Certification, blogging and webinar successes

Simon Campbell-Whyte, Executive Director of the DCA, reports on a busy time for the association.

IT has been a busy summer as always for the DCA, despite the Olympics and school holidays. Early July saw the DCA Board of Governors meeting with progress being made on many fronts including data centre certifications, data-central.org, future events and conferences. Late July saw the first DCA Accreditation Board Meeting held at University of East London, which incidentally was already being used as the USA Olympic team base. Despite the tight security, progress was made on the DCA Certifications programme which is on track for launch this autumn.

During August, The DCA has launched further data-central.org functionality including the Career Centre which is a significant step forward in the DCA's aim to provide a helpful interface between young people and the industry's needs. Also launched is the DCA Member's Blog, this allows all members to post topics and items of interest, all of which are sharable to all popular business and social networks. This autumn promises to be even busier with the DCA featuring at six events at home and abroad, we hope to talk to many more of you and widen the participation further.

I'm also pleased to announce the return of the DCA webinar programme. We will be holding the "DCA Data Centre Outsourcing Summit" on September 11th via the DCA webinar Channel. The summit is aimed at users and owners of data centres and featuring talks on key selection criteria from Gabriel Harris of CBRE, establishing successful partnerships with service providers from Barry Lewington of PTS Consulting and a guide to data centre Migrations from Steve Jarvis of Glasshouse.

I'm also pleased to announce the return of Dr Jon Summers who will be hosting a "DCA Question Time" session on the theme of data centre outsourcing to enable you to ask the experts. The sessions are free and anyone can attend, to book your place go to
www.datacentrealliance.org/webinars.php

# London: Direct or indirect free-cooling?

By Alfonso Marin, Spherical Cow Consulting.

Free-cooling systems are a new trend of efficient cooling technology. It can be implemented as direct external air flow, or as indirect air flow via a heat exchanger. But which is the optimal solution? It depends.

Let us consider a datacenter in the London area with a cold corridor temperature of 25 ºC (very efficient). Usually an indirect system has a temperature difference, due to the heat exchanger, around 4-5 ºC. So, in order to maintain the cold corridor temperature, the maximum exterior value should be 20 ºC. The availability of the dry bulb temperature below 20 ºC is 91% and below 25 ºC is 98%. Thus, a direct system is more efficient. However, considering an evaporative cooling with an indirect system we can go up to 20 ºC of wet bulb temperature, while in a direct system just 15 ºC in order to maintain the ASHRAE 2008 values. This is a 99,8 % of the year with an indirect free-cooling.

There are two other factors to consider: investment (indirect systems are around 20-30% more expensive) plus operation costs. These costs include fan and water consumption (higher in indirect systems), filter replacement (very high in direct systems) and technical cleaning (direct
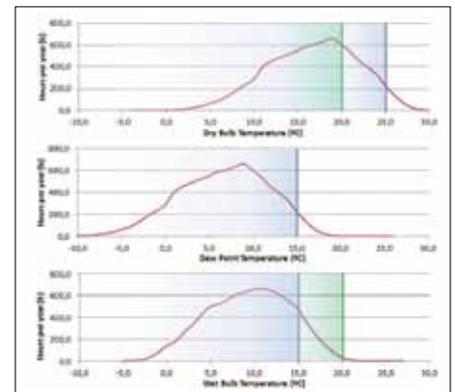
systems requires higher frequency). Finally, leaving the datacenter exposed to very small particles coming from dust, pollution or fire, a direct free-cooling system could get very, very costly.

DCA Events Round up

September:
11th: DCA Webinar- The colocation space acquisition process- Key drivers and decision making
DCA Webinar- The selection & management of colocation providers
DCA Webinar- Data centre migration- Getting the strategy right
18th-20th: The Green Data Centre Conference London
19th-20th: Big Data World Europe
20th: The Future of the Data Centre
24th-26th: The Data Centre Management Forum

October:
30th-31th: Powering the Cloud

November:
27th-28th: Gartner Data Centre Summit

For full details on all DCA events in terms of registration and sponsorship please visit
www.datacentrealliance.org/events.php or www.data-central.org

Virtualisation and cloud technology: a question of when and how, not if

By Gunter Papenberg, Director Strategic Business at wusys GmbH

Now more than ever, data centres are at the heart of all business activities for companies today. Demands are growing and traditional data centres are reaching their limits of performance and profitability. High cost pressure is forcing many companies to look at promising virtualisation and cloud concepts. Compared to planning for a regular data centre, implementing a virtualisation or cloud concept requires that a company also explore new standards and criteria.

Often they will first need to develop new competencies to handle these complex systems, and there is always the question of whether a highly specialised service provider or data centre operator might be a sensible alternative. Partners like this bring a wealth of knowledge to analysis and planning processes, and can get involved from the start to prevent errors and gaps in planning.

Analysis and planning for new IT concepts

The benefits of virtualisation are efficiency, flexibility, availability and economy. It lays the foundations for demand-compliant IT and also cloud computing. A significant number of major players have already acknowledged this trend and are using very high performance and stable IT structures to their advantage.

Direct benefits include savings on servers, footprint and infrastructure. Medium-sized businesses are now starting to follow suit. To fully capture every potential benefit of virtualisation and cloud technologies, there are five steps to consider:
Documenting the existing IT environment is the be-all and end-all for optimisation.

Non-quantifiable and non-qualifiable environments cannot be usefully restructured and improved. It is also impossible to monitor the level of optimisation achieved without this baseline data. Some of the main KPIs are: application performance, recovery times, availability and potential cost of downtime, costs for power and space, and auxiliary overheads incurred through cooling and security systems.

