

# DELL APEX Cloud Platform for Microsoft Azure User Guide

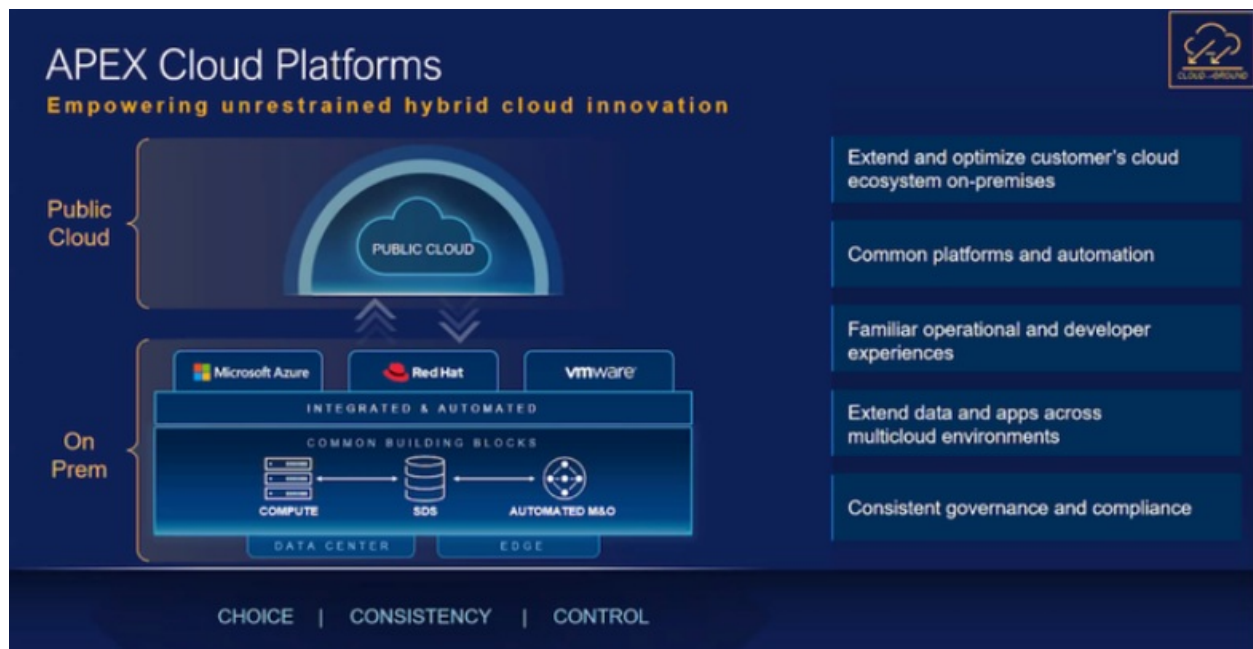
[Home](#) » [Dell](#) » DELL APEX Cloud Platform for Microsoft Azure User Guide 

## Contents

- [1 DELL APEX Cloud Platform for Microsoft Azure](#)
- [2 Product Specifications](#)
- [3 Product Usage Instructions](#)
- [4 FAQ](#)
- [5 Introduction](#)
- [6 What data is collected](#)
- [7 Single Cluster Workbook](#)
- [8 Multi Cluster Workbook](#)
- [9 Documents / Resources](#)
  - [9.1 References](#)



**DELL APEX Cloud Platform for Microsoft Azure**



## Product Specifications

- **Product:** Dell APEX Cloud Platform for Microsoft Azure
- **Nodes:** MC (multicloud) nodes
- **Software:** Dell APEX Cloud Platform Foundation Software
- **Integration:** Microsoft Windows Admin Center

## Product Usage Instructions

### Enabling Event Monitoring Feature

1. Complete the prerequisites for monitoring Azure Stack HCI features.
2. Enable the Event Monitoring for Dell APEX Cloud Platform for Microsoft Azure feature by following the instructions in the manual.
3. Select the feature name “Event Monitoring for Dell APEX Cloud Platform for Microsoft Azure” from the Overview tab to open the workbook.

### Data Collection

Once the Event Monitoring feature is enabled, Insights will start collecting data from the following source:

- Data Source: Custom Windows Event Channel
- Data: Microsoft-Windows-Hyper-V-Dell-APEXCP/Admin

### Workbook Structure

The workbook for Event Monitoring consists of two tabs:

- **Overview Tab:** Provides a brief description of the workbook.
- **Health Tab:** Organized into three sections – Overview, Nodes, and Alerts. Each section visually represents

events across the selected cluster with data scoped to the chosen time range.

