

# OSAI: Narrow Demonstration of Stable Identity with Changing Authority

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Technical Companion Artifact

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Scope:	Conceptual, non-operational narrow demonstration showing how a stable canonical OSAI identifier may remain unchanged while authority bindings vary and attestations remain separate.
Companion Artifacts:	<a href="#">OSAI-FW-MEM-01</a> ; <a href="#">OSAI-FW-GRM-01</a> ; <a href="#">OSAI-FW-SCH-01</a> <a href="#">OSAI-FW-RSL-01</a> ; <a href="#">OSAI-FW-RO-02</a> ; <a href="#">OSAI-FW-L2-DC-01</a>

## 1) Purpose

This document provides a narrow demonstration of the OSAI bridge posture using a single worked example. Its purpose is to show that a canonical OSAI identity reference may remain stable while authority bindings vary across contexts and attestations remain represented as separate evidentiary artifacts.

This document is intentionally limited. It does not define a production implementation, live deployment model, policy engine, or enforcement workflow. It demonstrates only the separation logic established in the preceding bridge artifacts.

## 2) Scope and Non-Scope

This document applies only to a single worked example built from the OSAI bridge components already defined in prior companion artifacts:

- canonical identifier grammar
- three-record schema structure
- minimal resolver posture

This document does not define:

- a production registry
- an identity provider
- an authorization service
- live credential validation
- policy evaluation logic
- trust scoring
- compliance certification
- runtime orchestration

The demonstration is conceptual and non-operational. Its purpose is explanatory, not performative.

## 3) Demonstration Objective

The objective of this demonstration is to show one narrow point clearly:

***a stable canonical identity reference can persist while authority changes, without requiring identity churn and without collapsing attestation into authority.***

This point is central to the OSAI bridge posture. A stable reference anchor allows downstream systems to bind authority and evidence in different ways without losing longitudinal identity coherence.

## 4) Demonstration Subject

**osai:us-la:energy:agent:grid-balance-001**

This canonical identifier remains fixed throughout the demonstration.

It is used consistently across the Canonical Identity Record, two Authority Binding Records, linked Attestation Records, and the illustrative resolver output. No alternate identity is created when authority context changes.

## 5) Stable Identity Record

The following record values are illustrative and are included only to demonstrate structure and separation logic.

The Canonical Identity Record anchors the subject.

### 5.1) Canonical Identity Record (CIR)

**record\_type:** canonical\_identity\_record  
**cir\_id:** cir-grid-balance-001  
**osai\_id:** osai:us-la:energy:agent:grid-balance-001  
**display\_name:** Grid Balance Agent 001  
**object\_class:** agent  
**jurisdiction\_code:** us-la  
**sector\_code:** energy  
**subject\_token:** grid-balance-001  
**status:** active  
**description:** Illustrative energy-context software/AI agent reference used for narrow bridge demonstration.  
**created\_at:** 2026-04-13T00:00:00Z  
**updated\_at:** 2026-04-13T00:00:00Z

### 5.2) Identity interpretation

The CIR identifies the subject in stable canonical terms. It does not encode what authority the subject currently has, whether it is approved for live operation, or whether any attestation has been issued.

Those matters are represented separately.

## 6) Changing Authority Contexts

The same identity is now associated with two different authority bindings.

### 6.1) Authority Binding Record A — Limited test context

**record\_type:** authority\_binding\_record  
**abr\_id:** abr-grid-balance-test-001  
**osai\_id:** osai:us-la:energy:agent:grid-balance-001  
**grantor\_ref:** authority:demo-energy-test-admin  
**grantee\_ref:** osai:us-la:energy:agent:grid-balance-001  
**authority\_scope:** bounded test-operation authority  
**authority\_context:** test-context  
**effective\_from:** 2026-04-13T00:00:00Z  
**effective\_to:** 2026-06-01T00:00:00Z  
**status:** active  
**basis\_ref:** memo:test-authorization-note-001  
**constraints:** ["non-operational use only", "bounded test data only"]

### 6.2) Authority Binding Record B — Operational context

**record\_type:** authority\_binding\_record  
**abr\_id:** abr-grid-balance-ops-001  
**osai\_id:** osai:us-la:energy:agent:grid-balance-001  
**grantor\_ref:** authority:demo-energy-ops-admin  
**grantee\_ref:** osai:us-la:energy:agent:grid-balance-001  
**authority\_scope:** bounded operational grid-balance support authority  
**authority\_context:** operational-context  
**effective\_from:** 2026-06-02T00:00:00Z  
**effective\_to:** null  
**status:** active  
**basis\_ref:** memo:ops-authorization-note-001  
**constraints:** ["bounded operational scope", "subject to downstream controls"]

### 6.3) Authority interpretation

The demonstration deliberately uses two different authority bindings tied to the same `osai_id`.

That is the point.

The subject's identity remains unchanged. What changes is the declared authority relationship, its context, and its constraints. The authority binding records do not redefine the identity. They bind authority relative to an existing identity reference.

## 7) Separate Attestation Layer

Attestation remains separate from both identity and authority.

