

GLOBAL TRAFFIC MANAGEMENT FOR BIDA

Optimizing Traffic Distribution, Enhancing Performance, and Mitigating Security Threats

Abstract

This report analyzes the implementation of Cloudflare's Global Traffic Management (GTM) on bidaquickserver.org to optimize traffic distribution and enhance security. The GTM system efficiently routes traffic to Cloudflare's edge servers, reducing latency and balancing server loads. It also mitigates DDoS attacks and malicious traffic, with 2.21k requests blocked by Cloudflare's WAF. The system ensures high availability, fast performance, and robust security, enabling bidaquickserver.org to handle high traffic volumes and potential threats with minimal disruption.

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Version: 1.1

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Current Status:

- Website is operating normally, with Cloudflare managing traffic efficiently and mitigating potential threats.
- Visitor engagement continues to be steady, with no major fluctuations in traffic at this moment.
- **Security systems** (WAF, Bot Filtering, and Rate-Limiting) remain active, ensuring the site is protected from malicious traffic and attacks.

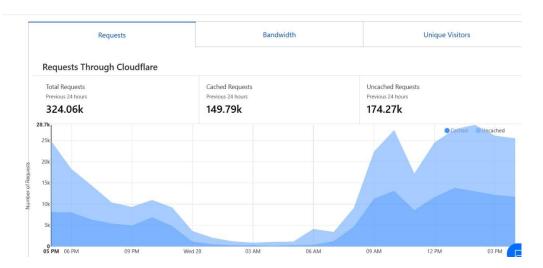


Figure 1: Cloudflare Traffic Analysis for bidaquickserver.org

1. Traffic Volume Analysis

Date: May 27-28, 2025Timeframe: 24-hour period

- Total Requests: 324.06k requests received through Cloudflare.

- Cached Requests: 149.79k requests served from Cloudflare's cache, reducing the load on the origin server.
- Uncached Requests: 174.27k requests forwarded to the origin server, indicating higher demand for dynamic content.



Figure 2: Unique Visitors Traffic for bidaquickserver.org

2. Peak Traffic Times

- Timeframe: 12:00 PM 3:00 PM
- **Traffic Surge**: Significant peak observed during this time, indicating high user activity or possible targeted bot traffic.
- **Key Insight**: Caching played a critical role in handling the peak traffic, ensuring that requests were served quickly without overwhelming the origin server.

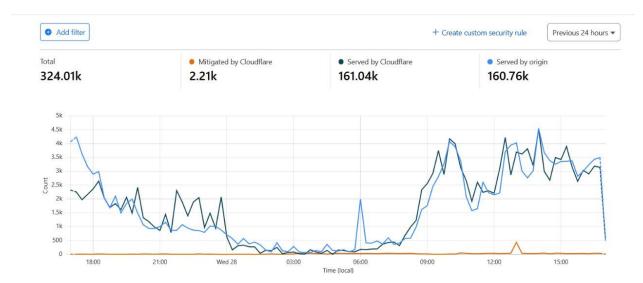


Figure 3: Cloudflare Traffic Mitigation and Served Requests for bidaquickserver.org

3. Unique Visitor Analysis

- **Date**: May 27-28, 2025
- **Total Unique Visitors**: **2.38k** unique visitors in the 24-hour period.
- Peak Visitor Times: The highest traffic was recorded at 3:00 PM with 389 unique visitors in a single hour.

Low Traffic Times: Observed lower visitor activity during the late-night and early morning hours, with a minimum of 40 unique visitors per hour.

4. Request Handling by Cloudflare

- **Total Requests Served by Cloudflare**: **161.04k** requests served directly from Cloudflare's edge servers, ensuring reduced load on the origin.
- Requests Served by Origin Server: 160.76k requests were forwarded to the origin server for processing, indicating dynamic content or required interactions.

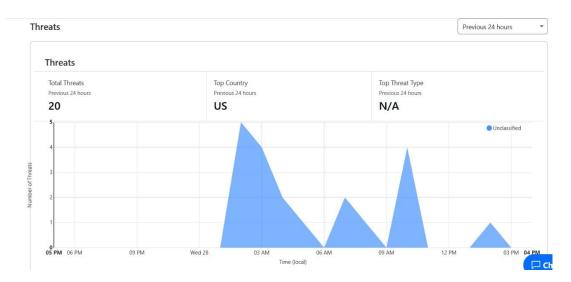


Figure 5: Threats Analysis for bidaquickserver.org

5. Traffic Mitigation

- **Mitigated Requests**: **2.21k** requests were blocked by Cloudflare's Web Application Firewall (WAF), effectively filtering out bad or malicious traffic.
- **Mitigation Impact**: Despite the blocked requests, the majority of traffic was successfully handled, allowing the site to function smoothly.