



THE HOTTEST COMPETITION YET AT RACE DAY

Under the sweltering August skies of Bedfordshire, man, woman and machine were pushed to the limits of their endurance at the third annual Exquip Race day. You may remember that brief interlude of scorching weather during the summer that saw temperature records broken? As the mercury rose to almost 100F, a resolute group of about 30 or so people showed the bulldog spirit that would have swelled the heart of Winston Churchill, as they braved the most gruelling conditions simply for the honour of competing. Or so the story goes...

So at this year's "Thank You" to customers for their business to date, it wasn't just the competition that was hot as participants sweated inside and outside the cars that included Lotus Exige, Formula Palmer Audi single seater, Caterham 7 and Vauxhall VX220.

Alongside the various driving experiences, clients enjoyed a "Pit Stop Training Session" to test their wits and tyre changing abilities against the clock. Who made the joke about the clock winning every time?

The long hot day began with breakfast around 7.45am and was well supported and worth the even earlier starts many competitors had had to make to arrive in good time.

The day concluded with afternoon tea and the awards presentation - in which Neil Argent, flying the flag for Reed Business Information, was the overall winner from Exquip MD Roger

Taylor, who triumphed in the FPA Trace category. Jim Bridge also of Reed Business Information finished third overall, winning the Vauxhall VX220 Turbo Class in the process. Winners of the other classes included, Dave Fearn of Air Miles in the Palmer Jaguar JP1 and Neil Argent of Reed Business Information in the Mitsubishi Evo VI. Exquip's own Darrell Arnold won the Renault Clio Cup with Jim Bridge winning the Vauxhall VX220 Turbo Class. The Caterham Superlight Sprint was given to Mark Jackson of QinetiQ and Phil Hooker of Hitachi Data Systems winning the Karting race. Simon Moore of Exquip was reluctantly prised from his Porsche Boxster to win the Vauxhall Fronterra 4x4 class.

Exquip marketing manager Liz Perman was the primary liaison with Palmer Sport and was very impressed with the overall excellent level of organisation. Especially as this event was held on the hottest day of the year! A feeling supported by all the positive feed back she recieved from the attendees, including the now infamous echo of "the most fun you can have with your pants on!"

MD CUTS CORNERS

Fresh from his successful exploits on the Exquip Race Day, Roger Taylor, Exquip's MD took on the Woodpecker Stages of the BTRDA Goldstar Championships.

Driving an Escort MKII, with navigator John Jarrett alongside, Roger took the rough with the smooth to finish a respectable 102nd place in a field of 185 starters. Shaking off the rust of over 12 years inactivity, Roger was extremely pleased to have a clean sheet finish

whetting his appetite for more of the same next year when he plans to compete in the full championship.

NEW FACES AT EXQUIP

Over the last few months the Exquip Team has expanded with new people bringing their special skills into the organisation.

Lianne Jewel has worked in the Customer Service Environment for over five years. She joins Exquip as Sales Co-Ordinator and is rising to the challenge of running our Administration Department like clockwork.

Alison Brown has been active in Telesales and Telemarketing for seven years and since starting has been instrumental in driving campaigns, focussed on areas such as Olympic Support and Storage solutions.

Wendy Springer is the latest recruit to the Exquip marketing team. She joined at the beginning of September from Kalamazoo and will be working closely with Alison in the telemarketing department. She's relishing the challenge of promoting Exquip's integrated IT solutions to a wider audience.

The latest and smallest addition to the Exquip team arrived at around 1.30 am on the 9th August 2003 and weighed in at 6lb 14oz. Hannah Jeffs is the first bundle of joy for Technician Jon and his wife Catherine.



Exquip is an ISO 9001 accredited company.

