

# Internet Managed Services

## *Executive White Paper*

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# Introduction

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It is almost impossible to remember what life was like before the arrival of the Internet. We depended on phone calls, the post and faxes to communicate and exchange information. Today, a world without e-mail and instant access to information from across the globe would feel like a huge retrograde step.

The Internet has become completely absorbed into our lives - a remarkable feat for a technology that is still in its formative years.

And for business, the Internet has opened the door on a new market with millions of customers now sourcing information, comparing competitive offerings and ordering services and products on-line.

That increased appetite has brought with it a demand for improved Internet services. Early Internet sites operated as an on-line corporate brochure or an electronic advertising hoarding and companies were delighted to be able to boast a world-wide-web address. Thousands of sites were posted, as business scrambled to grab a share of the lucrative Internet market.

As technology has progressed and new innovations have been unveiled to customers and become part of their daily consumption, so their demand for Internet Services has increased.

It's great news for any organisation that can conduct part or all of its business on the Internet or for public facing bodies, such as The Government, who need an effective channel to communicate policies and plans for change.

However, there is an onus on business to meet the challenge set by customers and their demand for increasing quality of customer provision and 24-hour access to information and services.

To be successful, organisations in sectors as diverse as financial services, retail and the public sector need to consider refocusing their business strategy to take advantage of the huge functionality offered by the Internet.

As well as being an easy to access channel for customers, the Internet is an opportunity to develop sophisticated business processes to help deliver against soaring customer expectations.

A well-designed, functional front-end application should link seamlessly with the rest of the business process across networks, systems and databases to provide an efficient and accountable end-to-end service.

And the Internet offers other substantial benefits for business, including the opportunity to create virtual teams through extranets across locations and between allied businesses and remote working for employees. All of this can bring about major competitive advantage and significant cost savings.

A complete Internet solution should offer the design, building and hosting of applications, and it should develop and maintain hardware and operating systems and create and manage networks. It should also devise and maintain databases and implement and run security systems so that the complete process links together on a seamless, secure and future-facing platform.

# The Requirement

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## Understanding your IMS Requirement

Most businesses considering the issue of Internet Managed Services (IMS) will not be starting with a blank sheet of paper. Many will have an existing Information Technology infrastructure and an Internet presence. The success of a complete IMS is not necessarily dependent on the wholesale replacement of existing processes and applications with an all new, complete package. In reality, a new solution will probably include legacy systems and existing database and processes.

The key to understanding what should stay and how the service should be enhanced is a carefully developed Internet strategy. This should embrace the core objectives of the business, while fully understanding the unique environment offered by the web.

Even when a business has internal technical expertise, it is often helpful to bring in experienced, external consultants who are able to evaluate the existing system impartially and develop a solution that blends business objectives with the functionality offered by Internet Services. A consultant, working within an organisation, able to deliver the full suite of IMS will work closely with a company to understand its customers, its market place and business drivers. They will also closely examine existing provision and look at the success stories of existing legacy systems to develop the best, bespoke solution within the specified budget.

The importance of this stage in the development of an overall solution cannot be overstated. It is critical to examine all the motivators for IMS and to be fully aware of all the options available if a solution is to be forward-looking, scalable and durable.

## The Complete Internet Managed Service

Today, a total Internet solution has to be secure and multi-faceted, linking to many aspects of the business. It means designing and building the site and then integrating it into the network. The complete solution may also require the development of hardware and operating systems. Also key to the success of an Internet solution is the implementation of processes to ensure all Internet business is managed and tracked through the organisation and provides a seamless link between the website and existing or newly created databases.

Once the site and systems are in place they need to be managed. This requires reliable hosting, a proactive operations team, monitoring and alerting tools to allow for system management analysis and service and problem management expertise focusing on the business and user needs.

There are single-issue solutions available that on the surface seem to provide an immediate solution to pressing Internet issues. For example, Internet hotels offer additional space, power and bandwidth, however, they offer little in terms of high quality system support or proactive advice and guidance.

Rather than “fire-fight” the immediate Internet issues, the better solution is for organisations to concentrate on their core business and work alongside a partner who has the expertise and the infrastructure to deliver a holistic service to match the level of need. It is far better to take a step back from existing Internet provision and internal processes and make a professional assessment based on current pressures and future need. That way a business is more likely to be able to develop a strategy that will have longevity and deliver the best results possible.

## IMS Options

The delivery of complete Internet Managed Services is dependent on the blending of a number of different factors.

Some partner organisations have the expertise and infrastructure to offer the full service in a one-stop-shop. These organisations invariably present the best option for a business, whether they are seeking a total solution or single components to fit an existing structure.

Organisations that offer fewer services are clearly likely to be pushing their offering as a priority when, in real terms, a more balanced overview could direct your business towards an alternative solution.