The service level is another critical factor in choosing new, modern IT structures. All analysis focuses on questions of data centre availability and applications that need to be running 24/7. IT is the backbone of any company and needs to be tailored to individual circumstances. It must offer exactly the services that applications and databases need. Once the detailed, comprehensive analysis is complete, the company can align its IT to corporate goals and act flexibly to avoid over- and under-allocations.

Following the analysis, various IT strategy models can be considered. The first step is to check whether a data centre is best run internally, externally or as a mixed model. It is vital to review the costs of any components required, which will need to be covered using in-house

resources or procured via external specialists. Initial costs are not the sole deciding factor; companies must also look at ongoing operating costs and human resources, and/or developing new competencies for virtualisation projects against deploying external specialists, who generally have far more experience than in-house personnel.

Virtualised environments add value through consolidated, more effective infrastructure and the subsequent savings in terms of hardware systems, including power, cooling and footprint. For virtualisation, resource planning needs to be much more accurate than for traditional data centres where servers, storage and network components often only run at 50% utilisation.

Furthermore, there is also a question of whether virtualisation should only be expanded internally, or expanded as a cloud in cooperation with a specialist service provider. The various models of private and hybrid cloud give companies outstanding options in reacting very quickly and flexibly to new IT requirements. External specialists are a good option because of their dedicated knowledge, which is unlikely to have developed to the same extent within a company.

Another key role of virtualisation involves data security and compliance. Virtualised environments are designed to use the highest possible proportion of existing resources. Data storage concepts, for example, are forced to use much shorter windows for backups, and you need technologies that reliably run backups and snapshots in live systems.

Another aspect deals with regulatory directives that require precise

compliance depending on the sector in which the company is active. The legislator mandates very high security for sensitive data, which in many cases involves long-term archiving. Right from the start, appropriate solutions must be considered as part of virtualisation concepts.

Specialists add real value

Promising virtualisation concepts automatically raise the question of whether they should be fully or partly realised in an internal data centre or by specialist service providers. There is a lot to be said for external service providers and data centre operators whose core competency revolves around running data centres. A data centre service provider – a pure IT professional – is better equipped to maintain components in terms of availability, connections, power supply, security, and free computing and storage resources than an individual company. And all this at much lower cost to the individual user.

Outsourcing to an external data centre can save a company between 35% and 55% in energy costs alone, and also promises greater availability, flexibility and security. Using virtualisation technologies can further increase the potential energy savings. The ratio of server virtualisation to pure hardware is 6:1. This means that six servers can be replaced by a single virtual instance. In a recent project, data centre operator wusys managed to cut the client's planned acquisition costs by around 80% and reduce some of the budgetary pressure.

Outsourcing IT in this project meant that the client's final infrastructure required just 40 virtual servers instead of 233 physical ones. The client calculated that costs would fall by almost 180,000 euros per year compared to the previous year. Internal costs for administration, power, etc. were cut by another 76,000 euros in the long term. Internal projects can be executed faster, and resources that were previously assigned to standard tasks can now be deployed to new projects.

But aside from creating the technical basis for calculations, it is essential to examine various internal and external organisational aspects as they generally offer the highest value add for companies. Most companies have nothing more than very basic reporting

and monitoring tools that provide information about the condition, utilisation and status of an IT infrastructure. A data centre or cloud operator has a range of much more powerful instruments at their fingertips. They need these to illustrate performance for the client and to measure consumption. Results can be used to expand planning and continue developing the cloud in line with a client's individual requirements.

Organisation and optimisation are not just the responsibility of the provider or service provider, but also the client's IT department or management. Close cooperation and partnership is the basis for efficient use of new IT structures. Client management and its IT departments can leverage requirements and reporting information delivered by the provider and service provider to create more accurate plans and take any necessary steps in cooperation with the partner/provider.

This gives the company and its personnel a real sense of security in many areas, such as data protection, liability and management, which are rarely manageable with in-house IT.

Is a cloud the right concept?

The question of whether outsourcing or cloud computing might be of use to a company can be clarified by answering a few questions:
- Can I fulfil technical requirements in the medium to long term in my own data centre using my own resources?
- How flexible does my own data centre need to be, and what components do I need to achieve this?
- How high are the costs compared to an outsourcing or cloud computing solution?
- Can I deliver the necessary availability and data security in my own data centre at reasonable financial cost?
- Is any of my data subject to special security regulations and does it, for example, need to be expressly protected or stored only in Germany?

The company then needs to work with its outsourcing partner to run a detailed analysis, since the partner's experience with other clients means that they have a much broader overview and always have access to the latest technological options.

The Data Centre- A genuine career option

Stephen Dennis Head of Skills Development, DCA

HAVING worked in the IT resourcing world for too many years I care to mention, the "data centre" has taken some time to come to the fore as a genuine career option. This is most probably due to the data centre industry being relatively young and generally immature. However, still today within this expanding industry, the expertise and skills required have largely been developed from specific technical areas and work experience with little or no interface or skills transference to, or from, academic

institutions. There's no doubt this is a problem recognised across the DCA and borne out by feedback on many occasions.

The DCA has sought input from its participating members on this subject to identify tactical and strategic steps to ensure the sustainability of such data centre human resourcing. We also consulted with both Operational and HR managers within DCA member organisations. Whilst many DCA members mentioned that they themselves found employment within the industry from an unplanned route or by "accident" with very little, if any, prior knowledge of the role or function of data centres.

Therefore it was agreed that the DCA can assist by providing and presenting the industry with a career path and provide the opportunity and potential for personal development. This will encourage and attract both young people and individuals who may not realise their skills and experience can be applied to the industry. I'm pleased to say that we have now published a white paper on the subject, available from **www.data-central.org** where clear actions have been set out. The implementation plan begins this autumn. If you would like to get involved or would like further information, please contact me - **stephend@datacentrealliance.org**