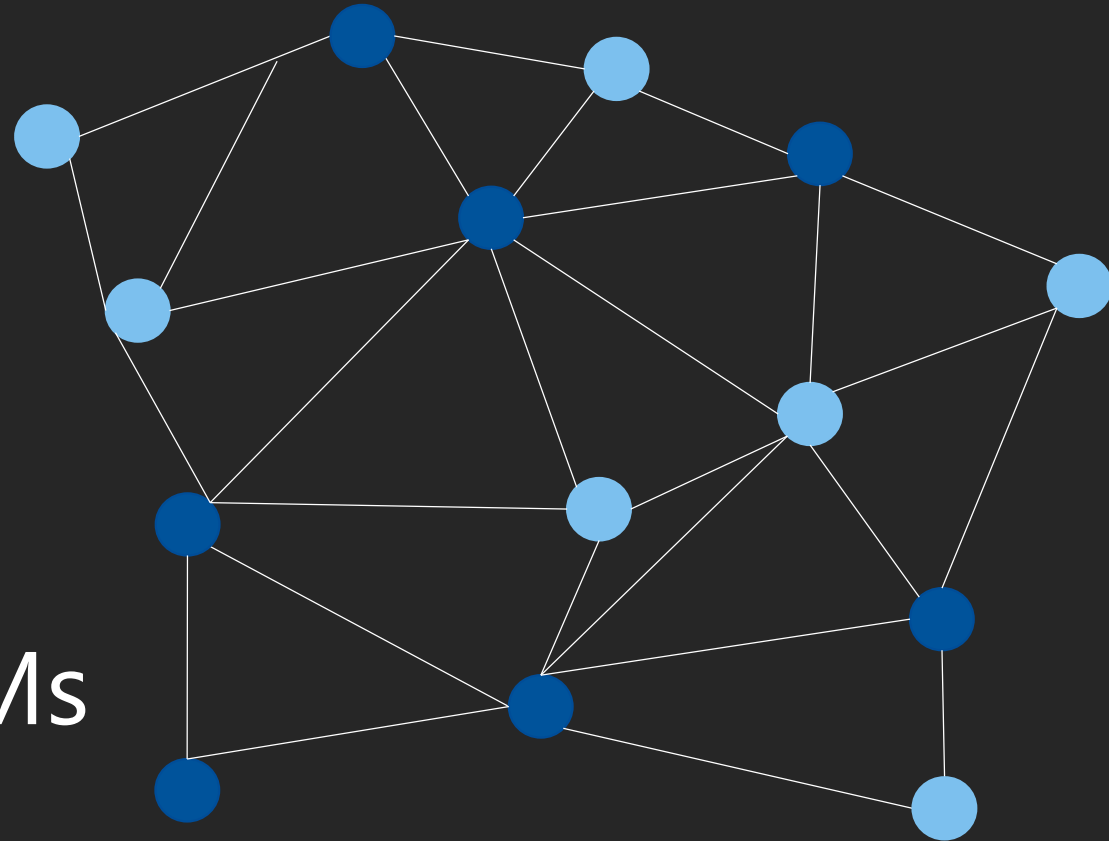# Azure Bastion – Secure access to your Azure VMs

without JumpHost or Public IP Address

by Gregor Reimling

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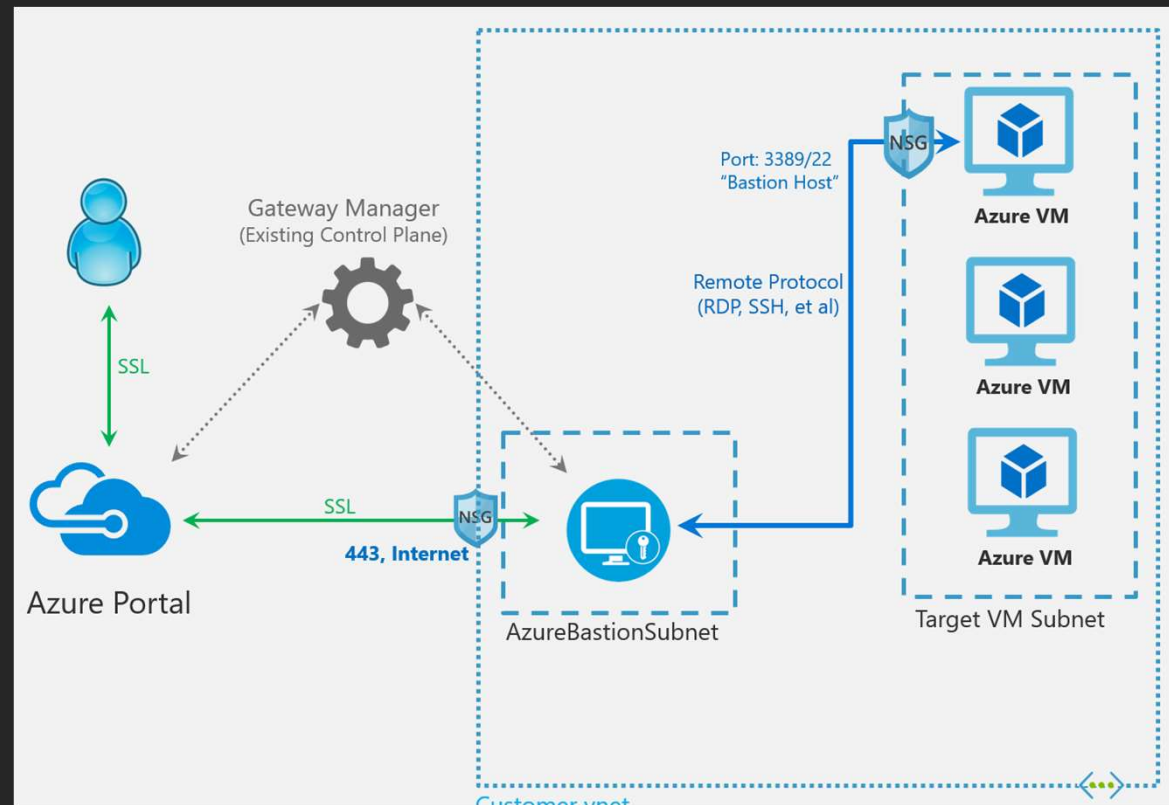🐦 @GregorReimling | @AzureBonn

