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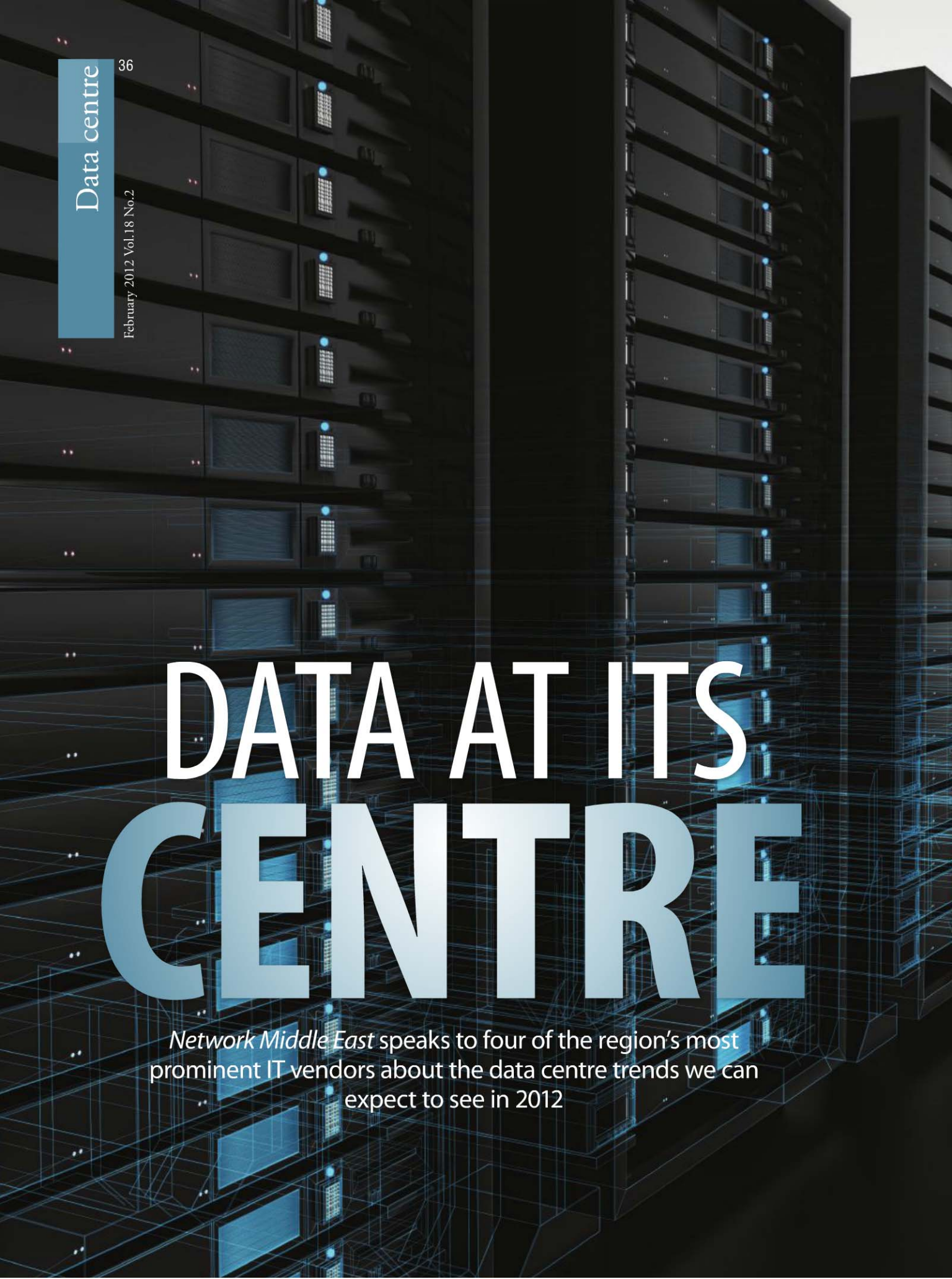


# DATA AT ITS CENTRE

*Network Middle East* speaks to four of the region's most prominent IT vendors about the data centre trends we can expect to see in 2012

**Basil Ayass (BA),** *enterprise product manager, Dell Middle East*
**Hani Nofal (HN),** *integrated networking and site services director, Gulf Business Machines*
**Alaa Al-Shimy (AS),** *enterprise storage, servers and networking (ESSN) director, HP Middle East*
**Sundeep Raina (SR)**, *regional sales manager, Chatsworth Products Incorporated*

### Are enterprises in the Middle East moving towards the data centre?

**BA:** Yes. Customers are increasingly moving towards data centres and with the advent of cloud computing, enterprises are looking to complement current capacity with services from a public cloud provider or a hosting firm. These options minimise the capital investment requirements and enable the customer to consume data centre 'as a service'. As the IT infrastructure improves and the governance and regulatory environment mature in the region, I believe this option will feature more prominently in our customer plans in the next few years.

