10 coole Features im Azure Monitor, die ihr (vielleicht) noch nicht kanntet

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HERTES.NET
knowledge - experience - insights

E = M C²

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01

Change Analysis

Change Analysis / Tracking

GA since August 2022

Built on top of Azure Resource Graph

Stores resource and application configuration changes

Has RBAC on top

Allows to better find reasons for outages / issues

Changes	Resource Name	Old Value	New Value
10.01.2023, 22:50:06 MEZ (1)			
properties.osVersion	HVSRV17	10.0.17763.3770	10.0.17763.3887
10.01.2023, 22:10:15 MEZ (1)			
blobservices["default"].properties.restorePolicy.minRestoreTime	logs0monitoring0diag	12/11/2022 3:18:02 PM	12/11/2022 9:10:15 PM
10.01.2023, 19:02:20 MEZ (3)			
properties.provisioningState	DC2	Updating	Succeeded
properties.extended.instanceView.powerState.displayStatus	DC2	VM deallocating	VM deallocated
properties.extended.instanceView.powerState.code	DC2	PowerState/deallocating	PowerState/deallocated

02

Basic Logs

Basic Logs

Your Log Analytics cost depends on your choice of pricing tier, data retention and which solutions are used. Here you can see the estimated monthly cost for each of the available pricing tiers, based on your last 31-days of Log Analytics data ingested. These cost estimates can be used to help you select the best pricing tier based on your data ingestion patterns. These estimates include the 500MB/VM/day data allowances if you are using Microsoft Defender. This page does not reflect your actual billed usage. To view that, use Cost Management (learn more). If you have questions about using this page, contact us. Learn more about Log Analytics pricing.

You have insufficient permissions to modify the workspace.

Pricing Tiers

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

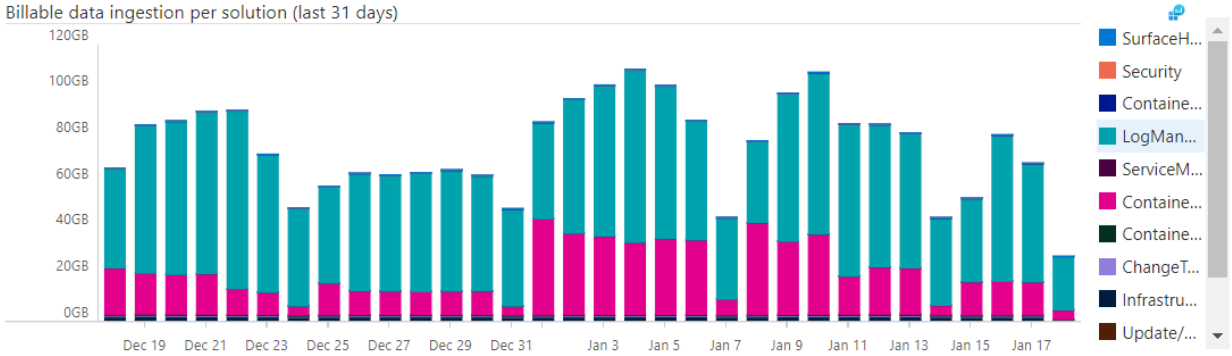
Item type	Price	Monthly usage (last 31 days)	Estimated monthly cost
Log data ingestion	€1.94	2414.37 GB	€4,683.87
Microsoft Defender allowance	$0.00	16.00 GB	$0.00
Log data retention (beyond 90 days)	€0.08	0.00 GB	€0.00
Total			**€4,683.87**

(These estimated costs do not include Microsoft Defender costs. The Microsoft Defender 500 MB/node/day data allowance is factored into the estimate of Log Analytics billing. Learn more.)

This is the current pricing tier.

Usage Charts

Billable data ingestion per solution (last 31 days)



Data ingested per solution (last 90 days)

