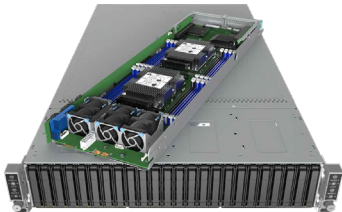


Simplifying Access to Software-Defined Storage (SDS) Solutions and Private Cloud

Intel® Data Center Blocks (Intel® DCBs) for Cloud—VMware vSAN ReadyNodes



Intel® Data Center Blocks for Cloud

Certified Intel DCBs save time and money, freeing up resources to focus on value-add and competitive differentiation.

Simplify HCI market access with systems designed and validated for Software-Defined Storage (SDS) solutions.

Unbranded systems allow Resellers and Distributors to incorporate products quickly into their branded portfolios.

Intel quality and reliability offer world-class integration, validation, certification and support.

Includes standard Intel 3-year warranty with 5-year warranty options available to ensure customer confidence.

Intel® Select Solutions-ready designs are workload-optimized and verified reference architectures and provide resellers a simplified path to accelerate infrastructure deployment.



Accelerate Your Path to the Cloud with Software Defined Storage (SDS) and Intel Data Center Blocks for VMware vSAN ReadyNodes.

Intel Data Center Blocks for the Cloud—VMware vSAN ReadyNodes offer a validated and supported solution tailored for High Performance Computing (HPC), Hyper-Converged Infrastructure (HCI), and Storage deployments that require outstanding performance. Now supporting the new 3rd generation Intel® Xeon® Scalable processor family, available in All-Flash (SSD) and hybrid (combined SSD and HDD) configurations, these systems deliver the flexibility to build innovative, cost-effective, software-defined storage solutions quickly and efficiently.

Reduce Cost and Complexity of Traditional Storage

VMware vSAN is enterprise-class, storage virtualization software that enables compute and storage resource management in a single platform. With VMware vSAN, you can reduce the cost and complexity of traditional storage using automated policies and rules to manage enterprise storage. This simplifies future-ready, HCI and multi/hybrid cloud deployments. Modernizing your infrastructure with VMware vSAN improves business agility, while speeding operations and reducing costs.

VMware vSAN adds software-defined storage to the leading VMware ESXi hypervisor—automating policy-based management to optimize performance and resource utilization. Policies can be assigned to individual virtual machines (VMs) effortlessly. As your requirements change, policies and rules can be modified and applied with just a few clicks, using the VMware vSphere Web Client.

VMware vSAN ReadyNodes and Hyper-converged Infrastructure (HCI)

HCI converges compute, storage and networking resources on the 3rd generation Intel Xeon Scalable processor family, using software to abstract and pool resources with unified management software. It transforms data centers by increasing agility, future-proofing infrastructure and reducing costs.

HCI enables you to increase business agility with automation, greatly reducing the need for manual intervention for common tasks, monitoring, troubleshooting and more. HCI unifies IT teams to eliminate silos and accelerate decision-making. You can also increase business-critical application performance with the latest storage technologies.

Cost-Effective, Scalable Storage with Intel and VMware vSAN

Traditional storage can be fixed, siloed and hard to scale—major barriers when moving to a multi/hybrid cloud-based environment. VMware vSAN offers simplified storage provisioning, granular scalability and advanced management. Fueled by the new 3rd Gen Intel Xeon Scalable processors, the solution features increased performance required for enterprise-class SDS solutions with improved per-core performance, higher CPU frequency, up to 48 PCIe lanes, and capabilities like Intel® Mesh Architecture.

Reduce Complexity, Improve ROI and Speed Time-to-Market

Designing, testing and validating HCI solutions is a costly and resource-intensive process. By starting with a higher level of integration and certification, you can reduce costs and speed time-to-market. This approach gives you more flexibility and choice about where to invest research and development spend to ensure you remain competitive and drive differentiation in the market. There is also increased acquisition value to partners, since they source a validated bundle of products with a single order code, rather than acquiring each component individually.

