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vmware®

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Cloud Director™  
service



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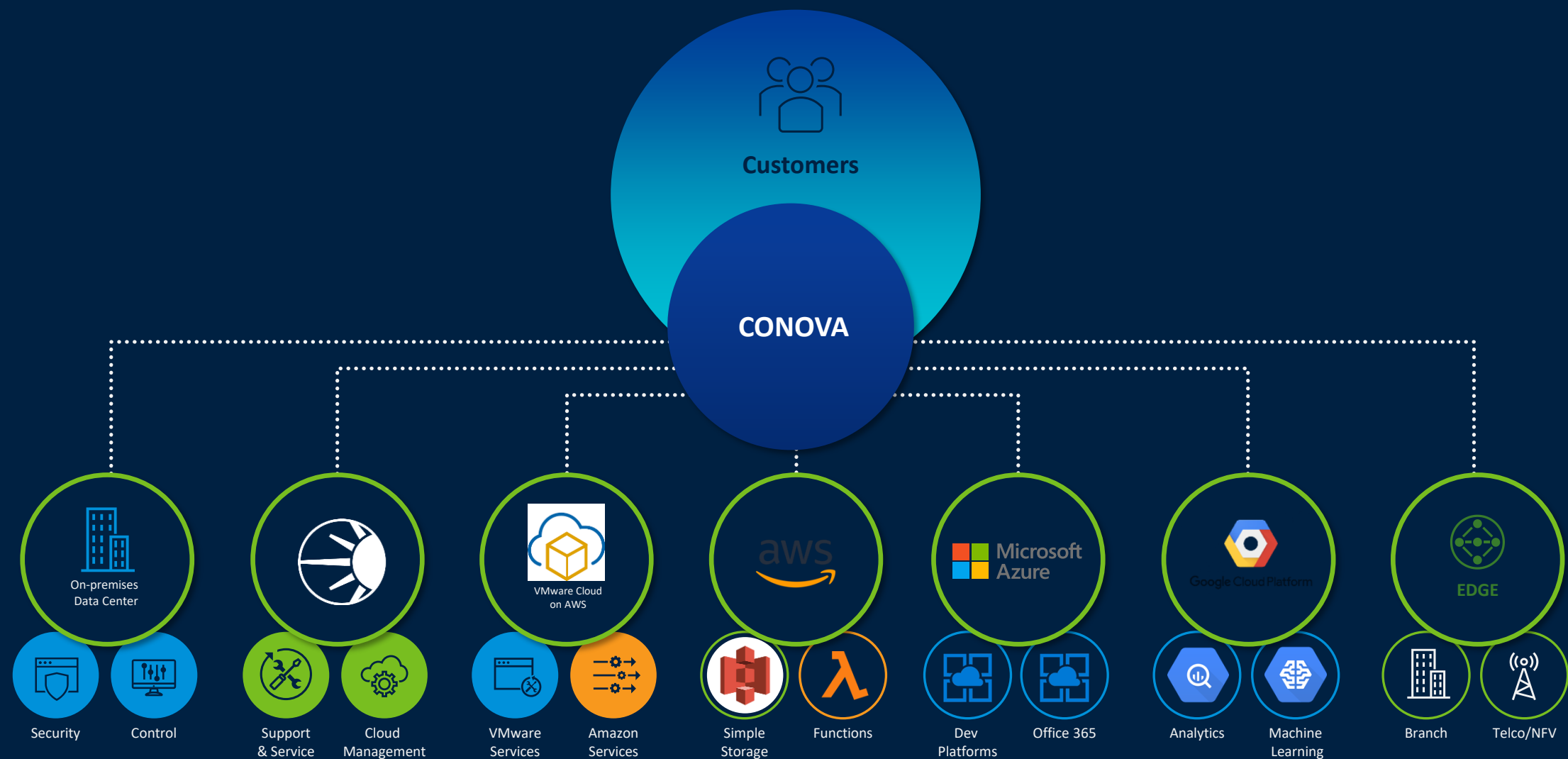


# Disclaimer

This information is confidential

- This presentation may contain product features that are currently under development.
- This overview of new technology represents no commitment from VMware to deliver these features in any generally available product.
- Features are subject to change, and must not be included in contracts, purchase orders, or sales agreements of any kind.
- Technical feasibility and market demand will affect final delivery.
- Pricing and packaging for any new technologies or features discussed or presented have not been determined.

# Multi-Cloud Complexity is a Big Opportunity for Cloud Partners



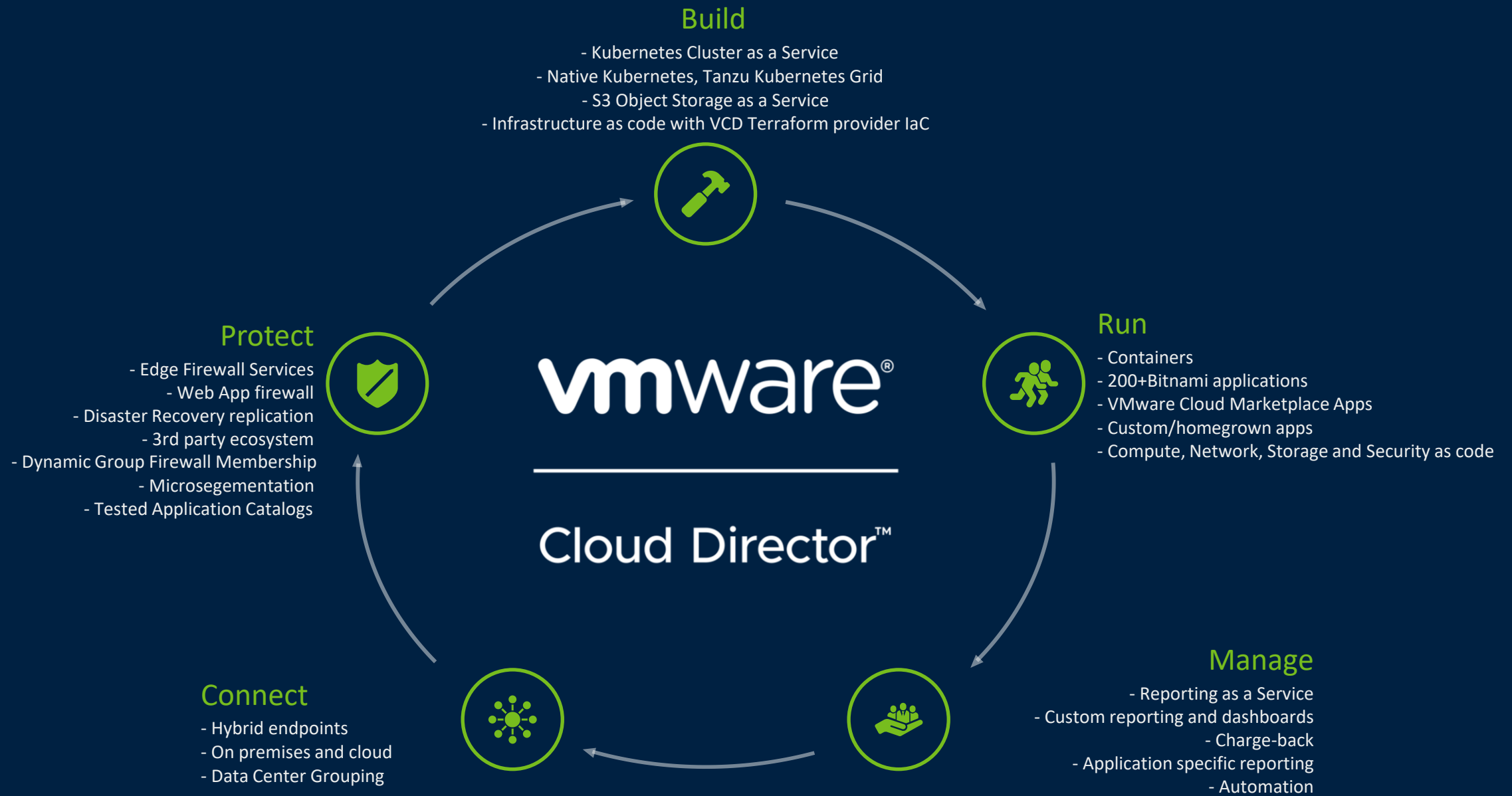
# Mixed mode delivery is the new frontier