Internet Hotels are an excellent example of a quick fix, off-the-shelf solution for businesses struggling with space, power and bandwidth. However, they offer little high quality system support or proactive advice and guidance.

A better approach is to work with a partner to develop a long-term approach to IMS and to select services to design the perfect solution to match individual business needs.

Some of the areas that should be considered are:

- e-Business hosting of Internet domains in a secure, resilient and performance driven environment.
- Network Services for business that do not have a requirement for a dedicated private e-Business network and or infrastructure.
- Call centre provision - call logging, e-mail and referral service for customer incident reporting and change control.
- Branded access services - to provide a tailored environment for accessing the Internet.
- Professional and Management Services - platform monitoring, alerting and support, operator backup/recovery, maintenance, helpdesk and service management.
- Security Services - to ensure the integrity, confidentiality and availability of your Internet Services.

## Securing Your Internet Investment

As the incidence of corporate sabotage increases and hacking, malicious software, viruses and accidental damage become more of a risk to every business, the security of your Internet Solution becomes paramount. The Internet opens a door to the entire world and every solution must include a carefully implemented security service.

There is a wide range of security approaches available to businesses to help protect their Internet presence. It is important to examine specific strengths and weaknesses of the existing system and take into consideration critical business issues before deciding on the exact blend of the solution.

This is best facilitated by external experts with broad experience of delivering Internet Security Solutions. By looking closely at your systems and your individual business drivers, they can help you to develop the best protection within your budget.

Security services can be encapsulated in a three-stage process:

- *Prevention* - designed to stop the organisation being penetrated. Prevention is vital to protect the integrity of a business and its confidentiality but strict prevention regimes can result in the loss of functionality. This balance needs to be carefully considered and the risk calculated by a security solution provider to allow the business to take an informed decision.
- *Detection* - of any breach of security can be just as important as prevention. An organisation should be aware of any attempts to penetrate systems whether successful or not. The results of successful detection need to be carefully considered before investing in a detection armoury.
- *Response* - is directly linked to detection and needs to be established in advance of any security overhaul. What is your business going to do if a breach of security is detected? Answers should include a review and tightening of security in that area, protocols for possible prosecution, if applicable, and disciplinary

procedures if committed by a member of staff. There is no point in investing in detection services if you are not going to respond to any breach.

It is important for a business to understand fully its approach to these stages to form a cohesive security solution.

There is a wide range of security approaches available to business. Because of the bespoke nature of the total security system, it requires expert advice to help you select the most important functions for your organisation. Here are some of the services available.

## Protection

### Infrastructure Vulnerability Assessments

As well as providing a full consultation on existing security and recommendations on required security, a total security partner should also offer regular **penetration testing** or **ethical hacking services**. This should be done through qualified, experienced security consultants and must result in recommendations on security levels.

### Firewall and Firewall Management

The firewall is often perceived as the first line of resistance for any organisation. Named after the insulation that was fitted between the coal-burning steam engine and the passenger-carrying carriages, following a series of tragic train fires, the firewall is designed to protect your business from outside intrusion.

Any firewall is only as good as its rules or protocols and these need to be carefully drawn up as part of a wider understanding of the business. It is the balance between availability and confidentiality. There is no point in rejecting every e-mail with an attachment if that is going to compromise the ability of your team to conduct its business.

### Server Builds and Security Maintenance

As well as maintaining a strict "door policy", it is important to ensure systems are well configured and carefully maintained to minimize the risk of security breaches. That means the removal of unnecessary services, tightening up

of user controls and anti-virus controls. Maintenance is a key component in server security. Ongoing anti-virus and security patch application need to be carried out simultaneously across all aspects of the business.

### Detection

The deployment of firewalls, service access controls and anti-virus measures offer a level of protection against intruder threat. However, to monitor for threats actively and intervene to block them, some form of detection service is required.

### Intrusion Detection Services

This real-time detection service monitors traffic to look for suspicious "intruders". If it spots a rogue user, application or device within the system, it activates a series of escalating alerts. This can trigger a 24-hour response and is regularly reviewed and updated to accommodate changing threats. If a persistent violation of client architecture is discovered, service-hardening measures will be recommended.

### Security Log File Analysis

This security administrative service allows for regular review and analysis of the system and firewall logs to alert and conduct corrective actions on agreed conditions. It is a recognised and cost-effective approach to assisting in detecting intrusions and other security issues.

## Response

This is an important part of the whole security picture as it incorporates the action required to be taken as a result of failures of the protection service, which are then picked up by the detection service.

Actions could include strengthening the firewall to resist infiltration from certain sources, changing standards or processes. In more serious security breaches, an escalating 24-hour alert system could allow for human intervention to "fix" any problem including, if necessary, temporarily taking down a site that was being compromised.

