Datasheet

OnCommand Unified Manager and Performance Manager

Continuous analysis and proactive alerting on storage incidents

Key Features

Streamline Management Tasks
A single dashboard increases user productivity with a complete view of the health of your NetApp® storage—availability, capacity, performance, and data protection relationships. You can:

- Simplify management with a single URL and a unified login for NetApp OnCommand® Unified Manager and Performance Manager.
- Access a single location to configure clusters, users, and authentication attributes.
- Gain faster access through the Favorites dashboard to storage objects that are frequently referenced.

Get a Holistic View of NetApp Storage
Quickly view events and alerts and take action for fast resolution. Get vital operational reports and create custom reports. You can also:

- Monitor petabytes of data effectively with existing staff.
- Optimize storage to keep pace with fluctuating business demands by using performance data and advanced analytics.
- Receive automatic alerts on events, with details about possible causes and potential impact.
- Get suggestions for corrective actions for proactive management.

The Need to Streamline Data Management

CIOs recognize data as their most valuable asset because data is used to drive productivity, innovation, and business success. Although managing data growth is a top priority for many IT organizations, they must also contend with ever-changing business requirements that increase data center complexity.

The ability to scale out with clustered storage makes it possible to keep pace with rapid storage growth, IT demands that are created by modern business practices, and round-the-clock global operations. However, managing data at scale in a clustered storage environment introduces new challenges. A more comprehensive approach to storage management is now required, one that provides greater flexibility and higher levels of integration. And the ability to deliver optimal performance is a critical component of data management, with tools that deliver actionable information to keep storage systems running at peak performance.

Get a Complete View of Storage Health

An integrated solution—OnCommand Unified Manager with Performance Manager
The NetApp clustered Data ONTAP® operating system provides a software-defined storage foundation that transforms the way that IT services are delivered. The integration of OnCommand Unified Manager and OnCommand Performance Manager provides you with a comprehensive data management solution that is included with the clustered Data ONTAP operating system:

- NetApp OnCommand Unified Manager is specifically designed to support the innovative capabilities of the clustered Data ONTAP operating system. It allows you to easily monitor and alert on the health, availability, capacity, performance, and data protection status of your NetApp clustered storage.
- NetApp OnCommand Performance Manager delivers comprehensive data storage performance monitoring and data retention, along with notifications and alerts for proactive management. Performance Manager provides timely system analysis and uses it to recommend solutions to performance issues.

Comprehensive Monitoring, Discovery, and Alerting

Together, these products provide a complete view of your NetApp storage health. 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 by logging in to a single URL just once to
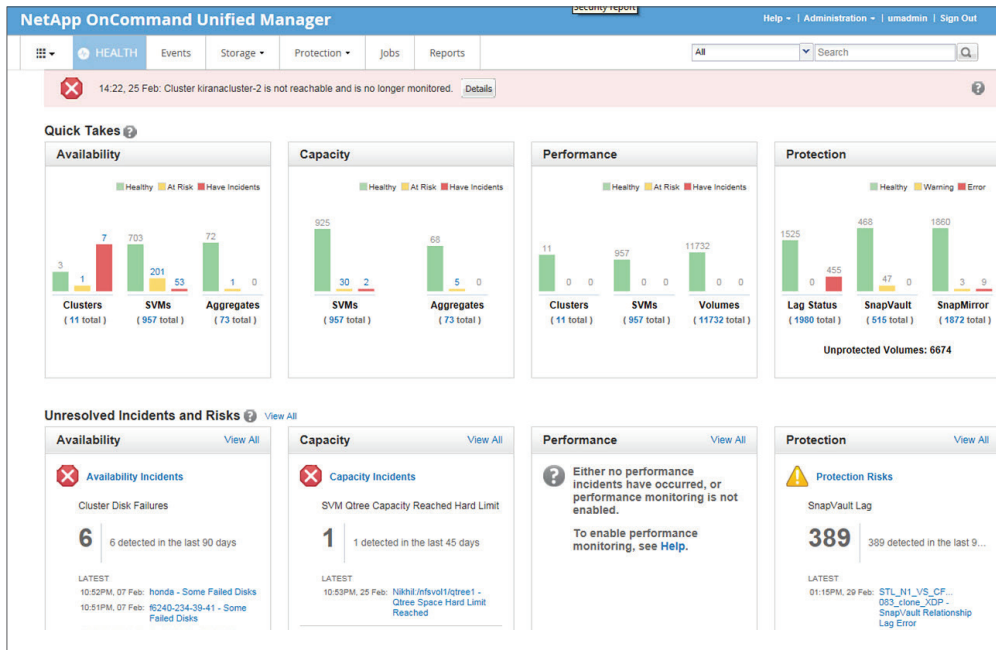
■ NetApp®