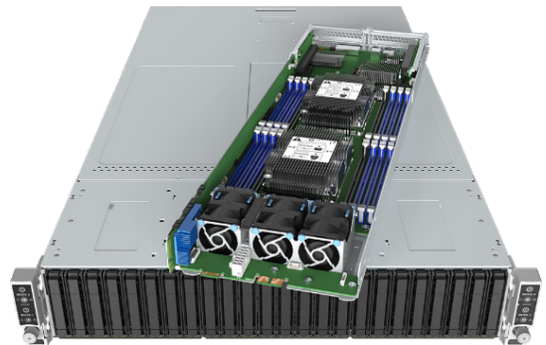
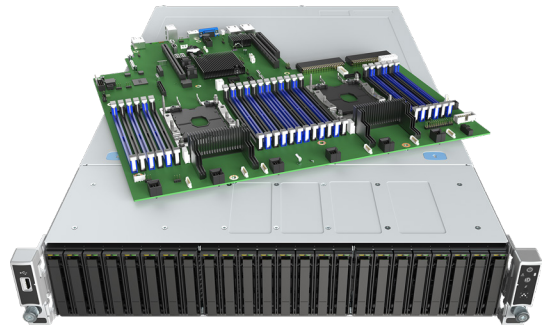
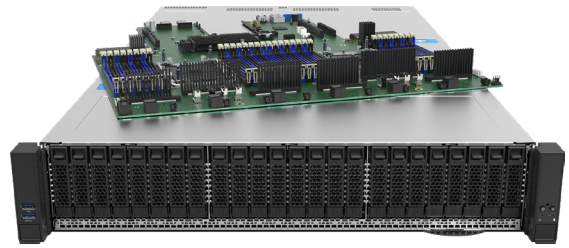
Benefits of using VMware vSAN ReadyNodes for HCI

Simplicity - The provisioning and management of VMware vSAN is simple, as it is embedded in the vSphere hypervisor. You can install and configure it using vSphere Web Client with just a few clicks.

Agility - VMware vSAN is a storage solution that does not follow the one-size-fits-all strategy, instead allowing administrators to scale storage on demand—quickly and efficiently—using policies and rules.

Manageability - VMware vSAN is easy to set up, manage and provision, without sacrificing performance. The simplicity also significantly reduces costs, enables faster asset provisioning and improves inventory management.

Lower Total Cost of Ownership (TCO) - VMware vSAN can be deployed on the 3rd Gen Intel Xeon Scalable processors with ease, reducing upfront costs. In the long run, its highly scalable infrastructure and quick deployment of requirement changes make it a cheaper yet efficient storage solution.



Integrated System with Intel Quality, Reliability, Value and Breakthrough Performance

Available in both All-Flash (SSD) and hybrid (combined SSD and HDD) configurations, these server systems are optimized for high-performance computing, hyper-converged infrastructure, and outstanding storage performance. 3rd Gen Intel Xeon Scalable processors deliver 1.46x average performance improvement vs. prior gen¹ and accelerate virtualized storage. Intel SSDs provide high throughput and low latency, which maximizes power while reducing cost and space requirements. All-Flash configurations (AF-8, AF-6, and AF-4) deploy Intel's high-endurance NVMe SSDs for the caching tier, delivering excellent performance, high IOPS and low latency.

Smart Boards Ensure System Stability and Increased Uptime

Intel® Server Boards have more than 100 sensors built in that monitor all critical functions and use management capabilities to automatically flag problems before they impact business operations. Event logs and light-guided diagnostics also assist in rapid identification and issue remediation.



Enhanced Benefits for Intel® Technology Providers

To further help partners succeed, Intel® Technology Providers have an opportunity to qualify for Intel® Technology Provider Cloud Data Center Specialist designation. Cloud Specialists have access to exclusive resources specifically designed to help streamline the delivery of cloud-optimized solutions. Benefits include special access to Intel experts and engineering resources to assist Cloud Specialists as they identify exact customer requirements. Other benefits include access to valuable solutions guides and marketing content to help build customer value.

Deploy with Confidence with Intel Quality, Reliability, Service and Support

Intel servers aren't just packed with innovation—they all come with Intel's highly rated, comprehensive services and support package, delivering differentiating value to every stage of the server lifecycle—from pre-purchase and deployment to operations, management and support. You can take advantage of Intel's proven support and service, including a 3-year warranty (optional 5-year) and global technical support.

Intel® Server Systems are also easy to deploy and operate, with comprehensive documentation for integration, configuration and management. All Intel Server Systems are fully integrated systems with options of configure-to-order CPU, memory, storage, and more.

Intel Warranty Delivers Value and Confidence

Intel Data Center Blocks for Cloud are backed by Intel's standard 3-year warranty from the date of purchase, with optional 5-year warranty plans available for select components.

Intel Data Center Blocks are also eligible for Advanced Warranty Replacement, whereby Intel will send a replacement part before the defective part is returned, reducing downtime and speeding time to resolution.

Warranty details are available online at https://www.intel.com/content/dam/support/us/en/documents/services/DCB_Warranty_Brief.pdf.

