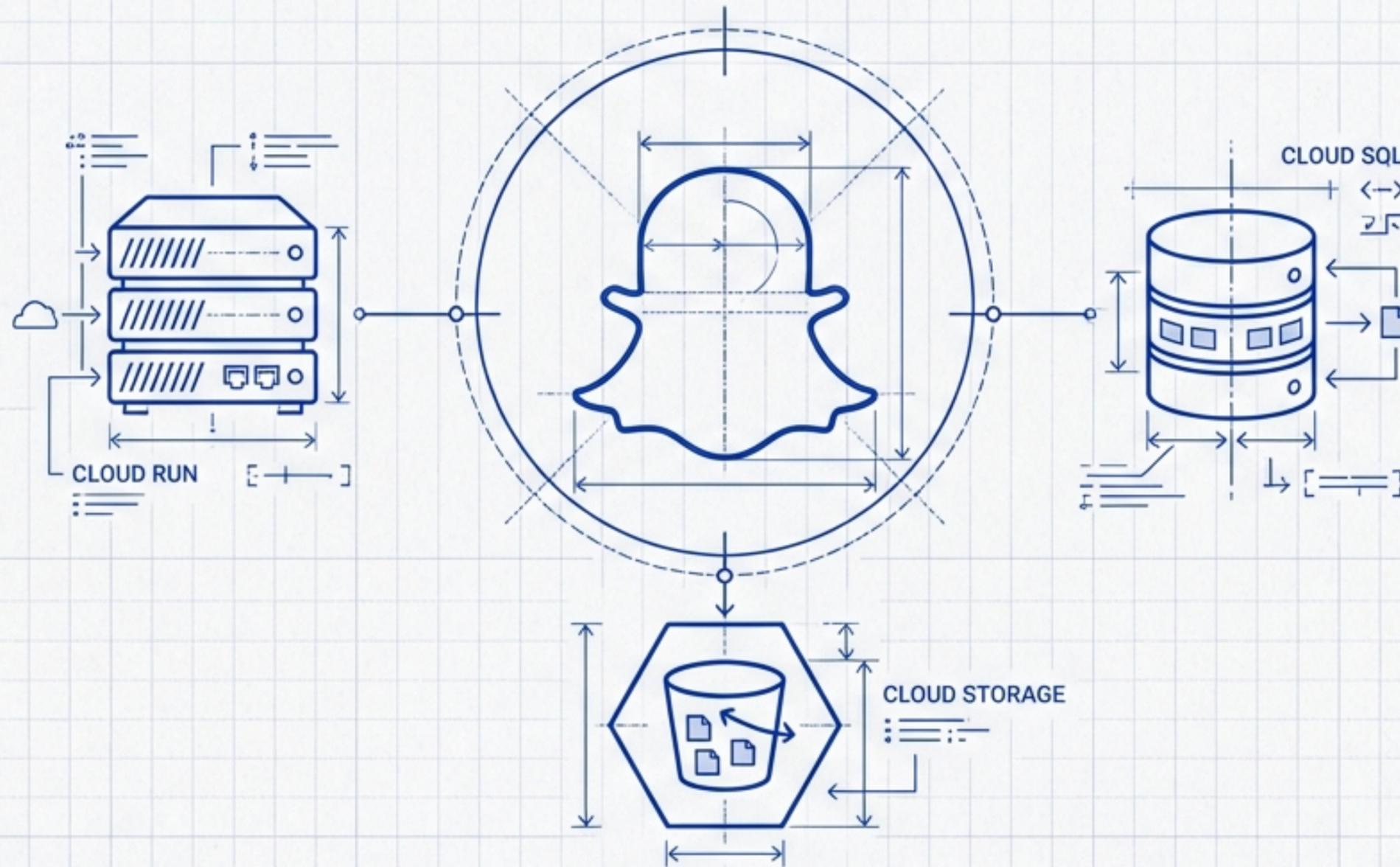


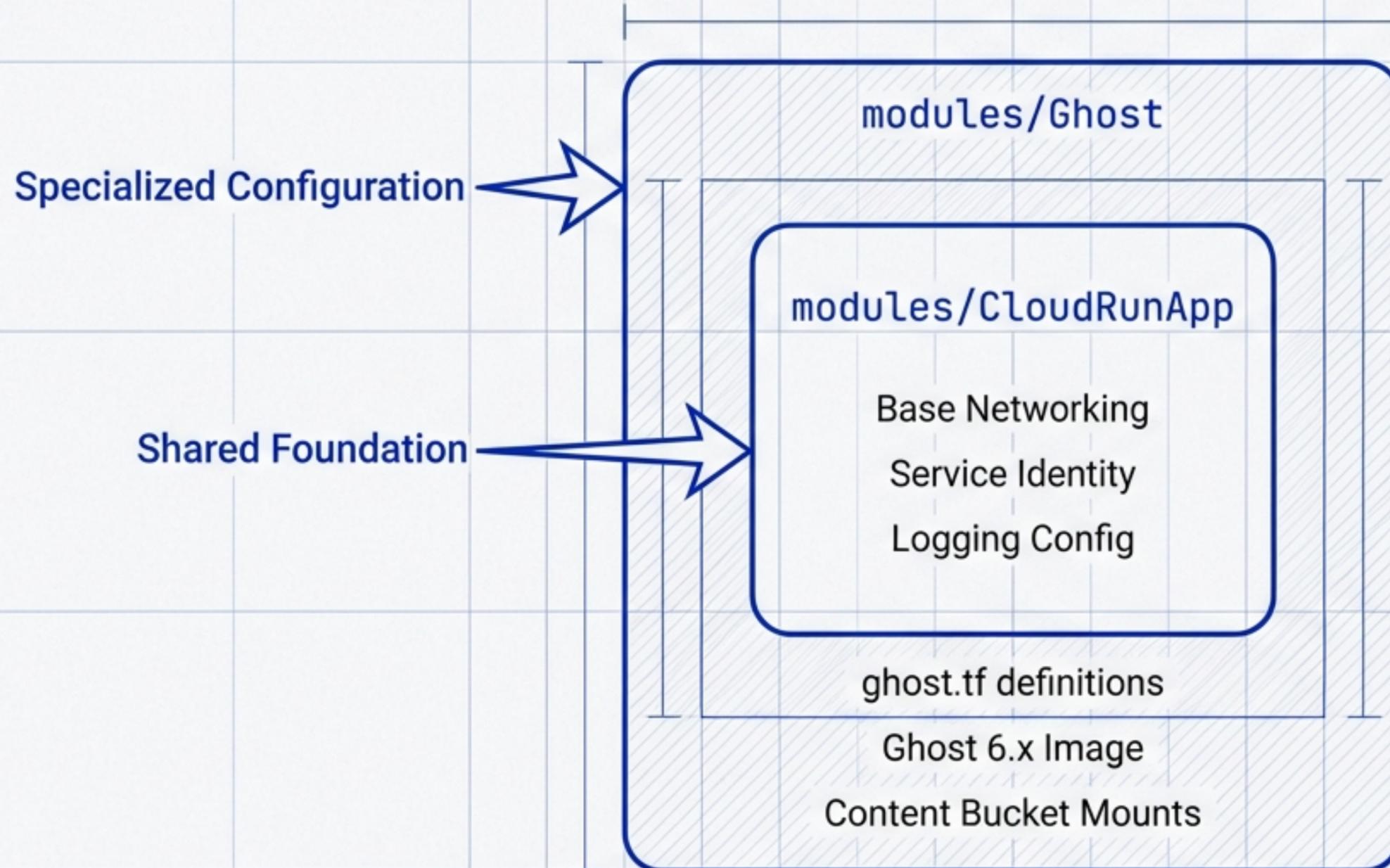
# Ghost on Google Cloud Platform



Implementation Guide & Architecture Overview via RAD Platform

# The Wrapper Module Architecture

## Core Design Pattern



## Technical Stack Details

- Compute: Cloud Run (Gen2)
- Database: MySQL 8.0
- Storage: Google Cloud Storage
- Base Image: ghost:6.14.0

