A Buyer's Guide
to Managed Hosting

White Paper

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What is Managed Hosting?

Before we get started with this buyers guide on Managed Hosting, it is important to define what Managed Hosting actually is.

> **Managed Hosting is a form of internet hosting where providers own and manage the hardware, leasing full control to clients**

Management of the equipment can include additional services such as monitoring, backup, installation of security patches and various levels of technical support.

Drivers and Challenges to Consider

Managed hosting is clearly on an upward trajectory, with many IT Managers considering it as an alternative solution to buying more storage space for already overstretched data centre estates.

Frost & Sullivan in their 2016 report around the European Managed Hosting Market estimate growth of 12.3% CAGR per year on average up to the end of 2020.

Other major research houses are also expecting high growth rates in Managed Hosting, with estimates ranging from 10.8% CAGR (IDS Logic) to over 16.2% CAGR (Research and Markets).

So what are the drivers behind this demand in Managed Hosting services, and why should your business or not-for-profit organisation take note?

At Wanstor, we believe there are four major reasons why this growth and unprecedented demand for managed hosting services is happening. We will explore these reasons in the next section.

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Drivers and Challenges to Consider

Challenges	Outlook
Rising costs of IT Infrastructure	Most data centre equipment has an average lifespan of three to five years (batteries should be replaced every 2 to 3 years, servers every 3 to 4 years). Simple wear and tear plus the rate of technological advance also drives equipment replacements and refresh, meaning many organisations are caught in refresh cycles every 12 to 18 months, costing them a significant amount in CAPEX and personnel time. Managed hosting eliminates the need to purchase hardware, removing IT from this cycle completely and switching data centre equipment costs from CAPEX to OPEX. This allows finance directors to budget more effectively by understanding what monthly hosting costs are without having to earmark large sums for future hardware.
Limited Data Centre Space	Demand for data centre space has continued to grow across businesses and not-for-profit organisations as businesses begin exploring their data with analytics tools, along with increased regulatory pressures around how data is stored, managed and used. These reasons and the fact that securing finance for new data centres has been difficult for many IT teams quite often leaves them in a difficult position. There is increased pressure around how data is stored, managed and processed but little capacity or resource within internal data centres to do so in a compliant and effectively managed way.
Limited Power and Cooling Capacity	The need for additional power and cooling have become key drivers for business and not-for-profit organisations wanting to buy data centre services. The average UK data centre is now over 10 years old and business and not-for-profit organisations are having a difficult time finding facilities with adequate capabilities to support their organisations data demands. Under these circumstances, ease of scalability comes into question as the majority of data centres were not designed for increased power and cooling usage. Managed hosting mitigates scalability challenges, including power and cooling consumption, because the provider now supplies this as part of their managed hosting service based on the customer's needs.
Lack of Qualified Personnel	Data centre demand continues to grow yearly, resulting in many business struggling to find skilled IT staff. We have seen demands for staff increase by up to 30% over the past 12 months. Manmit Rai, Operations Director at Wanstor, comments: 'These positions are valuable, and there is no natural funnel introducing trained workers into the industry. Additionally, training is a major issue with the specialised nature of data centres and range of skills required to operate them. In a managed hosting environment, staffing of personnel is left to providers, so IT Managers no longer have the recruitment headache.'

