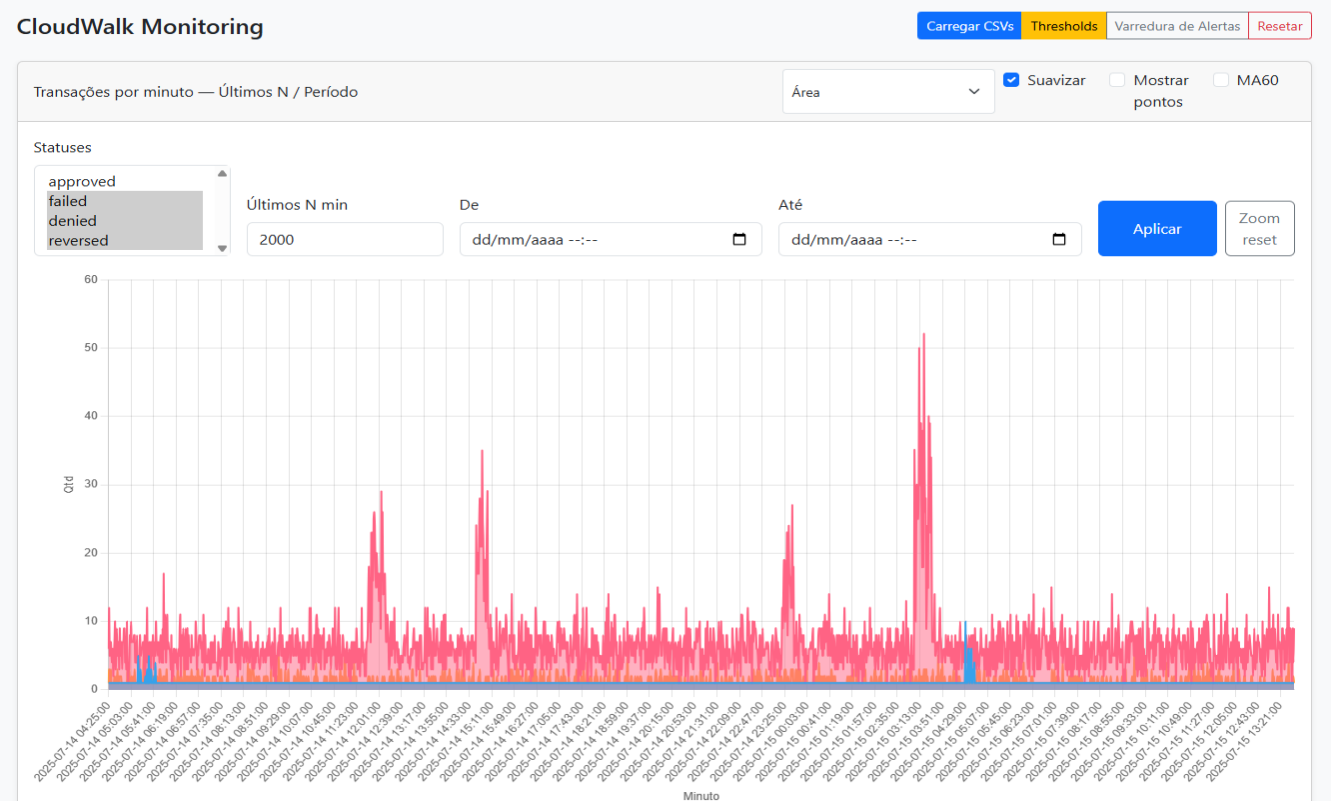
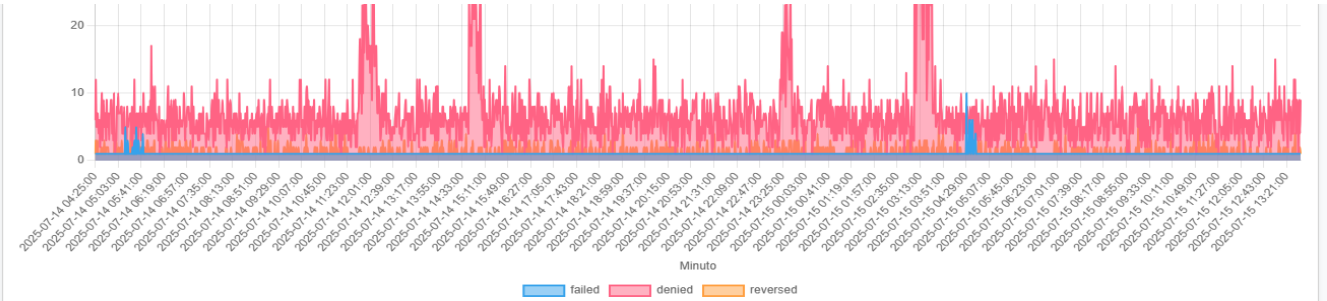
CloudWalk Monitoring Dashboard - Full Documentation

