



MANUAL TRANSMITTAL

Department of the Treasury
Internal Revenue Service

2.120.1

MARCH 7, 2022

EFFECTIVE DATE

(03-07-2022)

PURPOSE

- (1) This transmits revised IRM 2.120.1, Solution Engineering, Engineering Policy.

MATERIAL CHANGES

- (1) The Engineering Policy is renamed to Solution Engineering Policy.

EFFECT ON OTHER DOCUMENTS

IRM 2.120.1, dated July 23, 2020, is superseded.

AUDIENCE

This Policy is applicable to all Information Technology (IT) Application and Infrastructure projects, contractors, and other stakeholders having responsibility for developing IT Processes.

Nancy Sieger
Chief Information Officer

2.120.1
Engineering Policy

Table of Contents

2.120.1.1	Program Scope and Objectives
2.120.1.1.1	Background
2.120.1.1.1.1	Purpose
2.120.1.1.1.2	Scope
2.120.1.1.2	Authority
2.120.1.1.3	Mandate

2.120.1.1
(03-07-2022)
Program Scope and Objectives

- (1) Overview - This policy is to establish the organizational policy for planning and performing the Engineering Process for the development and integration of information technology based systems within the IRS environment.
- (2) Purpose - The purpose of this policy is to ensure an enterprise-wide Engineering processes for the development and integration of information technology-based system within the IRS.
- (3) Audience - This policy is applicable to all Information Technology (IT) organizations, contractors, and other stakeholders having responsibility for developing IT systems.
- (4) Policy Owner - Enterprise Services (ES) Associate Chief Information Officer (ACIO) is responsible for overseeing all aspects of our systems that operate the nation's tax infrastructure.
- (5) Program Owner - Solution Engineering (SE), which is under Information Technology, Enterprise Services (ES).
- (6) Primary Stakeholders - Application Development (AD), Cybersecurity, Enterprise Operations (EOps), Solution Engineering (SE), Enterprise Architecture (EA), User and Network Services (UNS)
- (7) Program Goals - This IRM has been created to ensure an enterprise-wide approach to the development and integration of information technology-based system within the IRS.

2.120.1.1.1
(03-07-2022)
Background

- (1) The list of mandated processes are updated.

2.120.1.1.1.1
(03-07-2022)
Purpose

- (1) The purpose of this policy is to establish the organizational policy for planning and performing the Engineering processes for the development and integration of information technology based systems within the IRS environment.

2.120.1.1.1.2
(03-07-2022)
Scope

- (1) All Information Technology (IT) projects are required to perform the Engineering Process and associated activities in accordance with this policy.

2.120.1.1.2
(03-07-2022)
Authority

- (1) Enterprise Services is responsible for the development, implementation, and maintenance, of this policy. Approval of this policy, including updates, rests with the Solution Engineering of Enterprise Services. All proposed changes to this policy must be submitted to Enterprise Services.

2.120.1.1.3
(03-07-2022)
Mandate

- (1) **Applicability**
All IT projects will follow the Engineering Planning (EP), Solution Design (SD), Hardware Analysis and Design/System Configuration Validation (HAD/SCV), Data Management (DM), Naming Data Elements, and Interface Design (ID) Processes ensuring all work products defined by those processes are produced.
- (2) **Engineering Planning process**
The Engineering Planning Process outlines what Engineering related work needs to be specified in the Engineering Plan.

- (3) **Solution Design process**
The Solution Design process shall be used to select and design solution, solution components to the requirements, and to perform the integration of system components into complete solutions.
- (4) **Hardware Analysis and Design/System Configuration Validation process**
The process analyzes and translates requirements into a Physical design and then uses that to generate a Government Equipment List – which is a list of hardware and software components and configuration attributes necessary to fulfill the project requirements.
- (5) **Data Management process**
Data Management is one of the major processes of Data Engineering. Data Management includes 5 core components which are Collect, Consolidate, Certify, Connect, and Consume. These 5 C's are the cornerstone of Data Management.
- (6) **Naming Data Element(s)/Object(s) process**
The goal of Naming Data Element(s)/Object(s) process is to support the business goal for data naming standardization by ensuring that the “**Enterprise Data Standards and Guidelines (EDSG)**” are followed service wide. Naming Data Element(s)/Object(s) will be divided into parts: one is Naming Business Data Element(s)/Object(s), and the other is Naming Technical Data Element(s)/Object(s).
- (7) **Interface Design process**
The Interface Design defines an agreement on conditions and responsibilities at the boundary point, and second by providing a unifying, end-to-end view of the interface process.
- (8) **Engineering ELC (Enterprise Life Cycle) Documentation process**
The process that documents, reviews, and approves the ELC Engineering documents – Engineering Plan, Simplified Design Specification Report, Interface Control Document(s), and Government Equipment List.