TEST REPORT SUMMARY JUNE 2008



Dell ImageDirect time savings evaluation

Dell Inc. (Dell) commissioned Principled Technologies (PT) to compare Dell's Online ImageDirect image creation process with a typical corporate deployment solution such as Symantec's Ghost 11.0 tool, a leading solution many organizations use. The test aimed to measure and compare the potential time an organization's IT staff might invest using the two imaging solutions and deployment processes across multiple locations.

We selected three commonly available systems that ImageDirect supports with Windows XP Professional:

- Dell Latitude D630 notebook
- Dell OptiPlex 755 desktop
- Dell Precision M2300 notebook

We found that ImageDirect could save significant amounts of IT staff members' time, time they would normally devote to imaging using a tool such as Symantec Ghost.

We first created a standard company system image using

KEY FINDINGS

- Deploying systems with ImageDirect saved as much as 82 percent of IT staff time over using an imaging tool such as Symantec Ghost 11.0.
- Deploying systems for users in remote facilities with ImageDirect saved as much as 86 percent of IT staff time over using an imaging tool such as Symantec Ghost 11.0.
- Creating images using ImageDirect saved on average 87 percent of IT staff time over creating the images with an imaging tool such as Symantec Ghost 11.0.
- ImageDirect required no additional time to deploy an image on a different Dell model as our test on the Dell OptiPlex 755 showed.

both Dell ImageDirect and Symantec's Ghost 11.0 on a Dell Latitude D630 notebook. We used Ghost as many small, medium-sized, and large organizations would. The difference between those usage models is that smaller organizations with fewer systems are more likely to install applications by hand. Larger organizations would develop silent installation scripts to speed up repeated application installations. We then ordered a pair of Dell Latitude D630 notebook systems. We ordered one of them using the Dell ImageDirect service; for the other one, we used Symantec Ghost 11.0 to set up the system. We repeated this process two more times, changing the systems each time, to mimic what would happen over time as an organization buys new and different systems and updates images and distributes them across multiple sites.

Time savings of Dell ImageDirect over Symantec Ghost 11.0						
Area of time savings	Latitude D630	OptiPlex 755	Precision M2300	Average across all three systems we tested		
One-time setup (percentage)	0:00:00 (NA)	1:06:28 (100%)	1:16:27 (77%)	0:47:38 (87%)		
Deployment (percentage)	0:27:45 (77%)	0:18:04 (71%)	0:31:33 (82%)	0:25:47 (78%)		
Remote site deployment (percentage)	0:37:31 (82%)	0:29:46 (80%)	0:42:20 (86%)	0:36:32 (83%)		

Figure 1. The time savings of Dell ImageDirect over Symantec Ghost 11.0 for setting up images and deploying images on systems (both at the central site and at remote sites) using techniques common to small organizations such as not using silent installations. The time differences are in hours:minutes:seconds with percentage differences in parentheses.

Figure 1 shows both the time savings of Dell ImageDirect over Symantec Ghost in our testing as well as the percentage time savings. These savings are what a small organization that does not use silent installations during their imaging process might expect. We base the times in Figures 1 and 2 not on elapsed times, but rather on the time an IT staff member would actually have to devote to a task. For example, if the task of copying an image to a

system took a total of 40 minutes, but the actual time to start up the image copy and monitor its progress only took 8 minutes, we used the 8-minute figure.

The one-time setup time is the time necessary to create an image for a system either with ImageDirect or Symantec Ghost. This time would be necessary for each image within a customer's environment. IT staff members could then deploy that image on multiple similar systems. With ImageDirect, IT staff members could also deploy the ImageDirect image on different types of Dell systems with no additional setup time. As we assume the initial image is already created for the D630, no time is necessary with either method and no time savings result. The deployment time is what is necessary to get the boxed up system unboxed and up and imaged and personalized for the user. The remote site deployment time is the deployment time plus the necessary time to box the system back up, prepare it for shipping to the remote location, and unbox it there upon arrival.

Time savings of Dell ImageDirect over Symantec Ghost 11.0						
Area of time savings	Latitude D630	OptiPlex 755	Precision M2300	Average across all three systems we tested		
One-time setup (percentage)	0:00:00 (NA)	1:04:15 (100%)	1:15:50 (77%)	0:46:42 (86%)		
Deployment (percentage)	0:13:34 (62%)	0:10:42 (60%)	0:19:05 (74%)	0:14:27 (66%)		
Remote site deployment (percentage)	0:23:20 (74%)	0:22:24 (76%)	0:29:52 (82%)	0:25:12 (77%)		

Figure 2. The time savings of Dell ImageDirect over Symantec Ghost 11.0 for setting up images and deploying images on systems (both at the central site and at remote sites) using techniques common to medium-sized or larger organizations. The time differences are in hours:minutes:seconds with percentage differences in parentheses.

Figure 2 shows both the time savings of Dell ImageDirect over Symantec Ghost in our testing as well as the percentage time savings. These savings are what organizations (typically medium-sized or larger ones) that use silent installations during their imaging process might expect. Note the 100% savings indicates that there was no time required for ImageDirect imaging when switching to a different model of computer.

For more information on these tests and to see the full test report, visit www.principledtechnologies.com/clients/reports/Dell/ImageDirectTimeSavings0608.pdf.



Principled Technologies, Inc. 1007 Slater Rd., Suite 250 Durham, NC 27703 www.principledtechnologies.com info@principledtechnologies.com

Principled Technologies is a registered trademark of Principled Technologies, Inc. All other product names are the trademarks of their respective owners

Disclaimer of Warranties; Limitation of Liability:

PRINCIPLED TECHNOLOGIES, INC. HAS MADE REASONABLE EFFORTS TO ENSURE THE ACCURACY AND VALIDITY OF ITS TESTING, HOWEVER, PRINCIPLED TECHNOLOGIES, INC. SPECIFICALLY DISCLAIMS ANY WARRANTY, EXPRESSED OR IMPLIED, RELATING TO THE TEST RESULTS AND ANALYSIS, THEIR ACCURACY, COMPLETENESS OR QUALITY, INCLUDING ANY IMPLIED WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE. ALL PERSONS OR ENTITIES RELYING ON THE RESULTS OF ANY TESTING DO SO AT THEIR OWN RISK, AND AGREE THAT PRINCIPLED TECHNOLOGIES, INC., ITS EMPLOYEES AND ITS SUBCONTRACTORS SHALL HAVE NO LIABILITY WHATSOEVER FROM ANY CLAIM OF LOSS OR DAMAGE ON ACCOUNT OF ANY ALLEGED ERROR OR DEFECT IN ANY TESTING PROCEDURE OR RESULT.

IN NO EVENT SHALL PRINCIPLED TECHNOLOGIES, INC. BE LIABLE FOR INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH ITS TESTING, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT SHALL PRINCIPLED TECHNOLOGIES, INC.'S LIABILITY, INCLUDING FOR DIRECT DAMAGES, EXCEED THE AMOUNTS PAID IN CONNECTION WITH PRINCIPLED TECHNOLOGIES, INC.'S TESTING. CUSTOMER'S SOLE AND EXCLUSIVE REMEDIES ARE AS SET FORTH HEREIN.