

# How Rooter Transitioned to MongoDB Atlas for Enhanced Gaming Performance and Scalability



## Overview



Rooter, India's leading game streaming and esports platform, faced scalability issues with their existing MySQL database. Aiming for improved performance and flexibility, they partnered with Mydbops to migrate to MongoDB Atlas. Despite challenges with data transformation and schema adjustments, Mydbops' meticulous planning and execution ensured a smooth transition, allowing Rooter to efficiently manage burgeoning data needs and deliver an enhanced gaming experience.

**10ms**

**Game Latency**  
Faster game-state retrieval and updates for players.

**Horizontal**

**Scalability**  
Now supports a growing number of game players automatically.

**Zero**

**Data Loss**  
Real-time data sync kept player records consistent during the move.

**Global**

**Distribution**  
Game data is now placed closer to players to cut down delays.

MySQL

MongoDB Atlas

Consulting Services

## About Rooter

Rooter is a large-scale sports entertainment and gaming platform in India, built around live streaming, creator-led sports content, and interactive fan engagement. It has reached a wide audience across the country and operates at the intersection of sports media, gaming, and community, making it a strong example of a digital platform with meaningful user scale.



As India's leading game streaming platform with 75M+ installs, we handle massive traffic spikes during tournaments. Mydbops has been crucial in managing our database performance and costs for 4+ years. Their proactive monitoring, query optimization, and 24/7 support have helped us achieve seamless scaling. They deliver excellent technical expertise while keeping costs reasonable.

**Rishabh Jain**

Engineering Manager, Rooter



Deployment Type  
**Cloud-Based Deployment**

Database Stack / Services Used  
**Migration from MySQL to MongoDB Atlas**

Objective / Outcome  
**Drop Latency to 10ms with improved ability to scale**

## Business Challenges

### Overview

Moving from a traditional database to a new system created several business challenges, primarily centered around keeping the games online and protecting player data during the transition.

- ➊ **Handling Growing Player Data:** The old MySQL setup struggled to keep up with the increasing number of active players, which threatened the user experience.
- ➋ **Keeping Games Online During the Move:** Rooter had to move millions of records without losing player data or causing long service interruptions. Real-time data sync was required to keep everything accurate.
- ➌ **Adapting to Game Changes:** The strict structure of the old database made it difficult and slow for the developers to add new game features or adapt to changing requirements.
- ➍ **Data Consistency:** Changing how player data was stored from traditional tables into a new format had to be done carefully to ensure no player accounts or game states were corrupted.

### Goals

- Achieve database scalability and flexibility.
- Improve the gaming user experience through better performance.
- Simplify how data is managed and organized.
- Keep service interruptions to a minimum during the database move.
- Maintain complete data security and integrity.

## Solution Provided by Mydbops

Mydbops managed the transition by focusing on keeping the games running smoothly and securing player information:

- **Planning for Growth:** Reviewed the old database and designed a new structure that fits how game state data and player interactions actually work.
- **Safe Data Migration:** Created specific scripts to move player data safely. They adjusted the application code so the games could connect correctly to the new database without issues.
- **Performance Tuning:** Set up indexing and tuned the new database to make the game run as fast as possible.
- **Securing Player Data:** Set up strict security rules, including IP restrictions and encryption, to keep sensitive player information safe and meet industry standards.
- **Pre-Launch Testing:** Tested the new setup extensively to make sure the data was accurate and the game applications worked correctly before making the final switch.

