DRaaS and Backup as a Service

Analyst Briefing

July, 2018

OVH

Agenda

1) OVH: Introduction and overview

2) DRaaS and Backup as a Service product details and roadmap

3) Customer use case

OVH Introduction

A Global Cloud Leader

OVH is Vertically Integrated: Innovation from the Ground Up

We manufacture our own servers

- Relationships with Intel, AMD, NVIDIA
- Motherboards: SuperMicro
- Build to specs from sheet metal up

We build our own data centers

- 30% natural air cooling + 70% liquid cooling =
- 0% air conditioning

We own our own network

- 15+ Tbps network
- Anti-DDoS technology
- 33 POPs

OVH is a Global Cloud Leader & Growing Fast

Over 1.3 Million Business Clients in 138 Countries

Hosting capacity: **1.3 million physical servers** 300,000+ already deployed

200k private cloud VMs running

500k public cloud instances created per month

2016
20 data centers in 5 countries and 4 continents

2018
27 data centers in 8 countries

We own our own 16+ Tbps network
with 34 PoPs

Since May 2017 focus on vCA integration & new DCs

- Following the acquisition of vCA, OVH:

  - Now running operations for ~1000 mid to enterprise customers
  - Integrated more than 200 vCA employees into OVH US
  - Prepared vCA customers for the transition to OVH data centers

- Vint Hill, VA data center launched. Hillsboro, OR launched with "Discovery" offer.

OVH enables the customer journey to the cloud

For on-premises customers who are heavily virtualized on VMware, OVH is the best move to the cloud

vmware® CLOUD VERIFIED

Strong partnership with VMware, leader in on-premises x86 virtualization

[Confidential Customer Logos]

vCloud Air has a history of success "Lifting and Shifting" customers

| Deep expertise in VMware | **+** | Roadmap focused on facilitating IaaS + PaaS transformation | **=** | OVH is well positioned to support the customer journey to the cloud |

OVH US product lines

Hosted Private Cloud
vmware®

Public Cloud Services
openstack.

Dedicated Servers
Bare Metal

Networking

Security

Disaster Recovery as a Service: Offerings

vCA customers excited about expanded capabilities with OVH

vmware® vCloud Air

OVHcloud

Infrastructure

vCloud Air:
- Legacy hardware
- Basic performance
- No backbone
- Manual provisioning

OVHcloud:
- Powerful servers with most recent technology
- Global 15 Tbps backbone
- Automated provisioning

Software

vCloud Air:
- Limited technology choices (no 3rd party vendors)

OVHcloud:
- Veeam and Zerto as options in addition to vSphere Replication.

Flexibility

vCloud Air:
- Long-term contracts only, no burst capability
- Hosted private cloud only

OVHcloud:
- Multiple billing options, with burst capability
- Quick provisioning; scale up or down on demand
- Multiple cloud service options

