

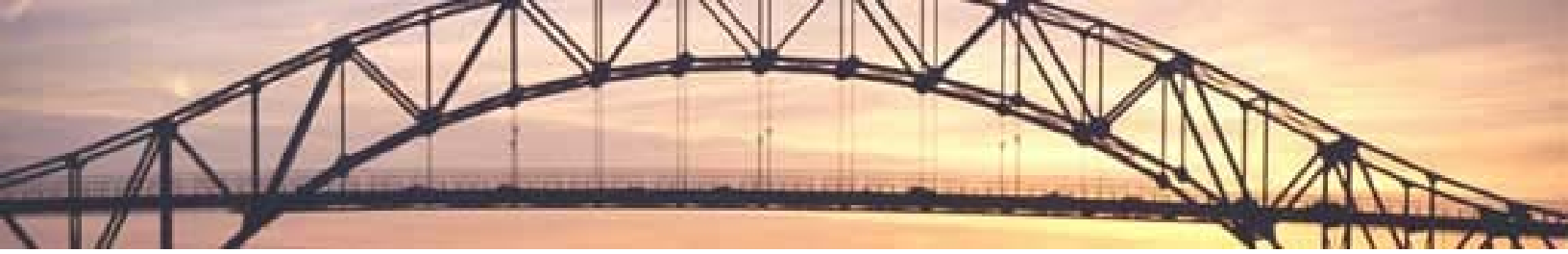
“...if you can buy one, and *\*only\** one set of tools for managing your Mac network, LANrev would have to be the choice.”

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## Managing Macs in a Windows Environment

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## The Changing Desktop Landscape

Today's enterprise computer networks are more diverse than ever. It's very rare to find a site with a homogeneous environment of just all Windows or all Macintosh workstations. For various reasons multi-platform computing environments are the new reality in today's complex IT landscape. Often it's because certain applications are only available or significantly better on one platform or another while in other instances it's simply due to user preferences.

The situation has been further complicated with Apple's switch to Intel processors and Boot Camp's ability for a Mac to run Windows. Additionally the explosive growth of Parallels and VMware's Fusion for running Windows within the Mac OS itself has made it easier than ever to offer Macs in the enterprise.

The end result is that the majority of large network environments today have a PC-centric infrastructure where many of the servers providing network services are Windows-based. IT departments are faced with deploying and maintaining Macs in the same manner that they currently have to with their Windows PCs.

## Four Reasons To Actively Manage Mac Clients

The most obvious alternative is to not centrally manage your Macs at all. But in choosing this route you need to consider the following.

If you don't know what computing resources you currently have then how will you know what you need. You can't control costs and budget rationally for the future if you don't know what you have. Knowing exactly what computers, operating systems, and software your organization currently owns and how much of it is currently in use allows you to manage your IT assets.

When it comes to installing software, can you really afford the time-consuming task of walking around with CDs to every Mac workstation? You also need to know how many software licenses you own and how many you have installed before your organization faces a compliance audit. By staying in compliance with license agreements, you'll avoid

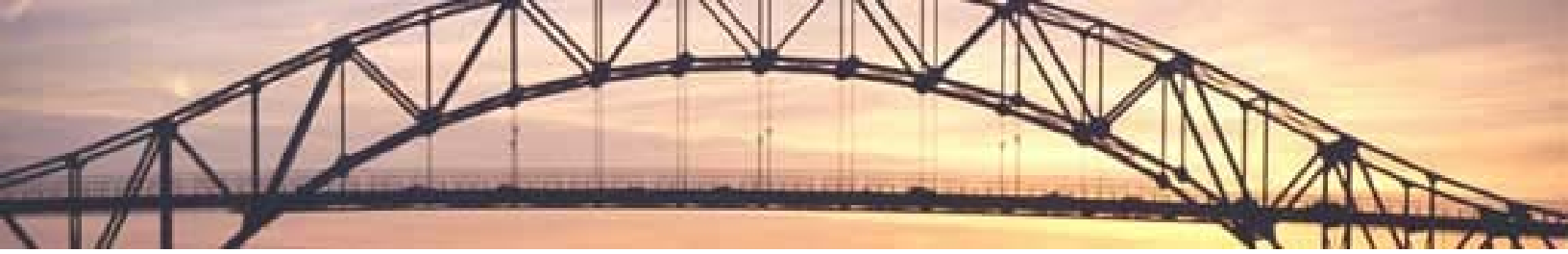
unanticipated and unnecessary penalties for unlicensed installations. Just as importantly, by tracking not only where software is installed, but how often it is being used, you'll be able to make smarter, better-informed spending decisions.

