

Managed hosting provides a wide variety of solutions for businesses looking to offload Web-hosting responsibilities to a third party. Make sure you know your options.

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## **Buyer's Guide: Managed Hosting Services**



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## Executive Summary

Hosting a Web site in-house can be expensive, requiring the necessary hardware, software, power and security precautions, not to mention the cost of bandwidth. On-site hosting can also drain company resources by slowing down the network and taking time away from the in-house IT staff.

In recent years, growing companies have elected to move their Web-hosting functions off-site to shared facilities that allow them to reduce costs and gain greater security and performance of their technology. An attractive option is managed hosting — that is, the use of Web servers that are dedicated specifically to single Web sites, with service and support handled by the hosting provider, who monitors it, troubleshoots problems, performs regular backups, installs software patches and performs other standard management tasks.

At datacenters, companies can take advantage of economies of scale. Multiple customers can locate their network, server and storage gear in a secure environment. These facilities usually feature 24-hour physical security, and customers have around-the-clock access to their equipment. For smaller companies, vendors also offer hosting on shared machines that serve a number of different Web sites. However, customers that select this option must share the machine's resources with other clients, limiting the amount of memory and bandwidth they can consume.

On the other end of the spectrum, companies that outgrow a managed hosting environment often moved to a colocation hosting model. With colocation, companies can take advantage of all a datacenter offers — security; high-speed, redundant bandwidth; their own equipment; and so on. They have their locked own cages where they house their own hardware, loaded with their choice of software. This option, however, is for larger companies who have the dedicated resources with sufficient experience to manage their own equipment.

# Managed Hosted Overview

Dedicated servers used in a managed hosting environment differ from those used in a colocation arrangement in that you don't own your equipment; instead you lease a server from the hosting provider. The hosting provider takes full control of your machine, unlike in the colocation scenario where it would have only limited access — often at extra cost.

Managed services vary greatly from provider to provider. Some offer on-site technicians to manage your equipment, whereas others only offer spot services such as disaster recovery and operating-system updates. Some provide service for anything that touches the server and go so far as to go to the customers' offices and set up their emails and do on-site training to help them understand the management control panel.

In the words of one industry observer, "managed services' can be anything from fully managed services to manage-it-yourself services." Make sure to ask the hosting company for a detailed list of support services, and make sure the provider's services map well to what you'll need now and for the foreseeable future.

# The Benefits of Managed Hosting

Dedicated servers allow you to get up and running fairly quickly, with no worries about purchasing hardware and software licenses. Most hosting providers can deliver your specified server in a short amount of time — typically 24 hours to one week — and provide you with more bandwidth and power than you could get for the same cost if you hosted your site in-house.

Managed providers also provide tech support. They often offer disk backups, firewalls and load balancing without your having to drive to the facility to perform these tasks. Sometimes site-management services are included in the overall costs, although in some cases specialized support will cost extra.

With a dedicated-server service, you also don't have to worry about transporting your equipment to the facility and setting it up, since the equipment is provided by the vendor. This can take the headache out of buying and maintaining equipment, especially for companies that lack IT expertise or simply don't have the time to manage their off-site equipment.

Keep in mind, however, that you need to make sure a dedicated-server provider pays as much attention to incremental maintenance as it does to your initial installation. Waiting for trouble tickets to be accepted, escalated and closed can have an impact on your bottom line.

This should be hammered out before you sign on the dotted line so that you know what kind of service you will, by contract, be receiving.

## Market Overview

The managed hosting space has undergone tremendous growth in the last year. Tier1 Research reported that the market for managed hosting, the largest sector of the \$12.3 billion Web-hosting industry, grew by more than 30 percent between January 2007 and January 2008, and they attributed that growth to several trends. These include virtualization, a growing awareness of the value of business continuity, and intensified security concerns spurred by both business factors and regulatory necessity. Even as the U.S economy has slowed down, the market for managed hosting has grown, even for small and medium-sized companies.

As this market has expanded, providers have had to adjust to other trends centered around the way their customers deal with business software — most notably, the growing adoption of SaaS (software as a service) and the continued adoption of platforms serving as both exchange points and facilitators of new online services, the Tier1 report said. Other services that providers are being asked for by their more forward-looking customers are e-discovery services, managed messaging and IM, managed VoIP, managed databases, and managed application services such as SAP (and other ERP and CRM solutions).

