Proximity-Grounded Multi-Party Coordination

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What It Specifies

Coordination classes declare proximity requirements: physical co-location, sensor-range proximity, communication-range proximity, jurisdictional proximity. Each participant's claimed location is verified against the requirement before coordination admits.

The proximity verification uses joint mesh coordinate and time observations. The architecture supports the verification structurally rather than relying on participant-declared location alone.

Why It Matters Structurally

Coordination without proximity grounding admits non-credentialed claims. The downstream audit cannot verify whether the participants were actually proximate at the claimed time.

Proximity grounding produces structural verification. The audit confirms the participants satisfied the proximity requirement; the coordination record carries the proximity claim.

How It Composes With Mesh Operation

Each coordination event carries the proximity verification result; the architecture admits the coordination only if all participants satisfy the declared proximity. Failures enter rejection records with declared reason.

Proximity requirements can vary by coordination class. High-stakes coordination (defense engagement, surgical procedure) requires strict proximity; lower-stakes coordination admits relaxed proximity.

What This Enables

Operational coordination across defense, medical, and civil-infrastructure operations gains structurally-grounded proximity. The architecture supports the operational requirement that coordinating parties actually be where they claim to be.

The architecture also supports adversarial-aware proximity. Spoofed-proximity attacks face structural defense; the architecture admits coordination only when proximity passes the admissibility evaluation.