www.exquip.com



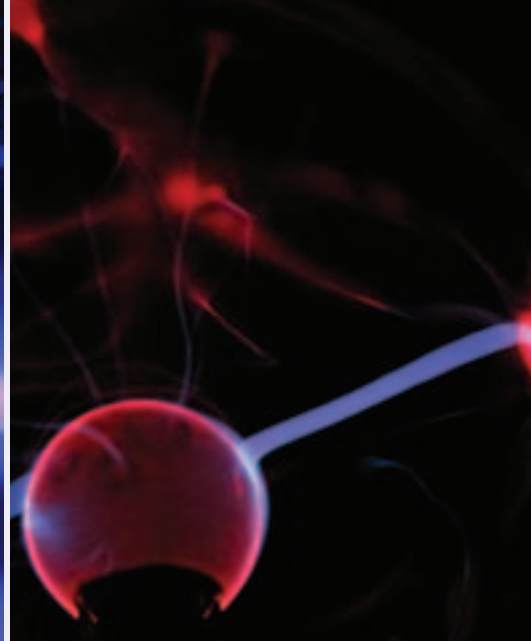
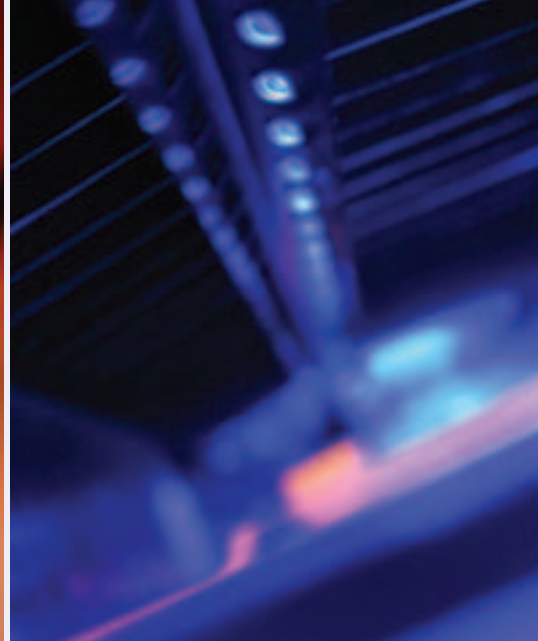
Since Exquip first exhibited at Storage Expo three years ago, the divide in functions that merely facilitated compute and storage activities have developed into a heterogeneous environment from which simple direct attached storage has become a marketing scramble to seize, influence, manage and optimise value-added services for data storage. As the market moves into a dynamic phase of restructuring the role of the independent storage integrator will become even more vital in discerning the technologies that have lasting value.

EXPRESS

The in-house journal of Exquip Network Services Ltd

Summer 2003





VENDOR MERRY-GO-ROUND

●●● Single vendor products versus independent storage integrators.

Roger Taylor, MD at Exquip realises storage is a perennial headache for IT departments. It's one that can be solved by throwing lots of money at it – but few IT directors would be allowed to get away with that approach these days.

Careful investment in rationalising your storage can actually save you money; with utilisation of storage silos dedicated to particular servers or applications often running at well below 50 per cent, virtualising your existing storage to allow spare capacity to be shared can bring huge rewards. In addition, analysts at Butler Group reckon you can save between 15 and 20 per cent of your operational costs through server and storage consolidation. Virtualisation can even turn a cost centre into a profit centre by allowing you, for the first time, to charge business units for their storage use.

Your server vendor will be only too keen to help you tackle your storage needs – but it will only be able to offer a limited number of standard solutions, while there is still a tendency for elements of server vendors' offerings to lock customers into their products. IT directors looking to achieve the best ROI over the long term and to future-proof their infrastructure should rightly be wary of these offerings.

In any case, many organisations already don't have a single server platform, whether as the result of mergers and acquisitions or a consequence of giving different divisions the autonomy to buy best-of-breed solutions. In these cases, it's unlikely a server vendor will be able to provide a solution that can handle all your storage needs.

In contrast, an independent storage integrator will be able to help you evaluate all the different products on the market. They should have a stronger grasp on how well various software and hardware elements support industry standards and which will therefore work successfully with other products – and whether those combinations will offer the right level of scalability, flexibility, performance and cost for your needs.

A good storage integrator should have a very broad range of relationships with hardware and software vendors, giving them a handle on the latest technical developments and on offerings from the smaller and more innovative players.

However, the best storage integrators will offer much more than this.

They will begin with a full storage and server audit, to allow you to identify what data you have, where you are currently holding it, and whether any of it can be archived to cheaper media. This first step will ensure you get the maximum return on your investment by rationalising your storage needs before you spend on new solutions.