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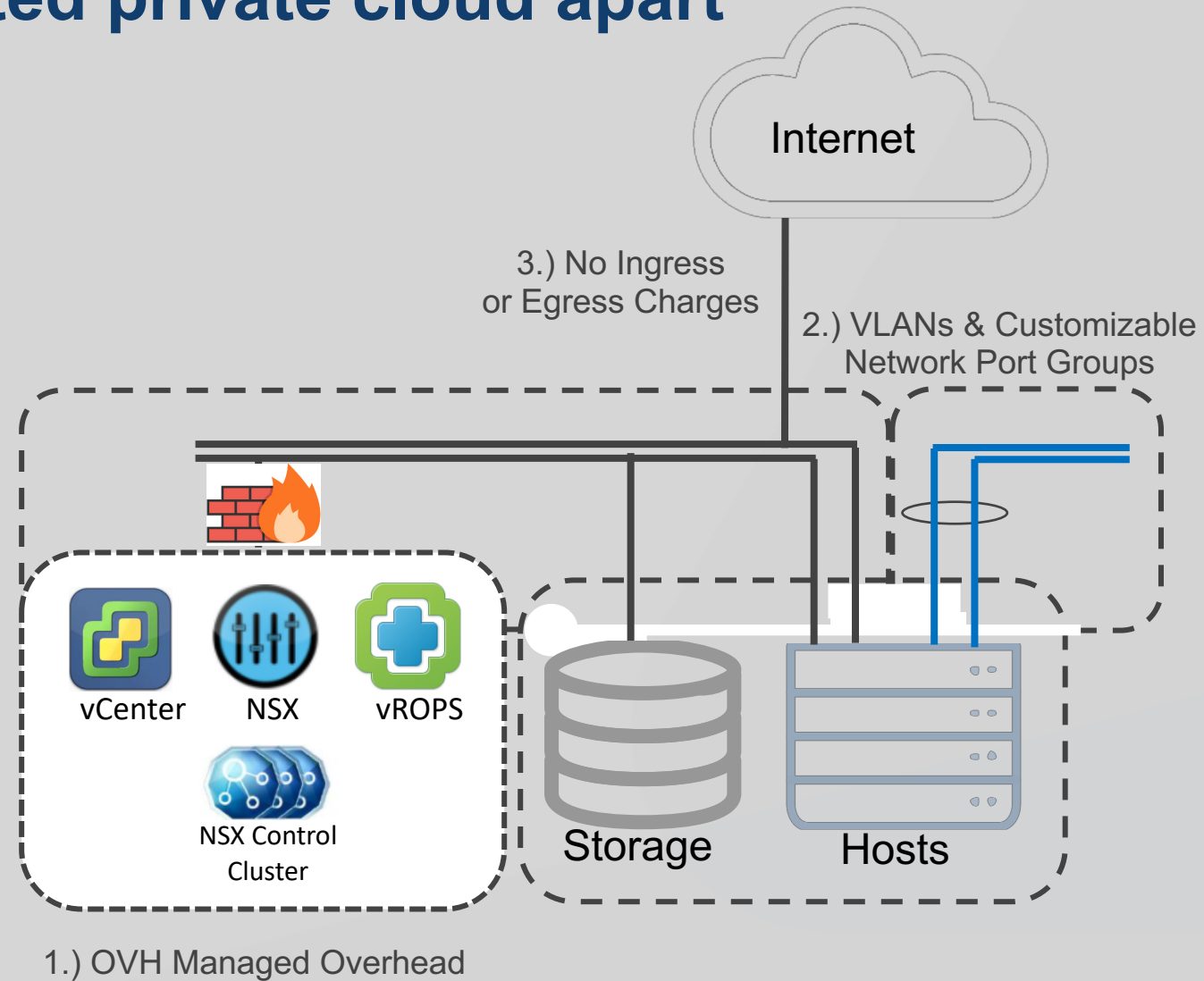# Customizable HW options: Faster, more RAM, more storage

- Recent Intel-based hardware
- All hardware is dedicated
- Right-sized hardware
- On demand resource addition/removal

DR-S (2x Pack)	DR-M (2x Pack)	DR-L (2x Pack)	DR-XL (2x Pack)
Intel Xeon 1521	Intel E5-1650-v4	Intel E5-2689v4	2 Intel E5-2689v4
4 cores/8 threads	6 cores/12 threads	10 cores/20 threads	20 cores/40 threads
2.4 GHz	3.6 GHz	3.1 GHz	3.1 GHz
32 GB RAM	64 GB RAM	128 GB RAM	256GB RAM
2 x 10 Gbps	4 x 10 Gbps	4 x 10 Gbps	4x10 Gbps
Data stores	Data stores	Data stores	Data stores
2 TB SSD-Accelerated	6TB SSD-accelerated	6TB SSD-accelerated	6TB SSD-accelerated
1.5Gbps Pub/10Gbps Priv	1.5 Gbps Pub/10Gbps Priv	1.5 Gbps Pub/10Gbps Priv	1.5 Gbps Pub/10Gbps Priv
List Price: $999/mo.	Price: $2,919/mo.	Price: $4,439/mo.	Price: $7,079/mo.

