

Go Multicloud Connectivity - Go Azure Virtual WAN



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about me

- Cloud Connectivity Experte
- ehem. Microsoft Mitarbeiter
- ehem. MVP Cloud & Datacenter
- Buchautor
- Regelmäßiger Speaker auf Konferenzen
- Eigene Firma:  ConStraight

Spezialisierungen:

- Azure/Cloud Connectivity
- Hybrid/Adaptive Cloud
- BCDR inkl. Critis & CIS/NIS-2
- Secure Identity Management Solutions



Gründe für MultiCloud:

- Vendor Lock-in
- „Das gibt's nur dort ...“
- BCDR-Lösung
- Cloud-Exit-Szenario
- ...

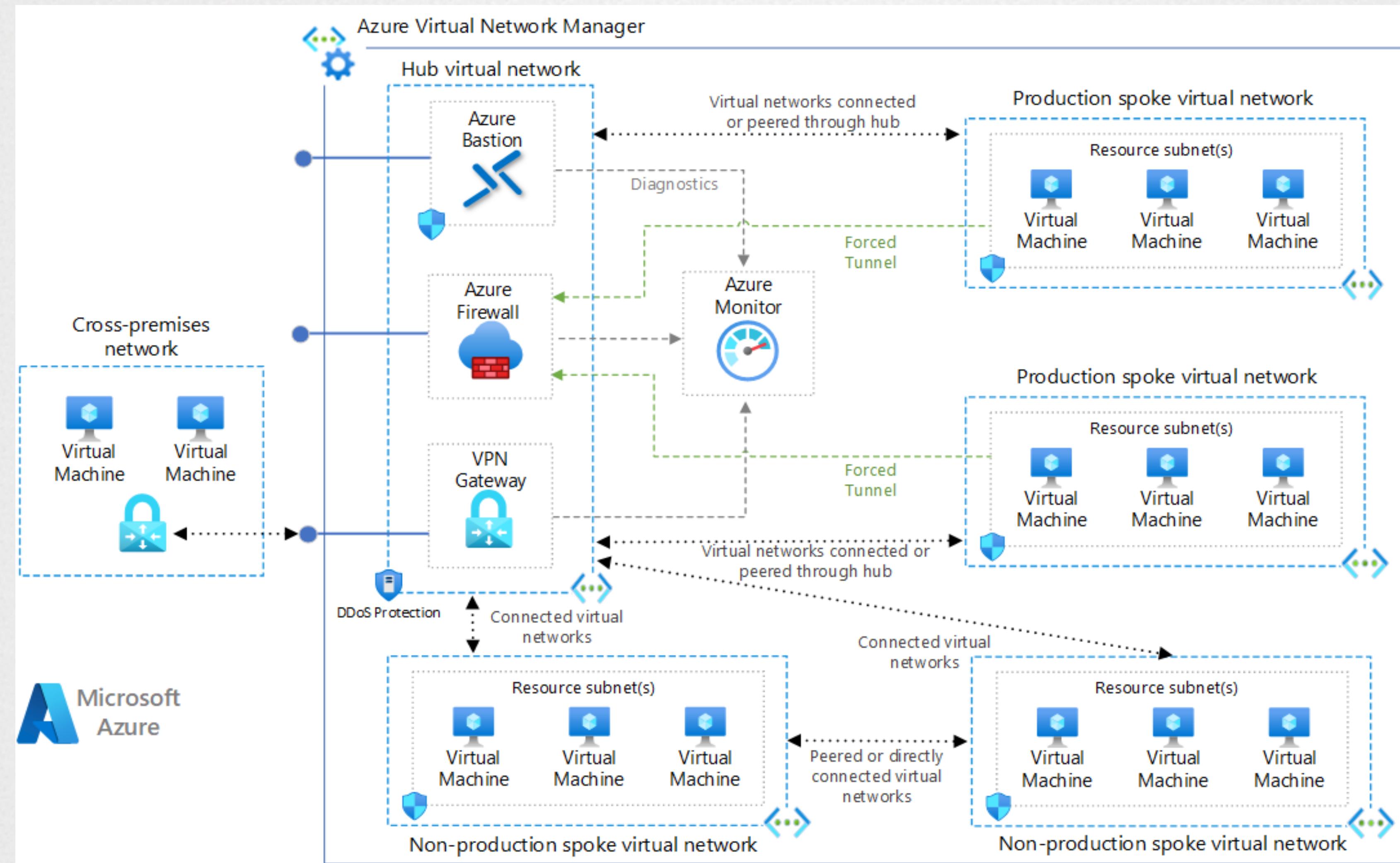




Connectivity Methoden

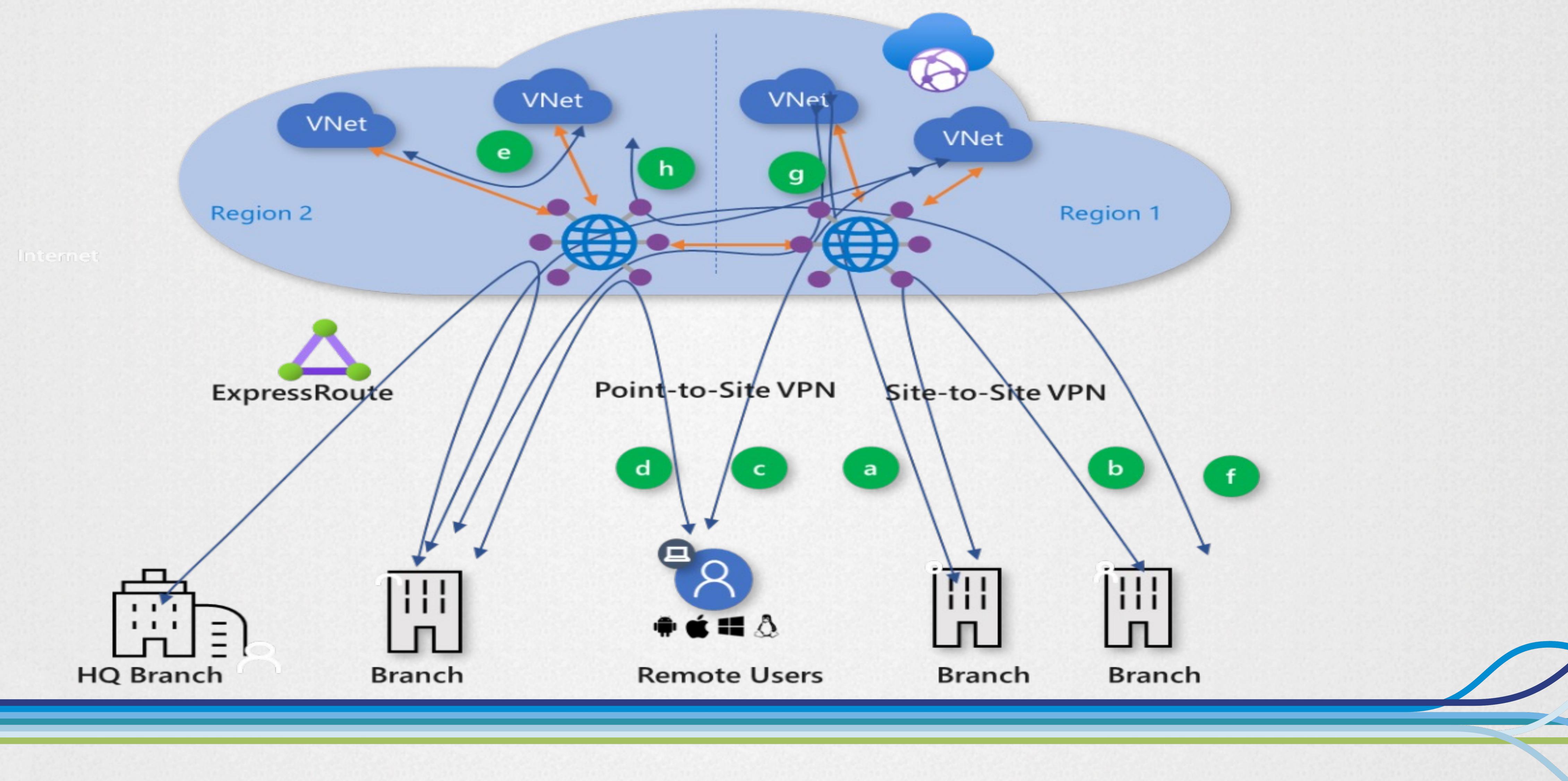


1. Hub & Spoke (/w AVNM)

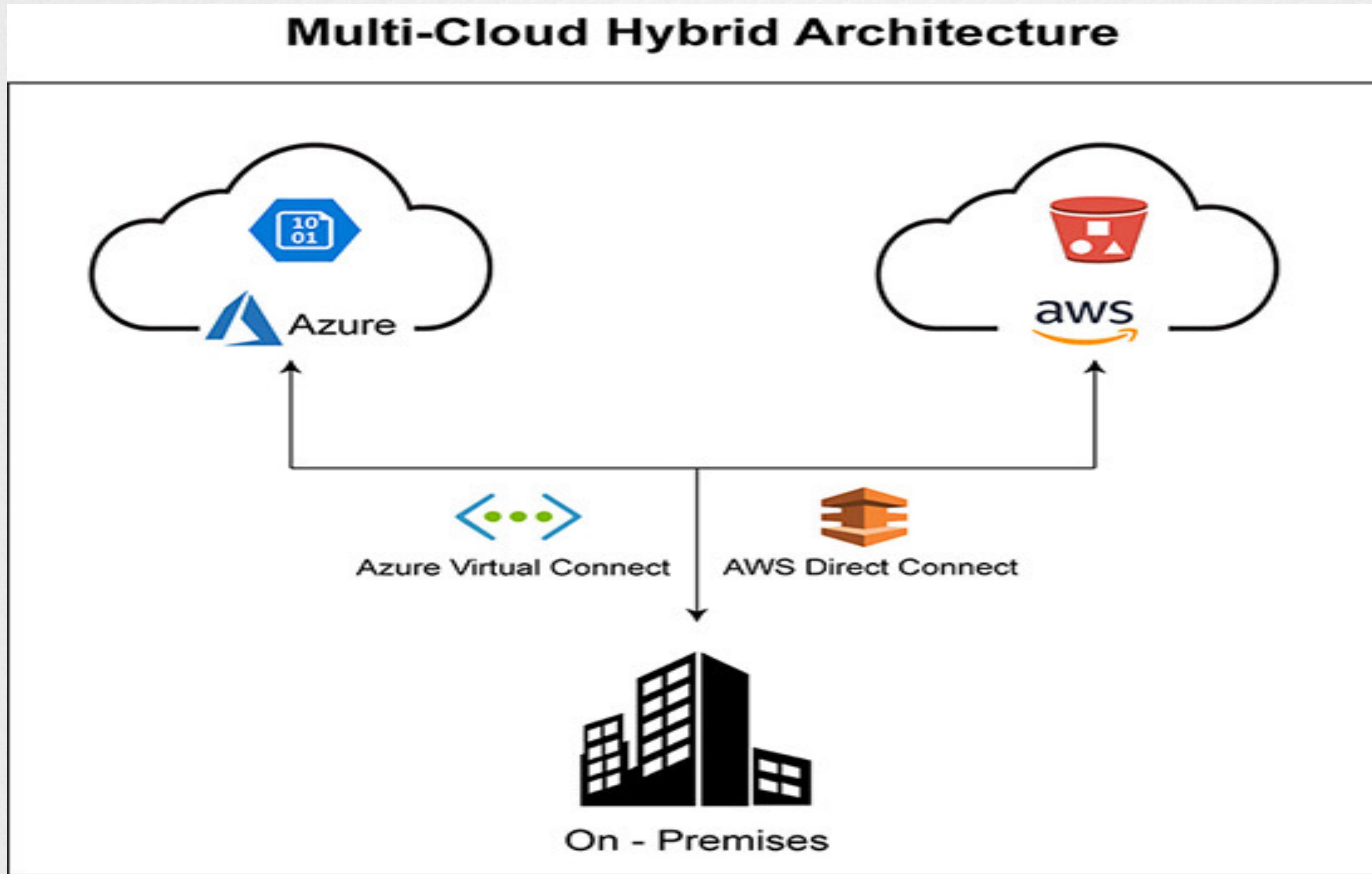




2. vWAN Einsatz-Szenarien



Microsoft vWAN & AWS Direct Connect (self-managed)



