Re: Unattended Installation

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From: Cary Shultz [A.D. MVP] (*cwshultz_at_mvps.org*)
Date: 10/19/04

Date: Tue, 19 Oct 2004 13:18:12 −0400

Daniel!

Howdy and welcome to Microsoft Windows! I hope that things go well for you. Please listen and understand, though, that things are going to be very frustrating for you along your journey. Things will finally become more and more clear for you. But that takes time. And that precious thing called experience. Some people might call it making a ton of mistakes! Hopefully you will avoid the majority of those mistakes by posting questions in these newsgroups. I would also S _T_R_O_N_G_L_Y suggest that you go to the WIN2000.Active_Directory newsgroup as well. Both will be big helps to you.

Anyway, to your questions.

There are actually several answers to your questions. I will try to keep the number of answers to a minimum as you might become overwhelmed with all of the possibilities. I will try to keep it all very basic (remember the first day of Business School − you learned how to K−I−S−S....).

One possibility is to use RIS, or Remote Installation Services. This is available on WIN2000 and WIN2003 and requires Active Directory, DNS and DHCP. You would create an image (usually the i386 folder) to a shared folder on the server and then create a RIS Boot Disk. Once you have this you go to the problem computer, stick in the RIS Boot Disk and reboot. WIN2000 Pro or WIN XP Pro will be installed on the system. Now, this does not take care of the deployment of Applications. We will look at that in a second.

One of the possible limitations of RIS is that there are a limited number of NICs that RIS supports. Another is that the computer acount will be created in the default COMPUTERS container. Why is this a problem? The deployment of applications via GPOs. We will touch on this later. This can be changed by pre−staging the computer account (in WIN2000) or changing the default location of the computers (in WIN2003).

One of the major advantages − over the network boot disk − is that you do not first have to format the hard drive of the workstation. RIS takes care of that for you....

Another possibility is to use a network boot disk. I really like BART's Boot Disk. He has a 'modular' boot disk that is really neat. You can visit his site at http://www.nu2.nu. Patrick over at http://sourceforge.net/index.php has another boot disk that looks really neat. It is more Linux based. With a network boot disk you need to have the 'source' available. This, again, would be in the form of copying over the i386 folder to a shared folder on a network server. You can even include the default location of the computer account object with this method without having to do any of the pre−staging things. Kinda neat.

One of the disadvantages, though, is that you need to have a clean hard drive. So, you would need to format the hard drive disk first.

You can also use the 'default' CD−ROM Media with a floppy disk that holds the winnt.sif file (or the answer file). All you do is simply create the winnt.sif file, put it on a floppy disk, drop in the CD−ROM Media in the CD−ROM Drive and reboot (just make sure that it is set to boot from the CD before the HDD).

Another possibility is to create a bootable CD−ROM that has the OS and some other applications so that your need to manually install things after this is minimized.

One of the nice things about these is that you can slipstream the Service Pack. So, for example, if you are still using WIN2000 you could create an image (again, simply copying the I386 folder to a shared network folder.....well, simply put) and then 'slipstream' SP4 to it. So, when you use this image the computer is going to have WIN2000 SP4 installed. This saves you the time of having to later install the Service Pack. You can also, through the use of QChain, install a lot of the Critical Updates.....

All of these possible solutions require that you have some sort of 'answer file'. This answer file give the installation all of the 'answers' to the 'questions' that are asked during a normal installation of WIN2000 or WINXP Pro. They are really neat. And very flexible.

Then there is always the 'imaging software' − such as Ghost and Drive Image. I will not speak too much about these other than to say that if you are going to use them then you need to know about sysprep.

I like RIS and /or the network bootable disk solutions.

You can install a lot of software via Group Policy. MS Office 2000, Office XP and Office 2003 are perfect candidates for this. This is a whole other part of Active Directory. For the Office Applications you would need what is called an 'Administrative Installation' − which you perform via the setup.exe /a switch. You would then 'install' it to a shared folder on a server. You can also install non−MS software via Group Policy. The key here is that there is an .msi file. If you do not have an .msi file then you can not use Group Policy to deploy the software. But, you can create an .msi file. Or .zap file.

For Office you can include a transforms file, or .mst file. This allows you to have multiple Office installations. For example, the people in Accounting get Outlook, Word and Excel while the people in Finance get Outlook, Word, Excel and Access. Naturally, the people in Sales do not need Access so they get PowerPoint instead!

Another very important fact is that when you are creating the packages for deployment you have to tell AD where the .msi file is (for example, in Office 2000 it is data1.msi). You must use the UNC naming convention (\\servername\sharename) when doing this. That is to say that you can not use any mapped network drive (T:\office 2000\Office\data\data1.msi) as the install will fail.

Daniel, as you can see there are a lot of possibilities. 45 users is very small. Once you get everything automated your life will be very easy. One of the wonderful things about deployment of applications via GPO is that these applications will 'self−heal'. Say one of your users deletes the WinWord.exe file on his computer. Well, normally MS Word is not going to work. If Office was deployed via Group Policy there will be no problem (assuming that the user or computer account object is still in the OU to which the GPO was linked − aka still falls under the scope of management). It is also rather easy to simply 'Service Pack' an application that you have deployed via GPO. Say you have Office XP. Well, Service Pack 3 is the latest and greatest. All you need to do is to 'update' the Administrative Installation Point (AIP) and then redeploy the application (which is as simple as clicking on one thing). You can also update the application to the next version. So, say that your people want to standardize on Office 2003. Simply create another AIP and when you are creating the package just tell it that you are 'updating' the Office XP GPO. Office XP will be removed and Office 2003 will be deployed. It is that easy. Well, at least on paper! I have done it several times.

HTH,

Cary

"Daniel" <Daniel@discussions.microsoft.com> wrote in message news:446E424A−551D−4106−A038−3B481A8D7844@microsoft.com...
> *Just a little additional question. I was wondering is it possible to not*
> *only automate the windows 2000 workstation installation but also at the* same
> *time, the installation of MSoffice. Ultimately the ideal goal is to be* able,
> *from a boot disk???, turn on the new or old computer and have it*
> *automatically get wiped clean (if it isn't already) and then proceed to*
> *install windows, office and possibly a couple of other routine programs.*
>
> *Thank you once again for your insight!*
>
> *Daniel*
>

> *"Daniel" wrote:*
>
> > *Hello,*
> >
> > *First off, I'm new to this field, so please try to give me the most*
detailed
> > *information/instructions possible.*
> >
> > *As for my question, I'm working in a medium size company 50+ computers*
where
> > *they currently have to do individual installation each time they build a*
new
> > *system. I have been asked to try and find out if there is a way to*
automate
> > *the installation of windows so that the installation is unattended and*
that
> > *it can be run on a variety of hardware configurations. Could someone*
please
> > *give me some guidance on this subject?*
> >
> > *Thanks,*
> >
> > *Daniel*
> >
> >