



CASE STUDY

Mercado Libre ensures 100% infrastructure uptime during Black Friday with Datadog observability at scale

ABOUT MERCADO LIBRE

Mercado Libre is Latin America's leading e-commerce platform, providing a marketplace for buying and selling, alongside a suite of integrated services including logistics, financial solutions, advertising, and online store services.



E-commerce



114,000+ Employees



Buenos Aires, Argentina



“Black Friday is a moment of truth for us. Our customers expect reliability no matter how intense the demand is, and Datadog helps us deliver that experience every single time.”

João Vale
Technical Account Manager
Mercado Libre

WHY DATADOG?

- Unifies observability across 30,000+ microservices and 200,000+ pods
- Native integration in every application through FURY developer platform
- Real-time anomaly detection and preventive escalation during surges
- Empowers developers with custom metrics and self-serve dashboards

CHALLENGE

Black Friday is one of the most important moments of the year for Mercado Libre. To protect growth and customer trust, the company needed complete visibility and the ability to respond instantly across its dynamic environment.

USE CASE

 **Serverless Monitoring**

 **Container Monitoring**

 **Infrastructure Monitoring**

 **Anomaly Detection**

 **Custom Metrics and Dashboards**

KEY RESULTS

**100%
infrastructure
uptime**

During peak Black Friday events

**↑ 20-40%
traffic**Handled without any critical incidents
or degradation**Record Gross
Marginal Value
(GMV) growth**

+32% growth in Brazil in YoY

**Greater
governance &
standardization**Across thousands of applications rapid
value delivery**Navigating unprecedented Black Friday demand surges**

Mercado Libre is the leading e-commerce and fintech platform in Latin America, providing millions of users with online shopping, digital payments, and logistics solutions across the region. For Mercado Libre, Black Friday is far more than a shopping holiday. It is a strategic opportunity to capture demand, reinforce market leadership, expand market share, and strengthen customer relationships. It is also the ultimate test of resilience.

On a typical day, the e-commerce platform processes around 900 million requests per minute, supported by 30,000+ microservices, 200,000+ pods, and 36,000 daily deployments. During Black Friday last year, traffic increased between 20% and 40% over this baseline, representing a massive volume surge managed seamlessly thanks to Datadog. The stakes are enormous. A single delay or disruption risks lost transactions, reputational impact, and customer churn.

That same quarter, Mercado Libre reported \$6.1 billion in net revenue (up 37% YoY) and \$58.9 billion in Total Payment Volume (up 33% YoY), underscoring the scale of its Black Friday operations and the critical role of Datadog in sustaining performance during record growth—a trajectory that continues to strengthen year over year



Empowering resilience with Datadog

Mercado Libre uses Datadog to prepare its infrastructure for peak demand, to detect and resolve issues in real time, and to analyze enriched data that makes the platform even more resilient year after year. And beyond Black Friday, Datadog is just as critical during other major retail moments such as Buen Fin in Mexico, Christmas, and Cyber Monday, ensuring performance and reliability whenever demand surges.

Mercado Libre has always invested in preparation, but Datadog elevated its ability to plan with precision. Weeks before Black Friday, teams use Datadog to analyze historical performance and simulate demand scenarios. This helps calibrate scaling strategies that balance both resilience and efficiency.

Observability is embedded directly into the company's developer platform, FURY, ensuring that every new application includes monitoring from the start. Developers can define custom metrics, map critical flows, and track business-relevant signals without extra effort. "Every engineer has the tools to anticipate issues and plan with confidence," says João Vale, Technical Account Manager at Mercado Libre. "That preparation makes all the difference when demand surges."

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When Black Friday begins, Datadog becomes the nervous system of Mercado Libre's operations. Real-time dashboards provide visibility into requests per minute, 4xx and 5xx errors, rate limits, and instance health. Machine learning-powered anomaly detection proactively identifies irregular patterns the moment they appear.

Datadog also complements Mercado Libre's broader SIEM solution by providing real-time visibility into abnormal application behavior. Through Datadog's Anomaly Detection feature, teams can identify and alert on unusual spikes in application traffic, ensuring that potential performance or security issues are surfaced instantly and resolved before they impact customers.

In one case, Datadog flagged an error pattern in a core application before it became critical. Because engineers received instant alerts, they were able to intervene proactively, protecting uptime and ensuring customers never noticed.

With Datadog observability, Mercado Libre sustained 900 million requests per minute with up to 40% higher load, maintained 100% infrastructure uptime, and experienced no critical incidents throughout the event. "Our ability to maintain uptime at this scale has become a competitive advantage," says Vale. "With Datadog, we know we can deliver the experience our customers deserve, even when demand reaches its peak."

Once Black Friday concludes, Mercado Libre captures insights to make its platform more resilient. Teams generate detailed post-event reports, consolidate learnings into dashboards, and refine operational playbooks. Datadog makes it easy to pinpoint where optimizations worked, where scaling was most efficient, and where risks were avoided. "The insights we capture after Black Friday allow us to keep raising the bar," adds Vale. "Every year we come back stronger, more efficient, and more aligned around our customers."

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In addition to technical resilience, Mercado Libre also achieved remarkable business results: its Brazil operations grew by 32% in local currency year over year, underscoring the platform’s continued leadership through peak season.

Unexpected benefits also emerged: Standardized observability practices across thousands of services improved governance, clarified ownership, and simplified collaboration between IT and business teams. Datadog helped unify processes across 20,000+ engineers, while indirectly benefiting the other 80,000+ professionals who rely on platform reliability for their daily work.

Turning peak demand into a competitive advantage

Today, Mercado Libre is able to transform the most demanding moment of the year into a demonstration of leadership and customer focus. Observability provides the real-time clarity and developer autonomy needed to deliver at extraordinary scale.

Because of its partnership with Datadog, Mercado Libre has strengthened its operations and customer experience across multiple dimensions. The company has prevented downtime and protected revenue during periods of record demand, while maintaining customer trust by eliminating critical incidents. Consistent, reliable performance has led to improved conversion rates, and real-time insights have enabled teams to scale efficiently and optimize costs. With a single source of truth, Mercado Libre has also fostered stronger collaboration across teams, aligning efforts around shared visibility and performance goals. “With Datadog, we can see everything, act instantly, and most importantly, give our customers the seamless experience they expect and deserve,” says Vale.

Black Friday is no longer just a stress test for Mercado Libre. It has become a showcase of its ability to deliver at massive scale while protecting customer trust. By combining Datadog’s observability with its own culture of excellence, and by leveraging the elasticity of AWS to handle peak workloads, Mercado Libre has turned peak demand into a strategic advantage. What once carried risks of downtime and bottlenecks is now proof of resilience, innovation, and customer commitment. “Black Friday is a moment of truth for us,” says Vale. “Our customers expect reliability no matter how intense the demand is, and Datadog helps us deliver that experience every single time.”

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