

## ***What is Whaleal Platform ?***

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# Introduction

**Whaleal Platform** is a comprehensive database management platform specifically designed for MongoDB. Its goal is to simplify database management while providing robust operational capabilities.

**Whaleal Platform** integrates key functions such as monitoring, management, maintenance, data backup, and recovery, offering cross-platform support, including Kubernetes container clusters. This allows users to efficiently manage and optimize their MongoDB databases, improving reliability and performance.

## Core Features

### Database Management

MongoDB List

Project 

Select

Type 

All






Cluster Name

Node Name

OS 

Select

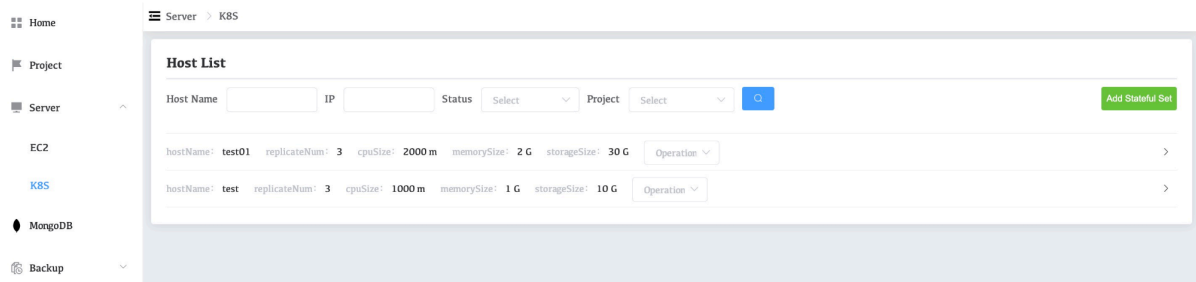
Create Cluster

Cluster Name	Type	Create Time	Status	Version	Project	Nodes	OS	Operation
server100:47019	Standalone	2024-09-12 11:10:00	Health	4.4-Cum		1		Operation <div></div>
server100:57019	Standalone	2024-09-12 11:09:40	Health	4.4-Cum		1		Operation <div></div>
server190:47019	Standalone	2024-09-11 13:38:46	Health	4.4-Cum		1		Operation <div></div>
server190:57019	Standalone	2024-09-11 13:38:24	Health	4.4-Cum		1		Operation <div></div>
demo	Replica Set	2024-09-09 17:38:37	Health	4.4-Cum	public	2		Operation <div></div>

**Whaleal Platform offers an intuitive interface, enabling users to easily create and manage MongoDB databases with functionalities like:**

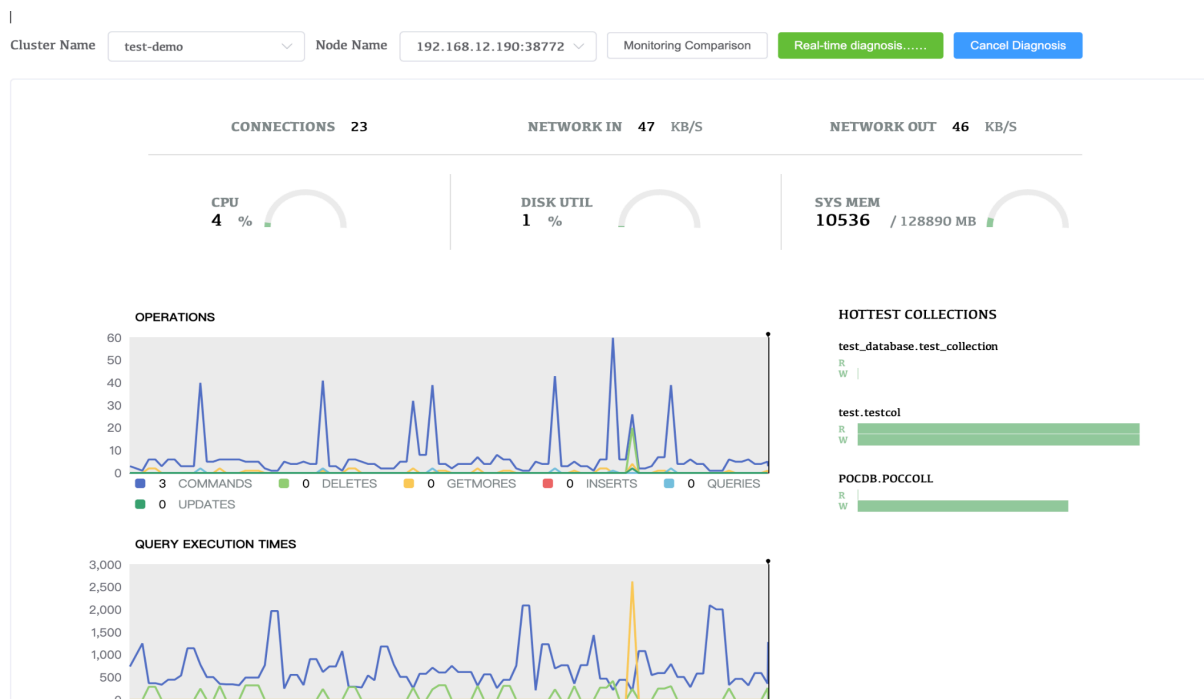
- Database creation, deletion, and configuration.
- Database upgrades and downgrades.
- Support for multiple operating systems, including Linux and Amazon platforms.
- Comprehensive access control for secure and precise user operations.