Engage with Intel Today

Intel continuously delivers leading-edge technologies to help resellers innovate and differentiate themselves in the market. Intel Data Center Blocks for Cloud are designed to help partners realize a more accessible path to reliable SDI solutions.

Contact your Intel sales representative or Intel authorized distributor for any inquiries.

Reduce Risk of Counterfeit Parts with Intel® Transparent Supply Chain

Counterfeit electronic parts are a growing security concern across all organizations. These concerns have grown as supply chains have become increasingly complex, multi-layered and global.

Current supply chain practices start with trusting the source, but processes are limited for screening out counterfeit components, particularly for products containing many subsystems.

Intel® Transparent Supply Chain helps partners and customers verify the authenticity and firmware version of servers and their components, through a set of tools, policies, and procedures. These verification steps, implemented on the factory floor at server manufacturers, enable enterprises to verify the authenticity and firmware version of systems and their components when systems arrive at their site.

This industry-leading approach helps:

- Provide component-level traceability and visibility
- Detect tampering of components and configuration state between stops
- Deliver fleet-level insights across suppliers

These and other safeguards combine to increase assurance and trust that the Intel servers you're purchasing and deploying are free of counterfeit components that could compromise your business or customers.

Additional Resources

Detailed SKU configurations can be found at: [intel.com/content/www/us/en/products/servers/data-center-blocks/dcb-cloud.html](https://www.intel.com/content/www/us/en/products/servers/data-center-blocks/dcb-cloud.html)

For more information on Intel® Server Products and Solutions visit: [intel.com/serverproducts](https://www.intel.com/serverproducts)

For more information on Intel Data Center Blocks visit: [intel.com/dcb](https://www.intel.com/dcb)

For more information on Intel Select Solutions visit: [intel.com/content/www/us/en/architecture-and-technology/intel-select-solutions-overview.html](https://www.intel.com/content/www/us/en/architecture-and-technology/intel-select-solutions-overview.html)

Access a library of marketing assets by visiting the DSG Marketing Asset Library: <https://servermarketinglibrary.intel.com>



Intel® Data Center Blocks for Cloud - VMware

All-Flash (AF) and Hybrid (HY) system SKUs based on VMware vSAN-defined profiles available with 3rd generation Intel® Xeon® Scalable processors.

