Datasheet

OnCommand Unified Manager

Continuous analysis and proactive alerting on storage incidents

Key Benefits

Simplify Management Tasks

Increase user productivity with a dashboard view of the health of your NetApp® storage: availability, capacity, performance, and data protection relationships. Highly scalable software streamline data infrastructure management:

- Single sign-on for all clusters managed by NetApp OnCommand® Unified Manager
- One place to add or see health, capacity and performance events for all monitored clusters.
- Ability to view frequently referenced storage objects through the Favorites dashboard
- Simple yet powerful: built in default alert policies follow best practices.

Boost Efficiency

Monitor petabytes of data effectively with existing staff.

- Optimize storage to using performance data keep pace with fluctuating business demands.
- Receive automatic alerts for health and performance problems with details about possible causes, potential impact, and suggestions for corrective action.
- Get vital operational reports and create custom reports

The Need to Streamline Data Management

CIOs recognize data as their most valuable asset, because it drives productivity, innovation, and business success. Yet data infrastructure management remains a challenging undertaking with high data growth, the continued shift toward IT generalist staff, and the transformation to a hybrid enterprise.

Scale-out storage helps IT keep pace with rapid storage growth. However, a more comprehensive approach to storage infrastructure management is now required: one that incorporates modern business practices to optimize round-the-clock global operations, with greater flexibility and higher levels of integration. Maintaining optimal performance is now a critical component of data management, requiring tools that deliver actionable information to keep storage systems running at their best for superior service delivery.

Get a Complete View of Storage Health and Comprehensive Monitoring, Discovery and Alerting

OnCommand Unified Manager with performance management built in

NetApp ONTAP® software builds the foundation for a Data Fabric, making it easy to move your data where it's needed across flash, disk, and cloud resources. OnCommand Unified Manager provides a comprehensive data management solution for your NetApp All Flash FAS, FAS and Select storage, and is included with ONTAP:

- NetApp OnCommand Unified Manager is specifically designed to support the innovative capabilities of ONTAP software. It allows you to easily monitor the health, availability, capacity, performance, and data protection status of your NetApp clustered storage and provides alerts and notifications for proactive management.[1] It also provides timely system analysis and recommends solutions to performance issues.
- A simplified GUI enhances the overall user experience with an integrated view of how your storage infrastructure is performing. Administrators can monitor health and performance attributes from a single location. The Favorites dashboard is a personalized feature where users add their most critical assets and objects, which helps streamline access to essential storage data:
  - Get proactive notifications about storage events and issues.
  - Quickly drill down to vital information with color-coded topology views.
  - Receive suggestions for corrective actions for fast remediation.
  - Use groups and annotations to filter notifications and report information.
  - Access standard reports or create custom operational reports.

1. Tested to 20PB and 400 billion files.
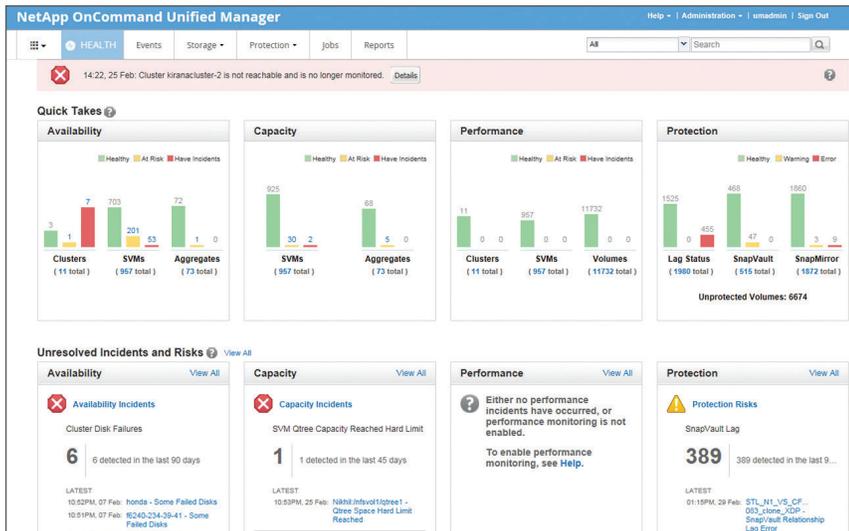
■ NetApp®

Figure 1) The OnCommand Unified Manager dashboard provides a single, unified view of the clustered storage environment.

