

# Azure Resource Graph

The Azure CMDB

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PowerShell MVP  
Dealing with Azure Resource Manager,  
Service Management,  
E-mail Encryption, ...

[www.cloudnative.at](http://www.cloudnative.at)  
[www.rconsult.at](http://www.rconsult.at)  
XING, LinkedIn

*"We rarely think of what we have, but always what we lack"*

Arthur Schopenhauer



# Thanks to our sponsors!



*die* **Mobiliar**



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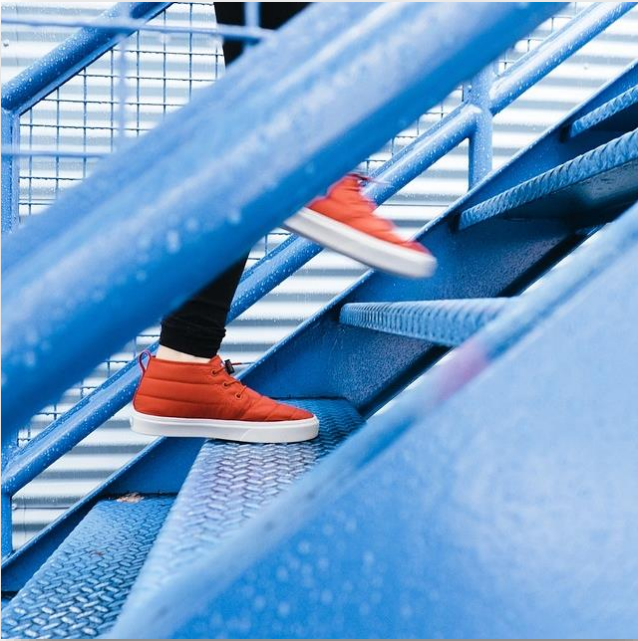


What do you own in  
Azure?



# Cloud deployment approaches

- Imperative



- Declarative

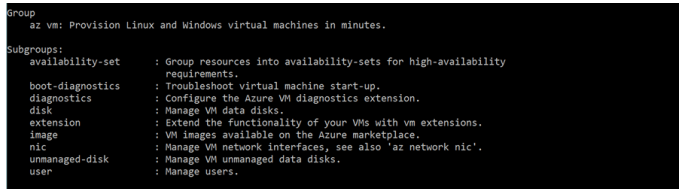
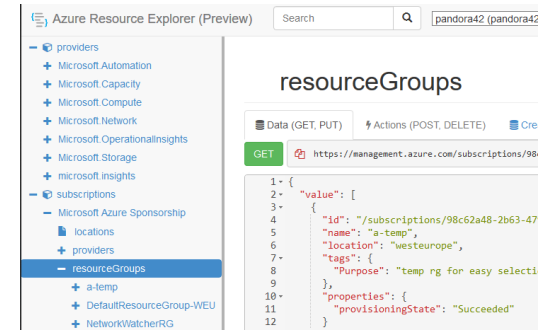




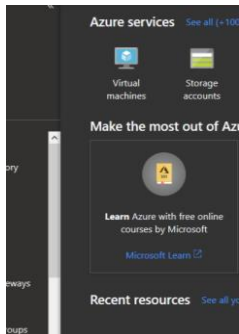
Nothing can exist without order.  
Nothing can arise without chaos.  
(Albert Einstein)

Why do  
we want  
to know ?

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# Ways to retrieve data from Azure





