



# About LANrev

- Privately held company based in Addison, Texas.
- Industry veterans with 30+ years experience in client management software.
- Proven track record of customer-driven development and service.
- Platform neutral client management software that is comprehensive and affordable, as well as easy to deploy, configure and maintain.

# LANrev History

- End of 2004 - Company formed
- 9/6/2005 - LANrev LP and product announced
- 9/20/2005 - LANrev 1.0 released
- 12/2005 - LANrev 1.5 released
- 2/2006 - LANrev 2.0 released
- 5/2006 - LANrev 3.0 released
- 7/2006 - LANrev 3.1 released
- 8/2006 - LANrev 3.1.1 released at WWDC

# LANrev Architecture

- True client / server solution
- Server runs as a daemon
- Multiple admin consoles connect to same server
- Use of industry standards
  - SQL database
  - Blowfish encryption & GZip compression
  - All unicode
  - Fully cross-platform

# LANrev Main Features

- Agent Deployment Center
- Full Hardware and Software Inventory
- Software Distribution System
- Automated Patch Management
- Software License Monitoring System
- Integration with 3rd Party Remote Control Applications
- Remote Configuration Commands
- ImageLive Hard Disk Imaging for Macintosh

# LANrev Agent Deployment

- Auto discovery of machines without agents
  - Bonjour support
  - By defining custom zones
    - using IP range
    - direct IP
    - hostname
  - doing periodic scans
- Auto deploy agent to machine without agents
  - specify different SSH credentials for different custom zones
- Auto updating of agents when new version is released

# Hardware & Software Inv.

- Over 300 hardware and software information items
- Hardware - System, processor, memory, volume, hard drive (ATA and SCSI), FireWire, USB, PCI, and display information
- Software - OS, network adapter, font, printer, startup item, installed software, missing OS patches, and running processes information.

# Software Distribution

- Clients are assigned to distribution groups
  - manually defined distribution groups
  - smart distribution groups based on selection criteria
- Packages are assigned to distribution groups
- Clients check periodically for new packages

# Staging Server

- Hosts software packages
- Can be any machine running LANrev Agent
- One master staging server and any number of mirror staging servers
- Software packages in compressed and encrypted format
- Set a time window and bandwidth limit for mirroring
- Load balancing among all staging servers



# Software Distrib. Client

- Periodically check for new packages
- Verifies integrity of packages with MD5 checksum
- Present user interface if necessary
- Supports checkpoint recovery for package download
- Auto-resume installation if interrupted
- Restart machine if necessary (optional user notification)

# Software Package

- Installation of software with support for
  - Apple Installer packages (pkg, mpkg)
  - MindVision VISE installers
  - Shell scripts
  - Any other application or file that is executable

# Software Package

- Flexible scheduling
  - Availability date
  - Installation date
    - Any time
    - After next startup (with force at certain time)
    - After next login (with force at certain time)
    - Within a certain time window
- Prioritization of packages

# Software Package

- Flexible installation requirement
  - Minimum OS, Maximum OS
  - User needs to be logged in option
  - Specify installation condition based on package / file criteria
- Allow user interaction
  - None (silent)
  - Inform about packages to be installed
  - Allow to reschedule packages
  - Allow to refuse packages
- User context selection

# Patch Management

- Fully automated Mac OS Patch Management
  - Automatically detects missing updates and download them from the Apple update servers
  - Patch packages are added to software distribution center
  - Admin just needs to approve package
- Missing Patches Reports
  - Reports which machines are missing what patches
  - Reports statistic about number of machines missing patches

# Software Audit

- Installed Software Reports
  - Mac Software
  - Mac Installer Receipts
  - Mac Applications
  - Apple Software
  - Non-Apple Software
  - Mac Installer Receipt Statistics
  - Mac Application Statistics

# Licensing Monitoring

- Useful for tracking the installation of and metering the usage of specific applications on particular set of clients
- Licensing specifications are assigned to licensing groups
- Agents are assigned to licensing groups
- Groups are shared with the SW Distribution Center

# Licensing Monitoring

- Monitor Software defined by
  - Files (optionally meter usage)
  - Packages (optionally meter usage)
  - Installer receipts
- License type
  - Computer licenses (installed copies)
  - Floating licenses (running copies)
  - Site license (unlimited copies)
  - Prohibited (option to terminate upon launch)



# Licensing Monitoring

- Identify Software by
  - Name
  - Path
  - File Type & Creator
  - Bundle Identifier (application package only)
  - File Version & Build number
  - File Size
  - Creation date, Modification date
  - Checksum (application file only)

# Licensing Monitoring

- Reports generated for
  - License compliance
  - Prohibited software
  - Missing software on clients
  - Software usage over time
  - History
- Create custom reports
- Allows more efficient utilization of software licenses

# 3rd Party RC Integration

- Supported Remote Control applications
  - Apple Remote Desktop 3
  - VNC
  - Timbuktu
- Allow to specify connection credentials where possible

# Remote configuration

- Full control over files and folders
  - Rename
  - Delete
  - Copy / Move
  - Create Folder
  - Create Alias / Shortcuts
  - Open apps/documents
- Perform actions on files found via “Find File” command
- Perform actions on files using full path name

# Remote configuration

- **File / Folder Transfer**
  - Lightning fast due to compression
  - Full control over Unix ownership and permissions
  - Allow to present a message before installation
  - Post process after installation
    - Open file with or without administrative privileges