**SR:** Enterprises in the Middle East are moving towards data centres as a business necessity. It has become part of the basic infrastructure that an enterprise requires to run its business. Energy costs are still on the lower side compared to other parts of the world, so that makes it more viable from the OPEX point of view. What also helps is the availability of experts on the subject matter who understand datacenters as a concept and therefore contribute to an enterprises plan for data centres.

**HN:** On the technology front, the fast growth rate of companies here in the Middle East means that they are sometimes unable to make timely investments in the necessary IT infrastructure to scale rapidly. In addition, due to the growing amount of data being collected, stored, and processed, they are often located in facilities that, while perhaps suitable five years ago, cannot be upgraded today. The result is that those enterprises face this reality but still have to deal with the demand to stretch all resources and enhance the asset utilisation while improving the service level, agility and security compliance.

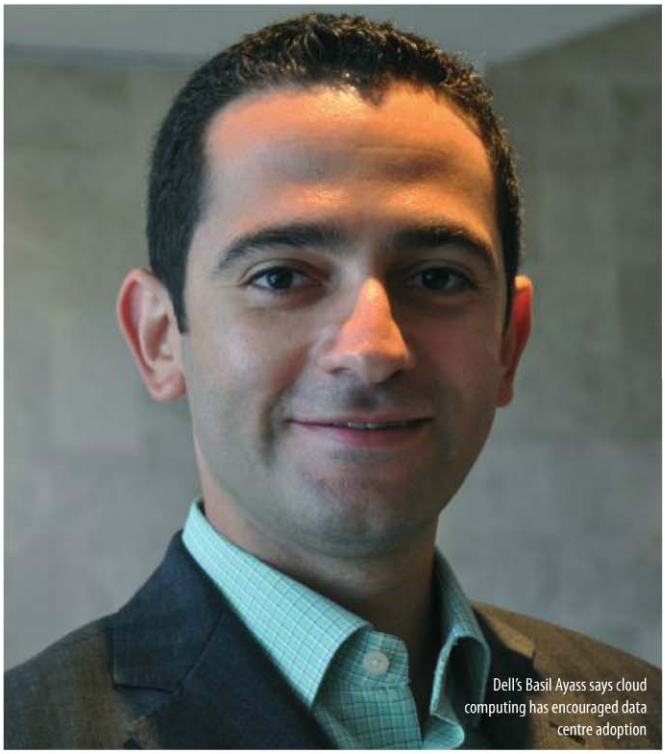
**AS:** We are in an emerging market and we are not at the same stage as mature markets, but we're taking the steps to get there and evolving technologies and development happening in the industry are giving enterprises the opportunities to leverage all these new technologies and move to the data centre at a more competitive pricing. You get more benefits to the business and at the same time you save more costs. The market sees that and the enterprise customers in the Middle East are moving in this direction. We've done a number of projects for a number of enterprise players [in the region].

I don't see any concerns from customers in this part of the world about moving into the data centre. The only concern sometimes is about the project and when can they do it, but I think from a technology and business value point of view, I don't see any concerns. On the contrary, lots of people are excited about making this step.

### What role does the network play in the data centre?

**SR:** It is pretty much the core of a data centre. With voice, video and data convergence, practically everything is being transmitted over networks from one corner of the world to another. If you look at active network components, our observation is that enterprises build redundant networks to make sure that they are connected 24/7. There are some other things that must be looked after, like optimal methods of heat management in data centres. Cable management has also become absolutely important and is one of the keys in making sure that the network is always available. Optimal heat management not only plays a great role in making sure equipment doesn't malfunction due to excessive heat, it also makes sure that enterprises consume less power to run

Power and cooling is a major issue for enterprises, says Chatsworth's Sundeep Raina



Dell's Basil Ayass says cloud computing has encouraged data centre adoption

the data centre.

**AS:** That is a very good and sensitive question. I see a development in this area and enhancements in operators, which are increasing and investing in the infrastructure, in some countries like the UAE with Etisalat and du there is a reliable player to rely on. In some other countries, without naming them, I don't think they are ready yet. But the operators see the value of it and are exploring it. [Some] of them are exploring the cloud and data centre services... but they are doing so carefully. But are the operators ready to provide the services today? In some countries, yes I think so, but in some, no.

**BA:** The network infrastructure to deliver applications or information is critical, regardless of location or end point device. Dell sees the data centre as the focal point and its network must be transformed into a streamlined, efficient and policy-driven network that is responsive to changing applications and end-user demands.

**HN:** Redundancy is a key measure of any data centre that translates into reliability. Business continuity is based on the availability of the network which is the fundamental foundation that interconnects all the elements of the data centre and the enterprise infrastructure. The network must be capable of dynamically delivering the required services and automatically managing for different content types.

Moreover, the network extends to play a key role by integrating with the other systems in the data centre such as the cooling and building management systems which enables the enterprise to gather as many relevant data sources as possible to monitor and control the power efficiency.