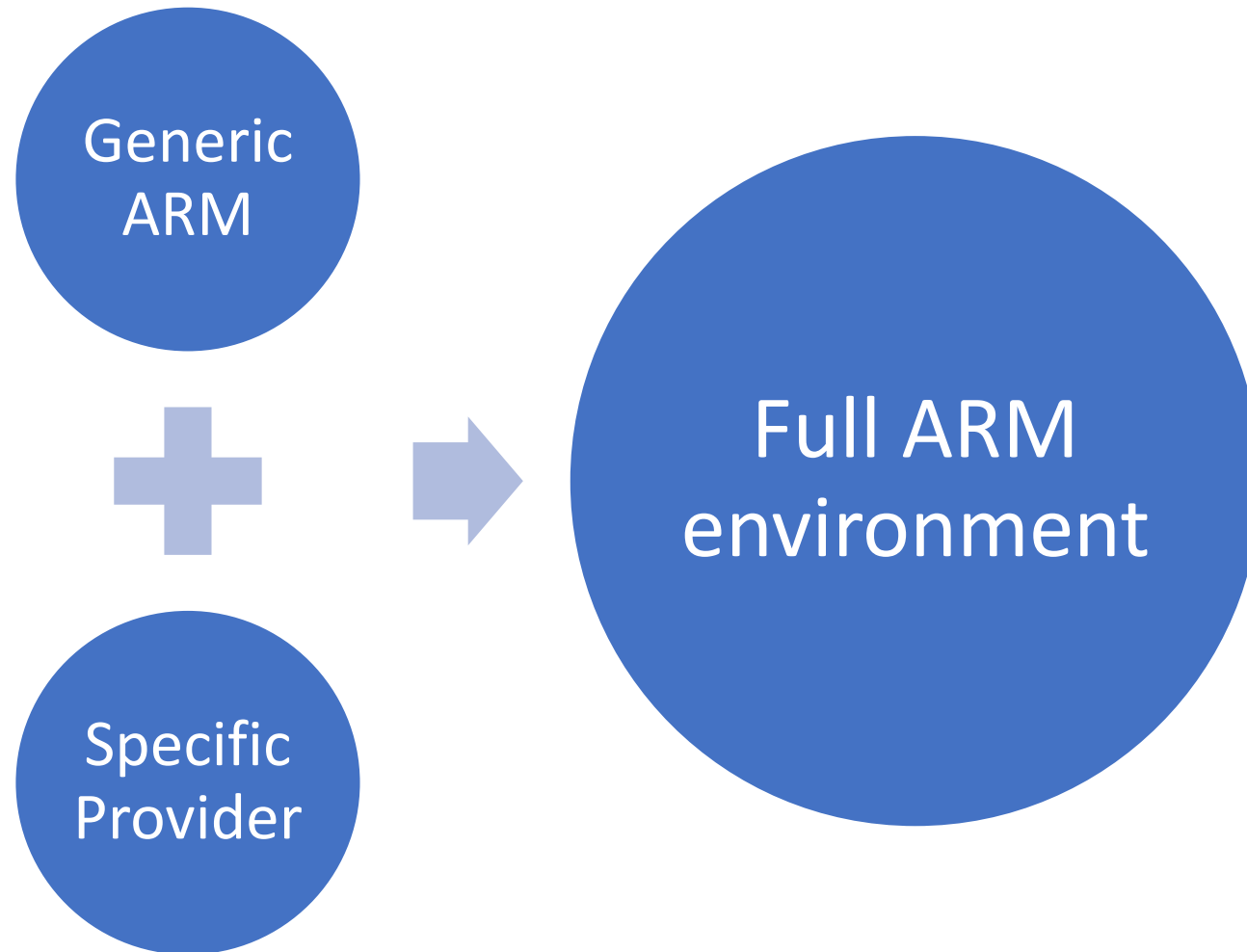
**DEMO**



# Overview of Azure Resources „read“ options

METHOD	MULTI-SUBSCRIPTION AWARE ?	QUERY OPTIONS	OUTPUT FORMAT	DATA RICHNESS	OBJECT TYPE
REST-API	No	\$filter option for all properties	JSON	Weak	JSON
Az CLI	No	location, tags, name, namespace, resourcegroup, resource type  Query language: JMESPATH.ORG	JSON, JSONC, table, tsv, yaml	Weak	String
PowerShell Az.Resources + Az.*	No	Resource type, resource group, tag name, tag value Query Language: ODATA	PowerShell Object	Weak	PSResource

