E-Commerce Microservices - Load Test Analysis

Comprehensive SRE Performance Report

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Executive Summary

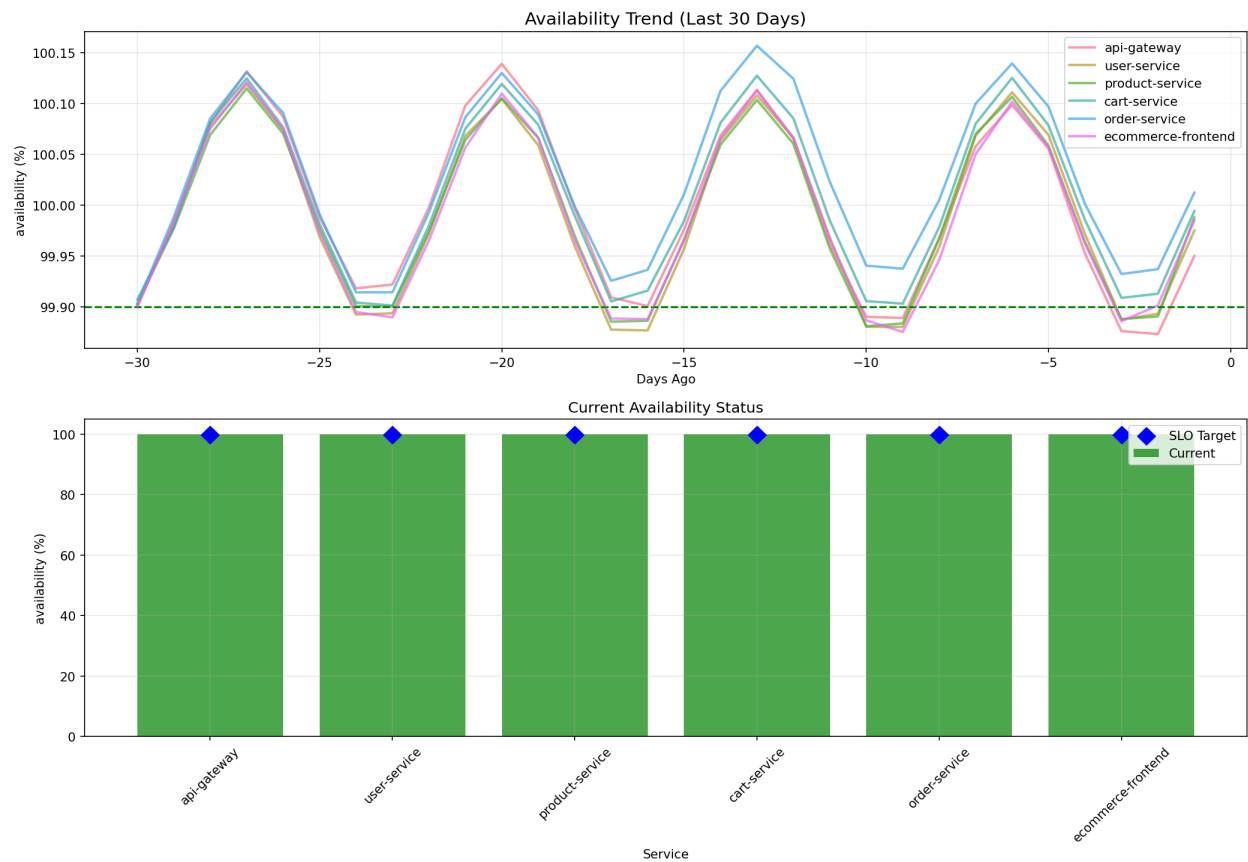| Metric	Value
Total Services Monitored	6
Total SLO Metrics	18
Compliant Metrics	9 (50.0%)
At Risk Metrics	3
Breached SLOs	6
Overall System Health	Needs Attention

SLO Metrics Status Details

Service	Metric	Current	Target	Status	Error Budget
api-gateway	Availability	99.95 %	99.90 %	Compliant	0.0%
api-gateway	Latency P95	189.17 ms	200.00 ms	Compliant	0.0%
api-gateway	Error Rate	0.18 %	0.10 %	Breached	79.3%
user-service	Availability	99.98 %	99.90 %	Compliant	0.0%
user-service	Latency P95	191.53 ms	200.00 ms	Compliant	0.0%
user-service	Error Rate	0.20 %	0.10 %	Breached	103.3%
product-service	Availability	99.99 %	99.90 %	Compliant	0.0%
product-service	Latency P95	204.40 ms	200.00 ms	At_Risk	2.2%
product-service	Error Rate	0.17 %	0.10 %	Breached	65.3%
cart-service	Availability	99.99 %	99.90 %	Compliant	0.0%
cart-service	Latency P95	225.45 ms	200.00 ms	At_Risk	12.7%
cart-service	Error Rate	0.16 %	0.10 %	Breached	59.6%
order-service	Availability	100.01 %	99.90 %	Compliant	0.0%
order-service	Latency P95	202.67 ms	200.00 ms	At_Risk	1.3%
order-service	Error Rate	0.17 %	0.10 %	Breached	73.0%

