



Azure Backend Security

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Cloud momentum continues to accelerate



"The question is no longer:
'How do I move to the cloud?' Instead,
it's 'Now that I'm in the cloud, how do I
make sure I've optimized my
investment and risk exposure?'" *

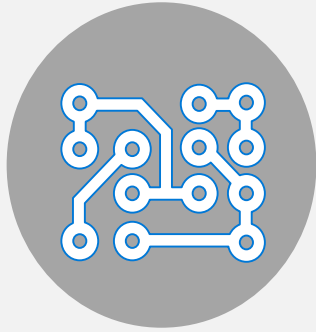


"By 2020 clouds will stop being
referred to as 'public' and 'private'. It
will simply be the way business is done
and IT is provisioned." **

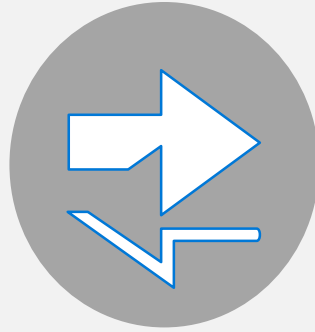
* KPMG: [2014 Cloud Survey Report, Elevating business in the cloud, December 10, 2014](#)

** IDC: [IDC Market Spotlight, Cloud Definitions and Opportunity, April 2015](#)

But cloud security concerns persist



Management is increasingly distributed



Cloud environments are more dynamic



Attackers continue to innovate

"Through 2020, 95 percent of cloud security failures will be the customer's fault" – Gartner



Cloud Security is a Shared Responsibility

MICROSOFT COMMITMENT

Securing and managing the cloud foundation



Physical assets



Datacenter operations



Cloud infrastructure

JOINT RESPONSIBILITY

Securing and managing your cloud resources



Virtual machines



Applications & workloads



Data



Azure Resource Deployment

PowerShell and ARM templates

Resource Group Deployment - PowerShell

[...]

```
$outputs = (New-AzureRmResourceGroupDeployment `
    -Name MyCoreDeployment `
    -ResourceGroupName $resourceGroupName `
    -TemplateUri
    https://azureseclab.blob.core.windows.net/azureseclab/azuredeploy-core.json `
    -VaultName $vaultName `
    -SecretName $secret.Name `
    -VaultResourceGroup $resourceGroupName `
).Outputs
```

[...]

Resource Group Deployment – Azure CLI 2.0

[...]

```
az group deployment create \  
  --name MyCoreDeployment \  
  --resource-group ExampleGroup \  
  --template-file  
https://azureseclab.blob.core.windows.net/azureseclab/azuredeploy-core.json \  
  --parameters storageAccountType=Standard_GRS
```

[...]

Remember!

1. Plan your infrastructure **before** you start!
2. Friends don't let friends right-click publish!
3. Use an Azure KeyVault!

Create an Azure Key Vault

[...]

```
$vaultName = "InsiderDevTour2018CGN"
```

```
New-AzureRmKeyVault `
```

```
-VaultName $vaultName `
```

```
-ResourceGroupName (New-AzureRmResourceGroup -Name InsiderDevTour2018 -Location "WestEurope").ResourceGroupName`
```

```
-Location "WestEurope" `
```

```
-EnabledForDeployment `
```

```
-EnabledForTemplateDeployment `
```

```
-EnabledForDiskEncryption `
```

```
-Sku standard
```

#Create a KeyVault Secret for a local admin password

```
$password = read-host -assecurestring
```

```
Set-AzureKeyVaultSecret -VaultName $vaultName -Name admin -SecretValue $password
```

[...]



