

Webinar: Azure Readiness - VPN, 19.8.2021.



Herzlich Willkommen.



Lütfi Civan

Teamleiter Microsoft

Bechtle Schweiz AG



Reto Keller

Senior System Engineer

Bechtle Schweiz AG

Agenda

1. Überblick
2. Design Azure VPN Gateway
3. Site-to-Site Verbindung
4. Point-to-Site Verbindung
5. Demo

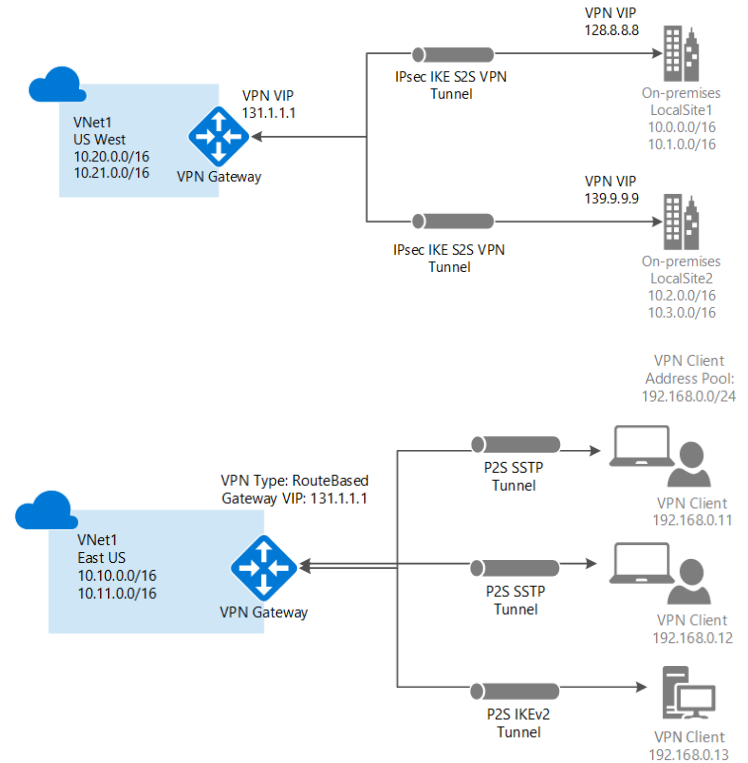
Überblick

- Was ist ein VPN?
- Tunnel – was ist ein Tunnel?
- VPN und Cloud
- Wo wird kein VPN benötigt?



Design Azure VPN Gateway

- IP-Adressen
- Grösse des Vnet
- Planung VPN Gateway
- Eigenes Subnet (GatewaySubnet) – mind. /27
- Grössen der Gateways (SKU)
- Basic = Legacy
- Skalierung nach oben aber nicht nach unten
- Starten mit dem VPNgw1
- Policy & Routebased Verbindungen
- Weiter zu beachten



Design Azure VPN Gateway

- IP-Adressen
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VPN Gateway Generation	SKU	S2S/VNet-to-VNet Tunnels	P2S SSTP Connections	P2S IKEv2/OpenVPN Connections	Aggregate Throughput Benchmark	BGP	Zone-redundant
Generation1	Basic	Max. 10	Max. 128	Not Supported	100 Mbps	Not Supported	No
Generation1	VpnGw1	Max. 30*	Max. 128	Max. 250	650 Mbps	Supported	No
Generation1	VpnGw2	Max. 30*	Max. 128	Max. 500	1 Gbps	Supported	No
Generation1	VpnGw3	Max. 30*	Max. 128	Max. 1000	1.25 Gbps	Supported	No
Generation1	VpnGw1AZ	Max. 30*	Max. 128	Max. 250	650 Mbps	Supported	Yes
Generation1	VpnGw2AZ	Max. 30*	Max. 128	Max. 500	1 Gbps	Supported	Yes
Generation1	VpnGw3AZ	Max. 30*	Max. 128	Max. 1000	1.25 Gbps	Supported	Yes
Generation2	VpnGw2	Max. 30*	Max. 128	Max. 500	1.25 Gbps	Supported	No
Generation2	VpnGw3	Max. 30*	Max. 128	Max. 1000	2.5 Gbps	Supported	No
Generation2	VpnGw4	Max. 30*	Max. 128	Max. 5000	5 Gbps	Supported	No
Generation2	VpnGw5	Max. 30*	Max. 128	Max. 10000	10 Gbps	Supported	No
Generation2	VpnGw2AZ	Max. 30*	Max. 128	Max. 500	1.25 Gbps	Supported	Yes
Generation2	VpnGw3AZ	Max. 30*	Max. 128	Max. 1000	2.5 Gbps	Supported	Yes
Generation2	VpnGw4AZ	Max. 30*	Max. 128	Max. 5000	5 Gbps	Supported	Yes
Generation2	VpnGw5AZ	Max. 30*	Max. 128	Max. 10000	10 Gbps	Supported	Yes

