

## Overview of Virtualization

These days, “virtualization” is the hot topic being tossed around by computer jockeys and many business consultants. Virtualization is recommended as one of the best ways to cut overhead costs involved with upgrading information networks. Many businesses—especially small businesses—can benefit from virtualization, but choosing to “virtualize” your IT network can be an overwhelming task if you don’t know how the parts fit together. It can be even more overwhelming if you’re not quite sure what virtualization is in the first place.

### A Brief Overview

Virtualization can be defined as the creation of a non-physical—doesn’t take up floor or desktop space—copy of a server, operating system or application. Generally, virtualization can be broken down into three different levels:

#### 1. Server Virtualization

Server virtualization allows multiple servers to be installed on one or more existing servers. This saves floor space and money since you don’t have to purchase new servers or expand the square footage of your server room. The benefits of server virtualization include:

- Multiple operating systems can be run on a single physical server (host).
- Many physical servers can often be consolidated into a one or two physical servers, saving your small business money that would have been spent on physical servers.
- Your small business’s electricity requirements will decrease—fewer servers run on less power and will also generate less heat which will reduce your server room cooling bill



- Virtualizing most servers onto one or two physical servers reduces server maintenance costs.
  - Additional RAM, processor power or storage space can be quickly and easily allocated to any virtual server.
  - In case of a virtual server error, quick restores can be done from locally stored backups.
  - Virtual servers are easily moved between host servers, allowing maximum use of available processing power.

## 2. Desktop Virtualization

Desktop virtualization removes the need for a CPU at each computer station. Each user will still have a monitor and mouse, but will have their desktop CPU virtually stored on a local server. Benefits of desktop virtualization include:

- Virtual Desktops can run on multiple types of hardware such as: workstations, Thin Clients, laptops and some smart phones.
- Centralizing the virtualized “CPUs” of desktops provides increased stability through better administration of workstations and increased security because the host system keeps all workstations up to date with patches and hot fixes.
- Virtual Desktops can be quickly created after an initial “original” virtual machine has been produced—anytime a new desktop computer is needed, copy the original, give it a name and it is ready for immediate use.



### 3. Application Virtualization

Application virtualization separates individual software applications from the operating system allowing the user to run almost any application on almost any operating system. Other application virtualization benefits include:

- Application virtualization separates applications from the operating systems and can run the applications on workstations, thin clients, laptops and some smart phones.
- Applications are run centrally so you don't have to worry about having enough storage space on the local desktop hard drive.
- Multiple applications can run at the same time without bogging down the system or conflicting with other apps.
- Virtualized applications can be installed, maintained and patched as soon as updates are available.

#### To Learn More

Right now, everyone is betting on virtualization being one of the best ways for small businesses to cut costs involved with building and maintaining IT networks. Chances are that one, two or all three levels of virtualization can help your small business save money. To learn more about how virtualization can help improve your small business's bottom line, contact the IT outsourcing experts at All Covered at 866-446-1133..

Contact All Covered Toll-Free Nationwide at (866) 446-1133 or at [www.allcovered.com](http://www.allcovered.com)

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