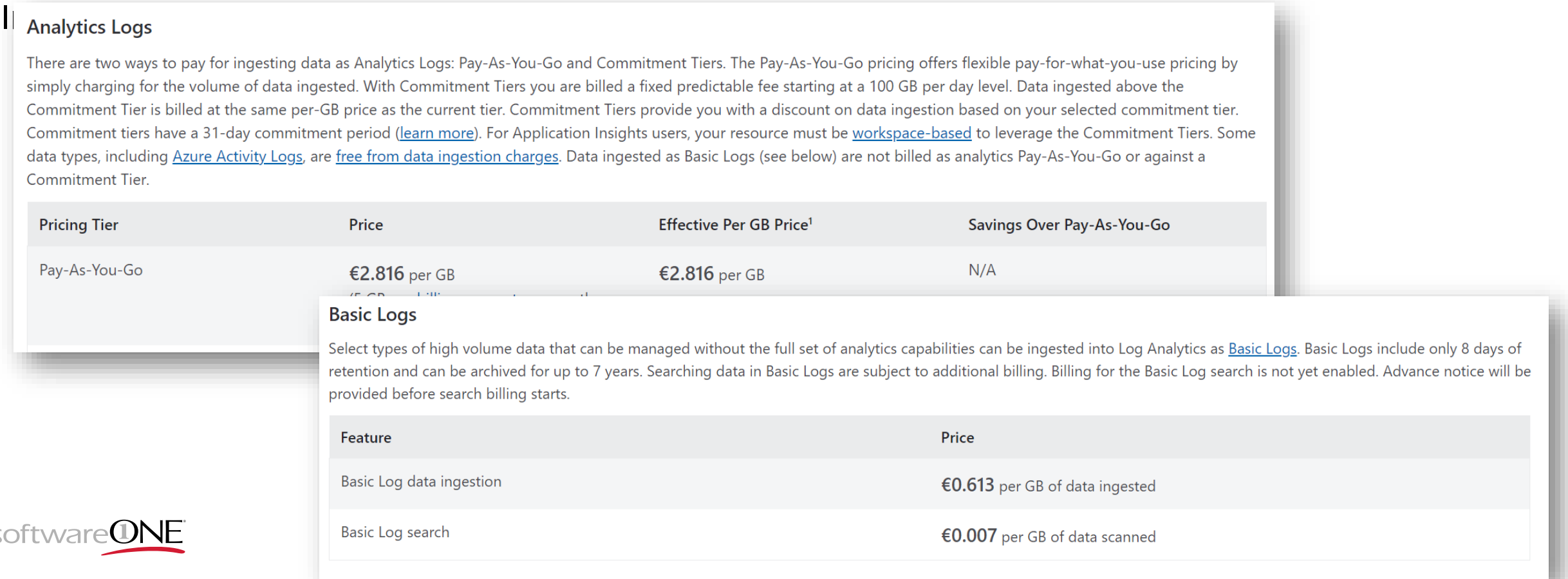
Category	Usage
LogManagement	6.04 TB
Containers/ContainerInsights/AzureResources	1.73 TB
InfrastructureInsights/ServiceMap/VMInsights/AzureResources	997.84 GB
ContainerInsights/InfrastructureInsights/ServiceMap/VMInsights/Azur...	85.01 GB
ChangeTracking	36.14 GB
ServiceMap/VMInsights/AzureResources	24.08 GB

Basic Logs

Basic Logs allow to keep „noisy“ data on a cheaper tier (for max. 8 days)

New option next to the old log type now called „Analytics Logs“

Does NOT support all types of queries



Analytics Logs

There are two ways to pay for ingesting data as Analytics Logs: Pay-As-You-Go and Commitment Tiers. The Pay-As-You-Go pricing offers flexible pay-for-what-you-use pricing by simply charging for the volume of data ingested. With Commitment Tiers you are billed a fixed predictable fee starting at a 100 GB per day level. Data ingested above the Commitment Tier is billed at the same per-GB price as the current tier. Commitment Tiers provide you with a discount on data ingestion based on your selected commitment tier. Commitment tiers have a 31-day commitment period (learn more). For Application Insights users, your resource must be workspace-based to leverage the Commitment Tiers. Some data types, including Azure Activity Logs, are free from data ingestion charges. Data ingested as Basic Logs (see below) are not billed as analytics Pay-As-You-Go or against a Commitment Tier.

Pricing Tier	Price	Effective Per GB Price[1]	Savings Over Pay-As-You-Go
Pay-As-You-Go	€2.816 per GB	€2.816 per GB	N/A

Basic Logs

Select types of high volume data that can be managed without the full set of analytics capabilities can be ingested into Log Analytics as Basic Logs. Basic Logs include only 8 days of retention and can be archived for up to 7 years. Searching data in Basic Logs are subject to additional billing. Billing for the Basic Log search is not yet enabled. Advance notice will be provided before search billing starts.

Feature	Price
Basic Log data ingestion	€0.613 per GB of data ingested
Basic Log search	€0.007 per GB of data scanned

