

Log my Analytics -

LogAnalytics for the Data Platform

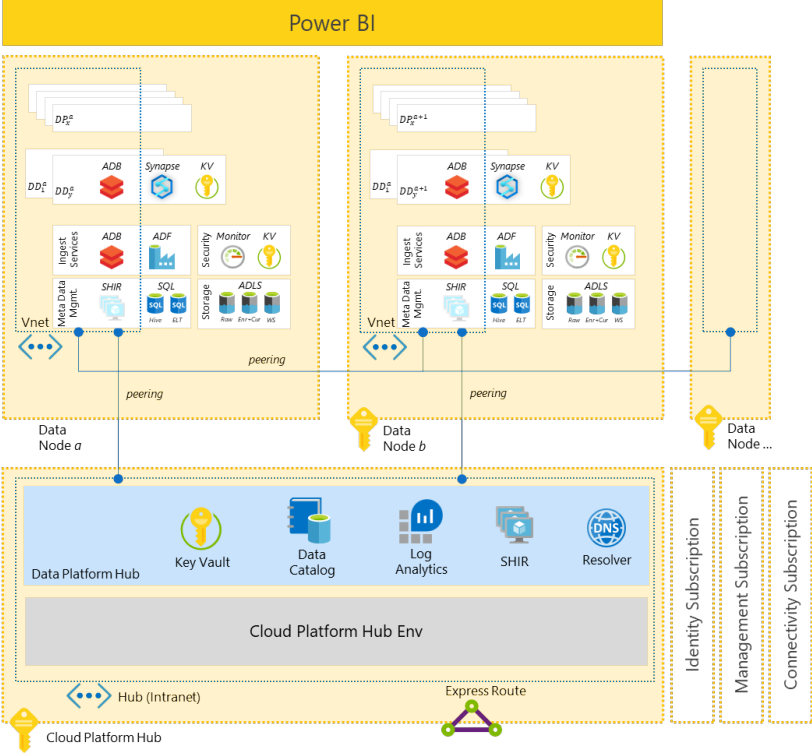
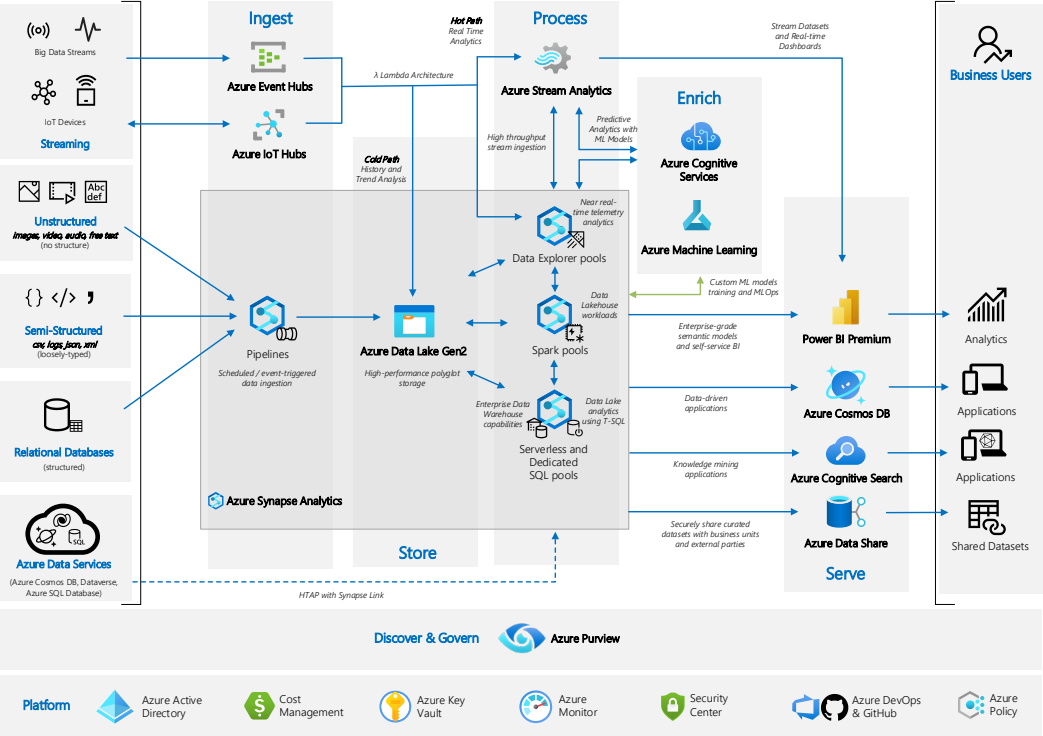


by Oliver Engels
oh22data AG



Modern Data Platform Architectures...

