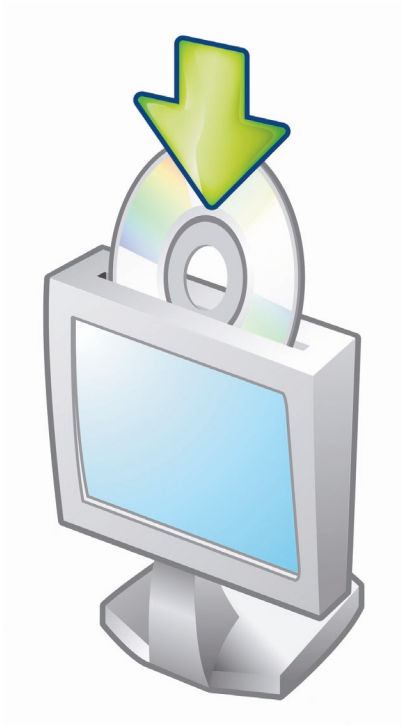


LANDesk® Solution Brief: Software Distribution



Solving real IT challenges.

Fire it off and forget it: Managed software distribution

The Challenge:

Installing software on one computer takes time. Rolling out applications to many users across the company is a real challenge. Managing ongoing application, security and virus updates can take up so much time and manpower that other tasks are left undone. And every time a new update comes out, the process starts again

Automated installs required

Manual software installation gives IT the greatest levels of control, but also takes the most time and requires the most record-keeping. As companies grow, however, automated software distribution becomes the only real answer, especially for companies with more than one location.

Effective automation is more than copying files. It's selecting targets for distributions, scheduling the task, and monitoring task completion. It's installing the right application to a new user's computer based on a defined set of user policies. It's distributing to mobile as well as desktop machines. It's automatically tracking licenses so you can ensure compliance.

Maintain security/preferred state

Once software is installed, effective automation means maintaining the preferred state for both users and machines. It's getting virus updates and security patches out to targeted computers fast. It's keeping applications healthy and up to date—without IT intervention.

If automation doesn't address new installs, ongoing security updates, and application patch management, it's just another partial answer to a complex problem that will require more of your time to plug the holes in the system.

Infrastructure impacts

Distributing some software packages requires a huge amount of network bandwidth. If you distribute a 120MB application suite to 100 users, you end up using 12 gigabytes of network bandwidth—enough to choke most networks.

Some systems use dedicated servers replicated across the network to create local application availability. That added hardware infrastructure is expensive and requires extensive setup and maintenance—losing much of the time and money saved by moving to an automated system in the first place.

Increased success rates

Sometimes software packages don't reach their targets. Mobile users can be disconnected from the network, some machines might be powered down, and others may crash part way through the process.

So you end up redistributing the same package to many of the same users. With even a ten percent failure rate, distributing a single application can take days or weeks. If you're dealing with thousands of computers, that can stretch out even further.

No time to wait

If the application or patch is critical, you have to closely monitor the process to make sure everyone receives it in a timely manner. Asset management tools can help you figure out who didn't get the package, but you still need to reschedule the job, wait for it to finish, then check it again.

In other words, you do the same job twice. And you spend a lot of time supervising the process.

Control the process

Automation by itself doesn't really solve the problem. You need to be able to tightly control what happens and when.

Whether you're deploying new applications to many users across the network, distributing patches or updates to only a few targets, or maintaining the preferred state for a single machine, controlled automation can help.

The best solution will give you the ability to create a set of standardized application and update packages, tie those packages to a set of directory policies or machine attributes, then let the system automatically install packages to maintain those policies—without massive network impact, infrastructure requirements, or supervision.

OVERVIEW

Business Need—To automate software installation, security and virus patch, and application update across the enterprise, with:

- Minimal impact on network resources
- Efficient mechanism for distributing software to many users at once
- Easy targeting to users based on inventory attribute or directory policies
- Automated task scheduling
- Task completion and job status tracking
- Mobile device and Macintosh support

Solution—Software distribution from LANDesk Software, featuring:

- LANDesk® Targeted Multicast™ technology minimizes bandwidth use when distributing to many users across complex networks
- LANDesk® Peer Download™ technology increases distribution efficiency on the subnet
- Full integration with Microsoft® Active Directory Service* and Novell® NDS*/eDirectory* data simplifies targeting and enables policy-based management
- Task scheduler automates the whole distribution process
- Automated task completion and task status reporting ensure the job is done
- Bandwidth detection, byte level checkpoint restart and task completion support mobile devices as well as improving success in any bandwidth-constrained network environment
- Support for Macintosh® OS X provides support for heterogeneous IT environments

The LANDesk® Solution

The LANDesk® software distribution solution gives IT the tools to implement controlled automation for fast and efficient software installation, security and virus update, and application patch management across heterogeneous network environments.

