FIPS 201 Evaluation Program Development - Configuration Management Plan

Version 1.0.0
February 28, 2006

GSA

Document History

Status	Version	Date	Comment	Audience
Draft	0.0.1	02/01/06	Document creation.	Limited
Draft	0.0.2	02/07/06	▪ Made wording changes throughout the document. ▪ Updated deliverable list in section 1.1 & Appendix A. ▪ Added "Process" to sections 4.1, 4.2, and 4.3. ▪ Added sentence specifying that various sources can request deliverable revisions, but formal request must come from GSA. ▪ Created sections for deliverable management & control, lab product/service equipment management, and lab testing document management.	Limited
Draft	0.1.0	02/07/06	Submitted to GSA for approval.	GSA
Draft	0.1.1	02/13/06	Made changes in regard to comments received from GSA.	Limited
Draft	0.2.0	02/13/06	Submitted to GSA for approval.	GSA
Approved	1.0.0	02/28/06	Approved by GSA.	Public

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1   Introduction

1.1   Background

Homeland Security Presidential Directive-12 (HSPD-12) establishes the requirement for a mandatory government-wide standard for secure and reliable forms of identification issued by the Federal Government to its employees and contractors. The Office of Management and Budget (OMB) has designated the General Services Administration (GSA) as the Executive Agent for government-wide acquisitions for the implementation of HSPD-12. The OMB has directed Federal agencies to purchase only products and services that are compliant with the Federal policy, standards and numerous supporting technical specifications. To ensure compliance, products and services will be tested for conformance to Federal policy, standards, and technical specifications.

In support of this effort, Enspier has been tasked to design, develop, but not implement a modular laboratory (Lab) that can be readily implemented by one or more approved laboratories.

1.2   Purpose

The purpose of this document is to provide a CM Plan that illustrates the methodology that will be used for project deliverable management, vendor product/service equipment management, and Lab and testing documentation management. This CM Plan will allow the Project Team, Lab, and GSA to proceed with deliverable and documentation development and updates as needed. As necessary, this CM Plan may be updated periodically to reflect changes in procedures, rules, regulations, and best-practices to maintain proper CM practices.

1.3   Scope

The scope of this document is limited to the deliverables that are listed in the Statement of Work (SOW) for FIPS 201 Evaluation Program Development (excluding meeting minutes and status reports), vendor product/service equipment, and Lab and testing documentation.

2 Deliverable Management & Control

In completing design and development of the modular laboratory, Enspier has been tasked to provide GSA with the following documented deliverables that will be placed under configuration management and control:

- Task Project Plan
- Configuration Management (CM) Plan
- Approval Procedure, Test Procedure, and Test Case Templates
- Documented Approval Procedures
- Metrics-based Marketing Strategy
- Laboratory Concept of Operations
- Laboratory Specification
- Project Lessons Learned

This section provides a detailed description of the deliverable management strategy, responsibilities, and deliverable development, approval, and revision processes.

2.1 Deliverable Management Strategy

2.1.1 Deliverable Management Tool

To ensure all deliverables are under configuration management and control, Enspier will use an internal deliverable management tool (Document Manager) that will allow the Project Team to access the most recent version of a specific deliverable. Only the Configuration Manager and Project Manager will be given permission to upload deliverables to Document Manager, while the Project Team will only be able to view and download deliverables. In addition, the Configuration Manager will store all deliverables on his/her personal computer. Additional Document Manager information is available upon request.

All designated approved deliverables will be converted into PDF format and submitted to a GSA appointed representative for posting to a GSA web site that is accessible to the laboratory(s) and/or product vendors.

2.1.2 Document Template

Each deliverable submitted in Microsoft Word format will be provided in a consistent layout. The document format that will be used is consistent with the layout of this document.

2.1.3 Version Numbering Scheme

All project deliverables will use a consistent version numbering scheme. During development, the project deliverables will start at version 0.0.1. Each time the deliverable is updated and submitted for internal review, the version number will increase by one (e.g., 0.0.2).

