

# A GUIDE TO SERVER HOSTING

# IP Technology

.....Making Sense of I.T



**IP Technology** Hampshire Ltd

28 Abbey Enterprise Centre

Premier Way

Romsey

Hampshire

SO51 9DF



## What Is Server Hosting?

Server hosting refers to offsite management and upkeep of hardware resources that are designated for a company's use. By paying a monthly fee to a hosting service, companies can reap the benefits of having a full IT infrastructure without all the cost associated with equipment maintenance, training and updates.

The cost of purchasing server hardware and hiring IT staff is beyond the financial capabilities of many companies and small businesses. A typical organization requiring its own server might spend thousands of pounds buying hardware, installing it onsite, equipping it with proper security and redundancy measures and keeping on full-time IT staff to ensure its ongoing functionality. The need for a single server or multiple servers quickly escalates from a small investment on the hardware to a four or five-figure sum that requires ongoing attention and resources.

By enlisting the help of **IP Technology's** hosting service, businesses can remove the costly need for keeping server resources onsite. They no longer have to maintain the hardware, ensure its upkeep or even worry about troubleshooting in moments of crisis.

**IP Technology's** hosting service takes care of everything to ensure the server is always available for your company's needs when you need it 24x7x365.

The typical server hosting solution is made up of three different services: *managed hosting*, *virtual private servers* and *dedicated servers*. These will be discussed in more detail later within this document.

Businesses can benefit greatly by moving away from the traditional IT expenditure Capex (*capital expenditure*) model to a more stable & less volatile Opex (*operational expenditure*) model.

Server Management within **IP Technology's** secure hosted environment offers the following services and management options...

- ⊙ Operating System Updates & Critical Patching
- ⊙ Application Updates & Patching
- ⊙ Critical & Non Critical Server Monitoring
- ⊙ Latest Hosting Platforms
- ⊙ Technical Support / Helpdesk Services
- ⊙ Firewall & Security Configuration Services
- ⊙ Anti-Virus Scanning & Anti-Spam Filtering Services
- ⊙ Backup & Restoration Testing\*
- ⊙ Intrusion Detection & Penetration Testing\*
- ⊙ Disaster Recovery & Business Resumption
- ⊙ Performance Tuning
- ⊙ User Management & Administration
- ⊙ Monitored Uninterruptable Power Supply
- ⊙ Cooling and Power Monitoring
- ⊙ Future Proof Infrastructure
- ⊙ Managed Storage
- ⊙ Enhanced Secure Hosting Environment

*\*service can be purchased based on two live tests per year.*

In the simplest terms, Managed Server Hosting means that **IP Technology** will take care of all your server related issues. You not only have the option to rent the hardware from us, but you also have the option to relocate your servers into our secure monitored environment to take advantage of our portfolio of related services. .

It's similar to getting a full warranty with free oil changes and maintenance when buying a new car.

### **Underutilised Resources**

Business applications can often be found in organizational silos with dedicated servers which require costly maintenance and upkeep. Each application server is usually designed to support peak demand but these are largely found to be greatly underutilised. This unnecessarily drives up the costs of hardware, software, maintenance, operations, electricity, cooling and the need for space.

**IP Technology's** virtualized infrastructure environment housed within our new purpose built secure data centre provides the low cost flexibility to meet the changing demands of business requirements.

### **Operational Resilience**

Rapidly changing technology environments create challenges for business IT with regard to maintaining properly trained technical staff at the required support levels.

**IP Technology's** virtual private server environment, managed dedicated server hosting and colocation options offloads the daily operational requirements of Infrastructure, backups, server and application monitoring so that businesses can concentrate on doing business and not worry about the day to day maintenance of their I.T infrastructure.

### **Maintain Service Levels & Control Costs**

Businesses are under constant pressure to maintain if not improve the availability, security and performance of their applications and IT infrastructure, yet to control costs in the face of competition and market pressure.

High availability, for example, is a common business requirement for many companies, but typically requires redundant, enterprise-class hardware which is expensive and difficult to manage and maintain.

**IP Technology** leverages the skills and knowledge acquired over 30 years of managing customer systems on a scale that keeps costs contained.

