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IDG Sovereign Architecture Blueprint & Standards

1. Executive Summary & Sovereign Foundations

This official document codifies the holistic architectural blueprint for the Republic of Iraq Digital Gateway (IDG). The architecture enforces sovereign data boundaries, distributed microservices, air-gapped secure enclaves, and strict Zero-Trust cybersecurity controls.

- Complete isolation of mission-critical government networks from public cloud attack vectors.
- Implementation of comprehensive Zero-Trust Architecture across all microservice layers.
- Centralized sovereign cryptographic ownership under national oversight.

2. Multi-Region Sovereign Data Center Grid

The IDG core infrastructure operates across three domestic Tier-IV data centers located in Baghdad, Erbil, and Basra, interconnected via private sovereign dark fiber rings.

- Active-Active geo-distributed clustering achieving 99.999% availability.
- Hardware-enforced line-rate encryption utilizing AES-256-GCM authenticated ciphers.
- Zero Recovery Point Objective (RPO=0) synchronous database replication.

3. Cryptographic Governance & Hardware Security Modules

All cryptographic root keys are generated and securely stored within sovereign National Hardware Security Modules (HSMs) certified to FIPS 140-3 Level 4 standards.

SOVEREIGN CERTIFICATION & INSTITUTIONAL SEAL

This document is formally ratified by the IDG Engineering Council and Governance Directorate. Full technical adherence is mandatory across all connected platforms.