



to the storage

Primary storage for demanding applications

Simple to integrate virtualised storage



eco-aware storage
up to 70% less power

Leading Scalability:
from 4TB to 48TB in a 4U solution
with future expansion options

Flexible connectivity:
iSCSI 2 x 1Gb default
expandable to 4 x 10Gb iSCSI
Optional 8Gb Fibre (up to 4 x 8Gb)

Simultaneous use of SAS and SATA
including support for latest 600GB
SAS, 2TB SATA and SSD drives

Powerful virtualisation
including multiple pool support
for ease of use & seamless expansion

Tape passthrough
bridges SAS tape libraries to the
iSCSI and fibre SAN for ease of use



Creating data is at the heart of all our businesses today, whether a small company or large enterprise it is data which fuels our growth, this dependency is the catalyst for our ever increasing need for performance, scalability and resilience. Unfortunately with our budgets constrained our need to carefully balance our investments often leads to a compromise between what we need today and what will serve us well as we grow.

The PR4 is a zero compromise solution which encompasses all the values of Enterprise class storage but with a realistic price tag. Its leading performance and feature set coupled with no hidden licence costs provides an ideal solution to our everyday challenges whilst its future proof scalability delivers market leading return on investment and one less headache to face in the future.

Central to The PR4 is a highly evolved and intelligent storage core which efficiently manages the storage resources without the need for ongoing administration. The design focus was not just to implement leading performance and features, but to deliver them in a simple to use package ensuring that even the most advanced storage manipulation is nothing more than a couple of mouse clicks and requires no advanced knowledge or training, allowing you to focus on creating the data so essential to your business and The PR4 focuses on keeping it safe and available.

Based on the latest 6Gb SAS topology the PR4 offers ultimate performance and allows for the use of Enterprise level 15000RPM and high capacity 7200RPM SATA drives, allowing the solution to be truly configurable to your individual application.

6Gb/s Serial Attached SCSI

Market leading 6Gb SAS topology

adaptive power management
70%
reduced power
lower energy costs and increased reliability



Painless integration and simple network connectivity



Leading performance and bandwidth

The PR4 offers multiple connectivity enabling fast local or SAN connectivity. Simply connect the PR4 to your storage network and within seconds you have a high-performance SAN solution

With iSCSI connections as default you can now implement an affordable and manageable centralised storage solution with the ease of Ethernet.

You can increase the iSCSI bandwidth to over 40Gb by addition of affordable 10Gb iSCSI upgrades in stages which suit your demands. The latest 8Gb fibre is fully supported providing full compatibility with current and future fibre SAN investments.

Scalable to over 40Gb iSCSI bandwidth and leading 8Gb Fibre

Minimising risk with High Availability



No longer is it just the large corporate user that depends upon constant access to their data, today all of us rely on immediate access to our information. Even when we are sleeping our machines are often working for us on the Internet.

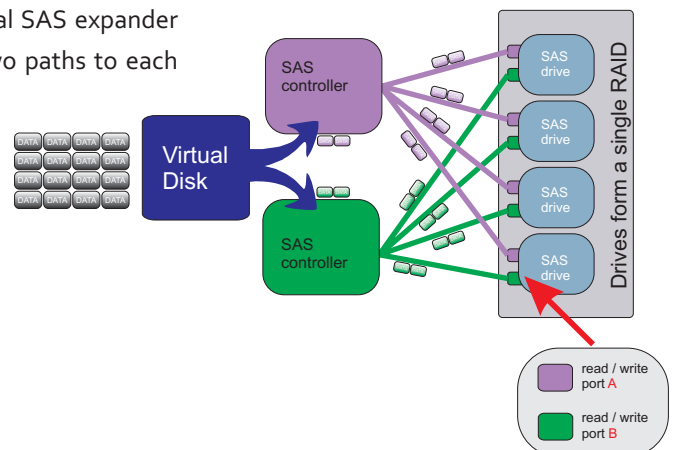
Keeping data continuously available has long been the goal for many organisations and often defined as 'mission critical'. The PR4 now delivers this level of availability and resilience to everyone and without the need for any complex or expensive software.

Port bonding and multi-path IO support: The PR4 also has the ability to transparently balance I/O workload over multiple iSCSI ports, maximising performance and seamlessly dealing with failover situations.

Dual controller

The PR4 primary HA option provides dual controller with dual SAS expander paths providing an added level of resilience by providing two paths to each drive.

SAS drives have two read / write ports which can operate simultaneously or in isolation allowing for increased I/O and failover capabilities. Two controllers actively communicate to each drive via the two ports allowing write or read data to be shared between the two controllers. If one controller or path should fail, data is simply routed through the remaining path.





	PR ₄ - Primary	BK ₄ - Backup	AR ₄ - Archive	IB ₄ - InfiniBand
Capacity per				
• Native (main)	2.4TB – 24TB	4TB-48TB	4TB-48TB	1.8TB – 48TB
• Expansion	Up to 200TB	500TB	500TB	200TB
Drives				
• Drive bays	24	4 / 24	4 / 24	24
• 15K RPM SAS	600GB	-	-	600GB
• 7K2 RPM SAS	1TB	-	-	1TB
• 7K2 RPM SATA	1TB/2TB	1TB / 2TB	1TB / 2TB	1TB/2TB
Connectivity				
• Default	2 x 1Gb iSCSI	2 x 1Gb iSCSI	2 x 1Gb iSCSI	1 x 40Gb (IB _{4s}) 2 x 40Gb (IB _{4p}) 2 x 1Gb iSCSI
• Optional 10Gb iSCSI	2 – 4	2 – 4	2	2 – 4
• Optional 8Gb Fibre	1 – 4	1 – 4	-	1 – 4
• Optional InfiniBand	-	-	-	2 – 6
• Max ports	6	6	4	8
Drive channels	8 / 16 x 6Gb SAS	8 x 3Gb SAS	8 x 3Gb SAS	8 / 16 x 6Gb SAS
Dual Controller	HA Option	-	-	IB _{4p} / HA Option
Dual SAS loop	HA Option	-	-	IB _{4p} / HA Option
Adaptive read	5GB	1U - 1GB	1U - 1GB	5GB IB _{4s}
Write cache		4U -3GB	4U -3GB	11GB IB _{4p}
Presentation				
• iSCSI LUN	Up to 256	Up to 256	Up to 256	Up to 256
• Fibre LUN	Up to 127	Up to 127	-	Up to 127
• InfiniBand SRP	-	-	-	Up to 256
• CIFS / NFS	-	Yes	Yes	-
• VTL	-	6 drives, 500 slots	-	-
Virtualisation				
• Storage Pools	Up to 8	1	1	Up to 16
• Multiple RAID	Yes	Yes	Yes	Yes
Features				
• Replication	Async / Sync	Async / Sync	-	Async / Sync
• Compression (software)	-	Yes Default	-	-
• Compression (hardware)	-	Optional	-	-
• Encryption	-	Optional	-	-
• Clone 2 Tape	-	Optional	-	-
• Spin down SATA drives	Yes	Yes	Yes	Yes