# Remote configuration

- Execution of Unix shell scripts
  - Execute file
  - Execute typed text
  - Full control over execution user context
  - Show full results in Admin
- Execution of AppleScripts
  - Execute file
  - Execute typed text
  - Show full results in Admin

# Remote configuration

- Execute Apple or MindVision installers and binary files under any user context
  - from server
  - after installing them on client
- Change operation state of client
  - Shutdown, Restart, Sleep, Logout
- Terminate multiple processes on different clients
- Send Messages
- Wake up machines (also across subnets)

# ImageLive Disk Imaging

- Re-image clients using standard .dmg disk images created with Disk Utility or Carbon Copy Cloner
- Re-image
  - the current boot volume while you're booted from it
  - volumes other than the boot volume.
- Re-image from
  - a locally stored password-protected disk image
  - a disk image hosted on a LANrev staging server
  - a disk image on the admin console



# ImageLive Disk Imaging

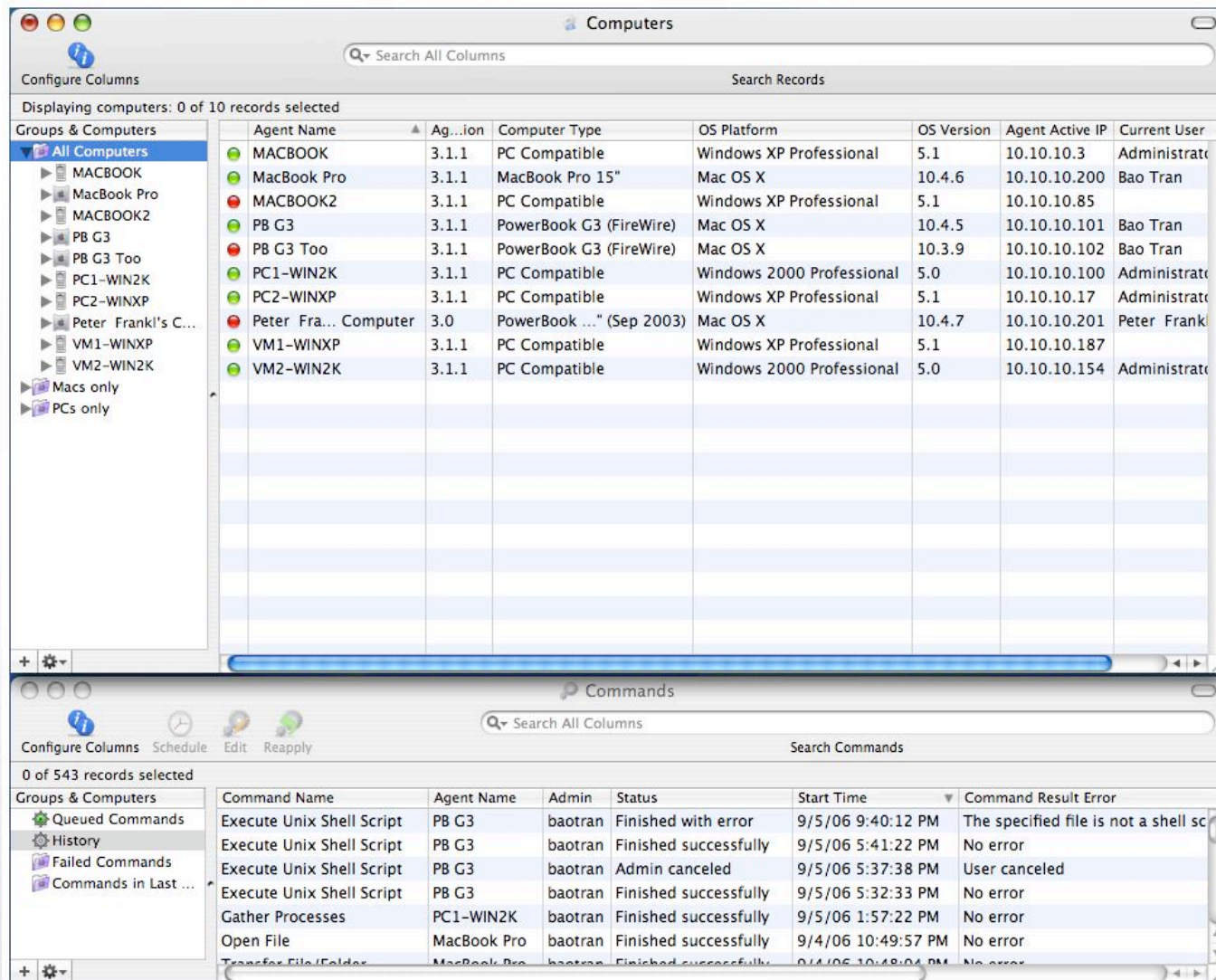
- Network settings and users' home folders preserved.
- Pre-flight and pre-process shell scripts to preserve and restore other important settings
- Convenient way to deploy major version upgrades of Mac OS X (e.g. 10.4 to 10.5)

# Why LANrev

- Already a recognized leader in client management software
- Strong relationship with Apple - 2 press releases and featured at WWDC session on 3rd party client management
- Broad customer base - K-12 schools, higher education, government, Fortune 1000 companies
- 100% focused on customer satisfaction

# Virtual Product Tour

# Main LANrev Admin Console



The screenshot displays two windows from the LANrev Admin Console. The top window, titled "Computers", shows a list of 10 computer records. The bottom window, titled "Commands", shows a list of 8 command records.