02



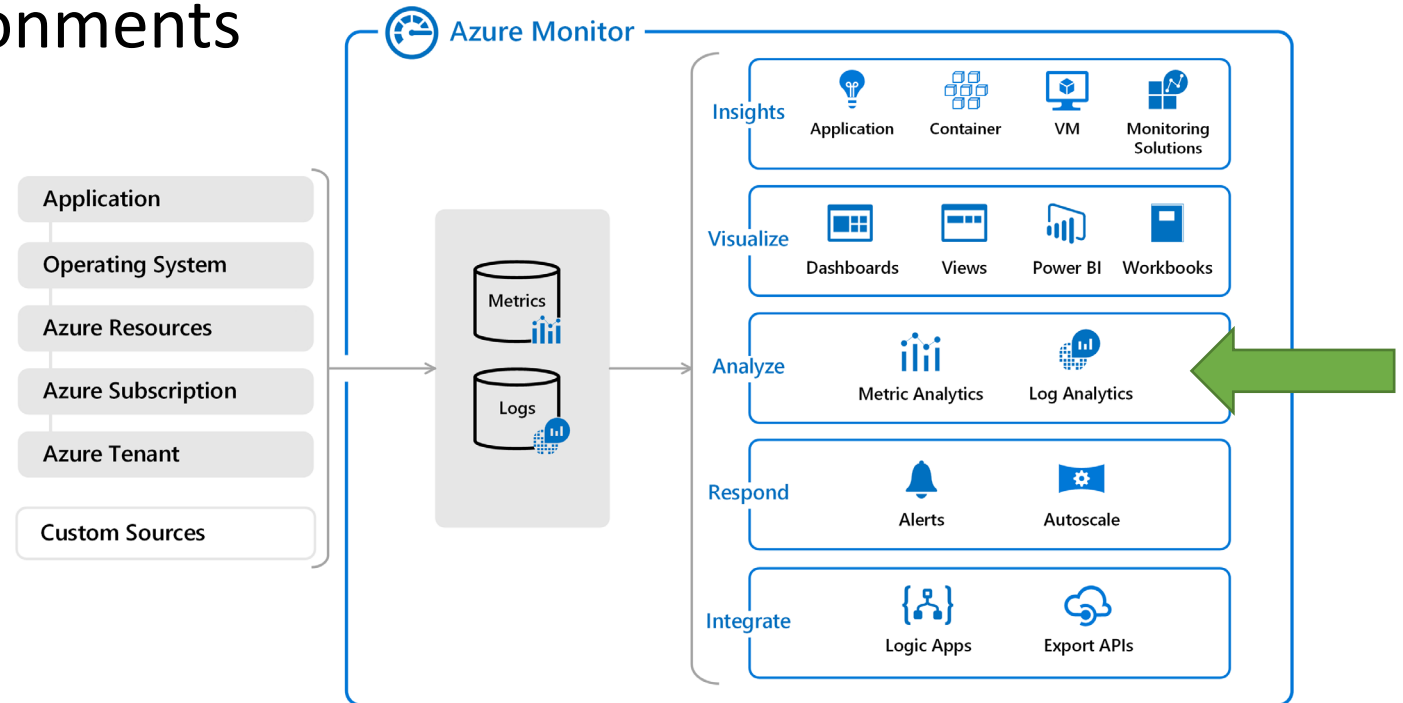
... must have monitoring components

Let's
Monitor!