### 7.1) Attestation Record A — Subject attestation

**record\_type:** attestation\_record  
**attestation\_id:** att-grid-balance-subject-001  
**subject\_ref:** osai:us-la:energy:agent:grid-balance-001  
**subject\_ref\_type:** osai\_id  
**attester\_ref:** attester:demo-reference-review  
**attestation\_type:** subject reference attestation  
**claim\_summary:** Subject reference reviewed and recorded for narrow demonstration use.  
**evidence\_ref:** evidence:demo-review-note-001  
**issued\_at:** 2026-04-13T00:00:00Z  
**expires\_at:** null  
**status:** issued  
**method:** manual review

### 7.2) Attestation Record B — Binding-related attestation

**record\_type:** attestation\_record  
**attestation\_id:** att-grid-balance-ops-binding-001  
**subject\_ref:** abr-grid-balance-ops-001  
**subject\_ref\_type:** authority\_binding\_record  
**attester\_ref:** attester:demo-ops-review  
**attestation\_type:** binding review attestation  
**claim\_summary:** Operational-context authority binding reviewed for narrow demonstration use.  
**evidence\_ref:** evidence:demo-ops-review-note-001  
**issued\_at:** 2026-06-02T00:00:00Z  
**expires\_at:** null  
**status:** issued  
**method:** internal review

### 7.3) Attestation interpretation

The attestation records do not create the identity. They also do not create authority by themselves.

They express evidence-linked claims about either the subject reference itself or a related binding record.

That separation preserves the distinction between being named, being granted authority, and being the subject of an evidentiary claim.

## 8) Illustrative Resolver View

Using the minimal resolver posture defined in Artifact 5, the demonstration subject may be surfaced through linked lookup views.

### 8.1) Identity lookup

**Illustrative retrieval pattern:** /resolve/osai:us-la:energy:agent:grid-balance-001  
**Illustrative result:** returns the Canonical Identity Record for the subject

### 8.2) Binding lookup

**Illustrative retrieval pattern:** /resolve/osai:us-la:energy:agent:grid-balance-001/bindings  
**Illustrative result:** returns Authority Binding Record A and Authority Binding Record B

### 8.3) Attestation lookup

**Illustrative retrieval pattern:** /resolve/osai:us-la:energy:agent:grid-balance-001/attestations

**Illustrative result:** returns subject-linked attestation records and may return separately linked binding-related attestation records through explicit references

### 8.4) Resolver interpretation

The resolver surfaces linked artifacts. It does not determine whether a returned authority binding is enforceable, sufficient, trusted, or permitted under downstream controls. It returns linked records only.

### 9) What the Demonstration Proves

This narrow demonstration shows that:

1. a canonical OSAI identity reference can remain stable across changing authority contexts
2. authority changes do not require a new canonical identifier
3. attestation can remain separate from both identity and authority
4. a minimal resolver can surface linked records without collapsing them into a single downstream control object

These are the specific proof points intended for the Phase 2 bridge layer.

### 10) What the Demonstration Does Not Claim

This document does not claim:

- production deployment readiness
- distributed federation
- live policy interoperability
- cryptographic verification
- cross-vendor implementation support
- active compliance determination
- runtime access-control sufficiency
- sector-wide standard adoption

Those claims would exceed the purpose of this artifact.

The demonstration is intentionally narrow because narrowness preserves credibility at this stage.

### 11) Anti-Drift Notes

This demonstration should not be interpreted as:

- a product demo
- an authorization engine
- a policy system
- a trust framework
- a live registry
- a runtime control plane
- a proof of production architecture

It is a narrow structural demonstration only.

Its value is not breadth. Its value is that it makes the bridge logic visible and testable in one controlled example.

### 12) Relationship to Companion Artifacts

This document depends on the preceding bridge artifacts.

- Artifact 3 ([OSAI-FW-GRM-01](#)) defines the canonical identifier grammar
- Artifact 4 ([OSAI-FW-SCH-01](#)) defines the three linked record structures
- Artifact 5 ([OSAI-FW-RSL-01](#)) defines the minimal resolver posture
- Artifact 6 ([OSAI-FW-DMO-01](#)) demonstrates those artifacts working together in one narrow example

Taken together, these artifacts form the minimum bridge layer beneath any later TCN publication claim.

## References

### [OSAI-FW-GRM-01](#)

OSAI: Canonical Identifier Grammar for Software and AI Agents  
Issued Companion Technical Artifact, v1.0, issued May 7, 2026.  
<https://www.InfrastructureOSAI.com/assets/OSAI-FW-GRM-01.pdf>

### [OSAI-FW-SCH-01](#)

OSAI: Three-Record Schema Template Pack for Software and AI Agents  
Issued Companion Technical Artifact, v1.0, issued May 7, 2026.  
<https://www.InfrastructureOSAI.com/assets/OSAI-FW-SCH-01.pdf>

### [OSAI-FW-RSL-01](#)

OSAI: Minimal Resolver Illustration for Software and AI Agents  
Issued Companion Technical Artifact, v1.0, issued May 7, 2026.  
<https://www.InfrastructureOSAI.com/assets/OSAI-FW-RSL-01.pdf>

### [OSAI-FW-MEM-01](#)

OSAI: A Neutral Naming and Reference Substrate for Software and AI Agents  
Standards-Facing Memo (Public), v1.0, issued March 5, 2026.  
<https://www.InfrastructureOSAI.com/assets/OSAI-FW-MEM-01.pdf>

### [OSAI-FW-RO-02](#)

Reader's Orientation  
Issued public artifact.  
<https://www.InfrastructureOSAI.com/assets/OSAI-FW-RO-02.pdf>

### [OSAI-FW-L2-DC-01](#)

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