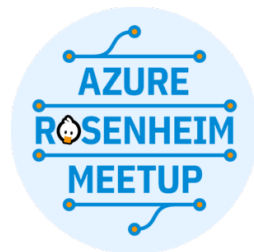


# white duck

## First look: Azure Managed Grafana, AZApi Terraform Provider, Azure Terrafy

Azure Rosenheim Meetup, Mai 2022



Microsoft  
Partner



Gold Cloud Platform  
Gold DevOps  
Silver Application Development  
Silver Security  
Silver Application Integration

# GitHub

# Who we are?



**Nico Meisenzahl (Cloud Solution Architect, MVP, GitLab Hero)**

Email: [nico.meisenzahl@whiteduck.de](mailto:nico.meisenzahl@whiteduck.de)  
Twitter: [@nmeisenzahl](https://twitter.com/nmeisenzahl)  
LinkedIn: <https://www.linkedin.com/in/nicomeisenzahl>



[twitter.com/CloudNative\\_Ro](https://twitter.com/CloudNative_Ro)

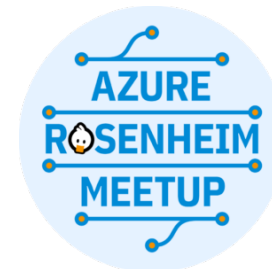


**Philip Welz (Senior Kubernetes & DevOps Engineer & GitLab Hero & CKA, CKAD & CKS)**

Twitter: [@philip\\_welz](https://twitter.com/philip_welz)  
LinkedIn: <https://www.linkedin.com/in/philip-welz>



[twitter.com/whiteduck\\_gmbh](https://twitter.com/whiteduck_gmbh)



[twitter.com/AzureMeetup](https://twitter.com/AzureMeetup)

# Housekeeping

- this meetup will be streamed on YouTube!
- want to participate?
  - join our meetup to get access to the Zoom meeting
    - <https://www.meetup.com/Azure-Meetup-Rosenheim>
    - we do also monitor the comments on YouTube

