

How to choose the

perfect

web hosting provider



we make business straight.forward

Mind the gap between promise and delivery

At certain London Underground stations, passengers are warned to “mind the gap” between train and platform. Managers choosing a web hosting provider would do well to mind another gap: the gap between what certain providers promise before you sign the contract and what they actually deliver after.

Ovum, a leading market research firm, says such gaps explain a paradox in the attitudes of managers who have already made the jump to an external provider. Its comprehensive poll of users found that while an overwhelming majority thinks sidelining their in-house platform benefited their company, nearly one in two also expressed dissatisfaction with their provider.¹

Users, in effect, are saying that outsourcing was the right move, but there is a gap between the service they are getting and what it said on the box. So should other managers looking to outsource their web hosting simply discount the promises for the fine print in the brochure?

Discounting might be an option for a small business with a static website, but for the IT or e-business manager of a big company that interacts with thousands, even millions of customers daily over the web, they are gaps which can cost sales and jobs – including theirs. After all, unacceptable amounts of downtime, inadequate technical expertise and insufficient bandwidth – the main gripes cited in the Ovum survey – are what the board is promised will be overcome through outsourcing the company’s mission-critical Internet applications.

The bad news for Tube passengers is that the gap between a southbound Northern Line train and the platform at Charing Cross station is here to stay. The good news for managers responsible for large, corporate websites is that careful selection of a provider can eliminate any unexpected gaps in the hosting service their company receives.

The first step in finding the perfect partner is to know what questions to ask potential suitors. Some questions will depend on the particular circumstances of your company. But others are so important they form the fundamental requirements of any quality web hosting solution.

So COLT, a leading European telecommunications company, has produced this guide to choosing the perfect web hosting provider. It sets the scene with a look at why business and technology are becoming more complex, and how this affects the decision to move from an in-house to an externally hosted Internet platform. It then sets out the fundamental criteria that all would-be providers should be measured against and why they are important. Finally, it provides answers to where COLT itself stands on each of these issues.

Whoever you decide to partner with, this guide is designed to close the gap between your expectations and the service you finally end up with.

Web hosting in an uncertain and complex business environment

The business environment in which you are deciding the future of your web hosting platform is growing more uncertain and complex than ever. Just how uncertain and complex was made clear by the Code Red virus that threatened to bring down the Internet in late July 2001. Whether the threat was more imagined than real, as some commentators suggested at the time, is beside the point. What the outbreak demonstrated, above all, was how complex the job of keeping mission-critical applications up-and-running 24 hours a day has become.

The worm virus only spread because some website administrators had not bothered to download a security patch for versions 4.0 and 5.0 of Microsoft’s Internet Information Server software. At first glance, pointing the finger at the administrators concerned seems fair.

¹ Ovum, “Web Hosting: Usage and Markets”, 2001, p.15-16. Almost half of the companies interviewed for the report expressed dissatisfaction with elements of their web hosting solution. However, nearly 90% agreed they had benefited from using an external provider.

But when you consider that, according to one estimate², there were 78 outstanding security bulletins for version 4.0 of the Microsoft NT operating system at the time, it becomes easier to empathise with the harried administrator who didn't get around to downloading the Code Red patch.

² "It's a dread to patch code red", Wired News, August 3, 2001.

So should we instead point the finger at Microsoft itself for selling software with security flaws? No, because determined hackers will eventually find a hole in even the most carefully coded software. The reality is that plugging these holes with the latest patches, and putting in place secondary defences such as firewalls and network intrusion software, is the only effective way to counter the threat. There is no simple solution. The real question for your organisation is whether it is happy to entrust this complex task to the IT department?

In-house IT under pressure

This question becomes even more critical when the hosting of Internet applications is not the only thing being asked of today's corporate IT department. The growth in online commerce and the shift of business processes to the web is increasing the complexity of Internet applications.³ Simple brochure websites have evolved into interactive e-business hubs that provide, among other things, transaction processing, streaming media like sound and video, and personalised employee portals. And charged with supporting those hubs, as well as responding to business changes with new functionality, is an increasingly stretched IT department.

³ Schroder Salomon Smith Barney, "Next Generation Infrastructure: co-location and Web Hosting in Europe", March 2001, p.10.

