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Demand rising for data centres

Few industries have endured as much change and trauma as the data centre market in the last six or seven years. Having exploded on the back of a €500 million capital investment splurge in the late 1990s, it contracted almost as quickly three or four years later when the expected levels of demand failed to materialise.

A number of high-profile companies went to the wall, including WorldPort, Wolfe Group, Inflow Systems and Cityreach.

Since then, however, the demand for data centre space, so slow in coming during the dot-com era, has been rising at a steady pace, with the result that demand and supply are moving towards a level of equilibrium not seen before in this still-young sector.

A symptom of these changed fortunes is that, in anticipation of continued growth in demand, several data centre providers have started a new wave of construction and extension projects in Ireland.

Interxion is a pan-European data centre provider with 500,000 sq ft of space in 22 data centres across 11 countries, including Ireland. According to Tanya Duncan, managing director of Interxion Ireland, the market is very much on the up, with the result

that the company has earmarked €15 million for the expansion of sites in various cities across Europe.

"We're hoping Dublin is going to be one of them," Duncan said.

The improved performance of the industry in recent years is driven by the fact that customers can see the benefits of outsourcing IT infrastructure.

"The tendency to use data centres is much greater than before because it allows organisations to focus on their core business, reduces costs and takes away their IT management headaches," she said.

At the industry has matured, the typical data centre business model has evolved from being one based almost exclusively on co-location – filling up as much rack space as possible with customer kit – to one in which services feature strongly as well.

"Data centres today are offering a much more comprehensive suite of managed services," said Helga Muir, sales and marketing manager of Servecentric. "Customers are demanding anything from hosting services, storage and bandwidth to software as a service."

Duncan agrees that the data centre business is a service game these days. "Managed services can be anything from doing IT support and hosting infrastructure to monitoring

and managing of systems to taking total ownership of a customer's IT system," she said.

Yet high-level managed services are not an easy sell. Businesses, especially larger ones, are innately conservative and have an understandable fear of 'losing control' over their IT systems and data.

According to Patrick Patterson, marketing executive at Colt Telecom, businesses will only outsource the management of their IT infrastructure if they have complete confidence in security – both physical and computer-related – that the outsourced partner can provide.

To this end, being able to show compliance with an international quality standard is crucial, according to Patterson. "When it comes to outsourcing software services and hardware infrastructure, service providers need to be able to provide maximum levels of security," he said.

"From Colt's perspective, we recently achieved ISO 27001 certification, which covers our European data centres and network management and monitoring facilities. This certification is an independent endorsement of the highly efficient way in which we secure our operations and services to customers."

Although providers such as Interxion and Colt can talk up their European 'footprints',



Maurice Mortell, Data Electronics



Tanya Duncan, Interxion Ireland

others can play the Irish card. Data Electronics is one such provider. The company is the largest independent Irish-run operator in the market and its client roster includes Dublin Airport Authority, Fujitsu, Mitsubishi, Global Crossing, ComReg and Vodafone.

The company operates a 21,000 square foot facility at Kiltcarberry, west Dublin, which it acquired from Inflow after that ill-fated operator went bust, and it plans to bring a new 40,000 sq ft facility in Northwest Business Park, Blanchardstown, on stream within the next nine months.

So business is brisk, according to Maurice Mortell, managing director of Data Electronics.

"There has been a real change in the market over the past 18 months," he said. "There's a much more mature provider base out there but also a much more mature market – organisations are much more comfortable about moving to these outsourced models than

they were previously."

Mortell said monitoring services, security, storage area networks, database administration, data back-up, disaster recovery and network management were typical of the managed services that were currently in demand.

Mark McArdle, head of service operations for BT Managed Services in Ireland, sees a similar process unfolding.

"Most data centre providers are trying to increase the value of the services they provide and move away from providing just pure co-location services," he said.

"A range of smart services are being provided as well as things like disaster recovery and off-site back-up. Companies that have a datacomms room in their own premises want a secondary one in a commercial premises to fall back on in the event of them losing their own facilities."