1. Transactions per Minute — Últimos N / Período



This chart displays the number of transactions per minute. It allows filtering by status, selecting custom ranges, and changing chart styles. It is powered by SQL queries against the transactions_minute_agg table, which is rebuilt after CSV imports.

2. Alerts in the Selected Period



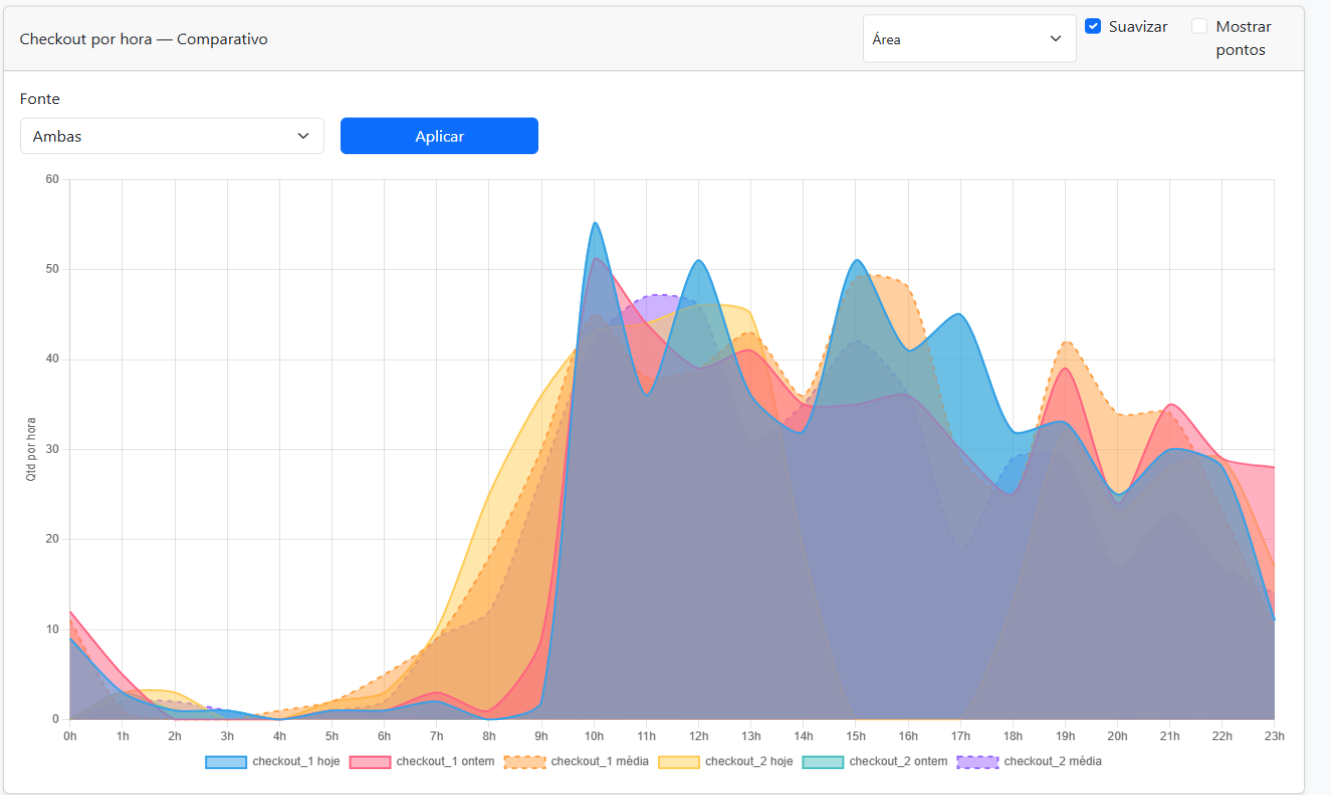
Alertas no período failed denied reversed Tamanho da página 10