After the deliverable has gone through the QA review, it will be versioned 0.1.0 prior to being submitted to GSA for approval. If updates are required for approval, the deliverable will be versioned 0.1.1 during update (and increase as necessary) and then versioned 0.2.0 prior to being submitted to GSA. This process will continue until the deliverable has been approved.

Once approved, the deliverable will be versioned 1.0.0. If updates to approved deliverables are required, deliverables will be versioned 1.0.1 during update (and increase as necessary), 1.1.0 prior to be submitted for approval, and 2.0.0 when approved. If needed, version numbers will increase as described above.

2.1.4   File Naming Scheme

Each deliverable file name will use the following naming scheme:

EPD_EntireTask#_Title_v0.0.0

For example, this document file name would be EPD_Task3.2.3_CM Plan_v0.0.1.

2.1.5   Document History

For those deliverables that are in Microsoft Word format, there will be a document history section that specifies the document status (draft, approved, revision) version, date, comments (overview of changes made), and audience (those that are permitted to view the document). See the document history section on page ii for an example.

2.1.6   Deliverable Change Requests

During deliverable development and after approval, it is anticipated that comments and change requests will be submitted for review and revision. Comments and change requests may be submitted in several forms, such as via email message or in the actual deliverable using comment boxes and track changes. The Deliverable Owner is responsible for managing the received comments and change requests. All GSA comments and change requests should be submitted to the Project Manager for internal distribution.

2.1.7   Deliverable List

In addition to the Task Project Plan, deliverables will be tracked through a deliverable list that will be maintained throughout the course of the project. The deliverable list will serve as a tool for the Configuration Manager to ensure the latest deliverable version is under configuration control. Each deliverable will be listed by title, version number, approval status (yes or no), release date, on GSA web site (yes or no), and current status explanation (i.e., submitted for approval, under development, under revision etc). An example of the deliverable list is provided in Appendix A.

2.2   Responsibilities

Those involved during the deliverable management process are the Configuration Manager, Project Manager, Deliverable Owner, Project Team, and GSA. Each

representative provides a key role in the deliverable lifecycle and their responsibilities are provided below.

2.2.1 Configuration Manager
- Conducting a Quality Assurance (QA) review of each deliverable;
- Ensuring proper versioning and file naming is used;
- Maintaining the internal Enspier deliverable management tool and deliverable list; and
- Submitting deliverables to a GSA appointed representative that is responsible for placing deliverables on a GSA web site.

2.2.2 Project Manager
- Assigning deliverables to Deliverable Owners;
- Determining development timeline;
- Maintaining the Task Project Plan;
- Submitting project deliverables to GSA; and
- Forwarding project deliverable comments/change requests to the Deliverable Owner.

2.2.3 Deliverable Owner
- Developing the deliverable;
- Maintaining proper version control during deliverable development and update;
- Managing internal deliverable review; and
- Updating deliverable in regard to received comments and/or change requests.

2.2.4 Project Team
- Reviewing project deliverable drafts and updates; and
- Submitting deliverable comments and/or change requests to the Deliverable Owner.

2.2.5 GSA
- Final deliverable review;
- Providing deliverable comments and/or change requests to the Project Manager;
- Approving deliverables;
- Placing designated approved deliverables on the GSA web site; and
- Requesting revisions to approved deliverables.

