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OMR, CHENNAI - 119

# Placement Empowerment Program :

**Cloud Computing and Devops**

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## **ABOUT:**

Cloud-based monitoring in Azure provides real-time insights into the performance and health of resources. For a Storage Account, Azure Monitor collects and displays metrics such as availability, capacity, transactions, and latency. These metrics help track usage patterns, detect anomalies, and optimize performance. Users can view storage metrics through the Azure portal, configure alerts, and integrate with tools like Log Analytics for deeper analysis. This monitoring ensures efficient storage management, enhances security, and supports proactive troubleshooting.

# SIGNIFICANCE:

- Performance Optimization** – Helps track storage performance metrics like latency, transactions, and throughput, allowing for efficient resource management.
- Proactive Issue Detection** – Enables early identification of anomalies or failures through real-time monitoring and alerts, preventing downtime.
- Cost Management** – Provides insights into storage usage and trends, helping optimize costs by managing capacity and scaling efficiently.
- Security & Compliance** – Enhances security by detecting unauthorized access patterns and ensuring compliance with data governance policies.

## STEP 1:

Create a Virtual Machine and deploy it

Home >

Virtual machines✦ ...×

Default Directory (amirthavarshiniamggmail.onmicrosoft.com)

+ Create

↔ Switch to classic

🕒 Reservations

⚙️ Manage view

🔄 Refresh

📄 Export to CSV

🔗 Open query

🏷️ Assign tags

▶ Start

🔄 Restart

⏹ Stop

🗑 Delete

☰ Services

🔧 Maintenance

Filter for any field...

Subscription equals all

Type equals all

Resource group equals all

Location equals all

Add filter

Showing 1 to 1 of 1 records.