## Cluster Management & Kubernetes Support



Whaleal Platform supports MongoDB cluster deployment in Kubernetes environments, ensuring efficient operation in cloud-native architectures. It manages cluster resources by coordinating and automating configuration and maintenance tasks.

## Real-Time Monitoring & Analytics



The platform provides real-time monitoring of the database, offering detailed performance data to ensure database health:

- Monitoring of CPU, memory, and disk usage.
- Tracking essential MongoDB metrics like connections and operations.
- Slow query analysis to help identify and optimize performance bottlenecks.

- Diagnostic tools for common issues.

## Database Backup & Recovery

Backup

Create Repository

Backup Task Name	Source MongoDB Cluster	Strategy	Sync Type	Status	Next BackUp Time	Operation
demo	test-demo	frequency: 1	ddt	RUN	Next backup 2024-09...	Operation

Event:

Event Log

Full MongoDB Cluster: server190:47019

Oplog MongoDB Cluster: server190:57019

Initialized: true

DDT Host Name: server190

DDT MongoDB Name: server190

Advance Configuration:  
{ "cache\_size\_57019": "4096", "cache\_size\_47019": "4096", "ddt\_full\_jvm\_xmx": "4096", "ddt\_replay\_oplog\_jvm\_xmx": "4096", "ddt\_oplog\_jvm\_xmx": "4096" }

Task Log:

back-oplog\_test-demo

back-full\_test-demo

Whaleal Platform ensures data safety with its comprehensive backup and recovery features:

- Scheduled automatic backups to protect data across scenarios.
- Real-time recovery to quickly restore the database in case of failures.

## Intelligent Alert System

The platform includes a smart alert system that notifies users when performance issues or abnormalities occur:

- Alerts via email.
- Customizable alert rules to fit specific operational needs.

