

TEST CYCLE REPORT

Release 3.2.0 Regression Cycle

Application	PaymentGateway Pro
Release Version	v3.2.0
Environment	UAT-PROD-MIRROR
Test Type	Regression
Test Cycle ID	TCL-2026-0202-001



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1. Executive Summary

Summary of test cycle results

Test Cycle Readiness



Execution Rate

98% (831/847)

Pass Rate

95%

Code Coverage

78%
Total

85%
Changed

Failed & Blocked Tests

20 total (8 failed, 12 blocked)

By Result Type



Failed (8) Blocked (12) Skipped (16) N/A (4)

Failed Tests by Priority




Critical (3) High (4) Medium (1) Low (0)



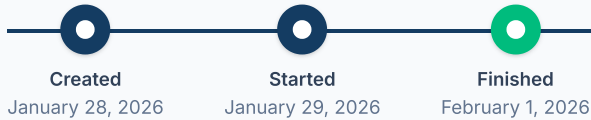
2. Overview

Key information and results from the test cycle

Identity & Scope

Test Cycle ID	TCL-2026-0202-001	Application	PaymentGateway Pro
Test Cycle Name	Release 3.2.0 Regression Cycle	Release Version	3.2.0-rc.4
Environment	UAT-PROD-MIRROR	Test Manager	 Sarah Chen
Test Type	Regression	Number of Testers	8
Compared Test Cycle	Release 3.1.0 Regression Cycle	Code Changes	12.4% Medium

Timeline



Execution

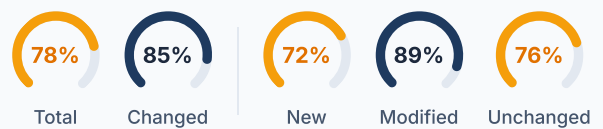
Total Test Cases	847
Executed Test Cases	831
Execution Ratio	98%

Quality Indicators

Test Execution Results



Code Coverage



TN Score (Risk Assessment)

Target: 30

23

Target Met



3. Test Environment

Deployed modules and their versions in the test environment



TEST EXECUTION ENVIRONMENT

UAT-PROD-MIRROR

Deployed Modules

payment-core Core

Java

Current: 3.2.0-rc.4 Compared: 3.1.0 Git: a7f3bc2 Uploaded: Jan 28, 2026

LOC: 45.8k Complexity: 156 Change: 8.2% Coverage: 82% (diff: 91%)

fraud-detection Core

Kotlin

Current: 3.2.0-rc.4 Compared: 3.1.0 Git: b8c4de3 Uploaded: Jan 28, 2026

LOC: 28.4k Complexity: 203 Change: 24.5% Coverage: 72% (diff: 68%)

user-auth Important

Java

Current: 3.2.0-rc.4 Compared: 3.1.0 Git: c9d5ef4 Uploaded: Jan 27, 2026

LOC: 12.3k Complexity: 89 Change: 3.1% Coverage: 88% (diff: 95%)

api-gateway Important

TypeScript

Current: 3.2.0-rc.4 Compared: 3.1.0 Git: d0e6fg5 Uploaded: Jan 28, 2026

LOC: 18.9k Complexity: 112 Change: 15.8% Coverage: 79% (diff: 84%)

reporting-service Standard

C#

Current: 3.2.0-rc.4 Compared: 3.1.0 Git: e1f7gh6 Uploaded: Jan 26, 2026

LOC: 8.4k Complexity: 67 Change: 5.2% Coverage: 81% (diff: 87%)

notification-hub Peripheral

TypeScript

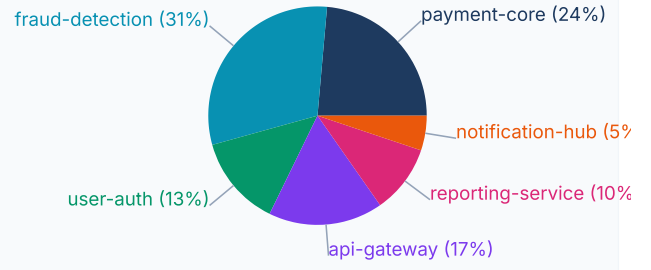
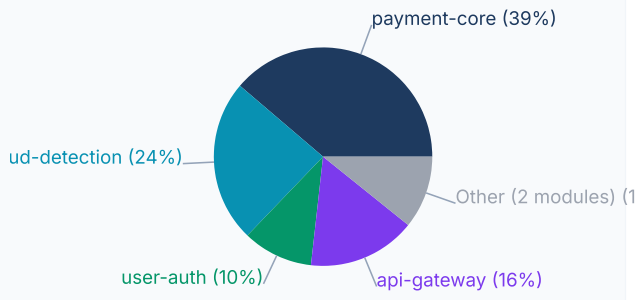
Current: 3.2.0-rc.4 Compared: 3.1.0 Git: f2g8hi7 Uploaded: Jan 25, 2026

