

The image features three horizontal panels at the top, each showing a stylized landscape with a blue sky, green hills, brown ground, and a blue water line. The central panel is larger and contains a white globe with blue oceans and white clouds, positioned over the landscape. The background of the slide is a dark blue gradient.

# BrainShare 2005 Review

By Dave



# BrainShare 2005

- ❖ 6 days – Sunday evening to Friday afternoon
- ❖ 6000+ attendees
- ❖ 70+ vendors
- ❖ 250+ classes
- ❖ Laura Chappell classes rock!
- ❖ Counterstrike server
- ❖ And lots more...



# NetWare v6.5

New Features in Support Pack 3

And

Open Enterprise Server (OES)



# NetWare and OES

- ❖ NetWare v6.5 SP3 is the same as OES-NetWare
- ❖ OES-Linux is SLES 9 SP1 with Novell-specific services atop it
- ❖ It is unlikely there will be any further major development on the NetWare kernel



# New NetWare SP3 Kernel Features

- ❖ BASH (a UNIX command-line shell)
- ❖ Red Hat Package Manager (RPM, a Linux software distribution tool)
- ❖ Full POSIX-compliancy (threading still supported)
- ❖ Fast reboot/watchdog reboot
- ❖ ACPI, PCI-X and USB (multi-LUN) support
- ❖ MONO (.NET) and Python support
- ❖ CIMOM and OpenWBEM support



# New in Storage

- ❖ Freeze/Thaw support for NSS, iFolder, MySQL
- ❖ “Freeze” locks the filesystem – pending writes are flushed; writes to a “Frozen” filesystem are queued but filesystem is not changed until “Thawed”
- ❖ Useful for “snapshots” and backups; pool-level
- ❖ Apps and RDBMS’ must be Freeze/Thaw-enabled (GroupWise is); user workstation apps are not
- ❖ Similar to the “non-persistent VM” function in VMWare (but without a “rollback” feature)



# New in Clustering

- ❖ Following services are now cluster-enabled:
  - ❖ Native File Access Protocols (CIFS, NFS, AFP)
  - ❖ DNS, DHCP, FTP and LDAP servers
  - ❖ NetStorage
  - ❖ MySQL
  - ❖ Apache
  - ❖ iFolder
  - ❖ iPrint
  - ❖ Virtual Office
- ❖ Failover between OES-Linux and OES-NetWare



# New in File Services/Printing

- ❖ NetStorage – POSIX-compliant filesystem rights, file/directory moves, salvage, improved rights administration, bulk operations
- ❖ iFolder improvements
- ❖ iPrint clients for Linux and Mac, custom banners, DNS names for printers, pre-set driver defaults
- ❖ Virtual Office – UI improvements, web search, password self-service, virtual teams, better installs





# New in Management

- ❖ iManager v2.5 is browser-independent – supports Mozilla/Netscape and Epiphany
- ❖ More instrumentation – CPU performance, RAM, processes- and logging configurability
- ❖ RPM, RUG and Red Carpet Daemon support; silent installs
- ❖ AD-to-eDirectory migration tools included in Server Consolidation Utility
- ❖ iManager performance enhancements