**Computers Window:**

Displaying computers: 0 of 10 records selected

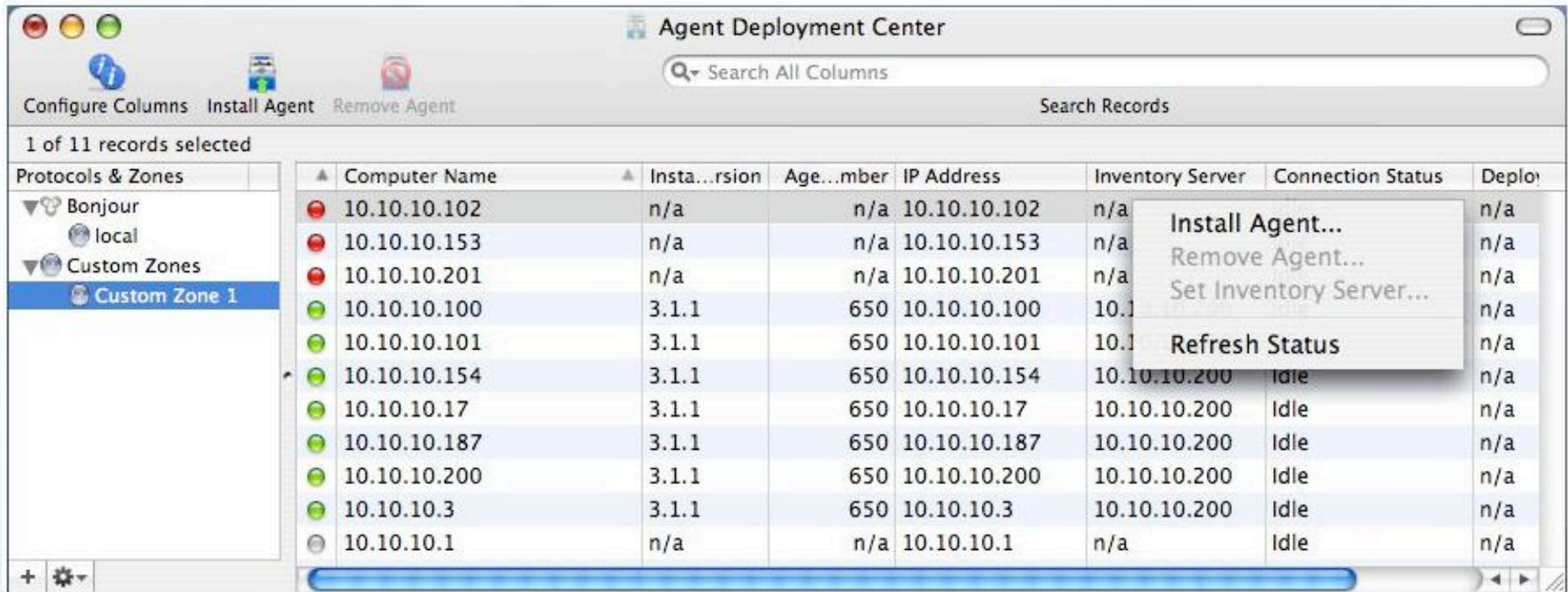
Agent Name	Agent Version	Computer Type	OS Platform	OS Version	Agent Active IP	Current User
MACBOOK	3.1.1	PC Compatible	Windows XP Professional	5.1	10.10.10.3	Administrato
MacBook Pro	3.1.1	MacBook Pro 15"	Mac OS X	10.4.6	10.10.10.200	Bao Tran
MACBOOK2	3.1.1	PC Compatible	Windows XP Professional	5.1	10.10.10.85	
PB G3	3.1.1	PowerBook G3 (FireWire)	Mac OS X	10.4.5	10.10.10.101	Bao Tran
PB G3 Too	3.1.1	PowerBook G3 (FireWire)	Mac OS X	10.3.9	10.10.10.102	Bao Tran
PC1-WIN2K	3.1.1	PC Compatible	Windows 2000 Professional	5.0	10.10.10.100	Administrato
PC2-WINXP	3.1.1	PC Compatible	Windows XP Professional	5.1	10.10.10.17	Administrato
Peter Fra... Computer	3.0	PowerBook ..." (Sep 2003)	Mac OS X	10.4.7	10.10.10.201	Peter Frankl
VM1-WINXP	3.1.1	PC Compatible	Windows XP Professional	5.1	10.10.10.187	
VM2-WIN2K	3.1.1	PC Compatible	Windows 2000 Professional	5.0	10.10.10.154	Administrato

**Commands Window:**

0 of 543 records selected

Command Name	Agent Name	Admin	Status	Start Time	Command Result Error
Execute Unix Shell Script	PB G3	baotran	Finished with error	9/5/06 9:40:12 PM	The specified file is not a shell sc
Execute Unix Shell Script	PB G3	baotran	Finished successfully	9/5/06 5:41:22 PM	No error
Execute Unix Shell Script	PB G3	baotran	Admin canceled	9/5/06 5:37:38 PM	User canceled
Execute Unix Shell Script	PB G3	baotran	Finished successfully	9/5/06 5:32:33 PM	No error
Gather Processes	PC1-WIN2K	baotran	Finished successfully	9/5/06 1:57:22 PM	No error
Open File	MacBook Pro	baotran	Finished successfully	9/4/06 10:49:57 PM	No error
Transfer File/Folder	MacBook Pro	baotran	Finished successfully	9/4/06 10:48:04 PM	No error

