# Azure VM Insights

Azure VM Insights is a feature of Azure Monitor designed to provide deep insights into the performance and health of virtual machines (VMs) in Azure, whether they are individual VMs, scale sets, or VMs in other environments. It helps you monitor, diagnose, and analyze the behavior of your virtual machines by collecting metrics, logs, and other telemetry data.
Azure VM Insights is a versatile tool that empowers organizations to monitor, optimize, and secure their virtual machine environments, ensuring seamless operations and reduced downtime. It simplifies complex troubleshooting and enables informed decision-making through advanced analytics.

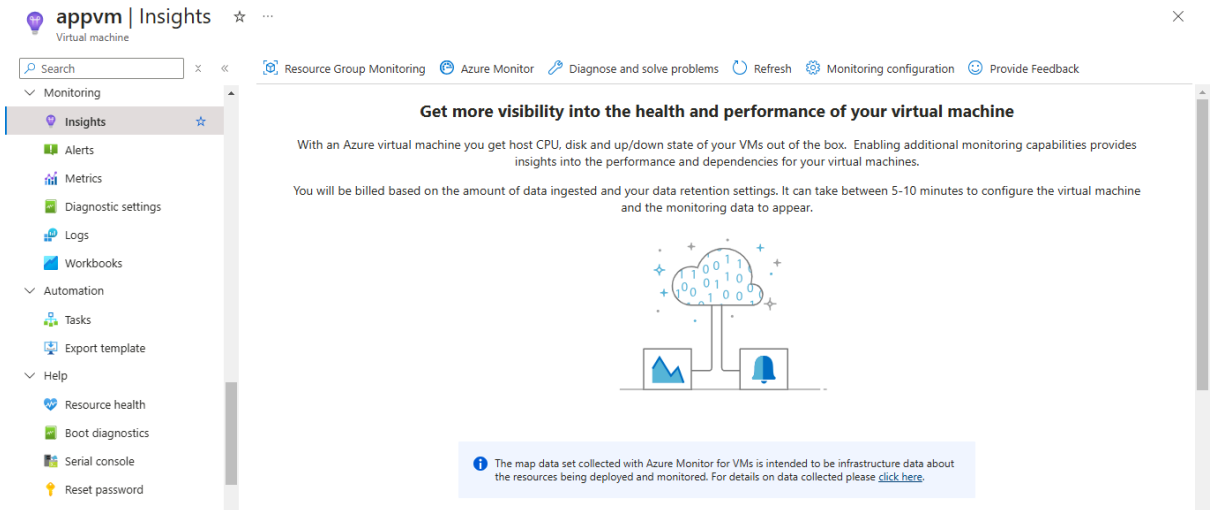
Key features of Azure VM Insights

1. **Performance Monitoring:** Tracks critical performance indicators such as CPU, memory, disk I/O, and network usage. Stores data for trend analysis and troubleshooting.
2. **Service Map (Dependency Visualization):** Identifies dependencies and interactions between VMs, applications, and external systems. Maps running processes and their connections, helping identify dependency issues or unexpected behaviors.
3. **Prebuilt Dashboards:** Provides dashboards for quick insights into VM health, performance, and dependencies. Allows users to build tailored views using Azure Monitor Workbooks for specific monitoring needs.
4. **Log and Metrics Analysis:** Enables advanced queries to analyze collected logs and metrics stored in the Log Analytics Workspace.Helps identify patterns or anomalies across multiple VMs or services.
5. **Alerting and Automation:** Notify users when thresholds for specific metrics or conditions are breached. Automate responses, such as scaling up resources or restarting applications, using Azure Logic Apps or Automation Runbooks.