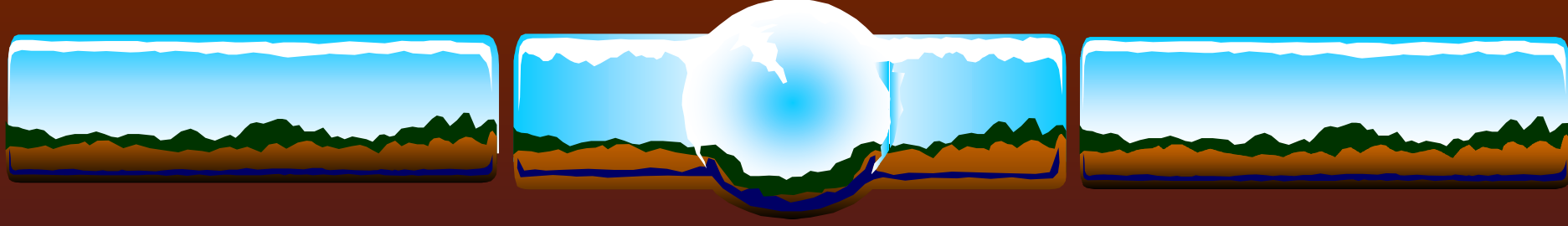
# New in Applications

- ❖ Apache v2.0.50
- ❖ Java Virtual Machine (JVM) v1.4.2\_6
- ❖ Tomcat JSP v4.1.31
- ❖ MySQL v4.0.21
- ❖ PHP 5
- ❖ Mono (.NET) on NetWare
- ❖ POSIX compliance means almost any \*NIX app can be compiled on/cross-compiled to NetWare



# OES Support Pack 1

- ❖ Includes NetWare v6.5 SP4, SLES 9 SP2 and Client 32 v4.91 SP1
- ❖ Scheduled for August 31<sup>st</sup> release
- ❖ Will include iFolder v3.0, improvements to NSS on Linux, a Novell Client for Linux, and iPrint enhancements



# eDirectory

v8.7.3.x and Beyond



# eDirectory Tools

- ❖ Novell's strategy is to move tools (**DSREPAIR**, **DSBROWSE**, **DSMERGE**, iMonitor, iManager, *etc.*) on all platforms to a single codebase
- ❖ Tools will become front-ends for the eDirectory Management Toolbox (**EMBOX.NLM** on NetWare)
- ❖ All management will eventually become primarily web-based (through iManager)
- ❖ iManager v2.5 no longer relies on NPS



# eDirectory Maintenance

- ❖ Novell engineers at BrainShare were quite specific that routine eDirectory maintenance should be performed via iManager, not with **DSREPAIR**
- ❖ They stated that **DSREPAIR** should not be used for health checks or partition/replica management



# Using iManager's eDirectory Tools

- ❖ Logger – Configures eMBox logging
- ❖ Backup – Hot continuous backup/restore
- ❖ DSMerge – Merge/rename trees
- ❖ DSRepair – Fix eDirectory database
- ❖ DSSchema – Manipulate the schema
- ❖ Service – Start/stop eDirectory sub-processes
- ❖ “Advanced” options marked w\**red** & **yellow** icon



# eDirectory News

- ❖ v8.7.3.4 is available now (in 6.5 SP4 and OES SP1)
- ❖ v8.7.3.5 released on OES only, not on other platforms (mainly bug fixes and NCP engine updates)
- ❖ V8.7.3.6 will be cross-platform
- ❖ Its now OK to have Cluster members running different IRs of eDirectory





# eDirectory Management Toolbox

- ❖ **EMBOX.NLM** on NetWare, **edirutil** on other platforms
- ❖ Separates management tools from eDirectory
- ❖ Scriptable and has a command line interface
- ❖ Also includes an unsupported GUI option (**edirutil -g**)



# eDirectory v8.8

- ❖ LSB/FHS-compliant (on Linux/\*NIX platforms)
- ❖ Alternate DIB locations
- ❖ Case-sensitive passwords for all clients
- ❖ Scriptable install that no longer needs Supervisor of [Root] to install a server
- ❖ Runs as non-*root* on Linux/\*NIX
- ❖ No more eDirectory/iManager dependencies
- ❖ SASL-GSSAPI support
- ❖ Install & patch w\Red Carpet Update; patch rollback



