INFINITECH

Infinitech Regulated Data Platform

A data platform for regulated data in your own AWS accounts, with drills that show each part works.

THE PROBLEM

A team that holds claims files, HL7 v2 feeds, or program records gets asked which key encrypts each class of data, who can read or delete it, whether a change can open a public path, and how long recovery takes. A diagram doesn't answer the last question. A drill does.

WHAT IRDP DOES

- **Ingest.** Message sources, such as HL7 v2 feeds or application events, send to Amazon Data Firehose. File sources write straight to the S3 landing bucket; X12, FHIR, and CSV files need a parser per source. Amazon MSK is an option for Kafka sources.
- **Pipeline.** AWS Step Functions runs Curate, Load, and Verify as Fargate tasks every 10 minutes. Malformed records go to quarantine, and seven data checks run after each load. Airflow on EKS is the alternative.
- **Warehouse.** Amazon Redshift Serverless in private subnets, read through IAM Identity Center roles. Snowflake Business Critical over PrivateLink can replace it; a deployment runs one warehouse.
- **Recovery.** Snapshots copied to a second AWS region by default, or a warm standby; Redshift only.
- **Controls.** Customer-managed KMS keys for internal, confidential, and restricted data; public data has none. Policy rules check each Terraform plan for region, keys, public resources, and classification tags, and the apply runs only the reviewed plan, matched by checksum. CloudWatch dashboards open by role.

MEASURED IN DEMO CYCLES

Drill or benchmark	Result
Copied-snapshot restore in us-west-2 (default)	RTO 7.3 to 8.2 min; RPO 7.3 to 25.1 min (the snapshot's age)
Warm standby in us-west-2 (option)	RTO 1.8 to 2.7 min; RPO 0, no events lost
Why Redshift is the default	A typical customer's day of loads: $3.60 Redshift, $11.27 Snowflake
Forced pipeline failure	Alarm in 25 seconds; a redrive from the failed step succeeded

RTO is the time until the warehouse answers queries again; RPO is the window of recent writes at risk. Measured 25 October to 4 November 2026; not service levels. Sources: the evidence repository's measured results.

BOUNDARIES

IRDP is a reference implementation, not an authorization to operate. Its modules are built to move to AWS GovCloud by switching a region profile, which CI tests; nothing has run in GovCloud yet.

ENGAGEMENTS

Launch prices: **Discovery** USD 4,200, credited within 60 days. **Core** USD 29,925: deployment, a source, policy gate, handoff. **Recovery & Evidence** USD 7,175: standby, drills, dashboards, OSCAL; else no tested DR.

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