Handing over both development and support tasks to an outside organisation is nothing new for IT departments. Most big Enterprise Resource Planning (ERP) implementations, for example, are handled by outside contractors with the necessary skills and experience. For similar reasons, companies in the future will probably need to outsource elements of their Internet platform. Otherwise, they risk spreading their IT resources too thinly, and leaving a gap between the needs of their business and their Internet platform's ability to meet them.

Outsourcing hosting can relieve pressure with other benefits

Many companies have concluded that outsourcing the hosting of that platform is one way of preventing such a gap opening up. Indeed, from a \$10 billion market today, Ovum expects the global market for web hosting will grow to \$47 billion by 2006. The research firm also predicts that Western European companies will be among the most enthusiastic outsourcers.⁴ An increasing number are recognising that, unlike the design of the applications themselves, hosting does not benefit from day-to-day management by an in-house team. Moreover, beyond freeing up resources in the IT department, the specialisation and professionalism of the best external providers potentially offers your organisation a number of other, more positive benefits.

⁴ Ovum, op. cit., p.5.

Lower costs Due to the greater economies of scale available to the provider, Schroder Salomon Smith Barney, a leading investment bank, estimates the cost savings from a fully managed outsourcing solution versus in-house provision potentially range from 60% to 70%.⁵ A study of 12 companies that outsourced their web hosting by International Data Corporation (IDC), a research group, found that the ROI (Return On Investment) over three years will amount to 301%, with a payback of only 121.4 days.⁶

⁵ Ibid., p.14.

⁶ International Data Corporation, "Achieving Rapid Return on Investment in Outsourced Web Hosting", 2000, p.1.

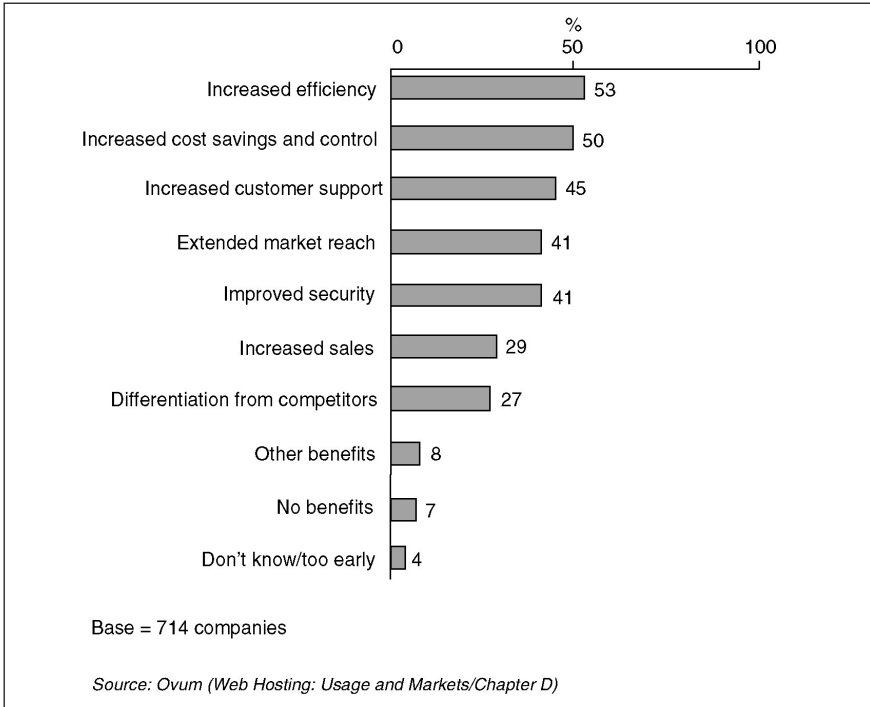
Overcome skills shortage Organisations can find it difficult to attract and retain the necessary technical expertise. As a matter of course, says the Hurwitz Group, a market intelligence group, leading outsourcers will put the necessary resources into attracting and retaining that talent because this provides their competitive edge.⁷

⁷ Hurwitz Group, "Trends in e-Business Outsourcing and the Rise of the Managed Hosting Model", January 2001, p.1.

Scalability It is often difficult to accurately predict the popularity of a new website or Internet application. However, a good external provider will have plenty of spare network and server capacity, as well as sufficient staffing resources, to adjust quickly to changing market conditions. Having this level of spare capacity internally, alongside a dedicated staff that is large and expert enough to respond as speedily, is impractical and prohibitively expensive.