Figure 1) The OnCommand Unified Manager 6 dashboard provides a single, unified view of the clustered storage environment.

access Unified Manager and Performance Manager. The Favorites dashboard is a personalized feature where users add their most accessed views, 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.

Monitoring and alerting are fully dynamic, with trending and historical information and with graphical representations of topology that facilitate analysis and let you optimize use, capacity, and performance. 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 Clustered Data ONTAP
Unified Manager lets you discover, monitor, receive notifications and set alerts on NetApp storage that runs clustered Data 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.

Automate data protection
In a busy storage environment, you need the confidence that your data is adequately protected. With OnCommand Unified Manager, you can immediately see whether data is protected or is at risk. Health monitoring for SnapMirror, SnapVault, and MetroCluster environments identifies when data protection relationships are in jeopardy because of capacity or configuration changes. Unified Manager lets you automate data protection when you provision storage, promoting a consistent process that follows best practices.

Get critical operational reporting
Unified Manager comes with a number of standard reports to provide you with vital operational information. 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. 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.
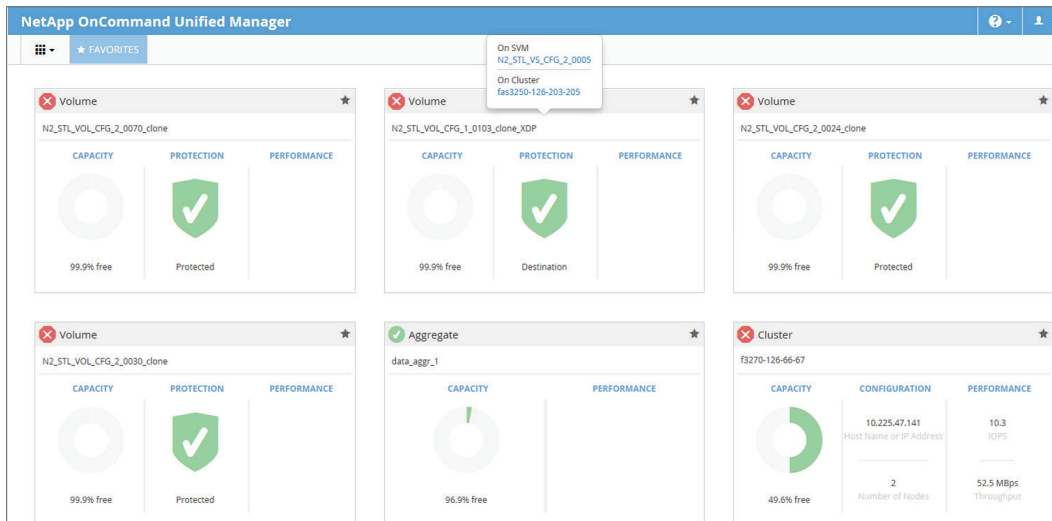
Figure 2) The Favorites dashboard provides a view of your most vital information, the storage objects that you view most frequently.

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 clustered Data ONTAP features.

Integrated Performance

Managing performance can be a time-consuming task when it is done manually or with limited tools. OnCommand Performance Manager is an integrated component of Unified Manager that monitors 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.

OnCommand Performance Manager is easily launched within the Unified Manager dashboard. 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.

