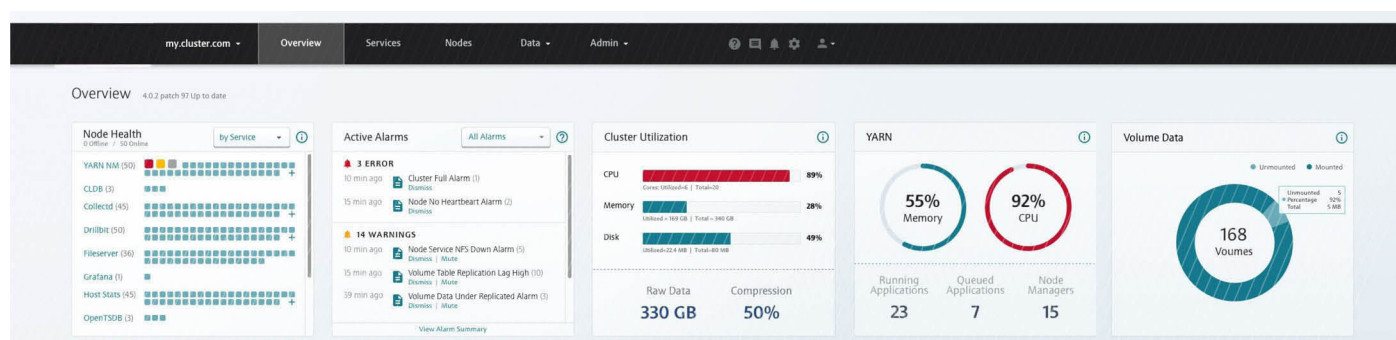


# CONTROL SYSTEM WITH HPE EZMERAL DATA FABRIC

Driving the next-generation infrastructure agility



## Benefits

- Quick glance cluster dashboard
- Resource utilization by node and service
- Capacity planning using storage utilization trends and per tenant usage
- Easy to set up replication, snapshots, and mirrors
- Manage cluster events with related metrics and expert recommendations
- Direct access to default metrics and prefiltered logs
- Manage event store in the HPE Ezmeral Data Fabric and configure replicas
- Access to databases in the HPE Ezmeral Data Fabric from tables, indexes, and change logs
- Intuitive mechanisms to set up volume, table, and stream access controls

The control system in the HPE Ezmeral Data Fabric is a simple and unified interface for managing all data for any infrastructure with 24x7 monitoring. Using control system from HPE, administrators have greater control of the end-to-end lifecycle of cluster management. Control system uses intuitive workflows that simplify platform configurations for business continuity and provides built-in security. The control system works by correlating events with metrics and logs to provide actionable recommendations.

## MONITORING CLUSTER HEALTH

Administrators today are looking for not only high-level cluster health indicators but also granular information for making quick and effective decisions. The control system gives administrators an out-of-the-box overview of critical metrics to determine cluster health. This coupled with co-related alarms on a single timeline gives administrators all the information they need to do root-cause analysis. The control system also shows overall usage trends to help with common administrative tasks around cluster planning and enhanced resource utilization.

## VOLUMES, TABLES, AND STREAMS TOGETHER

HPE Ezmeral Data Fabric offers a unified management interface for managing volumes, tables, and streams. As a result, it's now easier to build powerful applications with granular data access control on top of a global namespace.

## LEVERAGING CORE ENTERPRISE CAPABILITIES

Customers choose HPE Ezmeral Data Fabric for built-in high availability, disaster recovery, and data protection features. The control system with HPE Ezmeral Data Fabric makes these workflows easier with a redesigned interface and makes it intuitive for administrators to configure replication, snapshots, and mirrors with preset defaults and single clicks.

## ACTIONABLE RECOMMENDATIONS

HPE Ezmeral Data Fabric is an administrator's choice due to its ability to self-heal and recover from critical events. With categorized alarm severity levels administrators now have

a way of knowing which events they need to worry about and which ones the system takes care of. Additionally, actionable recommendations per event, integrated documentation, and a log viewer give administrators more than one way to find the underlying cause of the problem and take quick action wherever required.

KEY FEATURES

**User-centric design:** With a laser focus on user experience, HPE Ezmeral Data Fabric has been designed to streamline common user workflows. All user actions, built with preset defaults and categorized with common templates, make these actions intuitive and repeatable with less learning.