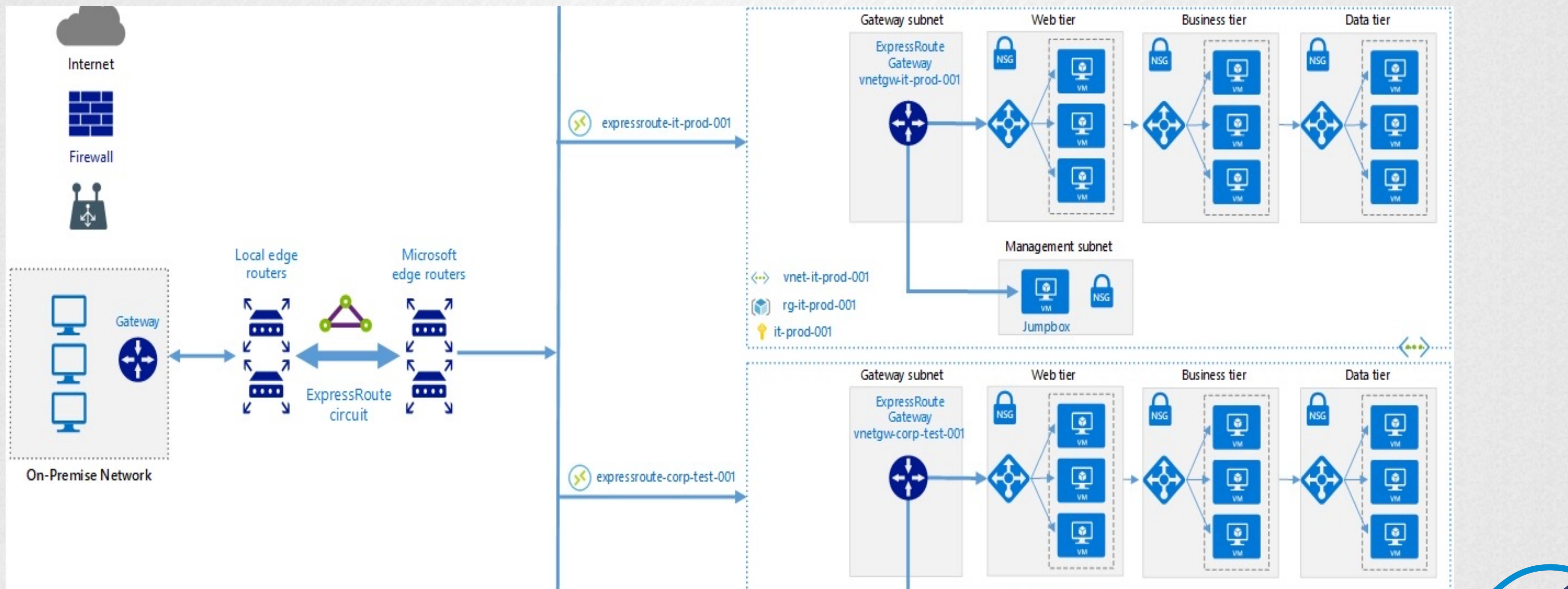


Pros & Cons

- Ich verantworte die Connectivity selbst
- Ich benötige technisches Netzwerk-Knowhow (z.B. BGP)
- Hochverfügbare Netzwerkarchitekturen im eigenen Netzwerk erforderlich
- i.d.R. höhere Latenzen zwischen den Public Clouds
(abhängig vom WAN-Provider)
- Verfügbarkeit hochbandbreitiger Anbindung abhängig vom WAN-Provider



