Enigmatic — A Layer-0 Communication Protocol

DigiByte-Optimized Whitepaper (Expanded v0.2)

EXECUTIVE SUMMARY

This document includes the expanded Section 3 formal model for GitHub readiness.

SECTION 1 — INTRODUCTION

Enigmatic encodes deterministic communication into UTXOs, fees, metadata, and block-aligned patterns.

SECTION 2 — DIGIBYTE OPTIMIZATION

• 15-second blocks

• Multi-algo

• Low fees

• High throughput

SECTION 3 — FORMAL PROTOCOL MODEL (EXPANDED)

3.1 Entities

Sender S, Receiver R, Network N, Observers O.

3.2 Channels (Data Carriers)

UVC — UTXO Value Channel

FSC — Fee-Signal Channel

BAC — Block-Aligned Channel

MDC — Metadata/OP_RETURN

3.3 Message Structure

$M = (P, C, T, \sigma)$

3.4 Encoding

$E(P, K, C) \rightarrow T$

3.5 Decoding

$D(T, K) \rightarrow P$

3.6 Grammar

Defines numerical interpretation rules.

3.7 Packets

$Pkt = \{T_1, T_2, ...\}$

3.8 Validation

Determinism, non-ambiguity, grammar consistency.

SECTION 4 — MESSAGE ENCODING

(To be expanded)

SECTION 5 — SECURITY MODEL

(To be expanded)

SECTION 6 — USE CASES

• M2M signaling

• Autonomous coordination

• Block-height verified communication

END OF DRAFT