

Introduction: Changing the Game

Blatant technical change is something to which many of us have become accustomed. Every year there are newer phones, faster PCs, smaller portable electronics, new ways to obtain information, and higher speeds of Internet access. Technical innovations are featured on the same news programs reporting on world events, leaving us “waiting” for the next technology breakthrough. In fact, some have become such an important part of our daily lives we ask ourselves, “How did I make it through the day before I had this?”

What about the trends that aren’t as blatant, but no less powerful and game-changing? Desktop virtualization is a technology shift that is happening *right now* and will soon completely change how we use our computers to do our jobs. So, what does desktop virtualization really mean? Chances are, if you have picked up this book, you already suspect something big is happening. Maybe someone has approached you about the idea, or maybe you are on the tip of taking the plunge into this technology. Or, it could be that you are already experimenting.

Desktop virtualization is not a blatant technology. It may never be. It is a game-changing technology.

Opposite desktop virtualization, the surge in the use of server virtualization has occurred because organizations have discovered it is an idea that makes sense. You take some software, a hypervisor, and install it onto a physical server. You then have the ability to take a large number of physical servers and run them on top of the hypervisor software. The result is that you have now decoupled the operating system from the hardware that it runs on. The resulting virtual machines are now easy to move, back up and manage.

With the ability to put thousands of machines under the umbrella of one virtualization management system, organizations save on server costs, management costs, and operating costs. These are very clear value propositions that are easy to understand.

During the time server virtualization was being adopted, the technologies that make up the virtual desktop were maturing. Some designs existed for the virtual desktop, but they were crude and not understood outside of small technical communities. Some of the component technologies were very mature or, in technical terms, *old*. They were being used to service millions of users around the globe. Others still needed work. Some still do.

That was the past. Sometime, somewhere, the virtual desktop became very real. It wasn't just one thing that made this possible, more the fact that the ingredients became refined enough to put them together to solve problems. If a solution is well implemented, it can completely transform the PC experience. You can make it faster and easier to manage. You can put it in places that are more secure and send it places it couldn't go before. You can make it operate like a utility, and you can make it *reliable*.

However, if you do a poor job of implementation, your creation will fall apart and cause employees enormous levels of frustration, not to mention placing a big red mark on company revenue and productivity. While improving user experience and productivity are by far one of the most important aspects to desktop virtualization, they may not be the drivers for your particular project.

A single virtual desktop is not hard to understand, but the complexity of hundreds or thousands in one system can sometimes be overwhelming. There are numerous moving parts, each with business and technical interdependencies, and dozens of technology combinations, different design choices, and the potential to impact all sorts of established business and technical procedures.

Innovation in this area is rapid and brings with it large quantities of educational marketing material. This material is written to illicit a response from the audience — but instead leaves most people new to the ideas and concepts with half of the story, or often times with more questions than answers.

This book will not answer all of your virtual desktop questions, but it will...

- give you a solid foundation to start building your understanding of the virtual desktop world,
- help you look at the people that will experience this technology in the right way,
- outline how you should start working with and making decisions about these technologies,
- expose you to some of the exciting changes virtual desktops could bring to your company, and
- explain the “big picture” view of the technical concepts you need to know in an easy-to-understand, non-technical, and straightforward way.

On a personal note, when I began writing this book, the goal was simple. I wanted it to be available to the people I speak with every day about this technology as a resource for any technical skill level. I wanted this book to empower them with general knowledge about virtual desktops, and practical advice about how to start working with the different components. My hope was that readers would save some money and find more success because their projects were better planned and more carefully executed.

I felt it was important to do all of this in a completely agnostic way that was not linked to any specific vendor. By doing it in this way, I also wanted to empower my peers around the globe, no matter what technologies they sell or implement, with a resource they could use to help decision makers understand how to begin their virtual desktop journey.

Every day hundreds of millions of people use desktop PCs to do their work. The PC is a fundamental piece of modern technology. It is one of, if not the, most critical tool of the modern age. Now there are people like me out there working to change it. To better it. To *virtualize* it.

Let's get started — we have hundreds of millions of desktops to transform.