# IAM & Least Privilege Architecture

## The Runner (Runtime)

Service Account: `cloud_run_sa`



- ✓ Executes the Ghost Application
- ✓ Access to Secrets (`DB_PASSWORD`, `ROOT_PASSWORD`)
- ✓ Full Control: `ghost-content` bucket (Object Admin)
- ✓ Metadata: Legacy Bucket Reader

## The Builder (Deploy)

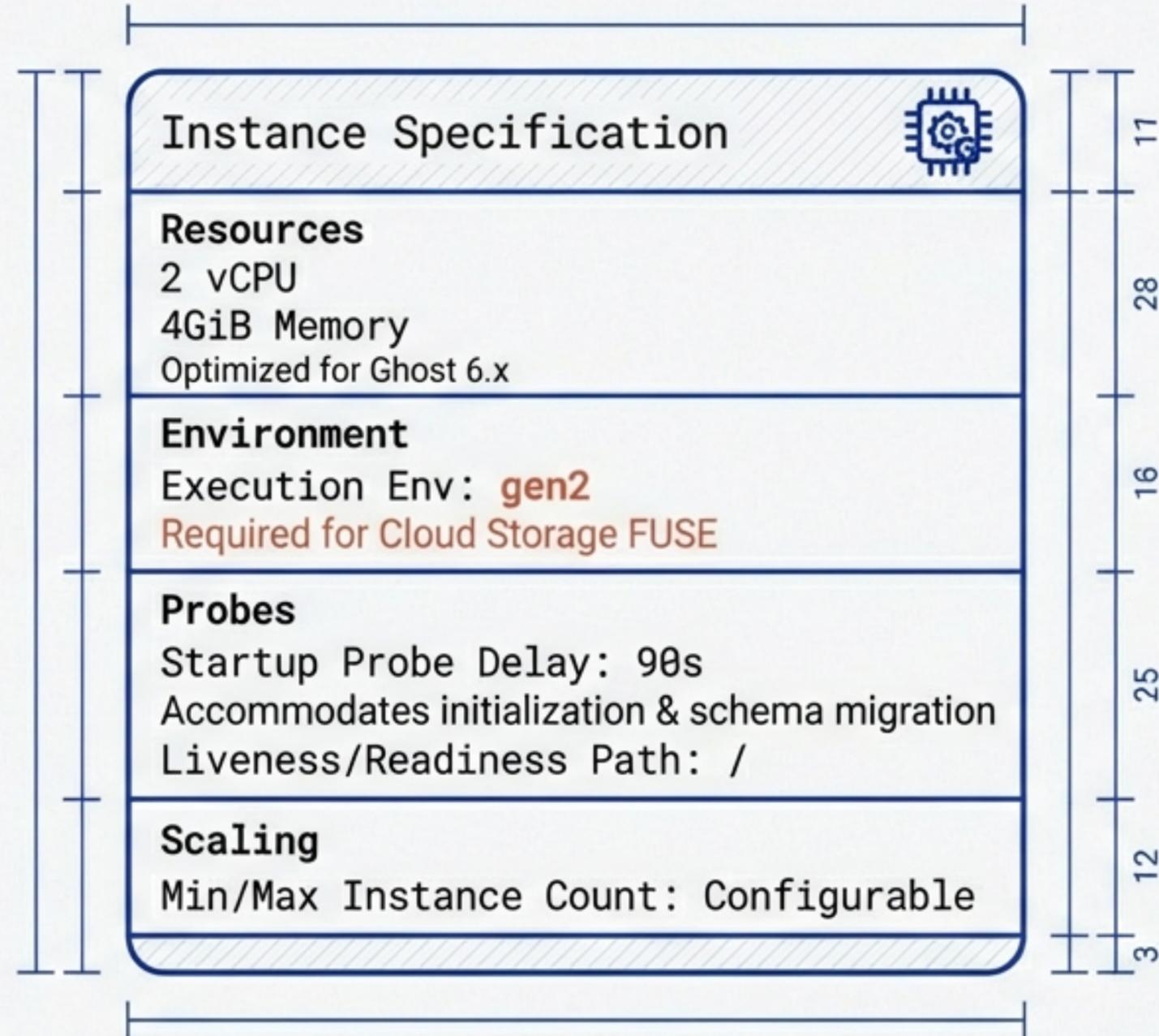
Service Account: `cloud_build_sa`



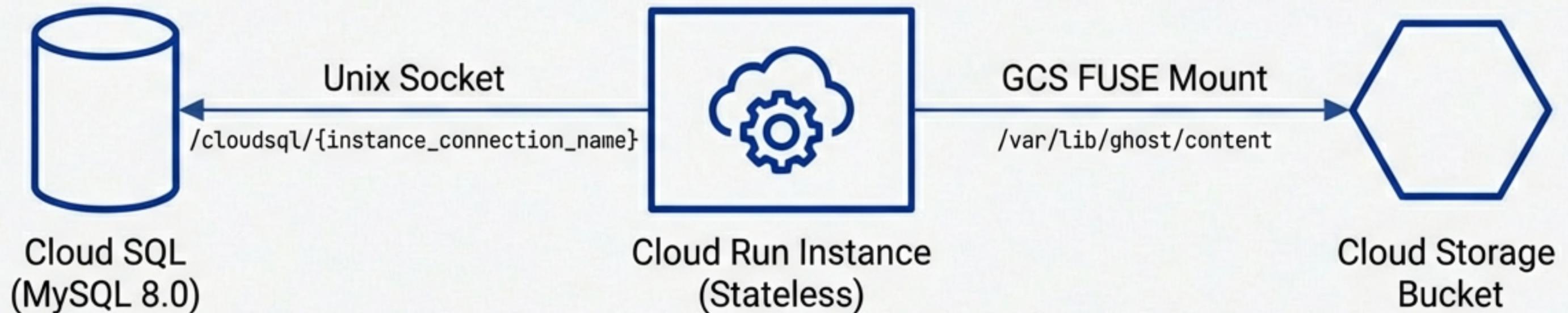
- ✓ Executes CI/CD Pipelines
- ✓ Deploy Revisions: `roles/run.developer`
- ✓ Impersonation: `roles/iam.serviceAccountUser`
- ✓ Access to GitHub Tokens

# Application Runtime Configuration

Optimized google\_cloud\_run\_v2\_service Specification



# The Data Layer: Bridging Stateless and Stateful



Discovered via sql.tf.  
Does not create instance.

Persists images & media.  
Versioning defaults to false.