LOC: 4.3k Complexity: 34 Change: 2.1% Coverage: 75% (diff: 80%)

Module Comparison

Size (Lines of Code)

Cyclomatic Complexity



Total Modules

6

Modules with Changes

6

Total LOC

118.2k

Total Complexity

661



4. Test Results

Detailed test execution results, coverage, and risk assessment

4.1 Test Case Execution Statistics

Execution Distribution



Execution Summary

831

Executed

16

Not Executed

Execution Progress

98% of 847 tests



95%

Pass Rate

791 passed

1%

Fail Rate

8 failed

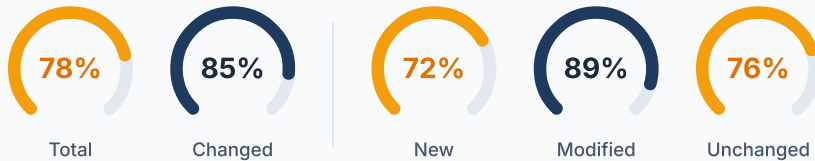
Test Priority x Result Heatmap

Priority	Passed	Failed	Blocked	Skipped	N/A	Total	Pass Rate
Critical	118	2	2	1	0	123	95.9%
High	197	2	3	3	0	205	96.1%
Medium	276	2	3	6	1	288	95.8%
Low	197	1	2	4	1	205	96.1%

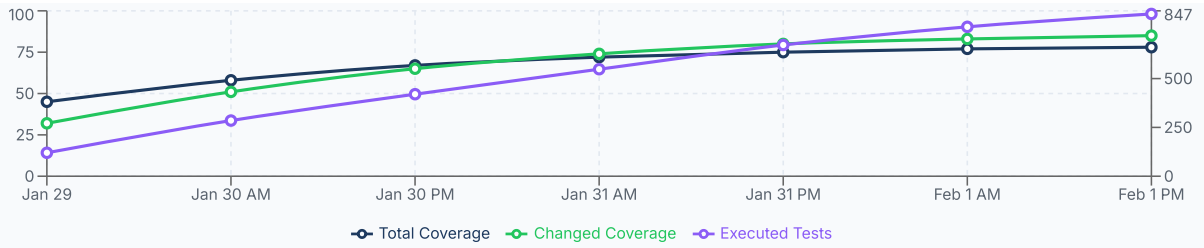
● Passed
 ● Failed
 ● Blocked
 ● Skipped
 ● N/A