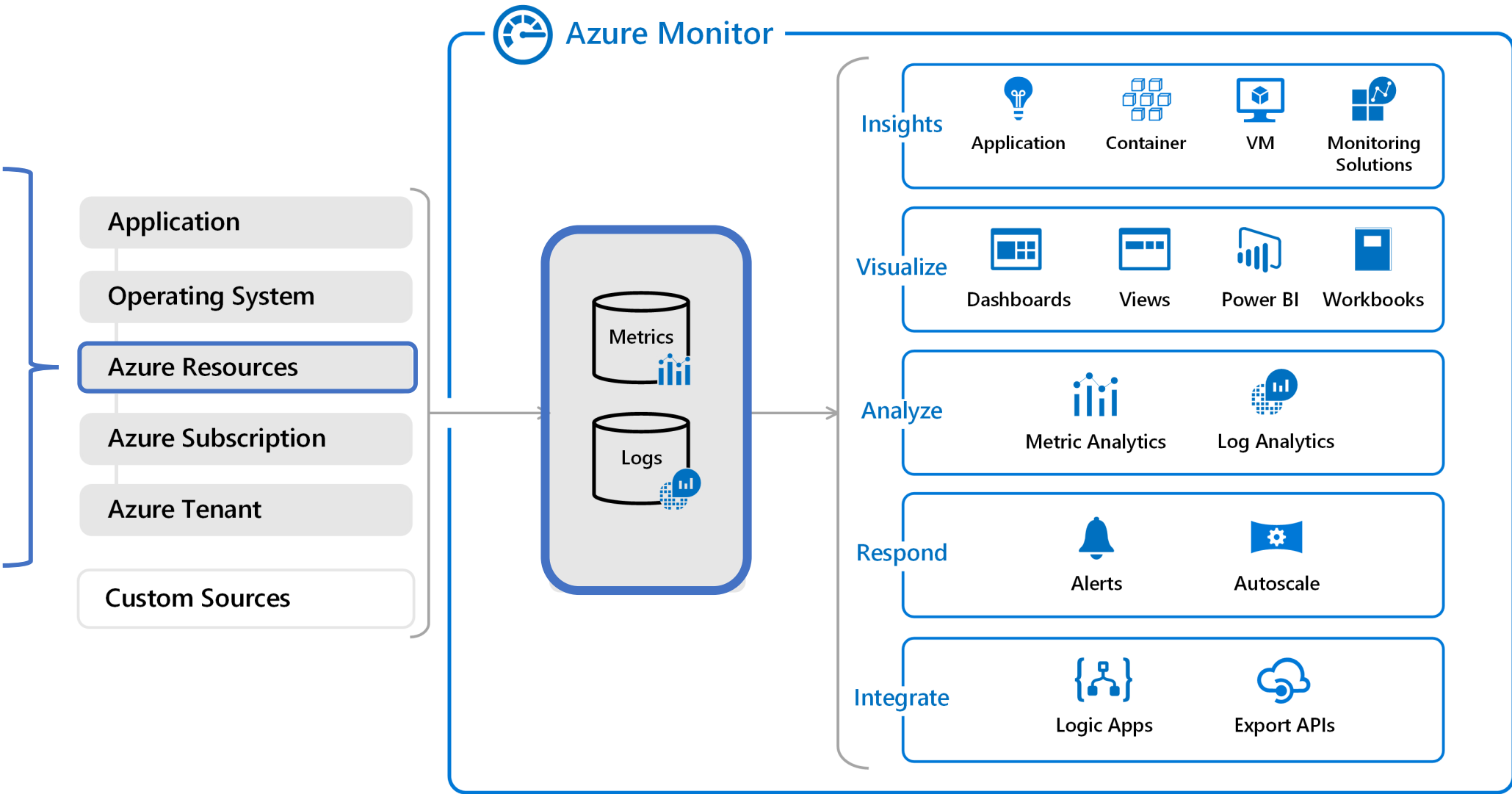
MS says:

- **Azure Monitor** helps you maximize the availability and performance of your applications and services
- It delivers a comprehensive solution for **collecting, analysing, and acting on telemetry** from your cloud and on-premises environments



Azure Monitor Components for the data platform

- KeyVault
- Storage
- Data Factory
- SQL
- Synapse
- Kusto
- CosmosDB
- Databricks
- Purview
- PowerBI





Metrics are numerical values that describe some aspect of a system at a particular point in time