# Database Initialization Strategy



## Container Start

Image: mysql:8.0-debian



## Verification

Check connectivity to discovered SQL instance



## Provisioning

Create 'ghost' database if missing



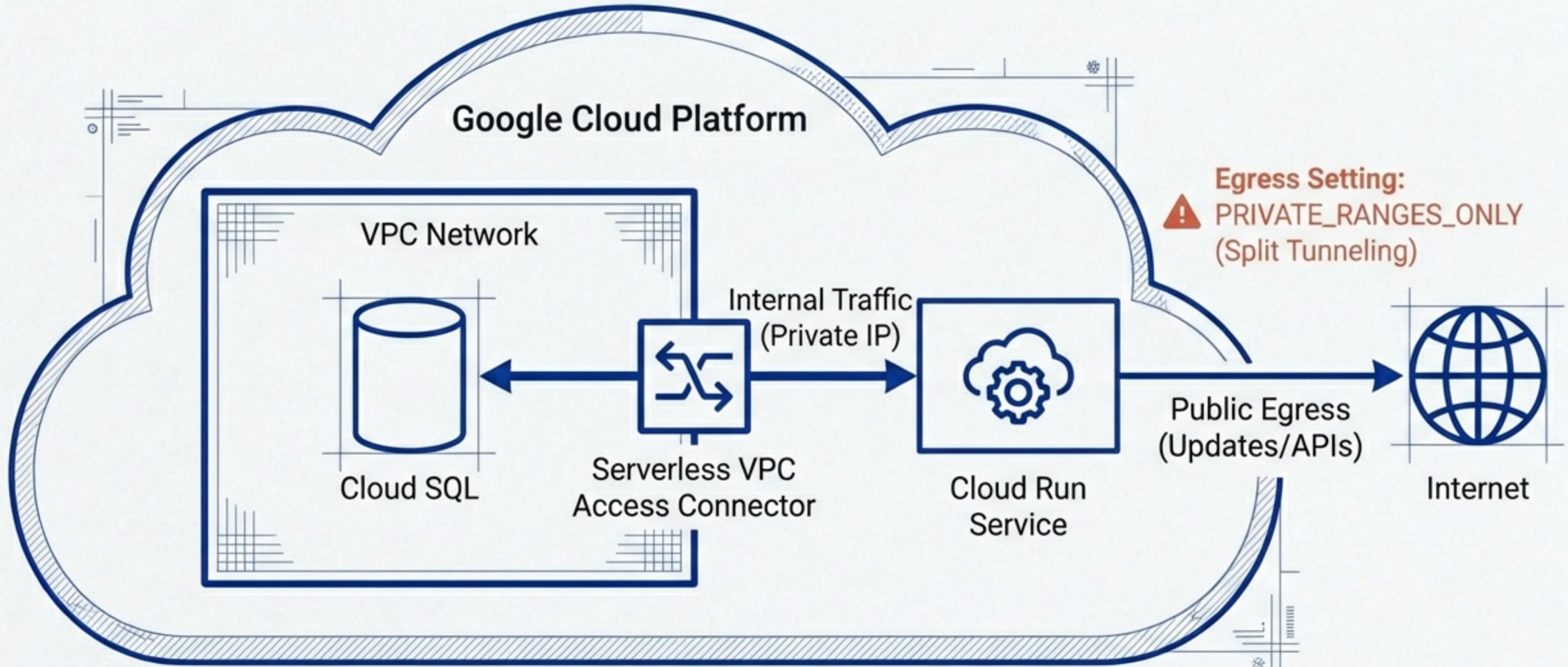