Potential Benefits of a Managed Hosting Solution

Top customer reasons why a Wanstor Managed Hosting Solution was selected

Predictable cost model	Managed hosting fees are billed as a monthly flat fee so you can easily predict costs, making budgeting for IT expenses simple.
Time Savings	The learning curve for new enterprise level equipment is made easier. IT Managers no longer need to spend time and energy to understand and manage new hardware that would typically be placed on their network.
Scalability	The learning curve for new enterprise level equipment is made easier. IT Managers no longer need to spend time and energy to understand and manage new hardware that would typically be placed on their network.
Reduced capital costs	Instead of investing in equipment every three to five years, IT Infrastructure becomes an operating expense, reducing up-front capital investment. Plus, when the equipment breaks, needs repairs or maintenance, your business does not incur charges, the Managed Hosting provider does.
Technical Support	Leading managed hosting providers have a staff of skilled engineers delivering customer support. Wanstor, for example, provides 24x7x365 support to all of our customers. Knowing your provider is maintaining control of operations liberates IT staff to focus on other business critical issues instead of daily tasks better handled through automation or support.
Single Supplier Management	With managed hosting, IT Managers no longer have to worry about managing vendor relationships for standard hardware and software. The provider handles this and all vendor relationships. In addition, by selecting a hosting provider that offers other services you can "future-proof" your infrastructure with the option to leverage other solutions such as colocation or cloud from a single partner.
Customized Options	Managed hosting solutions are seldom *one size fits all*. The IT Manager customizes a solution to meet particular needs of companies or not for profit organisations they represent. For a company with large numbers of IT staff, many different business units and diverse technologies to support, a more customized managed hosting solution makes the IT management of data storage much easier.

Beware the 'One Size Fits All' trap

Outsourcing responsibilities around IT Infrastructure with a managed hosting solution offers benefits around lowering costs and redirecting resources; however, like many other IT professionals, IT Managers may be asking the question: *'Is this the right fit for my IT team and my organisation?'* In making an informed decision, Wanstor suggests that IT Managers ask questions around the following areas:

Control

'Do you require complete control over the facilities that house your equipment and/or the assets that define your IT Infrastructure?'

Your organisation must be open to the idea and potential benefits that managed hosting and other services offer.

In order to capitalise on the value of managed hosting solutions, IT Managers must be willing to accept the transfer of responsibilities and allow the service provider to execute them.

If the answer to the initial question is no, the following core questions can help you determine whether managed hosting or another service like colocation is best for you.

Note: The solution you choose should, of course, match your application requirements.

Hardware Ownership

'Do you currently own or have plans to obtain all of the required IT hardware assets you need to grow your business?'

If the answer is yes, then managed hosting could still be a good fit in the future if there is a change in IT strategy.

For now, however, a colocation option may best suit your needs. The reason for saying this is you will benefit from a physical facility that offers space, power, redundancy and security under a more cost-effective structure. A provider that can offer both colocation and managed hosting will be your best bet.

If the answer is no, managed hosting may be a viable option since the provider takes on the capital expenses of hardware ownership.

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Availability of Capital

'If your organisation continues to grow and requires additional or new IT hardware, does the IT team have access to or a willingness to devote capital expenditures to this effort?'

If the answer is yes, managed hosting could be a good fit if you later decide to avoid additional expenditures.

For now, a colocation option may best suit your needs. A provider that can offer both will be your best bet for added flexibility.

If the answer is no, a managed hosting solution may be a better fit as with managed hosting, the solution provider is responsible for acquiring the necessary hardware, the costs become re-categorized as monthly operating expenses and capital expenditures are avoided.

Availability of Personnel

'Do you have the personnel necessary to operate your IT department today?'

If the answer is yes, managed hosting could work in the future if you decide to minimize IT staff.

For now, a colocation option may best suit your needs. A provider that can offer both will be your best bet for added flexibility. If the answer is no, then your organisation should consider the advantages of a managed hosting solution.

The hosting service provider will allocate the appropriate level of personnel – with the right skills and certifications – who best fits the needs and demands of your IT Infrastructure. It is their responsibility to identify, hire and train (and re-train) the personnel needed to manage the infrastructure.

If you answered no to two or more questions, you should consider managed hosting as your number one solution. Read on for more about how to choose a provider in the following sections.

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Strategic Considerations for selecting a Managed Hosting provider

Choosing a managed hosting provider is a strategic business decision. We believe it is important that IT Managers know exactly what to identify so that they can select the best Managed Hosting solution for the organisation.

Based on our seventeen years of experience in providing managed hosting solutions, we suggest that IT professionals make the following considerations before coming to any decision.

Facility Reliability

The foundation of your hosting service is the data centre facility. Unlike colocation services, where access to the facility to maintain the hardware yourself, hosting services mean the IT Manager never has to visit the data centre. In fact, the facility can be located across the country and still provide you with excellent performance.

