

Going Colo - the golden rules for moving from garage to data centre

November 15, 2002 - The IT market changes shape very rapidly, three years ago telcos were buying up ISPs to extend their datacoms offerings and it seemed as though there was no room for independent providers. However, the actual situation is very different, independent ISPs are thriving. By focusing on lateral markets, vertical sectors, and geographic regions they are gaining ground and growing fast.

As more customers sign up for narrowband and broadband services, these ISPs need to scale up quickly and resilience and security are becoming major concerns. Such business growth fuels the recognition that operating server and network equipment in-house becomes too risky and a more sophisticated facility is required to ensure that crucial equipment is kept in optimum conditions.

Growing pains

Moving servers from the garage into a state-of-the-art, air conditioned data centre is a major step for a start-up ISP. Choosing the right colocation partner is critical but how do you know what to look for? On a site visit and when it comes to reviewing a contract there are some key things to keep in mind to make sure the investment is a wise one.

The following points outline the key criteria for ISPs to consider before handing over their servers to a data centre.

What to look for:

- **1. Power Supply**

Uninterruptible power supply (UPS) is the single most important aspect of a data centre. It conditions the power and can maintain the load for a short period of time, it includes a generator that can replace utility power for extended periods of time, and a distribution system that provides power to the individual servers. If, for any reason at all, there is a power outage, your colocation partner should have a generator and enough fuel to keep the data centre at full power for up to 24 hours with additional fuel on stand-by from a local provider. Battery power is also important as it maintains the load before generators come online so check that the colocator can ensure they're in condition and can provide enough power to keep everything running for up to a minute whilst the generators are fired up. Most importantly you need to see evidence of a planned

and implemented test/maintenance programme so that all of these different systems of back up actually work when needed!

- **2. Air conditioning**

As air conditioning units operate continuously and require ongoing maintenance, it is critical to have redundant units available in case of failures and during maintenance windows. Data centres should be kept at a steady temperature of between 21 - 23° Celsius. This ensures that server equipment does not overheat and malfunction.

- **3. Service Level Agreements and 24x7 support**

Round-the-clock support is increasingly essential as e-business applications serve a global market. You never know when you'll need an engineer at short notice to reboot a server or check a circuit.

Before choosing your provider, ask who your account manager or point of contact is. You should have a named contact who you can call within office hours. After hours your call should be picked up within a certain number of rings and an engineer should be able to respond to your query within an agreed and specified time. You should also be presented with documented procedures including escalation, for when things do not go to plan.

Service Level Agreements should guarantee 100% power uptime, temperature control between 20-25 degrees Centigrade and 100% connectivity. If SLA performance targets are not met your colocation partner should pay a penalty in service credits – before signing any contract check at what point the payment should kick in.

- **4. Security**

Critical infrastructure should be protected. Check the security provision for the site. Who's allowed in? What checks are carried out on them before they enter the building? Is there CCTV? How many security guards are on duty through the night?

There is always a play off between security and flexibility of access. The more secure a facility is the less easy it is to get rapid access should a problem arise. The answer is to ensure that the engineers on site are experienced and expert enough to solve your problems for you – which leads me on to my next point..

- **5. People / culture fit**

Can you work with these people? Can you rely on them in a crisis? Will they look after your equipment with the same respect, care and expertise that they would give their own. Don't underestimate the importance of getting on well with your data centre provider. You should also check for the level of qualifications of the engineering staff, and that you are confident they are trained to operate your equipment.

- **6. Carrier neutrality**

As the telecoms sector continues to be turbulent, carrier neutrality is becoming increasingly important. It's wise to look for a data centre with a wide range of alternative service providers and connectivity. Carrier neutral data centres mean that with just a flick of a couple of switches and some port patching a server can be connected to an alternative network operator that sits within the facility.

- **7. Cable and site management**

It may sound trivial but it's the details that count. Following the boom years of 1999 and 2000 there are data centres in the UK that can barely admit new customers because of the bundles of cabling over a metre deep under the floor preventing any new installations. Apart from the difficulty of navigating the centre it also means that making changes quickly is virtually impossible it also puts your critical equipment at risk.

To ensure that your equipment is looked after and not affected by your fellow co-locators you should find out whether the data centre carries out maintenance or whether it is left for customers to do themselves. You should be able to trust the expertise of data centre engineers to carry out maintenance. The benefit is that the changes are made in the context of the whole building so that there aren't hundreds of engineers from all the other co-locators milling around making changes to the infrastructure.

- **8. Scalability and working with your supplier**

When choosing a data centre, be aware that some of the "standard products" available limit your ability to be flexible in your day-to-day, and future dealings, with the provider. If you are not intending to grow your business or like doing things other peoples' way, there are very attractive offers available. If however, you intend to succeed, then factor in an area for growth or ability to migrate within the same centre to larger scale operations.

When you are focusing on business growth, the last thing you want is the headache and risks involved in moving all or some of the infrastructure you have established. Talk to your potential partner about the investment they make in new technologies that will enhance the facility and your business. For instance, can the data centre support satellite links from one location to another?

- **9. Financial stability and facility investment**

The colocation market has changed significantly over the last two years. There are far fewer providers in the market, look at company reports and ask to meet the senior management – you should be reassured that you're equipment will be safe in its location five – ten years down the line.

- **10. Price**

The key point on price is that yes it's important to negotiate the right price but it should not be the primary concern. If your business relies on the Internet your infrastructure must be kept in perfect condition in a secure, resilient, well-managed environment.

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