

Task - 7



Azure Monitor Alerts



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CLOUD INFRA

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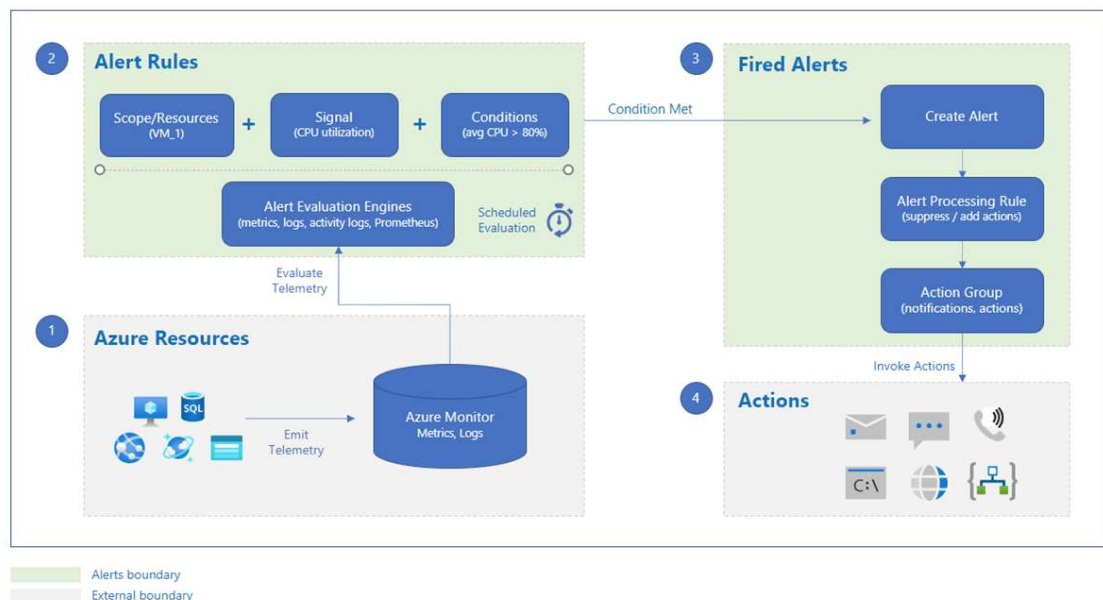
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Azure Monitor Alerts

- Azure Monitor Alerts are notifications triggered by specific conditions within Azure services and resources.
- They allow you to proactively monitor the performance, availability, and overall health of your Azure environment.
- By setting up alerts, you can receive notifications through various means such as email, SMS, or other communication channels when predefined thresholds or conditions are met. This enables timely responses to potential issues, ensuring the smooth operation of your applications and infrastructure.



Alerts consist of:

- **Action groups:** These groups can trigger notifications to let users know that an alert has been triggered or start automated workflows. Action groups can include:
 - Notification methods, such as email, SMS, and push notifications.
 - Automation runbooks.
 - Azure functions.
 - ITSM incidents.
 - Logic apps.
 - Secure webhooks.
 - Webhooks.
 - Event hubs.

- **Alert conditions:** These conditions are set by the system. When an alert fires, the alert condition is set to **fired**. After the underlying condition that caused the alert to fire clears, the alert condition is set to **resolved**.
- **User response:** The response is set by the user and doesn't change until the user changes it. The User response can be **New**, **Acknowledged**, or **Closed**.
- **Alert processing rules:** You can use alert processing rules to make modifications to triggered alerts as they're being fired. You can use alert processing rules to add or suppress action groups, apply filters, or have the rule processed on a predefined schedule.

Types of Alerts

Azure Monitor supports various types of alerts to help monitor and manage resources effectively. These include:

1. **Metric Alerts:** Triggered based on metrics from Azure resources (e.g., CPU usage, memory).
2. **Log Alerts:** Based on log data collected by Azure Monitor Logs, triggered by queries.
3. **Activity Log Alerts:** Triggered by specific activities in the Azure activity log, such as resource changes.
4. **Application Insights Alerts:** Based on telemetry data from Application Insights, useful for monitoring application performance.
5. **Service Health Alerts:** Notify you of service issues and maintenance events affecting Azure services.

Alerts and state

Alerts can be stateful or stateless.