Azure vWAN & AWS Direct Connect via Cloud Exchange Provider

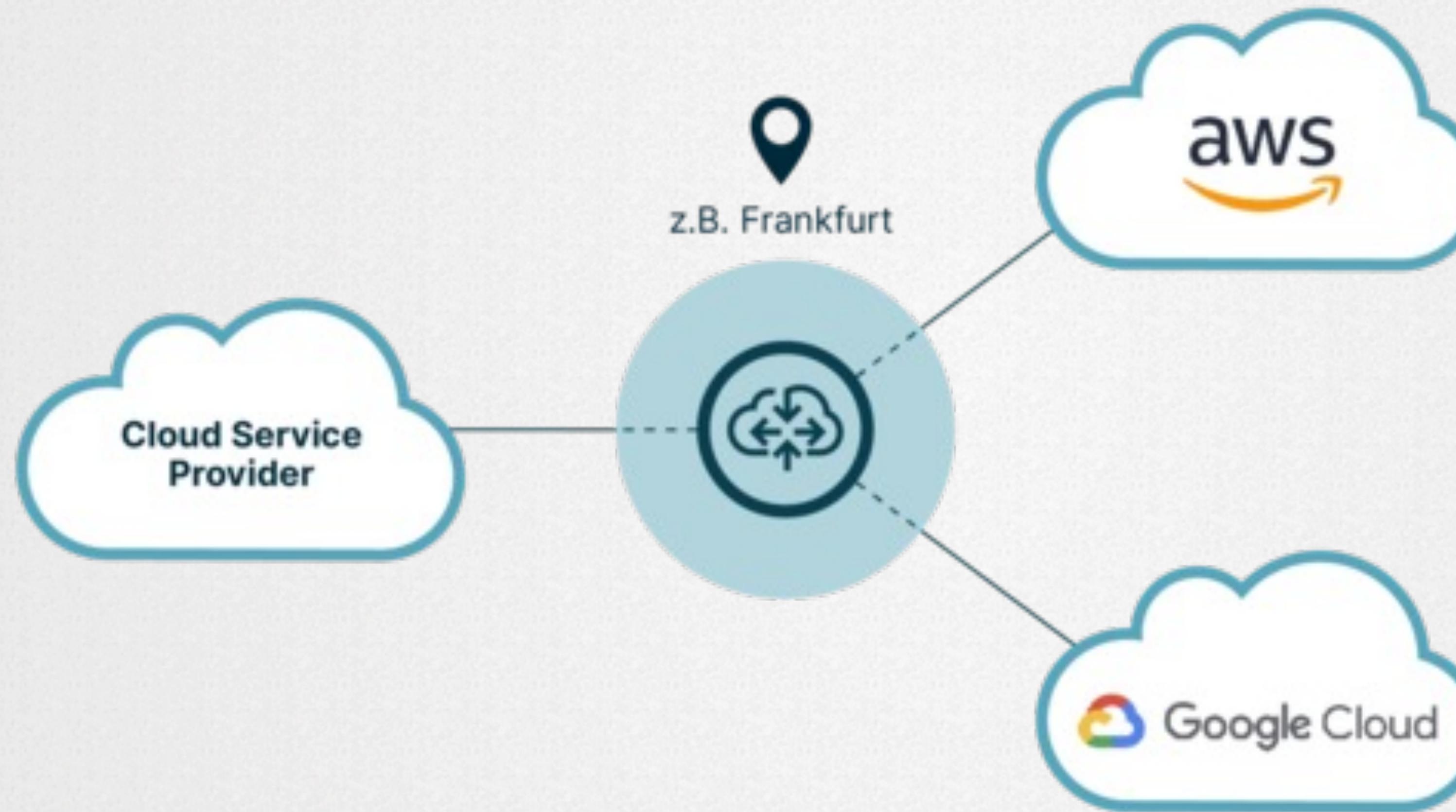


DE-CIX CLOUD ROUTER – eine technische Lösung



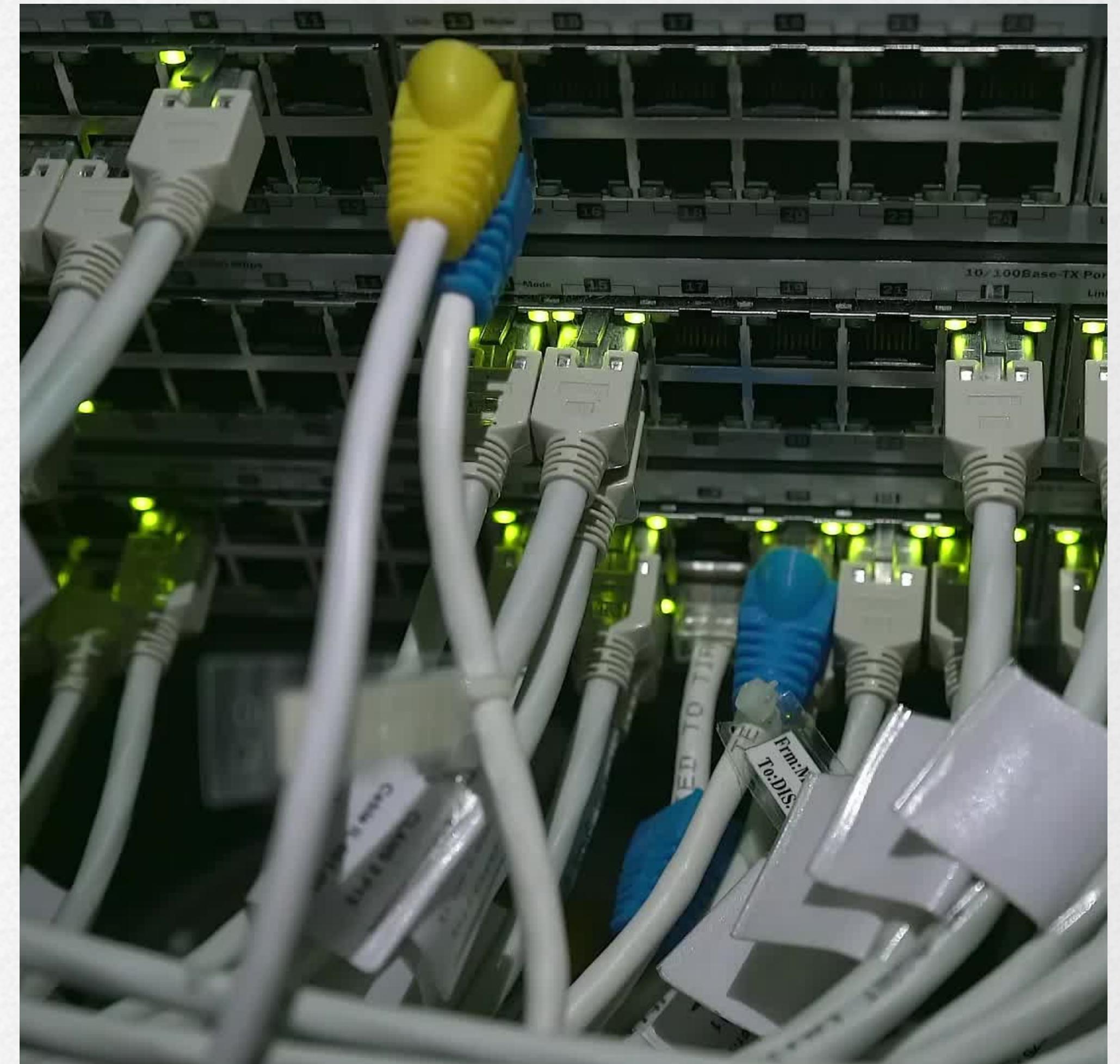


Der DE-CIX Cloud Router





“A Cloud Router is a **virtual routing service** that **enables customers** to create a single routing domain, for **multiple independent connections** to cloud providers and/or customers on-premises equipment in the **closest proximity** to the cloud provider's on-ramp location or the customer physical access port”