The data centre facility in which your services are hosted must have redundant electrical and cooling infrastructure. An N+1 rating, where N is the primary system or piece of equipment, means that the facility has what it needs to operate, plus one full spare.

A well maintained N+1 data centre facility can achieve 99.99% availability for hosted services.

IP Service Quality

IT Managers should enquire about the reliability and redundancy of the Internet connections; if they are unable to send data between the provider's location, the business or customer site due to poor Internet connectivity, your business will suffer.

Ask if the managed hosting provider uses multiple carriers or is *carrier neutral*. Carrier neutral means the provider employs many carriers in the event that one goes down.

In addition, find out if the provider offers any Website Performance Optimization (WPO) technologies such as Intelligent Route Control (IRC), WAN acceleration or TCP acceleration. These technologies can speed up your application or website delivery significantly.

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Network Population

When looking at the network and security of potential providers, IT Managers should also consider the population of network devices. Network population density can be defined as the number of different customers who have traffic passing through the same infrastructure.

While this can be hard to determine and many times companies are hesitant to reveal this information, listen for key words that often describe this situation.

Multi-tenant, shared or aggregate are just a few terms that reveal there is a layer of infrastructure shared by multiple customers. Infrastructure shared in this way can have a negative impact to the overall performance of any solutions attached to that infrastructure.

Security

There are two types of security considerations: physical and logical. Physical security focuses on the data centre where the actual environment is housed. There should be 24x7 security staff on-site, electronic or biometric scanners and video cameras.

In a dedicated managed hosting environment, only the provider will have physical access to your equipment, and all access should be logged.

Logical security focuses on login and access to your environment. Your provider should access your equipment through SSH or RDP, ensuring a secure interaction with your data.

Find out who will have access to your servers, how passwords are distributed and stored, how often passwords are changed and if passwords are changed after employee churn.

Quality of Equipment

What type of hardware will be used to host your business? Ask questions about the specific equipment, including why this equipment is right for your business and the number of spares that are generally stocked. It is also important that your provider offers reasonably new, name brand hardware.

Name-brand equipment is supported by the manufacturer, which thoroughly tests products prior to release. Getting repairs and replacement parts is easier with name-brand equipment than a '*white box*' solution.

It is comforting to have technical support from both the manufacturer and your hosting provider in the case of a catastrophic event.

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Monitoring

Once the IT Manager is satisfied with the physical aspects of the hosting environment, they should investigate equipment monitoring. Ask exactly what the hosting provider will monitor.

Look for providers who monitor CPU usage, memory and disk usage and who allow you to check your log files, processes running and ports responding.

These features will help to determine if your applications are functioning properly and can often prevent or minimize downtime.

The provider should deliver historical data trends rather than snapshots so you can view the health of your environment over time and be able to predict your growth.

Technical Support

Make sure your provider has the data centre and the support centres staffed 24x7x365. Technicians should be able to be contacted by e-mail and phone in the event of any problem.

Avoid automated e-mail attendants, and make sure your tickets are immediately sent to a human being who is physically looking at your equipment to determine the nature of your problem.

At Wanstor we suggest you speak to members of the engineering team from your chosen provider before making a final decision.

This way you can ask questions and find out how they undertake their tasks for other hosting customers on a daily basis.

Account Management

While the IT Manager is probing the technical support team, they should also take the time to gain an understanding of the account management team.

Look for how key each person is and if they truly understand your business and the reasons why you are opting for a managed hosting solution.

Also ask what the transition plan would be if your account manager left or took up another position; how soon would they fill that role?

Financial Stability and Customer References

The IT Manager should make sure they understand any managed hosting suppliers financial condition, how it's audited, the number of years they have been in business and its overall performance track record.

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Ask the provider for references, and then call them all. If you receive good references and a decent financial health check then you at least know you will be with a stable managed hosting provider with a track record of success.

Costs

As the Managed Hosting market has matured many companies will compete against each other and drop their costs simply to win business.

