

Digital**Agentic Application
Operations Framework**

Keep production running without waking up your engineers.

AT A GLANCE

Presidio's Digital Services Team will implement the Agentic Application Operations Framework to transform how organizations maintain and operate their applications. By combining automated triage (L1), root cause analysis (L2), and code-level remediation (L3) with a formal seven-principle Safe Autonomy governance model, Presidio enables you to deliver end-to-end incident resolution in minutes, not hours, while keeping human engineers in control at every phase of the autonomy model.

The Agentic Application Operations Framework is architected to deliver up to 80% reduction in mean time to resolution (MTTR), 50% reduction in on-call overhead, and a fundamental shift from reactive firefighting to governed autonomous operations. Unlike AI bolt-on services to existing telemetry solutions or specialized AI SRE products, Presidio's agentic framework operates across a genuinely heterogeneous, multi-vendor estate with a neutral SI delivery model and accountability standing behind every agentic action.

THE CHALLENGE

Modern application estates have outgrown human-centered operating models. Engineering teams are spending more time firefighting than building new capabilities, and the gap is widening as AI-generated code accelerates shipping velocity without a corresponding increase in operational capacity.

- ◆ 30–50% of sprint time on ops rather than feature delivery

- ◆ Alert volumes on modern apps are increasing faster than teams can scale; manual triage is not keeping up
- ◆ Observability investments not closing the loop; telemetry without autonomous remediation leaves the fix loop open
- ◆ Increasing MTTR and engineer attrition rates due to on-call fatigue, context loss, and 3am escalations caused by a loss of tribal knowledge

“We know agentic AI is a major part of the solutions but how can we employ it safely and effectively? How can we trust the outputs? And, how do we prevent run-away costs?”

OUR APPROACH

Presidio's framework introduces a layered, governed autonomy model across three escalation tiers plus two governance agents, each building on the last, with policy-controlled escalation at every threshold:

Escalation tiers:

- ◆ **L1 - Triage Agent:** Ingests alerts, tickets, and signals. Classifies, deduplicates, and routes incidents. Resolves known patterns, escalates unknowns to L2.
- ◆ **L2 - Root Cause Analysis Agent:** Performs causal investigation using observability telemetry, knowledge graph, and change history. Identifies the root cause and proposes a remediation path. Escalates to L3 for code-level fixes.
- ◆ **L3 - Remediation Agent:** Generates and executes the fix and opens a pull request in GitHub pending human review. Every PR is sandboxed and approved before merging. Nothing ships without human sign-off.

Agentic Application Operations Framework

OUR APPROACH (Cont'd)

Governance agents (run across all three tiers):

- ◆ **Cost-Controller Agent:** Governs LLM API spend per ticket. Applies per-ticket budget caps and dynamic adjustment rules to prevent runaway AI cost. Generates cost-per-ticket telemetry for reporting.
- ◆ **Self-Reflection Agent:** Audits the reasoning quality of each agentic action. Feeds back into the knowledge graph to improve future triage and RCA accuracy. The engine of the “self-evolving” capability.

SAFE AUTONOMY FRAMEWORK

Every agentic framework deployment is governed by Presidio’s Safe Autonomy framework — seven principles applied at deployment time and enforced at runtime. This is not a bolt-on; it is the core architecture:

- ◆ Action Safelists
- ◆ Cost Governance
- ◆ HITL Escalations
- ◆ Full Auditability
- ◆ Minimal Authority
- ◆ Validated Execution
- ◆ Grounded Reasoning

WHY PRESIDIO

Presidio Digital is born in the cloud and laser-focused on modernizing and building cloud-native applications that exceed business goals. We pace the industry with a 90% retention rate in the U.S. and India. Working with Presidio means you get consistent, reliable, outcome-driven builders with a true DevOps approach. With more than 500 team members and 40 global locations, there is no problem in the world too big for our Digital gurus to solve.

Want more? Check our blog on [Self-Evolving Apps](#) and connect with your **Presidio AI Specialist**

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