Solution Brief

Microsoft Azure

Multi-cluster monitoring with Azure Stack HCI Insights for onpremises servers

Customize visualizations, gain usage insights, and increase scalability for efficiency.

In Microsoft Azure, you can see all your resources in the Azure portal and monitor them by using Azure Monitor. Now you can do the same with your Azure Stack HCI resources and monitor multiple Azure Stack HCI clusters together by using Azure Monitor Insights.

Azure Stack HCI is a hyperconverged infrastructure (HCI) cluster solution that runs virtualized Windows and Linux workloads on the hardware infrastructure that you own and manage. Azure Stack HCI is always up to date and can be installed on your choice of server hardware. It will easily and quickly extend your infrastructure with simplified access to cloud management and Azure hybrid services for monitoring at scale, backing up your data, and more.

In 2022, enhanced Azure Stack HCI capabilities will deliver the latest security, performance, and feature updates.

Offered as part of Azure Stack HCI, multi-cluster monitoring makes it possible for businesses to improve scalability while controlling operating costs.

Overcoming limitations: Deploy multi-cluster monitoring with Azure Monitor Insights

Azure Stack HCI is a cloud-inspired HCI software stack ideal for enterprises that are just starting their journeys to the cloud, but which have key workloads that need to stay on premises.

When IT administrators are ready to shift to a hybrid cloud approach, they can extend on-premises infrastructure to Azure quickly and easily, with simplified access to cloud management and various Azure services. Azure Stack HCI utilizes cloud- based backup, update management, security monitoring, and disaster recovery. This allows businesses to scale infrastructure with their needs while also controlling operating costs and simplifying maintenance.

Multi-cluster monitoring is a new Azure management capability that is ideal for customers who use Azure Stack HCI in multiple locations. It is managed by Azure, visualizations and scenario coverage will keep on improving with time.

IT administrators managing environments can save time by employing multi-cluster monitoring with Azure Monitor Insights. This functionality consolidates a view of virtualized resources under one pane, so many datacenter clusters can be efficiently monitored at the same time. This oneview functionality can help solve the following challenges and constraints:

- Time-consuming on-prem database or special software setups
- Boundary limitations due to lack of customizability, and the lack of scalability
- Dependency on a product team to add, remove, or edit desired visualizations and queries

A single view of health, performance, and usage

Users will be able to monitor multiple Azure Stack HCI clusters simultaneously by using the Azure Monitor Insights solution. Multi-cluster monitoring with Azure Monitor Insights delivers three key benefits to your IT staff:



It's managed by Azure. This means that it will always be up to date, with no need for on-premises database or 3P software setup.



It's highly scalable.

Users will be able to load more than 400 cluster information sets at a time across all Azure subscriptions within a tenant, with no boundary limits on cluster, domain, or physical location. Azure Stack HCI as an Azure subscription service will automatically deliver innovations, updates, and a consistent set of tools and user experiences, such as multi-cluster monitoring.

The user experience is built on top of Azure Monitor workbook templates, allowing users to change the views and queries, save customizations, and provide options for personal and shared workbooks. Charts in the workbooks can also be pinned to Azure dashboards.



It's highly customizable. The user can easily customize specific queries and visualizations.

How it works: On-premises visualizations across datacenters

Multi-cluster monitoring doesn't require a database or a setup with special software. Azure Monitor Insights stores its data in a log analytics workspace. Users take three easy steps: register the clusters once; enable the log analytics extension; and enable monitoring to provide visualizations from the cluster resource page.

Together, these services allow you to monitor all clusters from Azure Monitor Insights. Azure Monitor and Azure Stack HCI will always stay up to date with the latest changes and will be managed by Azure. The view options include Get Started, Overview, Virtual Machines, Storage, and Cluster Performance. The visualizations will continue to improve and will have more coverage over time.



IT administrators are empowered to make updates and changes.

What's more, visualization can be filtered across subscriptions, based on time range, subscriptions, and HCI clusters. Each view is contained in a separate drop-down menu:

- **Time range:** This filter allows you to select a range for the **Trend** view. The default value is **Last 24 hours**.
- Subscriptions: This option shows the subscriptions that have registered Azure Stack HCI clusters. You can select multiple subscriptions in this filter.
- HCI clusters: These are lists of the registered Azure Stack HCI clusters that have logs and monitoring capabilities enabled in the selected time range. You can select multiple clusters from this filter.