Site-to-Site Verbindung - Grundlagen

- Verbindung zwischen zwei fixen Standorten
- Erweiterung bestehender Netzwerke
- Kommunikation via privaten IP-Ranges



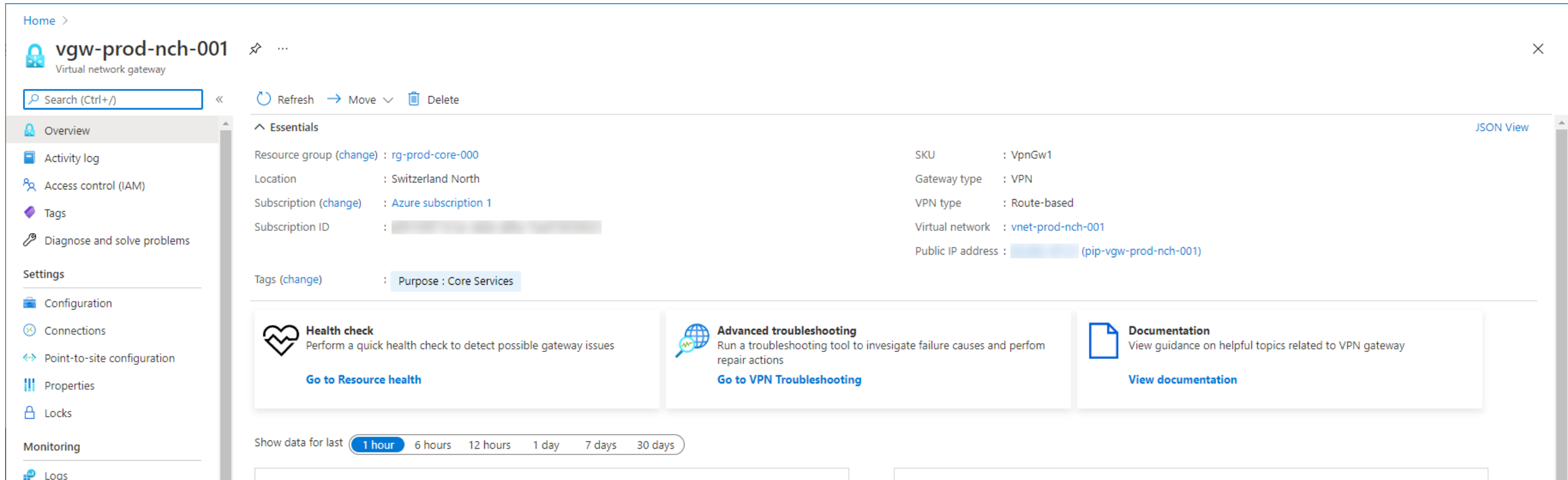
Site-to-Site Verbindung – weitere Themen

- Kompatible Firewalls
- Unterstützte Algorithmen & Konfigurationen

Generation	SKU	Algorithms used	Throughput observed	Packets per second observed
Generation1	VpnGw1	GCMAES256	650 Mbps	58,000
		AES256 & SHA256	500 Mbps	50,000
		DES3 & SHA256	120 Mbps	50,000
Generation1	VpnGw2	GCMAES256	1 Gbps	90,000
		AES256 & SHA256	500 Mbps	80,000
		DES3 & SHA256	120 Mbps	55,000
Generation1	VpnGw3	GCMAES256	1.25 Gbps	105,000
		AES256 & SHA256	550 Mbps	90,000
		DES3 & SHA256	120 Mbps	60,000
Generation1	VpnGw1AZ	GCMAES256	650 Mbps	58,000
		AES256 & SHA256	500 Mbps	50,000
		DES3 & SHA256	120 Mbps	50,000
Generation1	VpnGw2AZ	GCMAES256	1 Gbps	90,000
		AES256 & SHA256	500 Mbps	80,000
		DES3 & SHA256	120 Mbps	55,000
Generation1	VpnGw3AZ	GCMAES256	1.25 Gbps	105,000
		AES256 & SHA256	550 Mbps	90,000
		DES3 & SHA256	120 Mbps	60,000

- [About VPN devices for connections - Azure VPN Gateway | Microsoft Docs](#)

Site-to-Site Verbindung – Konfiguration 01



Home > **vnet-prod-nch-001** Virtual network gateway

Search (Ctrl+/) Refresh Move Delete

Overview

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems

Settings

- Configuration
- Connections
- Point-to-site configuration
- Properties
- Locks

Monitoring

- Logs

Essentials JSON View

Resource group (change) : rg-prod-core-000
 Location : Switzerland North
 Subscription (change) : Azure subscription 1
 Subscription ID : [REDACTED]

SKU : VpnGw1
 Gateway type : VPN
 VPN type : Route-based
 Virtual network : vnet-prod-nch-001
 Public IP address : [REDACTED] (pip-vgw-prod-nch-001)

Tags (change) : Purpose : Core Services

Health check
 Perform a quick health check to detect possible gateway issues
[Go to Resource health](#)