## Grants

Configure User:  
CREATE, ALTER, DROP,  
INDEX

## Authentication Note

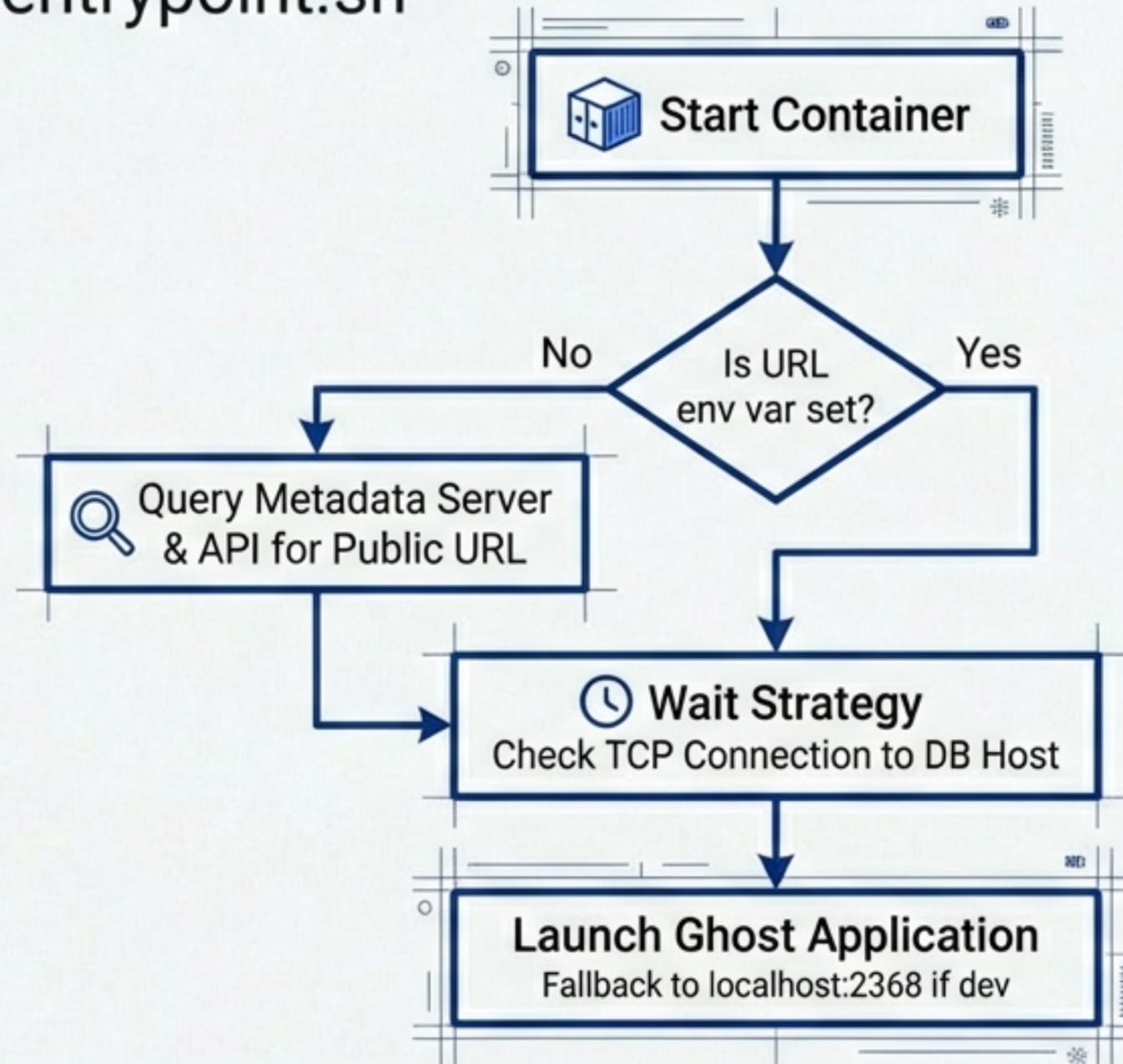
Supports MySQL Native Password or Caching SHA2 Password (Explicit Ghost 6.x Requirement).