2.3   Deliverable Development Process

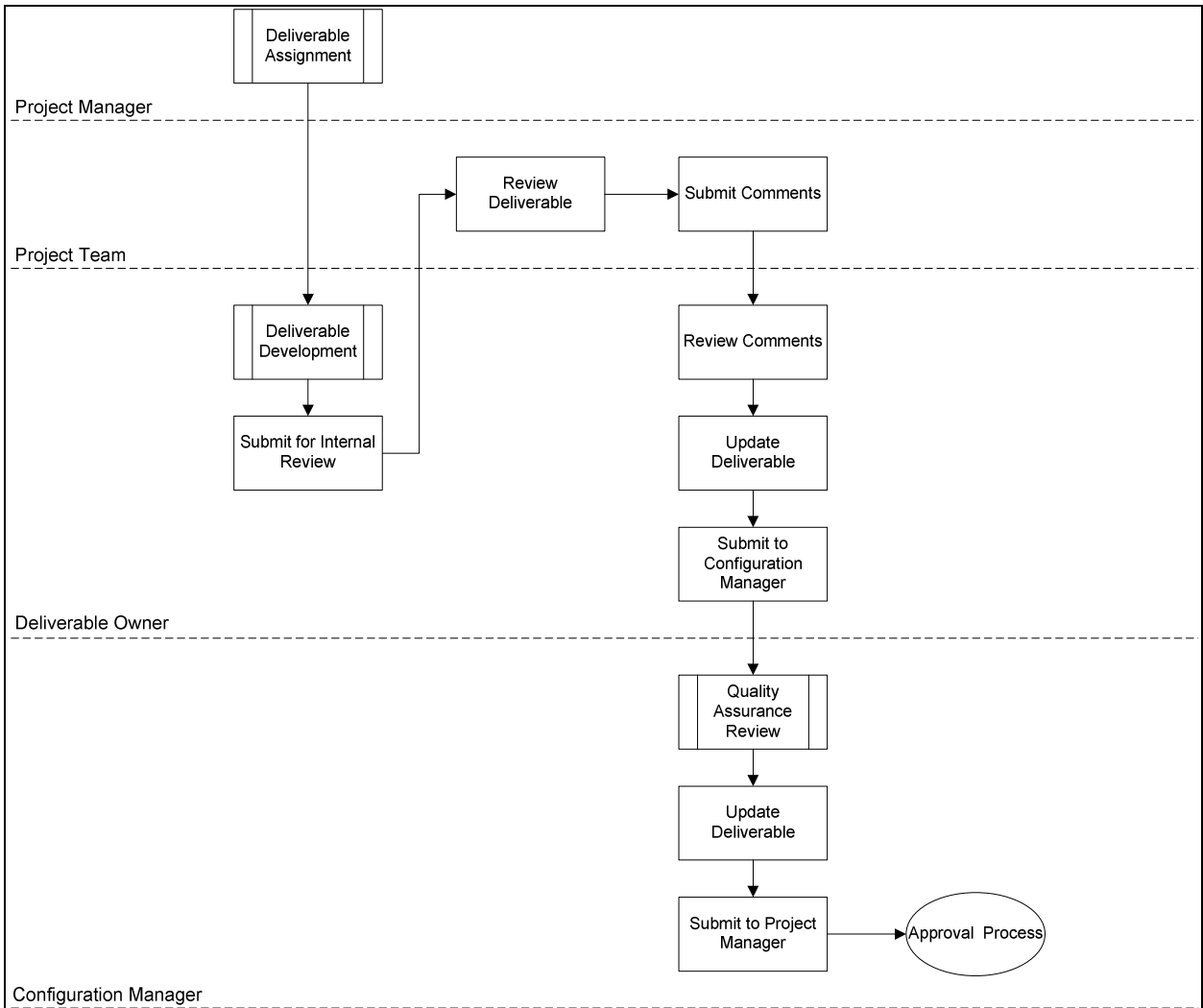Figure 1 below illustrates the process that is used for deliverable development.

Figure 1: Deliverable Development Process

2.3.1   Deliverable Assignment

The first step in the deliverable development process is for the Project Manger to assign a deliverable to an owner (Deliverable Owner). During assignment, the Project Manger will provide a deliverable completion timeline and provide/discuss all deliverable requirements. When assigning a Deliverable Owner, the Project Manager will also update the Task Project Plan accordingly.

2.3.2   Deliverable Development

After a deliverable has been assigned, the Deliverable Owner will develop the deliverable as directed by the Project Manager. Deliverable completion may require the use of multiple resources and/or meetings. Once the Deliverable Owner has completed a first draft, the deliverable will be emailed to the Project Team for review. The deliverable

may also be submitted to GSA representatives for comment as well. Note that this would be for comment only and not official approval, and could be provided by the Deliverable Owner, Project Manger, or another member of the Project Team.

