

## v3.4-TKN-002 – Token Lifecycle Management, Revocation & Delegation Logic

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| Document Title | Token Lifecycle Management, Revocation & Delegation Logic |
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### 1. Purpose & Scope

This document defines the lifecycle control, revocation procedures, and delegation rules for sovereign tokens in MaxOneOpen forks. It ensures cryptographic accountability and precision in token-based access models.

### 2. Token Lifecycle Events

- All tokens must have clear issuance, activation, suspension, and revocation paths
- Lifecycle transitions must be schema-defined and ZK-verifiable
- Forks must support TTL-based expiration and trigger-based invalidation
- Token state must be auditable via execution snapshot and capability trace

### 3. Revocation, Suspension & Delegation Logic

| Event Type    | Mechanism                     | Certification Anchor            |
|---------------|-------------------------------|---------------------------------|
| Revocation    | Token invalidation + log seal | Trigger path + TTL/abuse marker |
| Suspension    | Temporary halt via override   | Emergency twin or audit path    |
| Delegation    | Token split + scope rebind    | Trace token lineage             |
| Reinstatement | Signed twin revalidation      | Rekey + path anchor replay      |

### 4. Certification Hooks

- Forks must allow token invalidation via policy, expiration, or abuse trigger
- Delegation must be transparent, traceable and role-scope limited
- Suspension must include emergency override and audit replay path

### 5. Certification Triggers

- Lack of revocation trace or expired token reuse disqualifies fork
- Delegation without scope trace or lineage integrity invalidates certification

## 6. Certification Relevance

Token lifecycle control is fundamental to MaxOneOpen's sovereignty and compliance architecture. Certified forks must enforce full token lifecycle precision and traceable control logic.