# Agent Deployment Center



The screenshot shows the 'Agent Deployment Center' application window. At the top, there are window control buttons and a search bar labeled 'Search All Columns'. Below the search bar are buttons for 'Configure Columns', 'Install Agent', and 'Remove Agent', along with a 'Search Records' field. The main area displays a table with 11 records. A context menu is open over the record for IP address 10.10.10.100, showing options: 'Install Agent...', 'Remove Agent...', 'Set Inventory Server...', and 'Refresh Status'.

1 of 11 records selected

Protocols & Zones	Computer Name	Installation	Age...mber	IP Address	Inventory Server	Connection Status	Deploy
<ul style="list-style-type: none"> <li>Bonjour               <ul style="list-style-type: none"> <li>local</li> </ul> </li> <li>Custom Zones               <ul style="list-style-type: none"> <li>Custom Zone 1</li> </ul> </li> </ul>	10.10.10.102	n/a	n/a	10.10.10.102	n/a		n/a
	10.10.10.153	n/a	n/a	10.10.10.153	n/a		n/a
	10.10.10.201	n/a	n/a	10.10.10.201	n/a		n/a
	10.10.10.100	3.1.1	650	10.10.10.100	10.10.10.200	Idle	n/a
	10.10.10.101	3.1.1	650	10.10.10.101	10.10.10.200	Idle	n/a
	10.10.10.154	3.1.1	650	10.10.10.154	10.10.10.200	Idle	n/a
	10.10.10.17	3.1.1	650	10.10.10.17	10.10.10.200	Idle	n/a
	10.10.10.187	3.1.1	650	10.10.10.187	10.10.10.200	Idle	n/a
	10.10.10.200	3.1.1	650	10.10.10.200	10.10.10.200	Idle	n/a
	10.10.10.3	3.1.1	650	10.10.10.3	10.10.10.200	Idle	n/a
	10.10.10.1	n/a	n/a	10.10.10.1	n/a	Idle	n/a

# Agent Deployment Center

Zone **Auto Deployment**

Zone Name:

Contains computers which match any of the following conditions:

Host Name	is	Oberon	-	+
IP Address	is	10.10.10.200	-	+
IP Address	is in the range	10.10.11.1 to 10.10.11.254	-	+

Repeat scan every  minutes

Zone **Auto Deployment**

Automatically deploy agents

SSH login username:

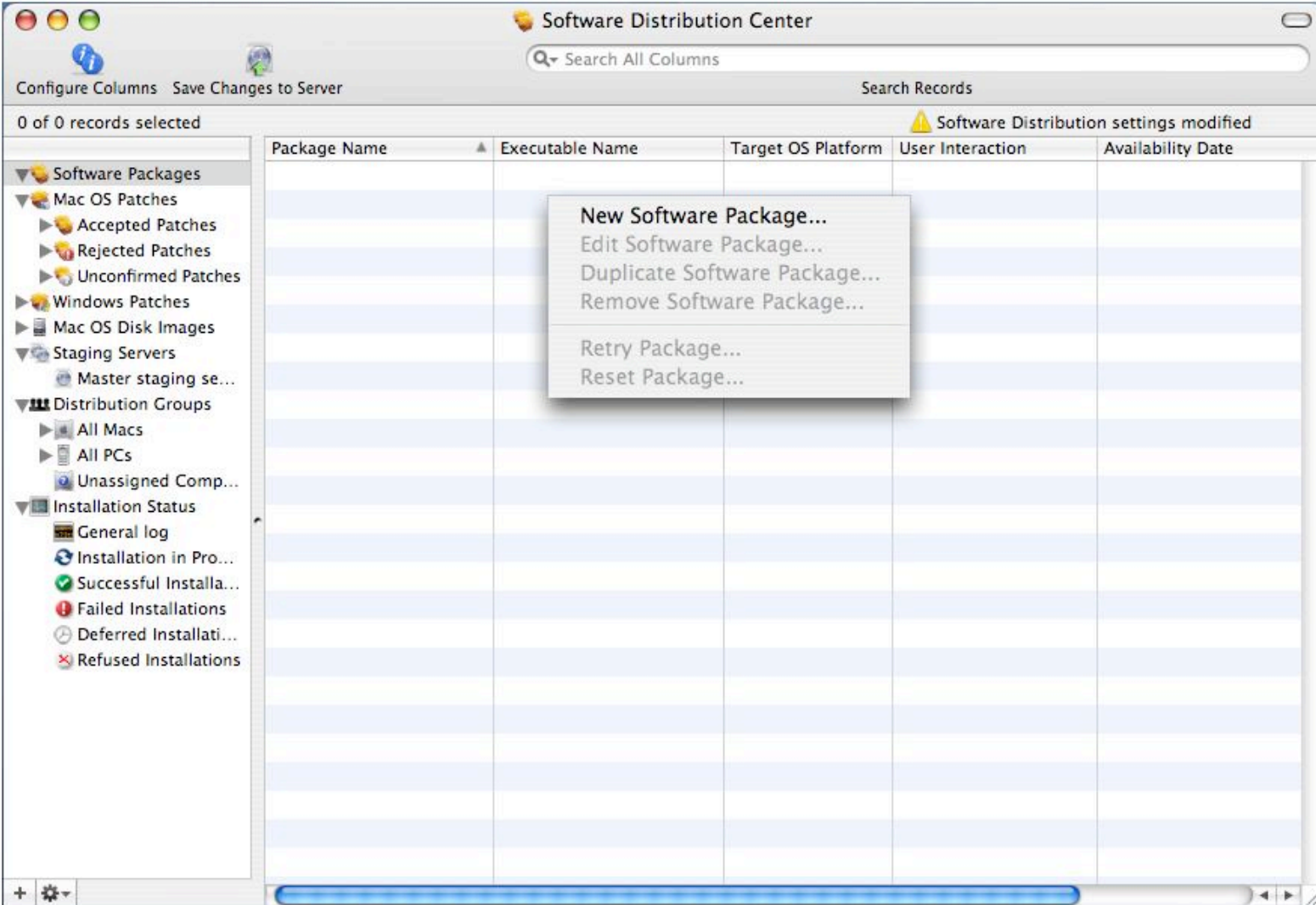
SSH login password:

Password verification:

Use Agent installer:  Built-in  
 Other

Inventory server address:  Port:

# Software Distribution Center



Software Distribution Center

Search All Columns Search Records

Configure Columns Save Changes to Server

0 of 0 records selected Software Distribution settings modified

Package Name	Executable Name	Target OS Platform	User Interaction	Availability Date
--------------	-----------------	--------------------	------------------	-------------------

- New Software Package...
- Edit Software Package...
- Duplicate Software Package...
- Remove Software Package...
- Retry Package...
- Reset Package...

Software Packages

- Mac OS Patches
  - Accepted Patches
  - Rejected Patches
  - Unconfirmed Patches
- Windows Patches
- Mac OS Disk Images
- Staging Servers
  - Master staging se...
- Distribution Groups
  - All Macs
  - All PCs
  - Unassigned Comp...
- Installation Status
  - General log
  - Installation in Pro...
  - Successful Installa...
  - Failed Installations
  - Deferred Installati...
  - Refused Installations

# Package Installation Options

Package Installation Options Installation Conditions

Availability date: 09/14/2006 9:58 PM (Time on the LANrev server)

Installation time: Any time

User interaction: Install without asking

Priority: Normal

OS platform: Mac OS X

Minimum OS: Any Mac OS Version

Maximum OS: Any Mac OS Version

Staging server: Any

Installation user context: (Leave blank for current logged in user)

User context password: (Windows executable only)

After installation: Do nothing

Other options:  Requires admin privileges  Don't install on slow network  
 Only install if a user is logged in  Warn user about slow network

? Cancel OK



# Package Installation Conditions

Package Installation Options **Installation Conditions**

Install the software on all target computers  
 Install the software only on computers where the software specified below is **not present** :

Identify software by: **Mac OS Application Package**

Identify software matching **all** of the following conditions:

Path	is	/Applications/OmniOutliner.app	-	+
File Version	is	3.5	-	+
File Build Number	is	0	-	+

Scan all volumes

# Patch Management

Software Distribution Center

Search All Columns

Search Records

0 of 23 records selected

Package Name	Executable Name	Software Patch Version	Minimum OS	Software P...ommer
iCal	iCal155.pkg	1.5.5	Mac OS 10.3.x	Yes
iChat Update	iChatAV21.pkg	2.1	Mac OS 10.3.x	Yes
iPhoto Update	iPhotoUpdate201.pkg	2.0.1	Mac OS 10.3.x	Yes
iPod Updater 2006-01-10	iPod2006-01-10.pkg	(null)	Mac OS 10.3.x	Yes
iPod Updater 2006-06-28	iPod2006-06-28.pkg	(null)	Mac OS 10.3.x	Yes
iSync	iSync.pkg	1.5	Mac OS 10.3.x	Yes
Mac OS X Update Combined	MacOSXUp...o10.3.9.pkg	10.3.9	Mac OS 10.3.x	Yes
AirPort Update 2005-001	AirPortTi2005-001.pkg	1.0	Mac OS 10.4.x	No
Front Row Update	FrontRowUpdate1.2.2.pkg	1.2.2	Mac OS 10.4.x	Yes
Front Row Update	FrontRowUpdate1.3.pkg	1.3	Mac OS 10.4.x	Yes
GarageBand Update	GarageBand_302.pkg	3.0.2	Mac OS 10.4.x	Yes
iDVD Update	iDVD_602.pkg	6.0.2	Mac OS 10.4.x	Yes
iMovie HD Combo Update	iMovie_602Combo.pkg	6.0.2	Mac OS 10.4.x	Yes
iPhoto Update	iPhoto_604.pkg	6.0.4	Mac OS 10.4.x	Yes
iPod Updater 2006-06-28	iPod2006-06-28.pkg		Mac OS 10.4.x	Yes
iTunes	iTunesX.pkg	6.0.5	Mac OS 10.4.x	Yes
iWeb Update	iWeb_111.pkg	1.1.1	Mac OS 10.4.x	Yes
Java 1.3.1 a...4.2 Release 2	Java131an...elease2.pkg	2.0	Mac OS 10.4.x	Yes
Keynote Update	Keynote3.0.1v2.pkg	3.0.1v2	Mac OS 10.4.x	Yes
Mac OS X Update (Intel)	MacOSXUp...elPatch.pkg	10.4.7	Mac OS 10.4.x	Yes
Mac OS X Up...d (PowerPC)	MacOSXUp...4.7PPC.pkg	10.4.7	Mac OS 10.4.x	Yes
Pages Update	Pages2.0.1v2.pkg	2.0.1v2	Mac OS 10.4.x	Yes
QuickTime	QuickTime712.pkg	7.1.2	Mac OS 10.4.x	Yes