### **Scalable Solutions**

**IP Technology** offers scalable dedicated solutions so you can pay for what your business requires and as your business needs grow, we will scale your hosted server environment to meet further business demands on your request.

## **The Managed Hosting Model**

In this instance, a company can lease the server resources for onsite use at their offices. The **IP Technology** hosting service delivers and installs the server within the datacentre, and the lessee has complete control over the hardware, operating system and software. When the server itself has issues, **IP Technology's** hosting service takes care of maintenance and monitoring. In this instance, it saves companies the costs associated with personnel and maintenance of IT infrastructure.

The Managed Hosting Model requires a monthly financial investment to lease the hardware and guarantee the availability of maintenance personnel. At the same time however, it proves to be less expensive than keeping in house IT staff for the purpose of server management and day to day Infrastructure maintenance.

In the server hosting market, the prices for managed hosting packages can vary from a low monthly fee to hundreds of pound per month dependant on the level of service, the number of servers, and the functionality required. The low end managed hosting plan generally employs Virtual Private Server hosting while the high end managed hosting plan is often an upgraded version of a dedicated hosting plan. Since the price range for a package can vary, it is very important to understand what services and features you should expect from your managed hosting plans. **IP Technology** can help you understand the different hosting models and tailor a package to suit your needs completely.

In an unmanaged hosting environment, businesses can just rent the server from us and you are solely responsible for all service and maintenance tasks. There is a middle ground, sometimes called self-managed hosting where - depending on the nature of your hosting agreement - some basic server maintenance is provided but the day to day running of the servers, including dealing with most issues that arise is in the hands of your own I.T staff..

### **Customized Solutions to Meet Your Needs**

Every company has different needs, and good managed hosting solutions go beyond a one-size-fits-all to meet your individual requirements. IP Technology can customise a solution to suit your business requirements, not just for right now but also for your businesses future. IP Technology will help you choose the service that best fits your needs and the ones that are most critical to you, based on your business needs and budget.

### **Server Monitoring**

Server monitoring is simply critical for businesses. It is a process of constantly scanning the servers to search for any irregularities or potential failures. System administrators constantly monitor the servers to identify such points of failures so that they can address them before they become major problems.

The basic principle here is *"prevention is better than cure"*. In a Managed Hosting environment the consistent detailed monitoring of servers goes a long way to guaranteeing the server uptime and network availability you want to provide for your business and your user base.

Server monitoring is not impossible to self-manage, but demands specific skill sets, specialised tools, time and money.

### **Security**

Server security is a huge priority for any business. Server security covers various aspects of physical and nonphysical securities such as:

- ⊙ Running security audits
- ⊙ Intrusion Testing
- ⊙ Controlled Secure Environment
- ⊙ Spam filtering
- ⊙ Virus scanning
- ⊙ Software firewall configuration
- ⊙ OS updates

Here at IP Technology we are well equipped with various tools and software and have years of experience dealing with server security related issues. Employed software constantly scans the operating system and core application to find security vulnerabilities, malware and virus threats, which they can fix in order to prevent the server from being attacked.

### **Managed Storage**

The storage requirements of a company can and will change from time to time. The amount of space needed by a business may not be the same as they will need in a few years or even months down the line. Getting the balance right again requires specific technical skills and an ongoing commitment and availability to give it proper attention. Managed storage means outsourcing a company's storage needs to a leading managed services provider such as IP Technology. This is beneficial for the company because it helps to reduce the costs related to buying and administering storage services, devices and media.

## Backups

Lost data can be extremely costly for a company. It is therefore essential to have a process that regularly backs up your data, keeps it secure, and preserves its integrity. Research shows that small businesses can lose more than 50% of their data\* after a disaster occurs.

With managed services provided by IP Technology, you as a business owner can have the peace of mind in knowing that your data is secure and backed up to 3 very different geographical locations for security, redundancy and high availability.