BT has two primary data centres in Ireland, a 16,000 sq ft facility in Belfast and a larger

operation in Citywest, Dublin, which was recently extended from 60,000 sq ft to 80,000 sq ft.

According to McArdle, BT's business in the south has benefited significantly from the presence of large US multinationals, several of which – including Google, Yahoo and Skype – have taken out space in BT's data centre as part of their international network of data centre facilities.

In addition, a growing number of Irish-based companies, such as online trading companies, airlines and online travel agents, are also partnering with BT, he said.

Eircom, BT's great rival in the local telecoms market, has also been quick to get into the hosting market. It operates three data centres in the Dublin region at Citywest, Dundrum and Crown Alley, according to Mike Davidson, Eircom's head of business development for the enterprise market.

Together these have a combined capacity of 30,000 sq ft and Davidson said that plans were being progressed to increase this capacity significantly in the near future.

Davidson said Eircom provided hosting space, connectivity and management of systems up to operating system level.

It also provides hosting of some sophisticated mission-critical applications, such as SAP, for key customers such as Irish Distillers and Golden Pages, but he pointed out that looking after the application itself was something that would be handled by a separate service provider.

"We have a strong relationship with Bearing Point for its SAP expertise," he said.

Eircom also hosts proprietary applications for some customers, such as the Movex application for IAWS.

McArdle of BT noted that, alongside the old reliables of fi-

ancial services, telcos and e-commerce sites, new markets for data centres were beginning to emerge – such as digital content and online gaming – which require huge bandwidth and continuous uptime.

Some movement was also being seen in the public sector, he said, where there was growing demand from public sector organisations looking to move to a shared services model.

While getting the punters in and filling racks has always been a key objective for data centres, the space question has in recent times been superseded by another pressing issue, said McArdle.

"Rather than space being a problem, what's come to the fore over the past year has been power," he said. "This is because the equipment people are putting into data centres is increasingly dense, which requires much more power.

"We're finding that we have to carefully consider which customers are coming in and what their power requirements will be. Power is the number one item on most data centre managers' priority list."

McArdle said the advent of new technologies, such as blade servers, meant much more computing power could be squeezed into a rack, with a consequent knock-on impact on power consumption. Some high-power racks/cabinets can consume 10-20kW of power, whereas a few years ago 2-3kW would have been the norm.

Cooling requirements also have to be factored into the power equation – the more heat produced, the more power needed to drive a data centre's cooling systems.

McArdle estimates that for every kilowatt of power consumed on running servers, uninterruptible power supplies (UPS) and other equipment, a further 0.6KW – 60 per cent – is required to cool it.

With more and more power needed to run data centres, electricity has suddenly become a major issue for data centre operators – even more so since prices from ESB have risen 55 per cent in the last 18 months.

Traditionally, power costs were bundled into an overall fixed price contract but rising electricity costs coupled with higher consumption patterns has caused data centre operators to rethink pricing.

Many of them are moving towards a fixed-variable model, where the cost of rack space is fixed, but the power consumed is variable, with bills calculated in terms of kilowatt hours consumed per month.

Growing energy consumption has affected data centres in another way too – it has shifted the environment up the agenda as customers start to question the green credentials of their data centre partners. The upshot is that these operators, along with equipment providers, are being forced to think green.

"Much of the innovation that is currently happening in the data centre industry stems from the requirement to reduce power consumption and carbon emissions," said Muir.

Despite these challenges, the data centre industry can look to the future with confidence. The economy is strong, business is booming and organisations seem open to new ideas. And while there are still some companies resisting the lure of the data centre model, these are gradually being won over.

"There's a mind-shift happening," he said. "People are looking at IT and asking how it's delivering value to the business and, rather than amassing an IT infrastructure and asset base, they are seeing the logic of putting it all in the hands of a competent third party and paying them a fee every month."



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