The Project Team will review the deliverable and provide comments and/or change requests. As previously stated, comments and/or change requests may come provided in an email or within the actual deliverable. All comments and/or change requests should be emailed back to the Deliverable Owner. The Deliverable Owner will then update the deliverable according the received comments and/or change requests, which may require additional conversations or meetings with the Project Team.

Once the Deliverable Owner has completed the update cycle, the deliverable will be emailed to the Configuration Manager for a QA review.

2.3.3   Quality Assurance Review

Subsequent to receiving the deliverable, the Configuration Manager will conduct a QA review. During this review, the Configuration Manager will:

- Ensure the proper format was used;
- Ensure all acronyms were appropriately used; and
- Check for spelling and grammar errors.

After completing the QA review, the Configuration Manager will make any needed changes, change the deliverable version number, upload the version to the internal Enspier deliverable management tool, and send the deliverable to the Project Manager.

2.4 Deliverable Approval Process

Figure 2 below illustrates the deliverable approval process.
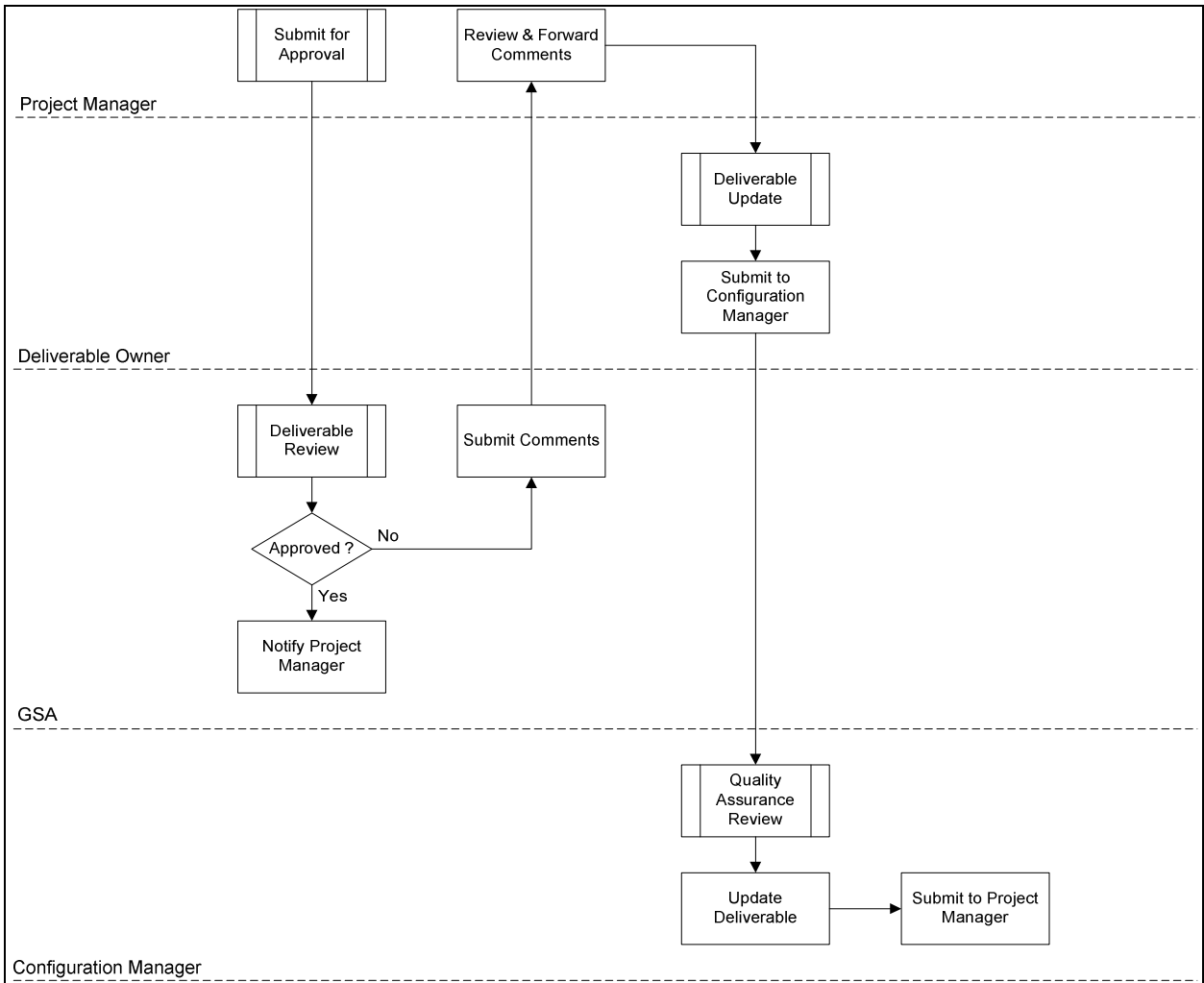
Figure 2: Deliverable Approval Process

