P4-REQ-21-14-008

Return to Requirements

Statement

Runtime Plane implementation traceability SHALL relate FX Runtime Planes to DDS topic families, QoS profiles, logging categories, exception-handling behavior, and implementation conventions.

Source

Part 4, Section 21.14: Implementation Traceability Requirements.

Rationale

Runtime Plane distinctions are realized through multiple implementation mechanisms rather than a single artifact type.

Traceability among Runtime Planes, DDS topic families, QoS profiles, logging, exception handling, and implementation conventions allows reviewers to determine how each plane's architectural purpose is preserved within the Phase 0 implementation.

Applies To

This requirement applies to:

- FX Runtime Planes;
- DDS topic families;
- QoS profiles;
- logging categories;
- exception-handling behavior; and
- implementation conventions.

Verification

Verification SHALL confirm that Runtime Plane implementation traceability relates each implemented FX Runtime Plane to its applicable implementation mechanisms.

Verification activities should include review checks confirming that:

- applicable DDS topic families are identifiable;

- applicable QoS profiles are identifiable;
- logging and exception-handling relationships are identifiable;
- implementation conventions are identifiable; and
- Runtime Plane distinctions remain reviewable.

Traceability

This requirement establishes traceability between FX Runtime Plane definitions and their Phase 0 implementation realizations.

Related requirement identifiers:

- P4-REQ-21-7-001
- P4-REQ-21-7-007
- P4-REQ-21-9-002
- P4-REQ-21-9-012

Related source section:

- 21.14 Implementation Traceability Requirements

Status

Draft