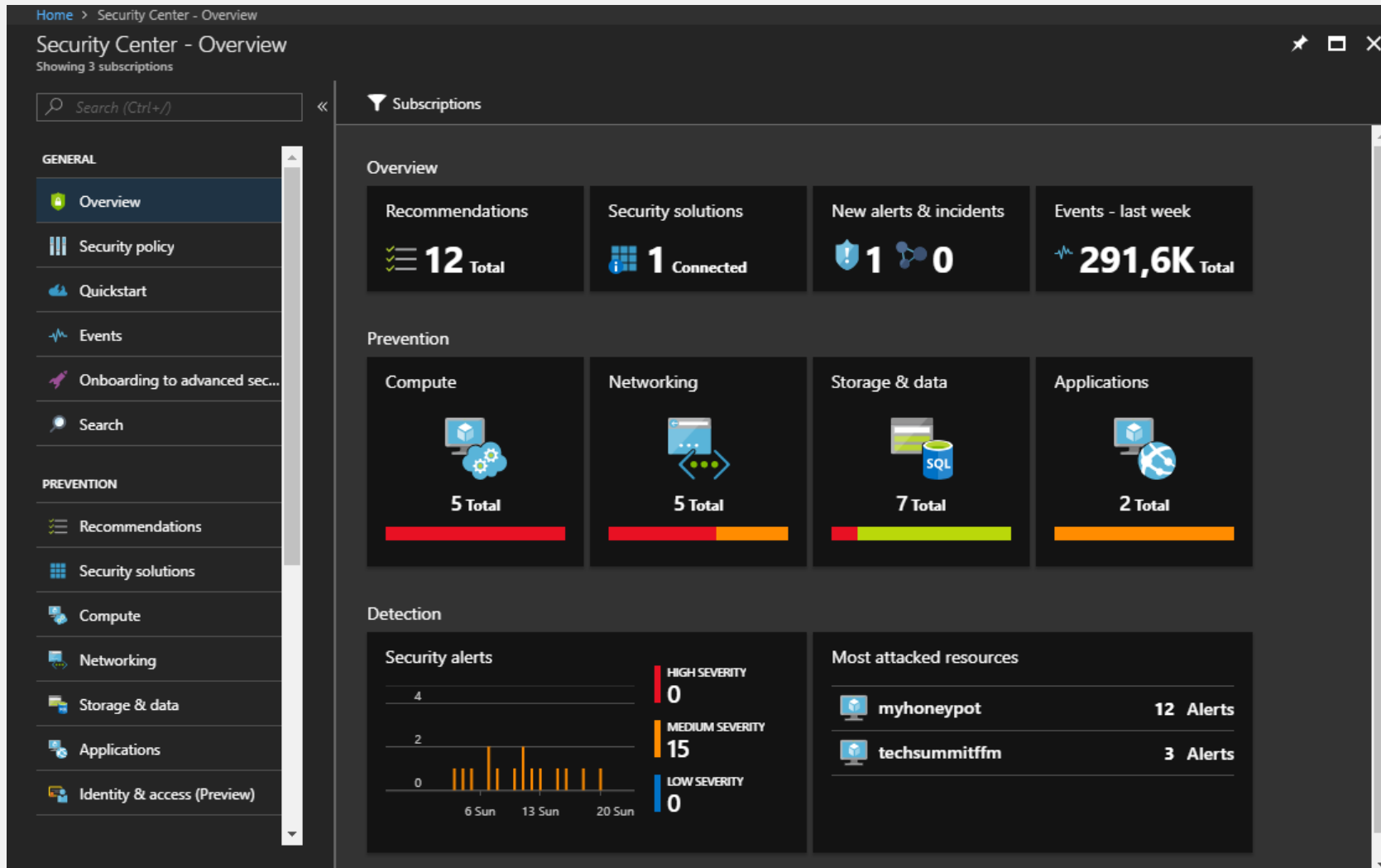
Demo!

Azure Key Vault & Azure Resource Deployment



Azure Security Center

Azure Security Center

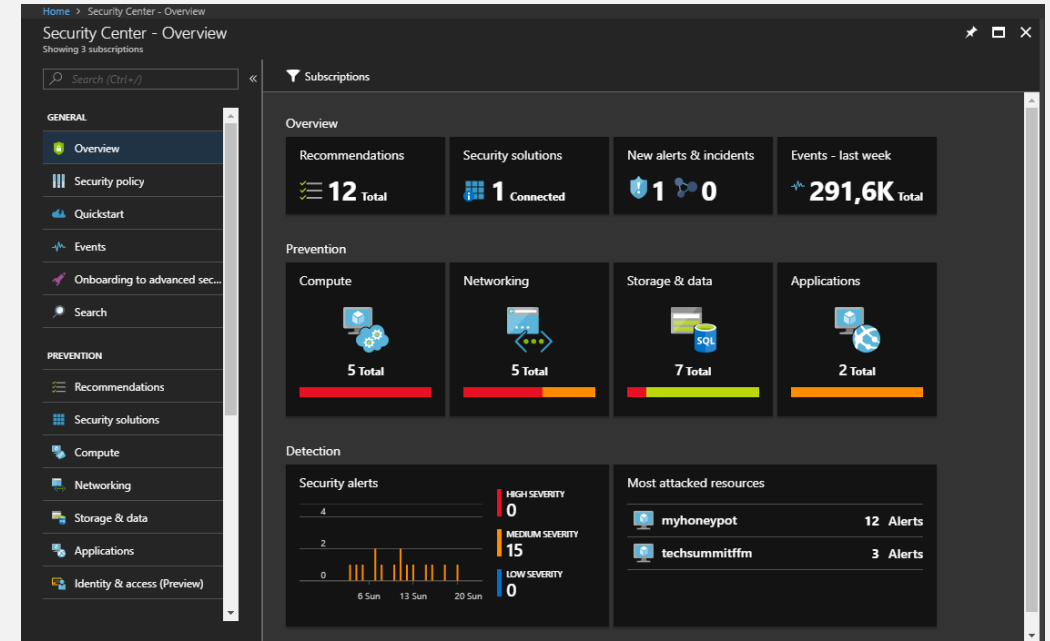


Azure Security Center

Unified Management

One place to rule it all

Limit your exposure to threats



Find vulnerabilities and remediate quickly



Demo!

