

The power of innovation, inspiration and excellence

# Advantage

The newsletter of Qcubed – Issue 02

## Get a free virtualisation readiness assessment!

We are delighted to announce that Qcubed is now a reseller of the Lanamark suite of Virtualisation Assessment tools and services. These cover a vast range – for example allowing you to identify the number of desktops and server workloads most suited to virtualisation, or at the other end of the scale to design a virtual infrastructure solution.

Lanamark and Qcubed can help you jump-start your desktop and server virtualisation projects with one of the following services:

### VReady (Free)

• This free virtualisation readiness assessment service enables you to capture application workload and server resource trends, measure data centre utilisation, and determine the age and warranty coverage of existing hardware.



Lanamark VReady allows customers to monitor desktops and servers for up to 10 business days, and then receive a free Lanamark VReady Assessment Report.



Lanamark™

### VReady Assessment Report

This contains the following information:

- **Workloads**  
Windows vs. Linux; Operating systems.
- **Machines**  
Workstations vs. servers; Age and remaining warranty coverage of hardware; Form factor of desktops and servers.
- **Processors**  
Count; Speed; Utilisation.
- **Memory**  
Size; Utilisation.

To accelerate virtualisation projects, customers can then upgrade to an in-depth VAssessment service delivered by Qcubed. Register for VReady by going

to the Qcubed Vready portal.  
<https://www.lanamark.com/Portal/Qcubed/Customers.aspx>

### VAssessment

This is a comprehensive virtualisation assessment service delivered by Qcubed. It helps you to identify candidate desktop and server workloads for virtualisation, and then to design and implement an optimal virtual infrastructure solution. Lanamark Solution Providers can help you:

- **Identify virtualisation and server consolidation candidates** in your data centre by securely and non-intrusively profiling your application workloads and server resources
- **Lower IT costs by minimising the number of physical servers**, thereby reducing power, cooling and space requirements in your data centre
- **Design an optimal solution for your data centre** by recommending a combination of target servers, storage and network components that will help you achieve the lowest total cost of ownership
- **Maximise performance and availability of your application workloads** by optimally allocating them to server resources to achieve maximum utilisation.

All customers can start with a free virtualisation readiness assessment, Lanamark VReady, and then upgrade to a VAssessment with a solution provider selected by the customer or recommended by Lanamark.

### What's the cost?

Email [Sales@Qcubed.co.uk](mailto:Sales@Qcubed.co.uk) for pricing information.



## Technical Excellence Award



We're very proud that Qcubed has won four awards within 10 months. In November of this year we received the **IBM Business Partner Technical Excellence Award for 2008**.

This recognises our proven capability across a number of IBM technologies and our technical vitality in continuing to invest in skills and training to meet your needs.

In June, we were also awarded the **IBM Mid Market Business Partner Award for 2008**, which recognises *Innovation, Business Growth, IBM Affinity, Effective Teaming, and Solutions Growth*. In the same month, we also won the **Business Best Practice UK Business Excellence Award**. And back in April 2008, Qcubed was named **Warwickshire & Coventry News IT Solutions Provider 2008**.

It's been quite a year!

## Power on Blades – The future

See Glenn Robinson's article on the back page.

And IBM's latest promotion:

## No-charge IBM i License with purchase of IBM Power 520 or 550 Express

... for more info email [sales@qcubed.co.uk](mailto:sales@qcubed.co.uk)

# Coming soon... the new Xtreme PCLX

Chip PC Technologies, a global technology leader in desktop virtualisation and server-based solutions, has launched a new series of Linux-based devices – Xtreme PC LX – offering a powerful, super compact, thin-client with advanced multimedia capabilities, policy-based management, and very low power consumption of just 3W! The Xtreme PC LX became available for large-volume shipments in November 2008.

## Making IT a complete solution

Chip PC is designed to solve the thorny problem of combining intelligent thin-client technology with high profile management and control.

Chip PC's unique solution constructs a ground-up, thin-client network that consists of a revolutionary infrastructure – Jack PCs that fit into a niche the size of a wall socket, through the Xtreme PC NG series state-of-the-art, powerful, desktop units.