### What are the key technologies inside the data centre?

**AS:** In terms of standardisation, I would assume that by today most of the enterprise players in the market have already standardised on the right security. The second step in the ladder is the converged infrastructure, in which the key benefit is when a vendor, whether it's HP or another, at the design stage they ensure the products give maximum performance across the infrastructure. The third step is virtualisation, where your resources become one pool that you can utilise for best performance and high availability.

The one that I've not seen of much yet in the Middle East is application modernisation, after you move into virtualisation you need to get into the modernisation of applications, so you can ready yourself to get into the cloud.

**HN:** Typically any data centre will have the foundation which is the physical facilities such as the power, cooling, physical housing, cabling, physical security and fire protection that allow IT to function. On top of that multiple key elements such as the servers, storage, security, virtualisation, transport and aggregation and application provisioning and delivery set to deliver the required business services.

With all the above components, the role of the network in the integration, monitoring and operation of the data centre becomes essential as it is the only element that touches every system especially when complemented with a powerful data centre management platform.

**BA:** Manageability is key to reducing IT resources and deployments by standardising IT processes while consolidating storage, server and networking infrastructures. Automation of virtual machine management is also important to ensure movement across data centres, regardless of their scale, while at the same time maintaining visibility, security policies and resource efficiency.

> "Enterprises in the Middle East are moving towards data centres as a business necessity,"
>
> **says Sundeep Raina, Chatsworth Products International**

The data explosion means it harder to upgrade existing capacity, says GBM's Hani Nofal

HP's Alaa Al-Shimy says companies have few qualms about moving to data centres

**What energy challenges do organisations face in the data centre?**

**SR:** Energy costs in the Middle East are less than those compared to Europe and the western world. Energy consumption was not a concern several years ago, but now we see a lot of emphasis being made on optimal power usage and doing more with less. Energy costs to run a data centre are not the only concern, but getting power budgets is becoming increasingly challenging compared to the past.

Complete isolation of hot and cold air in the data centre is the single most important contributor to the savings. Research from independent bodies indicate that approximately 50% of the total power supplied to a data centre is used in cooling the equipment - naturally, cooling becomes the area where data centre managers and operators need to get innovative. Isolation of hot and cold air can be achieved in different ways, but the optimal method for a particular data centre depends on the dynamics of the facility.

**HN:** I believe that the biggest challenge is simply underestimating the power requirements. IT professionals frequently underestimate the power requirements, and power costs, particularly if facilities management pays the bill which is typically the case in most enterprises in our region.

With a proper infrastructure management for the uninterruptible power supply (UPS) system and power distribution unit (PDU) monitoring, data centre managers are able to control power usage, most of the legacy challenges were related to lack of monitoring, management and control of the power supply units. Understanding the data centre load and power distribution without over estimating the power needs, and by using a higher efficiency modular units, will optimise the performance and reduce the operations cost.

Moreover, it is important to realise that typically half of the power consumption in the data centre goes to cooling. Hence, simple things like examining the airflow and installing blanking panels in open racks will reduce the power bill especially with IP based cooling systems that can increase the efficiency of the biggest power consumer.

**Does less legacy in the region mean data centre consolidation is easier?**

**BA:** It is very easy to set up a data centre in the Middle East. What's more difficult is to set up an efficient and right-sized data centre leveraging best practices in energy and space efficiency, reliability and security. Most projects I've seen in the region spend 20% of their project timeline in the planning stage and then 80% of the project is spent fire fighting and missing deadlines. With the correct approach, customers can flip that dynamic on its head by spending 80% planning every last detail of the data centre project, so implementation is straightforward and completed on budget and on time.

**HN:** Our region represents a great opportunity to adopt technologies with freedom from legacy assets. Having said that, the region has still legacy when it comes to the power grid and the cooling systems which remain areas for improvement.

Regulatory developments and investment in broadband infrastructure in the Middle East is leading a revolution and advances in data centres and cloud services in the region.

> "Evolving technologies in the industry are giving enterprises the opportunities to leverage new technologies and move to the data centre at a more competitive pricing,"
>
> **says Alaa Al-Shimy, HP Middle East**

# Are you managing side-to-side airflow properly in the data centre?

# The N-Series TeraFrame is the solution.

The N-Series TeraFrame™ Network Cabinet from Chatsworth Products (CPI) is precisely engineered to combat thermal management challenges associated with network switches using side-to-side airflow. By employing CPI Passive Cooling™ Solutions, the N-Series TeraFrame can manage high-density switches while maximising the energy efficiency of your data centre.

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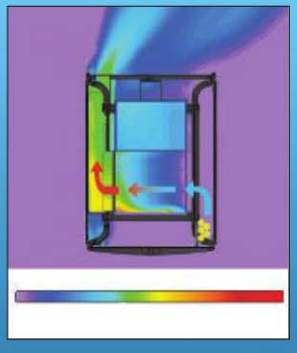
- Allows network and server cabinets to be situated next to one another without overheating

This CFD model demonstrates how the N-Series TeraFrame™ Network Cabinet, which is engineered to control side-to-side airflow for network switches, guides hot exhaust air out of the cabinet using the Network Switch Exhaust Duct.



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