\*451 Research Jan 2021 - Cloud Price Index - Cloud to Ground

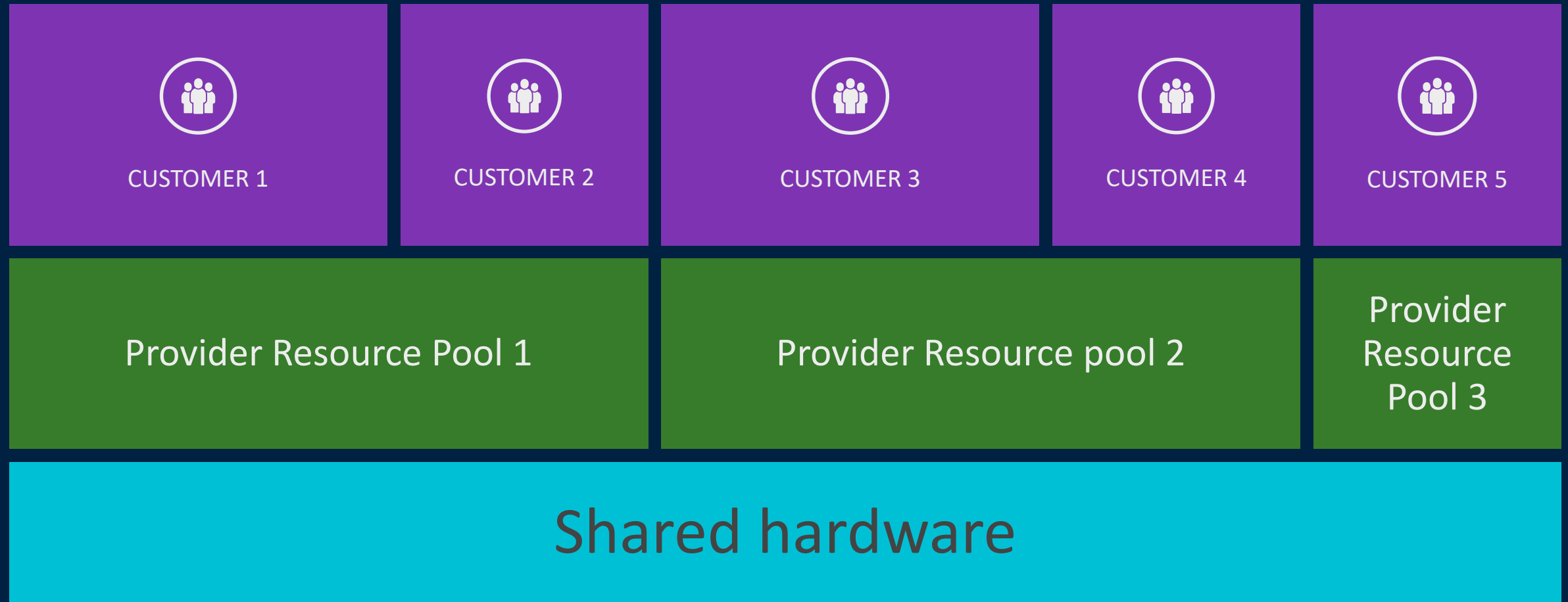
# Cloud Director

## Basics



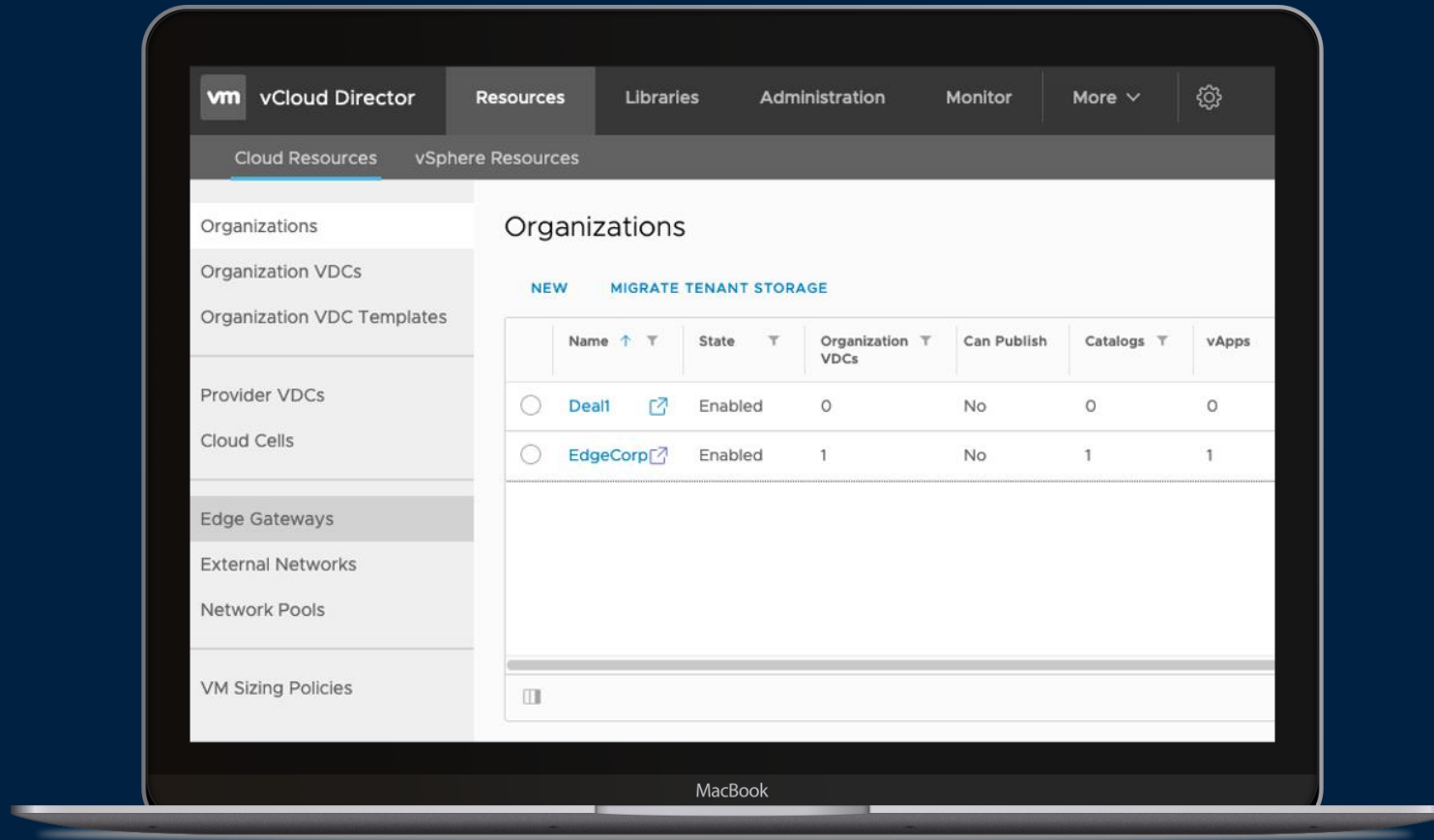
# Using Secure Multi-tenancy Means Better Margins

Without Compromising Service Levels



# Self Service eliminates many provider side, operational tasks

Single pane of glass meets customer expectations



- Access all Cloud resources
- Catalogs of services to select
- Access to all services
- Extend with custom services
- Single entry to multiple clouds
- Metering and chargeback