They are lightweight and capable of supporting near real-time scenarios

You can analyse them interactively by using Metrics Explorer, be proactively notified with an alert when a value crosses a threshold, or visualize them in a workbook or dashboard

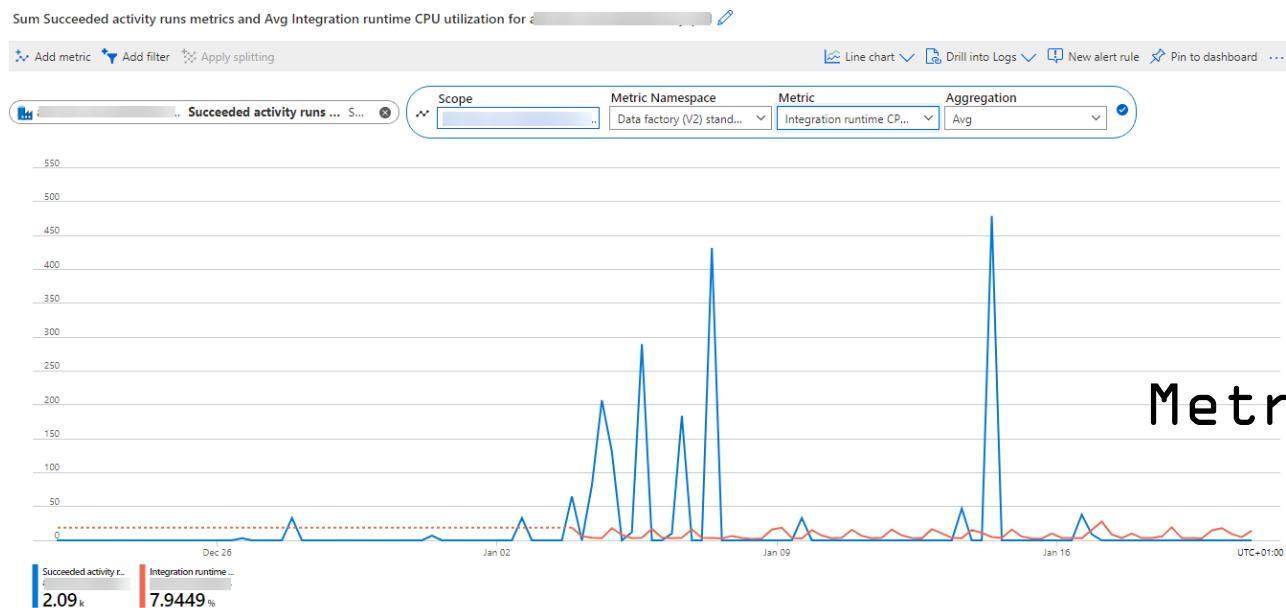


Logs contain different kinds of data organized into records with different sets of properties for each type

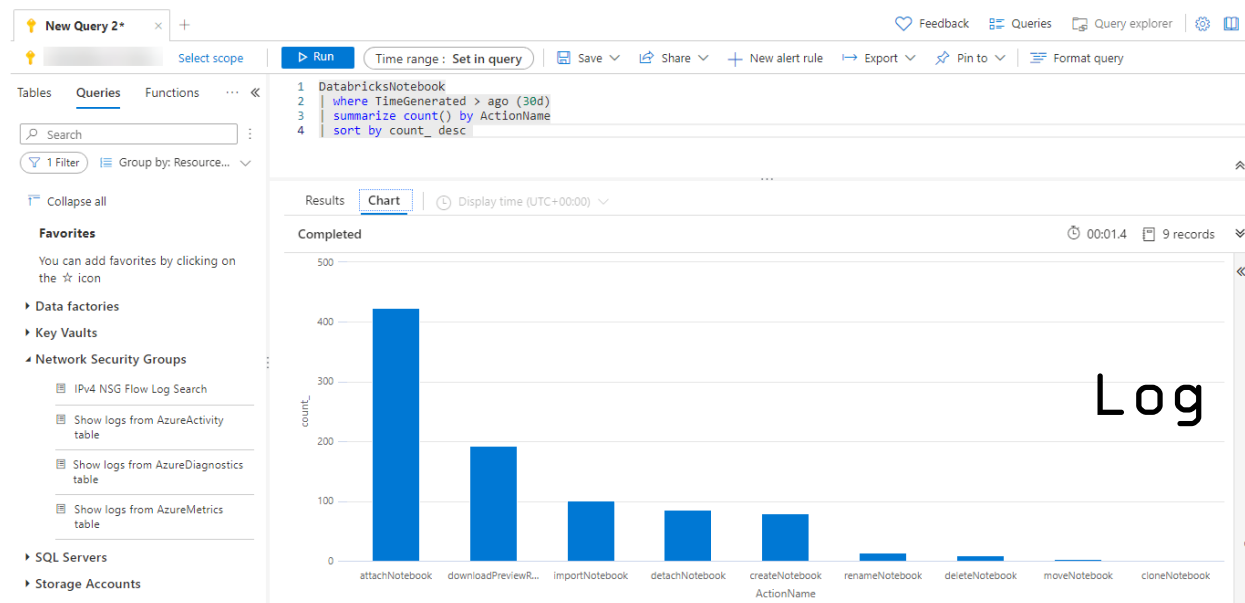
Telemetry such as events and traces are stored as logs in addition to performance data so that it can all be combined for analysis

