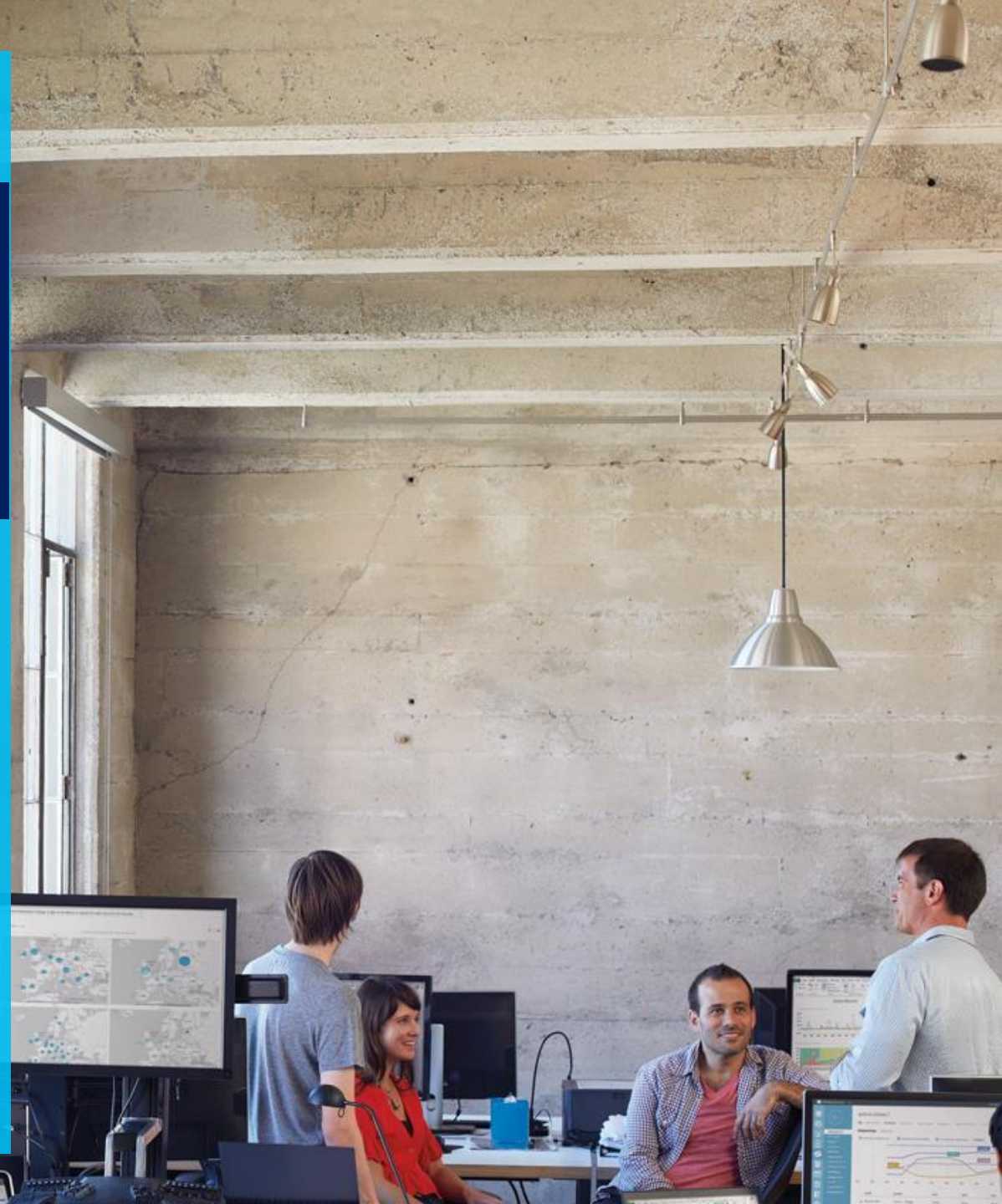
Microsoft

Microsoft Azure Power Lunch

Today's Topic:

AzGovViz
Azure Governance Visualizer

Date: 14-AUG-2020



AzGovViz
Azure Governance Vizualizer

Who?