Perhaps the most vital component of client management is maintaining fully up-to-date, patched operating systems that are better able to withstand both system downtime resulting from unpatched bugs, and serious security breaches resulting from malicious exploits of OS vulnerabilities. Without active management of your Macs you are leaving the potential of costly software licensing penalties and security breaches to chance.

## Enterprise Scalability

A critical requirement when considering client management solutions is enterprise scalability to meet your changing business needs. Your choice must be able to adequately service your computer network today and years into the future. Your client management solution must grow with your organization as it increases in size and complexity. Some products have high resource requirements in anticipation of computing environments much larger than your own, thus needlessly wasting computing resources. Other solutions don't scale well and can only support a single server that is unable to service your growing enterprise, leading to degradation in performance and effectiveness of the client management system. The ideal solution not only supports your current environment with your existing IT infrastructure without waste but also scales effectively to support your organization in the future without additional licensing costs.

LANrev's architecture was built from the ground up for enterprise scalability and expandability. The LANrev server's core functions of inventory, task execution, software distribution, and license monitoring can all be assigned to a single server. As your organization expands, however, a second server can be added to handle the software distribution and license monitoring while the original handles inventory and task execution. When your organization grows further you can offload the license monitoring to a third server and let the second one handle just the software distribution. LANrev's distributed staging server architecture that



hosts packages for software distributions scales as high as you want and lets you promote practically an unlimited number of agent machines to staging servers. Load balancing of the staging servers by LANrev software distribution further increases the efficiency of the deployment ensuring that end users get their applications sooner. LANrev's licensing model lets you add additional servers and promote existing agents to staging servers without limit at no cost.

### The Old Way of Managing Macs

In the past supporting multiple platforms meant purchasing disparate client management solutions for each platform and hiring the required staff to manage them. While this may have worked, it had many drawbacks and quickly became costly, particularly in today's shrinking IT environment where CIO's are expected to do more with less. First you had to acquire separate solutions for each platform, which quickly diluted your company's volume purchasing power. Often this also entailed hiring a parallel staff to maintain each solution. There was little, if any crossover, in the management responsibilities of each set of support staff and not much possibility of consolidating inventory data, except via manual entry in a spreadsheet.

### Advantages of A Single Solution for Client Management

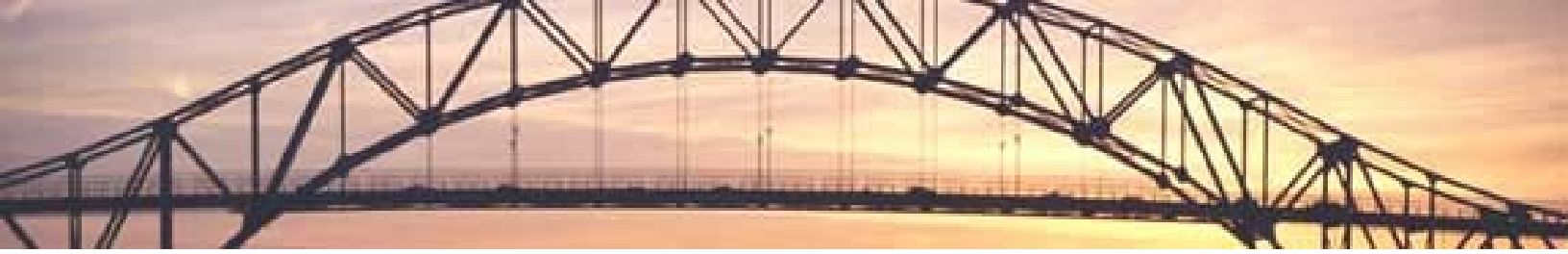
A single cross-platform product for managing both platforms is the optimal solution that has many immediate benefits, as well as long-term advantages that may not be quite as obvious. The most significant benefit, especially for the CFO, is the significant cost savings on both software and staff to manage the software. Take the following cost example for the first year in the life of a client management system (see Chart 1).