Work with log queries and their results interactively by using Log Analytics, use them in alert rules to be proactively notified of issues, or visualize their results in a workbook or dashboard

06



Metrics Explorer



Log Analytics (KQL)

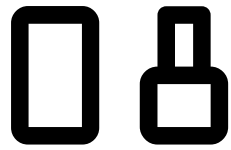
Azure Diagnostic Settings

- Key Vault
- Storage
- Data Factory
- SQL
- Synapse
- Kusto
- CosmosDB
- Databricks
- Purview



Metric	Metric display name	Unit	Aggregation	Description
ActivityCancelledRuns	Cancelled activity runs metrics	Count	Total	The total number of activity runs that were cancelled within a minute window.
ActivityFailedRuns	Failed activity runs metrics	Count	Total	The total number of activity runs that failed within a minute window.
ActivitySucceededRuns	Succeeded activity runs metrics	Count	Total	The total number of activity runs that succeeded within a minute window.
PipelineCancelledRuns	Cancelled pipeline runs metrics	Count	Total	The total number of pipeline runs that were cancelled within a minute window.
PipelineFailedRuns	Failed pipeline runs metrics	Count	Total	The total number of pipeline runs that failed within a minute window.
PipelineSucceededRuns	Succeeded pipeline runs metrics	Count	Total	The total number of pipeline runs that succeeded within a minute window.
TriggerCancelledRuns	Cancelled trigger runs metrics	Count	Total	The total number of trigger runs that were cancelled within a minute window.
TriggerFailedRuns	Failed trigger runs metrics	Count	Total	The total number of trigger runs that failed within a minute window.
TriggerSucceededRuns	Succeeded trigger runs metrics	Count	Total	The total number of trigger runs that succeeded within a minute window.
SSISIntegrationRuntimeStartCancelled	Cancelled SSIS integration runtime start metrics	Count	Total	The total number of SSIS integration runtime starts that were cancelled within a minute window.
SSISIntegrationRuntimeStartFailed	Failed SSIS integration runtime start metrics	Count	Total	The total number of SSIS integration runtime starts that failed within a minute window.
SSISIntegrationRuntimeStartSucceeded	Succeeded SSIS integration runtime start metrics	Count	Total	The total number of SSIS integration runtime starts that succeeded within a minute window.
SSISIntegrationRuntimeStopStuck	Stuck SSIS integration runtime stop metrics	Count	Total	The total number of SSIS integration runtime stops that were stuck within a minute window.
SSISIntegrationRuntimeStopSucceeded	Succeeded SSIS integration runtime stop metrics	Count	Total	The total number of SSIS integration runtime stops that succeeded within a minute window.
SSISPackageExecutionCancelled	Cancelled SSIS package execution metrics	Count	Total	The total number of SSIS package executions that were cancelled within a minute window.
SSISPackageExecutionFailed	Failed SSIS package execution metrics	Count	Total	The total number of SSIS package executions that failed within a minute window.
SSISPackageExecutionSucceeded	Succeeded SSIS package execution metrics	Count	Total	The total number of SSIS package executions that succeeded within a minute window.

