

Hybrid cloud monitoring with IBM SevOne Network Performance Management

Break down silos and gain a comprehensive understanding of your network performance with hybrid cloud monitoring



Highlights

Benefits of monitoring public cloud in hybrid environments

Essential cloud resources monitored in AWS

Essential cloud resources monitored in Microsoft Azure

Monitoring on-prem networks and private cloud

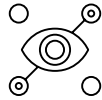
A recent IBM survey found that 71% of companies believe a hybrid cloud strategy is essential for a successful digital transformation.¹ While many enterprises are moving workloads to the public cloud, they still rely on on-premises infrastructure and are adopting a hybrid cloud architecture. However, this approach involves complexities and concerns over integration, security and skills to support migration and management efforts for NetOps and CloudOps teams. Cloud adoption has created significant management challenges for network managers who no longer have control over the networks on which their applications rely. Enterprises need performance monitoring solutions that support the journey to the cloud, especially for troubleshooting application issues. Hybrid cloud visibility is critical for a straightforward way to notify specific teams responsible for a slowdown in the application.

IBM® SevOne® Network Performance Management provides application-centric, hybrid network observability that includes on-premises networks, private clouds and public clouds, as well as modern network solutions like SDN or SD-WAN and wifi—all in a single dashboard. With the addition of native monitoring of Amazon Web Services (AWS)-based and Azure-based resources, IBM SevOne Network Performance Management hybrid cloud monitoring helps businesses maintain optimal performance across their entire infrastructure, whether on prem or in the public cloud. The comprehensive monitoring of resources allows for proactive identification and troubleshooting of issues before they impact end users. By consolidating tools and simplifying workflows, businesses can benefit from reduced MTTR and MTTD, cost savings and more efficient operations. The solution has nearly endless use cases, from resolving critical application issues to providing performance comparisons between on-premises and cloud-based workloads to mitigating disruptions to the customer experience. IBM SevOne Network Performance Management makes optimizing your hybrid cloud environment easy, allowing you to run, grow and transform your organization with one solution.

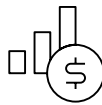


Benefits of monitoring public cloud

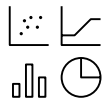
IBM SevOne Network Performance Management takes a distinctive approach to monitoring public cloud resources. Using modern performance data collection methods that are scalable and cost-effective for large environments, the solution helps with improved visibility into a public cloud environment for disparate engineering teams. Then it enriches the collected metrics with metadata from API polls, allowing for easy filtering on account or region and visibility across different cloud resources. Unlike other monitoring solutions, collection of cloud-based performance data is built into the core of IBM SevOne Network Performance Management, resulting in an easy configuration and onboarding process. Here are some benefits of monitoring your public cloud environment with IBM SevOne Network Performance Management.



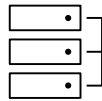
Visibility: Gain visibility into cloud infrastructure with shareable, customizable and prebuilt reporting on day one to proactively detect and troubleshoot issues.



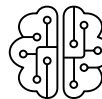
Cost savings: Use metric streams from AWS CloudWatch for time series data at a 70% lower data access cost from AWS compared to other solutions in the market. And for Azure, use data plane API by Microsoft to collect large data sets in a scalable and cost-effective way.² And for Azure, use the data plane API by Microsoft to collect large data sets in a scalable and cost-effective way.



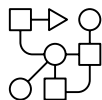
Metadata enhancements: Explore AWS performance enriched with metadata, enabling analysis and visualization filtered by account, region and more.



Data retention: Store cloud-based metrics for one year or more enabling better historical troubleshooting for compliance use cases and more.



Advanced analytics: Rely on default machine learning analytics and visualization to aid in troubleshooting, anomaly detection and forecasting.



Integration with other tools: This solution integrates with service desks, IT automation tools and incident management tools to help you streamline incident response and improve collaboration across teams.