These server-centric computing thin clients are orchestrated by Chip PC's

Xcalibur Global management software. Xcalibur Global simulates an Active Directory environment, and with intelligent use of Active Directory management principles of policies and tools, it offers flexible management that can be easily applied down to the specific needs of every client unit and user.

## Why Chip PC?

### 10 Good Reasons:

- 1. Real end-to-end thin-client solution:** complete, PC-like centralised management through Chip PC Xcalibur global management software
- 2. In-house hardware and software R&D capabilities:** dedicated to server-centric and thin-client technologies

**3. Patented jack PC technology:** the smallest and only thin-client embedded in a network jack and powered by Power-over-Ethernet

**4. High performance:** patented RISC-based thin clients offering advanced features and high performance


**5. Richest specifications:** The industry's widest range of features in thin clients, such as Integrated PC/SC smart card solutions, VDI support, multi-display support, 1900x1200 resolutions, fiber-optic network support, and more

**6. Modular local software and plug-ins:** Firmware integrating software plug-ins, including updated versions of ICA, RDP, IE and MP

**7. Data security and integrity:** Digitally-signed local software providing complete immunity from viruses and trojans

**8. Highest reliability and long life-cycle:** Reliable hardware architecture providing high reliability and long service life for products

**9. Green technology:** Chip PC thin clients are the world's lowest -power desktop devices consuming 3.5W at full work mode

**10. Smallest size and lightest weight:** Easy to ship, store and install, as the device only weighs 180 gr/6 oz. 

Email [sales@qcbud.com](mailto:sales@qcbud.com) for more info on the ChipPC.



## InstallFree wins gold at VM World 2008!

Winners of the Best of VMworld 2008 Awards were selected from 196 product entrants at the VMworld 2008 conference in Las Vegas. An independent team of judges reviewed and evaluated the products according to innovation, value, performance, reliability and ease of use – which resulted in InstallFree winning the Gold Award in the Desktop Virtualisation category.


### InstallFree MiniBridge

This allows IT managers to create standalone executables of InstallFree Virtual (IFV) applications and deploy them using the organisation's existing Electronic Software Distribution (ESD) or Terminal Server-based solutions, while maintaining centralised management.

### InstallFree Bridge

A client-less platform that deploys IFV applications to the host PC seamlessly and transparently to the end-user, based on the customer's existing infrastructure, allowing virtual applications to function as if they were installed on the host computer.

### InstallFree Desktop

A complete, personalised, virtual desktop environment that is dynamically deployed and managed with customisable IFV Applications – without using a Virtual Machine (VM) technology and allowing the existing infrastructure to remain unchanged. 

Arrange your free web demo now! Email [sales@qcbud.com](mailto:sales@qcbud.com)

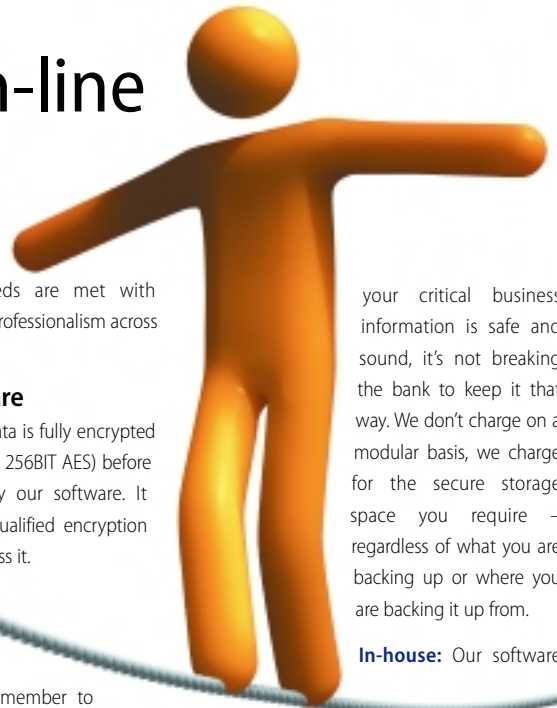


## Get it back fast with Tivoli Storage Manager FastBack

IBM Tivoli® Storage Manager FastBack™ gives you the power to quickly recover any Microsoft® Windows® server data, anywhere in the organisation, from any point in time. It allows you to:

