



VMware Cloud on AWS Outposts

Get the agility and innovation of VMware Cloud in your data center delivered as a service

At a glance

VMware Cloud on AWS Outposts is an on-premises Infrastructure as a Service installed in your data center and consumed as a cloud service.

Advantages

Consistency

Compatible infrastructure and consistent operations with same vSphere and vCenter APIs. Leverages same VMware tools and skills.

Scalability

Ability to seamlessly scale up capacity as the demand of workloads increase.

Flexibility

Freely move workloads between VMware Cloud on AWS, VMware Cloud on AWS Outposts, and any other VMware environment.

Modernization

Modernize your infrastructure to support modern workloads, while operationalizing infrastructure expense and shedding management burden. Gain access to AWS Native services.

Enterprise use of the public cloud is burgeoning, and for good reason—the speed, agility and simplicity of public cloud are undeniable. Still, many organizations continue to invest in their on-premises infrastructure to better manage latency-sensitive workloads and/or comply with regulatory requirements. Today, Digital Transformation is a key priority for most IT teams. According to IDC, direct digital transformation (DX) investment is still growing at a compound annual growth rate (CAGR) of 15.5% from 2020 to 2023 and is expected to approach \$6.8 trillion. For Businesses, the intended goal of a successful digital strategy is to streamline operations, improve employee productivity and operational efficiency, provide excellent customer experience, and differentiate themselves from the competitors. To help ensure the successful implementation of this digital strategy, a modern IT infrastructure supporting evolving application types provides the necessary foundation to accomplish these digital initiatives.

With VMware Cloud™ on AWS Outposts, customers are provided the hardware, software, and tools necessary to move forward digitally. VMware Cloud on AWS Outposts provides an ideal workload hosting environment that ensures data locality, low latency, and improved flexibility to comply with certain regulatory and compliance requirements, data sovereignty and/or data residency requirements. The provided VMware Cloud on AWS Outposts infrastructure has been designed to incorporate the latest Industry Server Standard (ISS) server compute, storage, and networking technology innovations, providing the agility to address with certain customer-specific internal security or architectural design requirements, handle large data volume/local data processing needs, and support necessary modern workloads in an optimal environment.

Because VMware Cloud on AWS Outposts is fully managed by VMware, customers are no longer burdened with the task of managing IT hardware and software, freeing up resources to focus on key IT business initiatives. This service includes an AWS hardware infrastructure pre-installed with VMware software as well as proactive monitoring of the infrastructure, full lifecycle support of the hardware and software, as well as service and onsite service visits.

Finally, Customers have access to AWS's extensive catalog of Native Cloud services. This catalog offers a broad selection of services intended to make your business run more effective, operate more cost efficiently, more competitive, and perform better overall.

Specifications of VMware Cloud on AWS Outposts

The following tables show the specifications of the VMware Cloud on AWS Outposts Infrastructure and service

Instances	
Instance type	i3en.metal
Purpose	This instance type is optimized for data-intensive workloads requiring high random I/O access such as relational databases and workloads that require end to end security.
CPU cores	2x 24
vCPUs	96
CPU frequency	3.1 GHz All Core Turbo Intel® Xeon® Scalable Processor
Memory	768 GiB
Local flash storage	45.8 TiB NVMe SSD
Device power	Power is delivered to host via a DC voltage distribution bus – hosts do not have separate chassis power supplies

Rack infrastructure											
Rack type	AWS Outposts Full Height Rack – 42 RU										
Configurable hosts per rack	3 hosts minimum up to 8 hosts maximum*										
Standby hosts per rack	Standby host(s) are included										
Network fabric devices	<p>Redundant Network Devices w/ Connection Patch Panels</p> <p>Customer-facing Uplinks:</p> <table border="1"> <thead> <tr> <th>Speed</th> <th>Number of Uplinks Supported</th> </tr> </thead> <tbody> <tr> <td>1 Gbps</td> <td>Up To 8</td> </tr> <tr> <td>10 Gbps</td> <td>Up to 5</td> </tr> <tr> <td>40 Gbps</td> <td>Up To 4</td> </tr> <tr> <td>100 Gbps</td> <td>Up To 4</td> </tr> </tbody> </table>	Speed	Number of Uplinks Supported	1 Gbps	Up To 8	10 Gbps	Up to 5	40 Gbps	Up To 4	100 Gbps	Up To 4
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1 Gbps	Up To 8										
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100 Gbps	Up To 4										
Uplink media types supported	Single Mode Fiber w/ Lucent Connector (SMF - LC), Multi-mode Fiber (MMF), Multi-mode OM-4 LC										

*3-8 Hosts supported today for VMware Cloud on AWS Outposts. The number of hosts will increase as roadmap for solution matures.