- Monitoring and alerting are fully dynamic. Trending and historical information—with graphical representations of the storage topology—help facilitate analysis. This approach allows you to optimize use, capacity, and performance across your storage infrastructure. Full monitoring of your NetApp SnapMirror®, SnapVault®, and MetroCluster™ environments, including cascaded and fan-out topologies, helps you keep important data protection operations in place and completing on schedule.

Simple, Powerful Management for NetApp ONTAP
Unified Manager lets you discover, monitor, receive notifications, and set alerts on NetApp storage that runs ONTAP. The management server provides the foundation for improved availability, scalability, supportability, performance, and security of your storage infrastructure.

Maximize availability
With Unified Manager, you can view overall storage health by cluster, aggregate, or storage virtual machine. From the main dashboard, you can easily see availability, capacity, performance, and protection status and drill down to see details about physical or logical objects. This information helps you quickly understand where availability is at risk, the corrective actions that you can take to eliminate potential issues, and the steps to avoid unplanned downtime.

Maintain control over capacity
Unified Manager helps you project when you will run out of capacity. Notifications include details with recommended actions so that you can quickly determine where to provision volumes for new workloads and where to move volumes to minimize the risk of running out of capacity.

Get critical operational reporting
Unified Manager comes with a number of standard reports to provide you with vital operational information, and reporting is a natural function within the UI. Optionally, you can customize reports to meet the specific needs of your organization. Reports cover topics such as configuration, capacity use, operational status, storage efficiency, and inventory. For example, you can determine whether configurations are in compliance with best practices, or you can review use trends to determine when you are at risk of running out of capacity. For performance attributes you can create custom reports via a JDBC connection. You can view reports in PDF, HTML, and CSV formats; filter, sort, and group data within the standard reports; and schedule reports to run at a later time. Unified Manager also provides an interface that lets you extract the operational data and import it to another reporting solution, eg by downloading performance views as CSV reports.

View historical data
By viewing the volume move status and history and the junction path change history, you can keep better track of cluster events and can better leverage ONTAP features.

Integrated Performance
Managing performance can be a time-consuming task when it is done manually or with limited tools. OnCommand Unified Manager has integrated performance management monitoring your systems and alerts you to potential performance issues so that you can maintain optimal performance. It also helps you troubleshoot, isolates potential problems, and offers concrete solutions to performance issues based on system analysis. By using automated analytics, it provides cluster status and cluster health performance metrics, including latency, input/output operations per second (IOPS), megabytes per second, disk use, and node use.
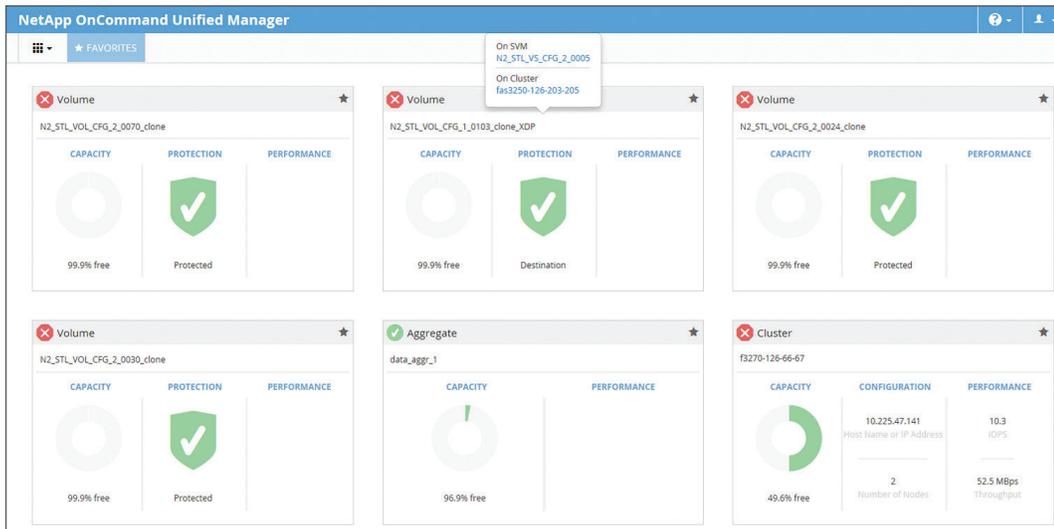
Figure 2) The Favorites dashboard provides a view of your most vital information, the storage objects that you view most frequently.