2.4.1 Submit for Approval

After receiving the deliverable from the Configuration Manager, the Project Manger will update the Task Project Plan accordingly and submit the deliverable to GSA for review and approval.

2.4.2 Deliverable Review

Once received, GSA will review the deliverable and determine if it is approved or not.

2.4.2.1 Not Approved

If the deliverable is not approved, GSA will send comments and/or change requests to the Project Manager. The Project Manager will then review the comments and/or change

requests and forward them to the Deliverable Owner. See section 2.4.3 for the continuation of the process.

2.4.2.2   Approved With Comments

If the deliverable is approved with comments, GSA will notify the Project Manager and provide comments and/or change requests. The Project Manager will then review the comments and/or change requests and forward them to the Deliverable Owner. See section 2.4.3 for the continuation of the process.

2.4.2.3   Approved

If the deliverable is approved, GSA will notify the Project Manager of the approval, who will then notify the Configuration Manager. The Configuration Manager will change the deliverable version, upload the version to the internal Enspier deliverable management tool, and send the deliverable to the Project Manager.

The Project Manager will then update the Task Project Plan and send the deliverable to GSA for official release. If required, the Configuration Manager will send a PDF version to a GSA representative for placing on a GSA web site.

2.4.3   Deliverable Update

After receiving GSA comments and/or change requests, the Deliverable Owner will review the comments and/or change requests and update the deliverable accordingly. The update process may include meetings and/or conversations with GSA to discuss the comments and/or change requests.

Once the update process has been completed, the Deliverable Owner will submit the deliverable for a QA review.

2.4.4   Quality Assurance Review

The Configuration Manager will complete the QA review as described in section 2.3.3. When the QA review has been completed, the Configuration Manager will make any needed changes, change the deliverable version, and send it to the Project Manager.

The Project Manager will submit the updated deliverable to GSA for review and approval as described in section 2.4.1. This entire approval process will continue until the deliverable has been approved.

If a deliverable was approved with comments, the Project Manager will update the Task Project Plan and send the deliverable to GSA for official release. If required, the Configuration Manager will send a PDF version to a GSA representative for placing on a GSA web site.   .

