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Secured Digital Lifecycle Protocol (SDLP) RFC 0
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Abstract

The Secured Digital Lifecycle Protocol (SDLP) defines a universal, lifecycle-governed framework for the creation, identity, transformation, distribution, and retirement of digital goods.

Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of BCP 78 and BCP 79.

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1. Introduction

The Secured Digital Lifecycle Protocol (SDLP) defines a structured, identity-anchored, lifecycle-driven model for digital goods. It establishes the conceptual foundation upon which all subsequent SDLP specifications will be built.

2. Purpose of SDLP

SDLP exists to address three systemic issues in digital goods: identity ambiguity, uncontrolled duplication, and undefined lifecycle transitions. SDLP provides a universal framework to ensure that every digital object has a clear identity, lineage, and lifecycle.

3. Design Principles

SDLP is governed by three core principles:

- P1. Identity First -- Every digital object must possess a persistent DigitalID.
- P2. Lifecycle Determinism -- Every object must exist in exactly one lifecycle state at any given time.
- P3. Transformation Integrity -- All transformations must be explicit, authenticated, and lineage-preserving.

4. Terminology

DigitalID: The persistent identity of a digital object.

Instance: A specific materialization of a DigitalID.

Lifecycle State: A protocol-defined phase of existence.

Transformation: A rule-governed change to an object or instance.

Retirement: The terminal lifecycle state.

5. Lifecycle Model Overview

SDLP defines a universal lifecycle model consisting of:

1. Creation
2. Activation
3. Distribution
4. Transformation
5. Verification
6. Retention
7. Retirement

SDLP RFC 1 will define the DigitalID specification. SDLP RFC 2 will define the lifecycle state machine. SDLP RFC 3 will define transformation rules and lineage guarantees.

6. Out-of-Scope Items

The following are explicitly out of scope for this document:

- Implementation details
- Transport mechanisms
- Storage formats
- Cryptographic algorithm selection
- Commercial licensing models
- UI or UX considerations

7. Security Considerations

SDLP requires that all lifecycle transitions be authenticated, authorized, and recorded. Identity spoofing, unauthorized transformations, and lineage tampering must be mitigated by protocol-level controls defined in later SDLP documents.

8. IANA Considerations

This document makes no requests of IANA.

Appendix A. Rationale for RFC 0

RFC 0 exists to establish the philosophical and structural foundation of SDLP before defining any technical mechanisms. It ensures that all subsequent SDLP documents share a unified conceptual framework.

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