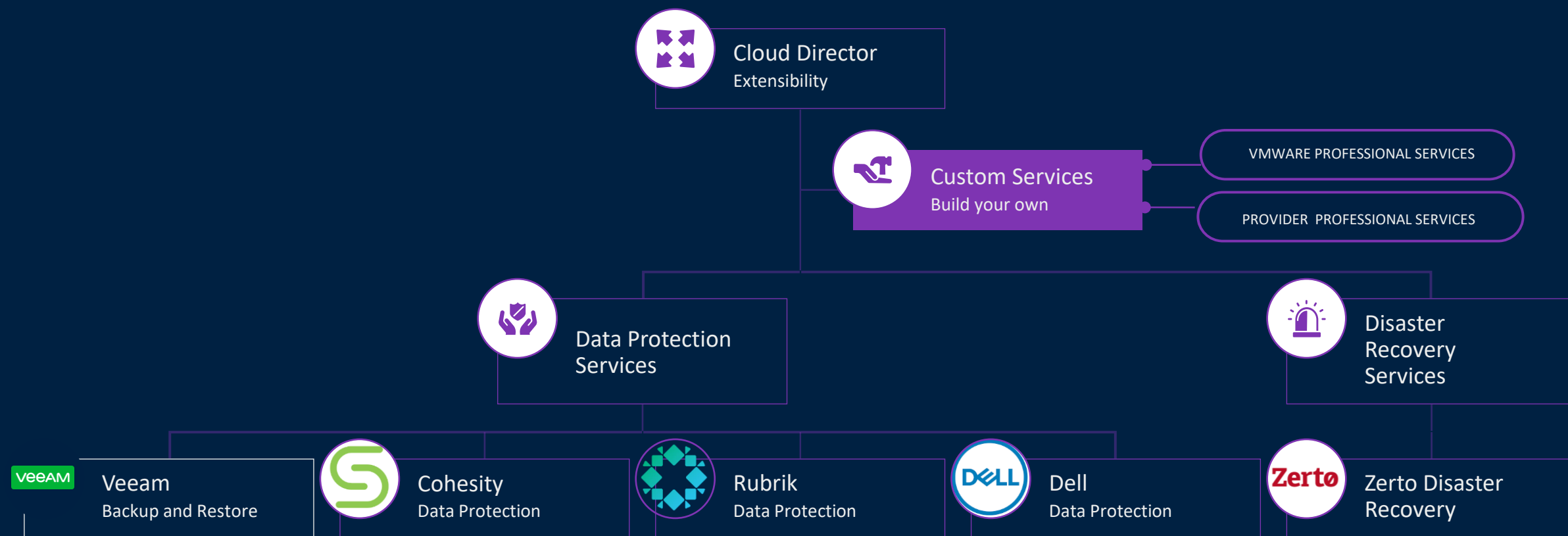




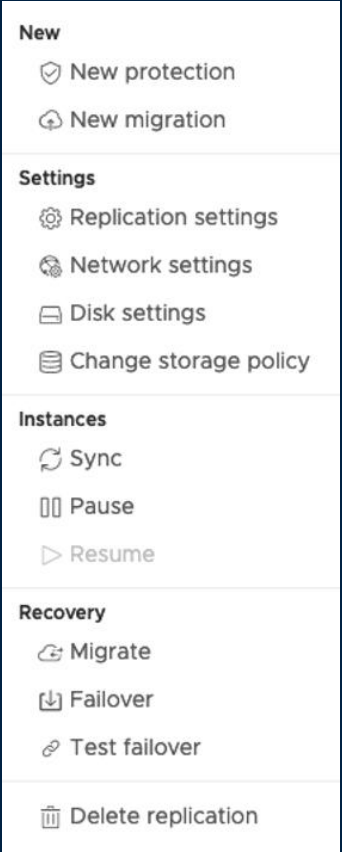
Focus on expanding your offerings with

# Extensibility

# Partner and deliver a strong ecosystem of vendors that support extensible offerings



Deliver  
the native  
protection  
that  
customers  
need  
for  
applications



Cloud  
Director  
Availability  
Extensibility



DR as a  
Service  
On Premises to  
Cloud



DR as a  
Service  
Cloud to Cloud



Migration as a  
Service  
ground to cloud  
/ cloud to cloud



Monitoring  
vRealize  
Operations  
Tenant App

# Cloud Director @ CONOVA

# Tenant Portal

Every organization has a dedicated portal called the tenant portal.

The top screenshot shows the VMware Cloud Director 'Organizations' page. The user is logged in as 'administrator' (System Administrator). The table lists the following organization:

Name	State	Organization VDCs	Can Publish	Catalogs	vApps	Running VMs	Users
Marketing	Enabled	1	No	1	0	0	3

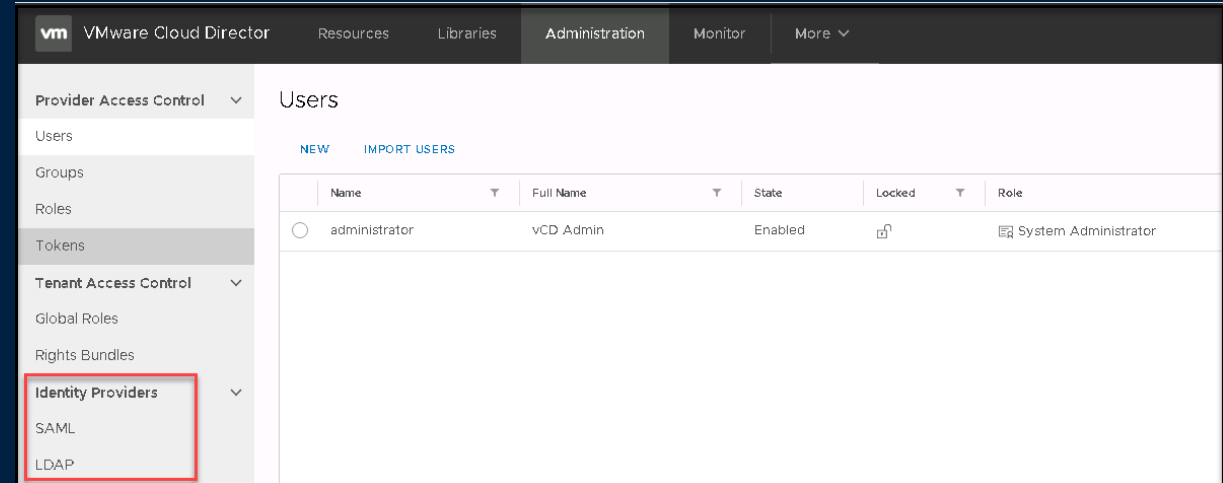
The bottom screenshot shows the 'Virtual Data Center' page for the 'Marketing' organization. The user is logged in as 'tm\_admin' (Organization Administrator). The page displays the following resource usage:

Category	CPU	Memory	Storage
Applications			
vApps	0 MHz	0 MB	35 GB
Running VMs			0 MB allocated

# VMware Cloud Director Security

VMware Cloud Director identifies users from different locations:

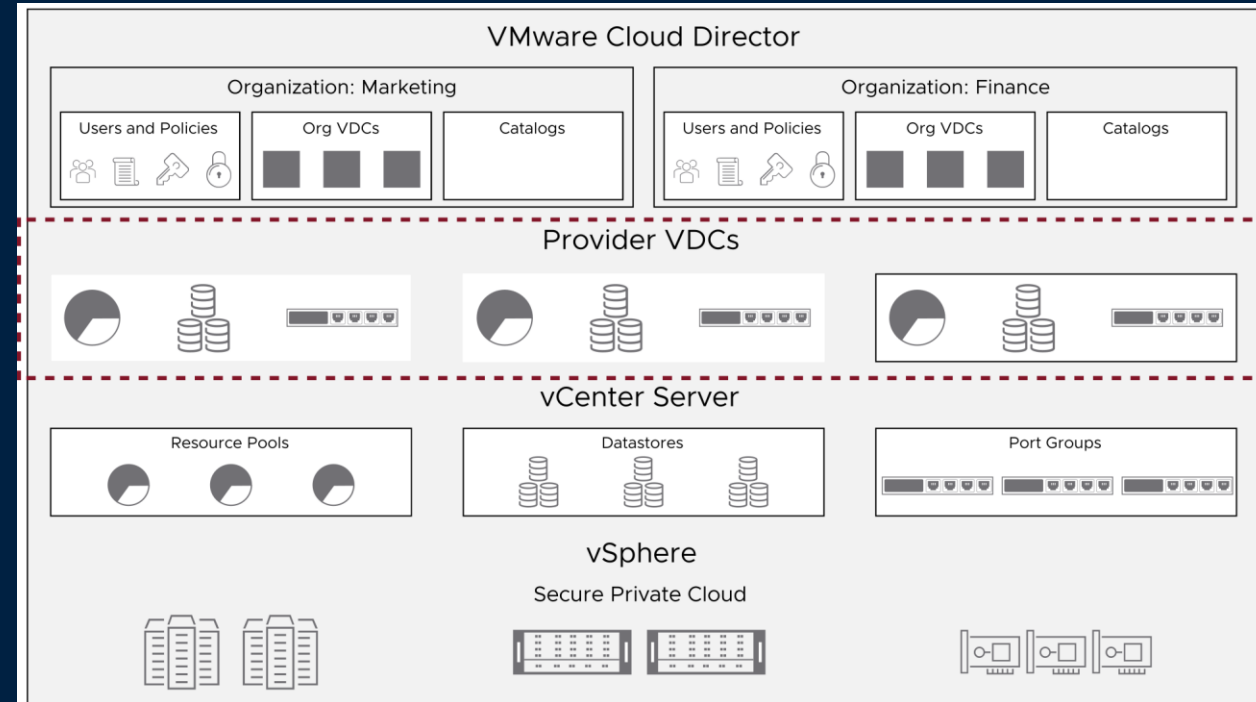
- Local users
- Organization imported from LDAP
- vSphere single sign-on (SSO) SAML provider (through SAML 2.0) users
- SAML2
- OAuth2