### Zero-Downtime Migration Process



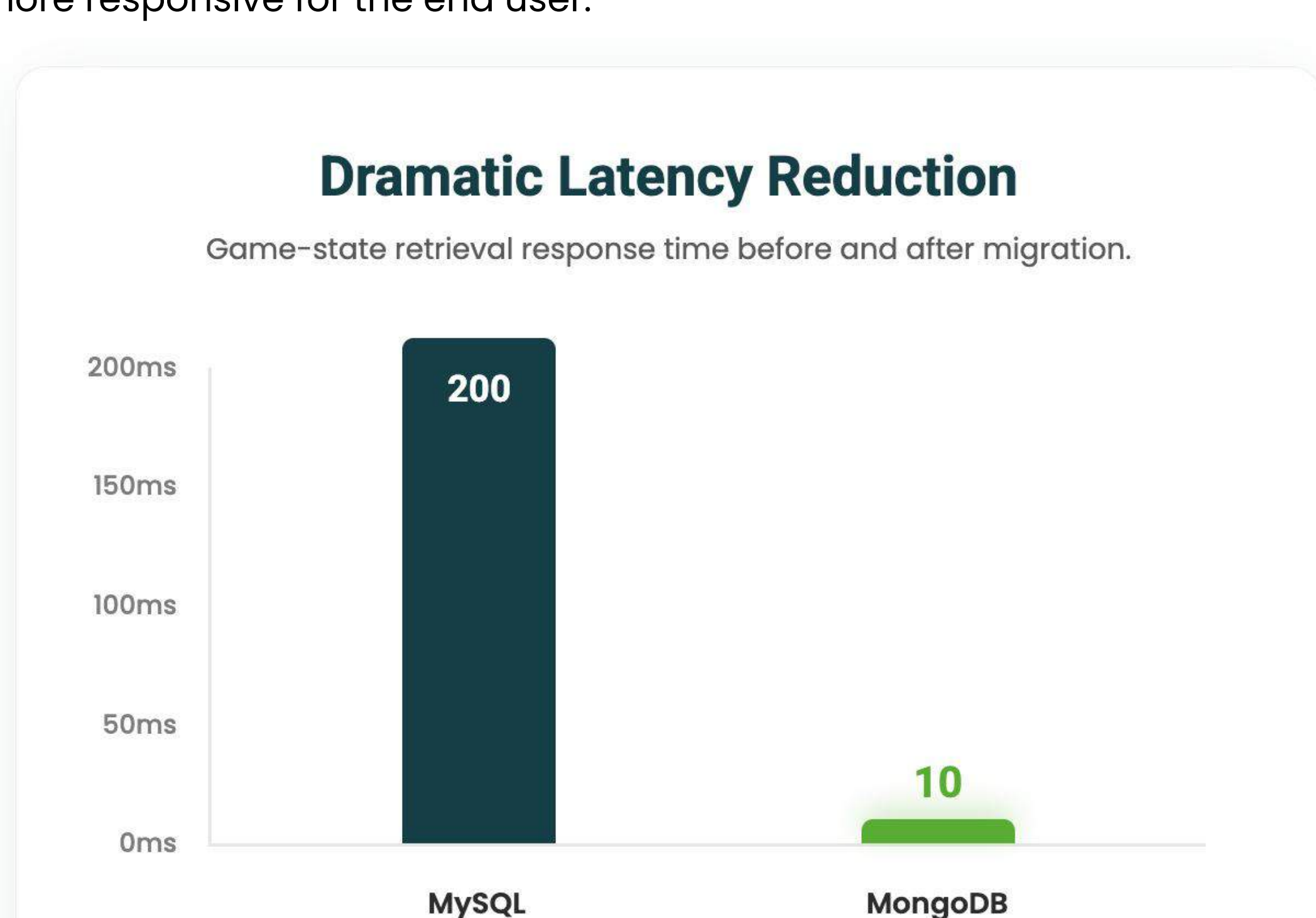
### Infrastructure Shift

Previous Setup (MySQL)	MongoDB Atlas <span style="color: green;">NEW ARCHITECTURE</span>
<b>Scalability</b> Limited Vertical Scaling	<b>Scalability</b> Horizontal Scalability (Sharding)
<b>Response Time</b> 200ms Latency	<b>Response Time</b> 10ms Latency
<b>Data Location</b> Centralized	<b>Data Location</b> Global Distribution Clusters
<b>Feature Adaptation</b> Rigid & Hard to change	<b>Feature Adaptation</b> Flexible Schema for rapid updates

## Results & Impact

### Key Outcomes

- ✔ **Faster Gaming Experience**  
By changing how game-states are retrieved and updated, latency dropped from 200ms to just 10ms. This made the games much more responsive for the end user.



- ✔ **Ready for More Players**  
The new setup allows Rooter to scale horizontally. As the number of players grows, the database easily supports the extra load without slowing down the game.
- ✔ **Faster Game Updates**  
Because the new database structure is flexible, Rooter developers can easily add new game features and adapt to player requirements without rewriting the entire database structure.
- ✔ **Global Reach for Players**  
Using global clusters, Rooter can now store game data geographically closer to where the players are actually located, which further cuts down on game delays.

- ✔ **Easier Maintenance**  
Automated backups and monitoring mean the Rooter team spends less time fixing database issues and more time improving their games. Mydbops Managed Services continues to provide system inputs to keep things running well.

Business Impact Area	Before Migration	After MongoDB Atlas
<b>Peak Traffic Handling</b>	✘ Slower game response	✔ Auto-scales automatically
<b>New Feature Rollouts</b>	✘ Delayed by rigid DB schema	✔ Rapid deployment (Schema-less)
<b>Global Player Experience</b>	✘ High latency across borders	✔ Data localized via Global Clusters
<b>Database Maintenance</b>	✘ High manual intervention	✔ Automated backups & monitoring

### Conclusion

The move from MySQL to MongoDB Atlas gave Rooter the performance speed and flexibility they needed as a growing gaming company. Careful planning meant the transition went smoothly despite early challenges with data transformation. Rooter is now in a strong position to manage their growing data needs, keep up with industry changes, and give their players a much better gaming experience.

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