**New dashboard with alarm co-relation:** The cluster dashboard is the most used part of the application. In the HPE Ezmeral Data Fabric, it offers an overview of critical cluster information, including utilization and resource metrics, YARN statistics, node health by service and by topology, and active alarms. The active alarms are now part of the metric chart timeline, helping administrators identify the data points around critical cluster events. Each alarm details the entities affected, a description of the alarm, and recommended next steps to resolve the issue.

**Template-based workflows for volume, table, and stream management:** The HPE Ezmeral Data Fabric user interface benefits from a template-based workflow design, which makes all common data management

actions intuitive. Whether the user wants to create a volume, table, or stream, the experience is consistent and seamless, drastically reducing the learning curve for day-to-day actions.

The user interface of the HPE Ezmeral Data Fabric control system provides a view of capacity trends and resource usage and our scalable monitoring engine backs it up. Administrators can not only plan for overall cluster capacity but also see the top volumes used, users/groups using the most resources, and how usage is trending per volume.

HPE Ezmeral Data Fabric also helps you track resource utilization (CPU and memory) per node and identify heavily used nodes that can affect topology mappings. Trend analysis also visualizes all other host metrics. The database and event store from HPE Ezmeral Data Fabric help identify hotspots. For YARN, apart from knowing the overall resource manager metrics for container allocation, administrators can quickly see top YARN queues and find the busiest and least busy user queues. For services like Drill, it shows granular metrics for fine-grained analysis of query execution and resource impact.

**Direct access to services logs:** Control system from HPE helps users troubleshoot issues by pinpointing the necessary logs with a single click. Depending on whether you want to look at specific services logs or services logs on a single node, it has prebuilt filters with these parameters that help drastically reduce mean time to repair (MTTR).

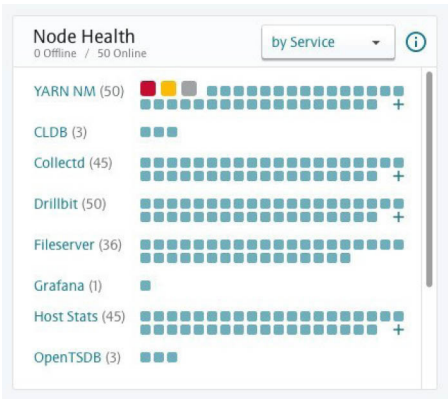


FIGURE 1. Quick glance at Node Health by service or topology

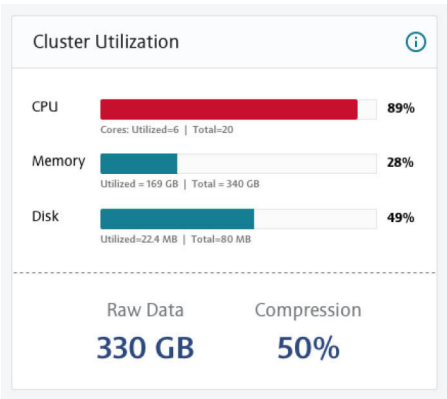


FIGURE 2. Understand Cluster Utilization and analyze resource allocation

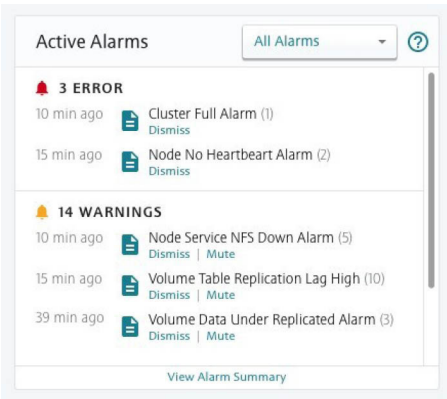
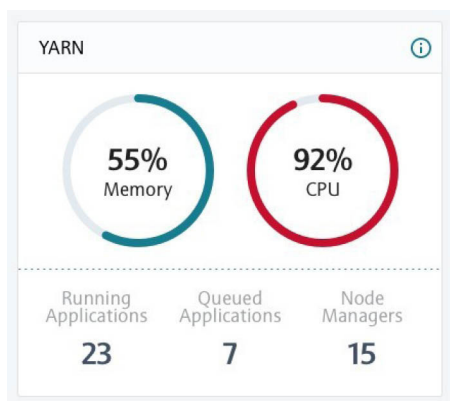