# Cloud Resources

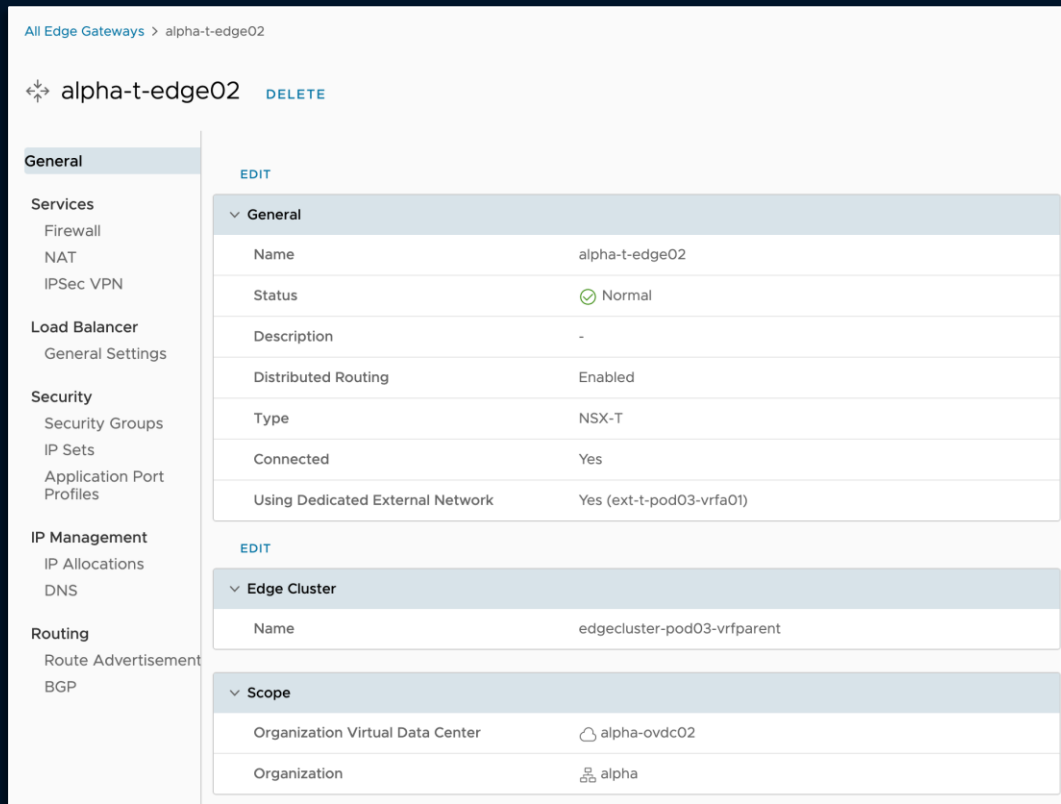
VMware Cloud Director configures and allocates cloud resources:

- vSphere datastores or datastore clusters are categorized with vSphere storage policies.
- Memory and CPU resources are configured to resource pools.
- Storage policies and resource pools are attached to provider VDCs.
- Resources are allocated from provider VDCs to organization VDCs.



# Edge Gateway

## NSX-T implementation



Edge Gateways are NSX-T **Tier-1 Gateways** provisioned by VMware Cloud Director in a specific NSX-T Edge Cluster

Provides networking and security services

Dedicate an external network for **BGP** configuration and **route advertisement**

Allocated public addresses are not assigned to Tier-1 interfaces: instead, they are **routed** by Tier-0/VRF when used by tenant