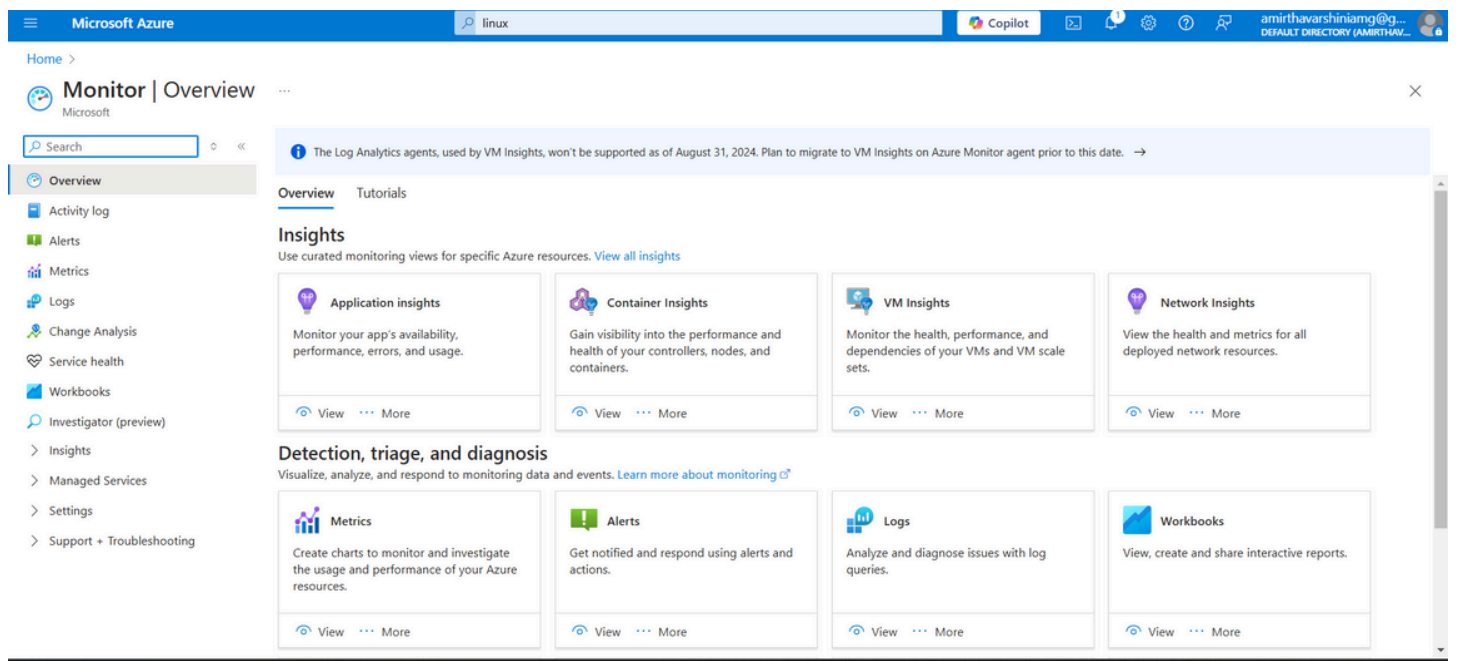
No grouping

List view

<input type="checkbox"/> Name	Subscription	Resource group	Location	Status	Operating system	Size	Public IP address	Disks	Update
<input type="checkbox"/> VM1	Azure subscription 1	new	Australia East	Running	Linux	Standard_B1s	40.82.201.243	1	<a href="#">Enable</a>

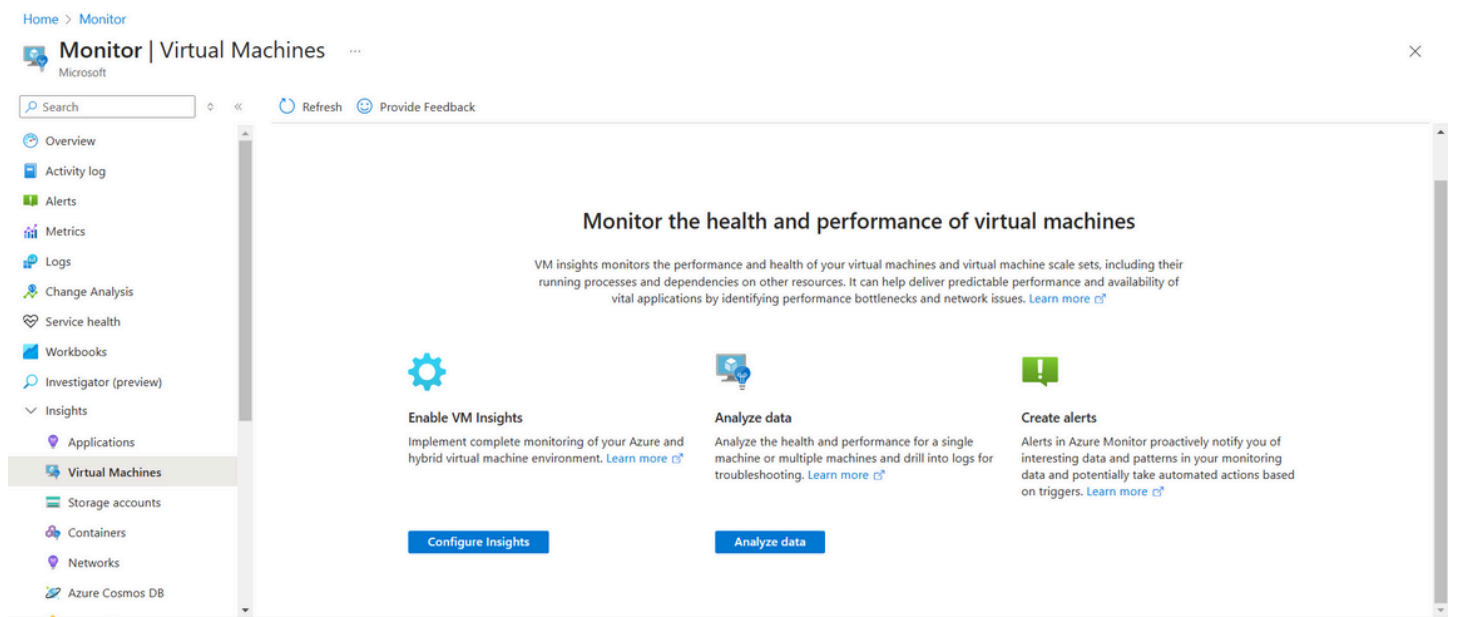
## STEP 2:

Click on VM insights



## STEP 3:

### Select Enable VM insights



## STEP 4:

### Click on Enable to monitor the deployed virtual Machine

**Microsoft Azure** | Monitor | Virtual Machines

Get started **Overview** Performance Map

Filter by name... Subscription : 2 subscrip

Group by : Subscription, Resource group

Monitored (0) **Not monitored (1)** Workspace configura

Name

▼ Azure subscription 1

▼ new

VM1

**Azure Monitor**  
Insights Onboarding

**Get more visibility into the health and performance of your virtual machine**

With an Azure virtual machine you get host CPU, disk and up/down state of your VMs out of the box. Enabling additional monitoring capabilities provides insights into the performance and dependencies for your virtual machines.

You will be billed based on the amount of data ingested and your data retention settings. It can take between 5-10 minutes to configure the virtual machine and the monitoring data to appear.

The map data set collected with Azure Monitor for VMs is intended to be infrastructure data about the resources being deployed and monitored. For details on data collected please [click here](#).

**Enable**

Having difficulties enabling Azure Monitors for VM? [Troubleshoot](#)

## STEP 5:

Click on configure

**Microsoft Azure** | Monitor | Virtual Machines

Get started **Overview** Performance Map

Filter by name... Subscription : 2 subscrip

Group by : Subscription, Resource group

Monitored (0) **Not monitored (1)** Workspace configura

Name

▼ Azure subscription 1

▼ new

VM1

**Monitoring configuration**

VM Insights now supports data collection using the Azure Monitor Agent and data collection rules.

Subscription \* Azure subscription 1

Data collection rule (new) MSVMI-DefaultWorkspace-08ff6072-2cd8-4ef6-9efe-1ac2db5dab27-EUS

[Create New](#)

**MSVMI-DefaultWorkspace-08ff6072-2cd8-4ef6-9efe-1ac2db5dab27-EUS**

Guest performance	Enabled
Processes and dependencies (Map)	Disabled
Log Analytics workspace	DefaultWorkspace-08ff6072-2cd8-4ef6-9efe-1ac2db5dab27-EUS

This will also enable System Assigned Managed Identity, in addition to existing User Assigned identities (if any).  
**Note:** Unless specified in the request, the machine will default to using System Assigned Identity. [Learn More](#)

Currently, only resources in certain regions are supported. [Learn More](#)

**Configure** **Cancel**

## STEP 6:

Goto metrics and select virtual machines in the resource column

The screenshot shows the Microsoft Azure Monitor Metrics page. On the left is a navigation pane with options like Overview, Activity log, Alerts, Metrics, Logs, Change Analysis, Service health, Workbooks, Investigator (preview), and Insights. The main area displays a chart titled 'Chart Title' with a 'Scope' dropdown set to '+ Select a scope'. A 'Metric Namespace' dropdown is also visible. Overlaid on the right is the 'Select a scope' dialog box. It has tabs for 'Browse' and 'Recent'. Under 'Browse', there are dropdowns for 'Subscription' (All subscriptions), 'Resource types' (All resource types), and 'Locations' (All locations). Below these is a search bar 'Search to filter items...'. A table lists available scopes:

Scope	Resource type	Location
<input checked="" type="checkbox"/> > Azure subscription 1	Subscription	-
<input type="checkbox"/> > Pay-As-You-Go	Subscription	-

Below the table is a message: 'Why can't I select multiple resources? Azure limits selections to one resource type and one location. Please refine your scope.' Under 'Refine scope', there are dropdowns for 'Resource type' (Virtual machines) and 'Location' (Australia East). At the bottom, it shows 'Selected scopes: 1 scope' with a list containing 'Azure subscription 1'. There are 'Apply', 'Cancel', and 'Clear all selections' buttons.

