

# Upstream Cascade Coordination

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## What It Specifies

Cascade analysis identifies potential upstream conditions: stressed dependencies, emerging refusal patterns, capacity-approaching upstream units. The architecture supports coordinated engagement with upstream units to address the conditions before cascade onset.

Upstream coordination is governance-credentialed. The coordinating authority, the coordination targets, and the coordination protocol all enter lineage; downstream audit can verify coordination decisions structurally.

## Why It Matters Structurally

Reactive cascade response (responding after cascade onset) faces structural challenges. Cascades propagate faster than reactive response can address; preventive upstream coordination is structurally more effective.

Upstream coordination produces structural prevention. The architecture supports the prevention through governed coordination; the coordination operates against credentialed targets; outcomes are auditable.

## How It Composes With Mesh Operation

The architecture defines the upstream-coordination protocol, the target-selection primitives, and the coordination-outcome recording. Implementations apply the architecture; coordinating units operate within the framework.

Coordination composes with other features. Cross-jurisdictional upstream coordination, byzantine-robust coordination under disputed conditions, and dispute mechanism for coordination decisions all build on the coordination primitive.

## **What This Enables**

Defense mesh resilience gains structurally-supported preventive coordination.  
Civilian critical-infrastructure resilience gains the same.

The architecture also supports coordination-protocol evolution. As cascade patterns are characterized through operational experience, coordination protocols update through governance procedures.