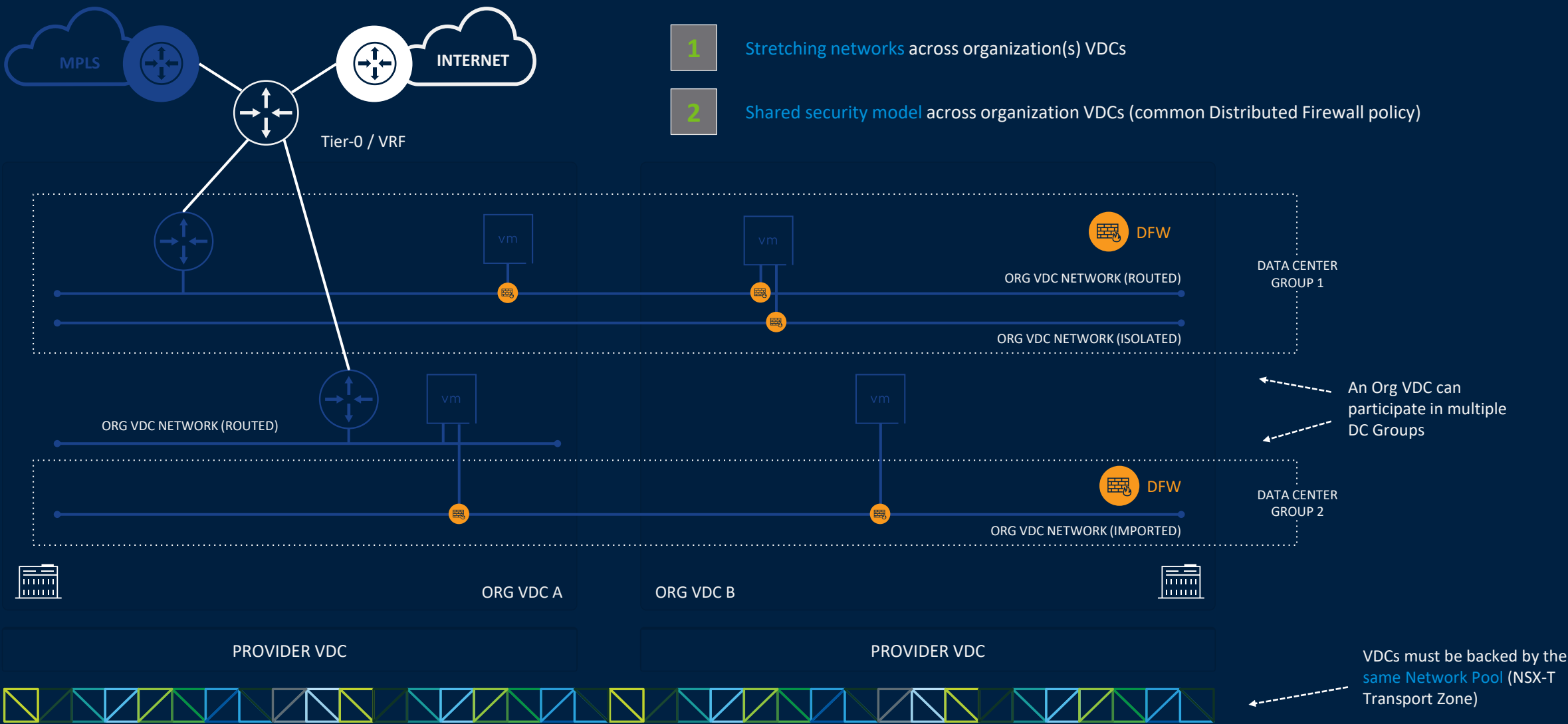


# Cloud Director @ CONOVA

Coming Soon

# Data Center Groups

## Consistent networking and security across virtual data centers



# Multi-tenant Micro-Segmentation

## Enabling distributed firewall in VMware Cloud Director

Distributed firewall (static grouping) 10.2

Distributed firewall (dynamic grouping) 10.3

vmw VMware Cloud Director

Data Centers Applications **Networking** Libraries Administration Monitor

Networks

Edge Gateways

**Data Center Groups**

Security Tags

All Data Center Groups > dcgroup01

dcgroup01 SYNC DELETE

General

Participating VDCs

Edge Gateway

**Distributed Firewall**

Security

Static Groups

IP Sets

Dynamic Groups

Application Port Profiles

Networks

General Details

Name

dcgroup01

Description

-

Status

Normal

Distributed Firewall

Status

Active

vmw VMware Cloud Director

Data Centers Applications **Networking** Libraries Administration Monitor

Networks

Edge Gateways

**Data Center Groups**

Security Tags

All Data Center Groups > dcgroup01

dcgroup01 SYNC DELETE

General

Participating VDCs

Edge Gateway

**Distributed Firewall**

Security

Static Groups

IP Sets

Dynamic Groups

Application Port Profiles

Networks

Default Policy Status

Enabled

DISABLE

EDIT RULES

#	Name	State	Applications	Context	Source	Destination	Action
1	ANY-TO-WEB	Enabled	HTTP, HTTPS	-	Any	web-servers	Allow
2	WEB-TO-DB	Enabled	-	MYSQL	web-servers	db-servers	Allow
3	SSH-TO-LINUX	Enabled	-	SSH	mgmt-it	linux-servers	Allow
4	Default	Enabled	-	-	Internal	Internal	Reject

Activate Distributed Firewall enables a new Distributed Firewall section in a Virtual Data Center Group

Source and destination can be: Static Groups, IP Sets or Dynamic Groups

# Cloud Director service

Evolution

Cloud Provider Admin

Tenant A

Tenant B

Tenant C

Tenant D



## Unified Mult-Cloud Management Experience with Cloud Director service

SSL Reverse Proxy

Proxy VM

Multisite Pairing

SSL Reverse Proxy

Google Cloud VMware Engine

VMware Cloud on AWS

VMware Cloud Director  
Provider Data Center(s)

