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
  - Lighting 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 100 companies
• 100% focused on customer satisfaction
Virtual Product Tour
Main LANrev Admin Console
### Agent Deployment Center

<table>
<thead>
<tr>
<th>Computer Name</th>
<th>Installation</th>
<th>Age</th>
<th>IP Address</th>
<th>Inventory Server</th>
<th>Connection Status</th>
<th>Deploy</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.10.10.102</td>
<td>n/a</td>
<td>n/a</td>
<td>10.10.10.102</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
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<td>n/a</td>
<td>n/a</td>
<td>10.10.10.153</td>
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<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>10.10.10.201</td>
<td>n/a</td>
<td>n/a</td>
<td>10.10.10.201</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>10.10.10.100</td>
<td>3.1.1</td>
<td>650</td>
<td>10.10.10.100</td>
<td>10.10.10.100</td>
<td>Idle</td>
<td>n/a</td>
</tr>
<tr>
<td>10.10.10.101</td>
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<td>650</td>
<td>10.10.10.101</td>
<td>10.10.10.101</td>
<td>Idle</td>
<td>n/a</td>
</tr>
<tr>
<td>10.10.10.154</td>
<td>3.1.1</td>
<td>650</td>
<td>10.10.10.154</td>
<td>10.10.10.154</td>
<td>Idle</td>
<td>n/a</td>
</tr>
<tr>
<td>10.10.10.17</td>
<td>3.1.1</td>
<td>650</td>
<td>10.10.10.17</td>
<td>10.10.10.200</td>
<td>Idle</td>
<td>n/a</td>
</tr>
<tr>
<td>10.10.10.187</td>
<td>3.1.1</td>
<td>650</td>
<td>10.10.10.187</td>
<td>10.10.10.200</td>
<td>Idle</td>
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<tr>
<td>10.10.10.200</td>
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<td>650</td>
<td>10.10.10.200</td>
<td>10.10.10.200</td>
<td>Idle</td>
<td>n/a</td>
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<tr>
<td>10.10.10.3</td>
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<td>650</td>
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<td>10.10.10.200</td>
<td>Idle</td>
<td>n/a</td>
</tr>
<tr>
<td>10.10.10.1</td>
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<td>n/a</td>
<td>10.10.10.1</td>
<td>n/a</td>
<td>Idle</td>
<td>n/a</td>
</tr>
</tbody>
</table>
Agent Deployment Center

Zone: Custom Zone 1
Contains computers which match any of the following conditions:

- Host Name: Oberon
- IP Address: 10.10.10.200
- IP Address: 10.10.11.1 to 10.10.11.254

Repeat scan every 30 minutes

Auto Deployment:
- Automatically deploy agents
- SSH login username: administrator
- SSH login password: ********
- Password verification: ********
- Use Agent installer: Built-in
- Inventory server address: 10.10.12.200
- Port: 3971
Software Distribution Center

- Configure Columns
- Save Changes to Server

- Software Packages:
  - Mac OS Patches
  - Accepted Patches
  - Rejected Patches
  - Unconfirmed Patches
  - Windows Patches
  - Mac OS Updates
  - Staging Servers
  - Master staging server

- Distribution Groups:
  - All Macs
  - All PCs
  - Unassigned Computers

- Installation Status:
  - General log
  - Installation in Progress
  - Successful Installations
  - Failed Installations
  - Deferred Installations
  - Refused Installations

- Search All Columns
- Search Records

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

- Availability date: 09/14/2006 9:58 PM
- 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
  - Only install if a user is logged in
  - Don't install on slow network
  - Warn user about slow network

[Cancel] [OK]
Package 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: /Applications/OmniOutliner.app
- File Version: 3.5
- File Build Number: 0

Values from...

Scan all volumes

Cancel  OK
# Patch Management

## Patch Management Tools

The Patch Management tools shown in the image include:

- **Software Distribution Center**
- **Patch Management**
- **Update Manager**

### Software Distribution Center

The Software Distribution Center is a tool used for managing software updates and patches for various operating systems, including Mac OS X. It allows administrators to distribute patches to different groups of users or devices, ensuring that the software on all systems is up-to-date and secure.

### Patch Management Features

- **News Feed**: Provides updates on new patches and security advisories.
- **Patch Management**: Tracks and manages software updates for different operating systems and devices.
- **Patch Schedule**: Allows setting up automatic update policies to ensure systems are kept up-to-date.