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Basic Logs

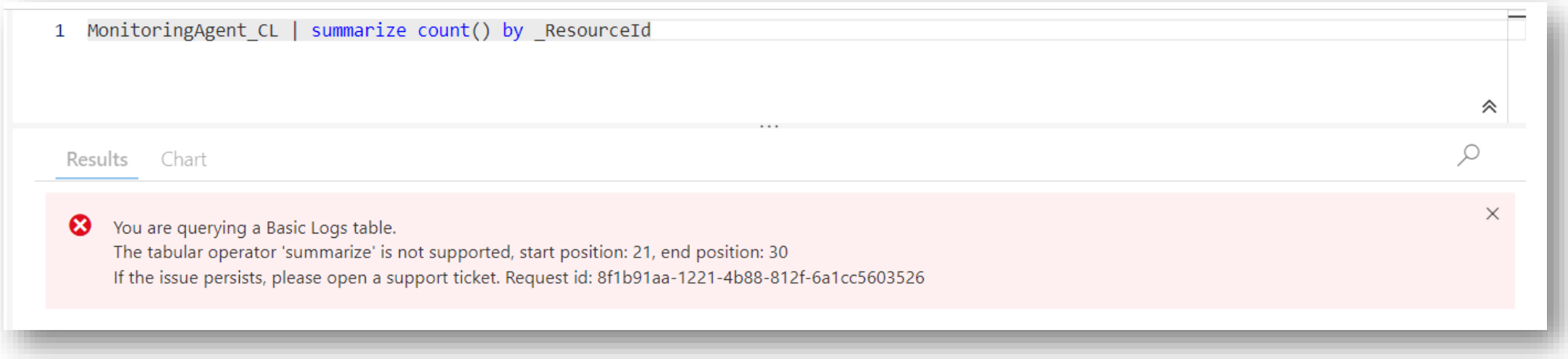
Category	Analytics	Basic
Ingestion	Regular ingestion cost. (WEU: 2.816€/GB)	Reduced ingestion cost. (WEU: 0.613€/GB)
Log queries	Full query capabilities No extra cost.	Basic query capabilities. Pay-per-use. (WEU: 0.007€/GB scanned)
Retention	Configure retention from 30 days to two years.	Retention fixed at 8 days. When you change an existing table's plan to Basic logs, Azure archives data that's more than eight days old but still within the table's original retention period.
Alerts	Supported.	Not supported.

Basic Logs

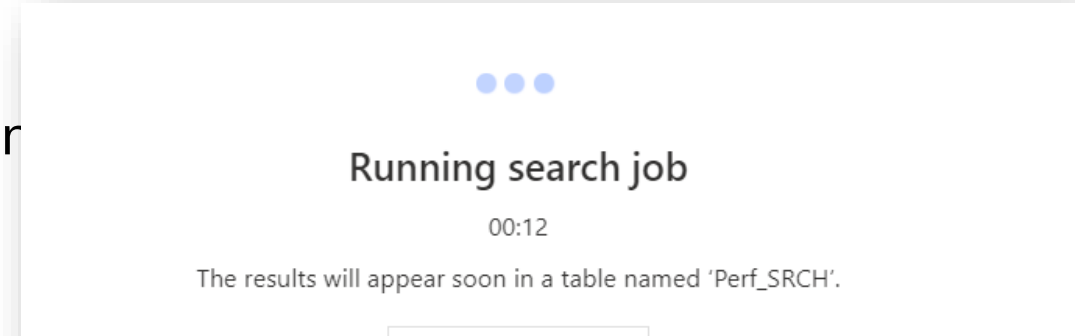
Query on Basic Logs =~ Search Jobs

Search Jobs would allow log queries that would otherwise run into timeout (10min)

Basic Log queries and Search Jobs have the same limitations



When running a Search Job, result is then saved into a r



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03

Ingestion-Time Transformation

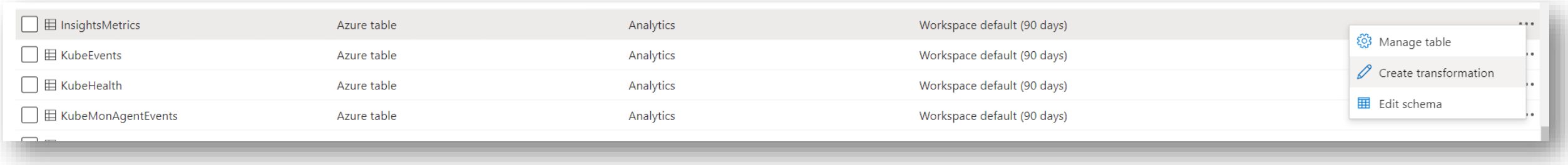
Ingestion-time Log transformations

Usually, you cannot control, which data is sent to a log analytics workspace in detail

You might get columns that you don‘t need – but need to pay for

A transformation is using KQL and a data collection rule to alter the data that is saved in Log Analytics (i.e. you coul project-away columns)

Also, the syntax for the transformation query is limited as of now (i.e. no „summarize“)