## Health Tab Sections:

1. **Time Range Drop-down Menu:** Allows selecting a specific time range to display events on all MC nodes for that period.
2. **Overview:** Displays tiles showing the number of events by severity (Critical, Warning, Information) for all MC nodes within the selected time range.

## FAQ

- **What data is collected by the Event Monitoring feature?**
  - The Event Monitoring feature collects event data from MC nodes and Cloud Platform Manager VM running on a Dell APEX Cloud Platform for Microsoft Azure cluster.

## Introduction

### Event Monitoring for Dell APEX Cloud Platform for Microsoft Azure

Dell APEX Cloud Platform for Microsoft Azure is a turnkey on-premises infrastructure platform collaboratively engineered between Dell and Microsoft to optimize Azure hybrid cloud operations. This platform empowers organizations to unlock innovation through extensive integrations, automation, and a consistent Azure experience across their IT environments.

On each Dell APEX Cloud Platform for Microsoft Azure, cluster nodes are referred to as MC (multicloud) nodes. Additionally, each cluster runs the Dell APEX Cloud Platform Foundation Software in a Cloud Platform Manager VM. This software is responsible for communicating with the underlying infrastructure and integrating automation workflows into Microsoft Windows Admin Center.

You can visualize event and informational event data generated by the MC node hardware and the Cloud Platform Manager VM using an Insights for Azure Stack HCI workbook. You simply need to enable the Event Monitoring for Dell APEX Cloud Platform for Microsoft Azure feature.

Follow these steps to enable the Event Monitoring for Dell APEX Cloud Platform for Microsoft Azure feature. This feature is only available for [Dell APEX Cloud Platform for Microsoft Azure](#):

1. You must complete the [Prerequisites](#) before you can use Insights for monitoring Azure Stack HCI features.
2. Enable the Event Monitoring for Dell APEX Cloud Platform for Microsoft Azure feature. For instructions, see [Enable monitoring for a feature](#).
3. Select the feature name Event Monitoring for Dell APEX Cloud Platform for Microsoft Azure from the Overview tab to open the workbook.

Once Event Monitoring for Dell APEX Cloud Platform for Microsoft Azure feature is enabled for a cluster you will have access to the Multi Cluster workbook, which provides the capability to monitor the fleet of clusters where Event Monitoring feature is enabled.

## What data is collected

Once you enable the Event Monitoring for Dell APEX Cloud Platform for Microsoft Azure feature, Insights starts collecting the following data:

Data Source	Data
Custom Windows Event Channel	Microsoft-Windows-Hyper-V-Dell-APEX- CP/Admin

The Microsoft-Windows-Hyper-V-Dell-APEX-CP/Admin custom windows event channel collects event data from the MC nodes and Cloud Platform Manager VM running on a Dell APEX Cloud Platform for Microsoft Azure cluster.

### Single Cluster Workbook

- The workbook for Event Monitoring for Dell APEX Cloud Platform for Microsoft Azure consists of two tabs, as described below.

#### Overview Tab

- This tab provides a brief description of the workbook.

Time range: Last 28 days

Overview

Health

What's this workbook?

The Health Tab within the workbook is designed to visually present collective events occurring across all nodes within the selected Dell APEX Cloud Platform for Microsoft Azure Cluster. To learn more about the platform, you can explore [Dell APEX Cloud Platform for Microsoft Azure](#).

These visualizations are tailored specifically for the selected time range, offering an insightful overview of issues affecting the cluster's performance. In addition, this tab presents the health status of individual nodes within the cluster, providing users with a comprehensive display of node health. It also includes detailed information about the events that have impacted these nodes during the selected time range. This breakdown encompasses error specifics, timestamps, and affected services or components, offering users a deeper understanding of the cluster's health status.

For further guidance and comprehensive information on utilizing the workbook's features, please refer to the [Event Monitoring for Dell APEX Cloud Platform for Microsoft Azure](#) on the [Dell Support site](#).

#### Health Tab

This tab is organized into three sections: Overview, Nodes and Alerts. Each section gives a visual representation that highlights the collective events occurring across the selected Dell APEX Cloud Platform for Microsoft Azure cluster. The data displayed in each section will be scoped to the selected time range.

Time range: Last hour

Overview

Health

Overview

Critical2

Warning0

Information0

Health Status reflects the Health of each Node for the selected Time range.