The leaders in terms of sales in this market are Rackspace US Inc., SAVVIS, AT&T and Verizon Business, with a host of competitors, including Peak 10 Inc., OpSource, SunGard, Terremark Worldwide and ViaWest, trailing them. To set themselves apart in a crowded field, providers employ strategies such as automating the provisioning of hosting services and catering to vertical markets' needs to combat competition and establish market share. In order to compete effectively, some providers, like their customers, must outsource services that are not their core competencies and pay attention to achieving the best balance between customer service, price and additional fixed operating costs.

"There will be continued jockeying and consolidation in the managed services sector as larger storage companies continue to eat up smaller backup-and-recovery service offerings, and encroach more on the territory of managed hosters," said Antonio Piraino, senior analyst at Tier1 Research and author of the report. "Similarly, virtualization, security, compliance, virtual computing and storage and international expansion will all drive expenditure in the next year."

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## Key Services and Features

A basic list of services offered by a managed hosting provider might include the following:

### **IDS and IPS with Complete Reporting to the Client**

An IDS (Intrusion Detection System) detects unwanted manipulations of systems, mainly through the Internet. An IPS (Intrusion Prevention System) monitors network and system activities for malicious or unwanted behavior and can react, in real-time, to block or prevent those activities.

There are advantages and disadvantages to host-based IPSes compared with network-based IPSes. In many cases, the technologies are thought to be complementary. These two security technologies help ensure the safety of hosted sites from external attack.

### **Custom Firewall and Router Configurations**

A firewall's basic task is to regulate some of the flow of traffic between networks of different trust levels. Routers are used to direct and forward information from those networks. The configuration of these devices requires detailed understanding of the network applications and endpoints required for day-to-day operations.

### **Spam and Virus Filtering**

The use of spam-filtering software can limit the amount of unsolicited email that makes it into corporate email boxes, and virus filters help ensure that documents sent as email attachments do not contain viruses or Trojan horses that can be used to bring down the system or extract data from it.

### **Patch Updates with Full Client Reporting and Auditing**

Patches are pieces of software designed to update or correct problems with other software and can aid in usability and performance of the application. Managed hosting providers often take over the task of developing a strategy for managing patch updates.

### **Script Installation**

Scripts are distinct from the core code of applications, which are usually written in a different language. Because they are accessible to the end users, they enable the behavior of applications to be adapted to the users' needs. Scripts are nearly always embedded in the application with which they are associated.

### **In-House and Outsourced Monitoring**

Monitoring application performance is vitally important, especially for

e-commerce sites. While hardware monitoring is fairly straightforward, keeping tabs on how efficiently software is running can be a bit more involved, requiring the provider to run management applications of its own to examine throughput and performance.

### **Local and Remote Data Storage and Backups**

Managed hosting facilities have storage capacity in the form of storage devices arranged as SANs (storage area networks), and some sell exclusive access to dedicated SANs. They also maintain geographically dispersed facilities where data is mirrored for business continuity and backup purposes.

### **Managed DNS**

The DNS (Domain Name System) associates various information with domain names; perhaps its most well-known function is the translation of Web site URLs into IP addresses. The DNS also stores other information, such as the list of mail servers that accept email for a given domain. Managed DNS services allow users to set up dynamic DNS using their own domain names.

### **Load Balancing**

In order to get optimal resource usage, throughput and response time, providers use load balancing to spread work between multiple computers, network links, CPUs, hard drives and other resources.

These items are certainly not the only services offered. Managed hosting providers usually allow you to select the software you want installed on your server. This includes the operating system, database and specific applications. Servers can be customized and tailored specific to the customer's needs and requirements.

The hardware configurations available from different providers can vary widely, making it incumbent on you to understand your needs before engaging with them. For example, Rackspace offers five basic configurations (including three based on Dell servers), all of which are extensively customizable. The company also offers a "green" option for all five as well. Hostway offers three configurations, each based around a different server, with data transfer rates that range from 250Mbps to 1000Mbps.

If you want full flexibility in picking a hardware setup, The Planet.com Internet Services Inc. offers 30 different server configurations, plus five backup configurations. You can usually order a machine running Microsoft Windows Server backed by an SLA (service level agreement) or choose among a variety of open-source software platforms. Linux is generally offered for free.

In addition to the operating system, most hosting providers offer a raft of preinstalled server features, including Web applications, e-commerce tools and reporting capabilities.

It will pay in the long term to assess your specific needs — and to anticipate the needs growth will require.

The services offered by various providers can also vary dramatically. For instance, Terremark Worldwide offers two different levels of management support, differing in levels of monitoring, device fail-over and coding support, plus managed services for storage and backup. INetU Inc. offers two levels, Primary and Enterprise, for both Red Hat Linux and Windows.