\*Source i.crn.com

## Benefits of Managed Hosting

- ⦿ Peace of mind. No need to worry any more about the details of managing the I.T platform, auditing, network performance, availability and juggling I.T Budgets. By changing the Capex model to an Opex model, you know exactly what you pay for every month, no hidden costs or unplanned surprises.
- ⦿ When the equipment breaks, malfunctions or needs repairs or requires maintenance, customers no longer need to incur additional charges as these services are readily available.
- ⦿ No need to pay for refreshing servers, client workstations\*, infrastructure\* or systems every 3 - 5 years.
- ⦿ There is no longer a requirement to have I.T support personnel onsite during office hours and out of office hours.
- ⦿ The learning curve for new enterprise-level equipment is eased. There is no need to spend time and energy to learn, understand and manage new hardware that would typically be placed into your own network.
- ⦿ Managed hosting solutions are far from a “*one-size fits all*” solution. IP Technology customers can benefit from a specialized tailored solution to meet the particular needs of their business. We are happy to partner with you every step of the way.
- ⦿ It is easier to deploy new platforms more quickly. There is no longer the need to validate new equipment when introducing hardware into your network. With the introduction of virtualisation, server infrastructure can be built within minutes instead of days.
- ⦿ There is always a real person on the end of the telephone when you need support, no automated hoops to jump through and no irritating keypad menus to navigate. IP Technology customers benefit from a prompt phone call when a problem arises or a potential threat is revealed via our monitoring service.
- ⦿ For a company with a significant I.T staff organization with many different business units and lots of technologies to support, being able to use a more customized managed hosting solution to match up to a set of specific needs makes everyone’s lives that much easier.
- ⦿ For a start-up company, a major I.T solution can be up and running in hours without hiring more staff and without any significant capital expenditure involved.
- ⦿ Businesses can accelerate expansion through IP Technology with a local/global footprint rather than building data centres’ in-house and having to manage employees and third-party providers.

- ⦿ Businesses no longer have to worry about managing vendor relationships for standard hardware and software. IP Technology handles this on behalf of your businesses.  
*\*when connecting using thin client technology*

## Virtual Private Servers (VPS) Model

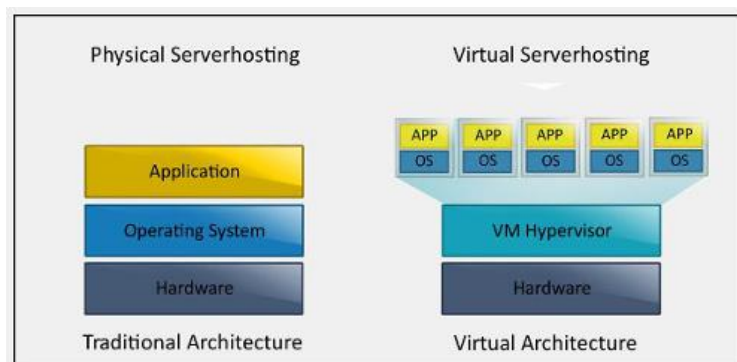
A single server can easily be set up to create multiple Virtual Private Servers (VPS). These act much the same as a dedicated server. A single Virtual Private Server utilises a specific amount of the full server's resources, but does not compete with other Virtual Private Servers for resource allocation. An organization receives a pre-agreed amount of bandwidth and hardware capabilities, all for a low monthly cost.

A Virtual Private Server typically costs a low monthly rate in comparison to a dedicated server and is an ideal solution for organizations & small businesses that might not require or use an entire server and its resource.

### What is a Virtual Server?

Basically virtual private server hosting, or VPS, is about running multiple Virtual Servers within one physical high end server.

A Virtual Private Server is created by partitioning the physical server into multiple mini servers, made possible by the technology of Server Virtualization. The term Virtual Server is widely used by Internet hosting services and it is often used to refer a Virtual Machine. A Virtual Private Server (VPS) works in a federated environment used by other virtual machines. But in all aspects the functionality is equivalent to that of an environment created by a physical computer dedicated to individual customer needs. It offers the same privacy which is seen in separate physical computer environments configured to run server software.



### What does 'Private' refer to?

Each VPS utilises its own share of resources which are guaranteed to be available to that particular Virtual Private Server. For instance, the host server may have been configured with 32GB of ram. 4GB could be guaranteed to be available to a single Virtual Private Server. That would mean that regardless of how many other Virtual Private Server's are on the same physical host, 4GB RAM will always be guaranteed to be available to the VPS.