Distributed datacenters can be consolidated into a single view, rather than requiring time-consuming clicks into each cluster and subcomponent to check on the health of drives, security, and storage. And because Azure already knows of these HCI clusters, there's no need to add any connections to the cluster, thereby saving another step. Solution Brief | Multi-cluster monitoring for Azure Stack HCI Insights for on-premises servers

→ C	portal.azure.com/#blade/AppInsiql	trExtoncion/Ucan	aNiatabaak®lada/Turaa/wark	hook/Compone	ntld/Azuro%20Monitor/	(Gallon Paraurca Tuna / Amur	o% 20Monitor/ConfigurationId/co	mmunity Workhooks%2E	Amuro9(2005tack9(2014/219))	2F 🔓 📬	- d	•
Microsoft Azure	portanazore.com, «biade, Appinsig	itsExtension/osag	P Search resources, service			Galler y Nesour Ce Type/ Azure	execution intoly configuration indy co			තු arduppal@	-	ft.con
me > Monitor >										ALC: NO	LUKESTACKH	
zure Stack HCI Insi	ights 🖈 …											
Workbooks 🖉 Edit 🗟 🖓	🕐 🚨 🖈 😳 ? Неір	🕚 Auto refresh:	Off									
Time range: Last 24 hours 🗸	Subscriptions: BASE-AzureStack-HC	I-And-ECP V	HCI clusters: All	\sim								
	Jacobiana Chata		Al. 1. ()									
t started Overview Virtua	al machines Storage Cluster	performance	Alerts (coming soon)									
	and network performance informatic				re in the last 24 hours. It is	s adviced to check both of the	e node and storage health of your o	lusters. If you don't see a pa	articular cluster, check the fi	ilters here as well as the	e cluster's	
inection to Azure on the Azure St	tack HCI resource page. To see if mor	itoring is enabled o	in the cluster, use the Get star	ted tab.								
											.P	C
otal clusters Health	y Warning	Critical	Other									
174 125												
1/4 123	5 🔮 🛛 🔺	49	S 0 🖸									
174 125	0 🕰	49	8 0 6	9								
1/4 123	5 🛇 0 🕰	49	8 0 6	•							1 ⁰	
	5 0 A	49	8 0 6	•							٩:	
Search		49			CPU usage ↑↓	Available memory ↑↓	Network usage (B/s)	Virtual machines↑↓	VM state ↑↓		:P	
² Search Iluster > Node 1				Uptime ↑↓		Available memory 10 695.26 of 1024 GB available	Network usage (8/s)		VM state ↑↓ 40 of 40 running		:P	
² Search Iluster > Node 1	∵ Last updated ↑	↓ Node Health	†↓ Nodestate †↓ 4 of 4 up	Uptime ↑↓		695.26 of 1024 GB available	Network usage (B/s)		40 of 40 running		. P	
² Search Iluster > Node ↑ ✓ ✿ aCidqFiyseLv	↓ Last updated ↑ 10/26/2021, 12:06:15 PM	 Node Health Healthy 	†↓ Nodestate †↓ 4 of 4 up	Uptime ↑↓ 5 days	24.75 %	695.26 of 1024 GB available 162.02 of 256 GB available	Network usage (B/s)	40 15	40 of 40 running		.P	
D Search Cluster > Node ↑ Cluster > Node ↑ Cluster > Node ↑ Cluster > Node ↑	↓ Last updated ↑ 10/26/2021, 12:06:15 PM 10/26/2021, 12:06:15 PM	 Node Health Healthy Healthy 	↑↓ Node state ↑↓ 4 of 4 up ↑ Up	Uptime ↑↓ 5 days 13 days	24.75 % 24 %	695.26 of 1024 GB available 162.02 of 256 GB available 161.16 of 256 GB available	Network usage (B/s)	- 40 15 8	40 of 40 running 15 of 15 running		₽.	
 Search Cluster > Node ↑ Cluster > AcidgPypsLv TKS-3WP03R0221 TKS-3WP03R0223 	↓ Last updated ↑ 10/26/2021, 12:06:15 PM 10/26/2021, 12:06:15 PM 10/26/2021, 12:06:15 PM	 Node Health Healthy Healthy Healthy Healthy 	↑↓ Node state ↑↓	Uptime ↑↓ 5 days 13 days 13 days	24.75 % 24 % 25 %	695.26 of 1024 GB available 162.02 of 256 GB available 161.16 of 256 GB available 176.82 of 256 GB available	Network usage (B/s)	40 15 8 10	40 of 40 running 15 of 15 running 8 of 8 running		:P	
