I. Introduction and Overview

Chapter 1

Migrating the Windows Environment

Introduction

This workbook is the product of our business. It is literally the “write up” of how KPEnterprises designs and executes network migrations. KPEnterprises has been doing this since 1995. Because these procedures are based on real-world experiences in the trenches of small business consulting, you’ll find three things that stand out in this book:

First, we think you’ll see a bit of your own business here. You’ll find stories about clients you’ll recognize and systems you’ve worked on.

Second, we have a real-world view about how small businesses work. We won’t recommend solutions fit for “enterprise” customers. We will also give some advice about working with small business owners and their employees.

Third, we provide advice and guidance that really can be implemented by a small shop. KPEnterprises normally employs three or four technicians. Of those, one is Karl, who primarily plays the roles of salesman, elder statesman, and ultimate escalation point. Another is Manuel, the President, Service Manager, chief cook, and bottle washer.

In other words, we’re very technical, but spend a lot of time doing non-technical chores. These network migration procedures have been developed by and for a small business consulting practice. We know you’ll be able to implement them successfully.

As this book goes to press, Small Business Server 2008 has been released. If it lives for five years – as its predecessor did – you’ll be fine-tuning and perfecting these procedures for some time to come.

It seems odd, but migrating entire computer operations from one system to another is almost unique to the small business market. Think about that.

Larger businesses replace a machine here, a “system” there. But they never replace all of their core operating equipment at once.

Small businesses, by contrast, perform this kind of wholesale upgrade every three or four years. It’s just the way things are done in the SMB (small and medium business) space.
What’s New in The Second Edition?

The obvious “new” material here is the SBS 2011 checklist and Chapters 9-13. But many other sections have been updated as well.

One of the big changes is our mindset on the SBS Family of servers. In 2008, Microsoft EBS or Essential Business Server product was new and ready to change the world. Now it has ceased to exist and is a distant memory. In the meantime, SBS 2011 Essentials has been released and brought a new little sibling to the family.

Of the core content, here’s what’s completely new:

The SBS 2011 Checklist. Now 270 pages! This is the ultimate resource guide to SBS, whether you use it for a Zero Downtime Migration or a reference guide.

Chapter Nine: Cloud Strategies, Cloud Migrations, and Hybrid Solutions. Here we cover moving services to the cloud. We introduce our “server lite” concept. And we discussion choosing between SBS 2011 Essentials and Windows Foundation Server.

Chapter Ten: Example Checklist for Migrating to Cloud Services. We talk about moving web site, hosted spam filtering, Exchange, and backups to the cloud. And, of course, all the details.

Chapter Eleven: Migrating to Microsoft Foundation Server. We introduce the “Windows Server 2008 R2 Foundation” edition and why it’s so cool. Then we present a checklist for moving from an SBS or standard server to Foundation Server.

Chapter Twelve: SBS Essentials – New Installations and Migrations. We introduce the new SBS family member and talk about combining this product with cloud-based services. We present a two-part Technology Roadmap Questionnaire to get you started on a small server migration project.

Chapter Thirteen: Checklists for SBS Essentials Environments. The final chapter covers preparing the network for an SBS Essentials migration, and setting up a variety of network configurations. We also cover connecting workstations to the new SBS Essentials network.

Other new features . . .


The most important new feature of the Big Checklist (as we like to call it) is that we combined what would have been three checklists of well over 200 pages each into one comprehensive checklist.

Faced with the task of re-writing both the 2003 and 2008 checklists to accommodate moving to SBS 2011 was a daunting task to begin with.

As we reviewed what would have to be covered as “new content” we also had to consider what could be cut from the checklist. Unfortunately for us, we could not bring ourselves to drop anything from the checklist. What would we drop anyway? Office 2003? XP Pro? SBS 2003? After all SBS 2003 and Office 2003 are both over eight years old, XP Pro is eleven, and who uses any of these anymore anyway? Well these were pretty obvious choices so we dropped nothing.

As for additions we had no choice but to detail the use of Office 2010, Exchange 2010, and USMT 4.0. And then there are all the new features and changes of SBS 2011 itself, not the least of which is the Roles based Security that performs wonderful magic everywhere, but also makes the SQL migration require just a little more detailed in every aspect.

As we moved from section to section it became obvious that we needed to combine where we
could and if possible condense down to one multifunction checklist. We will say: If we had tried this the first time around writing this book, we might just now be releasing the SBS 2008 checklist not the 2011 checklist. Luckily we did have two separate checklists for 2003 and 2008 to start from.