# Missing OS Patches Statistics

Missing Operating System Patches

Search All Columns

Search Records

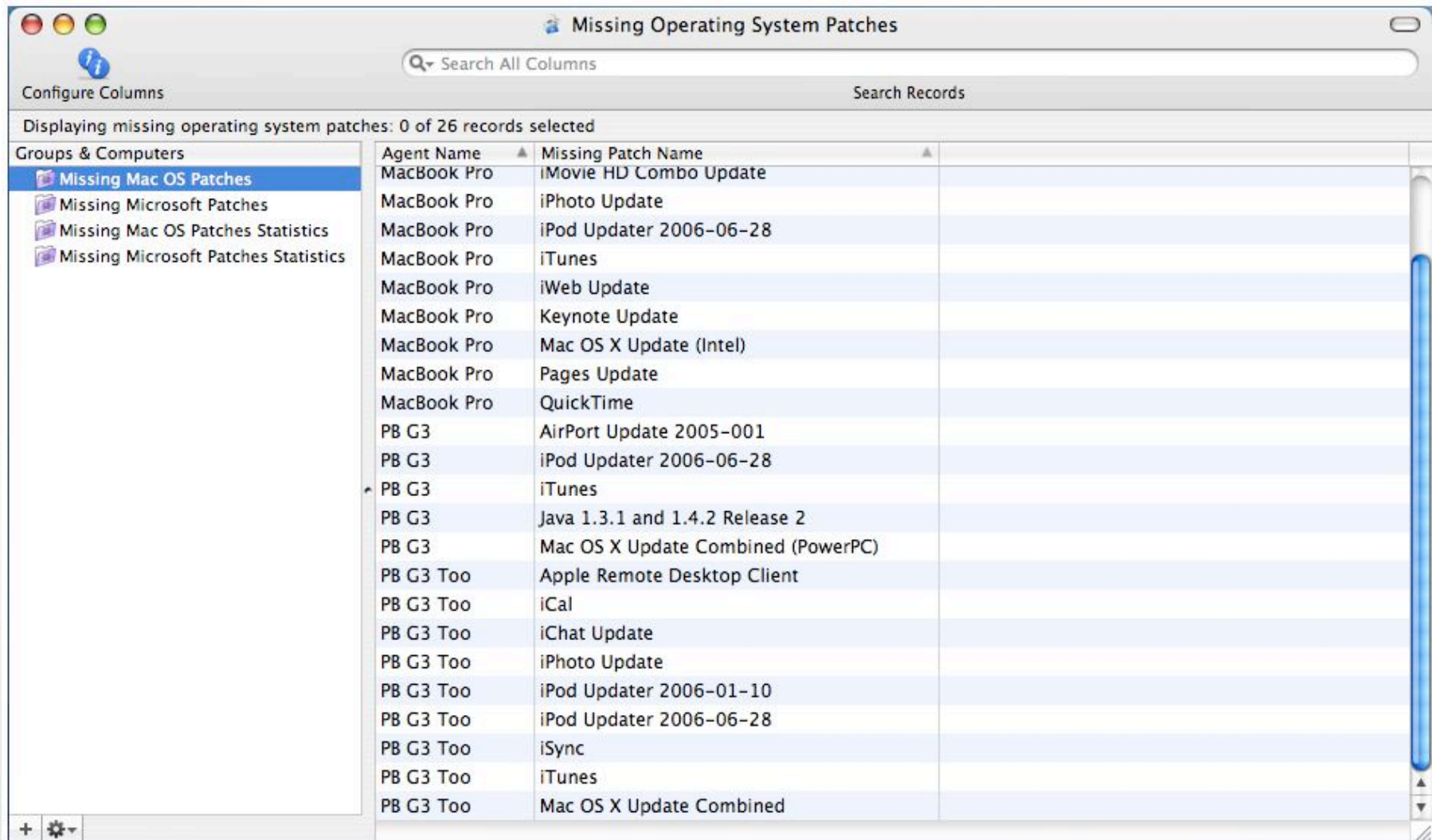
0 of 23 records selected

Groups & Computers

- Missing Mac OS Patches
- Missing Microsoft Patches
- Missing Mac OS Patches Statistics**
- Missing Microsoft Patches Statistics