4.2 Code Coverage Report

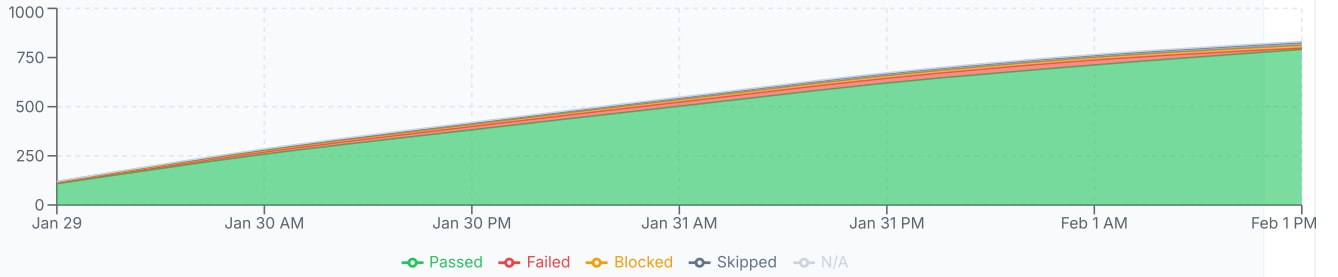
Coverage Breakdown



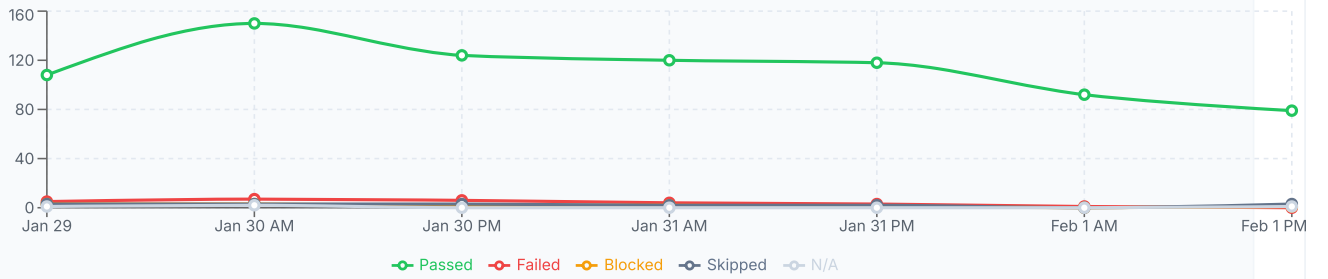
Coverage Timeline



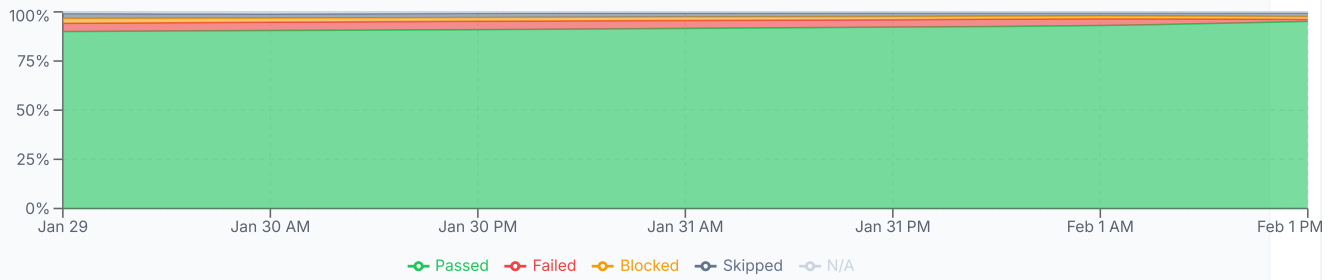
Test Results Timeline



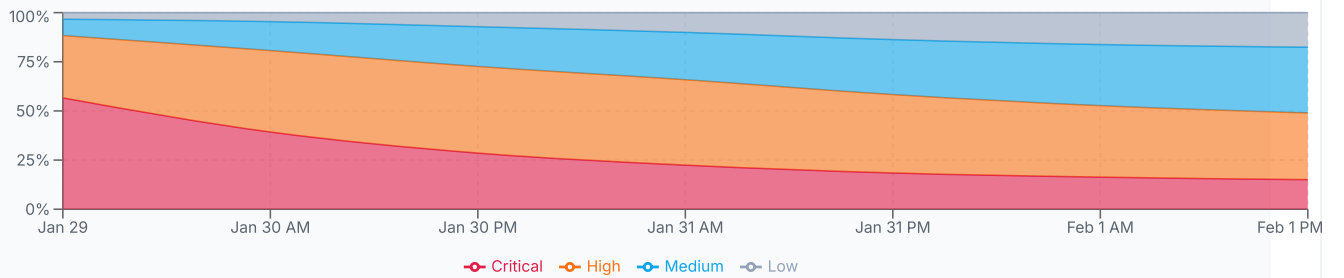
Daily Test Results



Test Results Distribution (%)



Test Priority Distribution (%)



4.3 Risk Based Assessment

Risk Timeline



Uncovered Changed Code ?

Covered Uncovered

100% 50% 0 50% 100%

Overall



By Module



4.4 GO / NO-GO Decision

Total Coverage ✓

Threshold: must be $\geq 75\%$

78%

PASSED

Change Coverage ✓

Threshold: must be $\geq 80\%$

85%

PASSED

Execution Ratio ✓

Threshold: must be $\geq 95\%$

98%

PASSED

Risk Score ✓

Threshold: must be ≤ 30

23

PASSED

Final Decision

✓ GO



5. Performance Analysis

Test execution performance metrics and tester productivity

5.1 Test Duration Analysis

Total Execution Time

97h 16m

Average Duration

6m 58s

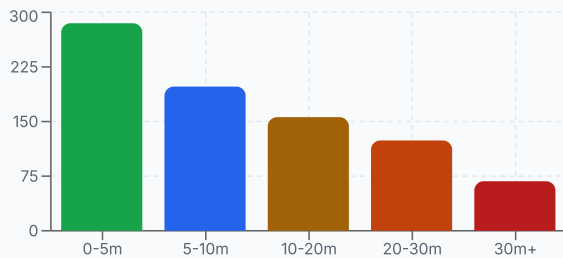
Quick Tests (< 5m)

285 (34%)

Long Tests (> 30m)

68 (8%)

Duration Distribution



0-5m	285 (34.3%)
5-10m	198 (23.8%)
10-20m	156 (18.8%)
20-30m	124 (14.9%)
30m+	68 (8.2%)

