



## Solution Brief

# Cloud Migration with OnCommand Insight

### Key Benefits

Accelerate business transformation by using the cloud for more workloads.

Optimize and choose the right resources for efficiency and business impact.

Manage and analyze costs, provide showback and chargeback reporting.

### Challenges of Migrating to the Cloud

The challenges facing today's IT professionals go beyond reducing cost, increasing efficiency, and mitigating risk. Cloud adoption is often seen as competitive to internal IT teams, or IT leaders can feel pressure to deliver services using their own private clouds, which need to be competitive with public cloud offerings.

Identifying which applications are a good fit for delivery from the cloud can be very challenging. Certain applications are more effectively and efficiently operated in cloud environments whether on private, public, or SaaS services. Other applications require availability, stability, and security that are too expensive for cloud services to guarantee. Identifying which applications can be moved to the cloud and which must remain is a challenge in today's complex environments with interdependent resources on multiple platforms from multiple vendors.

Factors including performance requirements, capacity demands, asset location, cost objectives, and availability need to be accounted for to prevent cost overruns, degradation of service, and disgruntled users.

### OnCommand Insight for the Journey to the Cloud

This is where NetApp® OnCommand® Insight software helps. OnCommand Insight helps identify which workloads are suitable candidates for retiring and potential migration to the cloud. Then, once services or applications have been migrated to the cloud, OnCommand Insight provides validation that workloads are performing as expected and meeting business demands. OnCommand Insight provides visibility into on-premises and off-premises assets so that they can monitor and manage across the compute and storage resources regardless of geographic location and manufacturer. OnCommand Insight maps the relationship between , platform, infrastructure, and storage siloes and monitors the capacity and performance metrics along service levels and cost.

With OnCommand Insight, customers can manage and monitor infrastructure across the company's hybrid cloud environment, focusing on three key areas:

- Improving operations through simplified troubleshooting and analysis
- Monitoring and promoting service quality to optimize resources and reduce capex and opex
- Managing and analyzing costs and creating showback and chargeback reporting

### OnCommand Insight

OnCommand Insight is an open data center management platform that provides operational intelligence, business insight, and IT ecosystem integration within complex enterprise IT environments. This software allows IT teams to respond more quickly to business and mission needs by reducing cost, increasing efficiency, and mitigating risk. It helps customers optimize their current infrastructure for maximum benefit while helping with deep analysis of which applications and workload can be right-sized to appropriate tiers on the premises as well as to cloud service providers.

After migration, customers can use OnCommand Insight for a global view of their storage infrastructure to track storage utilization in multiple locations. The software provides trending information that shows how much storage capacity is at each tier. It also provides service level, fabric utilization metrics, top applications, application-centric cost, and utilization metrics and forecasts when data centers and business units will run out of capacity. This information enables end users to make more informed and timely business decisions and vastly simplifies capacity management.

OnCommand Insight's detailed business-level reporting provides full cost awareness with a flexible cost model that adapts to the customer's own billing requirements. This benefit applies equally to service providers who are required to bill their customers and to IT organizations attempting to run their business like an internal service provider. Customers can track how much storage, compute, or infrastructure resources each business unit or application uses in each storage tier over time. This comprehensive information enables users to work with business units to make more intelligent decisions based on actual asset consumption.

“OnCommand Insight in particular is an awesome piece of software that we use every day. It delivers powerful and comprehensive insight into our SANs, fiber switches, virtual machines, blades, and storage pools, making management incredibly easy.”

David Leybourne, IT Director of Infrastructure  
Randstad UK

OnCommand Insight also detects vulnerabilities and risks to the IT environment. This feature enables customers to avoid mission-critical problems and meet key service levels for availability, performance, and utilization.

### Improve Current and Future State Operations

When integrated into daily operations, OnCommand Insight yields significant operational improvements. Administrators spend less time on reactive troubleshooting and routine tasks and focus more on business-critical projects. With flexible drag-and-drop customization capabilities, OnCommand Insight users can:

- Build customized dashboards without any development experience.
- Quickly see how resources perform together.
- Rank resource workload correlation.
- Overlay asset performance.
- Drill into related resources.
- Detect abnormal behavior in the data center infrastructure.
- Automatically identify performance and configuration issues.
- Identify resource contention.