# Networking & Traffic Flow

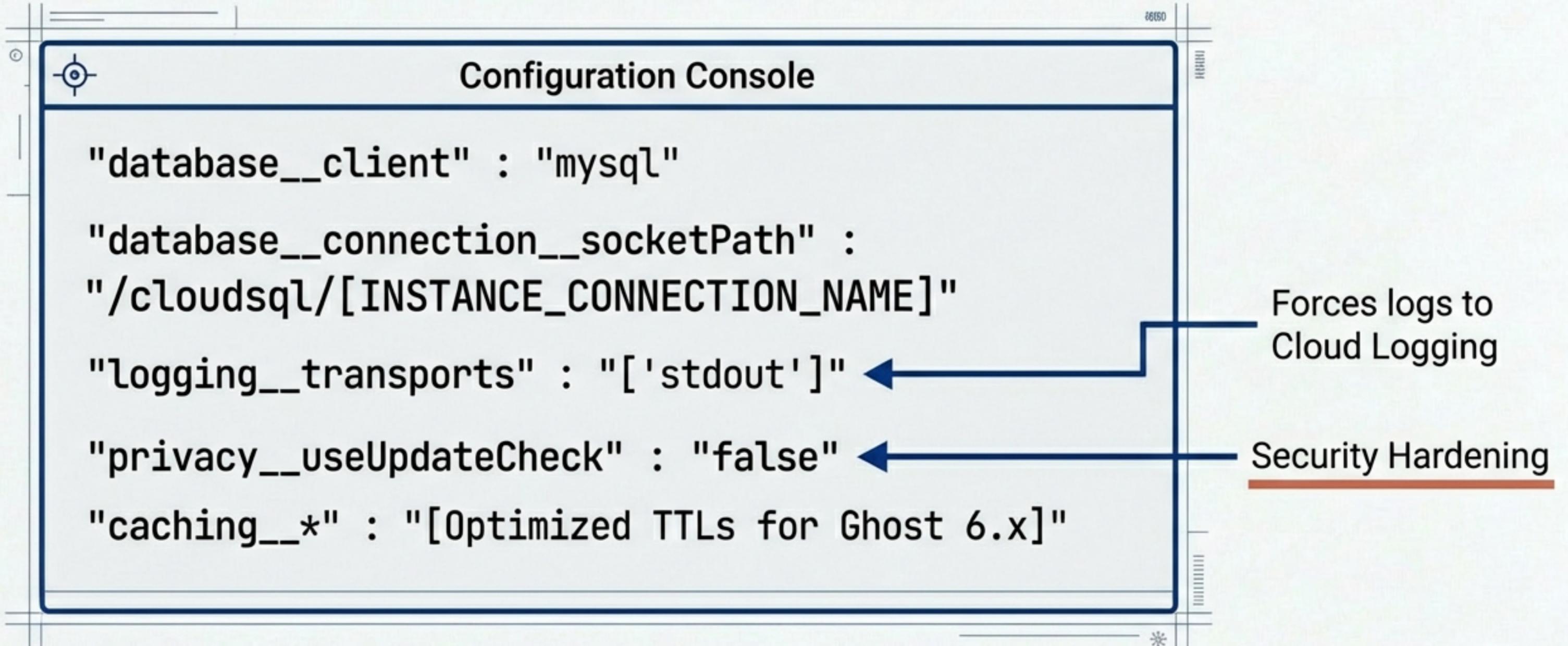


# Dockerfile & Entrypoint Logic

scripts/ghost/entrypoint.sh



# Configuration via Environment Variables



The screenshot shows a 'Configuration Console' window with a title bar and a close button. The main area contains a list of environment variables in a monospaced font. Two blue arrows point from text on the right to specific variables: one points to 'logging\_\_transports' and another points to 'privacy\_\_useUpdateCheck'. The text 'Security Hardening' is underlined in red.

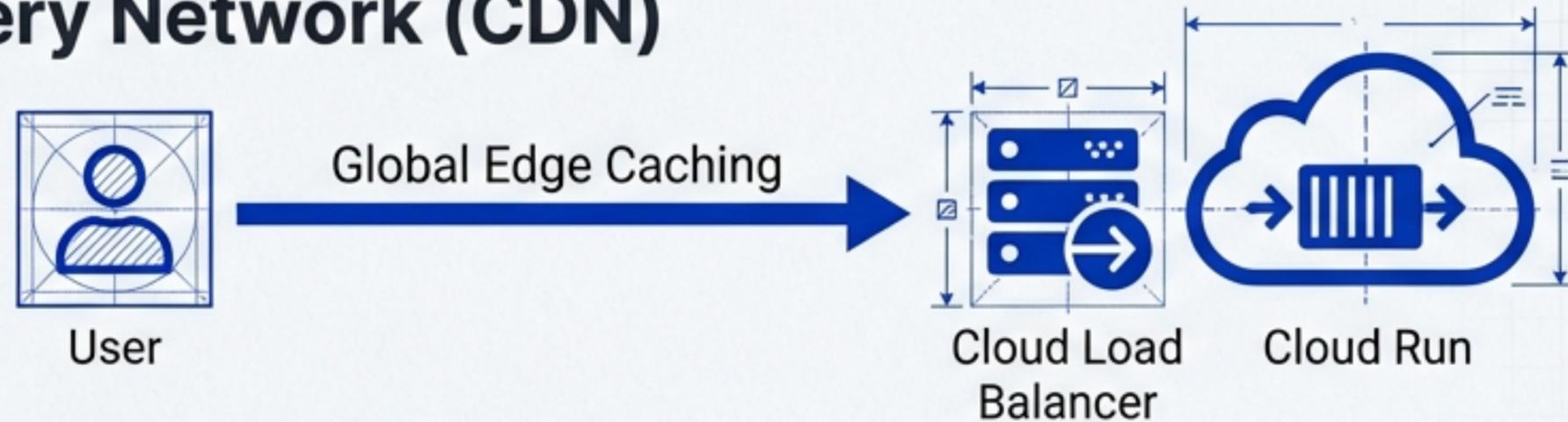
```
Configuration Console  
"database__client" : "mysql"  
"database__connection__socketPath" :  
"/cloudsql/[INSTANCE_CONNECTION_NAME]"  
"logging__transports" : "['stdout']"  
"privacy__useUpdateCheck" : "false"  
"caching__*" : "[Optimized TTLs for Ghost 6.x]"
```