Increased reliability The IDC study discovered an 88% drop in downtime following a company's decision to outsource their website.⁸ Quality hosting solutions also offer “paranoiac” levels of security to avoid Code Red-type viruses and other threats, as well as Service Level Agreements (SLAs) – stronger than mere agreements – to guarantee service at the level contracted for.

⁸ International Data Corporation, loc cit..



These benefits alone present a powerful case for getting to grips with the web hosting market. The next section is intended to help you do just that by setting out the fundamental requirements of a quality hosting solution. Because ultimately, choosing the right partner will determine whether your organisation realises the potential benefits should it choose to outsource.

The elements of a no-gap web hosting solution

No serious contender for your business will claim to provide all the nuts-and-bolts of a quality web hosting solution. Partnering with other suppliers is necessary to meet all the needs of enterprise customers. Some providers will, however, put together a so-called “package” solution only to direct you to the individual suppliers of each component when problems arise. Or even make you sign separate contracts with each supplier.

Either way, the more gaps between each element in your web hosting solution, the higher the chance your company will fall through one of them. “You want someone who will take responsibility for every element of the solution and then guarantee that in a contract,” says Paul David, COLT’s Director of Internet Division for the UK and Ireland.

So as you consider each element that goes into a quality hosting solution, keep in mind that it is one thing for a provider to bundle them together, and quite another for it to take full responsibility for each element after the contract is signed.

Network coverage

One second, says Dr Jakob Nielsen, the world's foremost authority on web usability, is all the time users will give your Internet applications to respond before their attention starts to wander. After 10 seconds, he says, "users will want to perform other tasks" – i.e. leave your site.⁹ This makes finding a hosting service that can guarantee fast response times extremely important.

⁹ Nielsen, Jakob, "Usability Engineering", Morgan Kaufmann, 1994, Chapter 5.

However, as one big UK retail chain recently found out, simply attaching the Internet Solution Centre (ISC) where your site and applications are hosted to a speedy network, while important, is not enough. Unfortunately for the retail chain, says Paul David, this is precisely what the company hosting its nationwide online shopping site did. The result: some shoppers found the site lightning quick; others found it frustratingly slow.

The supermarket chain eventually discovered it came down to which Internet Service Provider (ISP) the shopper used. The hosting company in question had "peering" agreements with some major UK ISPs but, crucially, not all of them. Where it did have a peering agreement in place, requests from users of that ISP were directly handed over to the provider's network, ensuring a short round-trip time back from the data centre. Where it didn't, user requests were routed through a series of intermediate networks until a suitable hand-over point could be found, causing the delay noticed by the user.

Providers that own and manage the network their customer's data travels across have direct control over what peering agreements are put in place. Other providers have to rely on the network owner they lease capacity from to negotiate them. Of course, peering agreements are only helpful if they are in place in the countries where your company does business. The same goes for the areas covered by the hosting company's backbone network.

For most UK companies, the relevant countries will be in Western Europe. Naturally, this doesn't play to the strengths of some otherwise high-quality providers, especially those based in the US. But ignore it, and you could find traffic originating in Germany going all the way to the US and back before hitting your site in the UK. By which time a visitor to your website might have left to shop elsewhere.

Checklist

- Does it own and manage its own network?
- Does the geographic profile of the network match that of your company?
- Does it have peering agreements with local ISPs in key country markets?

Flexible solutions

Every company comes to the web hosting market for a unique set of reasons. The challenge, therefore, is to find an external provider sensitive to the circumstances of your company, and get them to tailor a solution accordingly. Unfortunately, this is not as easy as it sounds.

The temptation for providers is to force customers to pick from a limited selection of off-the-shelf packages. That way, the provider can churn out new customer platforms quickly and cheaply using standard templates. Flexible platforms tailored for individual customers, on the other hand, require the time and energy of expensive specialists to get up-and-running. Off-the-shelf packages are also a clever ruse for sending customers home with more than they really wanted. Pity the IT director who then has to explain to his executive board why in a tight budgetary environment the company is paying for unnecessary features.

Still, off-the-shelf solutions, especially where there are cost advantages, will suit many companies. The point is to be given an informed choice. So look for providers that offer Internet

consulting services. These can undertake a professional assessment of your organisation's hosting needs and make considered recommendations on that basis. They can also assist at the next stage in the design and build or migration of your solution.