- Help provide continuous data protection and recovery management for Microsoft® Windows® servers, both in the data centre and in remote or branch offices
- Get applications and users back up and running within minutes following any data loss, while full data recovery is performed in the background
- Help eliminate the need for traditional backup windows by continuously capturing data changes at the block level with extremely low overhead on the systems
- Schedule automated data transfers based on flexible, policy-based settings, helping administrators to meet data protection and retention requirements on a per-application basis
- Enable the recovery of any data asset from any Windows application, including Microsoft Exchange, Microsoft SQL Server, Oracle, IBM DB2®, and SAP
- Make the most effective use of your available bandwidth through strategies such as multi-threading, bundling of small files, and industry-standard compression.

# Meeting the challenge of on-line data storage and retrieval



With electronic data volumes expected to grow at rates in excess of 65% a year, getting a handle on your current and future data storage needs is an important challenge. [www.backupearth.com](http://www.backupearth.com) and Qcubed recognise this, and by working together we are bringing a comprehensive, easy to use, low-cost, and dedicated online data backup and retrieval service to the UK and European market.

By selecting [www.backupearth.com](http://www.backupearth.com) as your online data storage provider, you bring to your company a vital business service that can save you both time and money.

## Our Service

**Regulated operation:** [www.backupearth.com](http://www.backupearth.com) is regulated in the European Union by the Data Protection Commissioner (DPC) in Ireland – Registration Number DC10013/A. The DPC regulates and audits our business on a regular basis. This provides an independent set of eyes that ensures we are meeting our obligations in handling your information. In some cases we go further than the DPC requires in



protecting your information and putting you firmly in control of it.

**SaaS (Storage as a Service):** Our Online Data Backup and Retrieval service brings to you all the benefits of SaaS. You get access to the best hardware that the industry has to offer, and can take advantage of the full benefits of our software on a pay-as-you-go basis. This allows you to manage your business better with minimal costs and cash outlay.

**Support and customer care:** We offer various methods of support including, telephone, email, website chat room, and an onsite support that you can arrange directly with your local reseller. Together, [www.backupearth.com](http://www.backupearth.com) and Qcubed ensure

that your needs are met with efficiency and professionalism across the UK.

## Our Software

**Secure:** Your data is fully encrypted at source (using 256BIT AES) before transmission by our software. It needs a fully qualified encryption key to access it.

## Reliable:

No need to remember to perform your backup. Once set up, our software completes the backup automatically at a time decided by you!

**Flexible and easy to use:** Easy to use software that lets you quickly identify the files and folders that you want to back up, or need to restore. Set it up once using a Windows Explorer style navigation system – and that's it.

**Cost-effective:** With costs starting at less than £1 per month, rest assured that while

your critical business information is safe and sound, it's not breaking the bank to keep it that way. We don't charge on a modular basis, we charge for the secure storage space you require – regardless of what you are backing up or where you are backing it up from.

**In-house:** Our software

was fully developed in-house by our own software engineers – unlike many other online backup providers who use software developed by a remote third party. This has allowed us, and will continue to allow us, to be at the forefront of software development and incorporate our own innovation directly into our software programs.

Call Qcubed today or visit our website [www.backupearth.com](http://www.backupearth.com) to get started.

# IBM System Storage DS5000 series – for the long run



The IBM System Storage DS5000 series is designed to meet demanding open-systems requirements for today and tomorrow, while setting a new standard for life-cycle longevity. Building on many decades of design expertise, the DS5000 series' seventh-generation architecture delivers industry-leading performance, real reliability, multi-dimensional scalability and unprecedented investment protection.