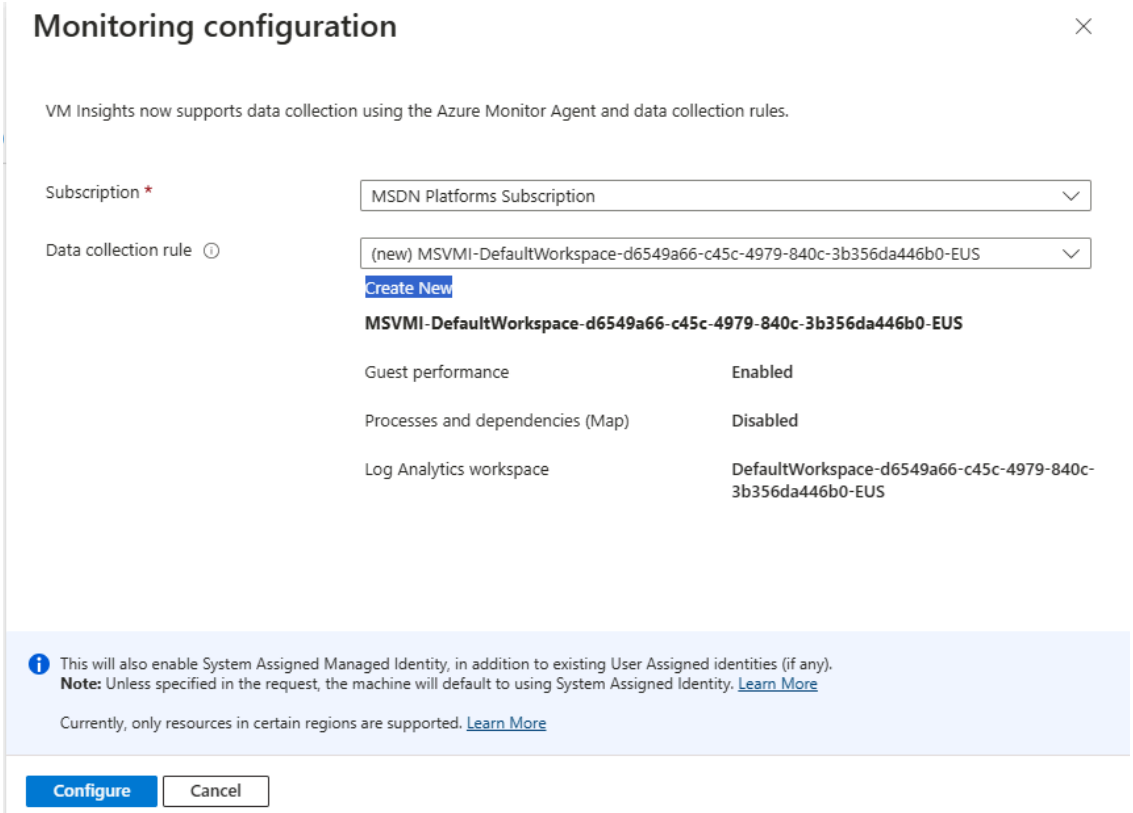
**The end goal of Azure VM Insights is to provide comprehensive performance monitoring and diagnostics for Azure virtual machines, enabling users to identify and resolve performance issues. By enabling VM Insights and configuring a data collection rule, users can gain real-time visibility into metrics like CPU utilization, memory availability, and dependency mappings. The "Performance" tab helps monitor critical system resources, while the "Map" tab visualizes server dependencies and connections. These insights empower IT teams to optimize VM performance, enhance application reliability, and proactively address issues affecting system health, ensuring seamless operation in Azure environments.**