| ecommerce-frontend	Availability	99.99 %	99.90 %	Compliant	0.0%
ecommerce-frontend	Latency P95	182.27 ms	200.00 ms	Compliant	0.0%
ecommerce-frontend	Error Rate	0.15 %	0.10 %	Breached	47.9%

■ Performance Trend Analysis

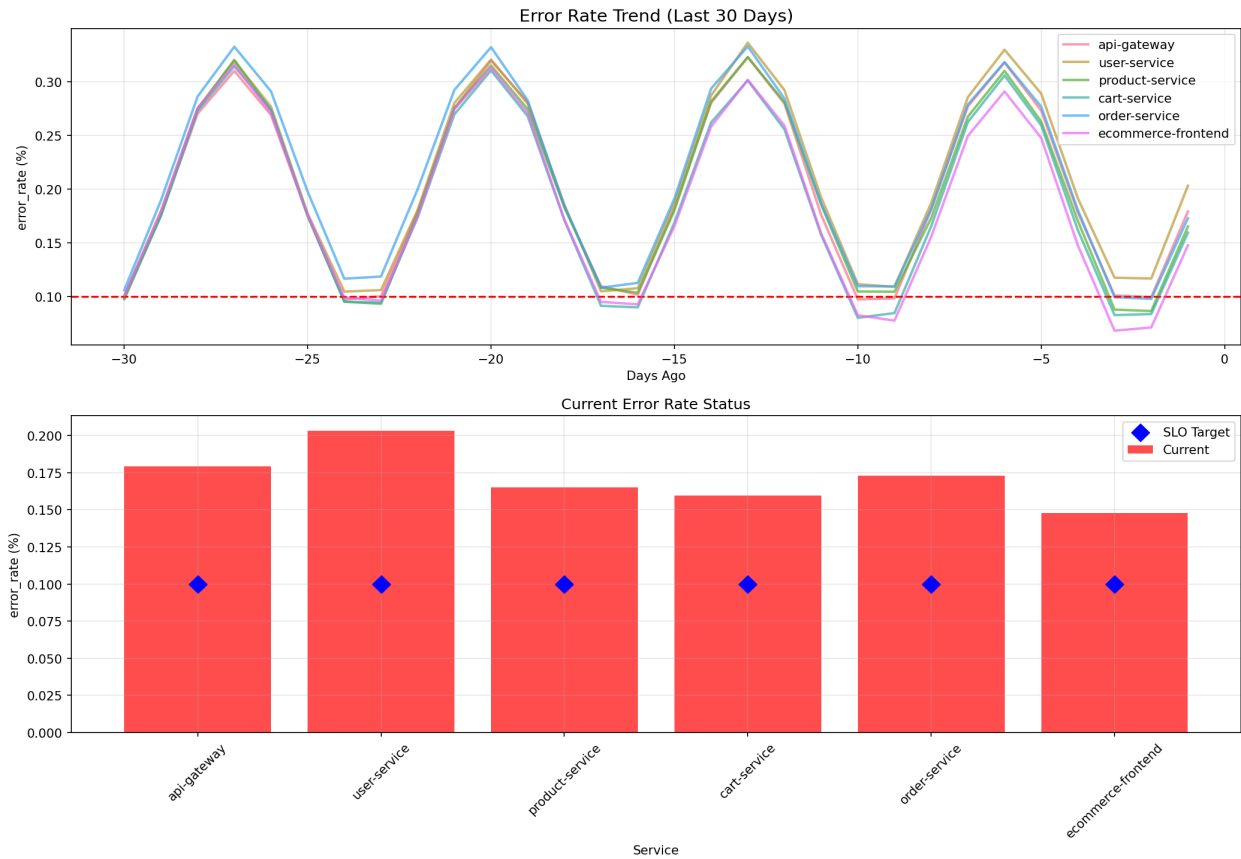The following charts show performance trends over the last 30 days with current status indicators.