Nodes

Search

Node Name	Last Updated	Health Status	Node State	Uptime	Site	Domain Group
crk608c01	5/13/2024, 4:11:52.919 PM	Healthy	Up	4 days	Site 172.24.38.0/24	mcpcoirk.local
crk608c02	5/13/2024, 4:11:52.919 PM	Critical	Up	4 days	Site 172.24.38.0/24	mcpcoirk.local

Events

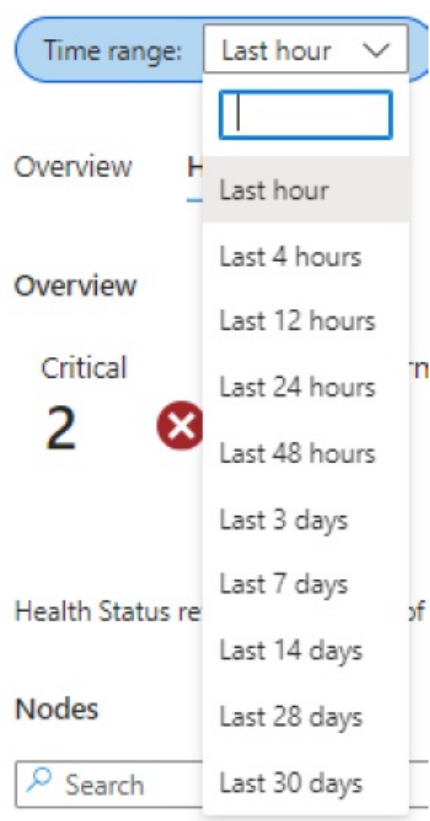
Search

Node Name	Severity	Event Code	Reported Time	Event Time	Short Description	Compone...	Sub Component	Service Tag	Knowledgebase	Acknowledged
crk608c02	Critical	0500MEM0001	5/13/2024, 4:18:46.082 PM	5/13/2024, 4:22:33.000 PM	Multi-bit Memory errors detected on a Memory device at...	Node	Memory: Slot "1"	F1V3PD4	<a href="https://www.dell.com/support/kbdoc/000208584">https://www.dell.com/support/kbdoc/000208584</a>	false
crk608c02	Critical	0500BAT0002	5/13/2024, 4:18:46.082 PM	5/13/2024, 4:22:33.000 PM	The system board battery has failed.	Node	Battery	F1V3PD4	<a href="https://www.dell.com/support/kbdoc/000208433">https://www.dell.com/support/kbdoc/000208433</a>	false

#### Time Range drop-down menu

- Allows the user to select a specific time range to show the events that occurred on all the MC nodes for the

cluster for that period.



Overview

- Displays tiles showing the number of events by severity (Critical, Warning and Information) for all the MC nodes within the selected time range.



Nodes

- The Nodes section displays a grid showing the health status and other relevant information for each MC node in the cluster.
- The Search bar can be used to filter the information based on a given search term.

Nodes									
Search									
Node Name	Last Updated	Health Status	Node State	Uptime	Site	Domain Group			
crkrs0lc01	5/13/2024, 4:11:52.919 PM	Healthy	Up	4 days	Site 172.24.38.0/24	mcpork.local			
crkrs0lc02	5/13/2024, 4:11:52.919 PM	Critical	Up	4 days	Site 172.24.38.0/24	mcpork.local			

Column	Description
Cluster Name	Name of the Cluster
Node Name	Name of the Node
Last Updated	Time when node was last contacted
Health Status	Health Status reflects the health of each Node for the selected time range (Critical, Warning, Information, Healthy)
Node State	State of the Node (Up, Down, In maintenance, Joining)
Uptime	Uptime for the Node
Site	Site Details
Domain Group	Domain Group

Events

The Events section displays a grid showing information on all the events generated by all MC nodes in the cluster during the selected time range.

Events

Search											
Node Name	Severity	Event Code	Reported Time	Event Time	Short Description	Component	Sub Component	Service Tag	Knowledgebase	Acknowledged	
cr1rfa08c02	Critical	0500MEM001	5/13/2024, 4:18:46.082 PM	5/13/2024, 4:22:33.000 PM	Multi-bit Memory errors detected on a Memory device at...	Node	Memory, Slot "1"	F1V3P04	<a href="https://www.dell.com/support/kbdoc/000208584">https://www.dell.com/support/kbdoc/000208584</a>	false	
cr1rfa08c02	Critical	0500BAT0002	5/13/2024, 4:18:46.082 PM	5/13/2024, 4:22:33.000 PM	The system board battery has failed.	Node	Battery	F1V3P04	<a href="https://www.dell.com/support/kbdoc/000208433">https://www.dell.com/support/kbdoc/000208433</a>	false	

Column	Description
Node Name	Name of the Node
Severity	Severity of the Event (Critical, Warning, Info)
Event Code	Code for the Event
Reported Time	Time of the Event Reported to the Azure Portal
Event Time	Time of the Event
Short Description	Short Description for the Event
Component	Component on which the Event occurred (Cluster, Node, Connectivity,,)

Sub Component	Sub component on which the Event occurred (CPU, Memory, Disk...)
Service Tag	Service Tag
Knowledgebase	KB article link if available
Acknowledged	Acknowledgement status of the Event (true, false)

## Multi Cluster Workbook

The Multi Cluster workbook for Event Monitoring for Dell APEX Cloud Platform for Microsoft Azure consists of four tabs, as described below.