As part of the solution selection process, these integrators should be able to bring together the various elements you are looking to combine in a test lab. This will allow them to run a proof-of-concept exercise, to ensure the components will work together, and to benchmark the solution to confirm it provides the necessary capacity and throughput. Trying to co-ordinate this process yourself, especially between vendors who may not have an existing relationship, is a time-consuming task that could easily tie up a senior member of the IT department for several months.

At the end of this process, the top storage integrators should be able to provide you not only with full documentation for a proposed solution which is based on best-of-breed technologies and future-proofed, but also a full business case and ROI to allow you to make your case to the board.

The support shouldn't stop once you've bought your solution. You should look for a partner who will project manage its implementation, co-ordinating the input of the various component vendors and take ownership if integration problems do occur. Again, this reduces the management time you need to spend internally on your storage project and removes much of the traditional risk that each vendor will blame the other if the integration does not proceed smoothly.

Storage projects can offer huge benefits to IT directors – one recent client of ours has a projected ROI of over £1.2 million over three years on an initial investment of less than £700,000. In conclusion organisations should be aiming to raise the bar when choosing independent storage integrators.

●●● HIGH PERFORMANCE ECONOMICAL NAS

Exquip customers seeking a high performance Network Attached Storage file server appliance, may find that Raidtec have the solution with a new range of powerful, expandable, NAS server appliances. The SNAZ E4™, SNAZ E0™ and SNAZ R6™ are specifically aimed at IT departments that need to add non disruptive storage to the LAN simply and economically.

For workgroups and departments of large enterprises, mid-sized businesses and student access in education, they are ideally suited for Inter/Intranet ISP, eCommerce, Web Filer, Departmental File Server, and virtually any Distributed File or Data Sharing Application. With high IOs and high data throughput they are an efficient solution for those who wish to simply and quickly expand their data storage and file serving capacity.

SNAZ E4™ is optimised for workgroup and departmental installations and is available with 320GB, 480GB, 640GB or 1TB of storage capacity and further expansion options through LVD SCSI.

SNAZ E0™ enables customers to leverage their investments in SAN infrastructure, while reaping the benefits of NAS including: simplicity, fast deployment cycles, reduced cost of ownership and heterogeneous file sharing for Windows and Unix clients. A highly optimised file server, it bridges between the Local Area Network (LAN) and the Storage Area Network (SAN).

SNAZ R6™ is a fully integrated six bay Ultra 160 SCSI storage array that features the Raidtec FlashLinux based NAS operating system software. As a high performance, full featured file server for simultaneous support of Windows and Unix/Linux client computers on a LAN, it's available with up to 876GB of internal SCSI storage capacity and further expansion options through LVD SCSI or Fibre Channel.

Each device offers embedded server appliance, RAID fault tolerant support with integrated tape backup software and features 10/100 and Gigabit Ethernet connections to the Network and LVD SCSI for backup devices.

Each have their own unique capabilities and come into their own when eliminating the administration headaches, compatibility challenges, and integration requirements of general purpose servers. Added directly to the network simply and quickly with more features for less cost than general purpose server solutions.

●●● NEXT GENERATION MODULAR STORAGE

Newly announced from Hitachi Data Systems is the arrival of new tools for Data Protection and enhanced interoperability. The Thunder 9580V changes the modular storage market with increased performance and doubled capacity and connectivity. This major shift extends the capabilities of modular storage and allows customers to cost-effectively do more. Josh Krischer, Vice President and Research Director, Gartner, Inc. stated "This will allow enterprises to exploit the benefits of storage consolidation with lower investments."

Built on many of the same technologies as Hitachi Data Systems' other leading storage systems, the Thunder 9580V addresses the real needs of the growing networked storage market:

- Capacity – 64TB of raw capacity, twice that of its nearest competitor
- Performance – 7.4 GigaBytes per second of cached bandwidth, nearly six times that of its nearest competitor
- Connectivity – 1,024 Virtual Storage Ports with secure multi-tenancy, a technology available only from Hitachi giving 2,048 LUNs, four times that of its nearest competitor
- Data Protection & Business Continuity – Hitachi QuickShadow™ copy-on-write snapshot software reduces storage requirements for data protection while Hitachi HiCopy cross-system replication facilitates data movement between Thunder 9500 V Series and Lightning 9900 V Series storage tiers.