Azure Diagnostic Settings - Storage



Diagnostic settings

Name	Storage account	Event hub	Log Analytics workspace	Partner solution	Edit setting
diagnostic setting set by pipeline to ...	zqmanagelogginsa	-		-	Edit setting
diagnostic setting set by pipeline to ...	-	-	zqmanage-loganalytics	-	Edit setting

+ Add diagnostic setting

Click 'Add Diagnostic setting' above to configure collection of the following data:

- ActivityRuns
- PipelineRuns
- TriggerRuns
- SandboxPipelineRuns
- SandboxActivityRuns
- SSISPackageEventMessages
- SSISPackageExecutableStatistics
- SSISPackageEventMessageContext
- SSISPackageExecutionComponentPhases
- SSISPackageExecutionDataStatistics
- SSISIntegrationRuntimeLogs
- AirflowTaskLogs
- AirflowWorkerLogs
- AirflowDagProcessingLogs
- AirflowSchedulerLogs
- AirflowWebLogs
- AllMetrics

Long Term

Short Term

Pricing Tiers

30 to 730 days (2 years)

Storage Account

Log Analytics Workspace

Recently viewed

Showing all 31 items

Name	Last modified
extlog	11/25/2021, 1:14:14 AM
extlog-db	11/25/2021, 1:14:14 AM
extlog-xf	11/25/2021, 1:14:14 AM
insights-logs-accounts	11/25/2021, 6:51:03 AM
insights-logs-activityruns	11/26/2021, 10:44:26 AM
insights-logs-auditevent	11/25/2021, 12:37:05 AM
insights-logs-automatictuning	11/25/2021, 1:23:38 AM
insights-logs-clusters	11/25/2021, 6:55:38 AM
insights-logs-databasewaitstatistics	11/25/2021, 7:08:38 AM
insights-logs-errors	12/21/2021, 7:02:41 AM
insights-logs-jobs	11/25/2021, 8:24:41 AM
insights-logs-networksecuritygroupevent	11/25/2021, 2:03:02 AM
insights-logs-networksecuritygrouprulecounter	11/25/2021, 1:58:10 AM
insights-logs-notebook	11/25/2021, 6:56:16 AM
insights-logs-pipeline runs	11/26/2021, 10:43:58 AM

Pay-as-you-go

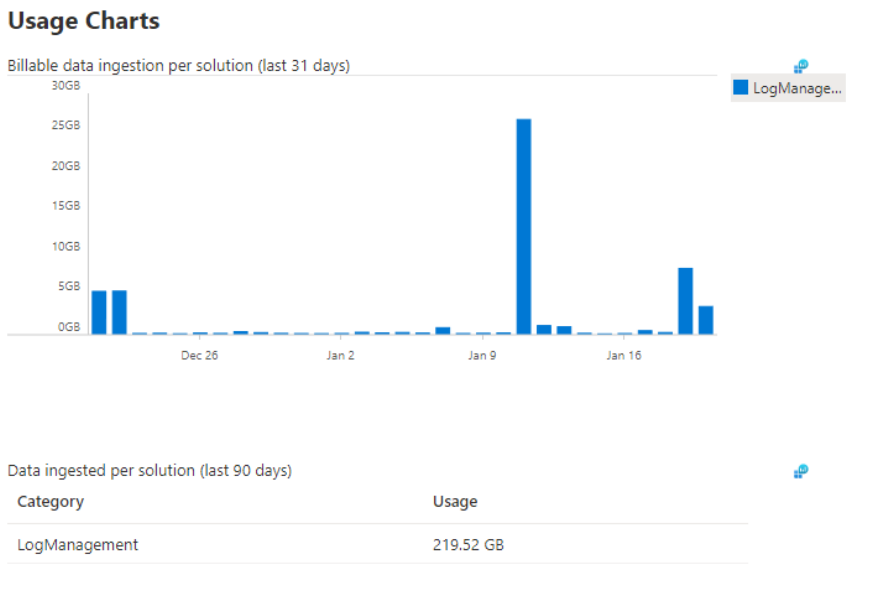
Per GB

The Pay-as-you-go pricing tier offers flexible consumption pricing in which you are charged per GB of data ingested. There are additional charges if you increase the data retention above the 31 day included retention (or 90 day included retention if using Sentinel on this workspace). Learn more about Log Analytics pricing.

