

Deployment & Infrastructure Guide

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Environments

Development: Local Docker Compose setup

Staging: AWS staging environment, mirrors production

Production: Multi-AZ deployment across us-east-1 and eu-west-1

Deployment Process

1. Create PR and get code review approval
2. Merge to main branch
3. GitHub Actions runs tests and builds Docker image
4. Auto-deploy to staging
5. Run smoke tests on staging
6. Manual approval required for production deploy
7. Rolling deployment to production (10% → 50% → 100%)
8. Monitor error rates and rollback if needed

Rollback Procedure

If a deployment causes issues:

1. Alert in #incidents Slack channel
2. Run rollback command: `kubectl rollout undo deployment/api`
3. Verify health checks pass
4. Schedule post-mortem within 24 hours

Monitoring & Alerts

DataDog dashboards track: request rate, error rate, latency (p50/p95/p99), database performance. PagerDuty alerts for: API error rate >5%, database CPU >80%, any service health check failure.