

Increased infrastructure complexity combined with continuous data growth has resulted in limited visibility across the data center. Business applications are expected to receive their required service levels 24/7. Without the right analytics tool to provide IT operational insights, optimizing storage service levels while keeping IT costs in check can be an arduous challenge especially across a multi-data center enterprise.

Improve Data Center Optimization and Service Levels

To effectively optimize and plan your data center infrastructure, machine learning (ML) is needed to correlate and analyze IT operations or telemetry data to identify historical trends and performance anomalies. In-depth visibility of key performance and health statistics from host servers through its entire data path to shared storage resources is required to ensure mission critical business applications are meeting their agreed to service level agreements. Identifying, troubleshooting and analyzing the root cause of performance bottlenecks can be a time-consuming effort as the problem could be anywhere on the applications' data path. When the required action to remediate the problem has been identified, having to manually execute the prescribed management action or configuration change can be slow and inefficient.

Hitachi Ops Center Analyzer: IT Operations Efficiency

Hitachi Ops Center Analyzer is an advanced AI-driven management suite for VSP storage environments that supplies self-driving recommendations, minimizing the time and effort spent on daily management and operational tasks, to help ensure IT operations are running successfully. Utilize operational IT insights to make informed decisions to improve application SLA's and maximize data center uptime.

Ops Center Analyzer is ideal for organizations looking for Al-driven software to help take advantage of the massive amounts of artificial intelligence and machine learning data that is being generated by your data center hardware. Ops Center Analyzer provides additional add-on software for predictive analytics as well as multi data center monitoring of your critical Hitachi Vantara VSP storage assets.



Eliminate Monitoring Tool Sprawl

Hitachi Ops Center analytics and observability software supports VSP arrays whether on-premises, in a colocation facility, or a public cloud environment. Ops Center's analytics software provides health insights and best practices to monitor key performance and capacity indicators across a heterogeneous data center infrastructure, to easily identify and isolate performance problems. By analyzing the data path from virtual machine (VM) and server to SAN fabric and logical storage resources, Hitachi Ops Center analytics software provides essential IT operations visibility and optimization that can break down the monitoring silos across the application's full data path.

Efficient Service Level Management

Transform IT metrics into service level objectives (SLOs) for performance and capacity. Continuous monitoring ensures that you are quickly alerted when servers, VMs or storage resources miss their assigned SLOs. And end-to-end topology views provide in-depth visibility needed to optimize the application's full data path.

Ensure application server or virtual machine workloads are meeting their service level requirements so you can take pre-emptive actions before issues will affect users.

Anomaly Detection for Early Alerting

Analyze a wide range of IT operational metrics for new ML-based insights for anomaly detection of performance and capacity problems. Dynamically set normal operating baselines to track and compare historical with current performance for infrastructure resources so you can quickly identify performance anomalies. Ops Center Analyzer assists with identifying at risk resources and facilitates problem diagnostics and resolution when service levels are not met.

Anomaly detection for early notification of problems with integrated monitoring aids to make the right decisions when optimizing resources.

Central Operations View Across Data Centers

Central IT operations dashboard across multiple data centers, enabling new enterprise-wide insights of capacity, performance and system health for the Hitachi Virtual Storage Platform (VSP).

Multi-data-center views streamline enterprise-wide management reporting and troubleshooting.

Predictive Analytics For Improved Resource Planning

With predictive analytics, forecast future resource capacity and performance requirements using ML-based data analytics provides improved planning and budgeting. Evaluate a proposed resource configuration or workload change to assess its potential impact and verify whether the change is meeting its objective prior to implementation.

Eliminate the guesswork and forecast when and where new resources are needed for improved ROI.

Problem Analysis and Resolution

Use prescriptive analytics with an AI-enabled, heuristic engine to help diagnose the root cause of shared resource problems. Correlate dependent resources end-to-end that may be affecting a bottleneck, track IT configuration changes, and prescribe problem fixes to quickly resolve issues.

Lower mean time to repair objectives by quickly troubleshooting and assessing the root cause of performance bottlenecks while providing suggested remediation actions.

Analytics Combined with Active Management Automation

Manual execution of prescribed management actions to remediate a problem can be inefficient. Hitachi Ops Center provides unique integration of its Analyzer and Automator software that deliver streamline workflow automation and orchestration to quickly streamline a prescribed configuration change that is required to resolve the problem.

Integrated AI Operations analytics and automation creates a continuous feedback loop, which is the start of autonomous data center management operations.

Transform Al Operations Analytics to Improve Data Center Efficiency

As key part of the Hitachi Ops Center suite, Analyzer ensures that you meet your service level requirements for mission-critical application servers, optimize resource utilization, and rapidly troubleshoot performance bottlenecks across a virtualized storage infrastructure. Ops Center Analyzer enables you to define and continuously monitor service level objectives by application workload or logical storage resource. When a performance hot spot is identified, integrated diagnostic aids facilitate rapid problem isolation and root cause analysis of the bottleneck. See the family of Hitachi Ops Center Analyzer solutions for IT operations covering multi-data center environments, predictive planning.