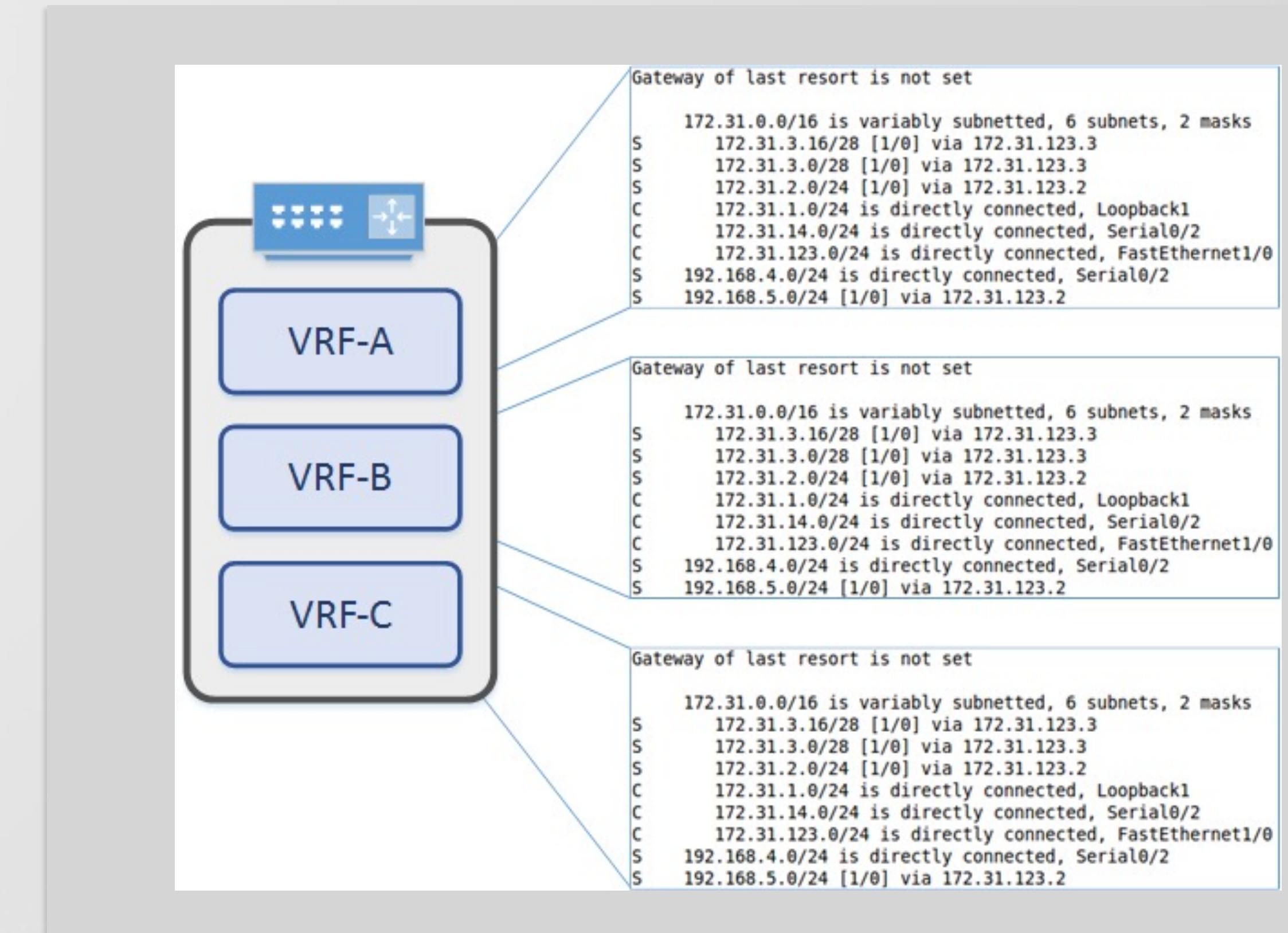
virtual routing service

→ Hosted on our distributed fabric as virtual instance

→ Carrier grade high performance equipment

→ No software routing

→ Redundancy by design



enables customers

- Self-service approach
- Accessible through portal or API
- Deployment within minutes

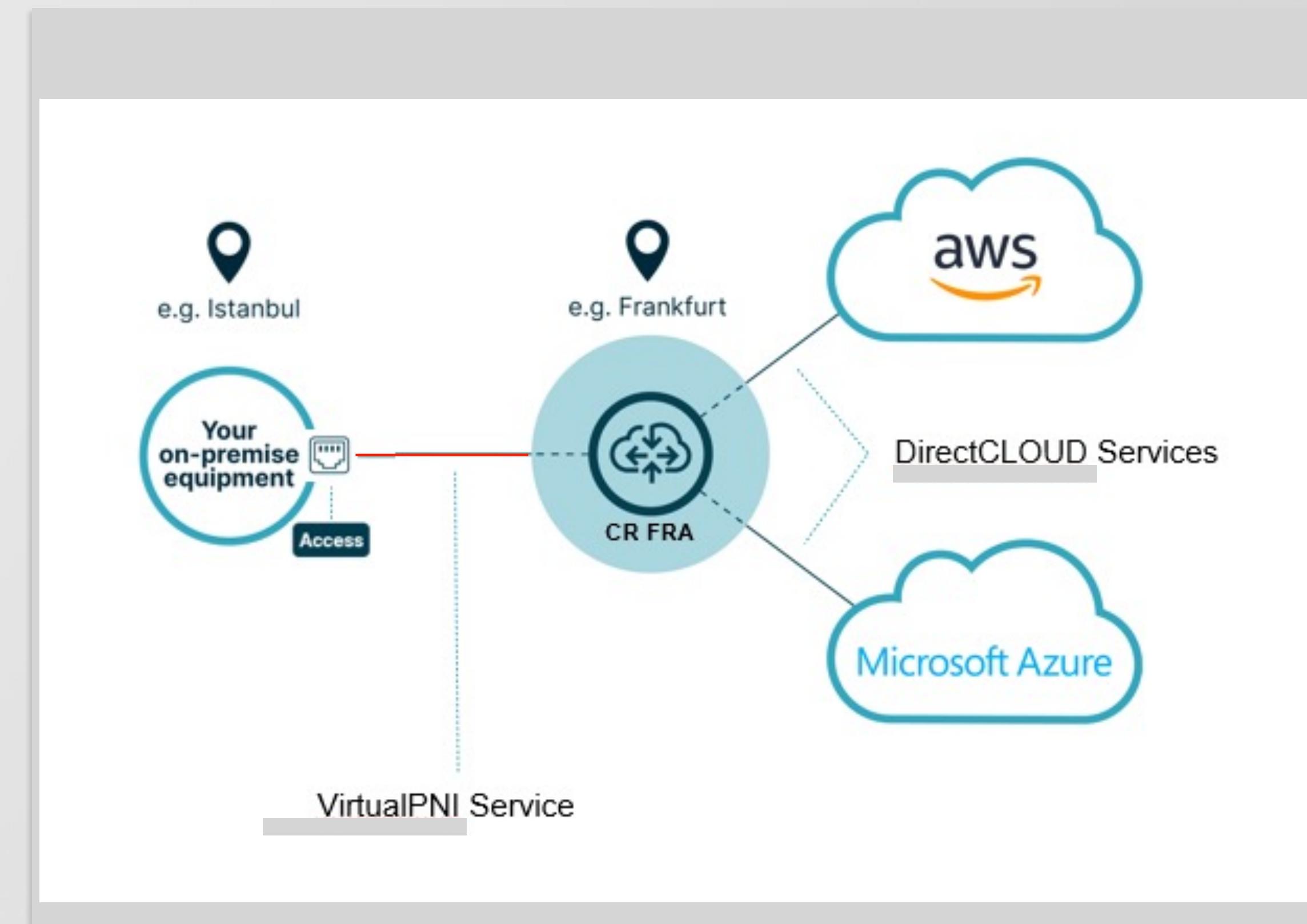
The screenshot shows a web interface for managing a CloudROUTER service. At the top, there's a navigation bar with the DE-CIX logo, 'Services' (which is underlined), 'Tools', 'Stats', and 'Knowledge Base'. On the far right are 'Contact' and 'Account' links. A vertical sidebar on the left contains several icons: a back arrow, a cloud icon, a gear icon, a chart icon, a speech bubble icon, a person icon, and a file icon. Below these are two '...' buttons. The main content area has a title 'CloudROUTER Service Details' with a cloud icon. Underneath it is a subheadline: 'Subheadline First Part Subheadline Second Part'. The page is divided into three main sections: 'CloudROUTER Details', 'Service State', and 'Billing Details'.