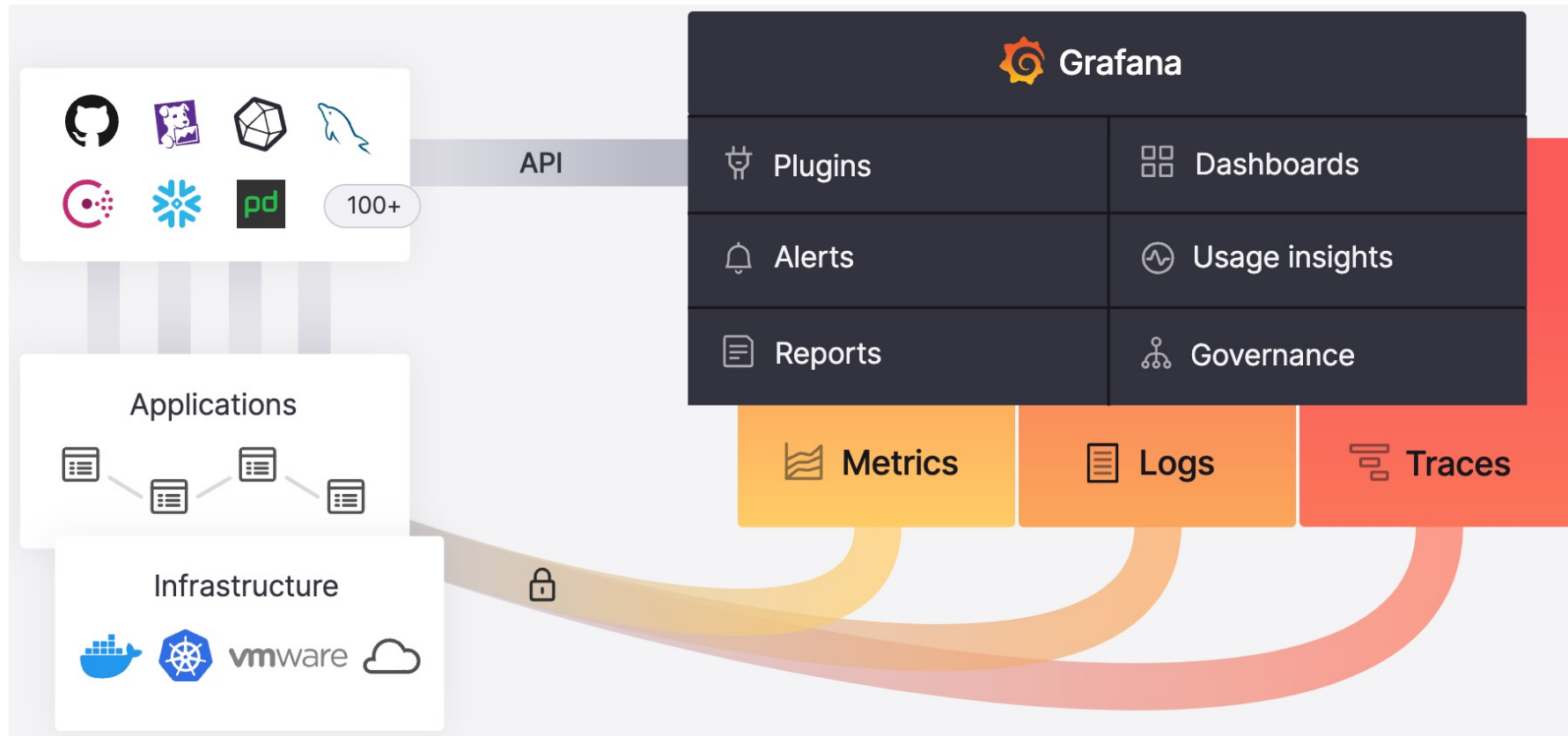
# Agenda

- Azure News
- Azure Managed Grafana
- AzAPI Terraform provider
- Azure Terrafy

# Azure News

- Azure Static Web Apps
  - deployments via GitLab und Bitbucket
  - support for Private Link
- Azure Container Apps
  - support for Managed Identity & build-in authentication
  - Metrics, alerts & health probes
- Arm64-based Azure VMs
  - support for Linux workloads and AKS with up to 50% better price-performance
- App Service
  - vNet integrations support moves to Basic tier
- more details & monthly Azure News → <https://whiteduck.de/blog>

# Grafana in 100 seconds



All in one open-source observability

# Azure Managed Grafana

- managed, high-available Grafana instance
  - based on Grafana v8.x
- built-in support for Azure
  - dashboards and data sources for Azure Monitor and Azure Data Explorer
  - import of existing charts via Azure Portal
- full-blown Grafana
  - any plugins, any data source

# Fully integrated

- user authentication and access control via Azure RBAC
  - Grafana Admin, Grafana Editor, Grafana Viewer
- support for Managed Identity (data sources)
- integrated with ARM
  - manage dashboards, users, plugins, data sources via API, CLI
- currently available in
  - West Europe
  - East US, West US 2, South Central US, West Central US
  - Southeast Asia



# Costs (West Europe)

- 61,77€ per month
  - 2 nodes required (for high availability)
  - 0,04€/Minute per node
- additional 37,06€ for zone redundancy
- 3 active users are included
  - additional 5,70€ per user/month

# Demo: Azure Managed Grafana

- Azure Monitor data source
- built-in Dashboards
- other data sources
  - Grafana Tempo
  - Prometheus
- alerts

# Current limits & things we miss

- vNet integration (retrieve data from private endpoints)
- Private Link support (expose Grafana internally)
- further build-in Dashboards for an easy start
- currently limited availability in West Europe
- not yet available in Germany West Central
- still in preview

# Azure Monitor vs. Managed Grafana

- you still need Azure Monitor to collect Azure related data
- Grafana can help to streamline your dashboards, alerts when relying on Kubernetes or any open-source stack
- it depends (as always)

# AzAPI Terraform provider

- Wait what? Why do we need another provider?
- Limitations of AzureRM
  - Preview resources & properties
  - Feature time-to-market
  - AzureRM is only the tip of the iceberg
    - Go SDK
    - ARM REST APIs & API spec

# AzAPI Terraform provider

- thin layer on top of the ARM REST APIs
- compliments the AzureRM provider by enabling the management of new Azure resources and properties
- comes with an own VS Code extension
- Resources
  - azapi\_resource & azapi\_update\_resource

# AzAPI – AzureRM differences

- **type** = Azure resource type & API version
- **parent\_id** = ID of the azure resource in which this resource is created
- **body** = JSON object

# AzAPI – AzureRM differences

```
resource "azapi_resource" "example" {  
  type      = "Microsoft.ContainerRegistry/registries@2020-11-01-preview"  
  name      = "registry1"  
  parent_id = azurerm_resource_group.example.id  
  body = jsonencode({  
    sku = {  
      name = "Standard"  
    }  
    properties = {  
      adminUserEnabled = true  
    }  
  })  
}
```



# Demo: AzAPI

- we will use the AzureRM & AzApi provider
- we will create the following resources
  - Resource Group
  - Log Analytics Workspace
  - Azure Container Apps Environment
  - Azure Container App with Sample Container deployed

# Azure Terrafy

- written in Go
- official Azure project
- Goal: bring resources under the management of Terraform
- uses terraform import & tfadd under the hood
- aztfy can run in two modes
  - Interactive
  - Batch

# Azure Terrafy - Limitations

- Resources must be supported by the AzureRM Terraform provider
- only Resources within one Resource Group can be imported
- there must 1:1 mapping between the Azure resources and the Terraform resources

# Demo: Azure Terrafy

- use aztfy (interactive mode) to import a Resource Group and a Storage Account
- after the import is done, run terraform plan & apply
- add Tags to the Storage Account with Terraform

# Links

- Azure Managed Grafana
  - <https://docs.microsoft.com/azure/managed-grafana>
- AzAPI Terraform provider
  - <https://github.com/Azure/terraform-provider-azapi>
  - <https://marketplace.visualstudio.com/items?itemName=azapi-vscode.azapi>
- AzAPI2AzureRM
  - <https://github.com/Azure/azapi2azurearm>
- Azure Terrafy
  - <https://github.com/Azure/aztfy>

# Questions?



**Nico Meisenzahl (Cloud Solution Architect, MVP, GitLab Hero)**

Email: [nico.meisenzahl@whiteduck.de](mailto:nico.meisenzahl@whiteduck.de)  
Twitter: [@nmeisenzahl](https://twitter.com/nmeisenzahl)  
LinkedIn: <https://www.linkedin.com/in/nicomeisenzahl>



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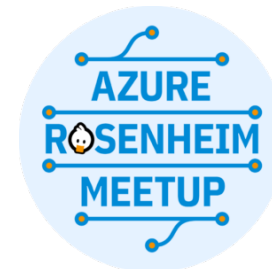


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