

Increase overall performance and improve security with dedicated infrastructure solutions tailored to your critical workloads needs.

Dedicated high performance, high compliance infrastructure solutions backed by industry audits and compliance standards to deliver reliability, scale, and optimized performance. With individual access to a single console for centralized control at every level, administrators maintain deep visibility into the configuration of the critical components of a virtual infrastructure—all from one place.



Every industry and every organization has workloads that require specific performance, control, and compliance. Deliver your mission critical workloads in a dedicated environment backed by PCI-DSS, HIPAA/HITECH, SSAE18 Type II Soc 2, and FedRAMP.

SOLUTIONS TAILORED TO MEET THE UNIQUE PERFORMANCE, COMPLIANCE, AND COST NEEDS OF YOUR ORGANIZATION.

A tailored solution built on the very latest HPE equipment - selected for performance, efficiency, and reliability - built specifically to make your most demanding workloads a little less demanding with a lot more optimization. Our dedicated laaS services offer the best in security and performance.

KEY BENEFITS

- Lower costs no need to purchase hardware or software. No need to plan for equipment refreshes. <u>No service</u> contract fees.
- Less maintenance no need to dedicate valuable time and resources to system maintenance of infrastructure
- Near-unlimited scalability scale on-demand in a HIPAA, PCI-DSS, and SSAE18 Type II Soc 2 certified solution
- High reliability vast network of servers and availability zones built to MIL-SPEC ensures uptime and redundancy
- Flexible hardware configure nodes, ram, cpu, and SAN to your workload requirements
- Expandeded support for backup and continuity strategies

Solutions built for performance, backed by SLAs

















IAAS WITH BETTER PERFORMANCE, HIGHER SECURITY, AND LOWER COSTS - TAILORED TO YOUR UNIQUE NEEDS.

By selecting Opus Interactive's dedicated laaS, you get reliable performance with flexible hardware options on a high compliance environment. Solutions are tailored and right-sized to your organization architected to remove underutilized server hardware in your infrastructure, drive down internal IT demands and expenses, and focus on delivery of your critical workloads - where you need, when you need, how you need.

ARCHITECTURE THIRD-PARTY VERIFIED FOR PERFORMANCE

Our dedicated laaS solutions are tailored to your workload needs and based around the same VMware and HPE architecture of the OpusCloud. Launched in 2005, OpusCloud is a robust offering built on HPE's award winning server and storage hardware combined with VMware's compute, storage, and networking virtualization solutions. The solution is architected to be HIPAA, PCI-DSS, and SSAE18 Type II SOC2 compliant, and offers an performance you can trust. Our solutions are engineered from the ground up for high-performance, incredible flexibility, and extreme resilience - housed inside of state-of-the-art facilities.

What differentiates dedicated laaS from Azure and AWS?

Every solution based on architecture proven to deliver performance and tailored to your unique workloads.

Differentiators include:

- Tailored solutions that are right-sized to meet workload requirements
- HIPAA, PCI-DSS, and SSAE18 Type II SOC2 compliance at no added cost
- · Control over availability zone at no additional cost
- Up to 52% better performance
- White glove customer service with no service contract fees including fast response times and continuous availability that users need to do their jobs

To provide customers more visibility into how the architecture compares, Opus annually commissions a third-party to measure active workloads of Azure, AWS, and OpusCloud. The OpusCloud outperforms in nearly every category. Cloud Spectator has identified the primary drivers for Opus' strong performance as threefold:

- 1. Impressive CPU and Memory performance
- 2. Superb storage random read and write performance
- 3. Excellent Price-Performance results

	Azure	AWS	OpusCloud	Results
CPU Performance Price-performance per dollar (USD)	17	16	26	52% better CPU Performance
Storage Read Performance Price-performance per dollar (USD)	50	16	396	24x better than AWS
Storage Write Performance Price-performance per dollar (USD)	3	7	143	47x better than Azure
Multi-Core Score (CPU) Average	4,426	3,925	5,283	19% higher than Azure
Storage Read IOPs Average	16,169	3,118	26,126	60% more IOPs than AWS or Azure
Storage Write IOPs Average	354	2,066	10,549	500% more write IOPs than AWS
Network Performance Mb/s	1,887	1,435	23,907	12x more throughput than AWS and Azure

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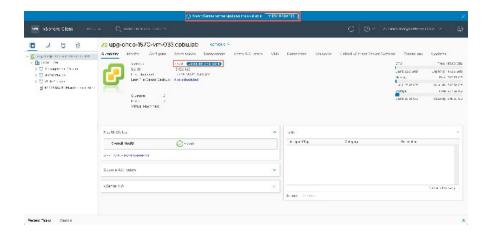


Opus Interactive has been an HPE® Partner and VMware Partner since circa 2003.

For questions about this report, to request access to the full study, or if you have general inquiries about our products and services, please contact Opus Interactive at (503) 972-6677 or email sales@opusinteractive.com

ENSURE PERFORMANCE, SECURITY, AND AVAILABILITY WITH A CENTRALIZED MANAGEMENT PLATFORM FOR YOUR VIRTUAL INFRASTRUCTURE

Infrastructure is complex. Gain centralized visibility, simplified and efficient management at scale, and extensibility across the IT landscape — all from a single console. VMware vCenter Server is advanced server management software that provides a centralized platform for controlling your environments, allowing you to automate and deliver a virtual infrastructure across the hybrid cloud with confidence.