Top 5 Long Running Tests

1 Full E2E Payment Flow with Retry **45m**

2 Batch Settlement Processing **38m**







3 Multi-currency Conversion Suite **35m**

4 Load Test - 1000 Concurrent Users **32m**

5 Fraud Detection ML Model Validation **28m**

5.2 Tester Performance

Tester	Executed	Total Time	Median	Average	Results	Failed tests by Priority
Alex Rivera	156	18h 42m	4m 12s	7m 11s	✓ 142 ✗ 8 ⚠ 2 ▶ 3 ⊖ 1	2 3 2 1
Jordan Kim	134	15h 28m	3m 45s	6m 54s	✓ 118 ✗ 9 ⚠ 3 ▶ 2 ⊖ 2	1 4 3 1
Morgan Taylor	128	14h 15m	3m 58s	6m 40s	✓ 115 ✗ 7 ⚠ 2 ▶ 2 ⊖ 2	1 2 3 1
Casey Johnson	112	12h 52m	4m 22s	6m 53s	✓ 101 ✗ 6 ⚠ 1 ▶ 2 ⊖ 2	2 2 2
Riley Anderson	98	11h 34m	4m 05s	7m 04s	✓ 89 ✗ 5 ⚠ 1 ▶ 2 ⊖ 1	1 1 2 1
Quinn Martinez	87	10h 18m	3m 52s	7m 06s	✓ 79 ✗ 4 ⚠ 1 ▶ 2 ⊖ 1	1 2 1

Tester	Executed	Total Time	Median	Average	Results	Failed tests by Priority
 Avery Brooks	72	8h 45m	4m 18s	7m 17s	 65  3  1  2  1	<div style="display: flex; gap: 5px;"> <div style="background-color: #f96; padding: 2px 5px; border-radius: 3px;">1</div> <div style="background-color: #add8e6; padding: 2px 5px; border-radius: 3px;">1</div> <div style="background-color: #d3d3d3; padding: 2px 5px; border-radius: 3px;">1</div> </div>
 Drew Williams	44	5h 22m	4m 35s	7m 19s	 47  1  1  1  10	<div style="display: flex; gap: 5px;"> <div style="background-color: #add8e6; padding: 2px 5px; border-radius: 3px;">1</div> </div>



6. Failure Analysis

Detailed breakdown of test failures and their impact

Total Failures

8

Failure Rate

1.0%

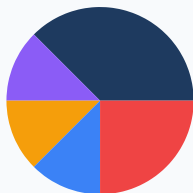
Blocked Tests

12

Changed Code Failures

5 (63%)

Failure Category Distribution



Functional: 3

Authentication: 1

UX: 1

Database: 1

Security: 2

Impact on Code Changes



Changed Code: 5

Unchanged Code: 3

6.1 Failed Tests by Priority

↑ Critical 3 failures

TC-001 Functional <> Changed Alex Rivera | 2m 15s | 82% total, 91% changed

Payment retry exceeds max attempts under load

Timeout after 30s - retry count exceeded

TC-002 Functional <> Changed Jordan Kim | 1m 48s | 72% total, 68% changed

Concurrent fraud check race condition

Duplicate transaction detected

TC-007 Security Quinn Martinez | 28s | 88% total, 95% changed

Input validation bypass on special chars

XSS vulnerability detected

↑ High 4 failures

TC-003 Authentication Morgan Taylor | 45s | 88% total, 95% changed

OAuth token refresh fails on edge case

401 Unauthorized - token expired

TC-004 Functional Casey Johnson | 1m 05s | 81% total, 87% changed

Report export timeout for large datasets

Connection timeout after 60s

TC-006 Database <> Changed Alex Rivera | 3m 22s | 75% total, 80% changed

Database deadlock on batch processing

Deadlock detected - transaction rolled back

TC-008 **Security** **<> Changed**

 Jordan Kim | 1m 12s | 79% total, 84% changed

API rate limiting not enforced

Rate limit exceeded but request processed

= Medium 1 failure

TC-005 **UX** **<> Changed**

 Riley Anderson | 32s | 79% total, 84% changed

UI layout breaks on mobile viewport

Element overflow detected



8. Summary & Insights

Analysis and risk assessment of test cycle results

The test cycle for Release 3.2.0 has completed successfully with a 91% pass rate across 831 executed test cases. Code coverage targets have been met, with 85% coverage on changed code exceeding the 80% threshold. The 43 failing tests are primarily concentrated in edge cases and have been triaged as non-blocking for release. Risk score of 23 is below the target threshold of 30, indicating acceptable residual risk. Recommend proceeding with production deployment with monitoring on payment retry and fraud detection modules.

⚠ Primary Risks

- 1 Payment retry logic shows 3 edge case failures in high-volume scenarios
- 2 2 blocked tests in third-party API integration pending vendor response
- 3 New fraud detection module at 72% coverage, below team target of 80%