Accelerate the Hybrid Cloud with VMware Cloud on AWS

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VMware Cloud on AWS is now available!
Accelerating the Hybrid Cloud with VMware Cloud on AWS
Disclaimer

- 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.
Forecast ahead: Growing clouds on the horizon

This can feel like an incredible opportunity.

To get there, organizations need to be ready to act.

Analysts predict increasing cloud adoption

Speed is the new currency

Public cloud market by 2020, up from $146B in 2017 – Forrester

Projected growth for IaaS market in 2017, the highest for cloud services – Gartner

Of organizations committed to hybrid architectures by 2018 – IDC

$236B

37%

80%

To maximize the benefits of cloud models, organizations need a holistic cloud strategy and a way to make it real.
Can requirements be met across both worlds?

- Operational Consistency
  - Your teams, tools & skillsets & investments
  - Fine-tuned to run applications
  - Developed by you

- Existing Skillsets & Tools
- Control, Manage, Secure
  - Enterprise-class App SLA

- Public Cloud World
  - Consumption economics
  - Unique services
  - Scale and reach

- Private Cloud World
  - Not always, and not easily.
Imagine if these two worlds could merge seamlessly

**PRIVATE CLOUD WORLD**

**PUBLIC CLOUD WORLD**

Transforming entire realities through a powerful combination.
Introducing two powerful forces coming together
A truly compelling and differentiated solution

Leading compute, storage and network virtualization capabilities
Support for a broad range of workloads
De-facto standard for the enterprise DC

Flexible consumption economics
Broadest set of cloud services
Global scale and reach

Jointly engineered solution delivers the best of VMware and AWS for customers
VMware Cloud on AWS

Rich VMware SDDC delivered as a cloud service on AWS
Consistency and familiarity of VMware technologies
Easy workload portability and hybrid capabilities
Direct access to the power of native AWS services
Existing and new apps with Containers and VMs

VMware SDDC technologies you know and trust delivered as a service on the world's most popular public cloud
Making the hybrid cloud real

Extend Cloud Foundation into the public cloud and consume as a service

YOUR INFRASTRUCTURE: Owned

OTHERS’ INFRASTRUCTURE: Operated

Delivered as a service
VMware Cloud on AWS – service overview

Service Highlights

- VMware SDDC running on AWS bare metal
- Sold, operated and supported by VMware
- Support for containers & VMs
- On-demand capacity & flexible consumption
- Full operational consistency with on-premises SDDC
- Seamless workload portability and hybrid operations
- Global AWS footprint, reach, availability
- Direct access to native AWS services
The best-in-class hybrid answer to your IT and business imperatives

Accelerate innovation
- New application development
- Application modernization
- Dynamic capacity needs

Respond faster to change
- M&A activities
- Data sovereignty, closeness to end-user, new capacity
- Continuity of ops

Optimize costs
- Cloud mandate
- Shift from Capex to Opex
- Application portability
Powerful use-cases that align with your cloud strategy

- Maintain and expand
- Consolidate and migrate
- Workload flexibility

**Use-cases**
- DC Extension
- Regional capacity
- DR and backup
- Data center consolidation
- Application migration
- Test and development
- Cyclic capacity

**Customer can decide strategically across on-premises data center and cloud**
Global reach, delivered over time

**Region and number of availability zones**
- **US west**
  - Oregon (3)
  - N. California (3)
- **AWS GovCloud** (2)
- **US east**
  - N. Virginia (5)
  - Ohio (3)
- **Canada** (2)
- **Europe**
  - Ireland (3)
  - Frankfurt (2)
  - London (2)
- **Asia Pacific**
  - Singapore (2)
  - Sydney (3)
  - Tokyo (3)
  - Seoul (2)
  - Mumbai (2)
- **South America**
  - São Paulo (3)
- **New region**
  - Paris, Ningxia, Stockholm

* New region

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Initial Availability – Features
# VMware Cloud on AWS Key Features (at Initial Availability)