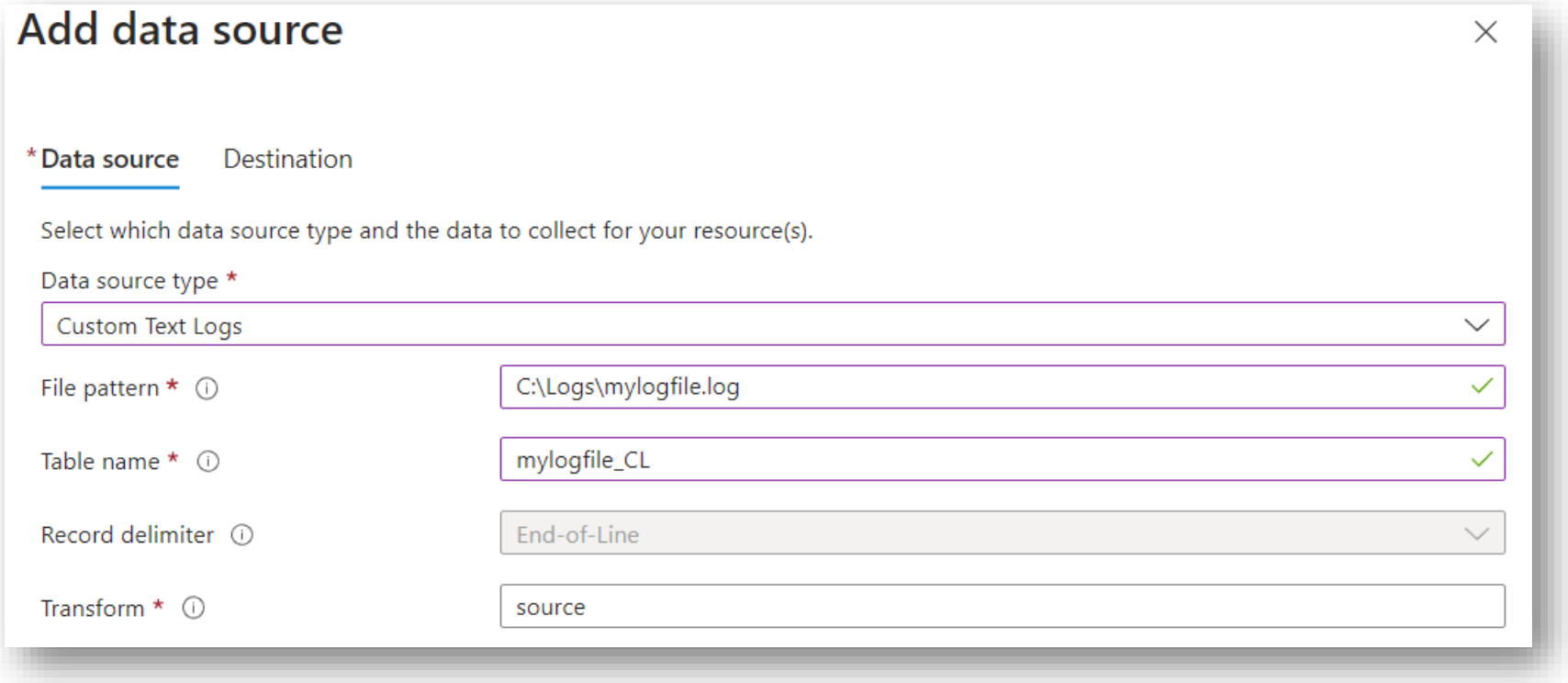
[General availability: Azure Monitor Logs, custom log API and ingestion-time transformations | Azure updates | Microsoft Azure]