Hitachi Ops Center Analyzer: Data Center Insights

Ops Center Analyzer delivers new IT operational intelligence with key performance and capacity insights into your data center operations across heterogeneous, multivendor resources. Ops Center Analyzer monitor and analyze your data center infrastructure on-premises at scale with ML insights. It helps you make informed decisions and investments, optimizing resources on the application's data path to meet SLAs. Improve IT operations across your infrastructure to build a scalable data center environment that meets business needs without overrunning budgets. Hitachi Ops Center Analyzer is part of the Hitachi Ops Center management suite of products and comes standard with Hitachi Vantara Virtual Storage Platforms.

Customer Benefits

- Analyze resources continuously 24/7 to identify risks and recommend operational changes Highly Customizable dashboard with reports & metrics to suit the user
- Leverage Al operations to improve IT management efficiencies by analyzing full data path to ensure data is accessed at the highest speed
- Monitoring beyond storage Metrics from other data center assets such as switches, VMs, hypervisors & hosts can now be monitored in this single pane of glass – avoids switching between different monitoring tools between different monitoring tools

Hitachi Ops Center Analyzer Viewpoint: Multi-Data Center Observability

Hitachi Ops Center Analyzer viewpoint is an add-on software observability tool that delivers a consolidated view across multiple data centers (see Figure 1). Ops Center Analyzer Viewpoint is an integrated monitoring dashboard for VSP powered data centers, monitoring telemetry data not only from VSP storage but also switches, virtual machines, hosts and hypervisors. With Ops Center Analyzer Viewpoint IT organizations can create enterprise-wide views with custom dashboards for storage capacity, performance and system health, and streamline multisite troubleshooting across the enterprise.

Customer Benefits

- Gain central management views across a multi-data-center enterprise environment.
- Highly Customizable dashboard with reports & metrics to suit the user
- Problem isolation using Viewpoint and troubleshoot and root-cause analysis with the tightly integrated Analyzer, that can be linked and launched in context
- Monitoring beyond storage Metrics from other data center assets such as switches, VMs, hypervisors & hosts can now be monitored in this single pane of glass – avoids switching between different monitoring tools

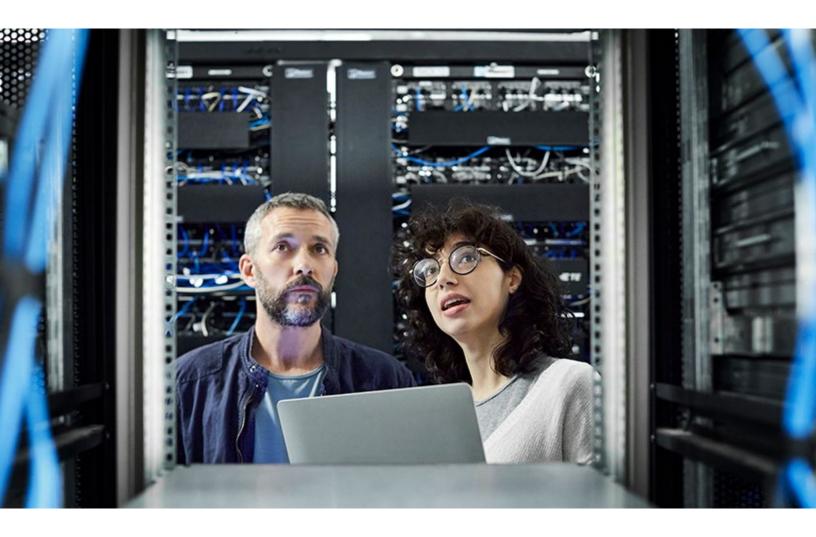


Figure 1. Hitachi Ops Center Analyzer Viewpoint: Gain central dashboard with new insights to monitor operations across a global enterprise.



 $[\]label{eq:control} {}^*\!Hitachi \, chooses \, the \, location(s) \, where \, the \, SaaS \, offerings \, are \, performed, which \, may include \, countries \, outside \, of \, the \, borders \, of \, the \, country \, in \, which \, the \, customer \, and \, its \, systems \, are \, located.$

Enable Key Insights Into Your Data Center Operations

Hitachi Ops Center Analyzer delivers a highly scalable data repository and analytic reporting engine with heterogeneous, multi-vendor resource support. This enables you to identify and analyze historical performance trends that are necessary to optimize storage system performance and plan future capacity growth. Improved data center optimization and efficiency whether on-premise in the data center or via the cloud.

- Central management views across a multi-data center enterprise environment.
- Improve utilization and performance across virtual machines, servers, SAN networks and shared storage resources.
 Utilize predictive analytics to properly forecast and plan infrastructure growth.
- Pre-emptive analytics to quickly identify problems so you can take action to resolve issues before they can affect users.

Hitachi Ops Center
Analyzer ensures you can
meet required service level
agreements for missioncritical application servers,
optimize performance
and utilization for Hitachi
storage systems, while
rapidly troubleshooting
performance bottlenecks
across a virtualized storage
infrastructure.

Learn More



For more information on how Hitachi can help you to make informed decisions on data center visibility, optimization and efficiency, visit the Hitachi Ops Center Analyzer web page or contact your Hitachi Vantara representative.

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Hitachi Vantara solves digital challenges by guiding you from what's now to what's next. Our unmatched industrial and digital capabilities benefit both business and society.

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