## Core Offering

<table>
<thead>
<tr>
<th>Delivered as a VMware Service</th>
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</thead>
<tbody>
<tr>
<td>Self-Service, Flexible Consumption</td>
<td>Self-service VMware Cloud on AWS Console, hourly On-Demand</td>
</tr>
<tr>
<td>Lifecycle Management</td>
<td>Automated SDDC deployment, patching and upgrades</td>
</tr>
<tr>
<td>Support</td>
<td>Unlimited 24x7x365 support and live chat support</td>
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</tbody>
</table>

## Key VMware SDDC Capabilities (vSphere, vSAN, NSX)

<table>
<thead>
<tr>
<th>Hybrid Linked Mode</th>
<th>vCenter Server single pane of inventory management of on- and off-premises resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>vMotion and Storage vMotion (within VMware Cloud on AWS)</td>
<td>Live migration of VMs and virtual disk files within VMware Cloud on AWS</td>
</tr>
<tr>
<td>Migration between On-Prem and Cloud</td>
<td>Cold migration of virtual machines between on-premises and VMware Cloud on AWS</td>
</tr>
<tr>
<td>High Availability</td>
<td>High availability of applications in the event of a hardware failure with VMware HA</td>
</tr>
<tr>
<td>Distributed Resource Scheduler</td>
<td>Automated load balancing across hosts with VMware DRS</td>
</tr>
<tr>
<td>All Flash vSAN Storage</td>
<td>All Flash configuration with vSAN that uses flash for both caching and capacity layer</td>
</tr>
<tr>
<td>Logical Networking and Firewall</td>
<td>Logical networking within VMware Cloud on AWS and L3VPN to on-premises infrastructure with edge FW</td>
</tr>
</tbody>
</table>

## AWS Infrastructure

Each host has 2 CPUs, 36 cores, 72 hyper-threads, 512GiB RAM, ~6TB local NVMe flash usable storage
Intelligent Operations
Support for vRealize Operations, vRealize Business for Cloud

Plan for VMware Cloud on AWS
- Proactively identify upcoming capacity shortfalls and future needs on-premises
- Optimize on-premises capacity by re-claiming/right-sizing
- Compare costs across on-premises & cloud to choose best deployment scenario

Move applications to VMware Cloud on AWS with confidence
- Discover application dependencies
- Confirm readiness of destination, such as health and compliance
- Model scenario to ensure capacity available
- Confirm successful move once workloads have been migrated

Manage with operational intelligence
- Troubleshooting and health monitoring
- Automated proactive performance management
- Optimize capacity utilization and forecast future needs
Automation
Automates end-to-end process with unified control and management across hybrid environments

Support for vRealize Automation delivering:

- Unified process of service blueprinting, automated provisioning and delivery
- Build hybrid applications across on-premises SDDC and VMware Cloud on AWS
- Gain control through policy-based governance
- Consistent lifecycle management of IT services deployed across the hybrid cloud
- Serve development teams with self-service model through catalogs, API and CLI
Infrastructure ISV Tech Partners – Initial Availability Release
Partners that Tested Their Solutions on VMware Cloud on AWS