^D Search Cluster > Node ↑ ✓Searchdp:Ppsetv III: TrS-3WP03R0221 III: TrS-3WP03R0223 III: TrS-3WP03R0225	↓ Last updated ↑ 10/26/2021, 12:06:15 PM 10/26/2021, 12:06:15 PM 10/26/2021, 12:06:15 PM 10/26/2021, 12:06:15 PM	 Node Health Healthy Healthy Healthy Healthy Healthy 	↑↓ Nodestate ↑↓ 4 of 4 up ↑ up ↑ up ↑ up ↑ up	Uptime ↑↓ 5 days 13 days 13 days 4 days	24.75 % 24 % 25 %	695.26 of 1024 GB available 162.02 of 256 GB available 161.16 of 256 GB available 176.82 of 256 GB available 195.26 of 256 GB available	Network usage (B/s)	- 40 - 15 - 8 - 10 - 7	40 of 40 running 15 of 15 running 8 of 8 running 10 of 10 running		. P	
² Search Cluster > Node ↑ Cluster > Node ↑ Cluster > Node TrS-3WP03R0223 TrS-3WP03R0225 Cluster TrS-3WP03R0225 Cluster	Last updated ↑ 10/26/2021, 12:06:15 PM	 Node Health Healthy Healthy Healthy Healthy Healthy Healthy 	↑↓ Nodestate ↑↓ 4 of 4 up ↑ up ↑ up ↑ up ↑ up ↑ up	Uptime ↑↓ 5 days 13 days 13 days 4 days	24.75 % 24 % 25 % 25 % 25 % 25 %	695.26 of 1024 GB available 162.02 of 256 GB available 161.16 of 256 GB available 176.82 of 256 GB available 195.26 of 256 GB available 443.86 of 512 GB available 221.61 of 256 GB available	Network usage (B/s)	- 40 - 15 - 8 - 10 - 7 - 7	40 of 40 running 15 of 15 running 8 of 8 running 10 of 10 running 7 of 7 running		£	
Search Cluster > Node ↑ Cluster > Node ↑ Cluster > Node ↑ Cluster > Node ↑ TrS-3WP03R0221 TrS-3WP03R0223 TrS-3WP03R0225 TrS-3WP03R0225 TrS-3WP03R0227	Last updated 10/26/2021, 12:06:15 PM 10/26/2021, 12:06:15 PM	 Node Health Healthy Healthy Healthy Healthy Healthy Healthy Healthy 	↑↓ Node state ↑↓ 4 of 4 up ↑ Up ↑ Up ↑ Up ↑ Up 4 of 4 up	Uptime 🗘 5 days 13 days 13 days 4 days	24.75 % 24 % 25 % 25 % 25 % 0.25 % 2.5 % 3.5 %	695 26 of 1024 GB available 162.02 of 256 GB available 161.16 of 256 GB available 176.82 of 256 GB available 195.26 of 256 GB available 443.86 of 512 GB available	Network usage (B/s)	- 40 - 15 - 8 - 10 - 7 - 0 - 5	40 of 40 running 15 of 15 running 8 of 8 running 10 of 10 running 7 of 7 running 0 of 0 running		;P	

At scale monitoring view: This view offers health, use, and network information.

Azure Stack with multi-cluster monitoring for on-premises Azure Stack HCI streamlines business productivity

The entire suite of Azure Stack HCI multi-cluster monitoring capabilities modernizes your workload environments while saving your IT department—and your entire enterprise—precious time. Because multi-cluster monitoring and visualization goes from the edge to the cloud, your IT staff spends less time configuring and digging into different places to cull this data and more time improving operations and business productivity.

Learn more about multi-cluster monitoring with Azure Monitor Application Insights.

Watch the video: multi-cluster monitoring.

Learn more about Azure Stack HCI at www.azure.com/hci.



©2021 Microsoft Corporation. All rights reserved. This document is provided "as-is." Information and views expressed in this document, including URL and other Internet Web site references, may change without notice. You bear the risk of using it.

This document does not provide you with any legal rights to any intellectual property in any Microsoft product. You may copy and use this document for your internal, reference purposes.