Advanced troubleshooting
 Run a troubleshooting tool to investigate failure causes and perform repair actions
[Go to VPN Troubleshooting](#)

Documentation
 View guidance on helpful topics related to VPN gateway
[View documentation](#)

Show data for last **1 hour** 6 hours 12 hours 1 day 7 days 30 days

Site-to-Site Verbindung – Konfiguration 02

Home > vgw-prod-nch-001

vgw-prod-nch-001 | Connections ↗ ⋮

Virtual network gateway

Search (Ctrl+/) ⏪ + Add 🔄 Refresh

Search connections

Name	↑↓ Status	↑↓ Connection type	↑↓ Peer	↑↓
cn-prod-nch-██████████	Not connected	Site-to-site (IPsec)	lgw-prod-██████████	⋮
cn-prod-nch-██████████	Connected	Site-to-site (IPsec)	lgw-prod-██████████	⋮
cn-prod-nch-██████████	Connected	Site-to-site (IPsec)	lgw-prod-██████████	⋮

[Overview](#)
[Activity log](#)
[Access control \(IAM\)](#)
[Tags](#)
[Diagnose and solve problems](#)
Settings
[Configuration](#)

Site-to-Site Verbindung – Konfiguration 03

Home > vgw-prod-nch-001 >

cn-prod-nch-001
Connection

Search (Ctrl+/) Refresh Move Download configuration Delete

Overview

- Activity log
- Access control (IAM)
- Tags

Settings

- Shared key
- Configuration
- Properties

Essentials

Resource group (change) : rg-prod-core-000
Status : Connected
Location : Switzerland North
Subscription (change) : Azure subscription 1
Subscription ID : [redacted]
Tags (change) : [Click here to add tags](#)

Data in : 12.58 KiB
Data out : 12.42 KiB
Virtual network : vnet-prod-nch-001
Virtual network gateway : vgw-prod-nch-001
Local network gateway : lgw-prod-[redacted]

[JSON View](#)

Site-to-Site Verbindung – Konfiguration 04

The screenshot displays the Azure portal interface for a Local Network Gateway. The breadcrumb path is "Home > Resource groups > rg-prod-core-000 > Local network gateways > lgw-prod-...". The main content area is titled "Essentials" and lists the following properties:

- Resource group (change): [rg-prod-core-000](#)
- Location: [Switzerland North](#)
- Subscription (change): [Azure subscription 1](#)
- Subscription ID: [Redacted]
- Tags (change): [Click here to add tags](#)

Additional details shown on the right side of the Essentials section:

- IP address: [Redacted]
- Address space: [172.30.103.0/24](#), [172.30.104.0/24](#)

The left-hand navigation pane includes sections for "Overview" (selected), "Settings", and "Automation".

Point-to-Site Verbindung

- Zugriffe von Unterwegs oder im Homeoffice
- VPN Clients
- Authentifizierung
- Zertifikat
- Username / Passwort via RADIUS
- Azure AD – nur mit Windows 10 aufwärts



Point-to-Site Verbindung – Konfiguration 01

Home > vgw-prod-nch-001

vgw-prod-nch-001 | Point-to-site configuration ...
Virtual network gateway

Search (Ctrl+/) << Save Discard Delete Download VPN client

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems

Settings

- Configuration
- Connections
- Point-to-site configuration**
- Properties
- Locks

Monitoring

Address pool *

Tunnel type

- IKEv2
- OpenVPN (SSL)
- SSTP (SSL)
- IKEv2**
- IKEv2 and OpenVPN (SSL)
- IKEv2 and SSTP (SSL)

Point-to-Site Verbindung – Konfiguration 02

Home > vgw-prod-nch-001

vgw-prod-nch-001 | Point-to-site configuration ...
Virtual network gateway

Search (Ctrl+*f*)

Save Discard Delete Download VPN client

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Settings
 - Configuration
 - Connections
 - Point-to-site configuration**
 - Properties
 - Locks
- Monitoring

Address pool *

Tunnel type

IKEv2 and OpenVPN (SSL) ▾

Authentication type

0 selected ▾

- Azure certificate
- RADIUS authentication
- Azure Active Directory

The value must not be empty.

Demo

- Deployment Azure VPN Gateway
- Grundkonfiguration des Gateways



Besten Dank! Stellen Sie uns Ihre Fragen.



Weitere Infos:
bechtle.com/ch

Vorschau.



02.09.2021 Webinar: Citrix Cloud - Windows Virtual Desktop

08.09.2021 Webinar: Veeam & Bechtle: Kasten K10

21.10.2021 Webinar: Nutanix Update

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Bechtle Schweiz AG
Tel. +41 56 418 33 33
[bechtle.ch/kontakt](https://www.bechtle.ch/kontakt)

Lütfi Civan
Teamleiter Microsoft, Bechtle Schweiz AG
luetfi.civan@bechtle.com

Reto Keller
Senior System Engineer, Bechtle Schweiz AG
reto.keller@bechtle.com