Simple Deployment

Quickly deploy vCenter Server as a pre-packaged, optimized, and easy-to-maintain virtual appliance. Integration of vSphere Update Manager into vCenter Server Appliance makes patching and upgrading fast and easy. RESTful APIs allow for the easily repeatable deployment of vCenter Server Appliance from a template, speeding up deployment times as well as reducing human error.

Extensibility and Scalability Across Hybrid Cloud

Seamlessly extend your on-premises environment to vSphere-based public clouds, such as VMware Cloud on AWS, no matter which version of vCenter Server you are running. Large-scale management is now improved: Manage up to 2,000 hosts and 35,000 virtual machines with a single vCenter Server instance.

Centralized Control and Visibility

Administer your entire infrastructure from a single location. Manage the essential functions of vSphere from any browser, offering more responsiveness and usability than ever before. Assign users to custom roles, search vCenter Server inventory, or provision new virtual machines with the click of a button.

Improved Management

Use powerful tools to simplify management and extend your control. Use web services APIs to achieve cost-effective and flexible integration with existing systems management products. And use different VMware vCenter Server versions while allowing cross-vCenter, mixed-version provisioning operations, such as vMotion, Full Clone, and cold migrate.

Proactive Optimization

Allocate and optimize resources for maximum efficiency with our server management software. Manage up to 70,000 virtual machines and 5,000 hosts across 15 vCenter Server instances.

KEY BENEFITS

- Reduce management complexity and time taken for large scale deployments
- Analyze and remediate issues quickly with visibility
- Deliver security and availability through automated proactive management features such as automated load balancing and out-of-the-box automation workflows
- Extend virtualization capabilities using third-party ecosystem solutions

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laaS Technical Details

Opus Interactive fully discloses the underlying hardware that makes up the laaS solution which is based on the architecture of the OpusCloud.

Compute

The OpusCloud platform is built on the latest HPE® blade servers, running high-performance Intel® processors. Each blade is configured with multiple 20/40GB Network interfaces in an N+1 system that operates storage and connectivity.

HPE Blade systems are ENERGY STAR certified for efficiency and recognized as the worldwide leader in enterprise-class, high-density computing.

Storage

The heart of any cloud platform is the storage, and where Opus Interactive excels. We operate many clusters of very high-performance HPE storage arrays (HPE 3PAR, HPE Nimble and Datera), each configured with multiple redundant controllers and 15k SAS drives in a RAID 10 and Network RAID 10 configuration. We utilize adaptive optimization with SSDs for performance gains in our clusters to provide higher IOP performance for customers utilizing databases and VDI.

In addition to ENERGY STAR certification for energy efficiency, HPE storage is consistently rated as the leading storage provider in the enterprise market. Opus Interactive has been an HPE® Partner since circa 2003.

Licensing

Opus Interactive offers the full range of Microsoft Server software on a pay-as-you-go basis. We also offer the full range of VMware licensing for hardware that we manage. We provide licensing for Cisco, Veeam, TrendMicro, RedHat, PulseSecure Loadbalancer and KEMP Loadbalancer as a service to compliment all our OpusCloud offerings.

Network

Our MIL-SPEC multi-homed, Arista-built network has been designed from the ground up to be 100% resilient and fully scalable. Our core network is deployed in an N+N 10Gb/40Gb/100Gb configuration, which means failures of individual network components – routers, switches, or interconnects – will have zero impact on the availability or performance of the network and your associated services.

High Availability Features

Opus Interactive utilizes all enterprise VMware features, including VMotion and DRS to deliver 100% availability across the entire virtualized IT environment. <u>Our industry-leading</u> service level agreement offers your money back if we fail to deliver 100% uptime.

Physical Server Integration

At Opus Interactive, we live and breathe cloud, but we are equally aware there are times when a physical server or device is required. If you need your existing hardware to live out its depreciation cycle, we can help by offering seamless integration with our cloud platform to achieve the best of both worlds.

Colocation Integration

Located in world-class facilities, we offer flexible enterprise colocation from half cab to dedicated cages to allow you to integrate the OpusCloud into your hybrid ecosystem.

Monitoring Services

Opus Interactive offers a range of monitoring software solutions that keep you in informed on how your network is operating. We even offer monitoring for Amazon AWS and Microsoft Azure cloud services for your deployments on their infrastructure, providing you availability, performance, and billing details over time.



About Opus Interactive

Founded in 1996, Opus Interactive has earned a reputation for complex hybrid cloud solutions that deliver compliance, performance, security, and cost. The Company operates from Tier III+ data centers located in Hillsboro, Portland, Dallas, and Northern Virginia.

With past performance that includes more than 25 years of proven results and solutions that meet PCI-DSS, HIPAA, and SSAE 18 Type II SOC 2 compliance standards, Opus specializes is helping customers reduce cost and optimize resources using right sized solutions and efficient operations.

- Hybrid and Multi-Cloud
- laaS & OpusCloud
- Colocation
- DRaaS & Backup
- Monitoring
- Network

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