FIGURE 3. Keep pulse of your cluster by monitoring critical cluster events

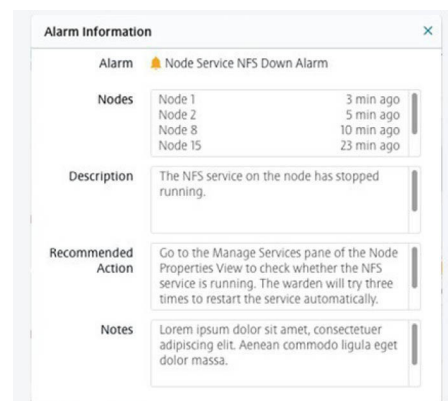




**FIGURE 4.** Monitor YARN applications and resource usage



**FIGURE 5.** Get up-to-date information on CPU, memory, and disk utilization by nodes



**FIGURE 6.** Manage alarms by reviewing impact and taking recommended action



**FIGURE 7.** Experience a consistent workflow design for files, tables, and streams and drastically reduce day-to-day operational complexity

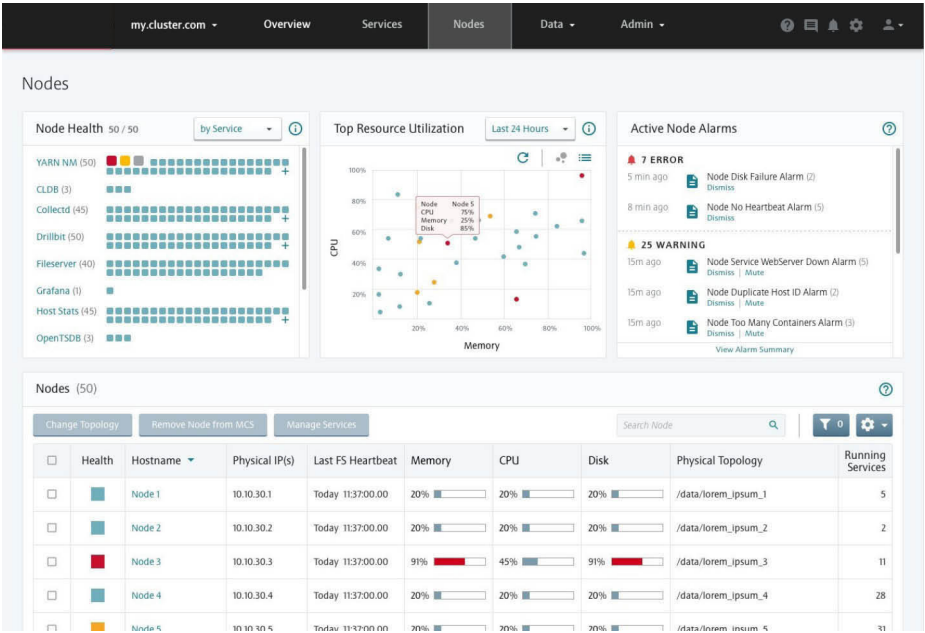


FIGURE 8. Monitor cluster health and node-level resource utilization in Nodes view

