

The Replication–Recovery Gap

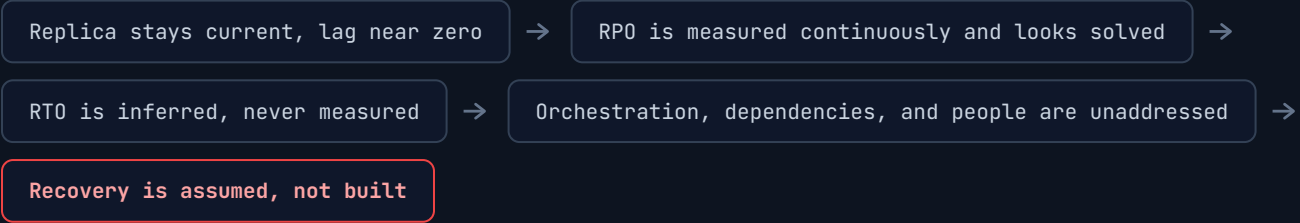
DEFINITION

The distance between having data replicated cross-region and being able to actually recover service from it.

FRAMEWORK FLOW

01 The Condition Cross-region replication holds a data copy current to within a bounded window, and every team metric — lag, freshness, dashboard status — confirms it.	02 The Boundary RPO and RTO get treated as if driven by the same capability, when replication only moves data loss toward zero and does nothing for time-to-restore.	03 Failure State A replica with a near-zero RPO and an undefined RTO is a current pile of bytes with no path back to a running system.	04 Consequence The gap surfaces only when failover is attempted — the one day the assumption is actually tested is the day it fails.
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Failure State: A Current Copy With No Path Back



THE DIAGNOSTIC SIGNAL

RPO / RTO CONFLATION CHECK Whether the team can state its RTO with the same confidence and frequency it states its RPO.	CURRENCY VS. RECOVERABILITY A current copy at a second site proves the copy exists — nothing about whether a service can be brought back from it.
TRIGGER CONDITION The gap activates the moment someone asks “can we operate from it?” instead of “is it current?”	REMEDIATION SHAPE Named recovery-state design — point-in-time integrity, dependency orchestration, rehearsed cutover — not more replication.

ARCHITECTURAL RELATIONSHIPS

#100 Corruption Propagation Window RELATEDMODERATE The Replication-Recovery Gap is the structural condition; Corruption Propagation Window is its time-bound failure mode.	#101 Dependency Recovery Blindness RELATEDMODERATE Co-resident in the Cross-Region Replication post — Dependency Recovery Blindness is a specific instance of the Replication-Recovery Gap.
#102 Recovery State RELATEDMODERATE Co-resident in the Cross-Region Replication post — Recovery State is the target the Replication-Recovery Gap fails to close.	

ANCHOR /cross-region-replication-resilience/

FRAMEWORK HOME

The structural distance between data being current at a second site and a service being recoverable from it — the condition the other three co-resident frameworks specialize.

"Replication answers one question: is the copy current? Recovery answers a different question: can the business operate from it?"