Availability Performance Trends

Latency P95 Performance Trends

Latency P95 Trend (Last 30 Days)

Current Latency P95 Status
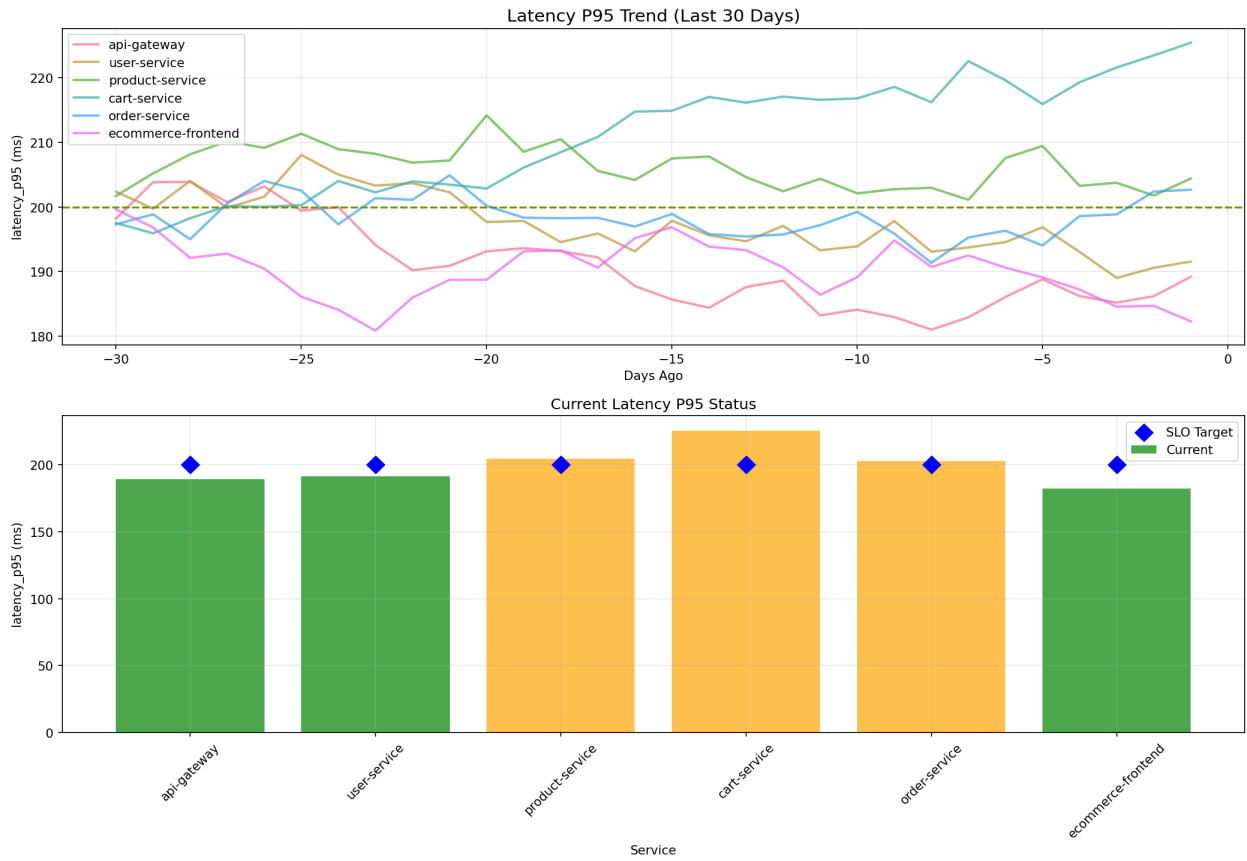
Error Rate Performance Trends

Error Rate Trend (Last 30 Days)

Current Error Rate Status

■ AI-Powered Performance Analysis

SYSTEM HEALTH ASSESSMENT:

Overall Status: Needs Attention - 9/18 metrics are compliant (50.0%) - 6 critical SLO breaches requiring immediate attention - 3 metrics at risk of breaching SLO targets

KEY INSIGHTS: • System shows concerning reliability patterns • Performance trends indicate degrading system behavior • Error budget consumption approaching critical levels

IMMEDIATE ACTIONS NEEDED: • Address critical SLO breaches to prevent service degradation • Review and optimize services with high error budget consumption • Implement proactive alerting for at-risk metrics • Consider capacity scaling for services showing performance degradation

STRATEGIC RECOMMENDATIONS: • Establish automated remediation for common performance issues • Implement predictive alerting based on trend analysis • Review SLO targets to ensure they align with business requirements • Enhance monitoring coverage for early issue detection

Key Recommendations

• URGENT: Address 6 SLO breach(es) immediately

• Monitor 3 service(s) at risk of SLO breach

• Review error budget consumption and implement proactive alerting

• Analyze performance trends for capacity planning

- Implement automated scaling based on performance metrics

- Update incident response procedures based on latest analysis

- Schedule regular SLO review meetings with stakeholders

Report Generation Details