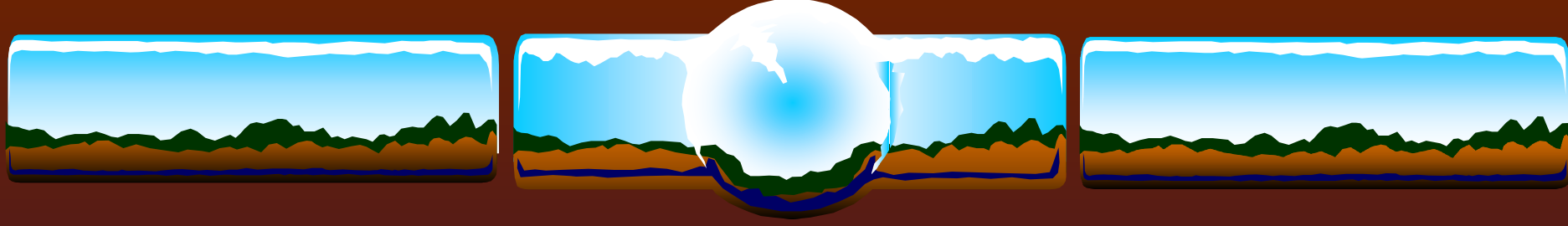
## eDirectory v8.8 (cont'd)

- ❖ Priority sync – immediately syncs an attribute on all replicas (useful for password changes)
- ❖ Multi-instance support – can host eDirectory replicas from multiple trees, and/or multiple replicas of the same partition, all on one server
- ❖ Encrypted database – settable on a per-attribute basis, and controlled via the object **Read** ACL
- ❖ Encrypted replication on a per-partition basis
- ❖ Object-based backup (archive bit) w/TSA support



# eDirectory Futures

- ❖ v8.9 (Project “Bose”): replication policies, cluster support for Linux and Solaris, fuzzy LDAP searches, federated attributes, attribute-based ACLs, Group and Container enhancements, installation improvements, optimized referrals (quickly find data in other partitions)
- ❖ Project “Destiny”: “virtualized” directory services (NVDS), leverages LDAP to allow anything to use eDirectory as a back-end



# Group Wise

Sequoia (v7)

And Beyond



# GroupWise Planning

- ❖ Current Installed base: 32.7 million seats
- ❖ GroupWise v7 (“Sequoia”)
- ❖ GroupWise “Aspen” – 1H2006
- ❖ GroupWise “Cedar” – 1H2008



# GroupWise v7 New Features

- ❖ Improved user interface
- ❖ Native Outlook and Blackberry support
- ❖ XML/SOAP interface to POA
- ❖ Outlook-to-GroupWise migration utility
- ❖ PDA support for PalmOS IV (or later) and PocketPC 2K or later
- ❖ Native Linux client
- ❖ SMP support for Linux & Windows agents



# GroupWise v7 More New Features

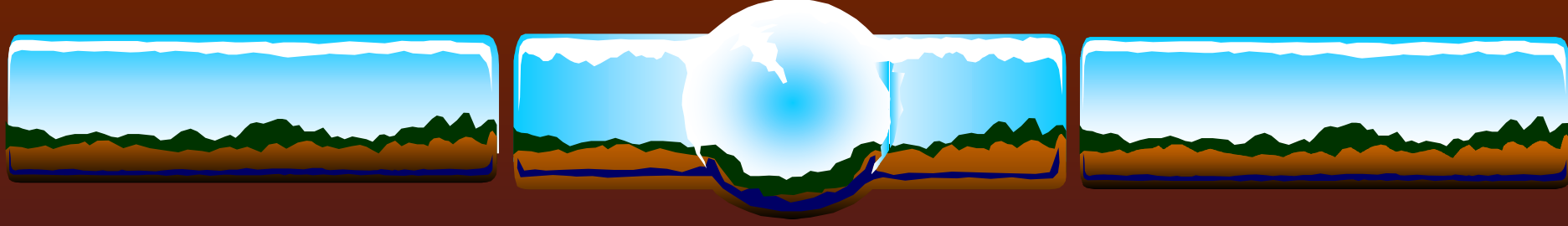
- ❖ WebAccess improvements – adds a *Work-In Progress* folder; viewer agent now separate from WebAccess agent (can run on separate servers)
- ❖ OpenSSL and IPv6 support
- ❖ Multiple calendars
- ❖ Multi-platform file association
- ❖ Improved archiving





