DEPARTMENT OF HEALTH AND HUMAN SERVICES
ENTERPRISE PERFORMANCE LIFE CYCLE FRAMEWORK

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PRACTICES GUIDE
TEST REPORTS

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Document Purpose

This Practices Guide is a brief document that provides an overview describing the best practices, activities, attributes, and related templates, tools, information, and key terminology of industry-leading project management practices and their accompanying templates. The purpose of this document is to provide guidance on the practice of the Test Reports and to describe how the test reports are completed at the end of each test to verify expected results.

A summary report should be created at the end of the testing phases to document the overall test results. These reports summarize the testing activities that were performed and describe any variances between the expected test results and the actual test results and includes identification of unexpected problems and/or defects that were encountered.

Background

The Department of Health and Human Services (HHS) Enterprise Performance Life Cycle (EPLC) is a framework to enhance Information Technology (IT) governance through rigorous application of sound investment and project management principles and industry's best practices. The EPLC provides the context for the governance process and describes interdependencies between its project management, investment management, and capital planning components. The EPLC framework establishes an environment in which HHS IT investments and projects consistently achieve successful outcomes that align with Department and Operating Division goals and objectives.

The Enterprise Performance Life Cycle (EPLC) Test Phase initiates the test reports, which documents all results during testing. Any failed components are migrated back to the Development Phase for rework, and the passed components migrated ahead for security testing.

Practice Overview

The Test Reports are required to summarize all of the different types of testing performed for an automated system, application, or situation (e.g., unit testing, system testing, user acceptance testing, adhoc testing, regression testing, system acceptance testing (i.e., performance and/or stress testing), end-to-end testing, etc). Separate Test Summary Reports may also be prepared and referenced, as appropriate, for each of the individual types of testing performed.

Detailed Test Reporting

The Test Reports provide a brief description of the testing process employed for each type of test performed (i.e., a collection of related test cases comprising a specific type of test (e.g., unit testing, system testing, user acceptance testing, adhoc testing, regression testing, system acceptance testing (i.e., performance and/or stress testing), end-to-end testing, etc). Also provide a summary of the test results for each test. As appropriate, a separate sub-section should be included for each type of test conducted.]

General Information
- **System Overview**
  The Test Report should provide a brief system overview description as a point of reference for the remainder of the document. This overview should include the responsible organization, system name or title, and system environment or special conditions.

- **Project References**
  A list of the references should be provided that were used in preparation of the Test Report.

- **Terms and Abbreviations**
  Provide a list of the terms and abbreviations used in this document and the meaning of each.

- **Points of Contacts**
  o **Information -** Provide a list of the points of organizational contact (POCs) that may be needed by the document user for informational and troubleshooting purposes.
  o **Coordination -** Provide a list of organizations that require coordination between the project and its specific support function (e.g., installation coordination, security, etc.). Include a schedule for coordination activities.

Test Analysis

- **Security Considerations**
  Provide a detailed description of the security requirements that have been built into the system and verified during system acceptance testing. Identify and describe security issues or weaknesses that were discovered as a result of testing.

- **Testing**
  Each test should be under a separate section header and/or subsections as necessary. Identify the functions that were tested and are subsequently being reported on.
  o **Expected Outcome -** Describe or depict the expected result of the test.
  o **Functional Capability -** Describe the capability to perform the function as it has been demonstrated.
  o **Performance -** Quantitatively compare the performance characteristics of the system with the requirements stated.
  o **Deviations from the Test Plan -** Describe any deviations from the original Validation, Verification, and Testing Plan that occurred during performance of the test, listing reasons for the deviations.

Summary and Conclusions

- **Demonstrated Capability**
  Provide a general statement of the capability of the system as demonstrated by the test, compared with the requirements and security considerations. An individual discussion of conformance with specific requirements **must be cited** on complex systems.

- **System Deficiencies**
  Provide an individual statement for each deficiency discovered during the testing and a recommended remediation approach if one is available.

- **Recommended Improvements**
  Provide a detailed description of any recommendation discovered during testing that could improve the system, its performance, or its related procedures.

- **System Acceptance**
  State whether the test has shown that the system is ready to be placed into production.

Practice Best Practices

- **Different Types of Testing** - Test Reports are required to summarize all of the different types of testing performed for an automated system, application, or situation. Separate Test Summary Reports may also be prepared and referenced,
- **Description of Test Process –** Test Reports provide a brief description of the testing process employed for each type of test performed. Provide a summary of the test results for each test.

Practice Activities

- **General Information** – Provide the following:
  o A brief system overview description as a point of reference.
  o A list of the project references that were used in the preparation of the Test Reports.

- o   A list of the terms and abbreviations used in the document.
- o   Provide a list of the points of organizational contact (POCs) for informational purposes and a list of organizations that require coordination between the project and its specific support.
- **Test Analysis**
  - o   Provide a detailed description of the security requirements that have been built into the system and verified.
  - o   Identify the functions that were tested and are subsequently being reported on.
- **Summary and Conclusion** – Provide the following:
  - o   Provide a general statement of the capability of the system as demonstrated by the test.
  - o   Provide an individual statement for each deficiency discovered.
  - o   Provide a detailed description of any recommendation discovered during testing that could improve the system.
  - o   If any deficiencies are identified, conduct a risk assessment if appropriate.
  - o   State whether the test has shown that the system is acceptable to be placed into production.