These cost savings translate to significantly faster ROI for cross-platform client management software such as LANrev. For example if the client management software saves your enterprise \$80,000/year you would break even with a cross-platform solution after 2 years as opposed to 3.6 years with separate solutions.

Another important advantage of a single solution is lower training costs. There's often a discount to send a second attendee to the same training session. Because all the support staff, regardless of the platform they support, must use the same software there is a group learning effect since they can consult with their colleagues and exchange knowledge. This can have a substantial effect on lowering the learning curve for mastering the client management software. Sending staff to training

Chart 1

Separate Solutions			Single Cross-Platform Solution		
Software	Cost /client	Cost/platform	Software	Cost /client	Cost/platform
500 PCs	\$50	\$25,000	1000 clients	\$40	\$40,000
500 Macs	\$50	\$25,000			\$40,000
		<u>\$50,000</u>			<u>\$40,000</u>
Support Staff	Cost/staff	Staff cost/platform	Support Staff	Cost/staff	Staff cost/platform
PC (2)	\$60,000	\$120,000	2 staff	\$60,000	\$120,000
Mac (2)	\$60,000	\$120,000			\$120,000
		<u>\$240,000</u>			<u>\$120,000</u>
<i>1<sup>st</sup> yr total cost of ownership</i>		\$290,000	<i>1<sup>st</sup> yr total cost of ownership</i>		\$160,000
Cost Savings From Single Cross-Platform Solution					
	Savings	% savings			
Software	\$10,000	20%			
Support staff	\$120,000	50%			
<i>Total Savings</i>	<u>\$130,000</u>	45%			



sessions for both the Windows and Macintosh client management solutions would double training costs. With LANrev, there's only one product and user interface to learn even though it will run on either platform.

In addition, using a single solution enables the support staff to interact with the other platform while maintaining a comfort level by managing client machines from their preferred operating system. This streamlines operations and increases efficiency and end user satisfaction by unifying systems, staff, and clients, which leads to the next benefit.

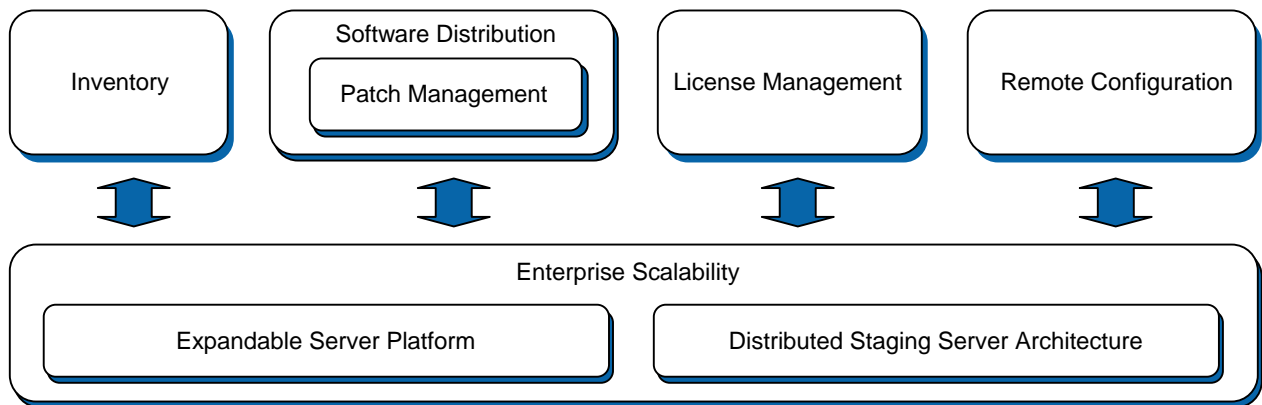
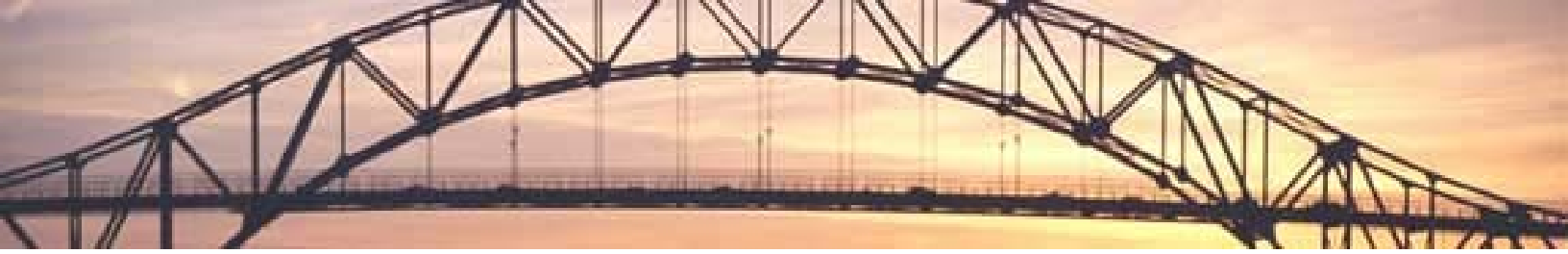
Cross-training results in more knowledgeable support staff that can manage both platforms, making their roles more interchangeable. As a result IT departments are no longer dependent on a single person for support of a specific platform. In the event of attrition or personnel change, management is secure in the fact that existing staff is able to assume the vacated responsibilities until a replacement is hired. As a result there is no knowledge vacuum or lapse in service even through periods of transition.