### Overview Tab

- This tab provides a brief description of the workbook.

Time range: Last 28 days

Subscriptions: AzD1N-HCI-AzureStack-Sx01

Resource groups: All

HCI clusters: acp021cluster, acp02cluster (an...

Overview

Cluster Health

Node Health

Events

What's this workbook?

Cluster Health:

This view offers a snapshot of the overall health of Dell APEX Cloud Platform for Microsoft Azure clusters. It categorizes events by severity, enabling users to quickly identify critical issues. By glancing at this view, users can get an instant overview of the clusters' health status.

Node Health:

In the Node view, users can access a summary of events and the health status of individual nodes. This view allows for easy expansion of clusters, providing in-depth information about each node, including uptime and status. Users can gain a granular understanding of the cluster's performance and pinpoint potential areas of concern.

Events:

The Node View also includes details about events generated by the nodes. Users can access information such as the event code, time of event, and associated knowledge base articles (KB articles). This feature assists users in diagnosing and resolving issues efficiently.

To learn more about the platform, you can explore [Dell APEX Cloud Platform for Microsoft Azure](#).

These visualizations are tailored specifically for the selected time range, offering an insightful overview of issues affecting the cluster's performance. In addition, this tab presents the health status of individual nodes within the cluster, providing users with a comprehensive display of node health. It also includes detailed information about the events that have impacted these nodes during the selected time range. This breakdown encompasses error specifics, timestamps, and affected services or components, offering users a deeper understanding of the cluster's health status.

For further guidance and comprehensive information on utilizing the workbook's features, please refer to the [Event Monitoring for Dell APEX Cloud Platform for Microsoft Azure](#) on the Dell Support site.

### Cluster Health Tab

This tab is organized into two sections: Overview and Cluster. Each section gives a visual representation that highlights the collective events occurring across all the Dell APEX Cloud Platform for Microsoft Azure clusters. The data displayed in each section will be scoped to the selected time range, allowing you to focus on the desired timeframe.

Time range: Last 24 hours

Subscriptions: AzD1N-HCI-AzureStack-Sx01

Resource groups: All

HCI clusters: rack5s03cluster, rack5s06cluster...

Overview

Cluster Health

Node Health

Events

Total Clusters

3

Healthy

2

✔

Critical

1




✖

Warning

0

⚠

🔍 Search

Cluster Name	↑↓ Last Updated	↑↓ Total Nodes↑↓	Health Status	↑↓ Site	↑↓ DomainGroup
 rack5s03cluster	3/12/2024, 4:02:30.125 PM	3	✔ Healthy	Site 172.24.23.0/24	mcpork.local
 rack5s06cluster	3/12/2024, 4:07:27.209 PM	2	✖ Critical	Site 172.24.26.0/24	mcpork.local
 rack5s8cluster	3/12/2024, 3:24:45.991 PM	2	✔ Healthy	Site 172.24.28.0/24	mcpork.local



Column	Description
Cluster Name	Name of the Cluster
Last Updated	Time when the Cluster was last contacted
Total Nodes	Total Number of nodes in the Cluster
Health Status	<p>Health Status reflects the health of cluster for the selected time range (Critical, Warning, Information, Healthy)</p> <p><b>Note:</b> When using the Health Status, it's important to keep in mind that the displayed status can show Critical or Warning within the selected time range, even if the event has been cleared by a subsequent Clear info event. This occurs because the workbook provides a snapshot of past events. You need to take into account any subsequent Clear events that may have occurred after the selected time range</p>
Site	Site Details
Domain Group	Domain Group

## Node Health Tab

This tab is organized into two sections: Overview and Node, in this view the cluster can be expanded to view the overview of events on all the nodes within the cluster. Each section gives a visual representation that highlights the collective events occurring across all the Dell APEX Cloud Platform for Microsoft Azure cluster. The data displayed in each section will be scoped to the selected time range.