- CloudROUTER Details:** Contains fields for Name (<MyCloudROUTER>), CloudROUTER ASN (<asnVariable>), DE-CIX CloudROUTER ID (<DXDB:ID:XXX>), and Deployment Region (<Frankfurt>). There's also an 'Edit' button.
- Service State:** Shows administrative status as 'production' (with a green checkmark) and operational status as 'up' (also with a green checkmark). It also lists Time created and Last updated.
- Billing Details:** Includes Contract duration (Month to month), Purchase Order (DXPO-123455), Start date (03.11.2022), End date (03.12.2022), and Costs (€ 500,00). There's also a 'Decommission' button.

At the bottom, there's a section titled 'Provisioned Bandwidth' with a progress bar showing usage across DirectCLOUD, VirtualPNI, and Over-Provisioning. A blue 'Upgrade / downgrade' button is located to the right of the bandwidth bar.

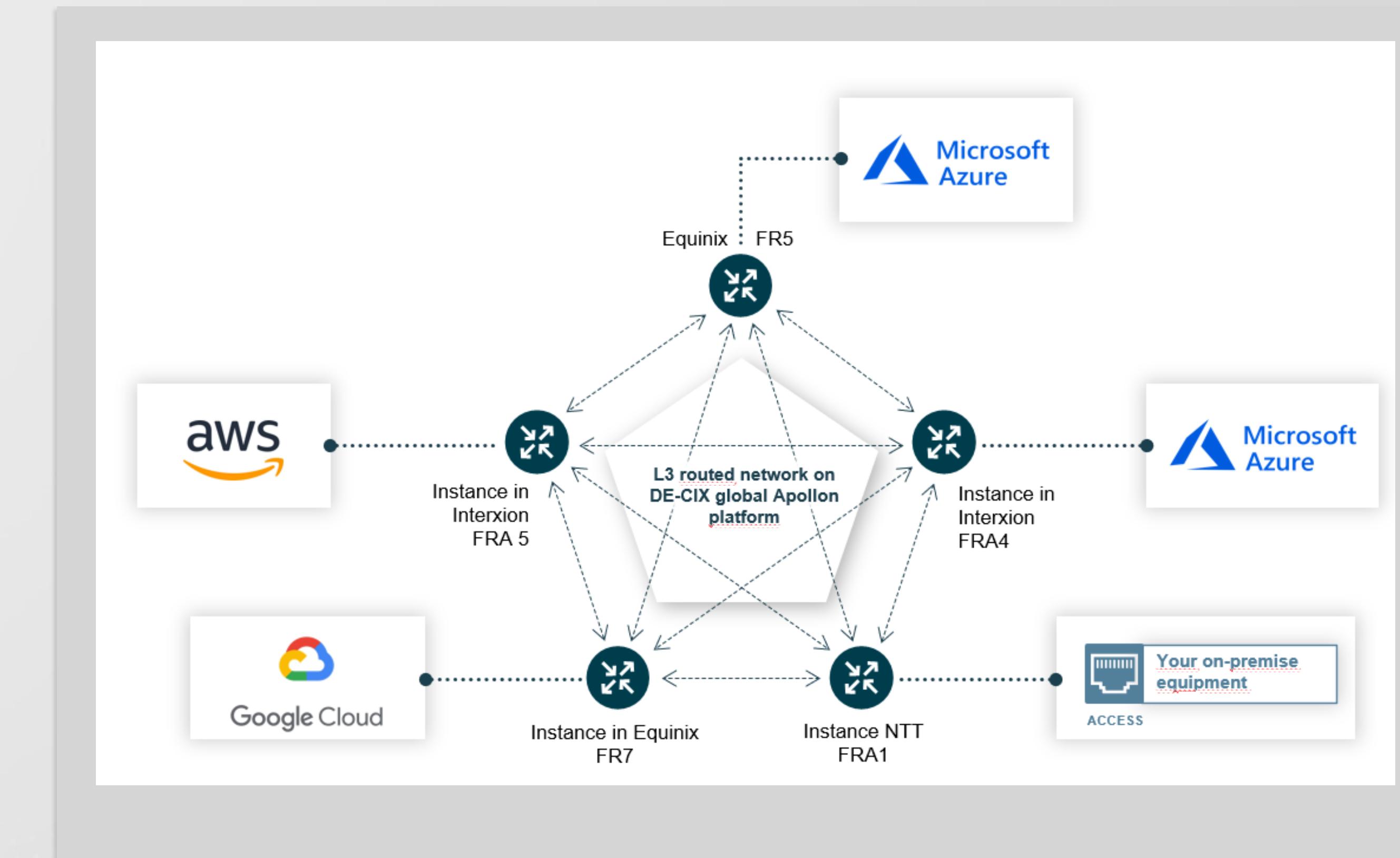
multiple connections

- Connected via our existing VLAN - services to the world of connectivity
- DirectCLOUD for connection to over 50+ CSPs