Minuto	Tipo	Mensagem
2025-07-15 03:21:00	denied	denied denied taxa 31% > 2.5x baseline 7.2%
2025-07-15 03:05:00	denied	denied denied acima de 4.5σ (thr=21.93) | denied taxa 20.9% > 2.5x baseline 4.6%
2025-07-14 15:04:00	denied	denied denied taxa 23.8% > 2.5x baseline 6.6%
2025-07-14 14:48:00	denied	denied denied taxa 16.4% > 2.5x baseline 5%
2025-07-14 11:53:00	denied	denied denied acima de 4.5σ (thr=24.55) | denied taxa 27.1% > 2.5x baseline 5.3%
2025-07-13 21:47:00	denied	denied denied taxa 23.7% > 2.5x baseline 7.7%
2025-07-13 21:31:00	denied	denied denied acima de 4.5σ (thr=24.19) | denied taxa 31% > 2.5x baseline 5%
2025-07-13 11:49:00	denied	denied denied taxa 23.6% > 2.5x baseline 7.8%
2025-07-13 11:33:00	denied	denied denied acima de 4.5σ (thr=20.01) | denied taxa 38.9% > 2.5x baseline 4.9%
2025-07-13 09:11:00	denied	denied denied taxa 22.2% > 2.5x baseline 8.3%
2025-07-13 08:51:00	denied	denied denied acima de 4.5σ (thr=23.19) | denied taxa 38.9% > 2.5x baseline 5.3%
2025-07-12 17:10:00	denied	denied denied acima de 4.5σ (thr=21.84) | denied taxa 32% > 2.5x baseline 5%

1-12 de 12 Anterior Próxima

Alerts are calculated when the observed rate of failed/denied/reversed transactions deviates from baseline thresholds. The logic is: Historical baseline is calculated using averages over a configurable time window (default 60 minutes). Thresholds (sigma multiplier, minimum counts) are defined in the PHP get_alert_config(). If the observed rate exceeds threshold multipliers, an alert is inserted into alerts_log. The frontend queries alerts through the alerts action and displays them with filters and pagination.

3. Checkout per Hour — Comparative View



This graph compares transaction volume per hour between checkout sources: **checkout_1** and **checkout_2** data are imported from CSVs via import_checkout(). The PHP code aggregates transactions hourly into transactions_hour_agg. The UI allows switching between today's data, yesterday's data, and averages. Users can change chart style (area, line, stacked) and toggle smoothing or point markers.

Technical Appendix - PHP & MySQL Implementation

CSV Imports:
- cloudwalk.php?action=load triggers CSV downloads from GitHub (transactions, checkouts, auth_codes).
- Each CSV is parsed and inserted into corresponding tables (transactions_raw, auth_codes, etc.).
- A backfill ensures missing auth_codes are reconstructed from transactions if needed.

Database Schema:
- transactions_raw: stores raw transaction entries.
- auth_codes: stores authorization codes with timestamp, code, and status (or NULL if unknown).
- transactions_minute_agg: pre-aggregated transactions per minute, used for charts.
- alerts_log: keeps detected anomalies.

Alert Calculation:
- Alerts are based on statistical deviation (Z-score) and multipliers defined in settings.
- For each minute, the system computes baseline averages and compares them against observed values.
- If anomalies are found, they are logged in alerts_log and visualized on the dashboard.

Frontend Integration:
- Built with Bootstrap 5, Chart.js, and AJAX endpoints (PHP actions).
- The frontend requests JSON data from ?action=series, ?action=alerts, etc.
- Data is rendered dynamically, supporting zoom, filters, and chart type switching.