Estimated costs

Item type	Price	Monthly usage (last 31 days)	Estimated monthly cost
Log data ingestion	€1.99	57.07 GB	€113.57
Log data retention (beyond 31 days)	€0.09	0.00 GB	€0.00
Total			€113.57

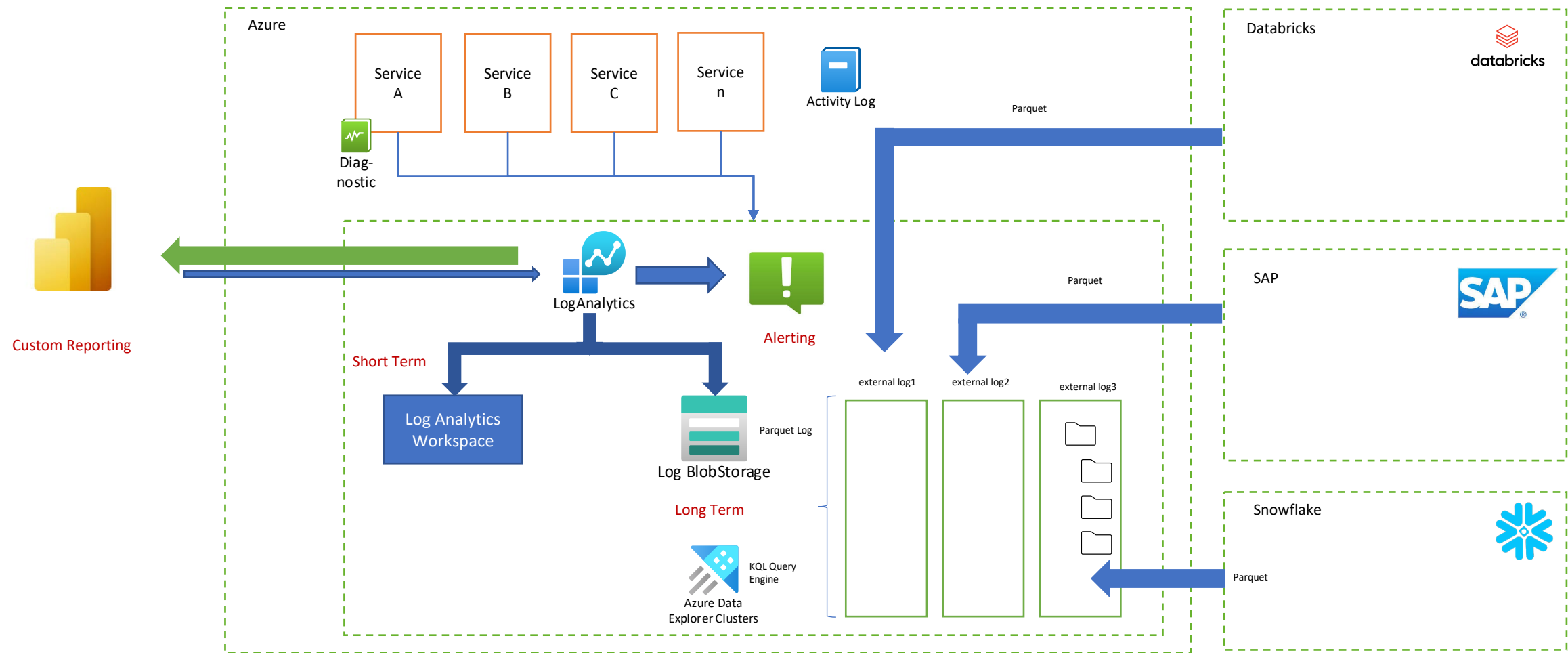
This is the current pricing tier.



Storage Account

Log Analytics Workspace

Log your Analytics landscape



Monitooooor!



- Get all your metrics and logs from your Azure Data Platform Services
- Store them Short and Long Term
- Analyze them via Graphs and with the Kusto Query Language (KQL)
- Include external logs (e.g. Databricks, SAP, Snowflake)
- Create Alerts to be informed when “bad” things happen
- **All in Azure – all integrated**