



**IN DEPTH**

Management insight  
and industry profiles

# THE BUILD UP

The big, expensive datacentre is still the heart of infrastructure in the modern enterprise, and regardless of the economic climate, still need to be rolled out to support future expansion. Piers Ford explains the various options available to CIOs to build a better, more efficient datacentre.

**THE CLOUD IS A DECEPTIVELY** soft, reassuring vision. Dedicated followers of the hype surrounding the technology could be forgiven for assuming that it has already descended, sucked up all those pesky, everyday strategic datacentre issues – investment, scalability, network quality, service availability, day-to-day management – and replaced them with a streamlined virtual world. And the CIO can kick back and watch it all ticking over on his dashboard.

Hands up, anyone who has met a CIO in that happy position. The reality is that IT decision makers have never faced such a complex range of options and possibilities when it comes to planning their datacentres. Despite the economic pressures, they are facing increasingly urgent demands from their businesses for speed and capacity.

So they can't afford to wait for the cloud. They have important choices to make about infrastructure investment, whatever degree of outsourcing or virtualisation they might include. These choices can't be delayed. So how can CIOs in the Middle East roll their datacentre strategies out in more efficient ways, and making the best use of their existing resources?

Richard Barker, CEO of Doha-based IT services company Sovereign Business Integration, says they really need to consider what they are trying to achieve before investing in a new datacentre – or outsourcing management to a third party.

"The region is currently making significant investments in computing and IT as the technology that supports these businesses is critical for them to continue trading in a world economy," he says.

"Middle East businesses have a huge opportunity to take advantage of recent developments to provide improved security and efficiency within the datacentre. If they don't, they will not have the competitive edge to sustain



Dearing: The traditional datacentre has become overly complex, costly and extremely inefficient.

their current rate of growth. Also, they may struggle to do business with a company that demands a higher level of security and efficiency than they offer. The reality is, if you get the basic

security and efficiency in terms of power consumption and cost, whilst also being the most environmentally friendly. There are only six Tier 4 datacentres in the world today, but the trend over time will be to increase levels of security throughout all business types. It is no longer just the banks who generate huge volumes of data and need a high level of security; even small businesses need their data to be secure to protect the business and move it forward."

Of course, Tier 4 is not the ultimate goal for everyone. Barker says the most important thing is that the datacentre reflects the business's needs.

"By utilising the correct tier, businesses can work to the level that best suits their budgets and individual, unique requirements," he adds. "Working in partnership with a

**Businesses [in the region] are rapidly learning the lesson that the best IT infrastructure cannot be achieved simply by plugging in the world's leading applications – lessons learnt painfully in the West over decades of incremental technology and change. If a business uses a third-party supplier, they need to look for a partnership, based on long term goals**

IT infrastructure wrong, a minor problem could bring the whole business to a stop."

Barker says that with data volumes rising across the board, even CIOs and IT directors in smaller organisations should understand the various types of datacentres that are available – and the benefits they can offer, from a satisfactory ROI to security and reduced power consumption.

"With 'tiering' in datacentres, companies need to decide which level is the most appropriate for them," he explains. "Tier 4 offers the greatest

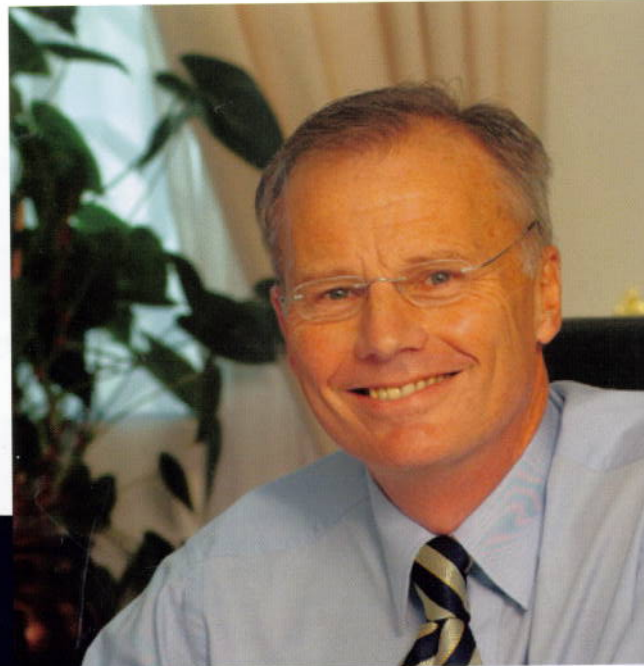
provider, businesses can benefit from the provider's advice on the optimal tier and their economies of scale, making sure you can maximise benefits and minimise costs."

Vendors are certainly working hard to 'simplify' many of the issues that lie at the heart of any datacentre strategy, consolidating technology and introducing aspects of virtualisation which can help reduce the cost and the manpower required to service major infrastructure projects.

"The traditional datacentre has become overly complex, costly and ☒



Radlinger: SMEs would benefit more from seeking a professional managed IT service provider.



Williams: A long term relationship based on trust and understanding will be more cost-effective in the long run.

extremely inefficient," says Trevor Dearing, EMEA network strategist at Juniper Networks. "Arguable, it is the single biggest hurdle that prevents Middle East businesses from fully reaping the productivity benefits offered by other innovations occurring

in the datacentre, including server virtualisation, storage over Ethernet and further evolution in application delivery models."

Juniper's solution is to simplify datacentre security and network design, collapsing the multiple

switching tiers in traditional architectures into a simplified network design, requiring fewer devices and interconnections, and consolidating the 'security sprawl' of traditional designs into fewer high-capacity, high-performance chassis-based products.