Total Nodes

7

Healthy

5













Critical

1

Warning

1

Expand a cluster to see the health of individual nodes

Search													
Cluster > Node	↑↓	Last Updated	↑↓	Health Status	↑↓	Node State	↑↓	Uptime	↑↓	Site	↑↓	DomainGroup	↑↓
▼  rack5s03cluster		3/12/2024, 4:02:30.125 PM		 3 Healthy		3 of 3 up							
 crkr5s03c01		3/12/2024, 4:02:30.125 PM		 Healthy		↑ Up		8 days		Site 172.24.23.0/24		mcpork.local	
 crkr5s03c02		3/12/2024, 4:02:30.125 PM		 Healthy		↑ Up		8 days		Site 172.24.23.0/24		mcpork.local	
 crkr5s03c03		3/12/2024, 4:02:30.125 PM		 Healthy		↑ Up		8 days		Site 172.24.23.0/24		mcpork.local	
>  rack5s06cluster		3/12/2024, 4:07:27.209 PM		 1 Critical, 1 Warning		2 of 2 up							
>  rack5s8cluster		3/12/2024, 3:24:45.991 PM		 2 Healthy		2 of 2 up							

Column	Description
Cluster>Node	Name of the Cluster and Node
Last Updated	Time when node was last contacted
Health Status	Health Status reflects the health of each Node for the selected time range (Critical, Warning, Information, Healthy)
Node State	State of the Node (Up, Down, In maintenance, Joining)
Uptime	Uptime for the Node
Site	Site Details
Domain Group	Domain Group

Event Tab

This tab is organized into two sections: Overview and Events, the details about the event can be seen in the event

section. Each section gives a visual representation that highlights the collective events occurring across all the Dell APEX Cloud Platform for Microsoft Azure cluster. The data displayed in each section will be scoped to the selected time range.

Time range: Last 7 days

Subscriptions: AzDIN-HCI-AzureStack-Sx01

Resource groups: All

HCI clusters: rack5s03cluster, rack5s06cluster,...

Overview

Cluster Health

Node Health

Events

Total

22

Critical

8

Warning

4

Information

10


Search

Cluster Name	Node Name	Severity	Event Code	Reported Time	Event Time	Short Description
rack5s08cluster	crkr5s06c02	Critical	0500PSU0076	2024-03-07 17:03:01	2024-03-07 17:02:52	A power supply wattage mismatch is
rack5s06cluster	crkr5s06c02	Critical	0500PFM0001	2024-03-07 17:02:09	2024-03-07 16:59:02	The value of CPU Usage is greater th
rack5s06cluster	crkr5s06c01	Critical	0500AMP0313	2024-03-07 16:56:03	2024-03-07 16:55:55	System level current is less than the
rack5s06cluster	crkr5s06c02	Warning	0508BAT1024	2024-03-07 16:28:54	2024-03-07 16:28:41	Errors detected with battery on RAIC
rack5s06cluster	crkr5s06c02	Warning	0508FAN903	2024-03-07 16:05:05	2024-03-07 16:04:54	Cannot enable the Enhanced Coolin
rack5s06cluster	crkr5s06c01	Warning	0508HWC9011	2024-03-07 16:03:13	2024-03-07 16:03:05	The network link connection status c
rack5s08cluster	crkr5s06c01	Warning	0508STOR066	2024-03-07 16:02:08	2024-03-07 16:02:00	Controller is not T10 Protection Infor
rack5s8cluster	crkr5s08c01	Critical	1140UPDE0008	2024-03-06 08:45:06	2024-03-06 08:45:03	Upgrade failed step is UpgradeStanc
rack5s8cluster	crkr5s08c01	Information	114CUPDE0007	2024-03-06 08:30:40	2024-03-06 08:30:34	Upgrade started, start step is Upgrac
rack5s8cluster	crkr5s08c01	Critical	1140UPDE0008	2024-03-05 15:48:19	2024-03-05 15:48:14	Upgrade failed step is UpgradeStanc

Column	Description
Cluster Name	Name of the Cluster
Node Name	Name of the Node

Severity	Severity of the Event (Critical, Warning, Info)
Event Code	Code for the Event
Reported Time	Time of the Event Reported to the Azure Portal
Event Time	Time of the Event
Short Description	Short Description for the Event
Component	Component on which the Event occurred (Cluster, Node, Connectivity,,,) )
Sub Component	Sub component on which the Event occurred (CPU, Memory, Disk...)
Service Tag	Service Tag
Knowledgebase	KB article link if available
Acknowledged	Acknowledgement status of the Event (true, false)

Documents / Resources

	<p><a href="#">DELL APEX Cloud Platform for Microsoft Azure</a> [pdf] User Guide</p> <p>APEX Cloud Platform for Microsoft Azure, Cloud Platform for Microsoft Azure, Platform for Microsoft Azure, Microsoft Azure, Azure</p>
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References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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