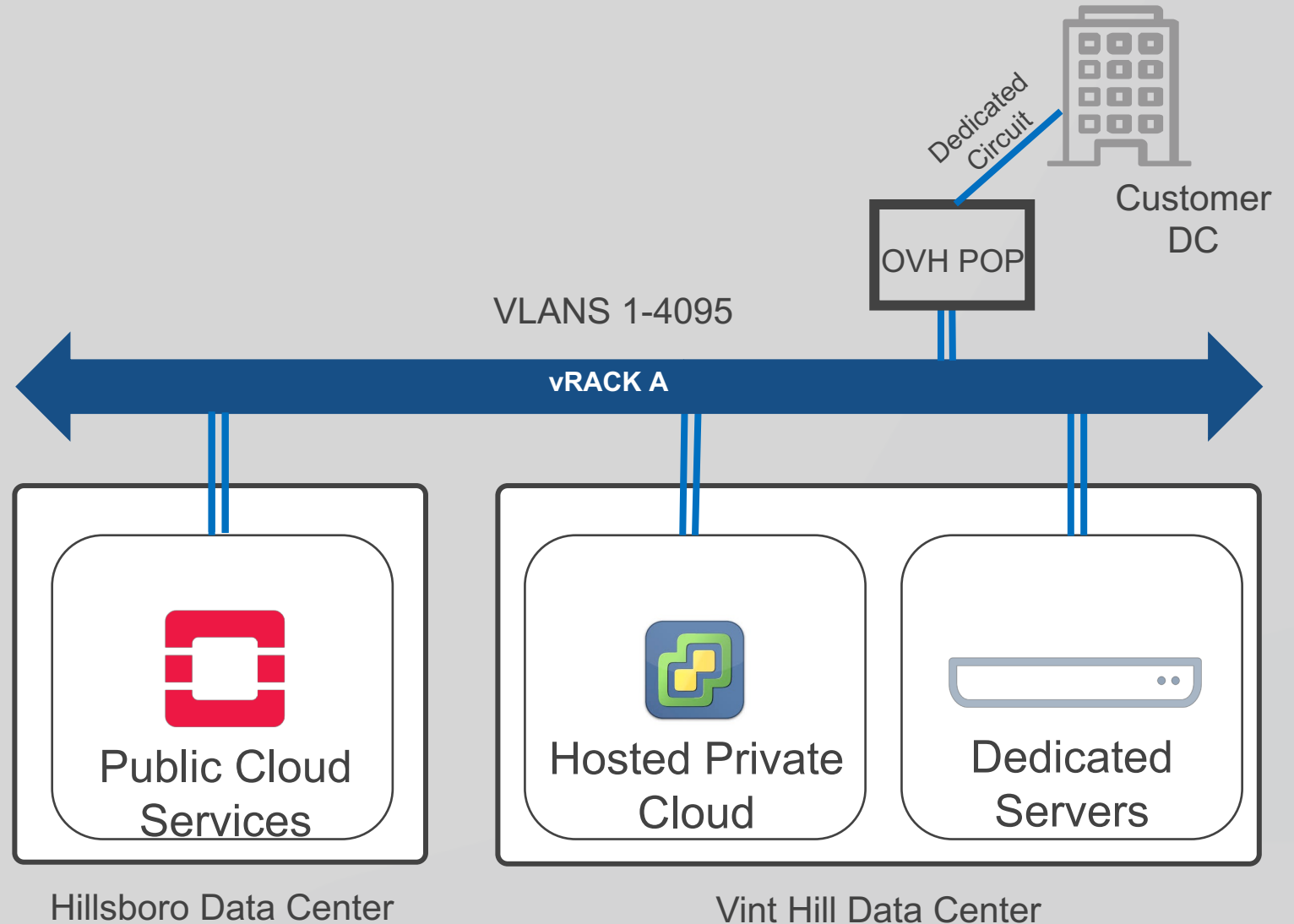# Our architecture sets our hosted private cloud apart