04

Text-based Logfiles with AMA

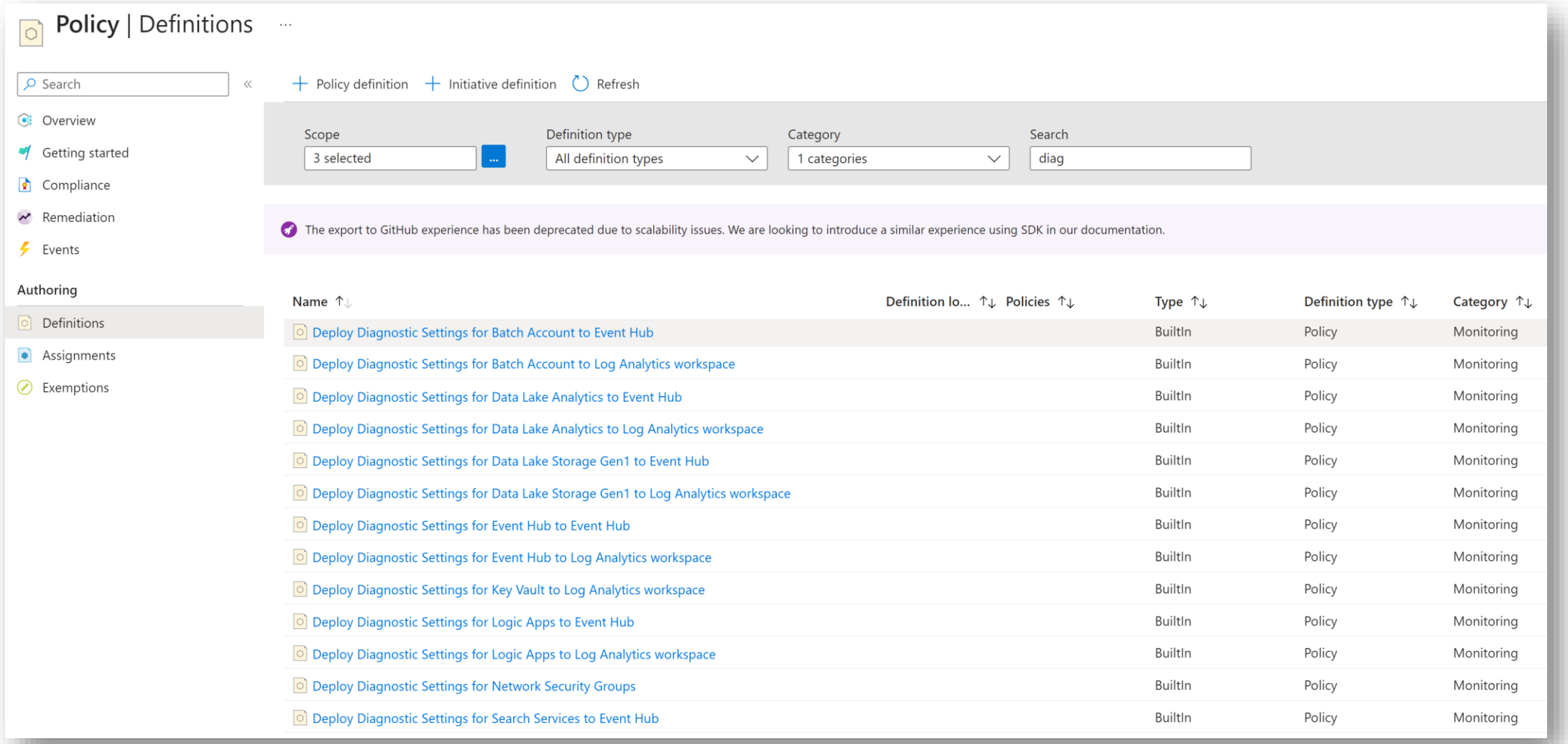
Text-based Logfiles with AMA

- Uses AMA on Linux and Windows
- Needs DCR amd DCE
- Custom Table as destination, needs to be created manually