# GroupWise Futures

- ❖ More 3<sup>rd</sup> Party integration
- ❖ “Aspen”: Improved multi-platform client, team-centric activities and resources, single point of administration, better scalability and backup
- ❖ “Cedar”: More improvement on new “Aspen” features



# ZENWorks

v6.5 and Beyond



# ZENWorks v6.5

- ❖ Imaging server uses SUSE Linux v2.4 kernel
- ❖ Includes “AdminStudio ZENworks Edition” for software packaging (based on Macrovision InstallShield)
- ❖ ENGL Imaging Deployment component includes lights-out image deployment (uses PXE)



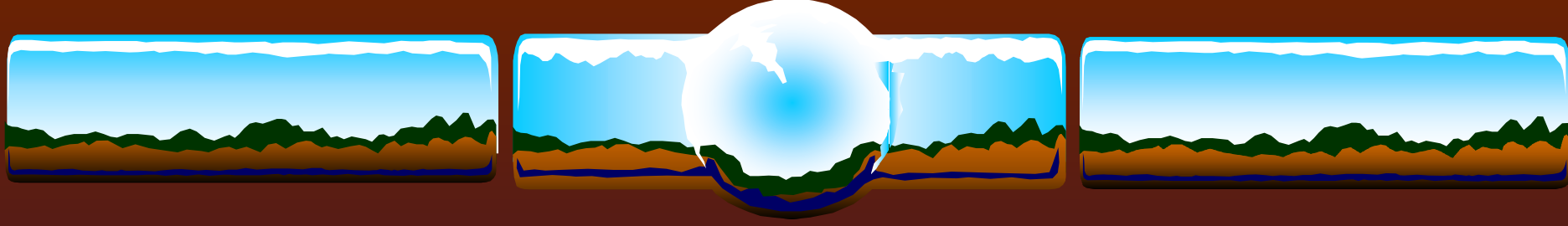
# ZENWorks v7 (“Shade”)

- ❖ Uses SUSE Linux kernel v2.6 for all back-end services
- ❖ Cluster-enabled
- ❖ OS support includes Windows Tablet, Mobile 2K3, CE, XP SP2
- ❖ Supports Intel’s AMT spec
- ❖ Web-based ZENWorks management
- ❖ Updated ZENWorks AdminStudio



# ZENWorks Future

- ❖ Next version after v7 is “Brimstone”
- ❖ More integration with Macrovision
- ❖ Cross-platform application testing and deployment
- ❖ More .MSI support



# And Everything Else



# Novell Client for Linux

- ❖ POSIX-compliant
- ❖ Virtual Filesystem (VFS) layer supports EXT2/3, Reiser, XFS, JFS, UFS and NSS
- ❖ Case-sensitive naming (where supported by the filesystem)
- ❖ Quota support
- ❖ Multiple logic filesystems
- ❖ Multiple executable formats (*e.g.* a.out, ELF, java)



# Laura Chappell Classes Rock

- ❖ Laura is a former Novell employee – now a highly-sought-after network security consultant
- ❖ Presented multiple times on 4 topics – every class was packed to capacity
- ❖ Topics: Malware, Network Forensics, Hot Tools & Toys, Internet Safety for Children
- ❖ Laura Lab Kit CD has tools, videos, packet traces



**LAURA  
CHAPPELL**





# BrainShare DVD

- ❖ Presentation Handouts (in OpenOffice Impress format)
- ❖ OpenOffice v1.1.4 (for Linux and Windows)
- ❖ Laura Chappell's Labs (in PDF)
- ❖ BrainShare videos, student-made Linux/Novell commercials



2006

Dave is now taking cash donations so he can go next  
March....give generously!

The End