**Azure Monitor**

● Azure Monitor is a free service that helps increase performance and availability. We could collect telemetry data from Azure as well as on-premises.

● We could collect the metrics and logs from our resources like VMs. We could even collect more detailed logs by enabling guest diagnostics and collect OS level information.

● We can also integrate additionally with SIEM and ITSM tools. We could also send data via event hubs or other services.

● Metrics are available at each resource level or they can be collectively seen at the Azure Monitor. This way Monitor acts as a central location for all our monitoring needs like Metrics, logs, alerts and activity logs.

● We also have a section on Insights where we can see more intelligent information for various resources like Applications, VMs, Storage Accounts, Containers, Networks, SQL (Preview), CosmosDB, KeyVault, Azure Cache for Redis.

● We could also see a map of our application and understand how the different components work together.

At a high level, we do the following:

1. Monitor & Visualize Metrics

2. Query & Analyze Logs

3. Setup Alert & Actions

Here are some of the components which make up the Azure Monitor

1) Inputs –

1. a. Logs – these are the logs generated by various resources like VMs/ Databases etc.,
2. b. Metrics – Metrics provides numbers like CPU percentage, Network data in/out which helps us understand performance.

The metrics are stored in a time series DB which helps understand real time scenarios. With metrics, we can set triggers to scale the resources up and down.

Please see a metric chart below on CPU percentage usage:

2) Insights

1. a. With Insights, we can get a deeper view into the resources. We could see a map of the resources and get an overall view. Please see below some insights:

3) Analyze

a. Log Analytics – We can work with log data from multiple sources with log analytics. We can perform complex queries with KQL (Kusto Query Language).

We can analyse and act on that data.

b. Metric Analysis

4) Visualize

a. Metrics explorer – interactively work with metric data with metric explorer

b. Workbooks – We can use a combination of text, metrics, log queries and

parameters into interactive reports. There are several built-in workbooks

available for use.

c. Dashboards – We can add metric graphs and queries output and create

dashboards

5) Respond

a. Alerts - When there is any issue, then we will get alerts proactively and we

can automatically run functions, runbooks, webhooks or logic apps.

b. AutoScale – With the metric as inputs, we can set up the system to scale up

or down automatically.