Also very important to understand is that each VPS runs completely independently of each other. Each VPS has its own file system so a VPS cannot see any of the data of another VPS on the same physical server. Also each VPS has its own server load, can run its own Operating System, can be rebooted individually, and so on. In essence, a VPS running on a physical hosted sever can be treated as a dedicated server by the end user.

You could compare VPS technology to a block of flats. The block has one roof, but under that roof

there are multiple apartments. Each apartment has its own kitchen, living room, etc., so it can operate individually.

The Virtual Private Server model is without doubt, the most affordable and common mode of hosting.

## The Benefits of VPS

Generally there are many advantages to hosting your business on a virtual private server. These include:

- ③ A VPS hosting environment is less expensive to build & maintain than a fully dedicated hosting plan that utilises a physical server. It is also much cheaper than hosting a farm of application servers within your business.
- ③ Many VPS plans can be customized to meet your business needs, this means you pay for what you require but you do not need to deal with any features you will never need.
- ③ Most VPS plans can be scaled both upwards & downwards as you user base grows and shrinks. This is especially convenient for customers whose user base fluctuates due to seasonal working conditions.
- ③ Many VPS hosting plans are easily scalable. You can start off in your virtual environment with the minimum amount of resources you need and then as you grow gradually increase your hosting plan to accommodate your needs. You do not have to pay for excessive resources you have not yet grown into. IP Technology can help you tailor your hosting plan to suit your requirements.
- ③ VPS customers have a lot more control over their virtual server than with the shared hosting option. Customers will likely have root access and the ability to use scripts that may not be allowed in the shared hosting environment.
- ③ VPS customers have access to the same technical support as with shared hosting for most issues.
- ③ VPS customers can choose from semi managed hosting where IP Technology handles some maintenance and fully managed services where IP Technology will handle all of your I.T requirements.

## The Dedicated Server Model

If your business does not want to keep server resources onsite, companies can easily lease a dedicated server for a monthly rate through IP Technology's server hosting services.

That server is then set aside for the leasing company's needs and all software and connections to the webhost are available for use and manipulation. Dedicated servers are rented out exclusively to a single company and allows for remote configuration and operation through a browser-based control panel.

When renting a dedicated server, client companies often have to utilise a specific operating system or may have the choice between several systems. IP Technology's flexible approach to hosting also allow for companies to purchase their own server hardware to be installed at IP Technology's data centre location, a service known as *colocation*.

A dedicated server is rented which provides a specific amount of memory, hard disk space and bandwidth.

## The Benefits of Dedicated Servers

### Administrative Access

When you share a server with other people, the hosting company does not give you administrative access to the server. In some cases, this limits what you are able to do with your server and applications. When you invest in dedicated server hosting, you get root/administrator access, which allows you to install programs and perform custom program configurations. Root access also allows you to monitor your usage of server resources. This makes it easier to identify potential issues and correct them before they have the opportunity to affect your infrastructure.

### Advanced Technical Support

When you invest in dedicated hosting, you have the opportunity to take advantage of priority technical support from the IP Technology. Faster response times from trained professionals can help you resolve problems quickly and easily. Trained technical support professionals can offer you the information and advice you need to troubleshoot server and network issues, change server settings, and perform other functions that keep your critical infrastructure up and running.

### Greater Data Protection

One of the most popular reasons behind server hosting is the security given to a company's data. Typical problems faced by most organizations are keeping data secure and backed up. Data security is easily managed with IP Technology's server hosting as the customers server resources are protected within the IP Technology data centre behind a strong and robust firewall system and physical security measures.

Data backups are likewise handled by leveraging the resources of the IP Technology data centre as a whole and multiple redundancies are used to store a client's data in multiple locations to prevent against data loss and hardware failure.

The end result is a more comprehensive and reliable server solution that few businesses could hope to achieve on their own.

### Safe Storage

If you have thought about purchasing your own server, you might have decided not to do so because you do not have the room to store it safely. A server must be kept in a climate-controlled environment and kept away from moisture and electro static fields. Servers also take up space that most small and midsize business owners do not have. When you use a dedicated hosting plan, you get all the benefits of having your own server without the need to store the server in your office or home. IP Technology keeps the server secure and makes sure that condensation, extreme temperatures, and other environmental conditions do not affect the server's performance. This makes dedicated server hosting well worth the investment.



