
# One Foot in The Cloud

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## Introduction

A year ago, our topic was "Is Your Head in The Clouds?" where we explored the hurdles to eliminating all of your on-premise servers and moving their functions to remote offsite data centers. The expected benefits were a reduction in capital expenditures for servers and associated software by simply paying a monthly subscription fee. The *trick* was getting from "here" to "there". Back then we advised making the transition in a measured and deliberate way. Well now we are ready to help you put just "one foot" in "The Cloud". Here's how.

## A Brief Review of Cloud Computing Opportunities, Benefits, and Hurdles

Before exploring how to get from "here" to "there" it's worthwhile for us to quickly review Cloud Computing opportunities and benefits and the hurdles to getting there. (Click the link above to read the original article – the below review is truncated from the original.)

| Cloud Computing Service | Description |
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| Email/Calendar/Task | Email has become the most critical business application. Moving it off of your on-premise servers to a hosted solution can get you up to 99.999% availability. You can never achieve that level of uptime with on-premise gear. |
| Cloud Storage | "Folder in the Sky" – When you are able to deposit files into what appears to be a folder on your computer but wherein the data is actually stored (or transmitted to or synchronized with data) at a remote location. A good example of this is Microsoft's Windows Live "SkyDrive" or perhaps Google's GoogleApps.<br>"Server in the Sky" – When you run an application locally on your computer but it connects to remote computing resources just "as if" the server(s) are local to you (but whose actual locations are again perhaps unknown to you). |
| Hosted/Web Applications | Any personal or business application that you access through a web browser like Internet Explorer or Firefox is a "hosted/web" application. You get the full benefit of the features of the application without knowing or caring where the computing resources are located. A good example of this is Intuit's QuickBooks Online but many application vendors are now migrating their applications to be offered in hosted versions. |


## The Hoped for Benefits

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| ✓ | Increased reliability and availability (cloud services can achieve 99.999% availability.) |
| ✓ | Increased accessibility (when hosted in the cloud, your files and applications become available from any internet connected location (home, coffee shops, travelling with a wireless notebook, etc.) |
| ✓ | No more spending money on maintaining and periodically upgrading servers. |
| ✓ | No more spending money on maintaining and periodically upgrading software applications. |
| ✓ | Ability to have I.T. capability expand and contract as the business needs dictate simply by paying a greater or lesser subscription fee ("utility computing"). |
| ✓ | A more general benefit of all I.T. related expenses being reduced commensurate with all of the "complicated" equipment like servers being gone. |

## Hurdles

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| ? | **All or nothing?** Some applications you might be ready to move to the Cloud while others not. How do you get the capital cost savings of moving some applications to the cloud when you still must maintain the "expensive" on premise gear for other applications? This is especially true if you have upcoming, necessary server replacements on the horizon |
| ? | **Servers perform many low-profile services** such as providing security, resolving names on networks, sharing printers, etc. **You can't eliminate those needs** just because high-profile services like email or file storage move somewhere else. |
| ? | **What happens when your internet is down or too slow?** You are dead in the water. |
| ? | **PC management?** How do you provide care to the PCs in your office when the big 'ol servers are gone? How do you protect data on those PCs that doesn't get safely sent to "the cloud"? |
| ? | In the long run, **high subscription fees** can far exceed the costs of maintaining on premise equipment. |

## Your "Getting There" Strategy

While the actual effort involved in "getting there" can be extensive, here's a simple to understand outline of how you can overcome the above hurdles and put "one foot" into the cloud and make a measured and deliberate transition.


| Number | "Getting There" Strategy Steps |
|---|---|
| 1 | **Survey your Mission Critical applications:** Email, File storage, Line-of-business applications (accounting, etc.)? Determine which ones you would most benefit from achieving increased reliability and increased accessibility. |
| 2 | **Analyze which MC applications are "ready" for the transition:** Just because certain applications are "available" in the cloud, it does not mean that they are as robust in features and functionality as existing on premise applications. Determine which MC applications are truly ready for a move to the cloud. |
| 3 | **Review your server replacement schedule:** Look ahead to see when you are scheduled to upgrade or replace existing servers which deliver those mission critical applications which you are ready to move. |
| 4 | **Reconcile applications to move with server replacement:** Arrange to move desired Mission Critical applications to the cloud either in advance of or in conjunction with server replacements. "Low profile" server functions can be transferred to servers where other Mission Critical applications will remain on-premise. |
| 5 | **Prepare high-speed "fault tolerant" internet or prepare "fallback" plans:** Put in place high-speed and highly available or redundant internet circuits to protect against internet outages. Alternately, make plans for workers to go to other locations (home, elsewhere?) during internet outages. |
| 6 | **Make the move!** Following the above plan, you can move applications to the cloud one at a time and hopefully reduce capital costs by replacing the retired servers with subscription cloud services. |

**Some of "gotchas" and how to overcome them**

What if you have only a single server hosting multiple applications? What if you have many servers but eventually will get down to the "last one"? How do you maintain those "low profile" server functions? How do you handle the PC management?

| Gotcha | Solution |
|---|---|
| One server | Two choices: Either do a "big bang" migration of all services to the cloud at the same time or start sooner rather than later and start moving applications to the cloud long before your single server is ready for retirement. When you are down to only one or two mission critical applications, see the "last server" gotcha below. |
| Last server | Replace that last server with a "micro-server" able to perform only those low-profile services. If you must maintain some mission critical applications on premise, then your "micro-server" might have to be a little beefier, but still less expensive than the servers you have been |


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| | accustomed to purchasing. |
| PC management | Again, use a "micro-server" to provide low-profile services AND PC management. Another alternative is for someone (like ENTRUST) to provide you with a "cloud server" not located on your premises to deliver a bare minimum of the necessary PC management. |

**The Hurdle That Remains**

Careful readers will notice that my "one foot in the cloud" plan addresses all of the listed hurdles except one: high subscription fees. I am telling you today that the monthly subscription fees you will pay for cloud services, while seemingly low compared to expensive projects like server replacements and upgrades, actually will cost MORE in the long run. When you spread the project costs and ongoing maintenance costs of on-premise equipment over the lifetime of that equipment (typically 48-60 months), the monthly cost will almost always be lower than the subscription fees you are paying (which must be combined with additional internet costs and remaining management costs for a true comparison). **But this is one "hurdle" you don't need to get over**! The reason you don't need to get over it is BECAUSE YOU GET ADDITIONAL VALUE! You are paying more because you are getting more! Remember that you are getting the below additional benefits from having your mission critical applications in the cloud instead of on premise:

- ✓ Much increased availability and reliability (99.999% maybe)
- ✓ Much increased accessibility (access from anywhere)
- ✓ Lower risk of data loss (backups and redundancy are built-in cloud functions)
- ✓ Fewer headaches (because of above benefits)

**ONE MORE THING:** It's STILL REALLY, REALLY important to transition to cloud computing partnering with a trusted IT provider who is capable of steering you toward the cloud services that are right for you and who is able complement them and even "fill the gaps" that are left when you begin to make your move into The Clouds. So, in summary:

- You can put "one foot in the cloud" and begin your migration now.
- You can best leverage capital cost savings by making your move in conjunction with existing server replacement schedules.
- Plan to use "micro-servers" and redundant internet circuits to overcome many of the hurdles.
- ENTRUST is ready today to help you safely make the transition to the ***right*** cloud services and knows how to "fill the gaps".

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