## STEP 7:

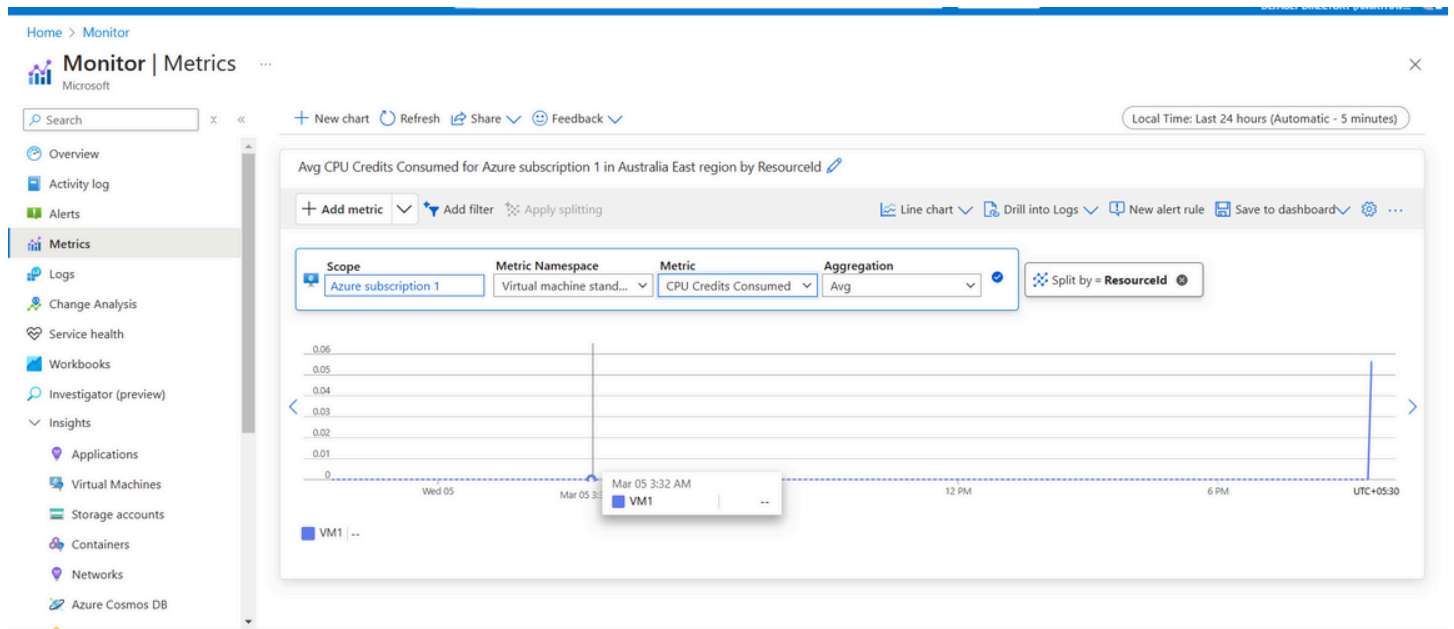
Select the type of metric monitor that is required

The screenshot shows the Microsoft Azure Monitor Metrics page with the 'Metric' dropdown menu open. The 'Scope' is set to 'Azure subscription 1' and the 'Metric Namespace' is 'Virtual machine stand...'. The 'Metric' dropdown shows a list of available metrics:

- Available Memory Bytes (Preview)
- Available Memory Percentage (Preview)
- CPU Credits Consumed
- CPU Credits Remaining
- Data Disk Bandwidth Consumed Percentage
- Data Disk IOPS Consumed Percentage
- Data Disk Latency (Preview)
- Data Disk Max Burst Bandwidth

The 'Aggregation' dropdown is also visible, showing 'Select aggregation'. The background shows a chart area with a time axis from 'Wed 05' to 'UTC+05:30'.

## STEP 8:



## OUTPUT:

**Real-Time Metrics Dashboard** – Displays key performance indicators like availability, latency, and storage capacity in the Azure portal.

**Alert Notifications** – Sends alerts via email, SMS, or Azure Monitor when thresholds for performance or security events are breached.

**Log Reports & Analytics** – Generates logs and detailed insights using Azure Log Analytics for troubleshooting and performance tuning.

**Cost & Usage Reports** – Provides data on storage consumption and trends, helping optimize resource allocation and cost management.