Intel Product Code ³	vSAN Profile	Form Factor	3rd Gen Intel® Xeon® Scalable processors	Memory (per node)	Cache (per node)	Capacity (per node)	LAN (per node)
2U, 1 Node - Intel® Server System M50CYP2URXXX							
VRNCYP2UAF83D ³	AF-8	2U1N All-Flash ² (Intel® Optane™, NVMe, PMEM)	2x Intel® Xeon® Gold 5318Y (24c, 2.1G, 165W)	2TB (16x 128GB PMM + 16x 32GB DRAM)	2x P4800X 375GB (750GB)	6x P4510 8TB (48TB)	2x 100/50/25/10GbE QSFP28 (iWARP/RoCe)
VRNCYP2UAF82D	AF-8	2U1N All-Flash ² (Intel Optane, NVMe)	2x Intel Xeon Gold 5317 (12c, 2.8G, 150W)	768GB (24x 32GB)	2x P4800X 375GB (750GB)	6x P4510 4TB (24TB)	2x 100/50/25/10GbE QSFP28 (iWARP/RoCe)
VRNCYP2UAF81D	AF-8	2U1N All-Flash ² (NVMe + NVMe)	2x Intel Xeon Gold 5317 (12c, 2.8G, 150W)	384GB (12x 32GB)	2x P4610 1.6TB (3.2TB)	6x P4510 2TB (12TB)	2x 25/10GbE SFP28 (iWARP/RoCe)
VRNCYP2UAF61D	AF-6	2U1N All-Flash ² (NVMe + SATA)	2x Intel® Xeon® Silver 4310 (12c, 2.1G, 120W)	256GB (8 x 32GB)	2x P4610 1.6TB (3.2TB)	6x S4510 1.92TB (11.52TB)	2x 25/10GbE SFP28 (iWARP/RoCe)
VRNCYP2UAF61S	AF-6	2U1N All-Flash ² (NVMe + SATA)	1x Intel Xeon Gold 5318Y (24c, 2.1G, 165W)	256GB (8 x 32GB)	2x P4610 1.6TB (3.2TB)	6x S4510 1.92TB (11.52TB)	2x 25/10GbE SFP28 (iWARP/RoCe)
VRNCYP2UAF41D	AF-4	2U1N All-Flash ² (SATA+ SATA)	2x Intel Xeon Silver 4310 (12c, 2.1G, 120W)	128GB (4 x 32GB)	1x P4610 960GB (960GB)	2x S4510 1.92TB (3.84TB)	2x 25/10GbE SFP28 (iWARP/RoCe)
VRNCYP2UAF41S	AF-4	2U1N All-Flash ² (SATA+ SATA)	1x Intel Xeon Silver 4316 (20c, 2.3G, 150W)	128GB (4 x 32GB)	1x P4610 960GB (960GB)	2x S4510 1.92TB (3.84TB)	2x 25/10GbE SFP28 (iWARP/RoCe)
2U, 1 Node - Intel® Server System M50CYP2URXXX							
VRNCYP2UHY61D	HY-6	2U1N Hybrid ¹ (NVMe + SAS)	2x Intel Xeon Silver 4310 (12c, 2.1G, 120W)	256GB (8 x 32GB)	2x P4610 1.6TB (3.2TB)	6x SAS HDD 2TB (12TB)	2x 25/10GbE SFP28 (iWARP/RoCe)
VRNCYP2UHY61S	HY-6	2U1N Hybrid ¹ (NVMe + SAS)	1x Intel Xeon Silver 4316 (20c, 2.3G, 150W)	256GB (8 x 32GB)	2x P4610 1.6TB (3.2TB)	6x SAS HDD 2TB (12TB)	2x 25/10GbE SFP28 (iWARP/RoCe)
VRNCYP2UHY41D	HY-4	2U1N Hybrid ¹ (SATA + SAS)	2x Intel Xeon Silver 4309Y (8c, 2.8G, 105W)	128GB (4 x 32GB)	1x S4610 960GB (960GB)	2x SAS HDD 2TB (4TB)	2x 25/10GbE SFP28 (iWARP/RoCe)
VRNCYP2UHY41S	HY-4	2U1N Hybrid ¹ (SATA + SAS)	1x Intel Xeon Silver 4314 (16c, 2.4G, 135W)	128GB (4 x 32GB)	1x S4610 960GB (960GB)	2x SAS HDD 2TB (4TB)	2x 25/10GbE SFP28 (iWARP/RoCe)
1U, 1 Node All-Flash - Intel® Server System M50CYP1UR2XX							
VRNCYP1UAF61D	AF-6	1U1N All-Flash ² (Intel® Optane™, NVMe)	2x Intel® Xeon® Silver 4310 (12c, 2.1G, 120W)	256GB (8 x 32GB)	2x P4800X 375GB (750GB)	6x P4510 2TB (12TB)	2x 25/10GbE SFP28 (iWARP/RoCE)
VRNCYP1UAF42D	AF-4	1U1N All-Flash ² (NVMe + SATA)	2x Intel® Xeon® Silver 4310 (12c, 2.1G, 120W)	128GB (4 x 32GB)	1x P4610 1.6TB (1.6TB)	4x S4510 1.92TB (7.68TB)	2x 25/10GbE SFP28 (iWARP/RoCE)
VRNCYP1UAF42S	AF-4	1U1N All-Flash ² (NVMe + SATA)	1x Intel® Xeon® Silver 4316 (20c, 2.3G, 150W)	128GB (4 x 32GB)	1x P4610 1.6TB (1.6TB)	4x S4510 1.92TB (7.68TB)	2x 25/10GbE SFP28 (iWARP/RoCE)
VRNCYP1UAF41D	AF-4	1U1N All-Flash ² (SATA+ SATA)	2x Intel® Xeon® Silver 4310 (12c, 2.1G, 120W)	256GB (4 x 32GB)	1x S4610 960GB (960GB)	2x S4510 1.92TB (3.84TB)	2x 25/10GbE SFP28 (iWARP/RoCE)
VRNCYP1UAF41S	AF-4	1U1N All-Flash ² (SATA+ SATA)	1x Intel® Xeon® Silver 4316 (20c, 2.3G, 150W)	128GB (4 x 32GB)	1x S4610 960GB (960GB)	2x S4510 1.92TB (3.84TB)	2x 25/10GbE SFP28 (iWARP/RoCE)

1. Third-party software stack and hard drive NOT included. 2. Third-party software stack NOT included. 3. Contact VMware for official policy/support of Optane PMEM with vSAN.



Intel® Data Center Blocks for Cloud - VMware

All-Flash (AF) and Hybrid (HY) system SKUs based on VMware vSAN-defined profiles available with 2nd generation Intel® Xeon® Scalable processors.

