12-hour turnaround
2. High	Significant Entire application, component or function will not work. A work-around is available Corruption of a critical component Loss of a non-critical component Intermittent defects that result in any of the above are also classified as High.	2-3-day turnaround
3. Medium	Result is not as expected Corruption of a non-critical component. A work-around is available Low impact to the end user or application Intermittent defects that result in any of the above are also classified as Medium.	3-5 days turnaround
4. Low	Minor defect Some of the application operations are unexpected Intermittent defects with low impact to the business operations or end users.	To be prioritized in 1-2 weeks; should resolve as many as possible before go-live

Table 9: Phase 1A Defect Severity

5.1.2 Defect Priority

Defect priority is determined by the Functional Leads / Business Analysts / SMEs. They decide the priority based on their understanding of the defect's root cause and how complex the solution is to address the defect.

Priority	Definition	Target Turnaround Time
1. Immediate	The software does not operate as specified and/or as designed with one or more of the following effects: • A "showstopper" that prevents users from doing their work • No work around exists Data has been corrupted and some type of recovery is needed before returning the system to operation	8-12-hours turnaround
2. High	A major function or feature has been disabled or is incorrect causing a severe degradation in service. A work around is possible, but additional problems/failures could result in critical failure. Non-functional defects with low severity but high business impact, such as incorrect company logo or copyright information and so on, are also high priority defects.	2-3-days turnaround
3. Medium	Minor function(s) are disabled or incorrect, some inconvenience for users. However, the defect has a workaround solution that is easily identifiable	3-5 days turnaround
4. Low	Superficial error; aesthetic; no effect on operations	To be prioritized in 1-2 weeks; should resolve as many as possible before go-live

Table #10 Phase 1A Defect Priority

5.1.3 Defect vs. Requirement Change

This section provides clarification regarding when an issue is a defect and when it is a requirement change. It is possible that an issue is initially identified as a defect, but with additional information it later becomes a Requirement Change.

Defect	Requirement Change
• Defects are identified issues where system configuration does not meet documented requirements	• Requirement changes result in an update to documented requirements and system configuration
• Defects will be logged through the defect process by testers	• All requirement changes will be evaluated through a review process
• Each defect will be reviewed and resolved to support documented requirements, as enabled by delivered Workday functionality	• Any requirement change may require updated documentation and training materials

Table 11: Phase 1A Defect vs. Requirement Change

5.2 Test Defect Escalation

Defects and issues that cannot be resolved within the defect triage process will need to enter the Issue Escalation process as defined in the PMP.

Appendix A: Testing Terms Glossary

Glossary of Testing Terms that will be used on the One Washington Workday Project

The following test terms are used in this document and in other test deliverables for this project as follows:

Epic: a large component or aim for a product or project. Epics can be broken into a few smaller parts called features. Examples of epics are Manage Supplier Performance, Manage Customer Master Setup and Perform Customer Collections.

Feature: a mid-size functional goal. A feature is a smaller body of work than epic and can be broken down into specific tasks (user stories) based on the needs and requests of the customers or end-users. Examples of features include creating new contracts, process supplier invoice and manage supplier forms.

Test cycle: the set of tests run during a time frame that are normally re-run during the next cycle. Usually only applies to Integration testing

Test data: the master data setup and the transactional data used to execute test cases, it is "production like", but may be manufactured vs. converted data, depending on the test type

Test defect: An error found during the execution of a test step when the actual result deviates from the expected result

Test environment: a specific non-production instance of a configuration of hardware and software established for the purpose of conducting tests under controlled conditions.

Test group: a grouping of scenarios for management purposes (for example, Vendor Maintenance)

Test scenario: the item or business scenario being tested; differs by test type (for example, Add a New Vendor)

Test set: Organization of test cases in any test management tool focusing on scheduling of tests

Test type: is focused on a particular test objective (for example, testing of the function to be performed by the component or system; a non-functional quality characteristics, such as reliability or usability; the structure or architecture of the component or system; or related to changes, i.e., confirming that defects have been fixed (confirmation testing or retesting) and looking for unintended changes (regression testing).)

User Tags (ALM Octane): can be used as labels or flags for items. This provides the ability to filter items based on their tags.

Appendix B: References

The following references have been identified within the document. Links provided below go to the share point folder in which the document has been stored.

Item	Description
Confidential Information Management Plan # 06A	The Confidential Information Management Plan (CIMP) is a document that includes the safeguards adopted and guidelines followed by the One Washington Program Team to protect confidential information (CI) throughout the program lifecycle. The One Washington Data Protection Team (see Table 1: Roles and Responsibilities) oversees the implementation of the confidential information management plan for the One Washington Program.
Data Conversion Strategy and Plan # 24	The Data Conversion Strategy and Plan document outlines the One Washington Phase 1A strategy and approach for data conversion. It provides the leading practices, methods, tools, and processes to perform data cleansing; conduct and approve data mapping; execute data load; and validate data (preload and post-load).
Business Process Analysis # 27	The Business Process Analysis identifies all the Workday Business Processes delivered and those that are in scope and those excluded from scope for Phase 1A.
Configuration Security Framework # 42	The objective of the Configuration Security Framework is to document the Workday security groups and the custom security groups developed for the One Washington implementation.
Integration Control Inventory # 44	This document summarizes the rationalized, agreed-to list of integrations to be developed during phase 1A and is the primary project control document used by the Integration Lead to track integration development status during implementation.
Reporting Strategy and Approach # 45	The Reporting Strategy and Approach deliverable provides a plan for implementing and launching Workday Reporting (which includes Standard, Custom, BIRT, and Prism Reports) within the One Washington environment to transition the State from legacy reporting to Workday Reports. Updates to the approach will be reviewed in subsequent phases.
Mobile Usage Deployment Requirements # 49	The intent of this document is to develop requirements/design documents that details the configuration, security, and deployment process for the implementation of Workday's mobile application for the One Washington project.
Phase 1a User Stories	This folder location contains the User Stories being developed by the Functional Team to describe the business processes for Phase 1a.