GitForgeResearch   ⠿ Overview   ᕙ System Status   ▭ Repositories   ⊙ Issues   **Research Environment**

System Status Dashboard

Real-time monitoring of distributed components and fault tolerance metrics.

SERVICE

Backend API Gateway

⟋ Latency

45ms

🕑 Uptime

99.99%

Status: HEALTHY

DATABASE

CockroachDB Cluster

⟋ Latency

12ms

🕑 Uptime

99.95%

Status: HEALTHY

SERVICE

Gitea StatefulSet

⟋ Latency

150ms

🕑 Uptime

98.50%

Status: DEGRADED

Research Controls

⚙ Experiment Configuration

🗄 Checkpoint Interval (PVC)

●

Built with Magic Patterns

Frequency of writing state to persistent volume claims.

▤ Replication Factor

3 Nodes (Standard)   ⌄

Number of active Gitea replicas in the StatefulSet.

Trigger Chaos Experiment

Injects random pod termination via Chaos Mesh

Live Event Log

```
>_ system_events.log                                              ○ ○ ○

10:42:15.123  INFO   [k8s-          Pod gitea-0 scheduled on node-pool-1
                     controller]
10:42:16.452  INFO   [gitea-0]      Initializing storage volume claim pvc-gitea-data
10:42:18.789  WARN   [network-      High latency detected on eth0 (150ms)
                     policy]
10:42:19.234  INFO   [health-       Backend API status: HEALTHY
                     check]
10:42:20.567  ERROR  [replication-  Connection timeout to replica-2
                     mgr]
10:42:21.112  INFO   [chaos-mesh]   Experiment "pod-kill-random" started
10:42:22.345  WARN   [gitea-1]      Degraded performance detected during sync
10:42:25.678  INFO   [system]       Checkpoint created successfully (size: 45MB)
➜
```

Active Experiments

Chaos Mesh	Connected
Prometheus	Scraping
Grafana	Live

CURRENT CONFIGURATION

Storage Class	standard-rwo
Network Policy	strict-isolation
Pod Anti-Affinity	Enabled

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Research Note

The Gitea cluster is currently running in degraded mode due to high latency on node-pool-1. This is an expected outcome of the "Network Partition" experiment running since 10:00 AM.

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