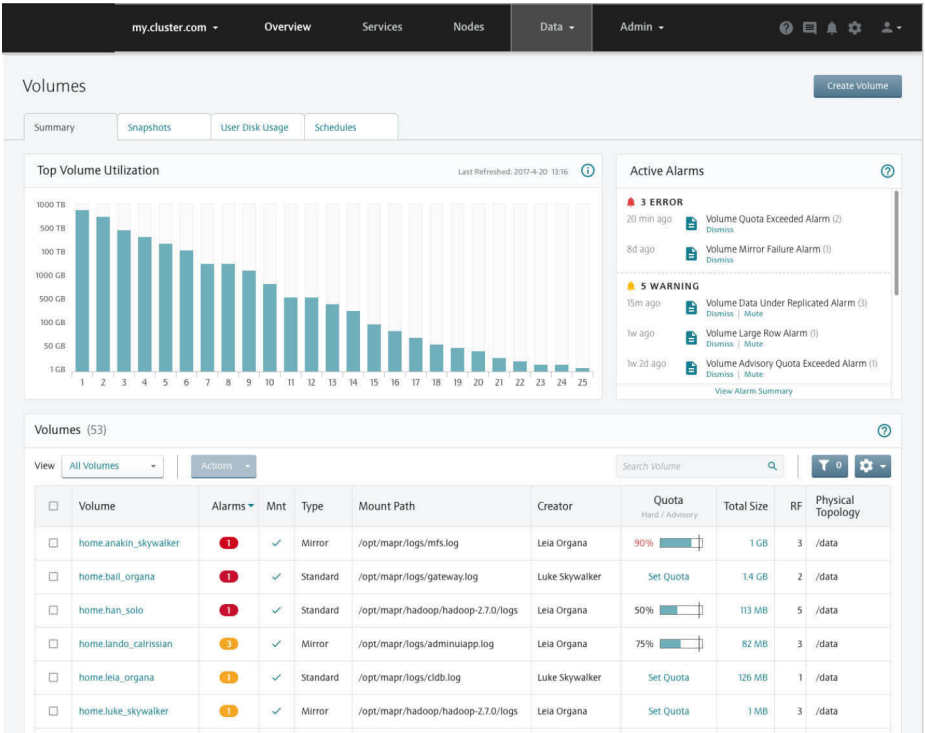


FIGURE 9. Analyze where the data is with Volumes view. See top consumers, trends, and data distribution



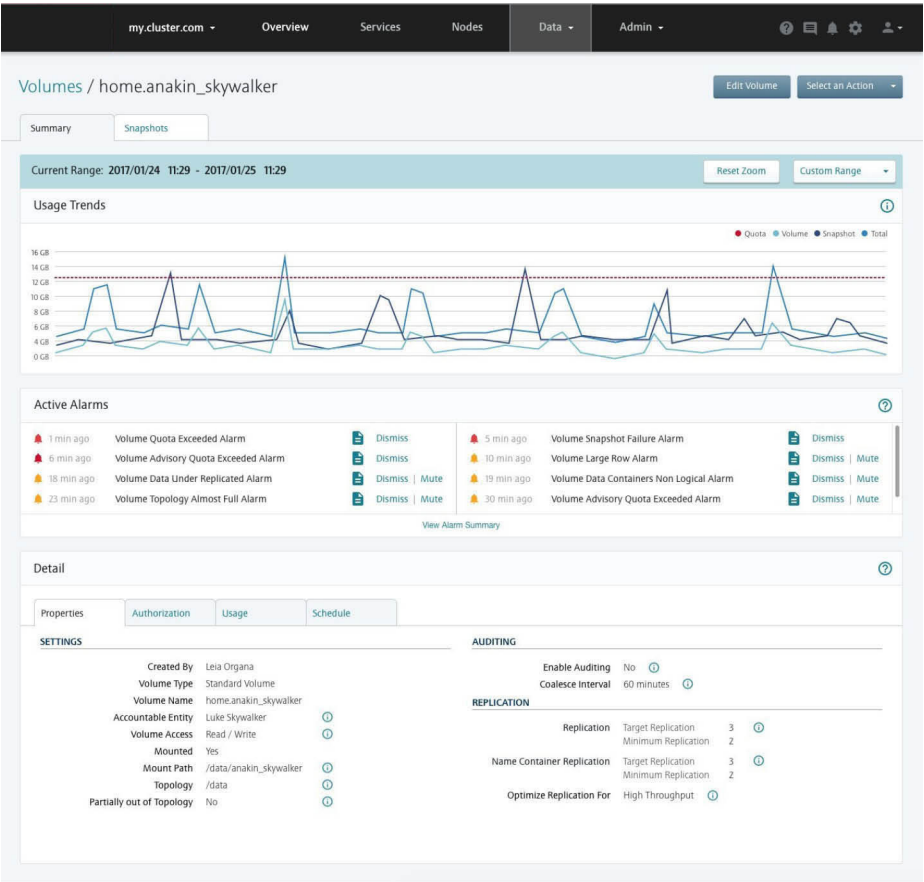


FIGURE 10. Review Volumes and analyze usage trends, alarms, and configurations at a per tenant level