- Stateless alerts fire each time the condition is met, even if fired previously.
- Stateful alerts fire when the rule conditions are met, and will not fire again or trigger any more actions until the conditions are resolved.

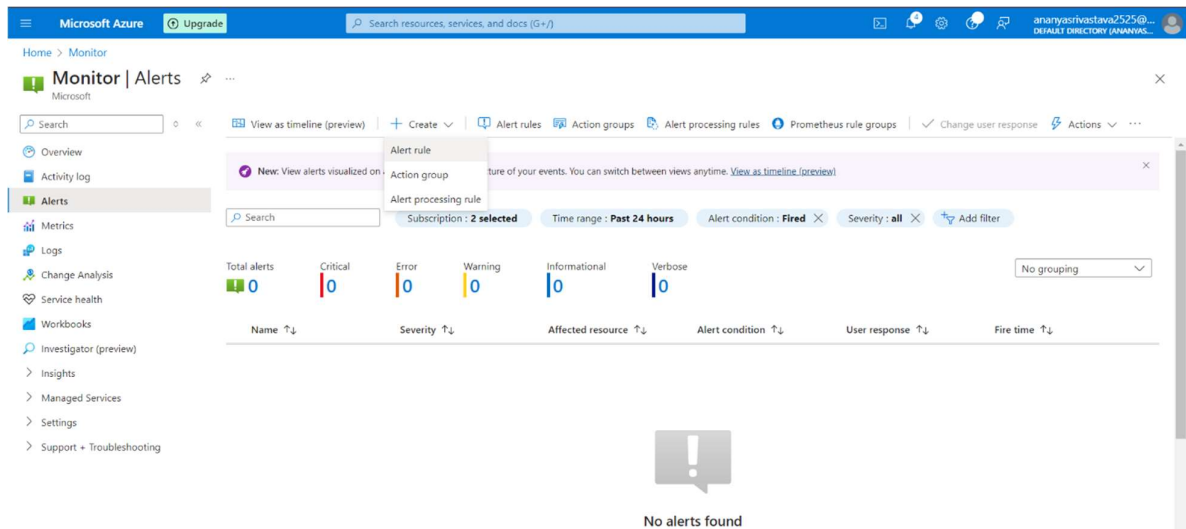
Create an Azure Monitor alert

Step 1: Sign in to Azure Portal

1. Go to [Azure Portal](#).
2. Sign in with your Azure account.

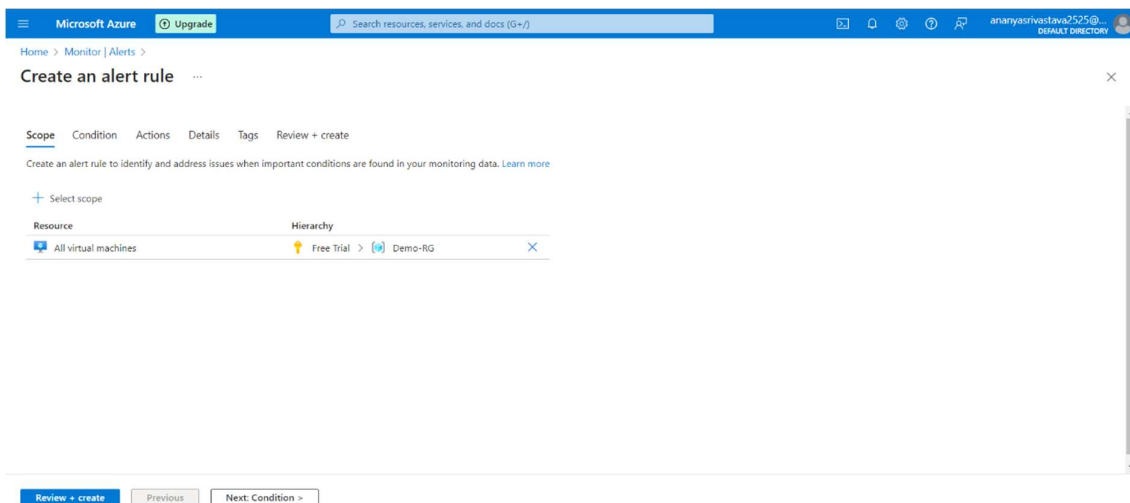
Step 2: Navigate to Azure Monitor

1. In the left-hand menu, select "Monitor".



Step 3: Create an Alert Rule

1. In Azure Monitor, select "Alerts" from the menu.
2. Click on "New alert rule".



Step 4: Define the Scope

1. Under "Scope", select the resource you want to monitor (e.g., a virtual machine, storage account, etc.).

Step 5: Add a Condition

1. Under "Condition", click "Add condition".
2. Choose a signal from the available options (e.g., CPU percentage, memory usage).
3. Configure the condition logic.