OnCommand Performance Manager automatically monitors and analyzes performance to simplify performance management for NetApp FAS and NetApp All Flash FAS systems. The performance dashboard within Performance Manager 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 Performance 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:

- **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.** This feature 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.** OnCommand Performance Manager 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.** This feature 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.
- **Aggregate.** This feature continuously monitors storage aggregates to confirm that they provide the optimal space, IOPS, and volumes for peak performance. If the aggregate is the source of unacceptable performance, administrators are notified so that they can take corrective action quickly.
- **All Flash FAS speed.** Performance Manager optimizes All Flash FAS to deliver peak performance, combined with superior flexibility and best-in-class data management for workloads that demand exceptional performance.

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 Performance Manager and help you further control, automate, analyze, and integrate your storage.
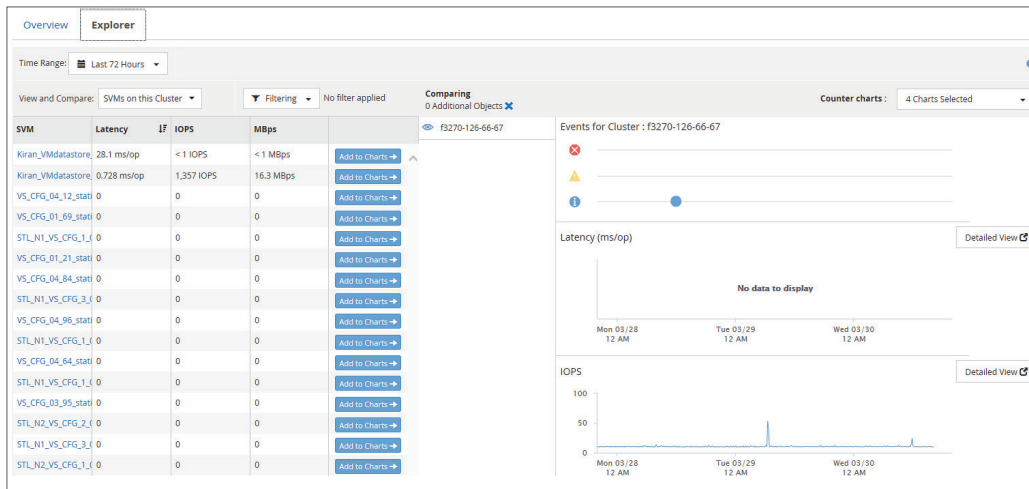
Figure 3) The performance explorer lets you traverse relationships between related objects, metrics and add charts to compare objects, and zoom in on areas of interest. Thresholds can be set specifically for monitoring flash performance (low latency and high throughput).

OnCommand Workflow Automation

OnCommand Workflow Automations is a flexible framework and a light orchestration tool that automates manual, repeatable storage processes. This capability allows you to standardize your storage processes and adhere to best practices. You can automate storage processes by using OnCommand Workflow Automation and by using Unified Manager and Performance Manager as data sources. You can also integrate with your existing orchestrator to provide storage as a service. By automating, you can improve quality and availability, and you can deliver new storage services more quickly and efficiently.

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. With OnCommand API Services, you can create a centralized view of your entire environment. OnCommand API Services pulls NetApp storage data from Unified Manager and Performance Manager into your existing management console or solution for a centralized view of key metrics and operational status.

Storage Automation Store

The Storage Automation Store is a site that is linked from the OnCommand software. You can download certified software packs to use with OnCommand Workflow Automation, OnCommand Unified Manager, and OnCommand Performance Manager to extend data management capabilities. Before you create a custom workflow, report, or performance dashboard, explore the Storage Automation Store to see whether a pack is already available. NetApp supported packs are published on a more frequent basis than the product release cycle, so you can take advantage of new packs as soon as they become available.

In addition, the store allows you to upload your own custom Workflow Automation, Unified Manager, and Performance Manager packs and share them with the product community. Although community-generated packs do not come with NetApp Support, NetApp reviews each pack before publishing it. When you have identified the pack that you need, NetApp supported or community generated, simply download and import it into the respective product. To browse the OnCommand packs that are available today, you can also go directly to the store: 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

Leading organizations worldwide count on NetApp for software, systems and services to manage and store their data. Customers value our teamwork, expertise and passion for helping them succeed now and into the future.
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