OnCommand Unified Manager continually monitors and analyzes performance to simplify performance management for ONTAP, ONTAP Cloud and ONTAP Select systems. The performance dashboard the performance management function sorts clusters by level of importance, and you can simply click to drill down into cluster details. The intuitive UI allows you to navigate and explore performance trends and compare the performance of storage objects within clusters. You can view and compare multiple objects, identify areas of concern, and proactively manage and optimize storage performance. You can also:

• Get continuous, detailed analysis of FAS and All Flash FAS performance.
• Compare performance workloads.
• Optimize performance levels.

Optimize performance
By using built-in system, dynamic, and user-defined policy thresholds, OnCommand Unified Manager detects and alerts on performance incidents. You can easily compare performance workloads by using the performance explorer and can quickly troubleshoot performance issues and quickly resolve events with the suggested corrective actions. Features include:

• **All Flash FAS speed.** Optimizes NetApp All Flash FAS to deliver peak performance, combined with superior flexibility and best-in-class data management for workloads that demand exceptional performance.
• **Thresholds and alerts.** Built-in system-defined and dynamic thresholds let you define your own policy thresholds for greater control over FAS and All Flash FAS alerts.
• **Network services.** Automatically alerts administrators when off-storage network services—such as network virus scanning, LDAP authentication, and other network tasks—cause I/O response time to cross a threshold.

• **Policy group limit.** Monitors and analyzes all the quality-of-service policies that affect workload, and it indicates when an abnormal workload is causing throttling and is affecting response time.
• **Data processing.** Provides detailed information about data processing (NetApp WAFL® [Write Anywhere File Layout]) activity and identifies which workloads have changed and have caused a CPU bottleneck.
• **Aggregates.** Continuously monitors storage aggregates and confirms that they provide the optimal space, IOPS, and volumes for peak performance. If an aggregate is the source of unacceptable performance, administrators are notified so that they can take corrective action quickly.

Streamline management with a single namespace
NetApp Unified Manager supports the FlexGroup capability. With a single namespace, you can seamlessly scale performance or capacity. When working with multiple physical file systems, a single namespace presents one interface as if all the data were in the same location. This configuration allows you to significantly streamline management from one Unified Manager interface.

The OnCommand Product Portfolio
The NetApp OnCommand management software family offers solutions to meet your business requirements for controlling and managing your data in on-premises, private cloud, hybrid cloud, and public cloud environments. The following management tools complement Unified Manager and help you further control, automate, analyze, and integrate your storage.