VMware vCenter  
On Customer Premises

Google Cloud  
Native Services

Google Cloud VMware  
Engine SDDC

aws  
Native Services

VMware Cloud on  
AWS SDDC

Region A

Region B

vCenter SDDC A

vCenter SDDC B

UK London

US West

Region A

Region B

vCenter SDDC A

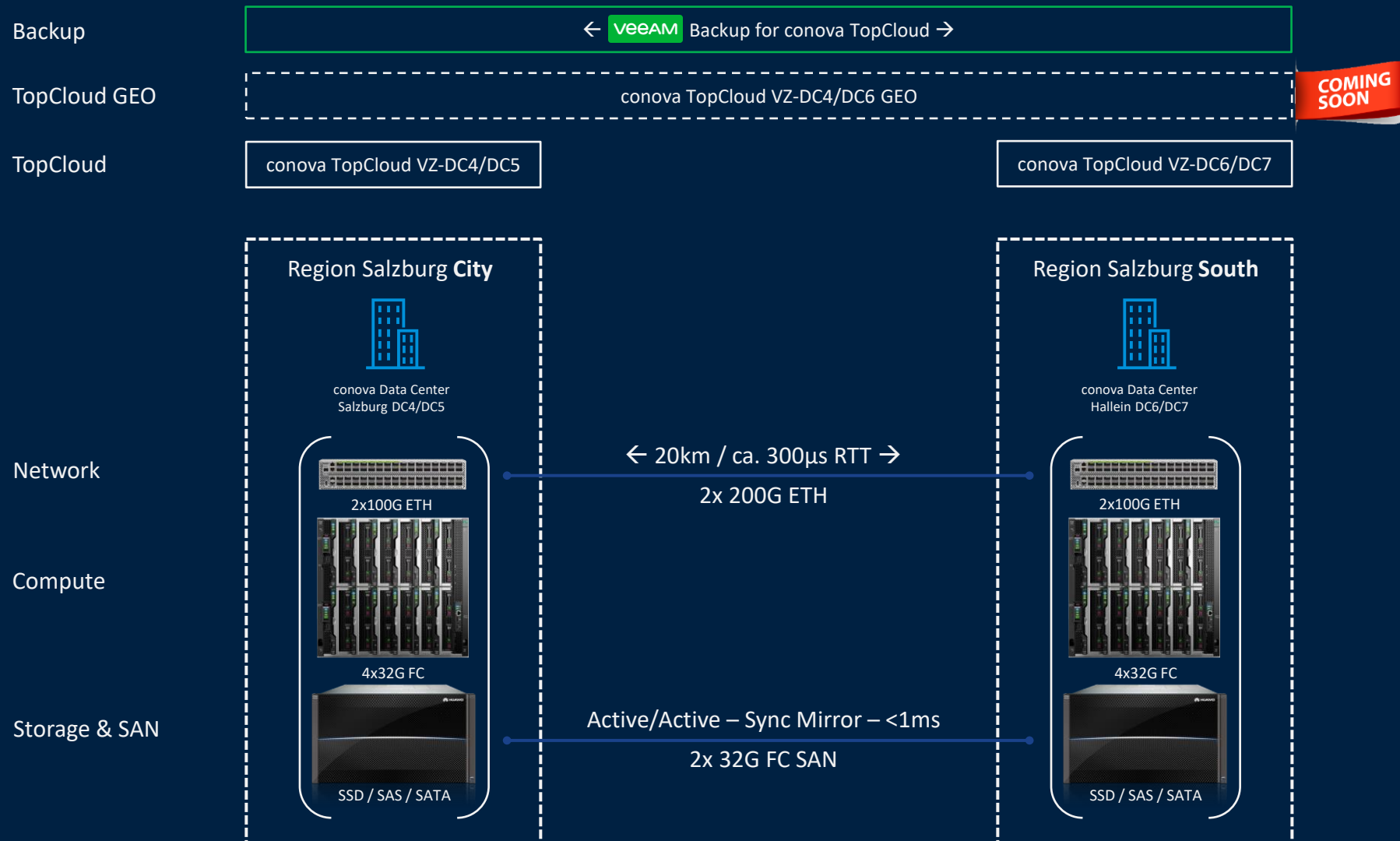
vCenter SDDC B

# Cloud Director – Infrastructure @ CONOVA

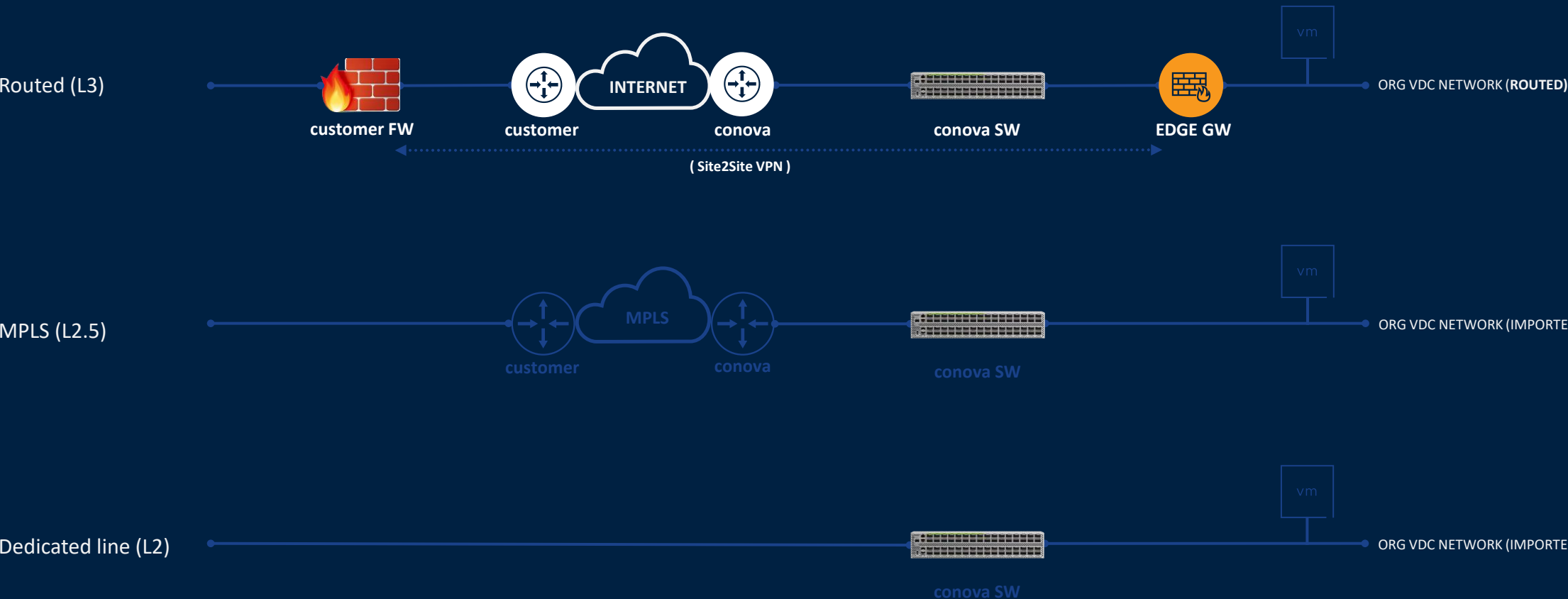
- VMware Infrastructure conova TopCloud
- Networking and Security Options
- conova Product Combinations