Having a single client management product such as LANrev also greatly simplifies client management and lets you consolidate computer inventory and tracking. Separate products often use export modules to merge data from one inventory system with another. However, they are rarely as complete and useful as a single solution that can manage both platforms. The ability to view information about your Macs and PCs in a single console is essential to achieving a complete and unobstructed view of your network. Despite the differences in the Windows and Mac operating systems, much of the hardware in Macs and PCs, as well as the installed applications are identical.

One of the biggest challenges for IT departments that are used to Windows PCs is that few Mac administration programs, are able to fully take advantage of Active Directory services even though the Mac clients may be bound to an AD domain. In some instances there is a generic LDAP integration that requires fiddling with search bases and other archaic directory services configuration. LANrev offers full plug-and-play Active Directory integration with zero configuration. The LANrev components such as the server, admin console, and agent machines simply need to be bound to Active Directory to take advantage of some of the services available including client discovery via Active Directory sites and OUs, Active Directory authentication for LANrev administrator accounts, and smart computer groups based upon AD OU/group membership.

### **When Does Cross-Platform Not Mean Cross-Platform**

To be a truly cross-platform client management solution, all components of that system including the server, admin console, and client must run on both Windows and Mac OS X. Many client managements solutions purport to be "fully cross-platform" but really aren't. For example, the server must be installed on Windows or the native admin console only runs on Mac OS X. LANrev has no such restriction and allows IT departments to choose which platform to install all of its components on. The important corollary is that LANrev components leverage existing infrastructure, whether it be Mac or PC, thereby reducing the required initial hardware investment. For example, a LANrev staging server can host both Windows and Mac packages for software distribution regardless of the staging server's own operating system. LANrev components can be mixed and matched on either platform.



In other cases the software vendor has opted to implement the bare minimum client functionality on one of the platforms so they can claim cross-platform support on their feature list. Unlike these, LANrev is a true cross-platform client management solution with near feature parity on both the Windows and Mac OS platform. LANrev provides the following basic client management functionality for both Windows and Mac OS.