 - VirtualPNI for connections to customers on-premise infrastructure
- Remote connections are supported (i.e FRA – IST)



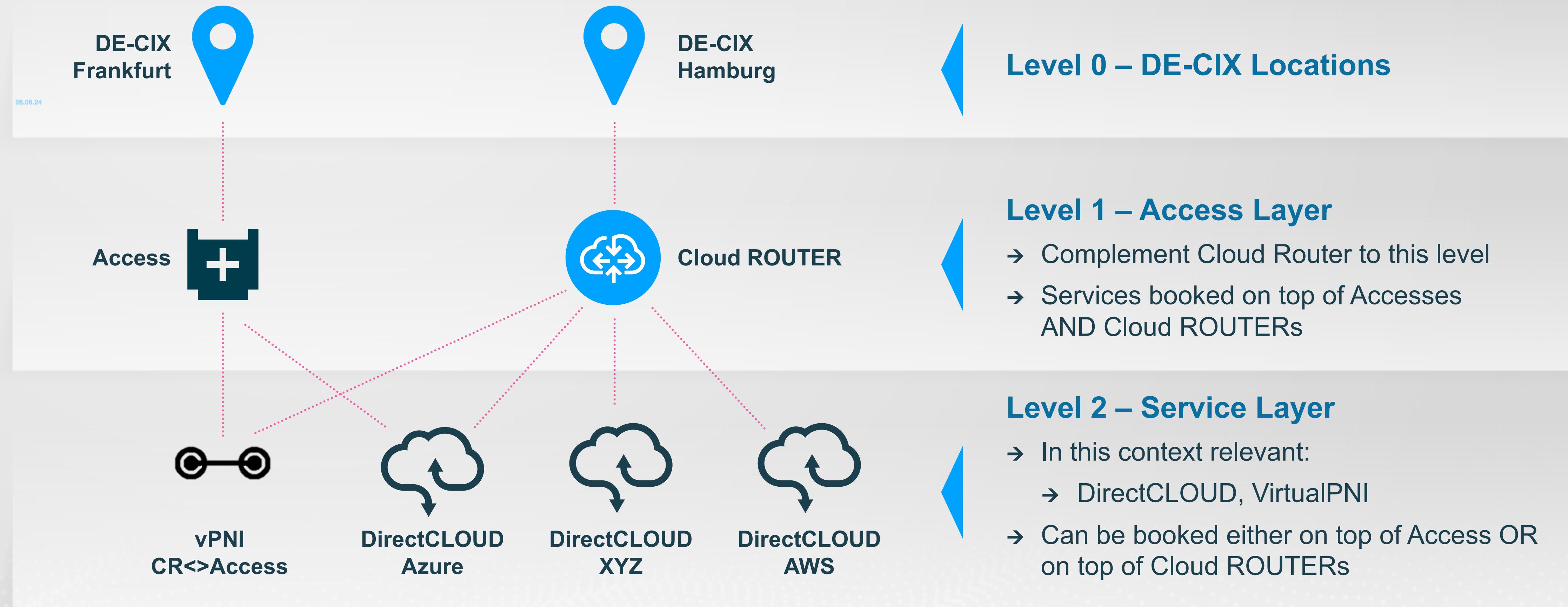
closest proximity

- Metro-based not Datacenter based
- Runs where it is needed
- Automatically expands
- Guarantees lowest possible latency



Cloud ROUTER –

Product Design



**LIVE
DEMO**



Multi-Cloud Good Practice

- Vermeiden komplexer Connectivity Ansätze, um Troubleshooting zu vereinfachen „Single Pane of Glass“
- Auswahl eines zentralen Cloudanbieters für „Connectivity as Service“
- Möglichst auf BGP (ASN basiert) statt statischem Routing setzen
- Auswahl eines Cloud Exchange Providers, um Leitungswege (und damit Latenzen zwischen den Cloudanbietern) zu optimieren





Usecases

- Hybrid-Multi-Cloud Nutzung
- Migrationen oder BCDR Szenarien
- Mitigation des „VMware Desasters“
- Und vieles mehr ...



**LIVE
DEMO**

DAMANKA





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Closing

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