

D2-QIT 10GbE iSCSI-6G SAS High Availability Systems

Opstag storage systems are designed for high availability, non-stop and mission critical services, applications demanding high IOPS / throughput, and flexible storage planning with cost effectiveness for small and medium enterprises solutions.



Highlights

1. Fully redundant & hot pluggable designs: RAID controllers, power supplies, fan modules, battery backup modules, & JBOD expansion.
2. Two (2) 10GbE iSCSI ports & Two (2) iSCSI ports per controller.
3. Hardware iSCSI offload engine
4. Green storage designs: auto disk spin down, advanced cooling mechanism, & 80 PLUS energy-efficient power supplies.
5. Advanced data protection: RAID6, 60, writeable snapshot, Windows VSS support. TR replica remote replication, volume cloning
6. Flexible volume management for multiple application & environments: (VMWare, Hyper-V, Citrix support), cloud, storage, SQL, Exchange, Surveillance, file backup, email, boot from SAN, & etc.
7. High connection availability: load balancing & failover.
8. Extendable capacity up to 192 hard drives

High Availability

D2-QIT 10GbE iSCSI system is specially designed for high availability applications. The D2-QIT has fully redundant components including redundant RAID controllers, power supplies, fan modules, battery backup modules and SAS JBOD expansion ports. All of these components are hot-swappable to create a high availability platform and provide non-stop services. Special features in firmware are RAID 6, 60 support, Opstag writable snapshot, Windows VSS support, volume cloning, QReplica remote replication, and volume configuration restoration. All these features are designed to add an extra layer of protection to your valuable data. To raise the bar higher, D2-QIT can upgrade firmware without system down time. Both firmware image and volume handling are well protected by the redundant RAID controllers. When one RAID controller is down or disconnected, the other RAID controller will take over all tasks immediately and seamlessly.

Applications

The optimized IOPS and throughput are capable of providing run-time critical online services, such as Cloud storage, SQL, Exchange, and high-end surveillance storages. Furthermore, with the 10GbE iSCSI interface, D2-QIT is ideal for virtualization environments - VMWare, Hyper-V, and Citrix. Users can install up to 128 OSes in the 10GbE iSCSI system through the Boot-from-SAN feature. With this feature, the multiple OSes/Servers can be managed easily and well protected by Opstag's advanced data protection features, and there will be no system downtime caused by single point of failure.

Outstanding Performance

The D2-QIT's powerful RAID controllers provide much higher IOPS and throughput than other storage systems within the same segment in the current market. The D2-QIT can minimize your cost and optimize your investment, simplify storage planning, and integrate more applications.

Green

All D2-QIT system has Opstag default power saving feature. In most cases, the hard drives consume most power. With the auto disk spin down feature and proper configuration, the power consumption of hard drives can be reduced to a minimum, and users will not even notice this feature. D2-QIT monitors the environment temperature for cooling mechanism and the fan modules respond accordingly. The power supply modules are all 80 PLUS power efficient for better power converting rate. In virtue of the reduction of hard drive power consumption, the advanced cooling mechanism, and the energy-efficient power supplies, we can use energy more efficiently and reduce unnecessary carbon footprint.

Default Built-In Data Protection Features

The D2-QIT systems are built-in with Opstag's highly reliable data protection features, from writeable snapshot, volume cloning, to remote replication. Your valuable data can be easily safeguarded and synchronized locally and remotely. In case of accidents, data corruption, virus, and even disasters, the services and applications can be recovered in a very short time.