📡 www.reimling.eu | www.neutralien.com

Azure Bastion - Overview

- Fully-managed PaaS Service by Microsoft
- Replace Management of own Jumphosts
- Avoid bind Public IP on VM for Management purposes
- RDP and SSH directly inside the Azure Portal
- No need for an Agent inside VM
- Easy to deploy

Gateway Manager
(Existing Control Plane)

SSL

Azure Portal

SSL

443, Internet

AzureBastionSubnet

Port: 3389/22
"Bastion Host"

Remote Protocol
(RDP, SSH, et al)

Azure VM

Azure VM

Azure VM

Target VM Subnet

Customer vnet

Azure Bastion – General Notes

Region availability

West US, East US, South Central US

West Europe

Australia East & Japan East

Browser compatibility

Chromium based (Edge Dev and Chrome)

Firefox also works

Instance details

Name *

AzBastionVNETHub

Region *

West Europe

Australia East

East US

Japan East

South Central US

West Europe

West US

Configure virtual networks

Virtual network * ⓘ

Public IP address

Public IP address * ⓘ

Azure Bastion – Requirements

- Minimum priviliges
    - Reader role on the VM
    - Reader role on the assigned NIC
    - Reader Role on the Azure Bastion resource
- Need an own Subnet inside the Virtual Network
    - subnet need at least /27 or larger subnet

Azure Bastion – How it works

- Deploy a HTML 5 based Webclient
- RDP and SSH direct over the Portal
- Forward SSH/RDP over SSL
- Only accessible via the Portal
- Can`t access the Public IP directly

Azure Bastion - Demo
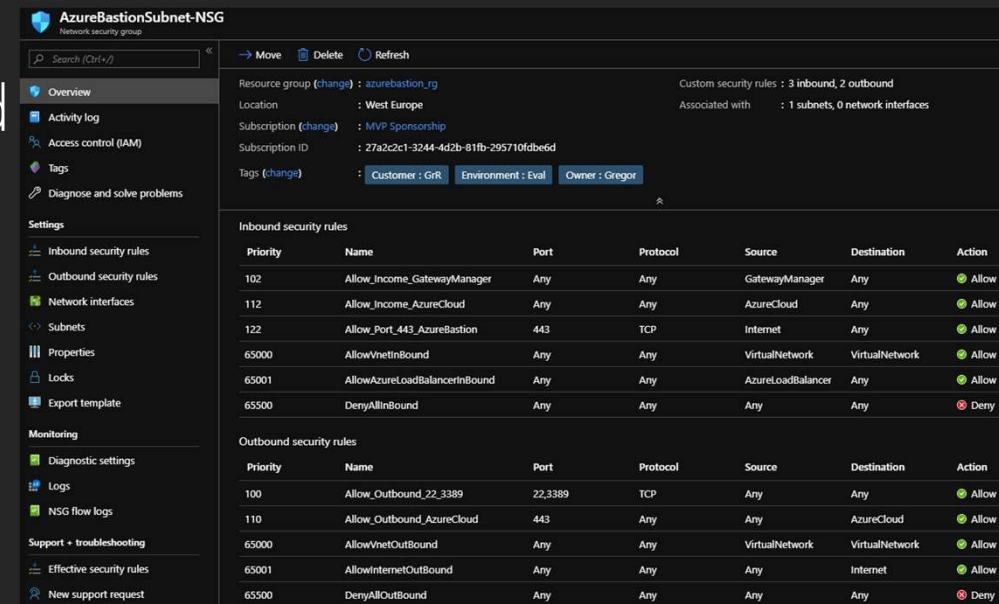
Azure Bastion – Hardening

- Harden Bastion Subnet with NSG
- Must define Inbound and Outbound Rules

Azure Bastion – Pricing & SLA

- In all regions same pricinig
- €uro: 0,081€ per hour x 730 hours = 59,13€
- $ 0,095$ per hour x 730 hours = 69,35$
- SLA: Azure Bastion will be available at least 99.95%

Azure Bastion - Summary

Pro

- Easy do deploy
- Secure your VNET
- Forget Jumphosts
- Can see and manage connections

Contra

- VNET Peering not supported
- Need an own subnet
- Doesn´t support multi keystrongs
- Region availability

Azure Bastion – Links

- Azure Bastion Documentation Microsoft Docs
  - https://azure.microsoft.com/en-us/services/azure-bastion/
- What is Azure Bastion
  - https://docs.microsoft.com/en-us/azure/bastion/bastion-overview
- Azure Bastion Feedback
  - https://feedback.azure.com/forums/217313-networking?query=bastion
- Secure Azure Bastion Subnet
  - https://docs.microsoft.com/en-us/azure/bastion/bastion-nsg
- Blog Article about Azure Bastion (German)
  - https://www.reimling.eu/2019/06/azure-bastion-sicherer-azure-vm-zugriff-via-ssh-rdp-ohne-public-ip/

Thank you!

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