Ernst Hacker - Senior Systems Engineer

# VMware Infrastructure conova TopCloud

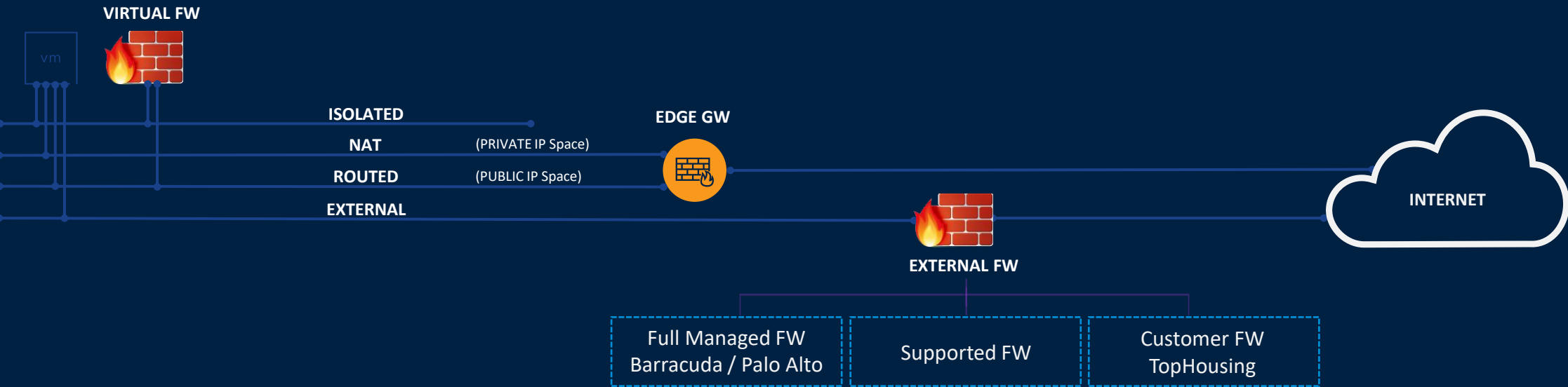


# Networking and Security Options

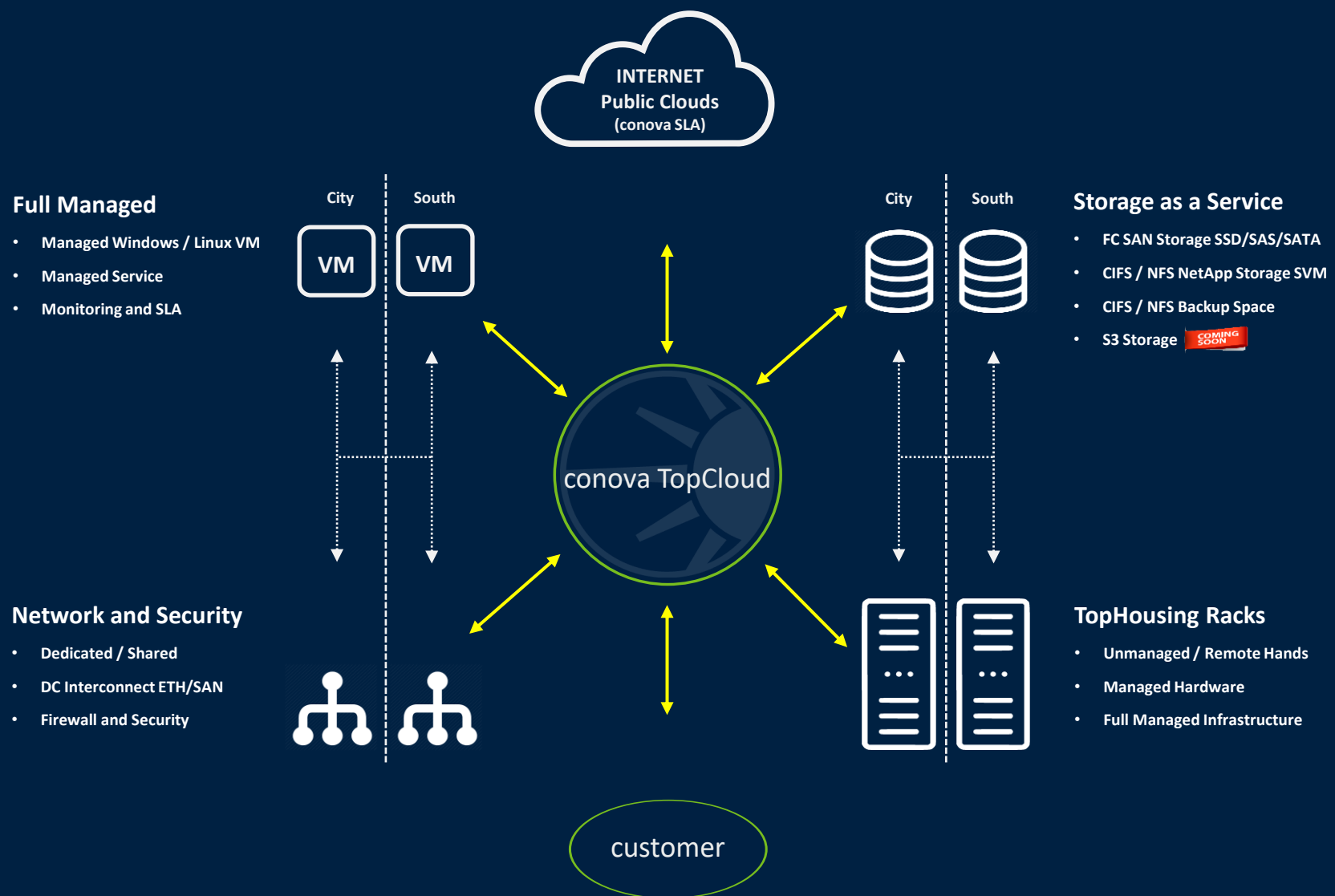




# Network and Security Options



# conova Product Combinations



# Cloud Director – Infrastructure @ CONOVA

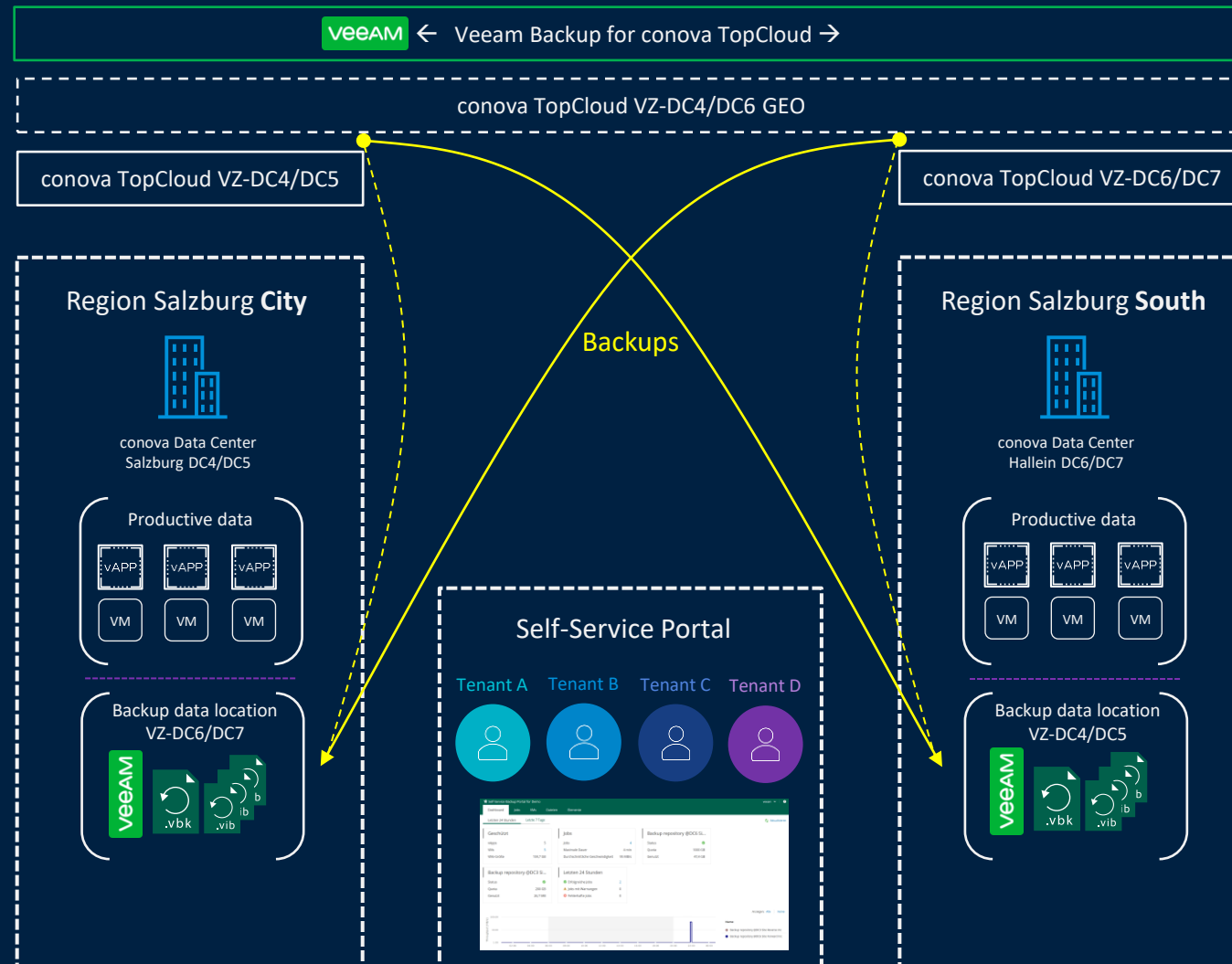
- Veeam Backup - Key Features
- Veeam Infrastructure for conova TopCloud
- Veeam Backup Self-Service Portal

Philipp Reichl - Senior Systems Engineer

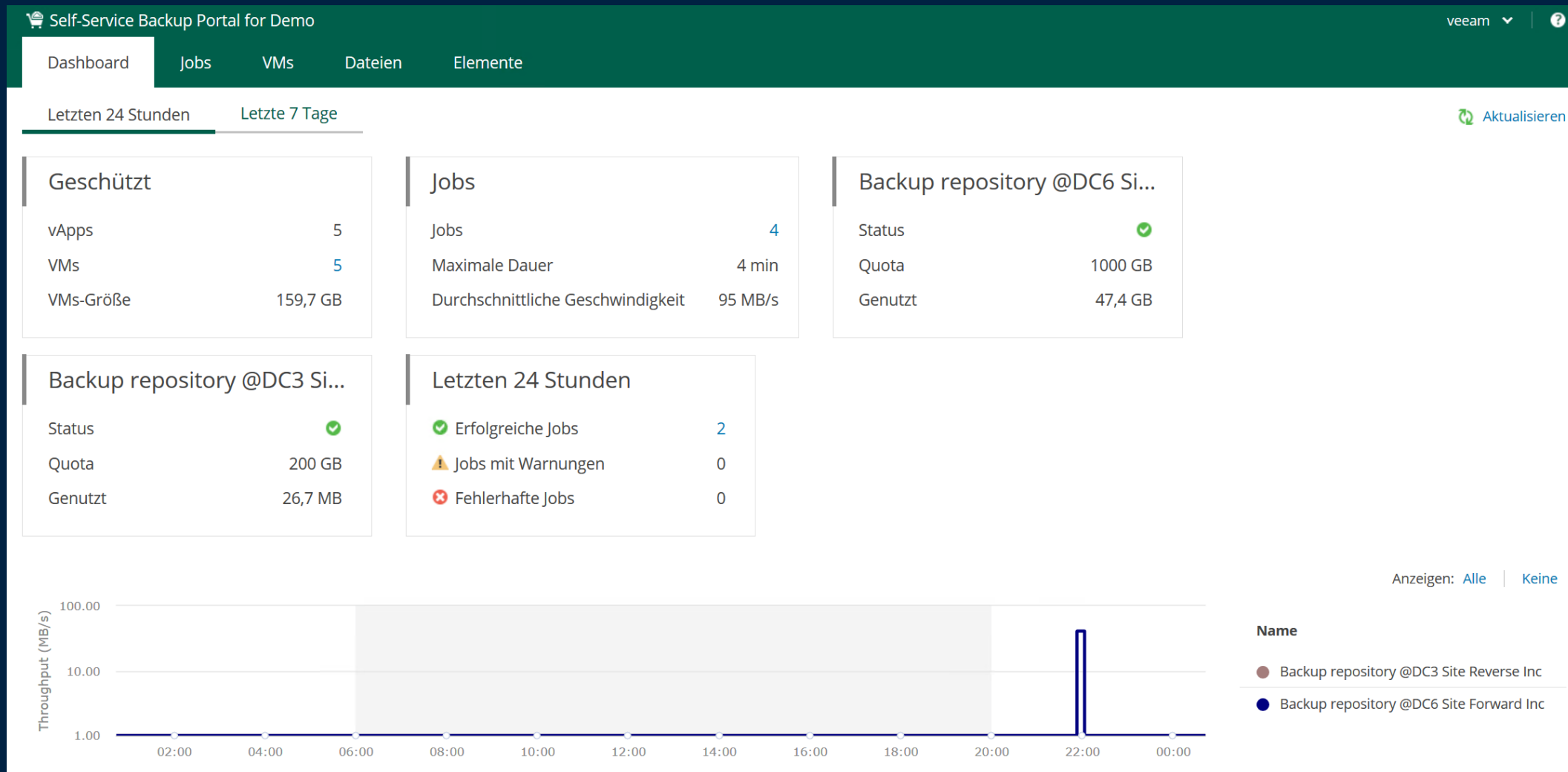
# Key Features

- Self-Service Portal for TopCloud customers
- GFS, Reverse and Forward incremental Backup
- Application-aware Backup
  - Oracle
  - Microsoft Exchange
  - Microsoft SQL Server
- Restore
  - Full VM Restore
  - File-level Restore
  - Single Disk Restore with Quick Rollback
  - vApp Restore
  - Point in Time Recovery (Oracle and SQL)
- Reporting and alerting