At Wanstor we would warn potential customers about signing with a managed hosting provider who is prepared to lower costs extremely quickly. These are usually new businesses with little or no track record of managed hosting and are highly unlikely to know the operational costs involved from their side.

Secondly it's important to understand the trade-offs you are making when saving money. Lack of support, insufficient product lines or unreliable data centre facilities can result in much greater cost for your business in the long run. Some providers will give you a very low initial price.

However, non-covered items can quickly add up to an amount equal to or above what another vendor may have offered as a part of the solution package, so make sure you carefully examine each line item to know exactly what is included.

Cost Comparisons: Building the Business Case

So now we have covered the potential benefits, the questions to ask your potential provider and common pitfalls to avoid it is time to address one of the core fundamental questions.

How much is managed hosting likely to cost me? or are there any real savings for my business?

Wanstor's managed hosting experts have provided examples across the page which show you the two-year cost comparison for managing your own IT in-house versus going with a managed hosting provider. You can see the savings for yourself.

The bottom line?
Managed Hosting
Cost Savings of **£770,420***

*Costs are approximate industry averages over two years

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IN-HOUSE MANAGEMENT			MANAGED HOSTING		
YEAR ONE			**YEAR ONE**		
6 Person Headcount @ £70,000		£420,000	Headcount		£0
6 Base Level Servers @ £10,000		£60,000	6 Base Level Servers @ £9,000		£54,000
1 Load Balancer		£10,000	1 Load Balancer		£21,900
1 Firewall		£1,500	1 Firewall		£2,640
1 Switch		£6,000	1 Switch		£0
Space, Power, Bandwidth		£12,000	Space, Power, Bandwidth		£12,000
Subtotal Year One		**£509,500**	**Subtotal Year One**		**£90,540**
YEAR TWO			**YEAR TWO**		
6 Person Headcount @ £70,000		£420,000	Headcount		£0
Maintenance, Hardware Replacements		£10,000	Maintenance, Hardware Replacements		£0
Space, Power, Bandwidth		£12,000	Space, Power, Bandwidth		£12,000
			6 Base Level Servers		£54,000
			1 Load Balancer		£21,900
			1 Firewall		£2,640
			1 Switch		£0
Subtotal Year Two		**£442,000**	**Subtotal Year Two**		**£90,540**
TOTAL TWO YEAR COST		**£951,500**	**TOTAL TWO YEAR COST**		**£181,080**

What questions should you be asking before you select a Managed Hosting provider?

RELIABILITY
+ What systems in the facility are N+1?
+ How many outages has the provider experienced over the last year and what were the durations?

IP SERVICE QUALITY
+ Which carriers are available?
+ Is this a carrier neutral facility?
+ Does the provider offer any WPO technologies?

NETWORK POPULATION
+ Are there multiple customers on the same equipment?
+ How dense is the network population?

QUALITY OF EQUIPMENT
+ What equipment will my data be hosted on?
+ Is it a name-brand manufacturer?
+ How many spares are kept on-site?

MONITORING
+ What exactly is monitored or managed?
+ Will I have access to the monitoring interface?
+ Can the provider train my employees to use the interface?

SUPPORT
+ What does the SLA cover?
+ Are there Network Availability SLAs and Hardware Replacement SLAs in place?
+ What are the support hours?
+ What level engineer will I have access to?
+ Are engineers available by phone and email?

ACCOUNT TEAM
+ Who will be my account representative?
+ Can I meet my account representative face-to-face?
+ Will there be a knowledge base in place so transitioning to another account representative is easy?