Julian Hayward – Customer Engineer

- Germany based
- Been with Microsoft for 2,5 years
- Technical focus on Azure Infrastructure, Automation and Governance

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Azure Governance Vizualizer

Problem statement

- Governance can be a complex topic
- Holistic overview on governance implementation
- Connecting the dots

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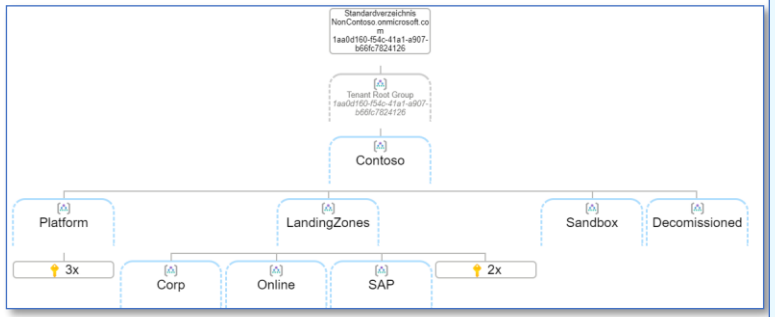
Azure Governance Vizualizer

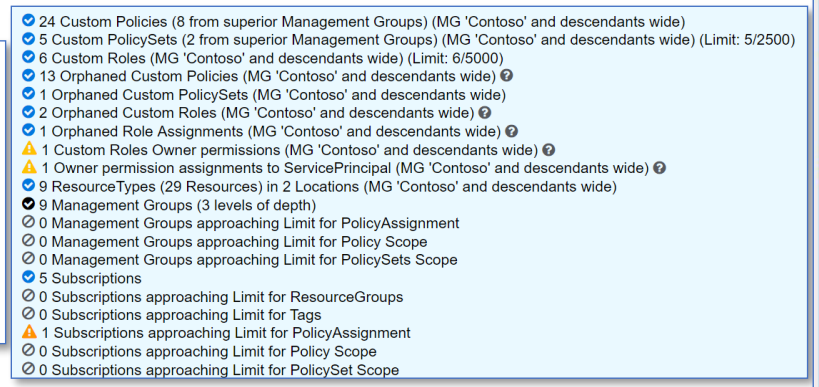
What is it?

AzGovViz is a PowerShell based script that iterates your Azure Tenants Management Group hierarchy down to Subscription level. It captures most relevant Azure governance capabilities such as Azure Policy, RBAC and Blueprints and more. From the collected data AzGovViz provides visibility on your **Hierarchy Map**, creates a **Tenant Summary** and builds granular **Scope Insights** on Management Groups and Subscriptions. The technical requirements as well as the required permissions are minimal.

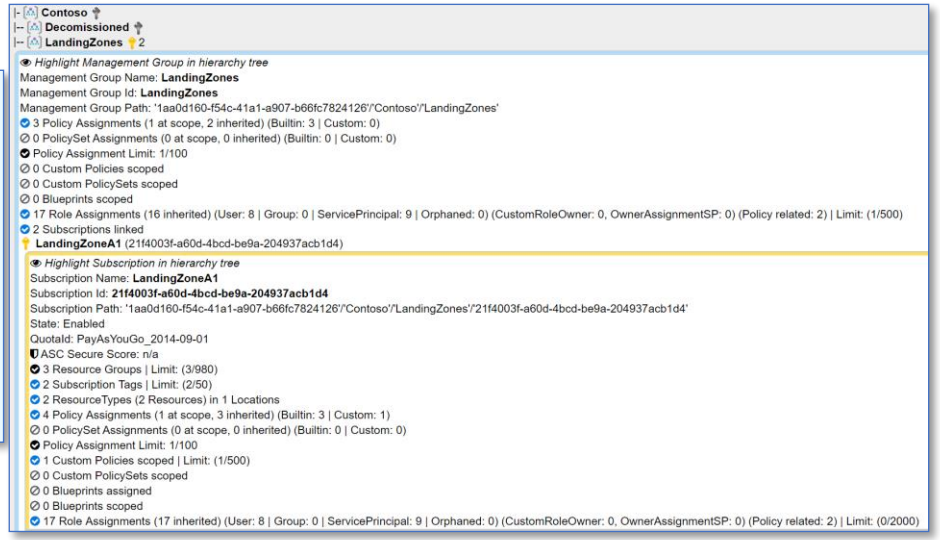
Hierarchy Map



Tenant Summary



Scope Insights



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Data / Output

- Management Groups
- Subscriptions
- Policy Definitions, Assignments, Compliance
- RBAC Definitions, Assignments
- Blueprints Definitions, Assignments
- Limits
- Resource Groups
- Resource Types
- Resource Providers
- Diagnostics capable
- Security