Finally, look for a provider with a product set that can accommodate the evolving needs of your organisation. According to Ovum, more firms will turn to their hosting company for advanced services like application integration, storefront facilities and content management where they lack the expertise and experience to do it themselves.¹⁰

¹⁰ Ovum, op. cit., p.16.

Checklist

Does it offer flexible, tailored solutions, as well as off-the-shelf packages?

Does it have Internet consulting services to assist in design and build, or migration of your solution?

Does it offer advanced services like application integration and content management?

Enterprise focus

Flexibility should not come at the expense of a disciplined approach to hosting and monitoring your Internet applications. In fact, as these applications have become more mission-critical, Paul David has noted a marked shift in the way big companies expect providers to approach the task. "A couple of years ago," he says, "it was acceptable for providers to be kind of wacky and open-sandaled in their approach, with staff allowed to experiment freely and try things on the fly." He thinks this reflected the fact that for many providers, particularly American ones, their first customers were dot.coms with similarly laid-back internal cultures.

Today, the demise of many dot.coms has put established enterprises at the centre of the Internet economy. This shift, according to Paul David, has raised the stakes for providers. "Big enterprises want to see high standards, quality monitoring tools and tested procedures in place." And, he adds, they want to be sure those tools and procedures, as well as the provider's infrastructure, will scale to provide significant extra capacity at short notice.

Unsurprisingly, most providers targeting the enterprise market will claim these attributes for their service. So companies will need to take a proactive approach in assessing the validity of claims. Visiting the hosting facilities is one way to assure yourself the provider is a serious outfit. More important, though, is to ask for and take the time to chase up customer references. These references should come from companies of a similar size to your own, and in a comparable industry.

Checklist

Does it have a track record of successful implementations?

Do these implementations include companies of similar size and in a comparable industry to your own?

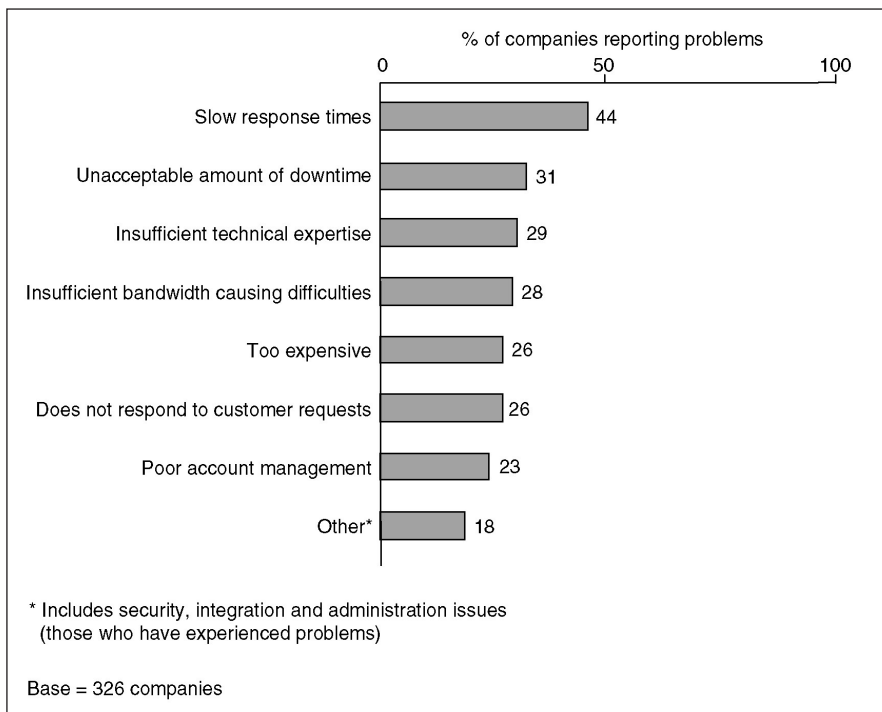
Outstanding customer support

According to the Ovum survey, 59% of UK companies are experiencing problems with their web host.¹¹ When asked to elaborate, customer support issues came up as a regular cause for dissatisfaction. Clearly, then, finding a provider with first-class customer support is essential to a happy hosting experience.

¹¹ Ibid., p.118.