- LANDesk Targeted Multicast™ features that minimize bandwidth use when distributing large packages to many users—without dedicated hardware or router reconfigurations
- LANDesk Peer Download™ leverages local bandwidth efficiency to access packages that have previously been delivered on a subnet
- Deployment task scripting enables detailed control over how tasks complete
- Application Policy Management leverages directory service or asset inventory data to automate software availability and keep applications in a preferred state
- Task scheduler integrates with directory service and asset inventory databases to make target selection easy; real-time status reporting informs IT of deployment task completion status
- Both standard distribution and advanced Targeted Multicast to Macintosh® OS X computers
- Mobile support, including bandwidth detection, byte level checkpoint restart and task completion
- Full-featured package builder
- Ability to distribute any package type, including MSI, setup.exe and other installers; multi-file MSI support enables rapid multicast distribution of very large application packages
- Both push and pull distribution to support your deployment plans
- Wise integration

LANDesk® Targeted Multicast™

LANDesk Targeted Multicast technology makes it possible to distribute large packages to many users across the network while minimizing traffic.

Targeted Multicast features require no additional hardware or software infrastructure, and require no router configurations to allow multicast packets. You get the potentially extraordinary benefits of multicast technology with none of its traditional headaches.

Standard unicast distribution

Standard software distribution uses a unicast model. If you distribute a 120MB package to

100 users, this model requires 12 *gigabytes* of network bandwidth to deliver individual copies of the package to each target computer (see Figure 1).

While standard unicast technology works for smaller packages or deployments to only a few machines, it's not efficient for deploying large packages to many users.

As a result, your options are limited. You can flood the network with traffic, break your single distribution task into mini-tasks and spread them out over time, or schedule distributions for

“Targeted Multicast significantly reduces software distribution times. On a site with 40 PCs, for example, transmission is now 20 times faster.

The impact on our network is dramatically reduced by multicasting.”

DAVE BAKER
BUILD MASTER
BT WHOLESALE MARKETS

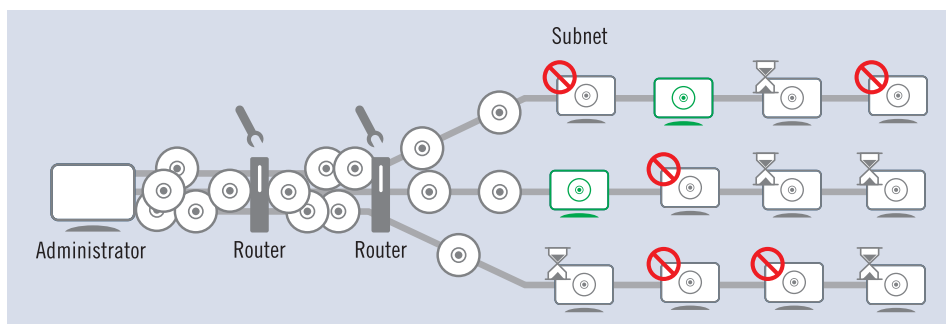


Figure 1: Standard unicast can flood the network when distributing large packages to many targets.

off-hours when network utilization is low—and many laptops are gone or computers are powered down, resulting in low success rates.

Advanced software distribution

LANDesk® Targeted Multicast™ technology uses a representative computer on the target subnet to function as a temporary multicast broadcaster.

The subnet representative pulls the distribution package down from the server using a standard http download then multicasts it on the subnet to listening clients. The software distribution agent on each target computer then installs the software and reports its status. The package only crosses the router once, and only one copy is broadcast on the subnet (see Figure 2).

LANDesk® Peer Download™

LANDesk® Peer Download™ technology enables managed computers to obtain software packages from other managed computers on the same subnet that previously received the package.

When packages are distributed to a managed computer, the compressed package is stored in a temporary cache on the target machine to speed install. Peer Download takes advantage of that cached package file to enable computers to quickly obtain the file from a local peer. A computer can even re-access a package in its own cache to enable rapid reinstall or repair.

