

P4-REQ-21-9-009

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Statement

Each QoS profile mapping SHALL identify the expected liveness or availability behavior.

Source

Part 4, Section 21.9: QoS Profile Requirements.

Rationale

Liveness and availability behavior supports detection of implementation participants that become unavailable, silent, or unable to perform their expected communication responsibilities.

Explicit expectations allow Phase 0 to align participant availability detection with the communication purpose and operational needs of the applicable Runtime Plane.

Applies To

This requirement applies to:

- QoS profile mappings;
- DDS publishers;
- DDS subscribers;
- implementation participants; and
- applicable health and operational behavior.

Verification

Verification SHALL confirm that each QoS profile mapping identifies its expected liveness or availability behavior.

Verification activities should include review checks confirming that:

- the expected behavior is stated;
- applicable participant unavailability can be detected where required;
- publisher and subscriber settings are compatible; and
- the selected behavior supports the applicable Runtime Plane purpose.

Traceability

This requirement establishes the liveness or availability expectation associated with each Phase 0 QoS profile mapping.

Related requirement identifiers:

- [P4-REQ-21-9-002](#)
- [P4-REQ-21-9-010](#)

Related source section:

- [21.9 QoS Profile Requirements](#)

Status

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