Rack infrastructure	
AWS Regional Connection (service link) requirements	<p>Network Connection to AWS Region</p> <ul style="list-style-type: none"> • AWS Direct Connect w/ Public or Private VIF <ul style="list-style-type: none"> – Private VIF Requires subnet, VIF-ID, and ASN# • Internet Connection via ISP • Dedicated VLAN(s) for service link and local gateway link • Dedicated subnet size of /26 for service link • Dedicated subnet size of /23 minimum for management network • VPC CIDR/ subnet for customer connected account • CIDR(s) for compute network(s) • Network device that supports 1, 10, 40, 100 Gbps uplinks • 1 Gbps minimum bandwidth for service link • A maximum of 150ms of latency between the parent region and rack location
Account requirements	<p>VMware Cloud Org / Account</p> <ul style="list-style-type: none"> • A new or existing VMware Cloud on AWS Account / Org is required <p>AWS Customer Owned Account</p> <ul style="list-style-type: none"> • An AWS customer-owned account is required. This account is owned, operated, and paid for directly by the customer if customer chooses to utilize any AWS services within that account
Security	<p>Heavy gauge door with keylock</p> <p>Nitro-Chip-based security – continual validation of HW status, presence, and security</p> <p>External encryption host key – removal is equivalent to destruction of Host-resident data</p>

Redundant Power Conversion Units (PCU) w/ DC distribution bus convert AC voltage to DC voltage and distribute DC to each host.

Facility power connections supported (2 inputs – S1 and S2)	
Power consumption	Connector configuration
Single phase	
5 kVA	1x L6-30P or IEC309 (1 Drop to S1)
10 kVA	2x L6-30P or IEC309 (2 Drops to S1)
15 kVA	3x L6-30P or IEC309 (3 Drops to S1)
Redundant, single phase	
5 kVA	2x L6-30P or IEC309 (1 Drop to S1, 1 Drop to S2)
10 kVA	4x L6-30P or IEC309 (2 Drops to S1, 2 Drops to S2)
15 kVA	6x L6-30P or IEC309 (3 Drops to S1, 3 Drops to S2)
Three phase	
5 kVA	1x AH530P7W or AH532P6W (1 Drop to S1)
10 kVA	
15 kVA	
Redundant, three phase	
5 kVA	2x AH530P7W or AH532P6W (1 Drop to S1, 1 Drop to S2)
10 kVA	
15 kVA	

Facility power specifications		
AC line voltage (50 / 60 Hz)	Single phase: 208 – 277 VAC	
	Three phase: 346 – 480 VAC	
Power consumption	5 kVA: 4kW	
	10 kVA: 9 kW	
	15 kVA: 13 kW	
AC protection (upstream power breakers)	30A or 32A with D-curve circuit breaker	
AC inlet type (Receptacle)	Single phase (Plugs)	3x L6-30P P+P+E 30A or 3x IEC60309 P+N+E IP67 32A
	Three phase – Wye (Plugs)	1x IEC60309 3P+N+E IP67 clock position:7 30A or 1x IEC60309 3P+N+E IP67 clock position:6 32A
	Three phase – Delta (Plug)	1x Non-NEMA Twist-Lock® Hubbell CS8365C 3P+E center ground 50A
	Note: The best practice is to mate an IP67 plug with an IP67 receptacle. If that is not possible, the IP67 plug will mate with an IP44 receptacle. The rating of the combined plug and socket will become the lower rating (IP44)	
Power whip length	10.25 Ft (3 M)	
Power whip exit	From above or below	

Infrastructure environment requirements	
Temperature and humidity	Ambient temperature between 41 F (5 C) and 95 F (35 C) with relative humidity between 8% and 80% with no condensation
Airflow	Rack draws cold air from front aisle and exhausts hot air to back aisle. Rack positions must provide at least 145.8 times the kVA of cubic feet per minute (CFM) airflow
Rack dimensions — crated	Rack crating measures 94 inches tall x 54 inches wide x 51 inches deep. Loading dock door must accommodate these dimensions
Rack dimensions — uncrated	80 inches tall x 24 inches wide x 48 inches deep. Requires an additional 48 inches in front and 24 inches in rear for door swing and servicing.
Rack weight	Floor where Outposts rack will be located must be able to support 2000 pounds