COSTS
+ How much does the provider charge for space and bandwidth?
+ Does the provider offer multi-homed bandwidth and *meet-me rooms* where I can purchase extra bandwidth if necessary?
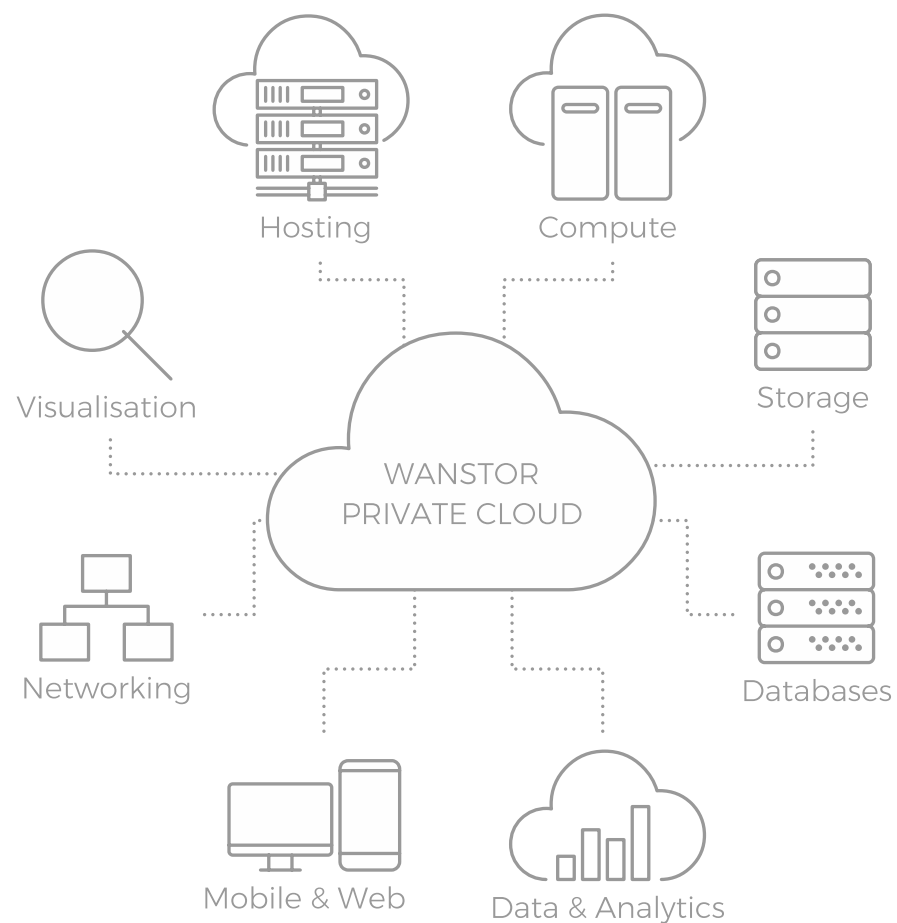
Wanstor Cloud Hosting with true network integration

Wanstor's hosting platform provides IT Managers with greater freedom and security when configuring applications in the cloud. MPLS network integration allows you to migrate applications to a Wanstor UK data centre, but still integrate those applications with existing services and networking.
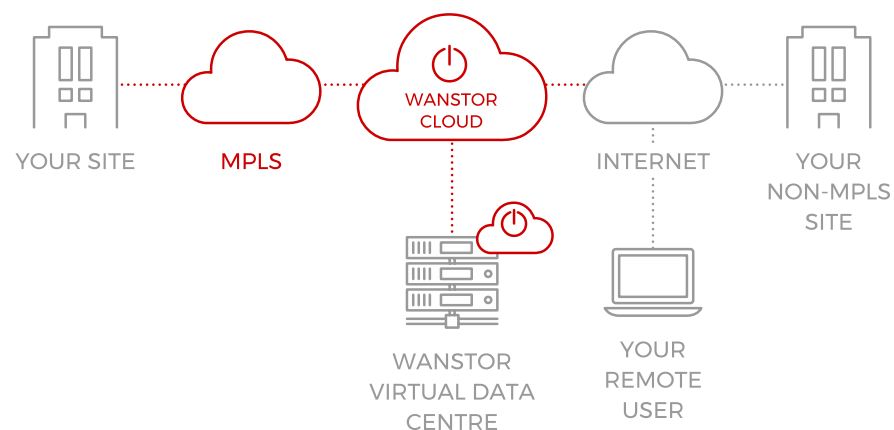
Strategy	Design	Integration	Procurement	Implementation	In-Life Management	Ongoing Maintenance
Cloud Service Model Definition	Cloud Technology Selection		Multi-Channel Sourcing	Logistics	Managed Infrastructure Services	Maintenance and Training Services
Cloud Sourcing Strategy	Cloud Implementation Blueprints	0365 Integration		Staging and Configuration	Managed Hybrid Cloud	
Maturity and Readiness Check		0365 Migration			Managed 0365 Service	
0365 Readiness Check		Hybrid Cloud Migration Services				