Intel Product Code ³	vSAN Profile	Form Factor	2nd Gen Intel® Xeon® Scalable processor	Memory (per node)	Cache (per node)	Capacity (per node)	LAN (per node)
2U, 1 Node - Intel® Server System R2208WFOZS							
VRN2208WFAF84R ³	AF-8	2U1N All-Flash ² (Intel® Optane™, NVMe, PMEM)	Intel® Xeon® Gold 6230 (20c, 2.1G, 125W)	1TB (8x 128GB PMM + 12x 32GB DRAM)	4x P4800X 375GB (1.5TB)	12x P4510 2TB (24TB)	4x 10GbE SFP+ (Intel/iRDMA)
VRN2208WFAF83R	AF-8	2U1N All-Flash ² (Intel Optane, NVMe)	Intel Xeon Gold 6230 (20c, 2.1G, 125W)	512GB (16x 32GB)	4x P4800X 375GB (1.5TB)	12x P4510 2TB (24TB)	4x 10GbE SFP+ (iWARP)
VRN2208WFAF82R	AF-8	2U1N All-Flash ² (Intel Optane, NVMe)	Intel Xeon Gold 5218 (16c, 2.3G, 125W)	384GB (12x 32GB)	2x P4800X 375GB (750GB)	6x P4510 2TB (12TB)	4x 10GbE SFP+ (iWARP)
VRN2208WFAF81R	AF-8	2U1N All-Flash ² (Intel Optane, SATA)	Intel Xeon Gold 5218 (16c, 2.3G, 125W)	384GB (12x 32GB)	2x P4800X 375GB (750GB)	6x S4510 1.92TB (11.5TB)	2x 10GbE SFP+ (iWARP)
VRN2208WFAF61R	AF-6	2U1N All-Flash ² (Intel Optane, SATA)	Intel Xeon Gold 5218 (16c, 2.3G, 125W)	256GB (8x 32GB)	2x P4800X 375GB (750GB)	6x S4510 1.92TB (11.5TB)	2x 10GbE SFP+ (iWARP)
VRN2208WFAF41R	AF4	2U1N All-Flash ² (Intel Optane, SATA)	Intel Xeon Gold 5215 (10c, 2.5G, 85W)	128GB (4x 32GB)	1x P4800X 375GB (375GB)	4x S4510 1.92TB (7.68TB)	2x 10GbE SFP+ (iWARP)
VRN2208WFHY6R	HY-6	2U1N Hybrid ¹ (SATA, SAS)	Intel Xeon Gold 5215 (10c, 2.5G, 85W)	256GB (8x 32GB)	2x S4610 960GB (1.92TB)	6x SAS HDD 2TB (12TB)	2x 10GbE SFP+ (iWARP)
2U, Nodes - Intel® Server Board S2600BPS with Intel® Server Chassis H2224XXLR3							
VRN2224BPAF6R	AF-6	2U4N All-Flash ² (Intel Optane, SATA)	Intel Xeon Gold 5218 (16c, 2.3G, 125W)	256GB (8x 32GB)	1x P4800X 375GB (375GB)	5x S4510 1.92TB (9.6TB)	2x 10GbE SFP+ (iWARP)
VRN2224BPHY6R	HY-6	2U4N Hybrid ¹ (SATA, SAS)	Intel Xeon Gold 5215 (10c, 2.5G, 85W)	256GB (8x 32GB)	2x S4610 960GB (1.92TB)	4x SAS HDD 2TB (8TB)	2x 10GbE SFP+ (iWARP)
VRN2224BPHY4R	HY-4	2U4N Hybrid ¹ (SATA, SAS)	Intel Xeon Gold 5215 (10c, 2.5G, 85W)	128GB (4x 32GB)	1x S4610 960GB (960B)	4x SAS HDD 1TB (4TB)	2x 10GbE SFP+ (iWARP)

1. Third-party software stack and hard drive NOT included. 2. Third-party software stack NOT included. 3. Contact VMware for official policy/support of Optane PMEM with vSAN.



1. See claim [125] at www.intel.com/3gen-xeon-config. Results may vary.

Performance varies by use, configuration and other factors. Learn more at www.Intel.com/PerformanceIndex.

Performance results are based on testing as of dates shown in configurations and may not reflect all publicly available updates. See backup for configuration details. No product or component can be absolutely secure. Your costs and results may vary. Intel technologies may require enabled hardware, software or service activation.

© Intel Corporation. Intel, the Intel logo, and other Intel marks are trademarks of Intel Corporation or its subsidiaries. Other names and brands may be claimed as the property of others.