Missing Patch Stat Name	Missing Patch Stat Count
AirPort Update 2005-001	1
Apple Remote Desktop Client	1
Front Row Update	1
GarageBand Update	1
iCal	1
iChat Update	1
iDVD Update	1
iMovie HD Combo Update	1
iPhoto Update	1
iPhoto Update	1
iPod Updater 2006-01-10	1
iPod Updater 2006-06-28	2
iPod Updater 2006-06-28	1
iSync	1
iTunes	3
iWeb Update	1
Java 1.3.1 and 1.4.2 Release 2	1
Keynote Update	1
Mac OS X Update (Intel)	1
Mac OS X Update Combined	1
Mac OS X Update Combined (PowerPC)	1
Pages Update	1
QuickTime	1

# Missing OS Patches Report



Missing Operating System Patches

Search All Columns

Search Records

Configure Columns

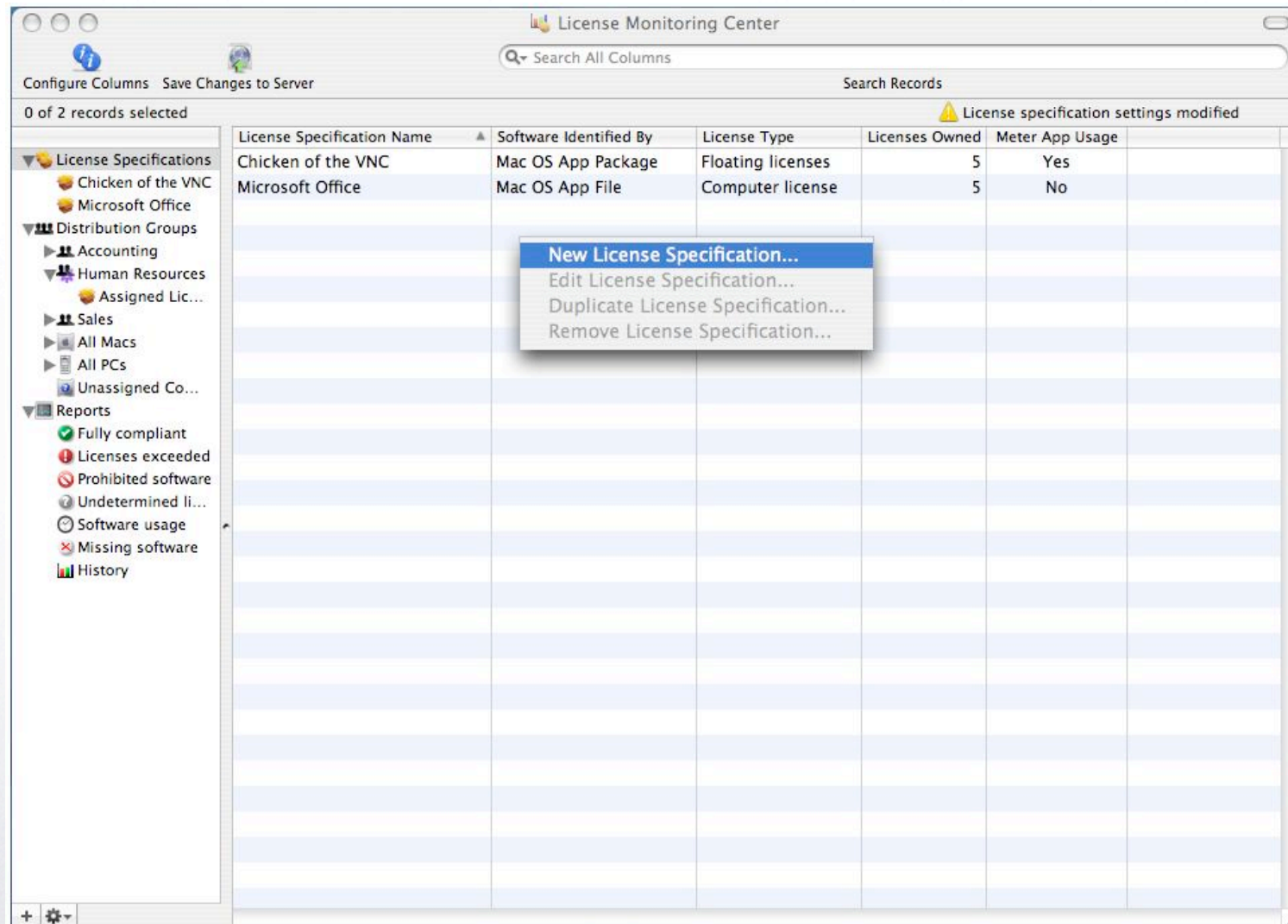
Displaying missing operating system patches: 0 of 26 records selected

Groups & Computers

- Missing Mac OS Patches
- Missing Microsoft Patches
- Missing Mac OS Patches Statistics
- Missing Microsoft Patches Statistics

Agent Name	Missing Patch Name
MacBook Pro	iMovie HD Combo Update
MacBook Pro	iPhoto Update
MacBook Pro	iPod Updater 2006-06-28
MacBook Pro	iTunes
MacBook Pro	iWeb Update
MacBook Pro	Keynote Update
MacBook Pro	Mac OS X Update (Intel)
MacBook Pro	Pages Update
MacBook Pro	QuickTime
PB G3	AirPort Update 2005-001
PB G3	iPod Updater 2006-06-28
PB G3	iTunes
PB G3	Java 1.3.1 and 1.4.2 Release 2
PB G3	Mac OS X Update Combined (PowerPC)
PB G3 Too	Apple Remote Desktop Client
PB G3 Too	iCal
PB G3 Too	iChat Update
PB G3 Too	iPhoto Update
PB G3 Too	iPod Updater 2006-01-10
PB G3 Too	iPod Updater 2006-06-28
PB G3 Too	iSync
PB G3 Too	iTunes
PB G3 Too	Mac OS X Update Combined

