Airspace Handoff Coordination

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What It Specifies

Airspace handoff is a structured coordination event. The aircraft requests handoff; source authority signs control transfer; target authority signs control acceptance; the aircraft attests successful protocol completion.

The handoff record carries: aircraft identity, position-and-velocity attestation, control-authority transfer, and signatures binding the transfer. The record enters lineage under both authorities.

Why It Matters Structurally

Current airspace handoff depends on voice communication and procedural confirmation. The procedural handoff produces ambiguity in disputed cases and difficulty in audit.

Architectural multi-party coordination produces structural support. Handoffs proceed under credentialed identity; the resulting records are immediately auditable; the audit answers control-authority questions structurally.

How It Composes With Mesh Operation

The architecture defines airspace-specific roles, transition protocols, and emergency-procedure handling. Air-traffic-control operators and aircraft implementing the protocol participate structurally.

Composition with other features. Cross-jurisdictional handoff for international flight, byzantine-robust handoff for adversarial conditions, and partial-quorum handling for communication-degraded conditions all build on the airspace coordination primitive.

What This Enables

Air traffic management gains structurally-supported handoff. The architecture supports the transition from voice-procedural to digitally-credentialed handoff.

The architecture also supports autonomous aviation. Drone airspace, urban air mobility, and high-altitude operations all benefit from structurally-coherent multi-party coordination.