## Highlights include

- New seventh-generation architecture with extreme and balanced performance for increased application performance
- 'Pay-as-you-grow' scalability, initially 256 drives, for the most demanding capacity requirements
- Unique host interface cards designed to provide investment protection and life-cycle longevity
- Designed to support high availability with dual, active, hot-swappable controllers, power supplies and many non-disruptive firmware upgrades

- Heterogeneous support for the most common operating systems, including Microsoft® Windows®, UNIX® and Linux®
- Architecture that efficiently handles compute-intensive parity calculations, enabling exceptional disk-based performance that's ideally suited for RAID 5 and RAID 6 configurations.

## Support for the most demanding SLAs

The DS5000 series is equally adept at supporting transactional applications such as databases and OLTP, throughput-intensive applications such as HPC and rich media, and concurrent workloads for consolidation and virtualisation.

With its relentless performance and superior reliability and availability, the DS5000 series storage system can support the most demanding service level agreements (SLAs). And when requirements change, the DS5000 series can add or replace host interfaces, grow capacity, add cache and be reconfigured on the fly—ensuring that it will keep pace with your growing company.

## Extended life cycle

The multi-dimensional scalability of the DS5000 series storage system enables it to continue beyond the normal three- to four-year life cycle. This protects your storage investment by delaying (or even eliminating) the expense of migrating data to a new system, and allows you to amortise its acquisition costs over extended periods of time.

This life-cycle longevity enables the DS5000 series to continue delivering value long after other systems have been retired.

## Designed for reliability and availability

IBM has a long history of designing highly reliable and available storage systems, and the DS5000 series is the culmination of that expertise. With redundant components, automated path failover, and extensive online configuration, reconfiguration and maintenance capabilities, the DS5000 series helps ensure that your data will be available 24x7x365.

The DS5000 series also offers multiple replication options and a persistent cache backup to help ensure that any data in cache is captured and safe in the event of a power outage.



# Power on: but review your options

Early in 2008 IBM extended the BladeCenter range to include the POWER6 processor. This provides enhanced performance, efficiency and reliability in the new JS22 and JS12 (JSx2). The JSx2 Blade Servers have been designed to run IBM's flagship 64-bit operating systems, i5/OS and AIX, as well as the Open Source Power Linux from Novell SUSE and Red Hat.



The JS22 is powered by an IBM POWER6 quad-core processor running at 4.0GHz and includes IBM's PowerVM Virtualisation Management software providing processor, memory, network and I/O virtualisation on the blade. Features include up to 10 virtual machines per core; integrated virtual ethernet adapter; calibrated vector cooling and IBM EnergyScale technology allowing customised power consumption of the blade, and 11,000 CPW.

## That's enough stats on the JSx2, how do we use it with IBM i (i5/OS)?

Shock horror! IBM i on a JSx2 does not support physical disks. Instead access to the physical hardware is via the use of the Virtual IO Server (VIOS), which is a specialist LPAR available on System p and i, and implemented to provide virtualised storage and ethernet to other LPARs on the same machine. Kind of like VMware does... except we did it first.

VIOS and all the other POWER Hypervisor functions such as VLAN, Micropartitioning, and so on, have now been given a name – PowerVM. The PowerVM functions are required on JSx2 when running IBM i as an LPAR, as the VIOS component has to be used to 'own' the physical Ethernet adapters and storage provided by the SAN. This is very important: IBM i on a JSx2 can ONLY use certain types of IBM storage, so be careful when looking at this option. IBM has recently announced that it will be supporting attachment of disks via the SAN Volume Controller (SVC). This product sits between your servers and SANs to virtualise the view of the storage in your organisation, including a wide range of non-IBM SANs too.

With VIOS 'owning' the Ethernet and SAN resources, it is then presented to the IBM i LPAR(s) on the blade, and you're away. One big shocker is that JSx2 Blade Servers only support a maximum of 32GB memory. This has to be shared between PowerVM, VIOS and your LPAR(s). Remember that you can have multiple LPARs on your JSx2 using any combination of IBM i, AIX and Power Linux.

