



# IMPLEMENT PIM ON AZURE RESOURCES



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**Cloud Dude, Sparebanken Vest**

# Azure «roughly» speaking

Without thinking functionality

- Objects
  - Managment Groups
  - Subscriptions
  - Resource Groups
  - Resources
- Access = Roles
  - Owner
  - Contributor
  - Reader
  - + 335 other pre-defined roles
  - + Custom roles

Trivia: What is the difference between Owner og Contributor?



# Agenda

- Why
- Discovery
- Cleanup
- Modify
- Apply
- Common misunderstandings and problems



# Why?





# Why?

- Prevent unauthorized persons from using privileged roles
- Prevent scripts from abusing escalated permissions
- Prevent mishaps from users/scripts
- Time limited access
- Monitoring



# Why?

- Require approval if desired
- Require MFA token to enable roles
- Document reason for activating
- Activation notifications
  - Owner
  - The user



”

**Active access before PIM:**

**120 Developers**

**$120 \times 24 \times 30 = 86.400$  Hours**



”

**Active access after PIM:**

**15 activations daily (mon-fre)**

**$15 \times 8 \times 22 = 2.640$  Hours**





# Discovery?

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# What?

Microsoft Azure

Search resources, services, and docs (G+/)

Home > [Subscription]

Subscription

Search

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Security

Events

Billing

Invoices

Microsoft Azure

Search resources, services, and docs (G+/)

Home > [Subscription]

Subscription

Search

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Security

Events

Billing

+ Add

Download role assignments

Edit columns

Refresh

Remove

Feedback

Check access

Role assignments

Roles

Deny assignments

Classic administrators

Number of role assignments for this subscription

2

4000

Search by name or email

Type : All

Role : All

Scope : All scopes

Group by : Role

5 items (4 Users, 1 Service Principals)

☐

Name

Type

Role

Scope





**<https://github.com/OTvedt/Scripts-For-Sharing/tree/master/Azure/PIM/Azure-resources/Document>**

- **RolesUsedInSubs.ps1**
- **DocumentAllSubsAIM.ps1**

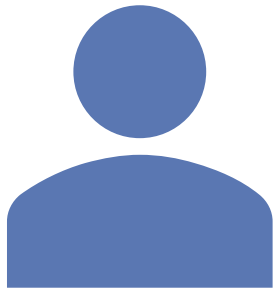


# Cleanup

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# What?





**[https://github.com/OTvedt/Scripts-For-Sharing/tree/master/Azure/Access\\_Control\\_\(IAM\)](https://github.com/OTvedt/Scripts-For-Sharing/tree/master/Azure/Access_Control_(IAM))**