CSV file
- All collected data available in CSV file

HTML file
- Connects the dots by providing insights on hierarchy tree, tenant summary and granular reporting on Management Groups and Subscriptions

Azure DevOps Wiki ‘Mermaid plugin‘ ready markdown file
    - Limited to hierarchy and list of Management Groups / Subscriptions

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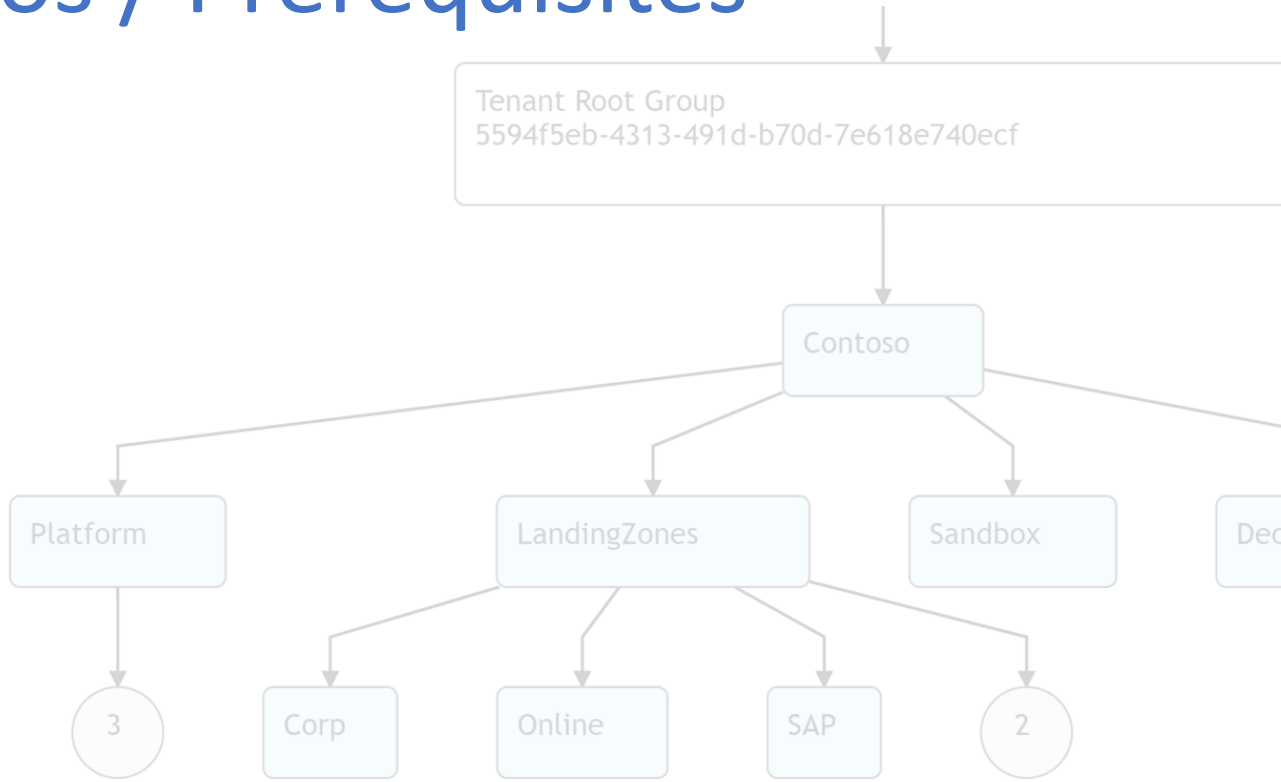
Scenarios / Prerequisites



Requirements for all scenarios

- PowerShell Az Modules
  - Az.Accounts
  - Az.Resources
  - Az.ResourceGraph
- RBAC Role ‘Reader‘ on Management Group

Scenario: Local (any PS console)

Scenario: Azure DevOps Pipeline
Requirements: Service Connection (Service Principal) requires API permissions (Azure Active Directory API | Application | Directory | Read.All)