What to look for? With 31% of companies reporting problems in the Ovum survey citing insufficient technical expertise as an issue, the presence of specialist and accredited staff is obviously important. Even so, be wary of providers waving wads of exam certificates covering the latest technologies. Look for real on-the-job experience among the staff too. Otherwise, you could find yourself, as one respondent to the Ovum survey quipped, calling the help desk only to find you have to instruct the web hosting company rather than vice versa.

The accredited staff should also not be spread too thinly. A provider with a knowledgeable support team that is difficult to contact and does not return calls is not much of an improvement on a poorly trained helpdesk. In fact, poor account management in general was mentioned by 23% of unhappy users in the Ovum survey. So look for providers with accredited staff available 24 hours a day, 7 days a week, guaranteed in the contract.



Checklist

Does it have specialised, accredited teams to manage your solution?

Are these teams available 24 hours a day, 7 days a week? Are they required to respond to customer queries within an agreed amount of time?

Network of quality Internet solution centres

The Internet is supposed to eliminate geography. Applied to web hosting, this should mean the location of your provider’s ISC – which contains the physical infrastructure to host your applications – is immaterial. The reality, however, is different.

The first reason is user preference. Naturally, it is important for customers using co-location services to be physically near the host’s ISC (sometime called data centre). But even customers opting for a managed service prefer the ISC be located relatively close to their main offices, observes Paul David. “Most think it important the data centre they choose be no more than 40 minutes either by fast train or car from their offices,” he says. “They like to know, that in an emergency, they could be with you on the site relatively quickly.” For big UK companies, for example, this probably means finding a provider with an ISC in or near London.

The second reason the location of ISCs matter is particularly relevant to UK companies serving other European markets. If your provider has an ISC in each of these markets, the organisation has the option of mirroring or caching its Internet applications locally to improve the quality of service for end-users.

However, the location of the provider's ISCs will not count for much if their quality is poor. The Ovum survey found that an unacceptable amount of downtime was a criticism of 31% of companies reporting problems.¹² To minimise downtime, look for centres where expert staff monitor operations 24x7 and that are built with an n+1 configuration. An n+1 setup means that for every cable, every server, every switch, indeed, every piece of equipment at the ISC, there is an identical piece of equipment on standby. Obviously, some organisations might be happy to take the risk with a single set of servers, for example, and pocket the savings. The important thing is that the provider has not made the choice for you.

¹² Ibid., p.119.

Checklist

Does it have a network of fully operational Internet solution centres across the UK and Europe?

Are the centres built with an n+1 configuration so there are no single points of failure and monitored 24x7 by accredited staff?

Industry-leading Service Level Agreements

Even once you are confident a prospective provider meets your requirements in terms of features, there is another crucial question to ask: will the provider step up to a no-gap Service Level Agreement (SLA)? Rather than guaranteeing service by component – such as Internet connectivity and database clustering – in separate agreements, the hosting provider should bundle all guarantees into a single contract. If they refuse, it could mean they do not have full confidence in their infrastructure, or they don't have proper agreements in place with third party suppliers of software and hardware. Either way, it will leave you with gaps in your web hosting solution that could come back to haunt you if problems arise. So a good SLA will include the following:

- Description of the services and payment terms.
- Specific metrics on key measures such as availability (e.g. guaranteed uptime) and performance (acceptable round-trip delays on network).
- Maintenance and repair terms for hardware and software provided by third parties.
- Termination conditions and legal issues (that is, warranties, indemnities, and limitation of liability).
- Details of recourse (penalties, service credits, etc.) if guarantees are not met.

Checklist

Does it provide industry leading Service Level Agreements (SLAs)?

Does the SLA bundle guarantees for all service components into a single contract?

Financial stability

The financial stability of your provider is important. The migration costs of switching providers if your first choice goes bust are significant. There is also the waste of management time running the selection process a second time. And a shaky provider will not have the financial resources to invest in new technologies.

Of course, even a year ago, such talk would have seemed alarmist. But a combination of oversupply in the market and weakening demand, as many dot.com customers have gone out of business, has hit the hosting industry hard.¹³ The fall-out has been a series of mergers and acquisitions among providers and, in some cases, bankruptcy. All of which, says the Hurwitz Group, has left “some customers increasingly concerned about vendor viability”.¹⁴

¹³ “Web-hosting industry burned by dot-com woes”, USA Today, July 31, 2001.

¹⁴ Hurwitz Group, op. cit..

