

Cloud Computing for the Rest of Us

One of the hottest small business technological trends of the past decade is taking infrastructure and systems and transforming them from physical to virtual. Nearly every aspect of the office from employee onboarding through document management is now done on computers. The next step is to take these computer based systems off our physical computers to virtual environments.

In technical circles, the process of virtualization is the creation of a virtual copy of something actual like a server, network or storage device. Virtualization allows one device to run as more than one device. Running Windows on your Mac, or partitioning a physical hard drive into smaller sections that each act as a separate hard drive are examples of virtualization. In general, there are four types of virtualization:

1. **Operating System virtualization.** Running more than one operating system on the same device.
2. **Server virtualization.** Running more than one server on the same physical server.
3. **Storage virtualization.** Linking together multiple storage devices into what's perceived as one device. Cloud storage is a common form of storage virtualization.
4. **Network virtualization.** Network virtualization is the combining of network connections like Internet and other Data into one seemingly visible network and then dividing the connection into separate connections. E.g., Taking a 5 mb connection and assigning 2 mb to your server and 3 mb to employee's computers. In small businesses, the most popular type of virtualization is server virtualization and when many experts speak of "virtualization" they're normally talking about server virtualization.



The four types of virtualization do share common benefits though. These benefits include:

- Decreased physical hardware
- Reduced overhead.
- Increased efficiency
- Easy Disaster Recovery
- Extended device lifecycle

The biggest benefit to virtualization is that it isn't an all-or-nothing solution. You can virtualize different functions at your own pace, often times starting with free or low cost solutions and working up to more advanced and costly implementations.