2.5 Deliverable Revision Process

It is anticipated that approved deliverables will occasionally need to be revised or updated. Various sources (i.e., the Project Team) can request deliverable revisions, although a formal request must be submitted by GSA. Figure 3 below illustrates the deliverable revision process.
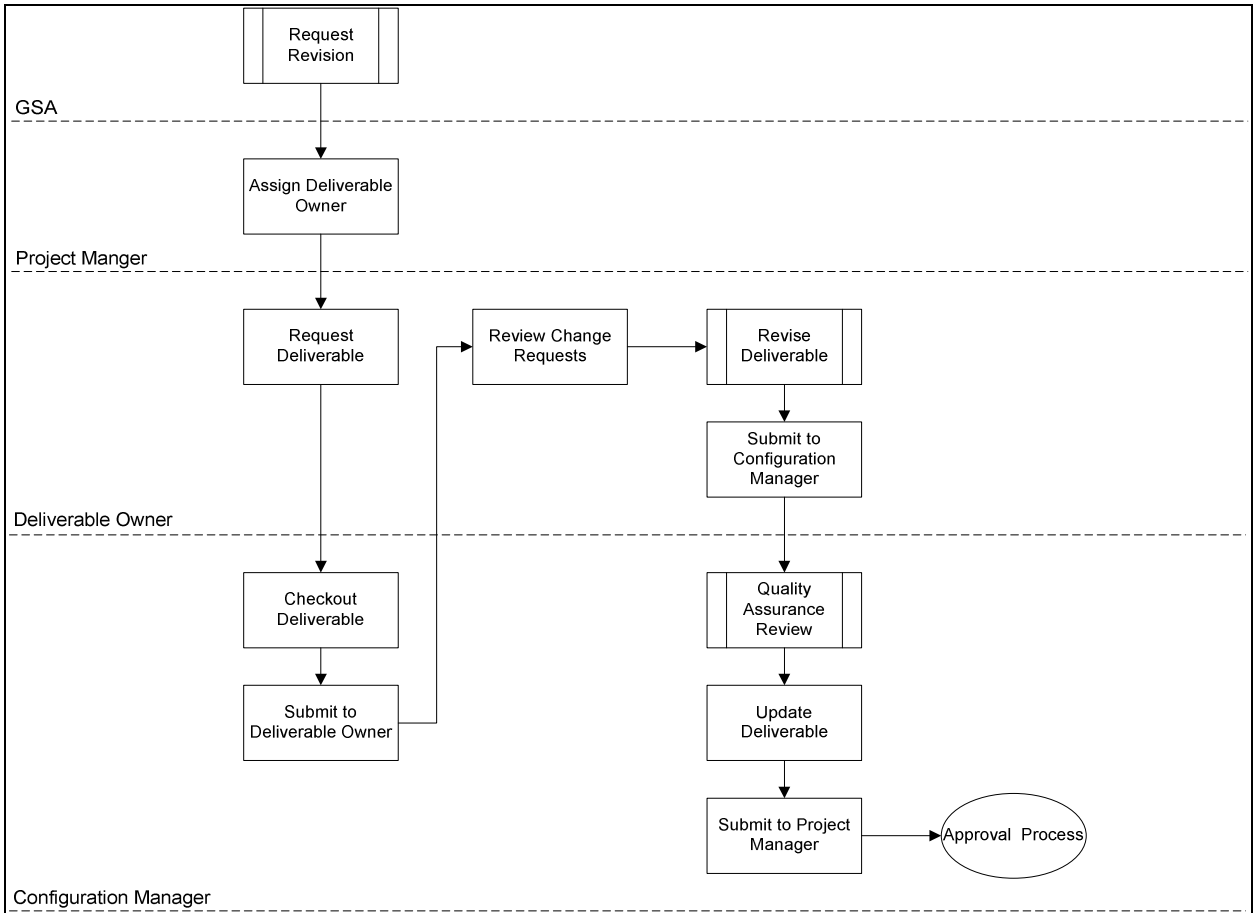

Figure 3: Deliverable Revision Process

2.5.1 Request Revision

The deliverable revision process begins when GSA submits a request to the Project Manager that an approved deliverable be revised/updated. When requesting a revision/update, GSA must provide reason for the request and required changes.

After receiving a revision request, the Project Manger will assign a deliverable owner to complete the revision. During assignment, the Project Manger will provide a deliverable completion timeline and provide/discuss all required changes. When assigning a Deliverable Owner, the Project Manager will also update the Task Project Plan accordingly.

Once the deliverable revision has been assigned, the Deliverable Owner will request the latest version of the deliverable from the Configuration Manager.

2.5.2   Revise Deliverable

After receiving the latest version of the deliverable from the Configuration Manager, the Deliverable Owner will revise the deliverable as requested by GSA. The deliverable revision may require the use of multiple resources and/or meetings with GSA to discuss the required changes. If needed, the revised deliverable may be emailed to the Project Team for review and comment as described in section 2.3.2.

Subsequent to revision completion, the deliverable will be emailed to the Configuration Manager for a QA review.