However, it would be wrong to tar all vendors with the same brush, or to conclude the market is too risky to enter. Analysts agree the longer-term outlook for the industry is healthy. Large European companies’ spending on external web hosting capacity is expected to rise a compounded 17% for 2000-2002, according to the consultancy Yankee Group.¹⁵ The challenge is to pinpoint the likely long-term winners in the market. An already-built infrastructure and a comfortable cash position are good guides to which providers are best-placed to weather the industry’s short-term woes.

¹⁵ “Stage set for euro web hosting consolidation”, Reuters, August 9, 2001.

Checklist

Does it have secure financial status?

Will it continue to invest in new technologies and resources in tough economic times?

COLT fills the gaps

COLT believes answers to questions raised in the previous section form the fundamental requirements of a quality web hosting solution. And so you can better compare our award-winning capabilities with the competition, we have briefly set out our own answers.

From the outset, COLT is determined to be up-front with its customers, says Paul David. “COLT doesn’t do everything for its customers,” he explains. “We provide as much of the solution as we have competency in. And where we don’t, we bring in strategic partners to offer a complete solution.” For example, COLT has developed its interHOSTING Windows 2000 service in collaboration with Hewlett-Packard (HP), a leading supplier of server technology.

However, Paul David insists this doesn’t force customers to deal with a myriad of third parties if problems arise. COLT offers its solution on a prime contract basis, which means it takes full responsibility for every element of the hosting solution, whether it supplies it directly or not. So you can be sure that COLT will be held accountable for the answers it gives to those fundamental questions after the customer signs the contract.

Network coverage COLT is nearing completion of its 15,000km pan-European high-speed data network. Unlike many of its competitors, the company owns and manages its hosting backbone, which connects comprehensive metropolitan networks in 27 major European cities (Figure 1). The super-fast backbone is supported by peering agreements with other operators in each of these cities, ensuring the shortest round-trip times possible for traffic to your site.

Flexible solutions COLT offers a comprehensive portfolio of managed dedicated hosting and bandwidth solutions. InterHOSTING covers all major platforms: NT, Solaris, Unix and Windows 2000. Whilst standardised service packages are available, COLT can also tailor a solution to meet your specific business needs. Tailored solutions today account for some 70% of its managed hosting sales. A team of specialist Internet consultants is available to assist with these requirements and other aspects of the design or migration of your solution. COLT interHOUSING gives customers the option of locating their servers in one of its world-class ISCs.

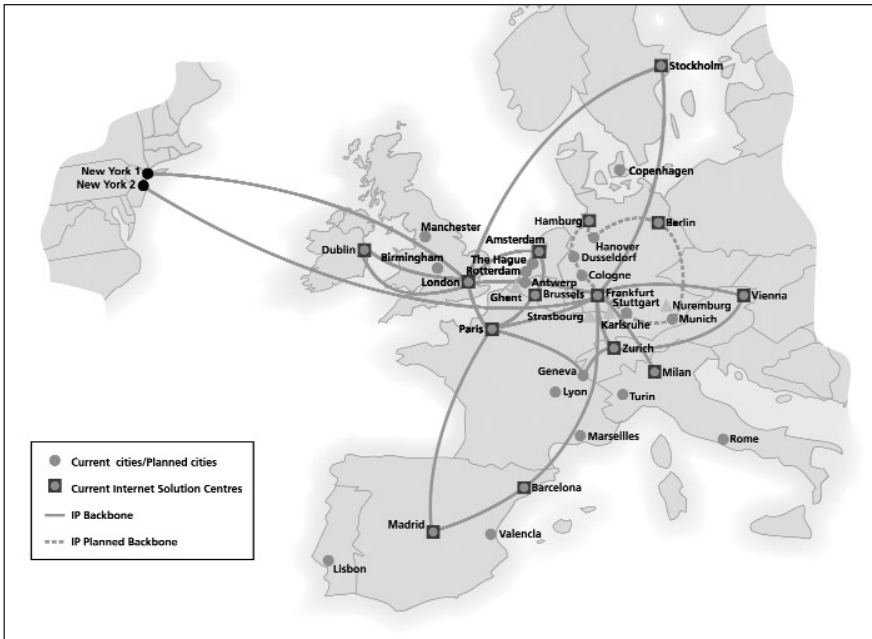


Figure 1

Enterprise focus COLT has established its credentials as the hosting provider of choice for Europe's biggest enterprises. Founded in 1992 by Fidelity Investments, a leading investment company, its first customers were major financial institutions in the City of London. Paul David admits they were demanding customers at the time, but says it stood COLT in good stead for today's equally demanding customers in other industries. "Our early banking clients were so particular about things like security that we built our solution around very high standards. Because if we hadn't, they would not have done business with us." As a result, Paul David says, "When we now take our solution to other segments of the market, these standards are much higher than would usually be demanded by non-banking clients."