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## Internet Managed Service Partners

There are many ways to approach the medium to long-term IMS challenge. Some companies elect to operate an in-house team but, as the technology becomes more complicated and intricate, the expertise required to manage it increases. This can generate spiralling staffing costs and make an organisation vulnerable to business threatening departures. Also, when a company is dependent on an internal team for the implementation, maintenance and security of a system, there is a far greater risk of internal sabotage.

Other companies select their own off-the-shelf service, self diagnosing and self-administrating the cure. This again carries a risk in that while the pressing Internet issue may be dealt with, a broader picture of the whole solution and the future development is not being considered.

The rounded solution is to work with an IMS partner able to offer the full range of options and with the infrastructure and financial security to provide a balanced and secure alternative.

A partner should be flexible enough to provide the entire one-stop-solution or select the individual services to suit a company. They should be flexible in working with internal teams and legacy systems and be able to scale their operation to meet the specific business. Critically, because of the dynamic nature of the industry and the introduction of new technologies and laws affecting all Internet operations, a partner should be experienced in the field and renowned for the innovation that is necessary to develop today's system with a close eye on the future.

This is exactly the sort of IMS that Fujitsu has developed and now deploys for its thousands of customers in the UK.

## The Fujitsu Security Pedigree and BS 7799

Fujitsu has been managing the security of e-Business solutions since 1995 and is a founder member of the ISPA (Internet Service Provider Association).

Fujitsu now supports more than 500 hosted internet domains for some of the UK's leading companies, serves more than 300 million web pages a month and processes over 1.5 million e-mails a day. Fujitsu manages around 30% of UK home Internet users, via its partnerships with Virtual Internet Service Providers.

It is the infrastructure behind 250 VISPs and is rated in the top five e-Business services company by Forrester Research Inc.

Fujitsu has strong strategic relationships with major systems vendors such as Sun, Microsoft, Nokia, Cisco and Oracle. Fujitsu puts Internet Managed Services at the core of its business.

The company has always believed in providing IMS to the very highest standard and has been working towards the British Standard BS 7799 for the information security management of IMS capability to provide secure hosting and associated managed services for customers' Internet based business systems including data centre operation.

In June 2002, Fujitsu became the first company in the UK to be awarded the standard in this specialist area in accordance with the Statement of Applicability Issue 1.1, 27/04/02.

The BS 7799 standard is rapidly becoming the benchmark for the provision of Internet security services with Government Departments and many security aware organisations require their partners to be working towards this accolade. As the first independent IMS business to be BSI certified to the standard, Fujitsu is leading the market towards even higher levels of service and security.

# How Fujitsu Can Help

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Fujitsu offers a complete Internet Managed Service working closely with businesses to deliver the very best total solution.

With the emphasis on the needs of the customer, Fujitsu can create an infrastructure to meet all business objectives. The company has a strong record in IMS having completed more than 1,000 e-Business projects, many with cutting-edge technology exploitation.

Fujitsu provides high-level IMS consultancy, working with organisations to develop the best solution to achieve your business objectives. Fujitsu designs, builds and hosts applications and advises on, builds, maintains and integrates software products and solutions. The company also creates and manages networks, devises and maintains databases and implements and runs security systems.

Fujitsu provides the full range of IMS of high quality and broad scope to support real business requirements in today's competitive marketplace.

Because every organisation has specific needs, Fujitsu offers a flexible solution designed in close partnership with all our clients. At one end of the spectrum delivering a true "one-stop-shop" with an excellent design, development and consultancy capability as well as first class operations management capable of delivering an end-to-end solution. Fujitsu also incorporates legacy systems and works with in-house technical teams and third party organisations, such as application providers and systems partners, to deliver a complete solution.

Because of flexible working practices and experience of developing and growing Internet propositions over time, Fujitsu also scales services to meet the needs of small to medium sized businesses. And because Fujitsu has been providing IMS to thousands of businesses since the advent of the Internet, you can be sure your solution is in safe hands.

# Summary

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Increasingly, the Internet offers fresh opportunities to businesses to access new customers and look at innovative ways of operating internal systems and relationships with associated companies.

However, to make the most of these new avenues, business needs to be strategic in its approach and to be open-minded in evaluating existing systems and processes in light of the new, available technologies.

This type of approach requires a full understanding of the capabilities of the Internet and the associated issues, as well as a keen commercial understanding and ability to understand fully the issues of an individual business.

That's why it is critical that the development of IMS is done in partnership with an experienced, innovation and stable company that is able to offer the full range of services allowing for a tailored approach to every individual client.

Only by working closely with experts, be it to develop a completely new solution or to develop and maintain existing services can a company hope to maximize on the potential of the Internet.

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