When Peer Download is enabled for a distribution task, the target computer first looks in its own cache, then looks for the package in

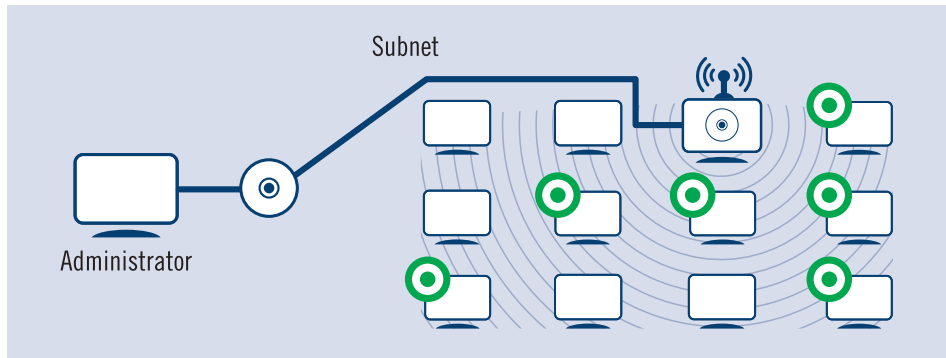


Figure 2: LANDesk® Targeted Multicast™ technology enables distribution of large packages to many targets at once without flooding the network.

Since the multicast happens on the LAN beneath the router, no router reconfiguration is needed to pass multicast packets, and no multicast traffic traverses the WAN. The single multicast on the subnet reduces local traffic substantially.

The computer that brokers the multicast is a normal managed computer that acts as temporary subnet representative until the distribution is complete, so no dedicated machines are required. Automatic selection of the subnet representative means the least burdened machine is used, or you can specify a specific machine to function as subnet rep for maximum control over the process.

This can result in a substantial reduction in network bandwidth use, especially when distributing large packages to many users on a subnet—with no router reconfiguration or dedicated hardware required.

the caches of peers on the same subnet. If the package is not available locally, only then does the target computer request that the file be downloaded from the distribution server.

Administrators can choose to make distribution packages available only through Peer Download. If the package is not available in its local cache or from peers on the local subnet, the distribution task fails and the administrator is notified. This can result in dramatic bandwidth savings when distributing large OS or application packages across the enterprise. More importantly, it puts bandwidth control in the hands of administrators.

The overall result can be substantially reduced traffic across routers and the WAN, more rapid task completion by keeping file transfers on the faster local subnet, less impact on the distribution server, and more efficient overall use of managed resources.

“In terms of time/cost savings of the application distribution function, we have shaved weeks off of the process.

Now we can create a software package and distribute it in minutes, with pinpoint accuracy to the exact desktops needed.”

ANTHONY COCCO
MANAGER OF IT OPERATIONS
NORTH PENN SCHOOL DISTRICT

This is especially important for mobile users. By making packages available on the local subnet, there is less need to pull packages over expensive WAN links. With task completion, a distribution interrupted on one subnet can complete on a different one—without hitting the distribution server over the WAN. That flexibility makes applications available to any user, with an unmatched level of efficiency.

You control the automation

Task scripting means you can precisely control how distribution tasks run. Set up rules that determine whether the package is required, recommended, or optional to define the level of user control. Expose or hide status messages on the client. Define whether the task installs or removes software. Choose unicast or advanced Targeted Multicast to deploy packages.

You can also define scheduling scripts. Automatically stage distributions to execute for only a certain number of targets at a time, regardless of the total selected. Choose when a package should be redistributed, or what conditions must be fulfilled before the script moves to the next set of targets. This automates staged distribution while giving you control over how and when tasks execute.

A simple UI directs you through the entire process. You can directly edit scripts with your own text editor for highest levels of control.

Application policy management

Both leverage directory service (LDAP) information to establish policies that automatically execute when members of a particular organizational unit log in, and use asset database query results to determine which computers a policy applies to.

Use this capability to deploy software to those who need it, to quickly provision new computers with specified applications, or to maintain a preferred state for either users or machines. LANDesk Peer Download™ technology enables computers on the same subnet to efficiently maintain application policies without requiring downloads from a distribution server or the LANDesk Management Suite core.

Directory service integration makes it possible to establish a single set of application policies for an entire organizational unit. When you add a new user to that group, those applications can be installed on that user's next login—automatically. Define it once, then forget it. Distributing applications or updates becomes a

simple matter of attaching the package to a set of user and/or machine policies.

Application policy management can also automate uninstalls. As users are added, removed, or change job functions, application policy management can automatically add or remove software so there's no need to repurpose machines as organizational changes occur.

You define the policies and provide the software packages, then sit back and let the LANDesk® solution take care of the details.

Deploy any package

The LANDesk package builder provides powerful features to automate application install and maintenance on Windows* computers. Set environment variables and installer behaviors. Create uninstall packages to ease version rollback or software uninstall. Create healing packages to automatically repair damaged applications.