Outstanding customer support COLT's outstanding customer support has been recognised in a number of industry awards. Paul David puts COLT's award-winning reputation down to the mix of youth and experience in the company. "We've got young talent in our teams, with all the latest skills and techniques out of college," he says. "But alongside them we have a lot of experienced members of staff as well, which gives our customers extra confidence." Paul David says the company sponsors regular and ongoing training for the 110 staff employed in the UK Internet division. He adds this is important not only from a skills viewpoint but in keeping staff morale high and turnover low. "There is a very different feel at COLT to other telcos I have worked for before," Paul David says. "There is an ownership of problems and a terrific drive by the staff to want to be successful for themselves and the customer."

Network of quality Internet solution centres To date, COLT has built 13 Internet Solution Centres (ISCs) across the UK and Europe. Each is built with an n+1, fully redundant configuration to protect against physical plant failure, and is monitored 24x7. COLT has two ISCs in London, one in the western part of the city, the other in Docklands, less than 10 minutes away from the City of London. The presence of two ISCs in the capital will benefit companies looking for extra reliability. A customer could locate half of their production servers in one facility and the remaining half in the other. The first transaction is sent to one facility's server, the second the other's, and so on. The benefit of this is that, in the unlikely event of one ISC being wiped out completely, say by an aeroplane crash, the customer would still have their website active, albeit at half capacity.

Industry-leading Service Level Agreements COLT works with a number of other vendors to deliver comprehensive solutions to customers. At the same time, it firmly believes that customers should only have to deal with a single vendor for every element of their hosting

solution. Which is why COLT will sign an integrated SLA across the whole solution, and not only for the pieces it supplies directly. It will also back them up with penalty payments if it fails to meet the performance and other guarantees set out in the agreement.

Financial stability COLT Telecom Group PLC is a publicly traded telecom services company with over 4,000 employees. Its web hosting practice in the UK is part of COLT UK and Ireland, one of the group's 10 national subsidiaries in Europe. The group is fully funded through to the third or fourth quarter of 2002 and enjoyed half-year revenues of £433.5m to June 2001. Founder Fidelity Investments retains a 48% stake in COLT, giving customers the security of knowing the group is backed by the world's largest privately held mutual fund and investment company. And with its network and data centre infrastructure largely built, independent analysts Current Analysis think COLT is in a much stronger position than some of its competitors. "Because COLT is one of Europe's better managed and funded telecom companies, customers can be confident that orders will be met. Some weaker European telcos will struggle to fulfill their obligations as their operations shrink," it said in a recent report.¹⁶ The group's recent purchase of Adero and its proprietary caching and content streaming product confirms it will take advantage of depressed market conditions to acquire new technology.

¹⁶ Current Analysis, "COLT", Company Assessment, Updated June 7, 2001.

Conclusion

Uncertainty and complexity are the two driving forces in business today. Your company's technology infrastructure is the key to controlling and, ultimately, profiting from these forces. As more business processes shift to the Internet, this is especially true of your web hosting platform; which, in turn, increases the burden on an already stretched IT department.

In response, many companies are concluding they are better off outsourcing their hosting requirements. This allows the IT department to focus on supporting core business activities, secure in the knowledge the company's hosting requirements are in expert hands. Outsourcing also delivers other positive benefits over in-house provision such as lower costs and increased reliability.

But to gain these benefits, companies need to choose their hosting partner carefully. COLT has established a reputation as a reliable partner to some of Europe's biggest companies. That is why we feel confident enough to lay out the fundamental requirements of a quality no-gap solution and how we measure up to each of them. We suggest you also approach the competition with these requirements and listen to their answers. COLT believes that once you have, you will be ready for a demonstration of our award-winning capabilities.

COLT contact numbers

If you would like more information about COLT's web hosting solutions, please contact your local office:

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