2.5.3   Quality Assurance Review

The Configuration Manager will complete the QA review as described in section 2.3.3. When the QA review has been completed, the Configuration Manager will make any needed changes, change the deliverable version, upload the version to the internal Enspier deliverable management took, and send the deliverable to the Project Manager.

The Project Manager will submit the revised deliverable to GSA for review and approval as described in section 2.4.1. This entire revision process will continue until the deliverable has been approved.

3 Vendor Product/Service Equipment Management

This section provides a detailed description of the vendor product/service (hardware and software) equipment management strategy. The process and responsibilities for handling and using product/service equipment is provided in the *Test Laboratory Specification.*

3.1 Vendor Product/Service Equipment Strategy

Prior to testing, the Lab will receive vendor product/service equipment that will be used during testing. The follow sections provide the strategy that will be used for properly managing vendor product/service equipment.

3.1.1 Equipment Inventory

Each item of equipment received for testing will be logged into an inventory list. The following information shall be provided:

- Product Name
- Unique Identifier
- Item Description
- Quantity
- Type
- Receipt Method
- Received Date
- Received From
- Received By
- Return/Destroy Date
- Returned Destroyed By
- Returned To

When placing the equipment in the inventory list, a tag will be created and attached to each item. Each tag will provide the vendor/product name and the assigned unique identifier.

3.1.2 Version Numbering Scheme

All inventory lists will use a consistent version numbering scheme. When an inventory list is first created, the version number will start at 0.0.1. Each time the inventory list is updated, the version number will increase by one (e.g., 0.0.2).

3.1.3 File Naming Scheme

Each inventory list will be saved using the following naming scheme:

Product Name_Inventory List_v0.0.0

3.1.4 Document Management Tool

The inventory list will be stored in Document Manager with all the other product/service testing documentation.

4 Lab & Testing Documentation Management

This section provides a detailed description of the Lab and testing documentation management strategy. The process and responsibilities for using Lab and testing documentation is provided in the *Test Laboratory Specification.*

4.1 Lab & Testing Documentation Strategy

During the testing of products/services, the Lab will be using and completing the following documentation:

- Approval Procedures
- Test Procedures
- Evaluation Report

Lab documentation, such as the *Laboratory Concept of Operations* and *Laboratory Specification*, need to be under configuration management and control. The follow sections provide the strategy that will be used for properly managing Lab and testing documentation.

4.1.1 Document Management Tool

To ensure all Lab and testing documentation is under configuration management and control, the Lab will use Document Manager for storing documentation. The product/service Evaluation Report will be stored along with all the other product/service documentation. The *Laboratory Concept of Operations*, *Laboratory Specifications*, *Approval Procedures*, *Test Procedures*, and *Evaluation Report Template* will be stored in a separate location within Document Manager.

4.1.2 Version Numbering Scheme

All testing documentation will use a consistent version numbering scheme. During the completion of the evaluation report, the version numbering will start at 0.0.1. Each time the evaluation report is updated, the version number will increase by one (e.g., 0.0.2). The product/service evaluation report will be versioned 0.1.0 when being submitted to the Approval Authority for review.

All Lab documentation will follow the version numbering scheme provided in section 2.1.3.

4.1.3 File Naming Scheme

The evaluation report will use the following file naming scheme:

- *Product Name_Evaluation Report_v0.0.0*

4.1.4 Lab Documentation Updates

It is anticipated that the following Lab documentation will occasionally need to be revised or updated:

- *Laboratory Concept of Operations*
- *Laboratory Specification*
- *Approval Procedures*
- *Test Procedures*
- *Evaluation Report Template*

As previously described, various sources can request document revisions, although a formal request must be submitted by GSA. A process similar to the deliverable revision process provided in section 2.5 shall be used for making updates to Lab documentation.

Appendix A: Deliverable List

The following table provides an example of the deliverable list that will be used to track the status of deliverables.

Name	Version	Approved	Date	Web site	Status Explanation
Task Project Plan					
Configuration Management Plan					
Approval Procedure, Test Procedure, Test Case Template					
Documented Approval Procedures					
Metrics-based Marketing Strategy					
Laboratory Concept of Operations					
Laboratory Specifications					
Project Lessons Learned					