The screenshot shows the 'Create an alert rule' page in the Microsoft Azure portal. The 'Condition' tab is selected. The 'Signal name' dropdown is open, showing a list of signals: 'Percentage CPU', 'Available Memory Bytes (Preview)', 'Data Disk IOPS Consumed Percentage', 'OS Disk IOPS Consumed Percentage', and 'Network In Total'. The 'Percentage CPU' signal is selected. The 'Alert logic' section shows a configuration for the 'Percentage CPU' signal. The 'Threshold' is set to 80. The 'Aggregation type' is set to 'Average'. The 'Operator' is set to 'Greater than'. The 'Threshold value' is set to 80. The 'Preview' section shows a graph of the 'Percentage CPU' signal over the last 6 hours, with a threshold line at 80%. The 'Time range' is set to 'Over the last 6 hours' and the 'Time series' is set to 'VM1: Aggregate'. The 'Cost' is shown as '\$0.20 USD/month'.

The screenshot shows the 'Create an alert rule' page in the Microsoft Azure portal, with the 'Select a signal' dialog box open. The dialog box has a search bar with the text 'restart'. The 'Signal type' is set to 'Activity log' and the 'Signal source' is set to 'All'. The 'Signal name' column shows 'Restart Virtual Machine (Virtual Machines)' and the 'Signal source' column shows 'Administrative'. The 'Activity log' section is expanded, showing the selected signal. The 'Apply' button is highlighted.

Step 6: Define the Action Group

1. Under "Action group", click "Select action group".
2. You can create a new action group or use an existing one. Action groups define what actions will be taken when an alert is triggered (e.g., sending an email, SMS, or calling a webhook).

The screenshot shows the 'Create action group' page in the Microsoft Azure portal, specifically the 'Basics' tab. The page title is 'Create action group'. Below the title, there are tabs for 'Basics', 'Notifications', 'Actions', 'Tags', and 'Review + create'. A brief description states: 'An action group invokes a defined set of notifications and actions when an alert is triggered. [Learn more](#)'. Under the 'Project details' section, it says 'Select a subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.' There are three dropdown menus: 'Subscription' (set to 'Free Trial'), 'Resource group' (set to 'Demo-RG' with a 'Create new' link below it), and 'Region' (set to 'Global'). Under the 'Instance details' section, there are two text input fields: 'Action group name' (containing 'AG2') and 'Display name' (containing 'AG2'). A note below the display name field states 'The display name is limited to 12 characters'. At the bottom, there are three buttons: 'Review + create' (highlighted in blue), 'Previous', and 'Next: Notifications >'.

The screenshot shows the 'Create action group' page in the Microsoft Azure portal, specifically the 'Notifications' tab. The page title is 'Create action group'. Below the title, there are tabs for 'Basics', 'Notifications', 'Actions', 'Tags', and 'Review + create'. A brief instruction states: 'Choose how to get notified when the action group is triggered. This step is optional.' There is a table with three columns: 'Notification type', 'Name', and 'Selected'. The 'Notification type' column has a dropdown menu with two options: 'Email Azure Resource Manager Role' and 'Email/SMS message/Push/Voice'. The 'Name' and 'Selected' columns are currently empty. At the bottom, there are three buttons: 'Review + create' (highlighted in blue), 'Previous', and 'Next: Actions >'.

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Home > Monitor | Alerts > Create an alert rule >

Create action group

Basics **Notifications** Actions Tags Review + create

Choose how to get notified when the action group is triggered. This step is optional.

Notification type	Name	Selected
Email/SMS message/Push/Voice	notification1	Email, SMS message

Review + create Previous Next: Actions >

Step 7: Configure the Alert Details

1. Under "Alert rule details", enter a name and description for the alert rule.
2. Set the severity level (e.g., Sev 0 for critical, Sev 1 for warning).