Again, it is very important to understand your specific needs and to work with vendors to determine which package of services they offer and at what cost. Making an apples-to-apples comparison isn't easy, but the investment of time to match your company's needs and management desires with providers' packages and prices can save you dollars in the short term and major headaches as your computing needs change.

Most dedicated servers are packaged with a control panel, a set of Web-based automation tools that help automate the process of Web site creation and server management. Control panel software is installed on the dedicated server and is integrated with Web servers, database applications, programming languages, application deployment and server administration tasks. The software includes the ability to automate tasks via a Web-based front end. Control panels should not be confused with a full server-management solution by a dedicated hosting provider.

Like with colocation services, dedicated-server customers benefit from shared resources to get higher levels of Web performance and security. They can select their bandwidth and have redundant power and Internet access.

However, they do not have the flexibility of completely controlling their own hardware and software. Still, dedicated servers can be a smart choice for companies that want straightforward and reliable Web hosting without the high up-front costs of purchasing their own equipment.

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## **Managed Hosting Costs**

Dedicated-server costs are a little different, in that you usually select a plan that covers what kind of server you want, its processing speed, memory and monthly data transfer, all for a set cost.

Basic machines with a 40GB hard drive and 500GB of data transfer can cost as little as \$100 per month, while premium machines with 4,000GB of data transfer can cost nearly \$1,000 per month. That's why it's important to know ahead of time what your hosting needs will require.

Of course, you can always add more servers as your needs grow, but the cost of renting and maintaining them can run high over the long term.

## Checklist: What to Ask Before You Buy

Before you sign up with any hosting provider, you should take the time to ask the following questions. They will help you determine not only whether colocation or dedicated-server services are right for you, but also if the provider can meet your particular needs.

- ˘ Do I have the hardware and software I need to host my site? If you don't, ask if the hosting provider has the specs you need.
- ˘ Do I have IT expertise on staff, or do I need outside support? This question will help you determine whether you need managed or unmanaged services.
- ˘ Does the provider offer unmanaged services, managed services or both? Even if you plan to do most of the maintenance yourself, it helps to have some on-site support.
- ˘ What do the provider's managed services entail? This is an especially important question if you are looking for more than just an occasional server reboot for support. Providers will frequently offer to monitor your servers and applications, and this monitoring can be well worth purchasing. Make sure you obtain a copy of the provider's SLA so it's clear what degree of service downtime the company promises.
- ˘ Will I have access to the monitoring interface? If you choose to have the provider monitor your servers, make sure you can access the monitoring interface, and make sure the provider can train people in your company to understand the interface. There's no sense in paying for something you can't understand.
- ˘ How much do dedicated servers cost, and how much support can you get for them? If you don't have the capital to buy your own equipment, or you don't already own it, you will want to budget out the cost of dedicated servers and support.
- ˘ How much does the provider charge for space and bandwidth? When asking this question, you should also inquire about whether the provider offers multihomed bandwidth and "meet-me rooms" where you can purchase extra bandwidth if necessary.

- ˘ How much power comes with the space I'm considering? If you want to pack in a lot of high-powered servers, you may find that you need to rent more space to get the power you need.
- ˘ Will I rent space and bandwidth on a monthly or yearly basis? You may be able to get a discount by paying up front for a full year. Remember, even though hosting providers advertise set fees, you can still negotiate.
- ˘ How much traffic does my site receive, and how much is it likely to receive in the future? You will need to know this to estimate bandwidth needs and the costs associated with them. Managed Web hosting is a realistic option only if you have a site with high-volume traffic that needs a dedicated server. For many small to medium-size Web sites, it's not a cost-effective solution in the short term.
- ˘ Which hosting plan is right for you? Do the space, power and bandwidth specs fit with your needs?
- ˘ What kind of uptime guarantees does the provider make in its SLA? It's important to know what kind of service and support you will receive for your investment.

## Conclusion

Since managed hosting providers offer a wide variety of solutions for businesses looking to move their Web-hosting functions off-site, it's essential to review your technology needs, budget and growth expectations before signing up for a service plan.

While the variety of hardware, software, power and space considerations can be daunting to the nontechnical executive, a few chats with providers can clear up most of the questions you may have. It's also worth asking other companies about their hosting experiences and for advice.

And don't forget to thoroughly research the providers you are considering to make sure they are certified datacenters with high-quality networks. Unfortunately, there are some rogue facilities with patchy connections out there, and obviously, these should be avoided at all costs.

At the end of the day, you should see greater site performance and consistent uptime rates at a lower cost than you would pay for in-house hosting. You also have the added bonus of having your equipment safely housed in a third-party location, just in case there is ever an emergency at your place of business.

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