05
Built-in Policies for
Diagnostic Settings

Built-in policies to enable Diagnostic Settings at Scale



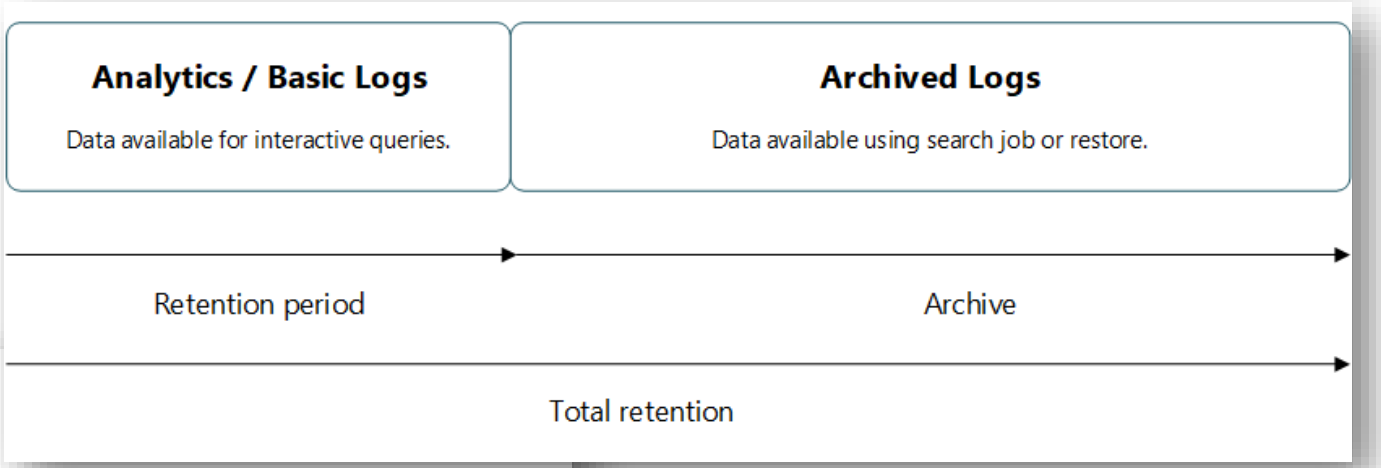
06

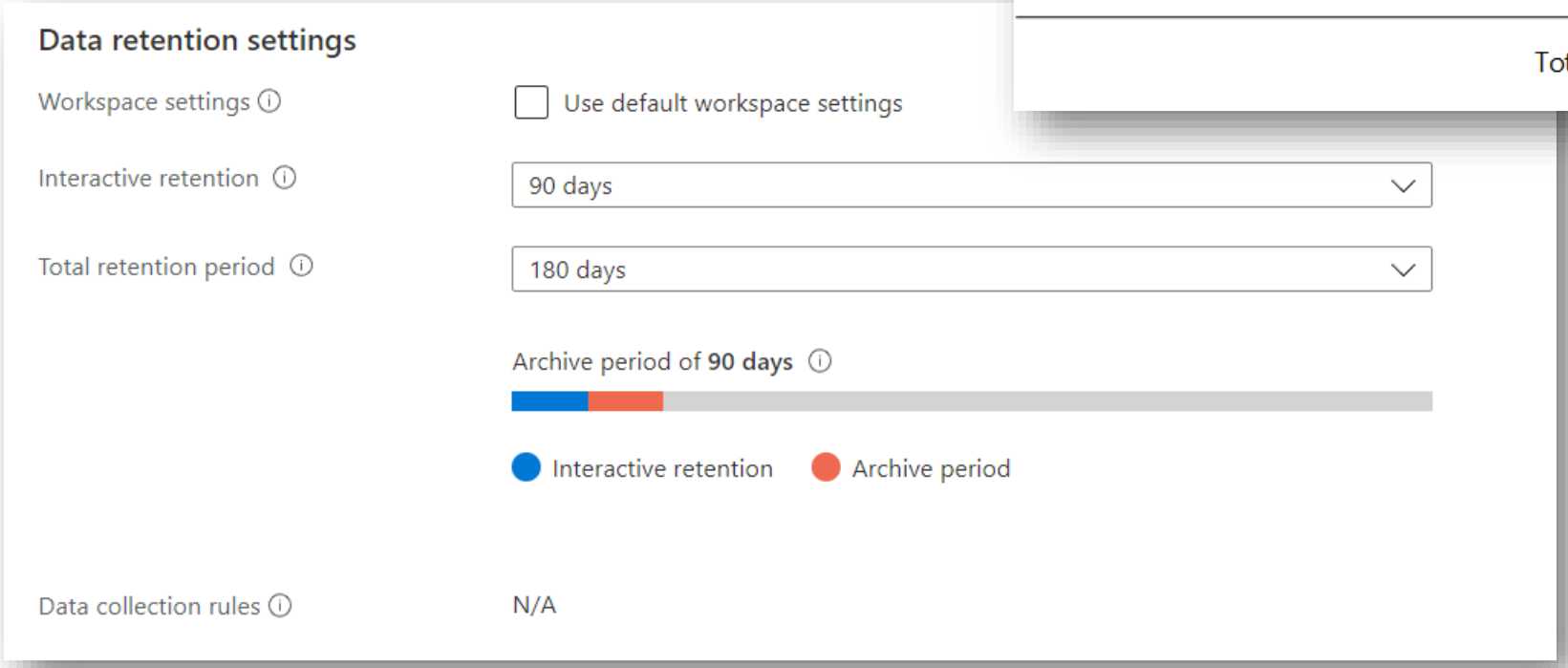
Archive Logs / Retention

Archive Logs / Data Retention

Another new option is to move log data to Archive tier to save on retention cost

Data on archive cannot be read directly – need to get „rehydrated“ or using search jobs