Ordering Information

Controller Configuration

| | | | |
|--------------|--------------|-------------|--------------------|
| D2-QIT-316D, | D2-QIT-424D, | D2-QIT-224D | Dual controllers* |
| D2-QIT-316C, | D2-QIT-424C, | D2-QIT-224C | Single controller* |

Optional Components

6G MUX Board | SATA drivers support 8GB RAM | 8GB RAM support
TR replica license

Hardware Components

| | D2-QIT-424D D2-QIT-424C | D2-QIT-316D D2-QIT-316C | D2-QIT-224D D2-QIT-224C |
|---------------------------------------|--|--|---|
| RAID Controller | Dual Controllers Single Controller | Dual Controllers Single controller | Dual Controllers Single controller |
| No. of Host Channels Per Controller | 2 x 10Gb/s iSCSI (SFP+) 2 x 1Gb/s iSCSI (RJ45) | 2 x 10Gb/s iSCSI (SFP+) 2 x 1Gb/s iSCSI (RJ45) | 2 x 10Gb/s iSCSI (SFP+) 2 x 1Gb/s iSCSI (RJ45) |
| Expansion Enclosure | D1-Q.B series | D1-Q.B series | D1-Q.B series |
| Cache Memory Per Controller | 4GB with battery backup for 72 hours protection. Up to 8GB | 4GB with battery backup for 72 hours protection. Up to 8GB | 4GB with battery backup for 72 hours protection. Up to 8GB |
| No. of Hard Drives (8Gb/s SAS & SATA) | 24 x 3.5" | 16 x 3.5" | 24 x 2.5" |
| Max. no. of hard drives | 192 | 192 | 192 |
| Power Supply | 3 x 500W | 2 x 500W | 2 x 500W |
| Fan | 2 | 2 | 2 |
| Dimensions | 4U 19" Rackmount 422.8mm x 500.6mm x 176.0mm (W x D x H) | 3U 19" Rackmount 422.8mm x 500.6mm x 130.0mm (W x D x H) | 2U 19" Rackmount 448.0mm x 500.6mm x 88.0mm (W x D x H) |

Feature Highlights

| | |
|--|--|
| Green | <ul style="list-style-type: none"> Auto disk spin down Advanced cooling mechanism 80 PLUS energy-efficient power supplies |
| Host Interfaces: 10 Gb iSCSI GbE iSCSI | <ul style="list-style-type: none"> Hardware iSCSI offload engine Jumbo frame Header/Data digest CHAP authentication Virtual LAN Role based access control/Active directory Up to 128 multiple nodes support Up to 128 hosts support Up to 1024 sessions per controller |
| Raid & Volume | <ul style="list-style-type: none"> RAID level 0,1,0+1,3,5,6,10,30,50, JBOD, N-way mirror Up to 1024 logical volumes Up to 32 hard drives per volume group Once logical volume can be shared by as many as 16 hosts Global and dedicated hot spare Write-through or write-back cache policy Online volume expansion Instant RAID Volume availability Auto volume rebuilding On-line volume migration without system down time |
| High Availability | <ul style="list-style-type: none"> Dual active RAID controller Cache mirroring through high bandwidth channels Flexible RAID group ownership management Management port seamless take-over Online firmware upgrade, no system down time Multi-path & load-balancing support (Microsoft MPIO, MC/S, Trunking, LACP) |
| Advanced Data Protection | <ul style="list-style-type: none"> OPSLAG's writable snapshot Microsoft Windows Volume Shadow Copy Services (VSS) Configurable N-way mirror Instant volume configuration restoration Hot pluggable battery backup module (BBM) |
| Management | LCM; Serial console; SSH telnet; HTTP Web UI; Secured Web (HTTPS); S.E.S. |
| Notification | Email; SNMP trap; Browser pop-up windows; Syslog; Windows Messenger |
| OS Support | Windows; Linux; Solaris; Mac |
| Virtualization | VMWare; Hyper-V; Citrix |
| Warranty | System: One year, Battery backup module: One year |

Requirements

| | |
|-----------------------|---|
| AC Output | 100-240V ~ 7A 4A 500W with PFC (Auto Switching) |
| DC Output | 3.3V 25A; 5V 32A; 12V 40A |
| Operating Temperature | 0 to 40°C |
| Relative Humidity | 5% to 95% non-condensing |

Tyrone™



facebook.com/tyronesystems
twitter.com/tyronesystems
linkedin.com/company/tyrone-systems

Let's Talk

Press Inquiries
Email: info@tyronesystems.com

Support Inquiries
Email: tyronecare@tyronesystems.com

Partner Inquiries
Email: info@tyronesystems.com