### Example Listings

<table>
<thead>
<tr>
<th>Package Name</th>
<th>Executable Name</th>
<th>Software Patch Version</th>
<th>Minimum OS</th>
<th>Software Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>iCal</td>
<td>iCal135.pkg</td>
<td>1.5.5</td>
<td>Mac OS 10.3.x</td>
<td>Yes</td>
</tr>
<tr>
<td>iChat Update</td>
<td>iChatAV21.pkg</td>
<td>2.1</td>
<td>Mac OS 10.3.x</td>
<td>Yes</td>
</tr>
<tr>
<td>iPhoto Update</td>
<td>iPhotoUpdate201.pkg</td>
<td>2.0.1</td>
<td>Mac OS 10.3.x</td>
<td>Yes</td>
</tr>
<tr>
<td>iPod Updater 2006-01-10</td>
<td>iPod2006-01-10.pkg</td>
<td>(null)</td>
<td>Mac OS 10.3.x</td>
<td>Yes</td>
</tr>
<tr>
<td>iPod Updater 2006-06-28</td>
<td>iPod2006-06-28.pkg</td>
<td>(null)</td>
<td>Mac OS 10.3.x</td>
<td>Yes</td>
</tr>
<tr>
<td>iSync</td>
<td>iSync.pkg</td>
<td>1.5</td>
<td>Mac OS 10.3.x</td>
<td>Yes</td>
</tr>
<tr>
<td>Mac OS X Update Combined</td>
<td>MacOSXUpdate_10.3.9.pkg</td>
<td>10.3.9</td>
<td>Mac OS 10.3.x</td>
<td>Yes</td>
</tr>
<tr>
<td>AirPort Update 2005-001</td>
<td>AirPortTi2005-001.pkg</td>
<td>1.0</td>
<td>Mac OS 10.4.x</td>
<td>No</td>
</tr>
<tr>
<td>Front Row Update</td>
<td>FrontRowUpdate1.2.2.pkg</td>
<td>1.2.2</td>
<td>Mac OS 10.4.x</td>
<td>Yes</td>
</tr>
<tr>
<td>Front Row Update</td>
<td>FrontRowUpdate1.3.pkg</td>
<td>1.3</td>
<td>Mac OS 10.4.x</td>
<td>Yes</td>
</tr>
<tr>
<td>GarageBand Update</td>
<td>GarageBand_302.pkg</td>
<td>3.0.2</td>
<td>Mac OS 10.4.x</td>
<td>Yes</td>
</tr>
<tr>
<td>iDVD Update</td>
<td>iDVD_602.pkg</td>
<td>6.0.2</td>
<td>Mac OS 10.4.x</td>
<td>Yes</td>
</tr>
<tr>
<td>iMovie HD Combo Update</td>
<td>iMovie_602Combo.pkg</td>
<td>6.0.2</td>
<td>Mac OS 10.4.x</td>
<td>Yes</td>
</tr>
<tr>
<td>iPhoto Update</td>
<td>iPhoto_604.pkg</td>
<td>6.0.4</td>
<td>Mac OS 10.4.x</td>
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<td>iPod Updater 2006-06-28</td>
<td>iPod2006-06-28.pkg</td>
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<td>Yes</td>
</tr>
<tr>
<td>iTunes</td>
<td>iTunesX.pkg</td>
<td>6.0.5</td>
<td>Mac OS 10.4.x</td>
<td>Yes</td>
</tr>
<tr>
<td>iWeb Update</td>
<td>iWeb_111.pkg</td>
<td>1.1.1</td>
<td>Mac OS 10.4.x</td>
<td>Yes</td>
</tr>
<tr>
<td>Java 1.3.1.a.4.2 Release 2</td>
<td>Java131an_releas2.pkg</td>
<td>2.0</td>
<td>Mac OS 10.4.x</td>
<td>Yes</td>
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<tr>
<td>Keynote Update</td>
<td>Keynote3.0.1v2.pkg</td>
<td>3.0.1v2</td>
<td>Mac OS 10.4.x</td>
<td>Yes</td>
</tr>
<tr>
<td>Mac OS X Update (Intel)</td>
<td>MacOSXUp...elPatch.pkg</td>
<td>10.4.7</td>
<td>Mac OS 10.4.x</td>
<td>Yes</td>
</tr>
<tr>
<td>Mac OS X Up...d (PowerPC)</td>
<td>MacOSXUP...4.7PPC.pkg</td>
<td>10.4.7</td>
<td>Mac OS 10.4.x</td>
<td>Yes</td>
</tr>
<tr>
<td>Pages Update</td>
<td>Pages2.0.1v2.pkg</td>
<td>2.0.1v2</td>
<td>Mac OS 10.4.x</td>
<td>Yes</td>
</tr>
<tr>
<td>QuickTime</td>
<td>QuickTime712.pkg</td>
<td>7.1.2</td>
<td>Mac OS 10.4.x</td>
<td>Yes</td>
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</table>
## Missing OS Patches Statistics

