Governed Actuator Execution

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What It Specifies

Actuation admission carries: actuating unit, intended actuation, applicable admissibility profiles, admission decision, decision authority signatures. Actuators execute only against admitted actuations.

Execution outcomes enter the chain. The actuating unit, intended actuation, observed outcome, deviation analysis (if any) all enter as credentialed observations; downstream operations admit the outcomes against admissibility.

Why It Matters Structurally

Actuator execution outside governance produces structural risk. Defense and safety-critical actuators particularly need governance-bound execution.

Governed execution produces structural support. The architecture admits actuations; outcomes are recorded; downstream audit can verify the execution chain.

How It Composes With Mesh Operation

The architecture defines the admission-protocol, the execution-outcome recording, and the cross-actuator coordination. Implementations apply the architecture;

actuator operations proceed within the framework.

Execution composes with all other features. Stage-gated execution, byzantine-robust execution, and dispute mechanism for execution disputes all build on the execution primitive.

What This Enables

Defense actuator execution gains structurally-supported governance. Civilian critical-infrastructure actuator execution gains the same.

The architecture also supports execution evolution. As actuator capabilities mature, execution protocols update through governance procedures.