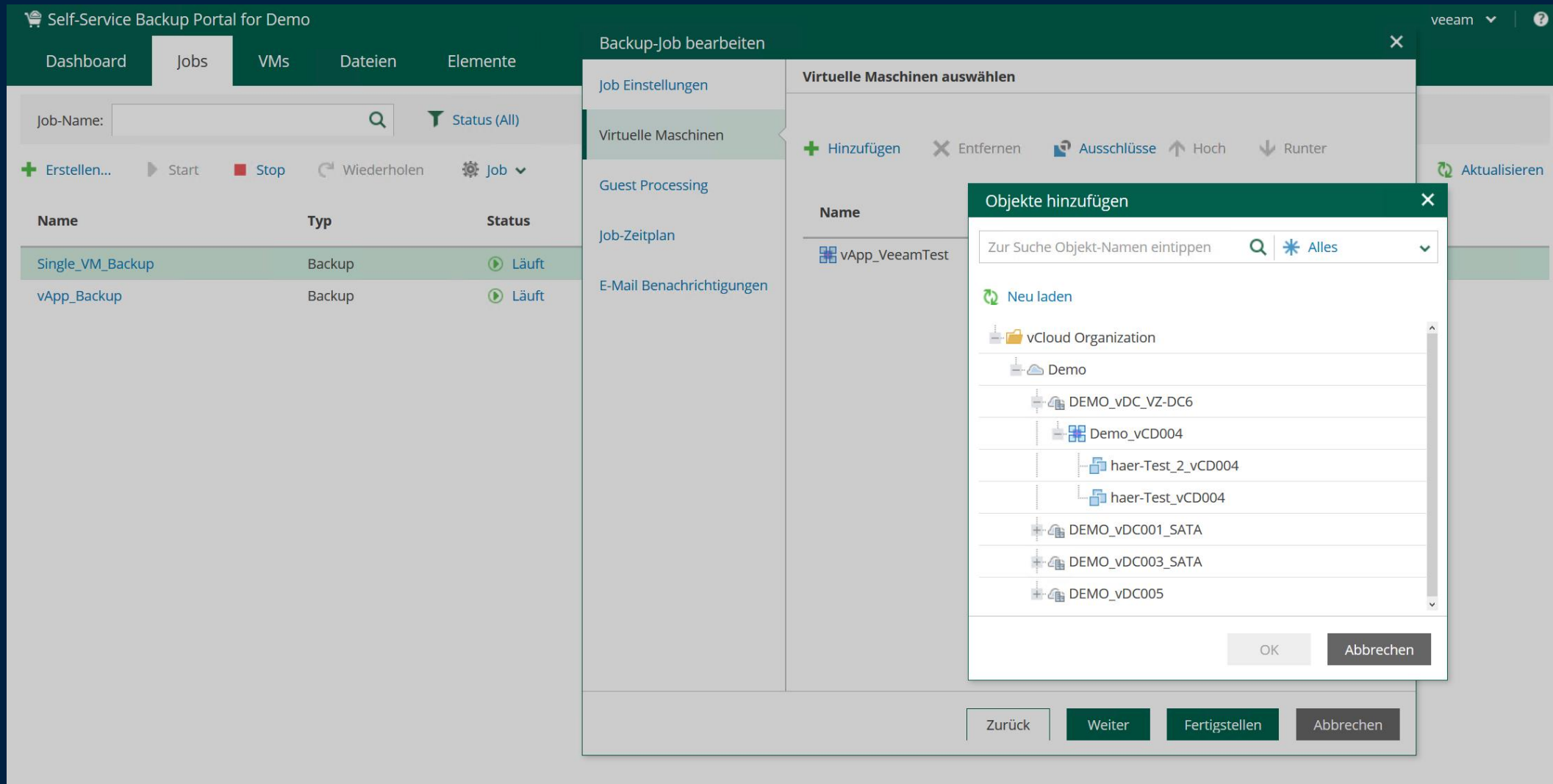
# Veeam Infrastructure for conova TopCloud



# Veeam Backup for conova TopCloud – Self-Service Portal



# Veeam Backup for conova TopCloud – Self-Service Portal



Self-Service Backup Portal for Demo

Dashboard Jobs VMs Dateien Elemente

Job-Name:

+ Erstellen... ▶ Start ■ Stop ↺ Wiederholen ⚙ Job ▼

Name	Typ	Status
Single_VM_Backup	Backup	▶ Läuft
vApp_Backup	Backup	▶ Läuft

Backup-Job bearbeiten

Job Einstellungen

Virtuelle Maschinen

Guest Processing

Job-Zeitplan

E-Mail Benachrichtigungen

Virtuelle Maschinen auswählen

+ Hinzufügen ✕ Entfernen ➡ Ausschlüsse ⬆ Hoch ⬇ Runter

Name

vApp\_VeeamTest

Objekte hinzufügen

Zur Suche Objekt-Namen eintippen   \* Alles ▼

↺ Neu laden

vCloud Organization

Demo

DEMO\_vDC\_VZ-DC6

Demo\_vCD004

haer-Test\_2\_vCD004

haer-Test\_vCD004

DEMO\_vDC001\_SATA

DEMO\_vDC003\_SATA

DEMO\_vDC005

OK Abbrechen

Zurück Weiter Fertigstellen Abbrechen

# Veeam Backup for conova TopCloud – Self-Service Portal

Self-Service Backup Portal for Demo

veeam

DashboardJobsVMsDateienElemente

Suche nach VM-Name

VM wiederherstellen...vApp wiederherstellen...LöschenVirtuelle FestplattenHistorieExportAktualisieren

VM	vApp	Job-Name	Wiederherstellu...	Repository	Zuletzt erfolgreich
VeeamTestVM	vApp_VeeamTest	vApp_Backup	1 Punkt	Backup repository @DC6 Site Fo...	28.05.2022 01:04:20
VeeamTestVM	vApp_VeeamTest	Single_VM_Backup	1 Punkt	Backup repository @DC6 Site Fo...	28.05.2022 01:01:07



# Veeam Backup for conova TopCloud – Self-Service Portal

Self-Service Backup Portal for Demo

veeam

DashboardJobsVMsDateienElemente

Suche nach Backups von: vApp\_VeeamTest\VeeamTestVM

Aus Liste auswählen...

28.05.2022 01:04:20

Kein Filter

Suche

Wiederherstellen

Weitere Aktionen

Historie

C:

- \$Recycle.Bin
- Documents and Settings
- PerfLogs
- Program Files
- Program Files (x86)
- ProgramData
- Recovery
- System Volume Information
- Users
- Windows

Name	Größe	Eigentümer	Änderungsdatum
Administrator		NT AUTHORITY\SYSTEM	27.11.2018 15:57:23
All Users		NT AUTHORITY\SYSTEM	16.07.2016 15:34:35
Default		BUILTIN\Administrators	12.02.2018 16:02:46
Default User		NT AUTHORITY\SYSTEM	16.07.2016 15:34:35
Public		NT AUTHORITY\SYSTEM	21.11.2016 02:24:46
desktop.ini	174 B	BUILTIN\Administrators	16.07.2016 15:21:29
RESTORED-desktop.ini	174 B	BUILTIN\Administrators	16.07.2016 15:21:29

# Veeam Backup for conova TopCloud – Self-Service Portal

Self-Service Backup Portal for Demo

veeam

?

Dashboard

Jobs

VMs

Dateien

Elemente

SQL-Datenbank

Oracle-Datenbank

SQL-Server:

SQLServer\InstanceName eingeben

Q

Aus Liste wählen...

Historie

Datenbank zum Wiederherstellen:

Verfügbare Datenbanken werden nach Angabe eines Instanznamens angezeigt

Wiederherstellungspunkt:

Kein Wiederherstellungspunkt ausgewählt

Zeitpunkt:

Wiederherstellen nach:

Ursprünglicher Speicherort

Alternativer Speicherort

Wiederherstellen

# Thank You