Forces logs to Cloud Logging

Security Hardening

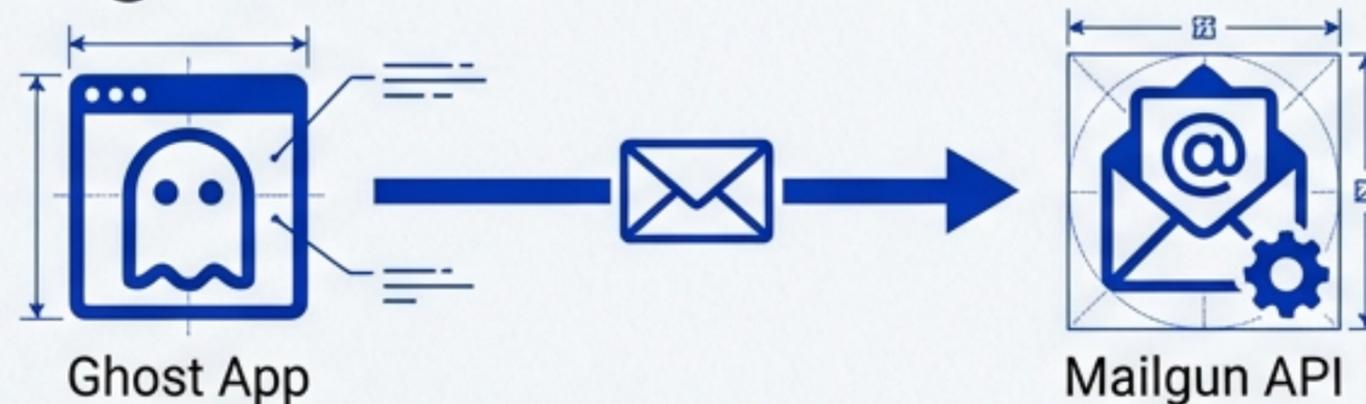
# Enhancements: Performance & Delivery

## Content Delivery Network (CDN)



Offloads static assets from Cloud Run CPU.

## Email Reliability (Mailgun)

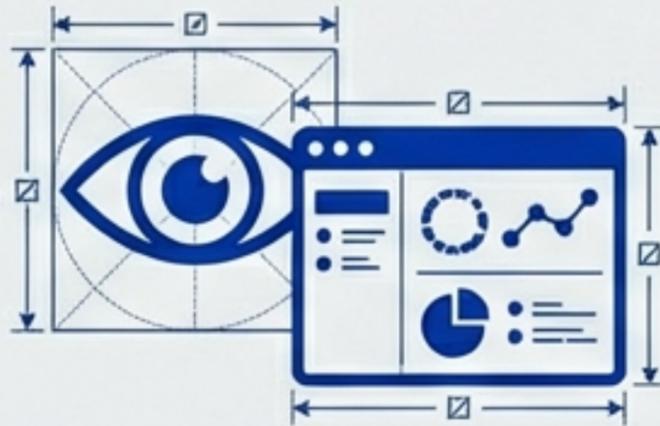


Replace generic SMTP with explicit configuration.

```
mail__transport="mailgun"
```

# Enhancements: Reliability & Security

## Observability



- Implement JSON formatted logs for structured parsing.
- Deploy Cloud Monitoring Dashboard for specific Ghost metrics.

## Disaster Recovery



- Enable Object Versioning on ghost-content bucket.
- Implement "Coldline" sync jobs to separate region.

## Access Control



- Cloud Armor: WAF security policy on Load Balancer.
- Identity-Aware Proxy (IAP) for zero-trust internal admin.

# Deployment Readiness Checklist

- IAM:** Service Accounts (`cloud_run_sa` / `cloud_build_sa`) created with correct roles.
- Database:** `db-init` job completed successfully; User grants verified.
- Storage:** GCS bucket active; FUSE mount configured in `gen2` environment.
- Network:** VPC Connector active; Split-tunneling validated.
- Config:** `privacy__useUpdateCheck` disabled; Logging set to `stdout`.

# RAD Platform

Simplifying Complex Infrastructure

**Review Source**

[github.com/rad-platform/modules/ghost](https://github.com/rad-platform/modules/ghost)

**Read Full Documentation**

[docs.rad-platform.com](https://docs.rad-platform.com)