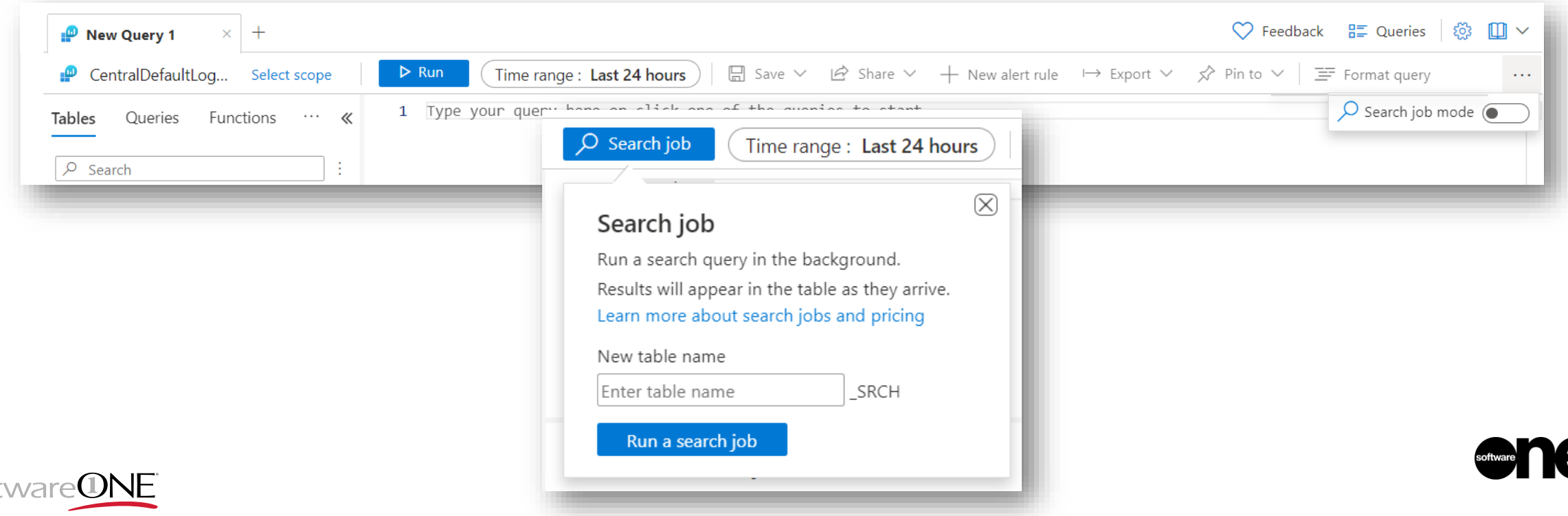


07

Search Jobs

Search Jobs

- Usual log queries will timeout after 10 minutes
- When searching large volumes or using complex operations, timeout is reached very quick
- Running a query as search job will allow queries to run for up to 24 hours
- The result will written into a new (custom) table



Search Jobs

- Could also be used to retrieve records from archived logs and basic logs (as an alternative to restore the archived logs or query basic logs directly)
- Search jobs are charged!
- But there is also some **limitations**:
  - Limited set of KQL statements / operations
  - You can only query one table at a time
  - The time range is limited to one year
  - Results are limited to 1 Mio records
  - Concurrent execution of max. 5 search jobs per workspace
  - Max. 100 search result tables oer workspace
  - Max. 100 search job executions per day

08

Granular RBAC on Table-level

Table Level Read Access

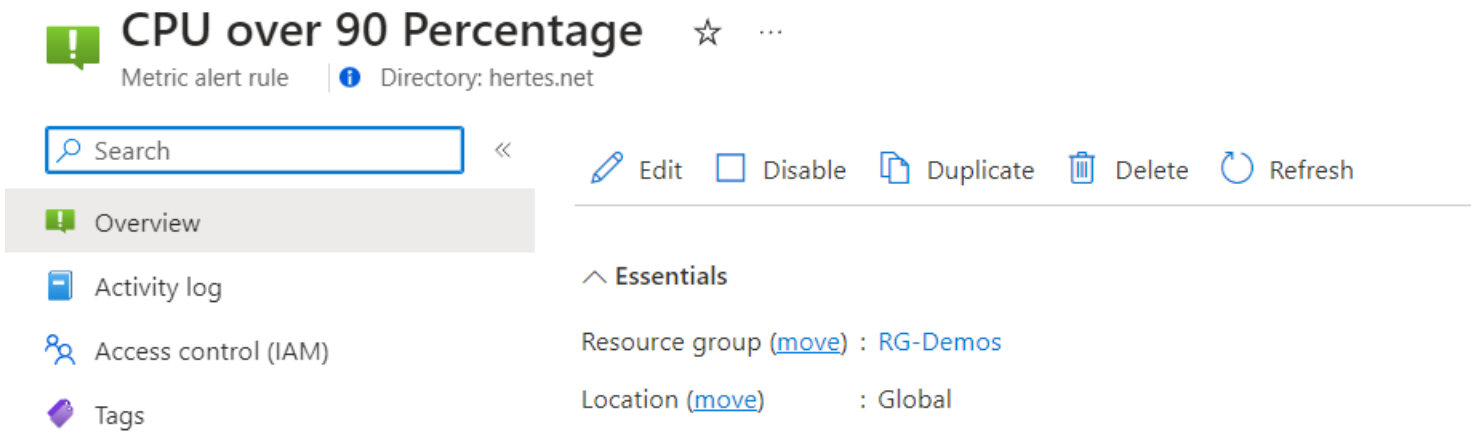
- Although, in theory other roles would work here as well, you usually only grant Read access to a certain table
- Needs custom role and some API usage:
- Details:
- [Manage access to Log Analytics workspaces Azure Monitor | Microsoft Learn]

```
{
   "requests": [
      {
         "content": {
            "Id": "<GUID_1>",
            "Properties": {
               "PrincipalId": "<user_object_ID>",
               "PrincipalType": "User",
               "RoleDefinitionId": "/providers/Microsoft.Authorization/roleDefinitions/acdd72a7-
3385-48ef-bd42-f606fba81ae7",
               "Scope":
"/subscriptions/<subscription_ID>/resourceGroups/<resource_group_name>/providers/Microsof
t.OperationalInsights/workspaces/<workspace_name>/Tables/<table_name>",
               "Condition": null,
               "ConditionVersion": null
            }
         },
         "httpMethod": "PUT",
         "name": "<GUID_2>",
         "requestHeaderDetails": {
            "commandName": "Microsoft_Azure_AD."
         },
         "url":
"/subscriptions/<subscription_ID>/resourceGroups/<resource_group_name>/providers/Microsof
t.OperationalInsights/workspaces/<workspace_name>/Tables/<table_name>/providers/Microso
ft.Authorization/roleAssignments/<GUID_1>?api-version=2020-04-01-preview"
      }
   ]
}
```