- Excel sheet
- iam-removeunknown.ps1





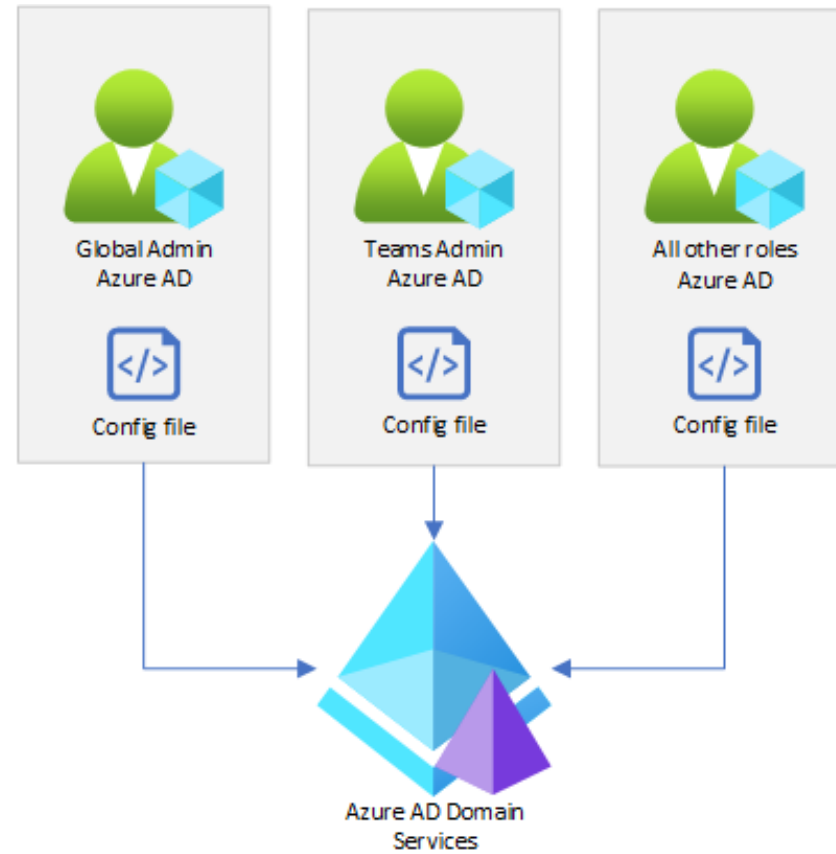
# Modify

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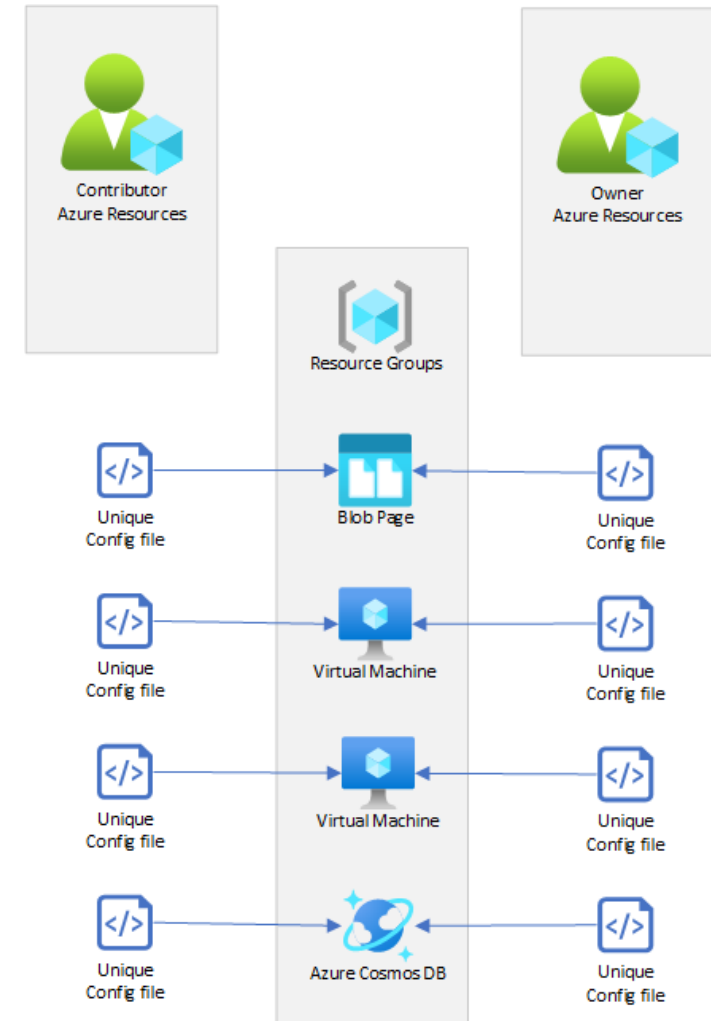
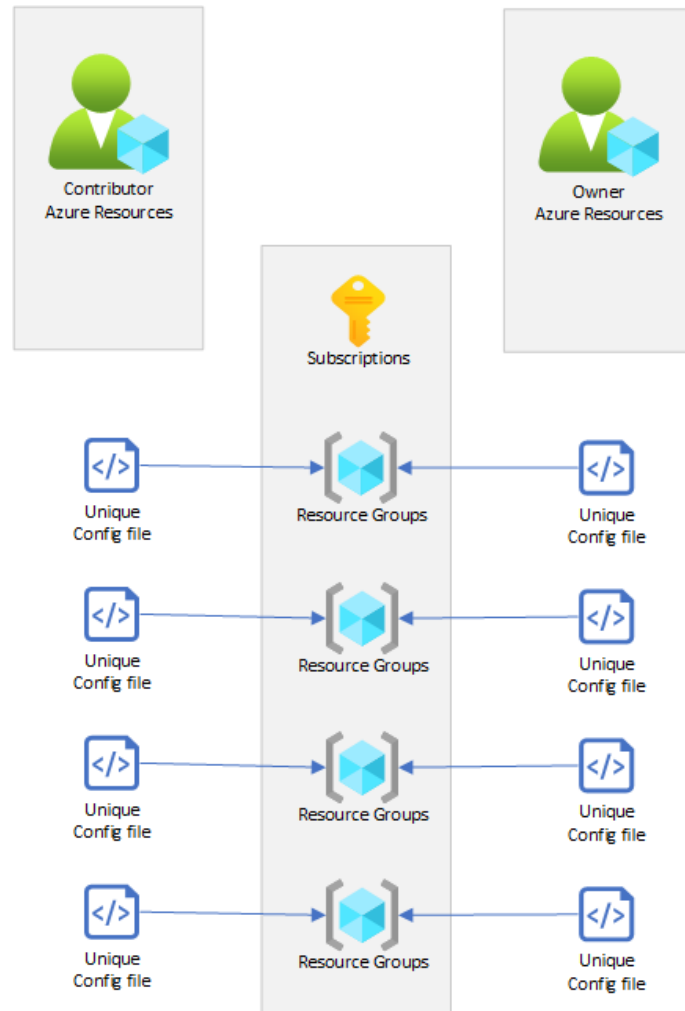
# Why?

## Azure AD role config



# Why?

## Azure Resources Config





**<https://github.com/OTvedt/Scripts-For-Sharing/tree/master/Azure/PIM/Azure-resources/Modify>**  
- Pim-EditRoleInAllRGs.ps1  
- Default-settings.json





# Apply

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**<https://github.com/OTvedt/Scripts-For-Sharing/tree/master/Azure/PIM/Azure-resources/Apply>**  
- **Pim-SetContributorEligibility.ps1**  
- **Pim-AddReader.ps1**





# Common misunderstandings and problems

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# Common misunderstandings and problems

- Misunderstandings
  - It's just the same as Azure AD PIM
  - It's a replacement for groups

- User Training
  - Portal
  - Script?

- Problems
  - Activation, token and refresh
  - Multiple browsers/Windows
  - My colleague has access, I want it too!
  - Scope
  - The realm between Contributor and Reader



# Olav Tvedt



- 15 x MVP
  - Setup & Deployment
  - Software Packaging, Deployment & Servicing
  - Windows Expert – IT Pro
  - Office and Applications
  - Cloud & Server Installation and Servicing
  - Cloud and Datacenter



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<https://olavtvedt.blogspot.com/>



<https://github.com/OTvedt/Scripts-For-Sharing>



<https://www.youtube.com/@bluescreenbrothers>

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