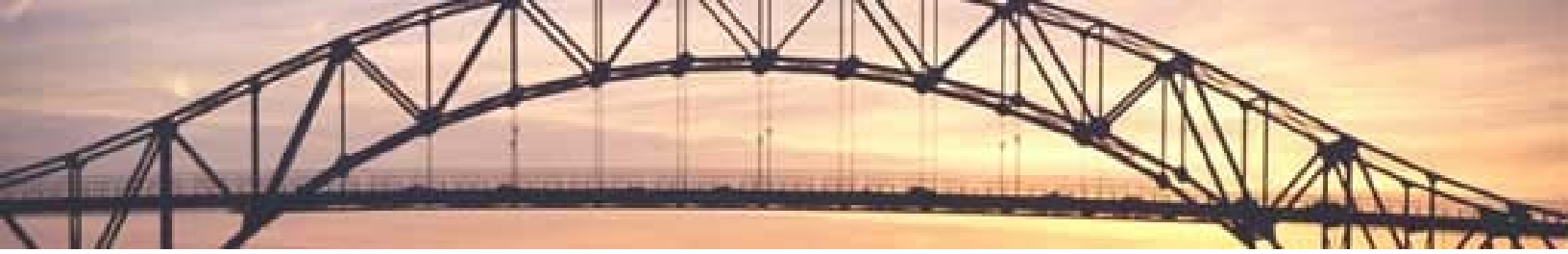
- Hardware and software inventory
- Policy-based software distribution
- Automated patch management
- License monitoring and reconciliation
- Remote configuration and management

### Benefits of LANrev's Extended Feature Set

In addition to these basic client management functions, LANrev offers many unrivaled features. Enterprises often choose LANrev over other products for one of the following unique features.

- Manage client machines over the Internet - Issue commands to Windows and Mac clients as if they were on your LAN, even behind firewalls and NAT routers.
- TheftTrack computer tracking and recovery - Get public IP address/DNS information, screenshots, and camera pictures from agent machines over the Internet after they've been stolen.
- ImageLive disk imaging - Re-image a Mac client's startup volume remotely while you're booted up into it. Use it to migrate from Mac OS X 10.4 to 10.5.

- Software purchase tracking - Track software purchases for your licensing specifications including purchasing, vendor, and maintenance information.
- Custom info items - Attach an AppleScript/Visual Basic script, shell script/BAT file, executable, or plist/registry setting to automatically inventory virtually anything on clients that LANrev doesn't already have a built-in information item for.
- Distributed Wake on LAN - Wake up an agent machine across subnets as long as at least one agent on that subnet is powered on and active.
- Time Machine integration - Remotely start/stop a backup & turn on/off automatic backups. Roll back a Mac remotely to a backup set without having to boot from the Leopard installation DVD.
- View Text File command - View Apple system log files, NT event logs, or any other text file in real time so any changes to the file are updated in LANrev's viewer.
- InstallEase software repackager - Snapshot a software installation and output it in PKG, DMG, or Iceberg format. Feed InstallEase an existing PKG installer and it can generate a PKG uninstaller for you.
- Complete role-based administration - Restrict which agent machines an admin account has access to, as well as which commands they can execute against those targets.
- Unique information items exclusive to LANrev - Laptop battery information and Apple machine production, registration, and warranty information.



## Conclusion

A majority of enterprise environments today are cross-platform to varying degrees. The most cost effective way to manage Windows and Mac clients in this type of environment is with a fully cross-platform client management solution, one whose components are able to run with equal effectiveness on either platform. Most of these so-called “cross-platform” solutions provide minimal Mac support. A truly cross-platform solution such as LANrev can significantly reduce the overall cost of managing Windows and Mac client computers, particularly Boot Camp and Parallels or VMware Fusion machines. These substantial cost savings can often be directly attributed to the lower cost of

both the software and support staff to manage the software, cross-training, consolidation of Windows and Mac inventory data, and a complete plug-and-play AD integration. LANrev features an extensive list of cross-platform functionality including hardware and software inventory, software distribution, patch management, license monitoring and reconciliation, remote configuration and management, as well as a unique extended feature set that makes it the ideal solution for managing Macs in a Windows enterprise infrastructure. Ultimately LANrev enables IT to implement a solution that attains the balance of maximizing infrastructure and functionality resulting in satisfied Macintosh and Windows end users and a streamlined, efficient support staff.

## About LANrev

LANrev was founded by industry veterans with a vision for comprehensive, yet simple systems management tools. Our mission is to develop software that supports modern, heterogeneous systems and networks, using platform-neutral functionality and adaptive architecture. LANrev empowers administrators without burdening them, by providing comprehensive management solutions that are both affordable and easy to deploy, configure, and maintain. This allows corporate, educational, and government enterprises to leverage their current infrastructure while offering higher levels of helpdesk service.

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