Wanstor's Private Cloud solutions to customers

The main private cloud solutions Wanstor provide to customers include:

How it works:

Hosting

Compute

Visualisation

Storage

WANSTOR PRIVATE CLOUD

Networking

Databases

Mobile & Web

Data & Analytics

YOUR SITE

MPLS

WANSTOR CLOUD

INTERNET

YOUR NON-MPLS SITE

WANSTOR VIRTUAL DATA CENTRE

YOUR REMOTE USER

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Benefits of Wanstor Wide Area Networking Services

Lower IT costs

Matching your IT cost patterns to your computing demands, moving IT from a capital-intensive cost model to an Opex model

Cope with increased user demand

As your business grows, a cloud environment should grow with you. Managed hosting can also help your business when demand for IT is unpredictable or you need to test new applications, giving the IT department control over capacity and paying only for what is used

Run your business without worrying about your IT

A managed cloud solution by Wanstor means we are doing this for you. In addition to monitoring your infrastructure and keeping your data safe, we can provide creative and practical IT solutions matched to your organisations needs

Reduce your carbon footprint

Hosting in a cloud data centre rather than onsite allows you to take advantage of energy efficient technologies provided by your cloud partner

Innovate and lead

Ever-changing business requirements mean that your IT infrastructure has to be flexible. With a cloud infrastructure, you can rapidly deploy new projects and take them live quickly, keeping you at the forefront of innovation.

Improved security and compliance

A managed private cloud environment provided by Wanstor means security and compliance is no longer just the IT team's responsibility, it is a joint one. At Wanstor, we build in resiliency and agility into all cloud solutions at an infrastructure-level. This limits exposure to security breaches, and can help to improve your compliance and regulatory requirements.

Futureproof your business

There is unprecedented demand for access to data anywhere, any time and on any device. Don't let your business fall behind. By embracing the cloud, you can handle emerging mobile, digital and data management trends.

Why choose Wanstor?

- ⊕ Recognised as a leader in managed hosting solutions

- ⊕ UK support 24 x 7 x 365 for your critical infrastructure hosted on our premises

- ⊕ Wide range of hosting services and management options

- ⊕ Holistic service experience: hosting and networks

- ⊕ UK accountability and ease of migration give you real control

- ⊕ Self-service IaaS portal experience

- ⊕ Wanstor manage the platform up to the hypervisor

- ⊕ Library of virtual machine templates included public cloud, private cloud or hybrid cloud solutions

- ⊕ Flexible pay for what you use billing

- ⊕ PCI DSS certified services

- ⊕ Single portal view across your services

Final Thoughts

Before you sign any contract around Managed Hosting, evaluate a service provider carefully based on the key considerations which have been outlined in this document, exploring critical success factors when moving an application or workload off-premises to a managed hosting service or cloud service provider.

Consider the strategic issues facing service providers, and examine the actual geographical locations of data centres to make sure that they fit your requirements without interference.

Take the time to evaluate the service provider's technical capabilities and corporate mentality as well, making sure that they are compatible with your business.

Evaluate the service provider's performance, including company longevity, track record, workload support, and service roadmap.

Finally, learn the overall support model, and determine whether it's the right fit for your company in terms of support, service flexibility and security.

With these considerations covered, IT Managers should be able to select the managed hosting provider that is right for their business.

For more information about Wanstor's managed hosting solutions please contact us on **0333 123 0360**, email us at **info@wanstor.com** or visit us at **www.wanstor.com**

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