Infrastructure

1. OVH Covered Management Appliance Overhead

2. Manage VLANs & Customize network port groups

3. No ingress or egress charges

Internet

3.) No Ingress or Egress Charges

2.) VLANs & Customizable Network Port Groups

vCenter   NSX   vROPS

NSX Control Cluster

Storage   Hosts

1.) OVH Managed Overhead

OVH vRack (private LAN) connects your cloud all services

Infrastructure

- Segregate networking

- Share networking in Data Center

- Share networking in Region/Global

- Connect and Share networking to on-premises

Dedicated Circuit

Customer DC

OVH POP

VLANS 1-4095

vRACK A

Public Cloud Services

Hosted Private Cloud

Dedicated Servers

Hillsboro Data Center

Vint Hill Data Center

DRaaS Software options: protection for every application

Software

Non-Critical Applications

- Applications whose availability will not impact business performance to a significant degree.
- High tolerance for downtime

vmware®
vSphere Replication

Business Critical Applications

- Applications that facilitate important business processes.
- Some tolerance for downtime.
- Little to no financial impact from short periods of downtime.

vmware®
vSphere Replication

Zerto

Mission Critical Applications

- No tolerance for downtime.
- Aggressive RPOs and RTOs.
- Downtime would have a financial impact on the business.

Zerto

Backup Software : Two Use Cases

Software

Managed Backups

VEEAM

Solution: Add-On to Hosted Private Cloud – backup to storage host

License: Standard or advanced.

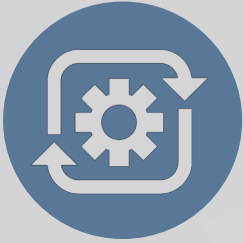**Purchase:** Per VM

Unmanaged Backups

VEEAM

Solution: Bare Metal Servers & Hosted Private Cloud

License: Enterprise +

Purchase: Per VM or BYOL

Quickly respond to business needs

Flexibility

Automated Provisioning

- Automated new environment creation
- Add / remove hosts & storage & public IPs

Automated Maintenance

- Automated host replacement
- Storage backup & resilience
- Storage maintenance & support

Billing

- Multiple billing options,
- with burst capability,
- hourly rates

Timeline: Launch, grow, enhance

	2018 2H	2019 1H
Hardware & General Services	• Hosted Private Cloud hosts in US Market (32GB-768GB options)	• Bare Metal DR Services • Object Storage
Software	• OVHcloud.com w/ US Manager portal • **Zerto**	• **Site Recovery Manager (SRM)** • BYOL options for customers
Network & Data Center	• Launch US East, US West, Germany, UK, and Poland • Statement of intent for DC Certification HIPAA, PCI, ISO, SOC1/SOC 2	• **7 additional international POPs** • Additional backbone bandwidth • Additional anti-DDoS

Insurance Company

Excited about possibilities with OVH

Problem: Limited time to evacuate a data center

- Insurance company

- 3000 employees

- Big investment in VMware technologies

Challenge

- [Customer] had a hard date to get out of 2nd data center

Need

- Leverage existing investment in back up gear
- Operationalize in a short period of time

Question for OVH

- Can they leverage the cloud for disaster recovery?
- Leverage investment in NSX?
- Connect to Sungard?
- Leverage recently purchased back-up gear?

Product Purchased

- Dedicated DRaaS with vSphere replication + HCM

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Key Factors in WBMI Decision

Same Tools

Same Team

Less Risk

WBMI DRaaS Short List

Microsoft
- Strongly considered because [customer] utilizes Duck Creek software that runs on Azure
- Microsoft 2003 can't run on Azure

VMC on AWS
- Couldn't direct connect from on-premise to cloud via private dedicated circuit

Google
- Very difficult to do DR with Google
- Too much customization

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DRaaS: More Capabilities with OVH

New Cloud Capabilities
- Layer 2 stretch (via software)
- Partial site failover

New Capabilities with OVH
- Layer 2 stretch in hardware (and software)
- Bare metal compute

QUESTIONS
+
ANSWERS

OVH