

Service Health Check Standards

INTERNAL — Helix Engineering / CS Operations

OVERVIEW

Every Helix service must expose health endpoints. This runbook describes the standards.

REQUIRED ENDPOINTS

`/health` — Liveness probe. Returns 200 if the process is alive. Should not check downstream dependencies. `/ready` — Readiness probe. Returns 200 only if the service is fully ready to handle requests, including downstream connectivity.

WHAT `/ready` CHECKS

Database connectivity (can the service execute a `SELECT 1?`). Cache connectivity (can the service hit Redis?). Required upstream service connectivity (e.g., auth-service for any service that validates tokens).

TIMEOUTS

`/health` must respond in under 100ms. `/ready` in under 1s. Slower responses cause k8s to mark the pod as unhealthy and restart it.

FAILURE MODES

If `/ready` returns non-200, k8s removes the pod from the load balancer. The pod is not restarted but new traffic is not sent. If `/health` returns non-200, k8s restarts the pod.

MONITORING

Both endpoints are scraped by Prometheus. Alerts fire when fewer than 80% of pods report healthy for 5 minutes.

DEBUGGING UNHEALTHY PODS

Check pod logs for the failing dependency. Use ``kubectl describe pod`` to see the readiness probe failure details. Check the dependency's own health.