<table>
<thead>
<tr>
<th>Data Protection</th>
<th>DevOps</th>
<th>Migration &amp; Analysis</th>
<th>Security &amp; Compliance</th>
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<tbody>
<tr>
<td><strong>DELL EMC</strong></td>
<td><strong>ANSIBLE</strong></td>
<td><strong>AKASIA</strong></td>
<td><strong>Check Point</strong></td>
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<tr>
<td><strong>EMC</strong></td>
<td><strong>CA technologies</strong></td>
<td><strong>Cloud Costs Planning</strong></td>
<td><strong>Fortinet</strong></td>
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<tr>
<td><strong>Commvault</strong></td>
<td><strong>CHEF</strong></td>
<td><strong>Cloud Checkr</strong></td>
<td><strong>Gemalto</strong></td>
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<td><strong>IBM</strong></td>
<td><strong>cloudbees</strong></td>
<td><strong>CloudPhysics</strong></td>
<td><strong>Hytrust</strong></td>
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<tr>
<td><strong>Veeam</strong></td>
<td><strong>dynatrace</strong></td>
<td><strong>CloudVeloX</strong></td>
<td><strong>McAfee</strong></td>
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<tr>
<td><strong>Veritas</strong></td>
<td><strong>JFrog</strong></td>
<td><strong>Micro Focus</strong></td>
<td><strong>Palo Alto</strong></td>
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<tr>
<td><strong>SaltStack</strong></td>
<td><strong>puppet</strong></td>
<td><strong>Rackware</strong></td>
<td><strong>Trend Micro</strong></td>
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<tr>
<td><strong>Splunk</strong></td>
<td></td>
<td><strong>RISC Networks</strong></td>
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</table>

In Development:

- Commvault
- Druva
- IBM
- Veeam
- Veritas

More partners testing their solutions with VMware Cloud on AWS

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Delivered as a Service with single support owner

Zero infrastructure lifecycle management – VMware takes care of it for you!

- VMware manages and operates the service including VMware SDDC software components and modern web-based console
- VMware delivers service status with notifications
  - World-class 24X7 service support & site reliability ops
  - Support center with FAQs, forums & chat support
- VMware delivers scheduled SDDC software updates and emergency software patches with notifications
- Auto-remediate HW failure

While you retain control of your applications
Demo
Consumption, Pricing & TCO
VMware Cloud on AWS = VMW Software + AWS Infrastructure

Key Characteristics

- VMW’s compute, storage, networking and security delivered as a cloud service
- VMW capabilities and cloud infrastructure sold as a combined VMW offering
- Unit of purchase is physical host with VMW software
- Minimum purchase of 4 hosts
- Add increments of 1 host
Consumption models

Consumption-based Billing
- On-demand / hourly model
- 1 or 3-year reserved model*
- Buy add-on services

Various Payment Methods
- VMware SPP or HPP credits
- Purchase orders
- Credit Card

Hybrid Loyalty Program
- Leverage existing investments with VMware
- Purchase VMware Cloud on AWS at a lower rate
- No trade-in of on-premises licenses required

Initial Availability

*Note: 1 or 3-year reserved model indicates a long-term commitment for billing purposes.
VMware Cloud on AWS TCO – 3 Year Subscription

The higher the VM density, the lower the cost per VM on VMware Cloud on AWS.

Attractive vs. traditional on-prem

Comparable vs. native cloud (depending on VM density)

Note: Reference VM size of 2 vCPU, 8GB of RAM, 150GB of storage. Factors in overhead VMs. Includes VMware license and support costs. Traditional on-prem includes traditional servers, storage, networking, vSphere, power and cooling and rack space. Native cloud instance includes similarly sized compute instance with external storage. Excludes bandwidth/IP and admin expenses.
VMware Cloud on AWS Pricing

<table>
<thead>
<tr>
<th></th>
<th>Core Service</th>
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<tbody>
<tr>
<td></td>
<td>On-Demand (hourly)</td>
</tr>
<tr>
<td>List Price ($ per Host)</td>
<td>8.3681</td>
</tr>
<tr>
<td>Effective Monthly*</td>
<td>6,109</td>
</tr>
<tr>
<td>Savings Over On-Demand</td>
<td>30%</td>
</tr>
</tbody>
</table>

Note:
- List price only. Does not factor in Hybrid Loyalty Program and sales discount. Discounts apply to the full bundle.
- Price includes VMware software and AWS infrastructure, and support costs.
- Bandwidth and public IP charges are not included. They will be the same as AWS’ published rates.