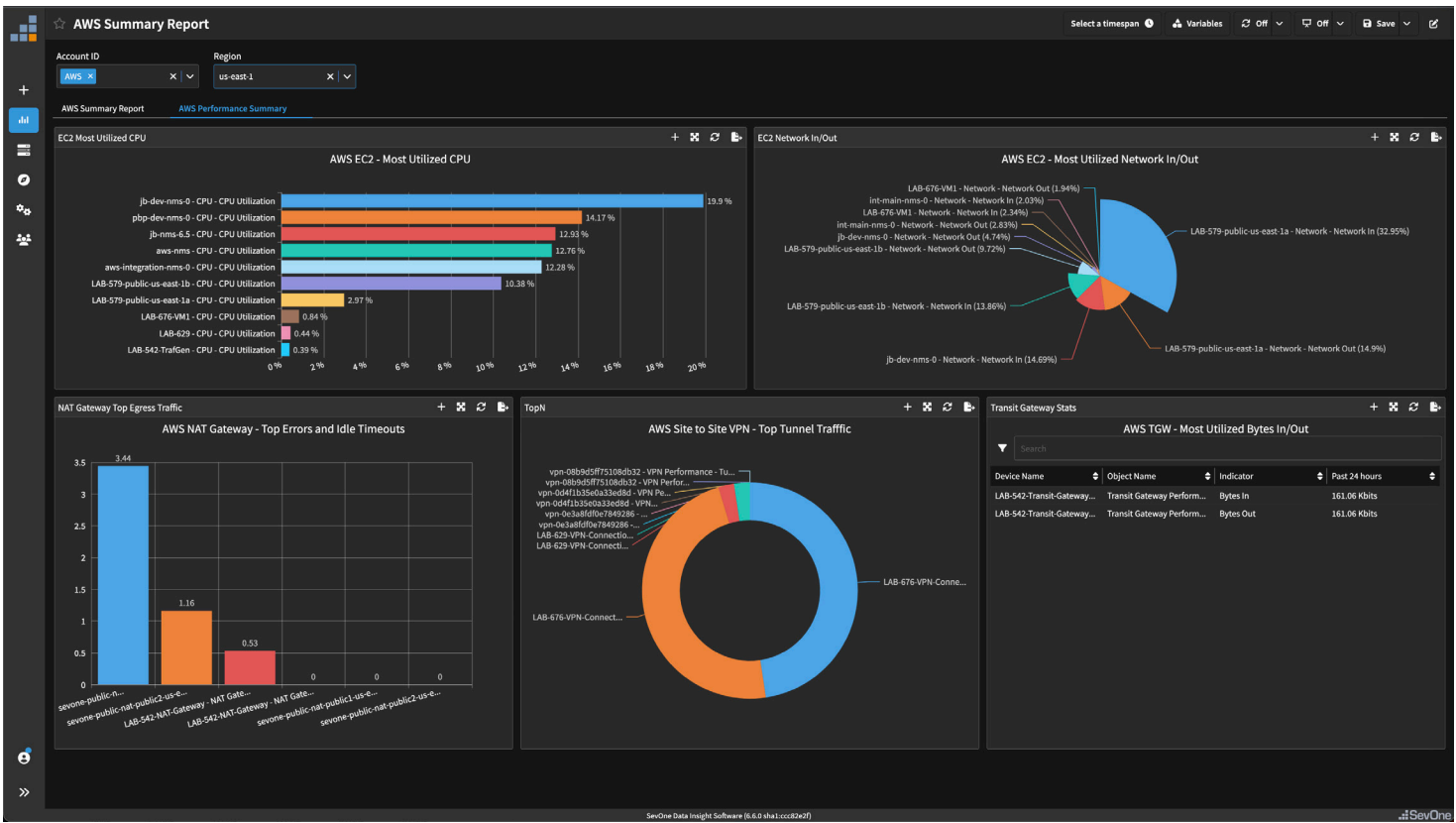


Figure 1. Multi-account and multi-region monitoring of several AWS resources in a single report