Figure 1) Simplify troubleshooting and analysis—everything is on one screen and requires minimal interaction.

### Determine Cloud Migration Workload Candidates

OnCommand Insight establishes baseline service-level performance. Doing so helps customers compare actual SLAs with expected SLAs. It also allows IT administrators to right-size the environment and to make informed decisions on which workloads are good candidates for hosting in an off-premises and/or cloud data center.

### Manage and Analyze Costs and Create Showback and Chargeback Reporting

The detailed business-level reporting that OnCommand Insight provides enables full cost awareness. Users can immediately see how much storage each business unit or application has used in each storage tier over a given period of time. Equipped with this comprehensive information, users can work with business units to make more intelligent decisions about how storage is being used. Users can quickly identify misplaced datasets and reduce storage spend. Users can also track cost associated with each tier of storage to simplify the process of charging business units for resources used.

OnCommand Insight also enables end users to track their actual billing versus contractual entitlements. This feature is especially useful for cloud and managed service providers as well as for IT organizations attempting to launch their own as-a-service offerings. Following is an example of how OnCommand Insight helped a cloud service provider to save approximately \$4M. It did so by identifying storage that was being used by end users but was not being billed for because the service provider was not able to deliver accurate billing feeds in time for heterogeneous storage platforms.



Figure 2) Compare actual usage vs. contractual agreements—this report shows that \$4 million of usage was going unbilled.

Following is another example of a cloud chargeback report showing each customer and the applications, VMs, VM costs, actual capacity by gigabyte, type of tier, and tier cost. Service providers can use this type of report as part of a chargeback process.

**Cloud Services Chargeback Report**  
Includes cost of VM + Storage usage by each Application and BU

Cloud Customer Name	Application	VM	VM Cost	Data Store	Actual Capacity GB	Tier	Tier Cost	Storage Cost	Cloud Services Cost
Customer Support	Dev Test	SE-VM2	\$17.00	SE-DATASTORE	0.000	Silver 7	\$5.00	\$5.00	\$17.00
	Dev Test	SE-VM3	\$17.00	SE-DATASTORE	0.000	Silver 7	\$5.00	\$5.00	\$17.00
	Dev Test	SE-VM4	\$17.00	SE-DATASTORE	0.000	Silver 7	\$5.00	\$5.00	\$17.00
	Dev Test	SE-VM5	\$17.00	SE-DATASTORE	0.000	Silver 7	\$5.00	\$5.00	\$17.00
	Dev Test	SE-VM6	\$17.00	SE-DATASTORE	0.000	Silver 7	\$5.00	\$5.00	\$17.00
	Dev Test	SE-VM7	\$17.00	SE-DATASTORE	0.000	Silver 7	\$5.00	\$5.00	\$17.00
	Dev Test	SE-VM8	\$17.00	SE-DATASTORE	0.000	Silver 7	\$5.00	\$5.00	\$17.00
	Dev Test	SE-VM9	\$17.00	SE-DATASTORE	0.000	Silver 7	\$5.00	\$5.00	\$17.00
<b>Customer Support</b>		<b>36</b>	<b>\$612.00</b>		<b>2.123</b>		<b>\$14.06</b>	<b>\$626.06</b>	
Dev	Dev/Test	N/A	\$17.00	raw database 0	1.998	Silver 7	\$13.07	\$30.37	

Figure 3) Drive cost reporting and accountability—this sample graphical report shows total IOPS by service level.

Although there are many reasons to modernize IT operations, OnCommand Insight helps to monetize the investment with an extremely fast time to market, in some cases minutes. Samples included in this datasheet provide a glimpse of OnCommand Insight's power.

Once workloads are migrated to a cloud service, for example, Amazon Web Services (AWS) S3, OnCommand Insight continues to provide visibility and incremental by leverages AWS CloudWatch monitoring service to get AWS S3 "bucket" capacity.



### Why Choose NetApp for Migrating to the Cloud?

NetApp OnCommand Insight enables end users to accelerate business transformation by leveraging on-premises assets along with hybrid cloud environments based on accurate workload analysis. With NetApp solutions, customers can seamlessly integrate cloud storage into their existing architecture and quickly move data to where it delivers the most value—a private, hybrid, or public cloud.

### 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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