# To begin with the lab

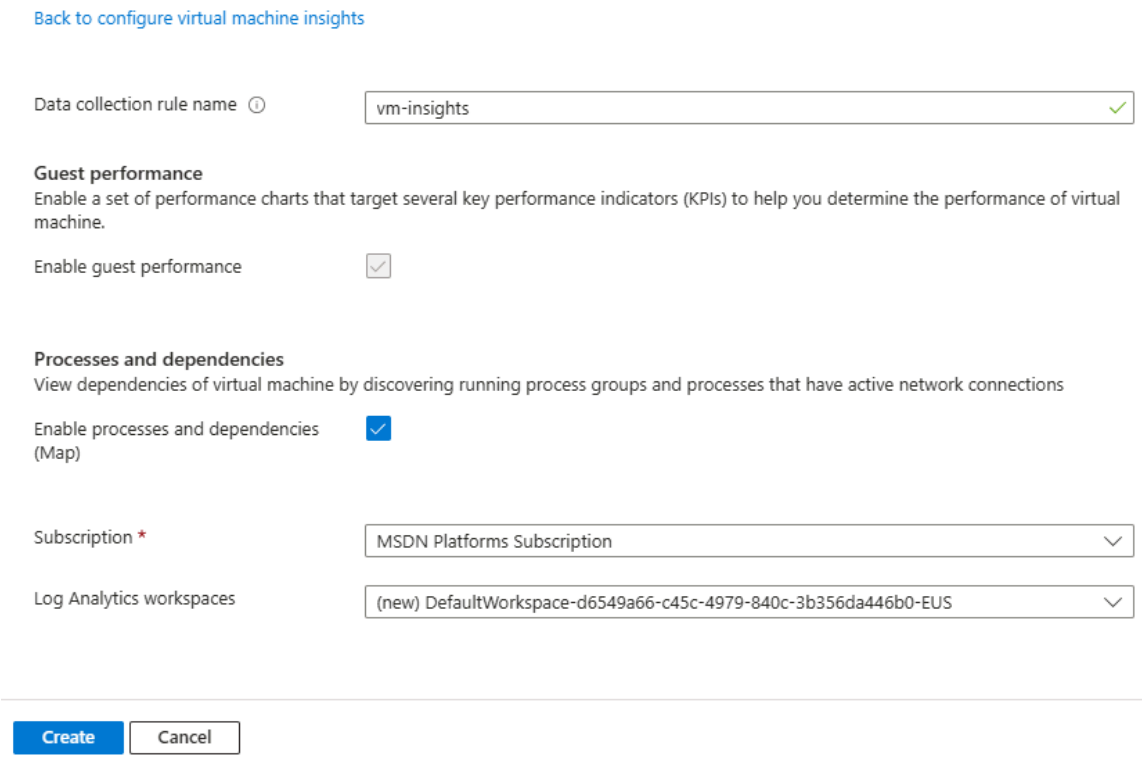
1. Log in to the Azure portal, select the virtual machine you want to monitor Scroll down to the "Monitoring" section in the left-hand pane and select "Insights." Click on the **Enable** button to activate the feature.



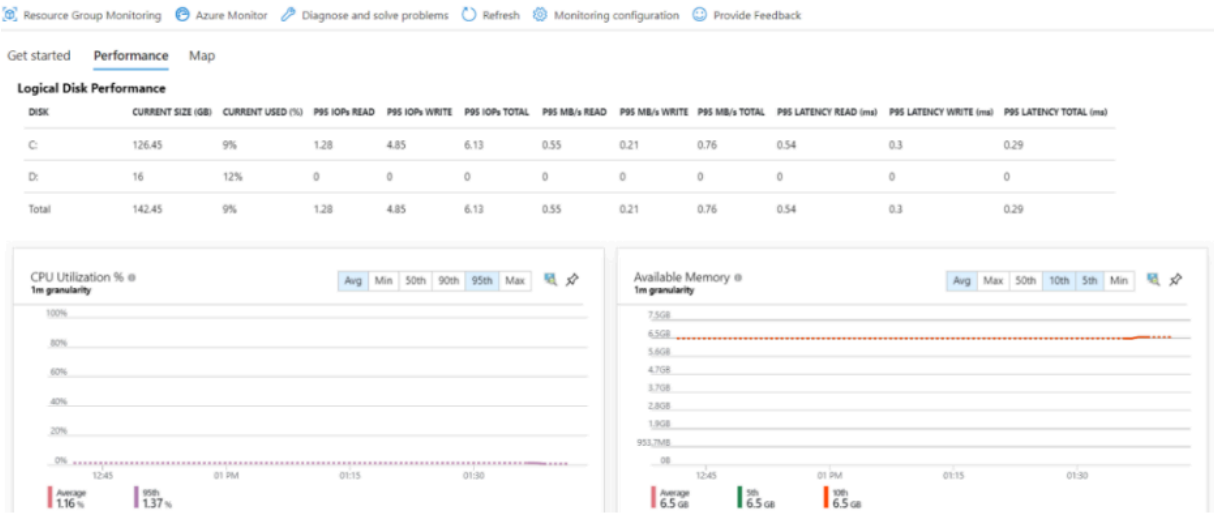

2. When prompted, create a new data collection rule instead of using the default one.
3. Enable the **Processes and Dependencies** option in the DCR configuration. Select your existing Log Analytics workspace or create a new one. Assign a name to the DCR and click **Create**.



4. Then you need to give it a name and enable process and dependencies after that choose your VM workspace in the log analytic workspace and click on create. Then you have to click on the configure button.




5. Allow 20-30 minutes for the data collection to take effect and populate. Return to the "Insights" section of your VM. Navigate to the **Performance** tab to view metrics such as CPU utilization, available memory, and disk performance.




6. Open the **Map** tab to see a visual representation of the processes running on the VM and their dependencies.