Step 8: Review and Create

1. Review all configurations and click "Create alert rule".

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Home > Monitor | Alerts >

Alert rules

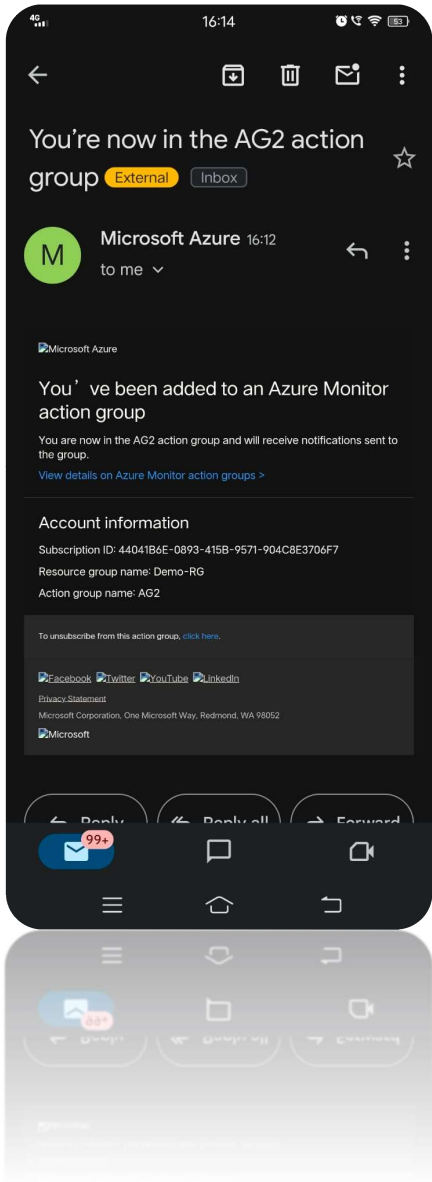
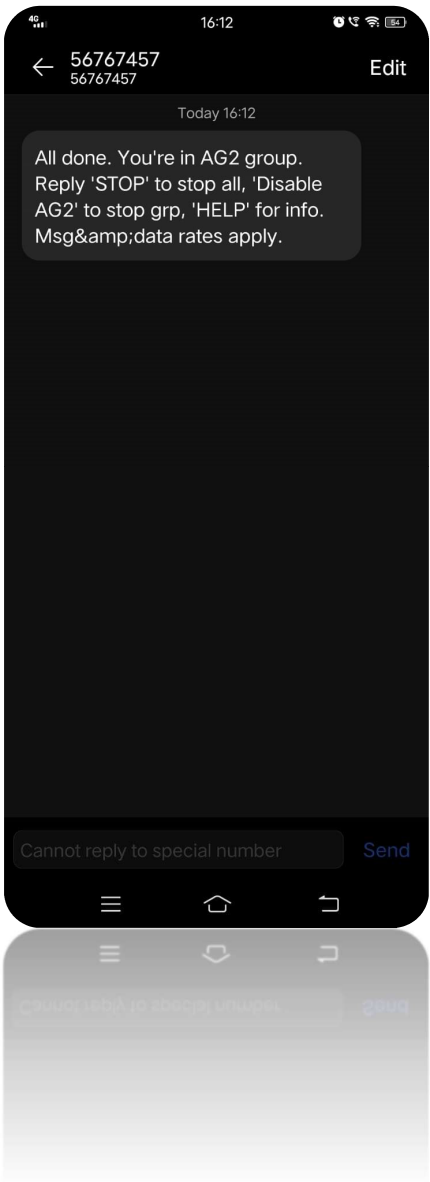
+ Create Columns Refresh Export to CSV Open query Delete Enable Disable

Search Subscription: 2 selected Target scope: all Target resource type: all Signal type: all Severity: all Status: Enabled Add tag filter No grouping

Name	Condition	Severity	Target scope	Target resource type	Signal type	Status
rule1	Category=Administrative, Opera...	4 - Verbose	VM1	Virtual machine	Activity log	Enabled

Showing 1 - 1 of 1 results. Give feedback

Alert Notification appears in my Email and Text Message.



Reference

- YouTube : <https://www.youtube.com/watch?v=puvJDAaMhOA>
- Website : <https://learn.microsoft.com/en-us/azure/azure-monitor/alerts/alerts-overview>