The LANDesk software distribution solution can not only deploy packages built using the LANDesk package builder, but can also deploy packages, installers or executables such as setup.exe and MSI files. You can also distribute multi-file MSI packages along with their transform file enabling you to distribute large application packages. Full integration with the Wise* console makes it easy to build and distribute packages using your tool of choice.

Real-time status reporting

The task scheduler reports the status of each distribution. Instantly see whether packages have been installed, are in progress, or have failed. Easily redistribute failed deployments right from the task scheduler. Real-time status reporting puts the information at your fingertips, along with the power to act immediately.

Support for mobile devices

Mobile computers create unique challenges for software distribution. They're often disconnected from the network, or connect for only short periods of time over dialup or slow remote connections.

The LANDesk software distribution solution includes features specifically oriented toward mobile devices. Byte-level checkpoint restart combines with automatic task completion to start interrupted distributions right where they left off. There's no need to redistribute when a mobile goes mobile. Bandwidth detection can hold off on a distribution until the mobile device

“Since the first of this year, we have distributed more than 53,000 software packages. And as of August, I estimate that LANDesk Management Suite's software distribution and remote control features alone have saved our organization \$1.167 million! Any time you can show that the IT department is saving money rather than simply being overhead, it's a good thing”

ANDY NOSAL
SUPERVISOR OF LANDESK
OPERATIONS TECHNICAL SERVICES
RAYMOND JAMES FINANCIAL

is connected to a fast connection. Dynamic bandwidth throttling limits the total bandwidth a distribution takes up, reserving needed network resource for other critical tasks.

Full integration with LANDesk® Handheld Manager extends these features to PDAs and other handheld devices, eliminating many manual installs and reducing the total costs of maintenance for this rapidly growing set of computing devices.

Macintosh* OS X support

Macintosh computers are no longer refugees on the corporate network. Deploy Macintosh installer packages to OS X 10.2 computers using patented LANDesk Targeted Multicast™ technology. Leverage asset inventory information to select targets, and use Application Policy Management to ensure that the right software is automatically installed on Macintosh computers.

Rapid Results

The LANDesk software distribution solution gives you easy access to both user and machine information so you can quickly determine who needs what, then distribute the right applications or files immediately. There's no special configuration and no dedicated hardware so you can deploy software the moment the software distribution agents are installed.

Application Policy Management makes it easy to define both user and machine policies and implement them quickly. Because you can distribute existing installers without first converting them to a proprietary format, you can immediately begin distribution. LANDesk Targeted Multicast™ technology gets packages to users across the network quickly and efficiently while minimizing bandwidth. LANDesk Peer Download™ enables more efficient distribution and application policy management on the subnet.

The LANDesk software distribution solution enables you to not only start distributing software quickly, but to finish the job quickly as well.

Integrated Solution

The LANDesk® software distribution solution integrates fully with LANDesk asset management and OS deployment solutions to create easy, automated software distribution and maintenance.

Full integration with LANDesk® Handheld Manager, LANDesk® Patch Manager, LANDesk® System Manager, and LANDesk® Server Manager extends your ability to establish automated distribution policies based on the unique attributes of each and every managed computer.

Download a fully functioning 100-node, time-limited product trial so you can see for yourself how LANDesk® solutions can help ease your systems management pain from the first day of deployment.
<http://www.landesk.com>

LANDesk Software, the Leading Provider of Solutions for Software Distribution

LANDesk Software is the industry leading provider of easy to use, integrated solutions for desktop, server and mobile device management. LANDesk solutions are proven, with more than 250 million managed nodes deployed worldwide.

Find out for yourself. Call or visit our Web site to learn more about LANDesk solutions, then download a fully functioning 100-node, time-limited product trial so you can see for yourself how LANDesk solutions can help ease your systems management pain from the very first day.



Visit our web site for a complete list of our ESP partners.



FOR PRODUCT INFORMATION

U.S. and Canada	+1-800-982-2130
Europe	+44-118-902-6565
Japan	+81-3-5288-5255
Brazil	+55-11-5503-6502
Mexico	+52-55-5261-4340
China	+8610-8518-3137

This information is provided in connection with LANDesk Software products. No license, express or implied, by estoppel or otherwise, or warranty is granted by this document. LANDesk Software does not warrant that this material is error free, and LANDesk Software reserves the right to update, correct, or modify this material, including any specifications and product descriptions, at any time, without notice. For the most current product information, visit <http://www.landesk.com>.

Copyright © 2003 LANDesk Software, Ltd. or its affiliates. All rights reserved. LANDesk, Targeted Multicast and Peer Download are registered trademarks or trademarks of LANDesk Software, Ltd. or its affiliates in the United States and/or other countries.

*Other names or brands may be claimed as the property of others.