<table>
<thead>
<tr>
<th>Missing Patch Stat Name</th>
<th>Missing Patch Stat Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>AirPort Update 2005-001</td>
<td>1</td>
</tr>
<tr>
<td>Apple Remote Desktop Client</td>
<td>1</td>
</tr>
<tr>
<td>Front Row Update</td>
<td>1</td>
</tr>
<tr>
<td>GarageBand Update</td>
<td>1</td>
</tr>
<tr>
<td>iCal</td>
<td>1</td>
</tr>
<tr>
<td>iChat Update</td>
<td>1</td>
</tr>
<tr>
<td>iDVD Update</td>
<td>1</td>
</tr>
<tr>
<td>iMovie HD Combo Update</td>
<td>1</td>
</tr>
<tr>
<td>iPhoto Update</td>
<td>1</td>
</tr>
<tr>
<td>iPod Updater 2006-01-10</td>
<td>1</td>
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<tr>
<td>iPod Updater 2006-05-28</td>
<td>1</td>
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<tr>
<td>iPod Updater 2006-05-28</td>
<td>2</td>
</tr>
<tr>
<td>iSync</td>
<td>1</td>
</tr>
<tr>
<td>iTunes</td>
<td>1</td>
</tr>
<tr>
<td>iWeb Update</td>
<td>1</td>
</tr>
<tr>
<td>Java 1.3.1 and 1.4.2 Release 2</td>
<td>1</td>
</tr>
<tr>
<td>Keynote Update</td>
<td>1</td>
</tr>
<tr>
<td>Mac OS X Update (Intel)</td>
<td>1</td>
</tr>
<tr>
<td>Mac OS X Update Combined</td>
<td>1</td>
</tr>
<tr>
<td>Mac OS X Update Combined (PowerPC)</td>
<td>1</td>
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<tr>
<td>Pages Update</td>
<td>1</td>
</tr>
<tr>
<td>QuickTime</td>
<td>1</td>
</tr>
</tbody>
</table>
## Missing OS Patches Report

### Groups & Computers

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

### Configure Columns

<table>
<thead>
<tr>
<th>Agent Name</th>
<th>Missing Patch Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MacBook Pro</td>
<td>IMovie HD Combo Update</td>
</tr>
<tr>
<td>MacBook Pro</td>
<td>iPhoto Update</td>
</tr>
<tr>
<td>MacBook Pro</td>
<td>iPod Updater 2006-06-28</td>
</tr>
<tr>
<td>MacBook Pro</td>
<td>iTunes</td>
</tr>
<tr>
<td>MacBook Pro</td>
<td>iWeb Update</td>
</tr>
<tr>
<td>MacBook Pro</td>
<td>Keynote Update</td>
</tr>
<tr>
<td>MacBook Pro</td>
<td>Mac OS X Update (Intel)</td>
</tr>
<tr>
<td>MacBook Pro</td>
<td>Pages Update</td>
</tr>
<tr>
<td>MacBook Pro</td>
<td>QuickTime</td>
</tr>
<tr>
<td>PB G3</td>
<td>AirPort Update 2005-001</td>
</tr>
<tr>
<td>PB G3</td>
<td>iPod Updater 2006-06-28</td>
</tr>
<tr>
<td>PB G3</td>
<td>iTunes</td>
</tr>
<tr>
<td>PB G3</td>
<td>Java 1.3.1 and 1.4.2 Release 2</td>
</tr>
<tr>
<td>PB G3</td>
<td>Mac OS X Update Combined (PowerPC)</td>
</tr>
<tr>
<td>PB G3 Too</td>
<td>Apple Remote Desktop Client</td>
</tr>
<tr>
<td>PB G3 Too</td>
<td>iCal</td>
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<tr>
<td>PB G3 Too</td>
<td>iChat Update</td>
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<tr>
<td>PB G3 Too</td>
<td>iPhoto Update</td>
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<tr>
<td>PB G3 Too</td>
<td>iSync</td>
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<td>PB G3 Too</td>
<td>iTunes</td>
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<tr>
<td>PB G3 Too</td>
<td>Mac OS X Update Combined</td>
</tr>
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</table>

### Displaying missing operating system patches: 0 of 26 records selected
# License Monitoring Center

<table>
<thead>
<tr>
<th>License Specification Name</th>
<th>Software Identified By</th>
<th>License Type</th>
<th>Licenses Owned</th>
<th>Meter App Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicken of the VNC</td>
<td>Mac OS App Package</td>
<td>Floating licenses</td>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td>Microsoft Office</td>
<td>Mac OS App File</td>
<td>Computer license</td>
<td>5</td>
<td>No</td>
</tr>
</tbody>
</table>

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

Specification name: Microsoft Word 2004

Identify software by: Mac OS Application File
Identify software matching all of the following conditions:

- Path is /Applications/Office 2004 for Mac
- File Size is 20,470,218 Byte
- Checksum is 6bc4ee2dd721349ad12550179

Licenses owned: 50

License type: Computer License (Installed Files)

Other options:
- Meter application usage
- Track as missing software
- Scan all volumes
3rd Party Remote Control Integration

![Remote Control Integration Preference Window]

- **Remote Control Service**
  - Apple Remote Desktop 3
  - VNC
  - Timbuktu
  - MS Remote Desktop

- **Username**
  - Apple Remote Desktop 3: administrator

- **Domain/Port**
  - Apple Remote Desktop 3: 5900
  - VNC: 5900
  - Timbuktu: 407
  - MS Remote Desktop: 3389

- **Application**
  - /Applications/Remote Desktop.app
Thank you

LANrev evaluations are available at

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