

# DigiEmu Core Specification v1.0

Status: Normative Standard – Enterprise Edition  
Scope: Deterministic Knowledge Infrastructure Layer  
Date: 2026-02-17

## 1. Scope

This specification defines the normative requirements for implementing DigiEmu Core as a deterministic knowledge infrastructure layer within enterprise AI systems. This document is binding for certified implementations.

## 2. Normative Language

The key words MUST, SHALL, SHOULD, MAY, and MUST NOT are to be interpreted as described in RFC 2119.

## 3. Core Principles

Determinism, Immutability, Explicit Uncertainty, and Auditability are mandatory principles.

## 4. Domain Model

The Core domain model SHALL include: Tenant, Content, ContentVersion, Claim, Snapshot. ContentVersions MUST be immutable once committed.

## 5. Snapshot Integrity

Snapshots SHALL use canonical serialization and SHA-256 hashing over the canonical payload. Hashes MUST be reproducible across compliant environments.

## 6. Deterministic Reconstruction

The system MUST reconstruct identical state and identical hash values for any historical snapshot.

## 7. Multi-Tenant Isolation

Strict tenant isolation MUST be enforced with no cross-tenant data leakage.

## 8. Conformance Levels

Level 1 – Deterministic Snapshot Compliance. Level 2 – Audit Compliance. Level 3 – Enterprise Governance Alignment.

## **9. Security Requirements**

Implementations **MUST** protect snapshot integrity, hash integrity, and immutable entity enforcement.

## **10. Governance & Versioning**

Breaking changes require a **MAJOR** version increment. Backward compatibility **SHALL** be preserved within v1.x.