Data Protection and Business Continuity

Hitachi QuickShadow copy-on-write snapshot software offers point-in-time copies without requiring a full volume backup. QuickShadow copies only changed data, allowing more frequent restore points for faster resumption of service with minimal storage requirements. With QuickShadow, customers can maintain copies of their data at multiple points-in-time for recovery to any previously saved version.

Hitachi HiCopy cross-system replication software facilitates data movement between Lightning 9900 V Series and Thunder 9500 V Series storage systems. With HiCopy, customers benefit from consolidated backup capabilities and the ability to move data between tiers, either within a data centre or across remote locations. This enables an enterprise-wide, tiered storage strategy manageable through a single interface, the HiCommand® Device Manager.



DATA GROWTH CONTROL

●●● Installing a new, reliable and efficient SAN is a complex business. When LexisNexis UK decided it was time to implement a network that would considerably save on time and management costs, they found Exquip went a step further than most.

With vendor partner Hitachi Data Systems, Exquip installed a 9500 storage array, 2 Overland Neo 400 tape libraries and Computer Associates' Brightstor automated backup software. This centralised solution is set to deliver 100 per cent return on investment (ROI) in one year.

LexisNexis UK is part of the LexisNexis Group, which provides information to legal, corporate, government and academic markets via online, hardcopy print and CD-ROM formats. It is the global legal publishing arm of Reed Elsevier, the Anglo-Dutch world-leading publisher and information provider.

Capacity and backup issues

By May 2003, LexisNexis UK had an IT architecture comprising a large number of different disk arrays and tape devices. This provided the company's storage capacity and backup, and was attached to LexisNexis UK's 300+ Unix and NT servers.

This Direct Attached Storage (DAS) infrastructure, had created a complex and uneconomical architecture that was increasingly difficult to manage and very costly to upgrade. In addition, it presented two major problems for LexisNexis UK, as Mark Wilkinson, Head of IT at LexisNexis UK explains: "On top of the cost and management issues we had, we were fast running out of disk storage space. Given that our data volumes are only ever going to increase, buying extra capacity in piecemeal was not a viable long-term solution. Secondly, with the infrastructure set up we had, full redundancy was not guaranteed, which is a very serious threat to any business that is heavily reliant on the availability and uptime of its online data."

Choosing Exquip

Explaining why LexisNexis UK chose Exquip, Mark Wilkinson says: "With a menagerie of solutions available from a number of vendors, we needed independent advice on what solution to go with. Exquip was top of the list because it helped us identify our true storage needs, whilst ensuring

we found the best solution to fit our budget - a vital factor overlooked by many companies. In addition, Exquip went a step further than most, undertaking benchmarking, proof-of-concept and return on investment studies to prove to us that their proposed solution was the right one."

Identifying the best solution

Following an appraisal of LexisNexis UK needs, Exquip advised on a SAN and automated backup solution. Replicating LexisNexis UK server environment we ran live lab tests on two different disk arrays to evaluate their capabilities, before Hitachi Data Systems' 9500 disk array was chosen. Benchmarking various backup software products against two Overland Neo 400 tape libraries determined the best integrated solution.

Following the decision to go with Hitachi Data Systems' 9500, Exquip and Hitachi worked with LexisNexis UK to commission an independent analysis to produce a return on investment (ROI) study. Evaluating the old environment and its processes, including upgrade costs and the manpower involved in managing it, concluded that after the first 12 months, LexisNexis would save the full cost of the SAN implementation; effectively delivering 100 per cent ROI in the first year.

Opting for a Storage Area Network (SAN)

The final SAN solution, which was project managed by Hitachi Data Systems, consolidated some of LexisNexis UK's Unix and NT servers onto one centralised storage array, providing 8TB of disk space with the potential to grow to 20TB in the next 12 months. The numerous tape devices were replaced and automated backup software was implemented.

Following the successful implementation of this storage project, Reed Business Information, LexisNexis UK's sister company and part of the Reed Elsevier Group, is currently investigating options to implement a SAN across Europe.

EVEN GREATER SELECTION

●●● www.exquip.com undergoes a radical redesign before it's recent relaunch.

Content is King.

At Exquip the intelligent management of IT budgets is at the top of our agenda. Turning cost centres into profit centres is what we're about.

An important part of this commitment is our web presence. So after a great deal of research and hard work Exquip are offering enterprise managers and buyers an even better resource for the provision of IT products and advice.