09
Duplicate Alert Rule
Total Deaths
4.720
Total Recovered
68.324
RUSSIA
MONGO
CHINA
3.056 deaths
Hubei China
827 deaths
Italy
429 deaths
Iran
66 deaths
Korea, South
55 deaths
Spain
48 deaths
France France
31 deaths
Washington US
22 deaths
Henan China
16 deaths
Japan
13 deaths
Heilongjiang China
8 deaths
50.318 recovered
Hubei China
2.959 recovered
Iran
1.289 recovered
Guangdong China
1.249 recovered
Henan China
1.197 recovered
Zhejiang China
1.045 recovered
Italy
999 recovered
Hunan China
984 recovered
Anhui China
934 recovered
Jiangxi China
734 recovered
Shandong China
629 recovered
Jiangsu China

Duplicating Alert Rules

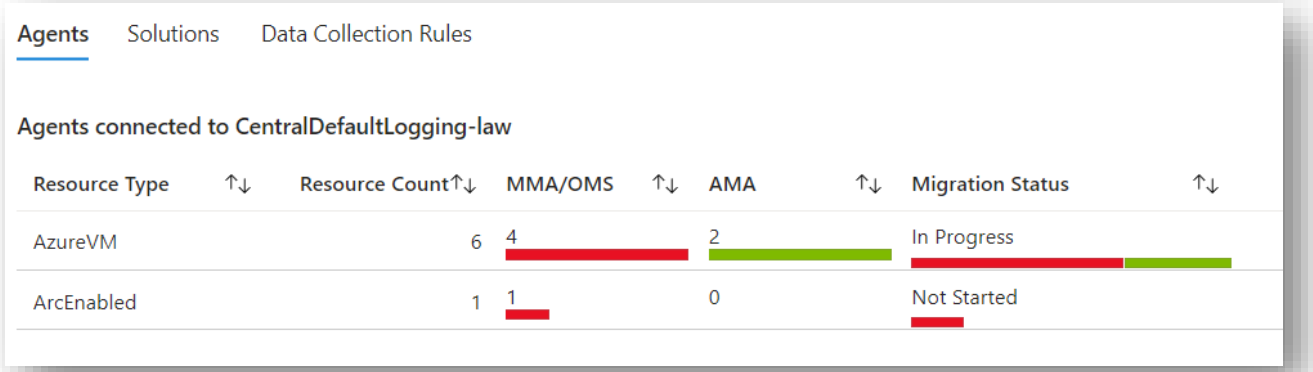
- Creating Alert Rules can sometimes be time-consuming
- Creating many Alert Rules even more…
- New option to duplicate an existing Alert Rule creates a new Rule with the old Rules settings pre-filled, but all of the m could still be changed

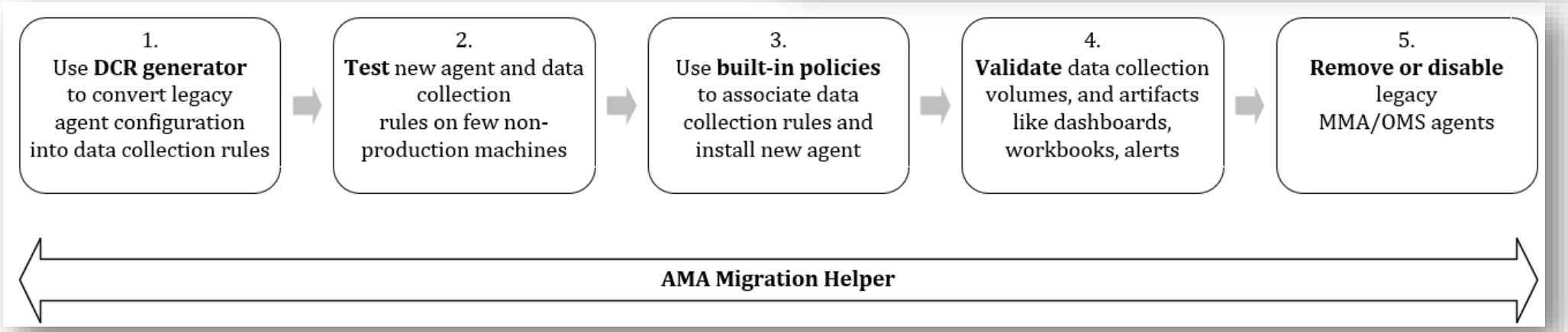



10
AMA Migration Tools

AMA Migration Tools

- Log Analytics Agent / Microsoft Monitoring Agent / Legacy Agent depricates August 2024
- Migrating complex scnearios from MMA to AMA could be very time-consuming
- Microsoft provides tools (PowerShell Script, Workbook) to create DCRs from Log Analytics configurations and show systems that still need migration





Ihr wollt einige der coolen Speaker hier (und weitere) bald wieder hören? Kommt zum SysAdminDay nach Leipzig!

Fr., 28.07.2023

SoftwareOne Niederlassung Leipzig

14:00 – 21:00

www.sysadminday.it

Thank You!

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