"Consolidation of security services not only makes the security infrastructure more energy and space efficient, but also makes operations much simpler by reducing the total number of devices that need to be managed," says Dearing.

"Performing all the security services without passing through multiple limited-scale and single-function appliances drastically lowers application latency across the network. Advanced touring technologies and platforms deliver agility of business operations by improving the scalability of converged core networks that span multiple datacentres. Regional datacentres can now rapidly deploy new applications and support new services with less complexity to achieve business growth objectives with both improved performance and lower cost," he continues.

Aziz Ala'ali, regional director, Middle East and Africa at vendor Extreme Networks, says that enterprises and hosting companies are now scaling their datacentres to realise the benefits of a virtual infrastructure – and that means investing in the network.

"Because the physical network is the foundation for virtualisation, it is vital that it be highly scalable, demonstrating robust performance,

**Middle East businesses have a huge opportunity to take advantage of recent developments to provide improved security and efficiency within the datacentre. If they don't, they will not have the competitive edge to sustain their current growth. If you get the basic IT infrastructure wrong, a minor problem could bring the whole business to a stop**

### THE HUMAN COST OF THE DATACENTRE

Manpower is one of the major expenses associated with datacentre projects throughout implementation and beyond, into the day-to-day running. As vendors come up with consolidated architectures, some of this expense will be stripped out.

"Consolidation around fewer operating systems in the datacentre reduces training requirements of datacentre IT staff, allowing more of the IT staff to become certified experts on the network and security platforms with less training and associated cost," says Trevor Dearing, EMEA network strategist at infrastructure specialist Juniper Networks.

Outsourcing the datacentre would obviously reduce the manpower costs even further, liberating the IT department to focus on its core business activities. But if a CIO is

committed to a self-build model, Heribert Radlinger, head of datacentre services at eHosting DataFort, advocates two possible approaches: Turnkey (design and build) and Design, Tender and Build.

"With both approaches, the manpower is minimal although experts say that the Design, Tender and Built approach is recommended for large projects," he says. "This is because it offers better cost, quality and time control. More importantly, larger projects need to be overlooked by independent partners who will be able to offer advice and work without any conflict of interest between the contractor and the supervisor.

"The Turnkey approach, however, can serve advantages to small datacentre projects with a rack space of up to ten. In this range, standardised solutions are available which not only reduce the cost but also the time to bring them to market," continues Radlinger.



Ala'ali: Today's datacentres are adopting virtualisation as a means of improving cost efficiencies.



Barker: The region is currently making significant investments in computing.

capacity and capabilities to support large table sizes that accommodate growth," he says.

"Increased performance of the physical network enables the datacentre network to support varied environments characterised by a rapidly expanding number of virtual machines and very large numbers of users within a small footprint. Today's datacentres are adopting virtualisation as a means of improving cost efficiencies, adding resiliency as well as reducing power requirements. This, coupled with the growing trend of moving towards a hosted or cloud model of computing is leading to a significant growth in the scaling requirements of the datacentre network," adds Ala'ali.

The cost of the choices facing CIOs – whether to build or lease the datacentre from a managed service provider –

seem obvious. Hosted datacentre services are economically attractive on paper but still represent a huge leap of faith and imagination for both CIOs and their senior colleagues at the boardroom. And the self-build models come with a traditional expectation of high investment requirements.

In fact, according to Heribert Radlinger, head of datacentre services at service provider eHosting DataFort, both routes offer cost-effective solutions. It all depends on the size, requirements and financial model of the business.

"Broadly speaking, SMEs would benefit more from seeking a professional managed IT service provider who can offer them datacentre space to lease," he says. "Leasing your datacentre to a specialist team dedicated to managing and running them, means they carry the risk and are

able to offer the support companies need to focus on core activities.

"Should companies take the build option, there are two technological approaches to adopt that can also enable CIOs to keep their capital expenditure at a minimum: the decentralised rack-based solution, and the centralised modular solution."

Both alternatives allow datacentres to be built in phases, with the power and cooling infrastructure implemented as and when growth demands.

"The decentralised rack route enables a more independent set-up of power and cooling through a rack based supply," says Radlinger. "The centralised modular route adds modules to a centralised power and cooling supply for the entire datacentre rather than for individual racks. Both methods can keep the costs of IT infrastructure to a minimum." ■

## THE IMPORTANCE OF PARTNERSHIP

Whether a CIO follows a self-build datacentre strategy or decides to take the hosted route, they will need to take sound advice. A successful project that delivers a datacentre capable of evolving depends on choosing the right suppliers and consultants.

Self-build certainly doesn't mean going it alone. CIOs and their senior colleagues in the Gulf can learn a lot from mistakes made by their counterparts in the West.

"Businesses [in the region] are rapidly learning the lesson that the best IT infrastructure cannot be achieved simply by plugging in the world's leading applications – lessons which have been learnt painfully in the West over decades of incremental technology and change," says Michael Williams, chairman of IT services company Sovereign Business Integration.

"If a business chooses to use a third-party supplier to provide their datacentre setup and support, they need to look for a partnership, based on a true understanding of their business plan and with long term goals," he advises.

"On the one hand, there is the danger of employing a company that may offer a cheap solution but lacks the skills and experience to support the business as it grows, and they may not fully understand the alternative solutions available. On the other hand, a big international firm may offer a well branded "off the shelf" solution which may not necessarily suit the business and may not provide the security levels required, whilst almost certainly costing a huge sum in subsequent support and upgrades. A middle course option is to build a long term relationship based on trust and understanding of your business, which will be more cost-effective in the long run," adds Williams.