Newly launched and restyled, exquip.com is a comprehensive site that's easy to navigate with search facilities where you can find what you're looking for in an instant.

Darren Moore, Web Developer at Exquip was largely responsible for the origination of the new site. With input from the sales and marketing team and acting on user feedback, the site was rebuilt over a period of four months. Considering the size of the site, this is no mean achievement! As he puts it. "Although the old site was an excellent portal for Exquip's range of products and services, we felt that the overall design didn't reflect the integrated philosophy of the company and the growth we've achieved over the last couple of years. Content was always going to be the major consideration and a lot of thought and research went into what was important for both our message and what users would want from the site. Once content was finalised, the next hurdle was to establish easy and logical paths through the site."

The newly designed site went live in August and has already had positive reactions from users. In general they appreciate the clearer layout and easier navigation. With a popular section being the team profiles which carry photographs of the Exquip staff.

Darren adds. "As the lynchpin of Exquip's marketing activities it's vital that the content is kept fresh, so updating the site is an ongoing operation. It's imperative the site reflects what is going on in the IT market. A good example is the Storage Expo Exhibition. We've been able to add a lot of information about the exhibition, our stand and our presence there, which is useful for everyone attending, not just those planning to visit the Exquip stand. "



At the Forefront of Storage Provision

The most comprehensive and integrated package of storage solutions and support services available from a single independent source.

Profit from Better Solutions

In-house experience and expertise that delivers effective ROI and excellence from system design through to implementation.

Greater Product Choice

Find what you want quickly and easily. With detailed codes and descriptions, our redesigned product database will help you source even the most obscure piece of kit.

Get the Support You Want.

See at a glance at how Exquip saves business time and money by enabling customers to utilise 3rd party support, whatever the hardware environment.

For the complete integration of your IT storage, solutions, support and products visit www.exquip.com.

CLOVERLEAF - THE INTELLIGENT STORAGE NETWORKING SYSTEM

●●● Taking storage from wherever and whenever it's needed has now become a business reality.

The random addition of IT resources and technology to address the massive growth in the volume of mission critical data pouring into the enterprise environment on a daily basis is no longer a credible business proposition.

Figures from the International Data Corporation (IDC) reckon that the amount of capacity managed per storage administrator must increase by a staggering 60% per year simply to keep pace with the growth of this data deluge.

Government legislation means that some of this data has to be held for years and if lost can have severe repercussions to a business. So implementing virtualisation that delivers real storage-on-demand is probably the most important factor in the business planning and resource assessment of financial and IT directors at the moment.

Following the dollar trail, it's clear that 'in-band' offerings are well ahead of the game compared to 'out-of-band' solutions. For every \$1 invested in 'out-of-band', \$8.5 is being invested in 'in-band' as the industry recognises that to provide a true utility-class environment, storage services management and control is best hosted in the network.

'In-band', deployed as a separate appliance or software ported to a switch platform, has its detractors. They point to scale limitations and latency which undermines application performance and services delivery.

These traditional concerns have now been largely eliminated as innovative architecture is introduced that creates a storage environment where bandwidth can be dynamically allocated and managed.

For storage-on-demand to operate as a profitable functional utility, it requires the automation of many of the manual processes that currently deploy storage services. Compatibility with multi-vendor technologies that can balance and speed up the delivery of those services is vital. As are the security and protection issues that have to be addressed with a system that has to be "always on" to report and monitor network activity. The provider of true storage-on-demand must be able to dynamically allocate storage capacity and performance across the population of users with the flexibility to match needs as they change.

The value to business of this technology lies in the simplification of storage management and the acceleration in the delivery of services. For the service provider the automation of many of the tasks in a discreet project such as: planning; acquisition; testing and management of storage resources offers time and cost savings, while users gain easier and quicker access to any new capacity and online storage services as they become available.



There are a number of solutions that deliver "storage virtualisation" mainly focussing on spanning multiple storage subsystems to present a larger pool of resources to single or multiple related applications. In concentrating on addressing capacity, scaling, performance and service have been largely left to their own devices, resulting in remote islands of data drawn together to be replicated and segmented, which merely perpetuates the storage management problem.

What is required is a networking system that goes beyond just addressing capacity. One that manages multiple, heterogeneous storage devices and can provide a network-centric storage networking system that provides transparent services to any block and/or file application centre on demand therefore extending virtualisation architecture into the bandwidth and services.