NetApp Service Level Manager
NetApp® Service Level Manager software is a management tool that can help your organization optimize storage operations for predictable service levels—simplifying data management. With this capability, you can define service-level objectives that accelerate the transition to storage as a service offerings and implementation of private clouds. With NSLM IT can provision
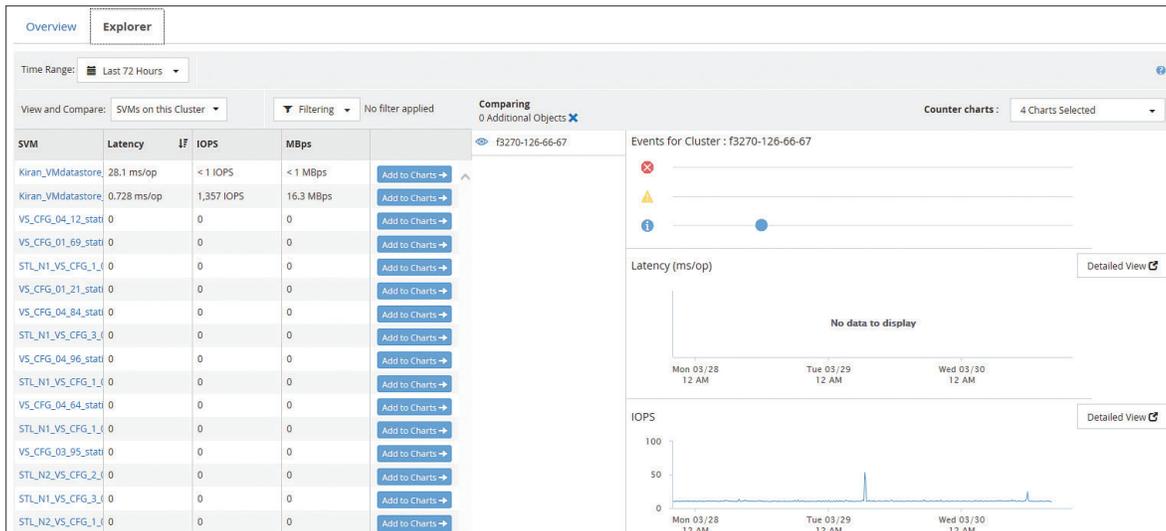
Figure 3) The performance explorer lets you traverse relationships between related objects, metrics and add charts to compare objects, and zoom in on areas of interest. Thresholds can be set specifically for monitoring flash performance (low latency and high throughput).

storage that meets capacity and performance requirements, with an emphasis on cost optimization. The result is a storage consumption model that is easy to use and that consistently delivers predictable service levels.

OnCommand API Services

It can be difficult to address some of today's more complex IT management challenges when you have multiple monitoring and management solutions in place. OnCommand API Services uses REST APIs so you can access events from OnCommand Unified Manager and historical performance metrics from the performance management functionality. You can also monitor the performance of your storage to verify you are meeting your SLOs using service-level management capabilities. Plus, OnCommand API Services lets you integrate data protection services such as NetApp AltaVault™ for backup to cloud. With OnCommand API Services, you can create a centralized view of your entire environment in the management console of your choice to simplify how you manage your on-premises and cloud storage.

Storage Automation Store

The Storage Automation Store is a site that is linked from the OnCommand software. You can download new functionality to use with OnCommand Workflow Automation, OnCommand Unified Manager, and OnCommand Insight to extend data management capabilities. Before you create a new Unified Manager report, explore the Storage Automation Store to see what is already available or to upload your own custom report and share it with the community. Although community-generated content does not come with NetApp Support, NetApp reviews each upload before publishing it. When you have identified the OnCommand Unified Manager report that you need, NetApp supported or community generated, simply download it and import it into the product. You can also go directly to the store and browse what's available: automationstore.netapp.com.

Learn More

Learn more about how NetApp OnCommand management software provides the efficiency that you need to keep pace with data growth and changing business requirements. Go to www.netapp.com/oncommand or contact your local NetApp partner or sales representative.

Explore the OnCommand community at www.netapp.com/oncommand_community. From there, you can visit any of the OnCommand product-specific community spaces to interact with subject matter experts, access details about getting started, and more.

About NetApp

NetApp is the data authority for hybrid cloud. We provide a full range of hybrid cloud data services that simplify management of applications and data across cloud and on-premises environments to accelerate digital transformation. Together with our partners, we empower global organizations to unleash the full potential of their data to expand customer touchpoints, foster greater innovation and optimize their operations. For more information, visit www.netapp.com. #DataDriven