Alert Message

Open Alert

Alert Settings

MSG

Time Range

2024/08/14 10:40 to 2024/09/13 10:40

ObjectName	Alert Type	MSG	Create Time
> server100	Host	server100 trigger Continuous Time Warning Strategy{Interval Time (Seconds)=60{"monitoringMetric": "dis...	2024-08-28 23:50:08
> server100	Host	server100 trigger Continuous Time Warning Strategy{Interval Time (Seconds)=60{"monitoringMetric": "dis...	2024-08-28 22:50:14
> server100	Host	server100 trigger Continuous Time Warning Strategy{Interval Time (Seconds)=60{"monitoringMetric": "dis...	2024-08-28 21:50:17
> server200	Host	server200 trigger Continuous Time Warning Strategy{Interval Time (Seconds)=60{"monitoringMetric": "dis...	2024-08-28 20:56:44
> server100	Host	server100 trigger Continuous Time Warning Strategy{Interval Time (Seconds)=60{"monitoringMetric": "dis...	2024-08-28 20:50:05
> server100	Host	server100 trigger Continuous Time Warning Strategy{Interval Time (Seconds)=60{"monitoringMetric": "dis...	2024-08-28 19:50:15
> server100	Host	server100 trigger Continuous Time Warning Strategy{Interval Time (Seconds)=60{"monitoringMetric": "dis...	2024-08-28 18:50:11
> server100	Host	server100 trigger Continuous Time Warning Strategy{Interval Time (Seconds)=60{"monitoringMetric": "dis...	2024-08-28 17:50:17
> server100	Host	server100 trigger Continuous Time Warning Strategy{Interval Time (Seconds)=60{"monitoringMetric": "dis...	2024-08-28 16:49:52
> server100	Host	server100 trigger Continuous Time Warning Strategy{Interval Time (Seconds)=60{"monitoringMetric": "dis...	2024-08-28 15:50:13

Total 914

< 1 ... 87 88 89 90 91 92 >

Go to 91

Database Query & Data Operations

← Back

test.testcol

Node Name

192.168.12.100:38771

NS

test.testcol

spread

FILTER

{}

Find

Explain

View Data

Meta Data

Meta information

Index information

copy

```
{
  name: "testcol",
  type: "collection",
  options: {},
  info: {
    readOnly: false,
    uuid: {
      type: 4,
      data: "WwCCfGsiSc+x4B0pi1JMUA=="
    }
  },
  idIndex: {
    v: 2,
    key: {

```

Whaleal Platform supports convenient DQL (Data Query Language) operations, allowing users to perform MongoDB queries directly within the platform for easy data analysis and manipulation.

## Online Case Support

The platform offers quick online support, enabling users to open a case with the Whaleal team directly from the platform to resolve issues efficiently.

## System Architecture

Whaleal Platform uses a modular architecture to ensure scalability and high availability. The key modules include:

- **Database Management Module** for database creation, configuration, and access control.
- **Cluster Management Module** for Kubernetes support and cluster operations.
- **Monitoring & Analytics Module** for real-time database monitoring and analytics.
- **Alert Module** for intelligent health monitoring and alerts.
- **Backup & Recovery Module** for automatic backups and recovery tasks.

## Deployment & Compatibility

Whaleal Platform supports multiple deployment methods, including local servers and cloud environments, with special compatibility for Kubernetes clusters. It runs smoothly on major operating systems like Linux and Windows. Detailed deployment documentation and automated installation tools help users quickly launch and configure database services.

## Security & Compliance

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Cluster Information

Node Information

Safety Management

Event Log

User	Role	Auth	Audit	Add User		
User Name	Auth DB	Credentials	Role	ClientSource	ServerAddress	
test	admin	[{"SCRAM-SHA-1": {"iteratio...	[{"role": "root", "db": "admin...			
wapAdmin	admin	[{"SCRAM-SHA-1": {"iteratio...	[{"role": "root", "db": "admin...			

Total 2

<1>

Go to 1

Whaleal Platform prioritizes database security with features like:

- Role-based access control ensuring authorized access only.
- Data encryption for both transmission and storage.
- Compliance with major data security and privacy regulations.

## Future Development

The platform will continue advancing with future updates, including:

- AI-driven performance optimization.
- Enhanced automation for fault recovery.
- Greater data integration and cross-platform support.

## Summary

Whaleal Platform provides a robust and flexible backup and recovery solution for MongoDB databases, combining the strengths of full and incremental backups. It ensures that users can quickly recover their systems in case of data loss or corruption, minimizing potential damage. With customizable backup and deletion policies, users can optimize storage and select appropriate recovery points based on business needs, ensuring continuity.

For any MongoDB user requiring high availability and data protection, Whaleal Platform is a reliable backup and recovery tool. Whether it's the fast recovery of full backups or the efficient protection of incremental backups, Whaleal Platform meets stringent demands for data security and availability.