# License Monitoring Center



License Monitoring Center

Search All Columns Search Records

0 of 2 records selected License specification settings modified

License Specification Name	Software Identified By	License Type	Licenses Owned	Meter App Usage
Chicken of the VNC	Mac OS App Package	Floating licenses	5	Yes
Microsoft Office	Mac OS App File	Computer license	5	No

License Specifications

- Chicken of the VNC
- Microsoft Office

Distribution Groups

- Accounting
- Human Resources
- Assigned Lic...
- Sales
- All Macs
- All PCs
- Unassigned Co...

Reports

- Fully compliant
- Licenses exceeded
- Prohibited software
- Undetermined li...
- Software usage
- Missing software
- History

Context Menu:

- New License Specification...
- Edit License Specification...
- Duplicate License Specification...
- Remove License Specification...

# Licensing Specification

Specification name:

Identify software by:

Identify software matching  of the following conditions:

<input type="text" value="Path"/>	<input type="text" value="is"/>	<input type="text" value="/Applications/Office 2004 for M"/>	<input type="button" value="-"/>	<input type="button" value="+"/>
<input type="text" value="File Size"/>	<input type="text" value="is"/>	<input type="text" value="20,470,218 Byte"/>	<input type="button" value="-"/>	<input type="button" value="+"/>
<input type="text" value="Checksum"/>	<input type="text" value="is"/>	<input type="text" value="6bc4ee2dd721349ad125501795"/>	<input type="button" value="-"/>	<input type="button" value="+"/>

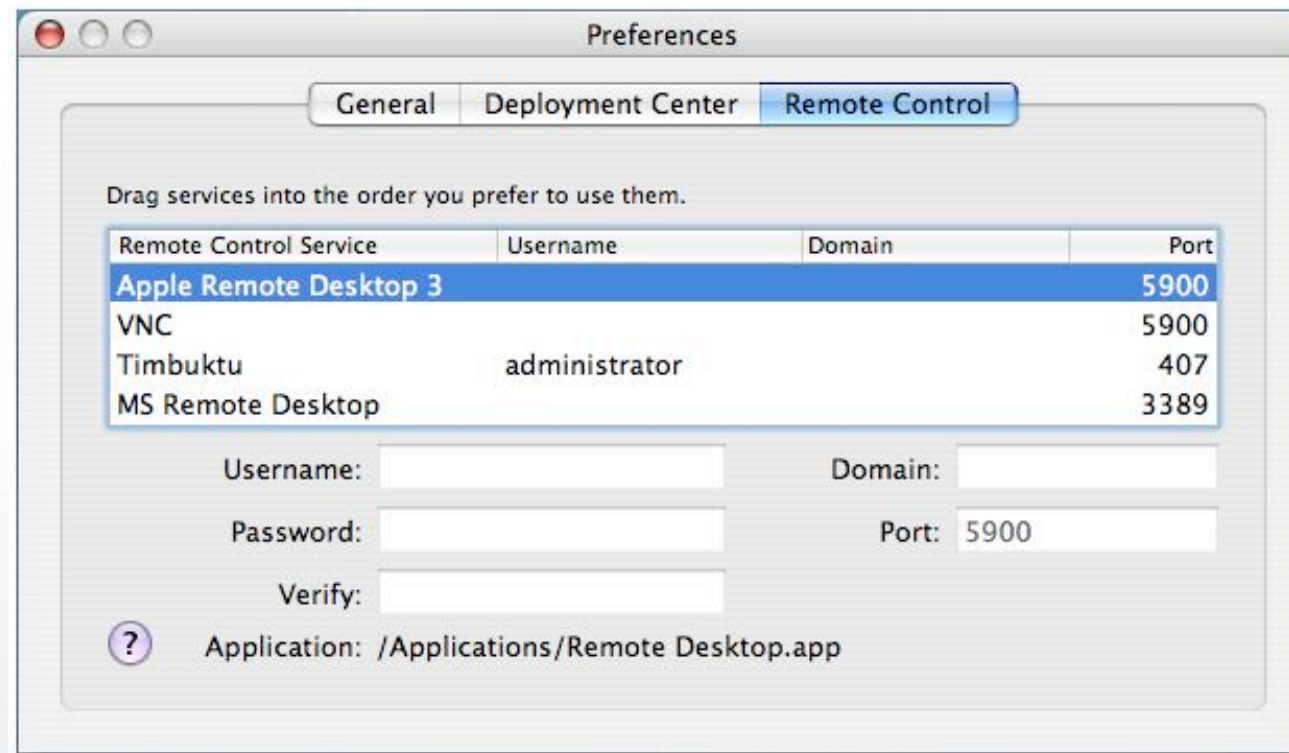
Licenses owned:

License type:

Other options:

- Meter application usage
- Terminate prohibited applications
- Track as missing software
- Scan all volumes

# 3rd Party Remote Control Integration





# Thank you

LANrev evaluations are available at  
<http://www.lanrev.com/product/download.shtml>

Contact LANrev Sales for an extended evaluation license at (214) 459-0136. Education pricing available.



# Q & A