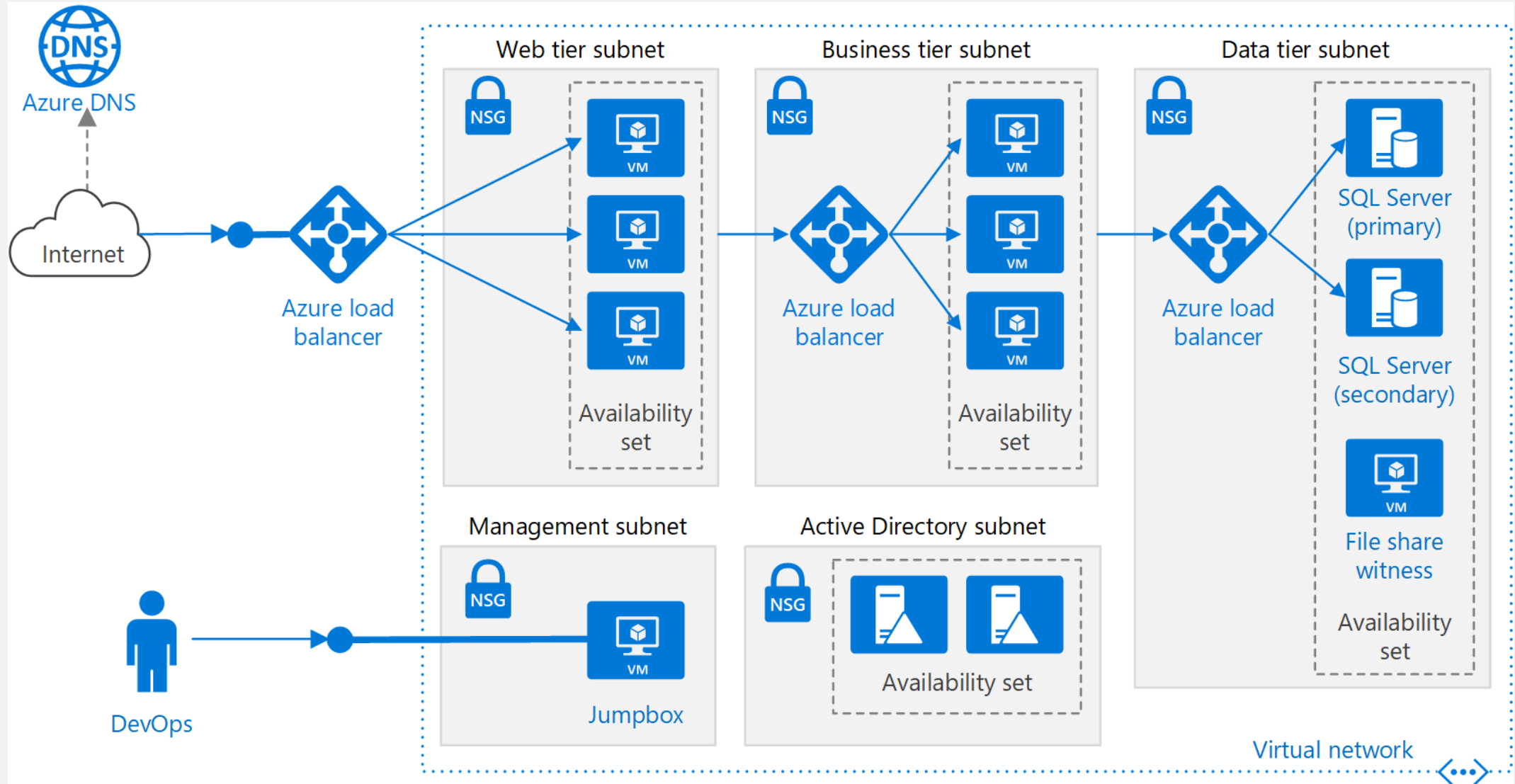
Azure Security Center



Azure Infrastructure Architecture

Networking, Compute, Storage

Azure reference architecture





Demo!

Networking, Storage, RDP Brute Force & Just-in-Time VM Access

Learn more!

Check out the code for this session!

[Github.com/azureandbeyond](https://github.com/azureandbeyond)

You'll learn:

- Azure PowerShell code snippets
- Azure resource deployment



Thanks!

Please don't forget to complete the survey!

Next up...

Create Productive Apps with Office 365

Raphael Köllner | Office Servers & Services MVP





Insider Dev Tour