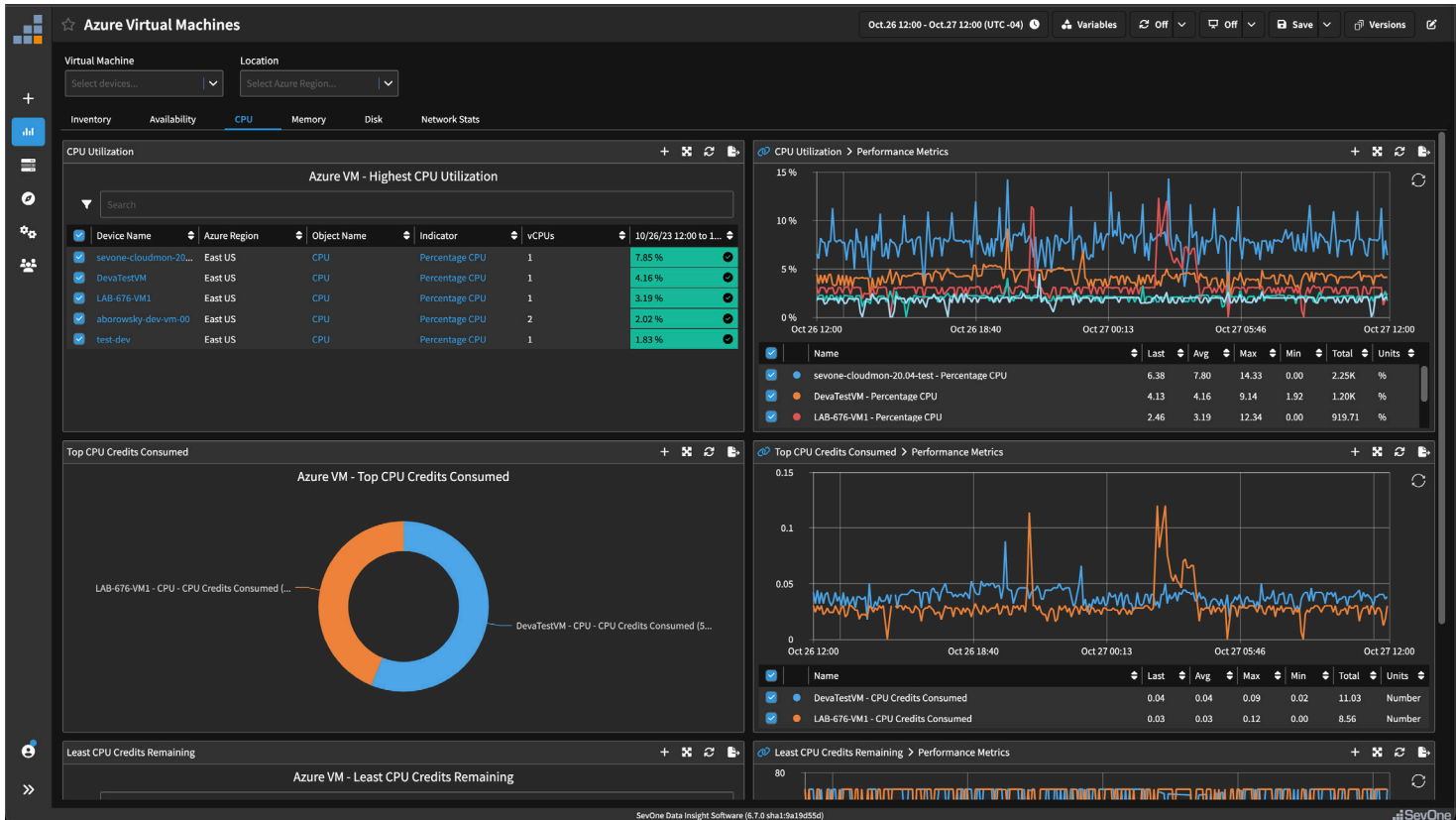


Figure 2. Azure Virtual Machines report indicating Top-N CPU statistics

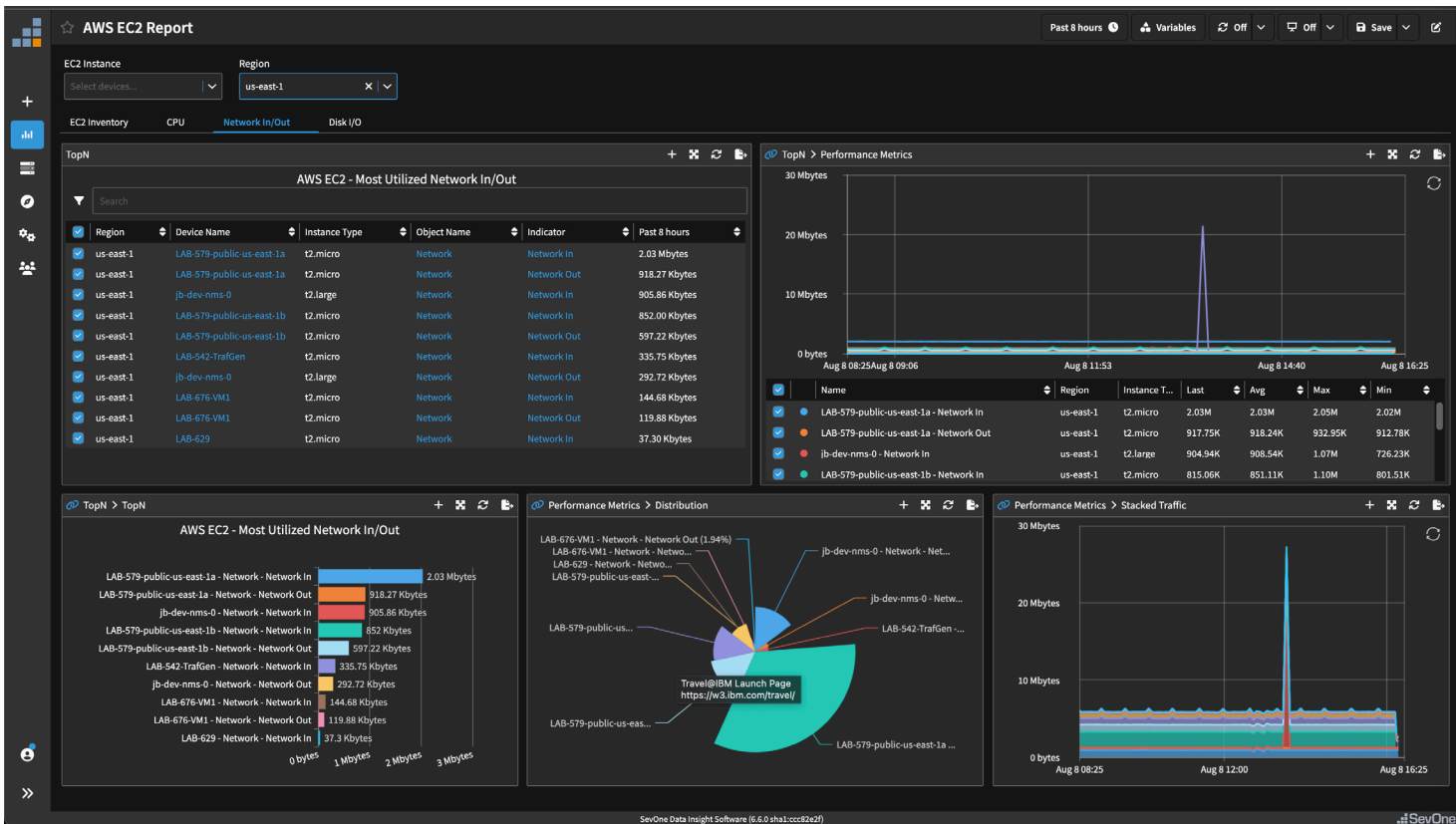


Figure 3. EC2 instance monitoring with IBM SevOne Network Performance Management

Essential cloud resources monitored in AWS

AWS CloudWatch, provides IBM SevOne Network Performance Management a wide variety of information that can be used for reporting and filtering purposes. Some specific AWS resources that are monitored are: EC2 instances, S3 buckets, Transit Gateways, Direct Connects, NAT Gateway, AWS site-to-site VPNs, Elastic Block Store (EBS), and Network Load Balancers (NLBs).

Essential cloud resources monitored in Azure

Azure provides IBM SevOne Network Performance Management a variety of information that can be used for reporting and filtering purposes. Some specific Azure resources that are monitored are: Azure Virtual Machines and Azure Virtual Machine Scale Sets.

Monitoring on-prem networks and private clouds

When it comes to private cloud deployments, network operations teams typically have direct access to the various components of their on-prem networks and private cloud compute. However, introducing disparate systems and vendors can bring performance visibility challenges. That's where IBM SevOne Network Performance Management comes in. It integrates with cloud provisioning systems to monitor new devices and systems in the private cloud, providing visibility into physical and virtual elements.

With IBM SevOne Network Performance Management, you can easily monitor physical and virtual compute environments from a single view and also view the on-prem networks your compute is connected to. This metric lets you analyze key performance data and apply advanced machine learning analytics for troubleshooting. IBM SevOne Network Performance Management automatically baselines this data and alerts you proactively, for example, if there are memory leaks or disk capacity shortages. These proactive alerts help you avoid any potential disruptions to your business. For VMware virtual server space, IBM SevOne Network Performance Management uses the VMware vSphere API to discover ESX hosts and their guest virtual machine (VM) objects for monitoring. It also automatically discovers new hosts as they're added to a VMware vCenter.