* Effective monthly pricing shown to help calculate savings from 1-year and 3-year term commitment over On-Demand pricing.
### Overview of the Program

<table>
<thead>
<tr>
<th>Product Family</th>
<th>Discount on Service</th>
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<tbody>
<tr>
<td>vSphere</td>
<td>10%</td>
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<tr>
<td>vSAN</td>
<td>10%</td>
</tr>
<tr>
<td>NSX</td>
<td>10%</td>
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</table>

**Note:**
- Discounts may be combined across products up to a max discount of 25% per host.
- Discount valid as long as customer is active on Support and Subscription (SnS).
- Continue to use your on-prem licenses, no trade-in or conversion of licenses required.
- 1-year and 3-year subscriptions are eligible, On-Demand is not.
- 2 CPU licenses on-prem provide above discount on one VMware Cloud on AWS host.
- Please check Hybrid Loyalty Program Guide for list of eligible product editions.

### Customer Scenario

#### Without Hybrid Loyalty Program

- 1 Year Subscription (S/W+IaaS) $51,987*
- Residual value (S/W + IaaS) $38,990*

#### With Hybrid Loyalty Program

- Total savings* of up to 25% or $12,997

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* Savings based on a 1 year subscription of the Core Service (S/W+IaaS), for a customer who owns the full SDDC stack on-prem (vSphere, VSAN, NSX).
<table>
<thead>
<tr>
<th>Session ID</th>
<th>Title</th>
<th>Date</th>
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<tr>
<td>LHC1547BE</td>
<td>Creating Your VMware Cloud on AWS Data Center: VMware Cloud on AWS Fundamentals</td>
<td>Sep 12, 12.30pm</td>
</tr>
<tr>
<td>LHC3376BES</td>
<td>AWS Native Services Integration with VMware Cloud on AWS: Technical Deep Dive</td>
<td>Sep 12, 12.30pm</td>
</tr>
<tr>
<td>STO1890BE</td>
<td>VMware Cloud on AWS: Storage Deep Dive</td>
<td>Sep 12, 2.00pm</td>
</tr>
<tr>
<td>LHC1755BE</td>
<td>VMware Cloud for AWS Storage and Availability: Keeping Your Bits Safe for Humanity</td>
<td>Sep 12, 3.30pm</td>
</tr>
<tr>
<td>LHC1403BER</td>
<td>Accelerate the Hybrid Cloud with VMware Cloud on AWS</td>
<td>Sep 12, 5.00pm</td>
</tr>
<tr>
<td>LHC3178BE</td>
<td>Operating a Hybrid Environment with Hybrid Linked Mode and Content Library</td>
<td>Sep 12, 5.00pm</td>
</tr>
<tr>
<td>LHC1882BE</td>
<td>Service Overview for VMware Cloud on AWS</td>
<td>Sep 13, 11.00am</td>
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<tr>
<td>LHC2384BE</td>
<td>VMware Cloud on AWS: A Technical Deep Dive</td>
<td>Sep 13, 2.00pm</td>
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<tr>
<td>LHC3371BES</td>
<td>VMware Cloud on AWS Hybrid Cloud Architectural Deep Dive: Networking and Storage Best Practices</td>
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<tr>
<td>LHC2105BE</td>
<td>NSX and VMware Cloud on AWS: The Path to Hybrid Cloud</td>
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<td>LHC1403BER</td>
<td>Accelerate the Hybrid Cloud with VMware Cloud on AWS</td>
<td>Sep 14, 10.30am</td>
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<td>LHC3174BE</td>
<td>VMware Cloud on AWS: An Architectural and Operational Deep Dive</td>
<td>Sep 14, 12.00pm</td>
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<td>SER2283BE</td>
<td>Migrate to Cloud Securely While Optimizing Copy Data: vMotion Has You Covered</td>
<td>Sep 14, 12.00pm</td>
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<tr>
<td>STO1498BE</td>
<td>Tech Preview: Disaster Recovery with VMware Cloud on AWS</td>
<td>Sep 14, 1.30pm</td>
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</table>
Please fill out your survey.

Take a survey and enter a draw for a VMware company store gift card.