

Hydrogen 100

100Gbps Data Transfer Node



Science DMZ is an element of network security architecture which is provided specially external-facing high-performance science services – exchange data with outside world. In Science DMS, data transfer node (DTN) is used for wide area data transfer. The major challenge of DTN is to have high-speed network interface and to transfer intensive data to the WAN.

2CRSI has working with several universities who is collaborated with US DOE and ESnet such as Caltech, University of Michigan, Northwestern university... Hydrogen 100 is the server that optimized the performance of data transferring for Science DMZ. With Intel 100GbE network interface card, Hydrogen 100 can reach 100Gb/s workflow and data transferring in Science DMZ. Hydrogen 100 is supported Intel dual sockets E5-2600 V3/V4 family processors, DDR4 2400 memory modules up to 12 DIMMs, and 10 x 2.5" hot-swappable NVMe disks.

Combined with Intel NVMe SSD DC P3700 serie, Hydrogen 100 benefits from a storage solution adapted to the workloads required by the DTN market. The NVMe technology allows the disks to be in tune with network high transfer capability. With a capacity of up to 460k IOPS for random reading, the NVMe DC P3700 SSD delivers exceptional transfer speed, essential for Data Intensive Science and other applications requiring rapid transfer of Big Data.

2CRSI offers tailor-made servers and storage solutions for many types of industries. Our experience & skills in high-performance solutions are the best way to enhance your business with significant cost-effectiveness..

KEY BENEFITS

ULTRA DENSE CHASSIS

2CRSI Hydrogen 40 is design for optimal performance and power efficiency, in a very compact 1U enclosure. It can centralizes up to 20TB of NVMe storage with hot-swaps drives (dependng of the NVMe drives).

SSDs POWERED BY INTEL® - OPTIMIZED DATACENTER ENDURANCE

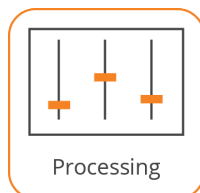
Intel® SSDs are known industry wide for quality and reliability. These drives are engineered to reduce downtime and Total Cost of Ownership (TCO). The Intel SSDs DC Family are analyzed in more than 5.000 unique tests and are fully supported with Intel's 5-year limited warranty and customer support.

AN INSANELY FAST FUTUR WITH SSD NVMe TECHNOLOGY

NVMe Drives are specially designed to take advantage of the unique properties of pipeline-rich, randomaccess, memory-based storage and can boost entire systems. Thanks to NVMe technology, you will be able to reach on oneNVMe, the speeds of 2800MB/s and have 90k IOPS in each sequential read, almost 3 times more than an traditional SSD.



APPLICATIONS



PRODUCT VIEW



HARDWARE SPECIFICATIONS

Form Factor	1U Rack Mount Chassis
Dimension	19" x 31" x 1.75"
Processor	Up to 2x Intel® Xeon® E5-2600 v4 Family
Memory	Up to 12x DDR4
Storage	10x 2,5" NVMe Hot Swap Drive 2x 2.5 SATA Internal Drive
Power Supply	850W Redundant
Network	100GbE QSFP NIC
Fans	6x 40mm x 40mm x 56mm Hot swap modules
Operating Systems	Windows, Linux
Warranty	3 years

Intel® SSD DC P3520 Series

Capacity	From 450GB to 2TB
Interface	PCIe NVMe 3.0
Random Read	Up to 145k IOPS
Random Write	Up to 19k IOPS
Endurance Rating (Lifetime Writes)	Up to 590 TB Written
Sequential Read	Up to 1200MB/s
Sequential Write	Up to 600MB/s
Power - Active	4W

* One MB is equal to one million bytes, one GB is equal to one billion bytes, one TB equals 1,000GB (one trillion bytes) and one PB equals 1,000TB when referring to storage capacity. Usable capacity will vary from the raw capacity due to object storage methodologies and other factors.

For further information please contact your 2CRSI representative:



North America
+1 (541) 231-4455
<http://2crsi.com>

France/Europe
+33 (0)3 68 41 10 60
<http://2crsi.fr>

Middle East
+971 50 52 56 093
<http://2crsi.com>

