P2-REQ-16-9-013

Return to Requirements

Statement

Logical Traceability SHALL NOT require artificial one-to-one correspondence where one-to-many or many-to-one relationships better represent the architecture.

Source

Part 2, Section 16.9: Logical Traceability Requirements.

Rationale

Architectural relationships are not always one-to-one. A single conceptual concern may refine into several logical elements, and multiple logical elements may contribute to a common implementation or evidence artifact. Allowing many-to-one and one-to-many relationships ensures that the Traceability Model accurately reflects the architecture rather than forcing artificial mappings that obscure architectural intent.

Applies To

This requirement applies to the Logical Traceability Model.

It applies specifically to:

- Traceability relationships;
- Conceptual elements;
- Logical elements;
- Domain Logical Profiles; and
- Implementation Profiles.

Verification

Verification SHALL confirm that the Logical Traceability Model supports the architectural relationships actually present.

Verification activities should include review checks confirming that:

- one-to-many relationships are permitted where appropriate;

- many-to-one relationships are permitted where appropriate;
- artificial mappings are avoided; and
- traceability accurately represents the architecture.

Traceability

This requirement supports accurate traceability throughout the architecture lifecycle without imposing unnecessary structural constraints.

Related requirement identifiers:

- P2-REQ-16-9-010
- P2-REQ-16-9-012
- p2-req-16-10-008

Related source section:

- 16.9 Logical Traceability Requirements

Status

Draft