With this type of intelligent solution at the network-level, storage islands can be pooled into virtualised heterogeneous devices, scaled to support very large storage configurations up to one petabyte. Single or multiple pools can be created depending on user requirements.

Within these network volumes storage is dynamic. It acquires the flexibility that allows allocation to attached application servers automatically or manually in a seamless, non-disruptive volume expansion. Effectively manufacturing within the network tiered storage classes where different pools can be established on right cost and value parameters appropriate to the enterprise needs and optimising its capital expenditure.

Storage-on-demand that uses capacity from wherever and whenever it is most efficient, is now a business reality. The potential to deliver storage and storage applications as a utility class service is now being realised with an intelligent storage networking system that advances

virtualisation into other dimensions, delivering seamless scalability of capacity, performance and services. Aligned with powerful policy based service level features, the general shape of efficient and reliable platforms for enterprise IT storage management shifts, bringing true strategic leverage for the core business.

Cloverleaf Communications offers a product for the quality management of organisational storage, and has been tested on Sun Microsystems SunFire V240 servers, and on the Solaris Operating Environment - the leading operating system for network servers, forming the basis of Sun's Open Network Environment (Sun ONE).

Cloverleaf began its operations in Elta - part of the IAI (Israel Aircraft Industries) group, and since May 2001 has been operating as an independent company.

The company uses sophisticated technology developed by Elta for the most advanced military systems for its commercial-business environment and offers a storage management product - Cloverleaf Intelligent Storage Networking System, which is installed today in a number of organisations.

Yossi Klein, one of the entrepreneurs of Cloverleaf Communications and the company's Chief Operating officer, says: "In practice, the requirements of the military system are very similar to those of the mid/high end sectors of the business market with regard to storage management. Both require support in a heterogeneous environment, as well as sharing data between different environments and applications. In addition, it is necessary to move a large quantity of data at a relatively fast rate without the system crashing, and naturally it must be possible to scale up in all possible dimensions and load balance between them in line with the rate of developments."

"Our solution was developed in a designated environment at Elta, and Cloverleaf experts integrated those technologies that link it to Sun's generic servers. Our solution combines various elements of security in the world of storage, enables a new Storage Network to be deployed easily, is capable of supporting very large organisations with quantities of up to a petabyte of data and can grow to a bandwidth of up to 8 Gigabytes per second", adds Klein.

The Cloverleaf "Just in Time" policy improves the availability of the storage infrastructure and shortens the data recovery process.

Consolidation of different types of storage from different vendors, linking different networks (Gigabit Ethernet and Fibre Channel) and consolidation of various types of applications (block, file) across GbE and FC is another value of the product. Non-disruptive growth and scalability in all dimensions, in line with the IT requirements development over time adds a lot of flexibility in the decision making process of the Enterprise IT management. Implementing policy based automation in this way, the organisation can supply Quality of Service and SLA level services to their customers and building profit centres, rather than cost centres, enhancing the underlined business performance of the Enterprise. Allowing the IT team to employ their time in forward planning rather than firefighting.

Avi Weiss, CEO of Cloverleaf Communications, says: "We decided to choose the Solaris operating environment, which is the most stable operating system and delivers good performance, and SunFire 280R servers. The fact that it is possible to go over to the SunFire V240 server without disturbance provides Sun with a competitive advantage, allowing us to give customers improved storage services at the same price."

Sun has recently announced Intel-based servers which also make use of the Solaris operating system, affording Cloverleaf additional flexibility and the ability to assimilate the customer's desired solution while offering a choice between a server based on the 64 bit UltraSparc III processor or a 32 bit Intel server.

Zvi Greenblatt, OEM Sales Manager at Sun Israel, says: "The SunFire 280R server provides massive scalability, real-time response, full availability and high speed. The server is built on the 64 bit UltraSparc III processor technology, and is equipped with the exceptionally high-speed SunFire Plane Interconnect. It runs the Solaris operating environment and supplies software at plant level in a compact and convenient package, making it ideal for service suppliers or plant environments in which surplus space is hard to find."

According to Greenblatt, the collaboration with Cloverleaf fulfils the customers' needs with comprehensive and cost/effective solutions, combining Sun's innovation and expertise with the high level capabilities of the Cloverleaf product.