# Getting a full picture needs 2 steps!





# One to rule them all

- A common, widely used **query language**
- **Pre**-filtering, ordering, grouping
- **One** step to get all information
- **Multi**-subscription aware
- **RBAC** must apply
- Common **output** format
- Portal blade (QL-helper, Charts)



Azure Resource Graph to  
get the full picture



# How does it work ?





**DEMO**



# Summary and usage advise



## Good use

- Cross subscription
- Custom reporting
- Interface for external applications
- [Future] Change Tracking

## Not recommended

- Structural misconfigs like empty Resource Groups

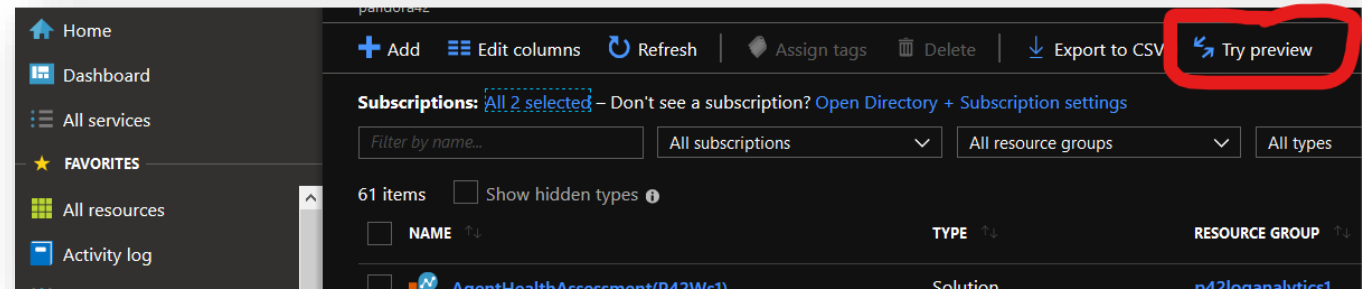
**Get resource changes**

04/20/2019 • 3 minutes to read • Contributors  

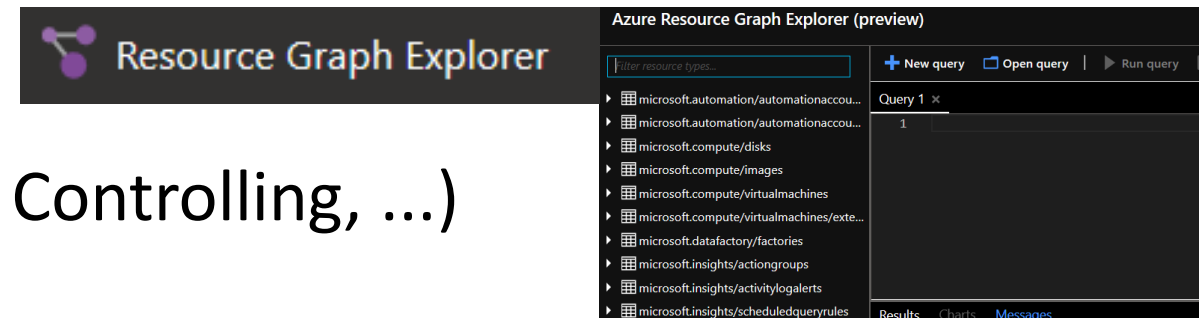


# Call to Action (4 Steps)

1. Switch to *preview* in the portal in „All resources“



2. Change all your *query scripts* to Azure Resource Graph
3. Add *Azure Resource Graph Explorer* to your Azure Portal



4. Think of integration needs (CMDB, Controlling, ...)

# Links

- Azure Resource Graph official documentation  
<https://docs.microsoft.com/en-us/azure/governance/resource-graph/>
- Query Language reference  
<https://docs.microsoft.com/en-us/azure/kusto/query/>
- My GitHub Repo with the scripts from the demo  
<https://github.com/RStadlmair/AzureRGExperiments>
- Change Feature  
<https://docs.microsoft.com/en-US/azure/governance/resource-graph/how-to/get-resource-changes>

# Contact options



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