Another restriction is that the JS22 can only support one internal disk drive (two in the JS12). This drive is used to store and run VIOS, not IBM i.

Backups are another potential issue. IBM i on a JSx2 cannot have its own tape adapter, so backups must be done via the VIOS or the SAN. Via the SAN requires the use of Flash/VolumeCopy services within the storage unit. This is not especially difficult, but it means that you are using SAN functions and commands to take copies of your IBM i LUNs rather than using native IBM i save/restore commands. We are told that this issue should be fixed during 2009.

Alternatively, you will use IBM i save/restore commands to save to virtual optical disks presented to IBM i by the VIOS. Once the saves are complete, you can then use a VIOS command to save the images to a tape drive available to the VIOS. You could also have the VIOS make copies of these to the SAN. Not straightforward, whichever way you do it.

## Is it worth it?

From a pure technical point of view, yes it is. From a commercial perspective, maybe. If you already have BladeCenter H and are looking to host new or additional IBM i workloads then it is definitely worth investigating.

BladeCenter is a superb technology and can bring businesses tremendous cost savings in physical space, heating and power usage. It bodes well that IBM i is now part of that, but blade technology is not always the right solution. The options between POWER6 JSx2 blade technology and POWER6 5xx models will cover all the bases for some time to come.



For more technical advice call Glenn on 07976 157440

Glenn.Robinson@qcubed.co.uk

## 24x7 support from Qcubed

We are delighted to announce that from January 2009 we will be offering a 24 x 7 Help Desk to underpin our existing support offering.

For more information, please email: [sales@qcubed.co.uk](mailto:sales@qcubed.co.uk)

### Annual Technical Support Agreement

#### Qcare Assist – Technical Support

Qcubed offer an annual technical support agreement, which gives access to our IBM trained and certified IBM specialists between 08:00-18:00. This is designed to help you diagnose, report and resolve any IBM System issues.

To maximise our response and resolution times, primary support will be delivered remotely, in addition the contract includes 3 onsite man days per annum, one of which are to be used for health check and monitoring purposes. This support agreement is of course optional but we strongly recommend it for sites who are new to IBM systems.

#### Qcare Project Assist

This offering is for customers who want to budget for onsite support but as yet

have not defined the projects where help is required. This package can cover consultancy, training, implementation and additional support and is bought in bundles of 5 days.

Your hardware components are covered by IBM's hardware support service but sometimes you need assistance with troubleshooting errors, advice on how to make changes or expert help on best practice guidelines for your systems.

Qcare Assist is designed to provide you with a number of units to utilise by placing calls or emails to the Qcubed technical specialists to help you with all aspects of:

**IBM Power systems; IBM System x; IBM Storage; IBM BladeCenter; IBM SAN and NAS servers; Microsoft SQL Server; Microsoft Exchange; Citrix; Linux/AIX; IBM i; PowerVM.**

## Products and Services

### Products

#### Qcare

- Flexible Support Contract
- Operating System Upgrades
- Health Checks
- Proof of Concept and product evaluations.

#### IBM Hardware

- BladeCenter
- System x
- Power Systems
- System Storage

- Hardware Maintenance Contracts.

#### IBM Software

- DB2
- Tivoli Storage Manager
- Systems Director
- AIX
- IBM i
- Passport Advantage
- Software Maintenance.

### Services

- IBM Leasing
- Infrastructure Design
- Implementation Programmes
- Storage, Server and Desktop Virtualisation
- Performance Optimisation
- Capacity Workload Analysis and Planning
- Linux and Open Source Implementation
- LPAR Design and Implementation.

### Complementary Offerings

- Paranoia tape data encryption
- Parallels Virtuozzo
- Virtual Desktop Client
- Workflow and Web-centric software development.



### Qcubed Limited

t: +44 (0) 7976 157440  
+44 (0) 7768 276184

e: [sales@qcubed.co.uk](mailto:sales@qcubed.co.uk)  
w: [www.qcubed.co.uk](http://www.qcubed.co.uk)