Environments: AzGovViz is designed to support all Azure Clouds (AzureCloud, AzureUSGovernment, AzureChinaCloud, AzureGermanCloud), however it is only verified working on AzureCloud by today

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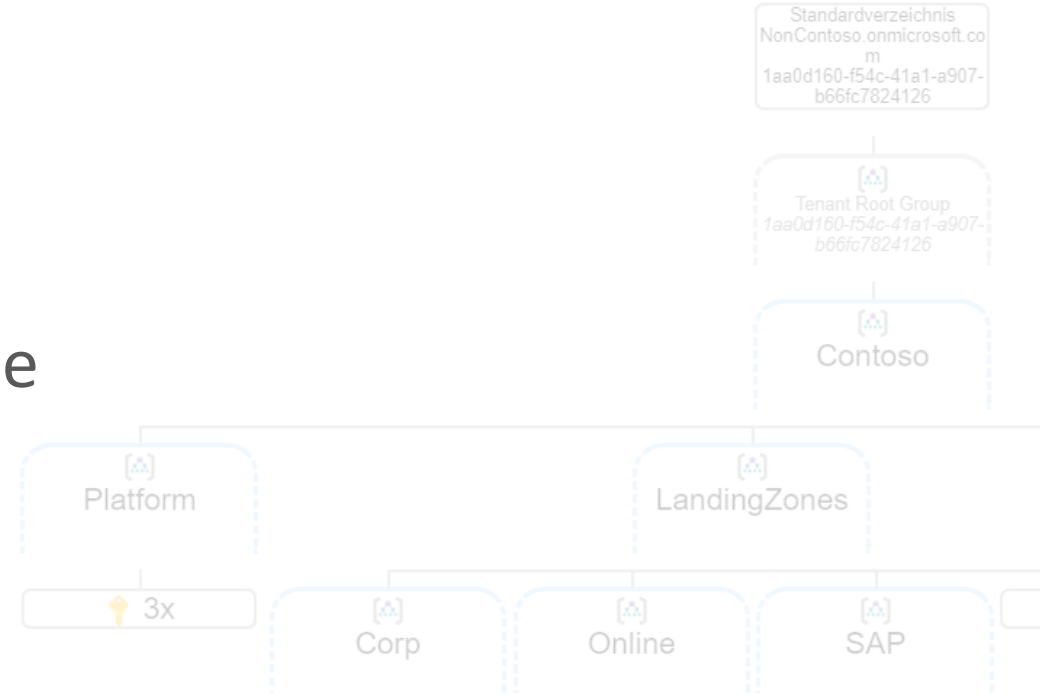
Features



- User friendly visualization of entire governance implementation DEMO
- Create Hierarchy map ONLY - parameter
- Define limit warning percentage - parameter
- Data protection / scrub user information - parameter
- Whitelist Subscriptions by QuotaId - parameter
- Target Management Group - parameter
- HTML file embedded version check
- HTML filterable tables
- Azure Pipeline YAML example provided / Azure DevOps Wiki As Code

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Granularity

- Orphanded Roles/Policies Definitions & Assignment
- Indicate use of deprecated policies
- Filter Policy Assignments Excludes Scopes
- Filter Policy Assignments Inheritance
- Relation of Role Assignments and Policy Assignments
- Approaching Limits information – e.g. Scope limits, ARM limits
- Resource Types count per region
- Resource Types Diagnostics capable
- Resource Provider states
- Security recommendations (custom owner roles, owner assignment on SP, owner/UserAccessAdmin assignment on identity rather than group)

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Confidentiality of information

!

AzGovViz creates very detailed information about your Azure Governance setup. In your organizations best interest the **Outputs should be protected from not authorized access!**

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Thank you!

Your contribution welcome!

AzGovViz GitHub Repositories

- https://github.com/JulianHayward/Azure-MG-Sub-Governance-Reporting
  (latest version in ‘dev‘ branch)
- https://github.com/microsoft/CloudAdoptionFramework/tree/master/govern/AzureGovernanceVisualizer

Also checkout AzAdvertizer https://www.azadvertizer.net/
..to keep up with the pace on Azure Governance capabilities such as Azure Policies, Policy Initiatives, Policy Aliases, RBAC Roles and Resource Provider Operations