Conclusion

Businesses are moving their workloads to the cloud while using hybrid cloud architecture that combines on-premises and cloud resources. It's increasingly important to have a strategy for monitoring the performance of private and public cloud resources as businesses migrate workloads. With IBM SevOne Network Performance Management, you can monitor on-prem networks, and public and private clouds from one tool helping reduce mean time to resolution and gaining a more comprehensive understanding of network performance.

Why IBM?

IBM SevOne Network Performance Management provides application-centric, hybrid network observability to help network operations and engineering teams spot, address and prevent network performance issues all in a single dashboard. Boost network performance and improve user application experience by proactively monitoring multivendor end-to-end networks across enterprise, communication and managed service provider environments. IBM offers a complete set of IBM SevOne Network Performance Management consulting services designed to ensure that clients maximize the value of their investment. These service offerings include a quick start program, post-implementation services, customized integrations and client training.

For more information

To learn more about IBM SevOne Network Performance Management, contact your IBM representative or IBM Business Partner, or visit ibm.com/products/sevone-network-performance-management.

1. IBM Transformation Index: State of Cloud 2023, IBM, 27 September 2022.
2. “Metric Streams offers a 70% lower cost per metric update (on AWS) at \$0.003 per 1,000 metric updates versus the API GetMetricData method, where calls are \$0.01 per 1,000 requests.”, Amazon Web Services pricing, accessed May 2023.

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