

# Kepler-47 2-Node Hyper-Converged Appliances

Windows Server 2016 Storage Spaces Direct





### **Highlights:**

- Designed for smaller
  deployments Delivers the
  simplicity and cost-savings of
  hyper-converged data center for
  ROBO, edge and IoT environments
  in a single 2-node cluster.
- High Performance Utilizes either all-flash or hybrid storage to accelerate workload performance.
- Low-cost, high-speed networking Leverages Intel Thunderbolt technology to eliminate the need for costly network adapters and switches.
- Small Form Factor Saves space with a footprint more than 50% smaller than a standard 2U rack server.
- Easy to Manage Utilizes
  DataON's exclusive MUST software
  for infrastructure visibility,
  monitoring and management

### **DataON Kepler-47 Family of 2-Node Hyper-Converged Appliances**

Project Kepler-47 was a concept from Microsoft's Windows Server team. Their goal was to bring the software-defined data center features of Windows Server 2016 to remote office/branch office (ROBO), edge computing, and Internet of Things (IoT) environments. While these deployments share the same need for high availability for mission-critical apps and reliable storage, enterprise customers are looking for lower cost options.

## DataON Kepler-47 – Optimized for Cost and Size with Windows Server 2016 Storage Spaces Direct

The DataON Kepler-47 is the first 2-node hyper-converged appliance for Windows Server 2016 Storage Spaces Direct to market. It is a low cost and small-sized hyper-converged platform designed with integrated compute, network and storage infrastructure with near-linear scalability to simplify and maximize the deployment of Microsoft applications, virtualization, data protection and hybrid cloud services.

This solution can achieve over 200K IOPS and combines high-performance NVMe SSDs with your choice of all-flash or hybrid storage to maximize performance and capacity. This appliance runs on the Cluster Shared Volumes Resilient File System (ReFC) to maximize data availability, deliver high resiliency, and improve data integrity across scale-out file server (SoFS) and software storage and networking hardware.

The DataON Kepler-47 uses Intel Thunderbolt™ 3 over a USB Type-C connector instead of using traditional Ethernet networking between the servers. This eliminates the need for costly high-speed network adapters and switches. Thunderbolt 3 provides up to 40 Gb/s throughput – plenty for replicating storage and live migration of virtual machines.

#### **Microsoft Windows Server 2016 Certification**

The DataON Kepler-47 has been tested and certified with Windows Server 2016 and to be part of Microsoft's WSSD program. These certifications help ensure that customers have a seamless deployment and steady-state operational experience. Customer should have greater confidence with a DataON Kepler-47 solution that follows Microsoft's requirements and best practices for a software-defined data center.

- Simple 2-node hyper-converged appliance Provides high availability and storage for enterprise applications with over 10TB usable capacity in a mirrored configuration.
- **Hyper-V virtualization hosting** Supports more than 40 Hyper-V virtual machines per HCI deployment.
- Low-cost, high-speed networking Leverages Intel Thunderbolt technology to eliminate the need for costly network adapters and switches
- Small Form Factor Saves space with a footprint more than 50% smaller than a standard 2U rack server
- High Availability and Resiliency The servers form one Windows Server 2016 failover cluster with Cloud Witness as low-cost, low footprint quorum technology.
- Fault Tolerant Uses local drives and leverages Storage Replica with Azure Site Recovery.
- Integrated data protection and guarded fabric Supports Windows Server 2016 with Shielded VM and TPM 2.0 trusted attestation for security and business continuity.





Appliance Node	DataON Kepler-47S	DataON Kepler-47P
Form Factor	Mini Tower	Mini Tower
Processor	(1) Intel® Xeon E3-1230 v6 3.5GHz, max. TDP 72W; 4 cores and 8 threads	(1) Intel® Xeon E3-1230 v6 3.5GHz, max. TDP 72W; 4 cores and 8 threads
Chipset	Intel® C236	Intel® C236
Memory	32GB, up to 64GB DDR4	64GB
OS Storage	(1) 256GB NVMe	(1) 256GB NVMe
Storage Drives	(2) 240GB SSD, (6) 2TB HDD	(2) 240GB SSD, (6) 1.6TB SSD
Usable Storage	10TB (Mirrored)	8TB (Mirrored)
Expansion Slots	(1) Intel® Dual-port Thunderbolt™ 3 or (1) 10GbE adapter	(1) Intel® Dual-port Thunderbolt™ 3 or (1) 10GbE adapter
Power & Cooling	(1) 350W power supply	(1) 350W power supply
Networking	(2) 1Gb Ethernet	(2) 1Gb Ethernet
ТРМ	TPM 2.0	TPM 2.0
Appliance Profile	Hybrid Storage	All Flash
Scale for Cluster	Two nodes per cluster	Two nodes per cluster
Management	DataON MUST visibility, management and monitoring software	DataON MUST visibility, management and monitoring software

#### **Features:**

- Dashboard level metrics through a single pane of glass.
- 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.

## DataON MUST— Infrastructure Visibility and Management for Windows Server 2016

The DataON TracServer solutions are integrated with DataON's exclusive MUST visibility and management tool to provide SAN-like storage monitoring features for customers deploying Windows Server software-defined solutions.

Leveraging the Windows Health Service API, MUST provides visibility to system-level information and storage cluster / volume / node-level utilization. It also gives you a dashboard-level view of your cluster, with operational visibility of system analytics, infrastructure health management, storage systems metrics, and event logging insights.

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

DataON is the first to market with a management tool that provides monitoring for Windows Storage















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#### **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 exclusively 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.