MaxBridge v1.2 – Add-on Module: CRS Validation Kit

Module Title: CRS Validation Kit Specification

Version: 1.2

Document Type: System Add-on Utility

License: TBYD License v2.2 + Addendum A (Preview Right Only)

Subsystem: MaxBridge (CRS Capsule Verification)

Release Context: Part of MaxOneOpen v4.1 ecosystem – standalone deployable

Status: CTO-aligned – certified structure

# 1. Purpose

This module defines the structure and logic of the CRS Validation Kit – a utility toolset used to verify policy capsule integrity, rule compatibility, and structural alignment across the MaxBridge execution layer.

# 2. Components

The Validation Kit includes the following tools:

* - `crs-validate-core`: Base capsule schema checker
* - `crs-policy-matcher`: Rule logic simulation and match evaluation
* - `crs-lineage-resolver`: Trace validation of capsule ancestry
* - `crs-scope-audit`: Evaluation of policy scope and license zone match

# 3. Execution Modes

Each tool may be run in one of the following modes:

* - `audit`: Full trace + compliance path generation
* - `simulate`: Evaluation without mutation or registration
* - `enforce`: Mandatory block if validation fails (production gate)

# 4. Integration Use Cases

* - Capsule submission QA for MaxBridge runtime
* - SDG test coverage for synthetic policy edge cases
* - MaxAudit pre-certification preparation
* - Rule set expansion check before capsule duplication

# 5. Reporting Output

All tools produce a structured JSON result including validation status, rule-match matrix, policy scope log, and optional audit export signature. Failed validations may be linked to MaxAudit for trace anchoring.

# 6. Distribution & Licensing

The Validation Kit is distributed as a MaxBridge Class B utility. It requires license activation and signing to operate in enforce mode. Preview usage (simulate/audit) is allowed under Addendum A.