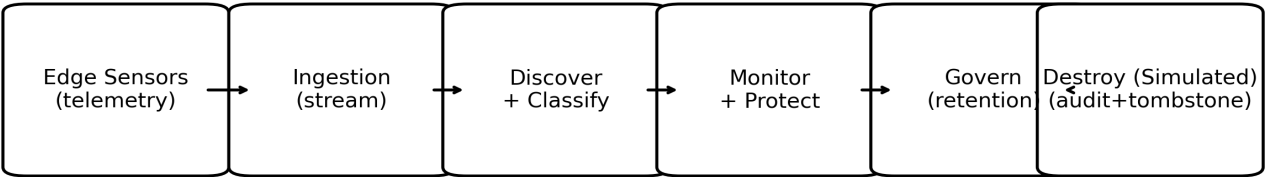# DSPM for AIoT — Architecture Overview (v3.2)

This document summarizes a public reference architecture for applying DSPM principles to AIoT data pipelines spanning edge devices, streaming layers, and cloud systems. It includes an execution-ready notebook flow.

Architecture Diagram

```
┌──────────────┐    ┌──────────────┐    ┌──────────────┐    ┌──────────────┐    ┌──────────────┬──────────────┐
│ Edge Sensors │ →  │  Ingestion   │ →  │   Discover   │ →  │   Monitor    │ →  │   Govern     │  Destroy (Simulated) │
│  (telemetry) │    │   (stream)   │    │  + Classify  │    │  + Protect   │    │ (retention)  │  (audit+tombstone)   │
└──────────────┘    └──────────────┘    └──────────────┘    └──────────────┘    └──────────────┴──────────────┘
```

DSPM Lifecycle Mapping

DSPM Phase	Implementation in v3.2
Discover	Edge telemetry and streaming data discovery
Classify	Sensitivity and PII tagging; risk scoring
Monitor	Access signals (simulated) and drift indicators
Protect	Policy gates (intent) and control recommendations
Govern	Retention and lineage modeling using a YAML policy file
Destroy	Simulation only: audit logs, tombstones, deletion plans (no hard delete)

Key Design Decisions

Public-safe by default: no credentials, no destructive calls, no provider-specific delete APIs.
Governance intent vs. execution: policies produce a deletion plan and tombstones rather than hard delete.
Interview-ready: notebooks provide deterministic outputs, audit logs, and explainability.