dataOn™

DataON TracSystem S2D Family Hyper-Converged Cluster Appliances

Datasheet

Windows Server 2016

Certified

Features:

- High Performance Leverages all-flash NVMe SSDs to achieve over 3.2M IOPS in a 4-node cluster.
- Supports More VMs Supports 40+ Hyper-V VMs per nodes, with up to 16 nodes per cluster.
- Highly Scalable Delivers compute, networking and storage resources with near-linear scalability.
- Easy to Deploy Deploys easily with simple, out-of-the-box installation.
- Easy to Manage Includes pre-installed DataON MUST[™] software for infrastructure visibility and management.

Hyper-Converged Storage & compute with Storage Spaces Direct					
Hyper-V VMs 💿 🐑 🐑					
Cluster share volumes ReFS file system					
Virtual Disks					
Storage Pools 9 9 9 9					
Software Storage Bus					

DataON TracSystem S2D Family of Hyper-Converged Cluster Appliances

The DataON TracSystem S2D family of hyper-converged cluster appliances (HCCAs) provides scale-out and scale-up infrastructure and management services for deploying Microsoft Windows Server 2016. It incorporates core software-defined services for compute, networking and storage as specified by Microsoft Storage Spaces Direct to create a next-generation software-defined data center (SDDC).

The TracSystem S2D family is certified by Microsoft to seamlessly deploy with Microsoft Windows Server 2016. It provides the core principles of hyper-converged systems: a scale-out hyper-converged cluster, integrated software-defined services, and complete visibility and management of the storage infrastructure. The S2D family has also achieved Windows Server Software-Defined (WSSD) Certification. This ensures that it follows Microsoft's requirements and best practices for seamless deployments and steady-state operational experience on validated hardware.

Optimized for Performance, Density, & Capacity with Windows Server 2016 Storage Spaces Direct

The DataON TracSystem S2D family is built to optimize the full stack of Storage Spaces Direct, a feature in Windows Server 2016. It delivers industry-leading performance for the most affordable price, providing software-defined, shared-nothing storage. Windows Server 2016 can be used for hyper-converged deployments, where compute and storage are both on the same cluster, simplifying configuration and reducing hardware costs. Storage Spaces Direct can scale to up to 16 servers and over 400 drives, for up to 1 petabyte of storage per cluster. It also unlocks a new class of NVMe solid-state storage devices, for faster performance than SAS SSDs.

- Intel[®] Xeon[®] Scalable Processors with Intel C620 chipsets and NVMe Express (NVMe) – Leverages the latest technology to deliver incredible performance and responsiveness, with greater VM density.
- **Preconfigured 4-node HCCA Clusters** Scalable to up to 16 nodes, to provide expanded capacity and operational flexibility.
- Industry-Leading Application Performance Provides over 3.2M IOPS performance (running VM Fleet) using the all-flash NVMe SSD technology to scale IOPS-intensive workloads.
- Breakthrough performance and dramatically reduced disk latency Intel® Optane[™] SSDs that are NVMe-based are available for the fast cache tier.
- **Hyper-V Virtualization Hosting** Supports more than 40 Hyper-V virtual machines per node, with up to 16 nodes per cluster.
- **Storage and Networking with SMB3 over RDMA** Increases CPU efficiency while delivering the lowest network latency and 2x throughput compared to TCP/IP.
- Hyper-Converged Scalability Delivers incremental compute, networking, and storage resources while providing near-linear scalability. Each HCCA can be expanded via 12GB/s SAS JBODs.
- Automated Out-of-the-box Deployment Accelerates time to deployment for Windows Server 2016 Storage Spaces Direct and Storage Replica environments.
- Integrated Data Protection and Guarded Fabric Supports Windows Server 2016 with Shielded VM and TPM 2.0 trusted attestation for security and business continuity.

DataON TracSystem S2D Family Specifications

Compute, storage, and memory (per node)

	S2D-5208i*	S2D-5212i	S2D-5224i	S2D-5240i	
Profile	All-Flash/Hybrid Balanced IOPS & Capacity Optimized	Hybrid Performance & Cost Optimized	All-NVMe/All-Flash IOPS & Performance Optimized	All-Flash IOPS & Density Optimized	
Form Factor	2U / 1-Node Rack with 8x 2.5" Bays	2U / 1-Node Rack with 12x 3.5" Bays	2U / 1-Node Rack with 24x 2.5" Bays	2U / 4-Node Rack with 24x 2.5" Bays	
Drive Bay Config 1	4x NVMe U.2 + 24/60-Bay JBOD	2x NVMe U.2 + 10x SAS/SATA	24x NVMe U.2	8x NVMe U.2 + 16x SAS/SATA	
Drive Bay Config 2	24/60-Bay JBOD		4x NVMe U.2 + 20x SAS/SATA or 4x Intel Optane + 20x NVMe		
Scalability	4 to 16 Nodes per Cluster				
Processor	Intel [®] Xeon [®] Scalable Processor with Intel C620 Chipsets				
CPU Cores	Dual Socket, 16 to 44 Cores Per Node				
Memory / Slots	128GB to 1.5TB per node, 24 DIMM slots	128GB to 1.5TB per node, 24 DIMM slots	128GB to 1.5TB per node, 24 DIMM slots	128GB to 1.0TB per node, 16 DIMM slots	
Cache Tier	Intel Optane™ or NVMe SSDs				
Capacity Tier	SATA HDDs (in external JBOD)	SATA SSDs & SAS HDDs	NVMe or SATA SSDs	SATA SSDs	
PCIe 3.0 Slots	6x PCle 3.0 x8	6x PCle 3.0 x8	6x PCle 3.0 x8	1x PCIe 3.0 x16	
Onboard NIC	2x 10GbE RJ45				
Networking	2x 10GbE SFP+ or 2x 40/100GbE RDMA QSFP				
Software	DataON MUST Visibility, Monitoring, and Management Tool				
Max. TDP	165W	140W	140W	140W	
Power Supplies	Dual 1300W	Dual 1300W	Dual 1300W	Dual 2130W	

Features

• **Dashboard level metrics** through a single pane of glass.

*Connects to JBOD for capacity tier

- System alerts & automated e-mail notifications for hardware failures, configuration issues and resource saturation.
- **Mobile friendly user interface** allows you to monitor your Windows Storage deployments when you're out of the office.
- Pre-configured with DataON hyper-converged solutions at no extra charge.



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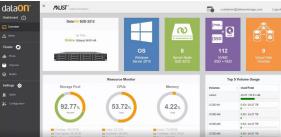
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DataON MUST— Infrastructure Visibility and Management for Windows Server 2016

Every DataON S2D HCCA is pre-configured with our exclusive MUST (Management Utility Software Tool) visibility, monitoring, and management tool to provide SAN-like storage monitoring features.

Leveraging the Windows Health Service API, MUST can provide visibility at the system level as well as the storage cluster/volume/node levels. Its dashboard view gives you operational visibility of system analytics, infrastructure health, storage system metrics, and even logging insights.

With system alerts based on Windows Health Service faults and SAN-like call home services, MUST can notify system administrators of hardware failures, configuration issues, and resource saturation.



About DataON

DataON[™] is the industry leading provider of hyper-converged cluster appliances (HCCA) and storage systems optimized for Microsoft[®] Windows Server environments. Our solutions are built with the single purpose of rapidly and seamlessly deploying Microsoft applications, virtualization, data protection, and hybrid cloud services. Our company is focused on customers who have made the "Microsoft choice" and we provide the ultimate platform for the Microsoft software-defined data center (SDDC). DataON is a division of Area Electronics Systems, Inc.