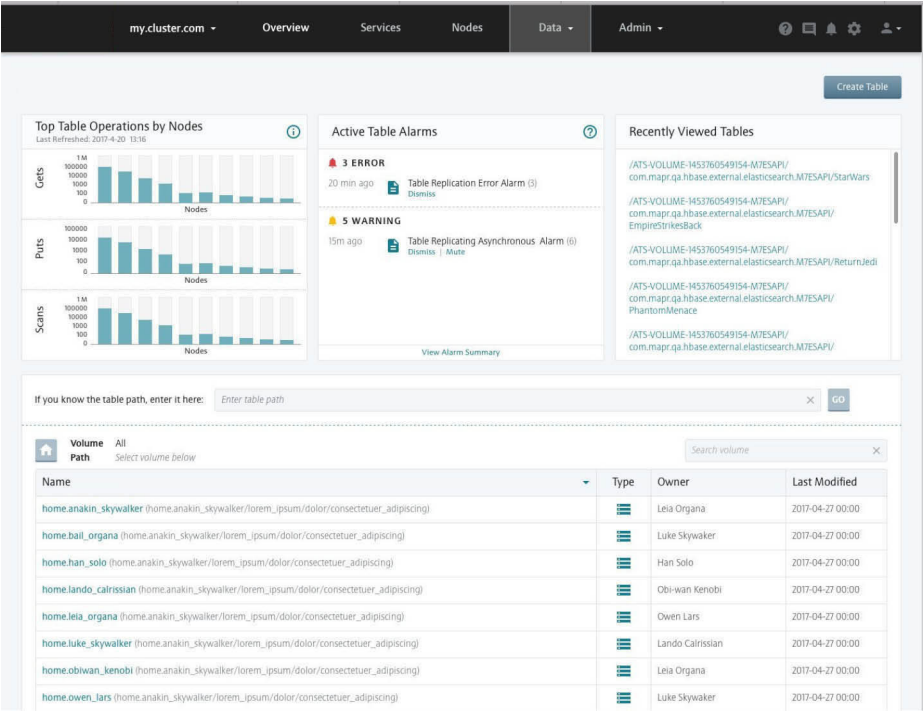
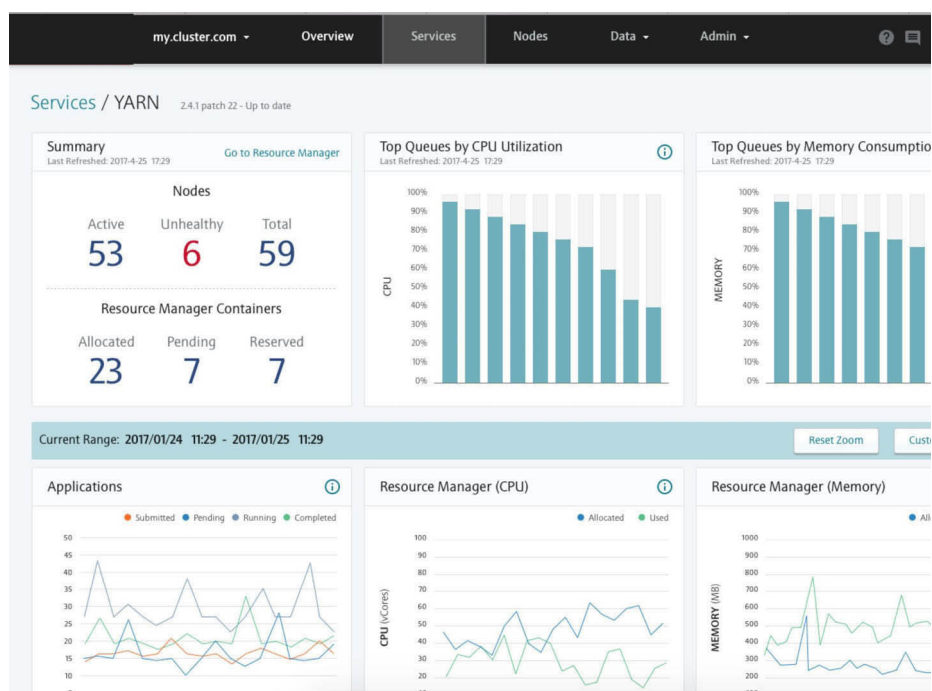


FIGURE 11. Monitor database tables with HPE Ezmeral Data Fabric





**FIGURE 12.** Analyze, troubleshoot, and help optimize your Big Data jobs from a single pane of glass

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