We set out to first complete the 2003 to 2011 checklist. Next we looked at it from a Source to Destination viewpoint. When we did it was obvious that all we needed to add or incorporate where the possibility of a different source than SBS 2003, SBS 2008, Exchange 2003, Exchange 2007, Office 2003, 2007, 2010, etc. existed.

What we have now are small checklist sections or subsections where the steps to perform in each subsection are relative to the migration source. If the source is Office 2003 do this, if its Office 2007 or 2010 do this. If the source is Exchange 2003 do this, for Exchange 2007 do this and for Exchange 2010 do this. The checklist is now right about 270 pages. The end result is there is only one checklist that covers three generations spanning over 10 years of Small Business Server, Microsoft SQL Server, and Microsoft Office. It will make the Small Business Server 2014 checklist that much easier to build.

It has always been intended that you should have the simple data collection performed by a technician of a sufficient level of knowledge that they can be relied upon to have collected the right information and to have covered all of the important aspects. It became obvious that all we need do is highlight the sections that are for a project lead or senior engineer in light Grey. Then we simply insert a statement in the General section of the Pre-Discovery and Discovery explaining the intent that these Grey sections, unless specifically directed otherwise, are for project leads or senior engineers only.

Much of the work load of the Discovery process can now be delegated to a technician (or even the Back Office) with minimal concern as a project lead or senior engineer is still required to review the most critical aspects. You may freely adjust the highlighting for sections based on your company’s comfort with your technical staff. You may even choose to continue highlighting’s into major checklist sections to help technicians understand what steps are intended only for senior engineers. This would be excellent for sections such as the DNS or firewall changes on migration day or even the informing the client checklist items.

Pre-Discovery and Discovery Highlighted

The Pre-Discovery and Discovery sections have always been a point of discussion when it comes to who should do which parts. It’s not as simple as Technician’s do the Pre-Discovery and Engineers do the full Discovery. There are decisions that need to be make in the Pre-Discovery that should only be made by a senior level engineer and conversely there are many things in the full Discovery that do not require a senior engineer.

Discussion of Test Environments and Virtual Test Environments

Whether you’re new or seasoned, please check out the discussion of test environments in Chapter Five. We have always used test environments. They used to be physical machines we had lying around the office.

For this version of the book, tow big things changed. First, we make great use of virtual and cloud-based technology. Second, the authors were split between east and west coasts, 3,000 miles apart.
As a result, we took full advantage of virtual environments for testing, retesting, and running through the checklist. Just to write this book, Manuel has probably performed more end-to-end SBS 2011 migrations than anyone on earth, including Microsoft engineers.

Anyway, read the section on test environments in Chapter Five.

Index to the Checklist

This may be one of the most useful features we could have added to the checklist. We added it because even as we “wrote the book” we don’t have perfect recall so even for one of us to say to another tech or engineer “It’s in the checklist and I’m sure it’s in the System Build section” doesn’t usually work.

Suffice it to say, it is a simple index but it has already been hailed as a much needed feature by everyone we have worked directly with in the development of the 2011 edition.

If you have any desire you customize the index or expand upon it feel free to do so, knowing it was built as the most basic index possible in Word 2010. All you need to do is mark a new word, phrase or sentence for inclusion then rebuild the index.

What Does Migration Mean To You?

It only occurred to us after writing 300 pages and getting some early feedback that we need to define what we mean by migration.

Most people in our business talk about “migration” or “the migration process” in reference to moving active directory from one physical server to another. Certainly, this is the migration process that is made much simpler with Jeff Middleton’s Swing Migration.

At the same time, we all know that it takes a lot more than moving active directory to migrate a network.

Karl has made several presentations about the Zero Downtime Migration process. Many people are surprised that so much time is spent discussing the business side of migrations. But the truth is that the basic technical process is not particularly complicated.

The complicate part of a migration comes with all the snags you run into. I’m sure you’ve seen your share:

- The unexpected 100 MB Exchange database in a company of ten people
- Profiles “from hell”
- Clients who think the migration to a new server is a great time to refresh office on every desktop and move to a new ISP
- The line of business vendor whose database breaks during the migration and can’t be reached

It goes on and on.

Microsoft has developed some tools to help with the migration process. We call them out in the Our Favorite Whitepapers section of the checklist. But even their 100+ page explanation of the migration process stops short of addressing all these parts of a migration that don’t involve moving the server’s personality to its new home.

When a small business gets a new server, it is usually a major event. That client normally only has one or two servers. If the one you’re replacing is the domain controller (or with SBS, domain, exchange, SQL, SharePoint, etc. all in one), then it affects every device and person on the network.

And you should treat this like a break/fix job. In other words, you can’t just look at replacing a piece of hardware and not think about the bigger picture.