To Advance through Presentation
Use Page Up and Page Down Keys

99 | Worldwide
Developers
Conference

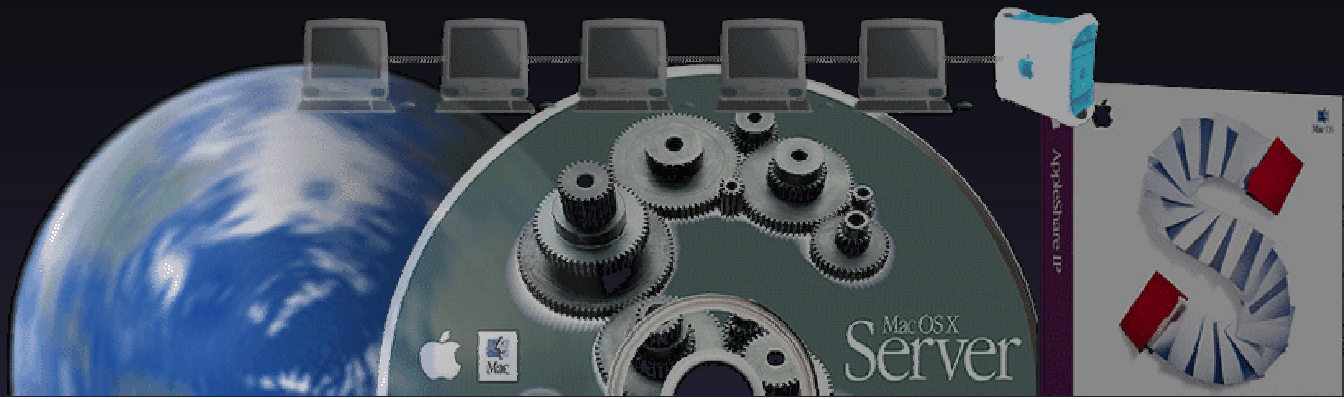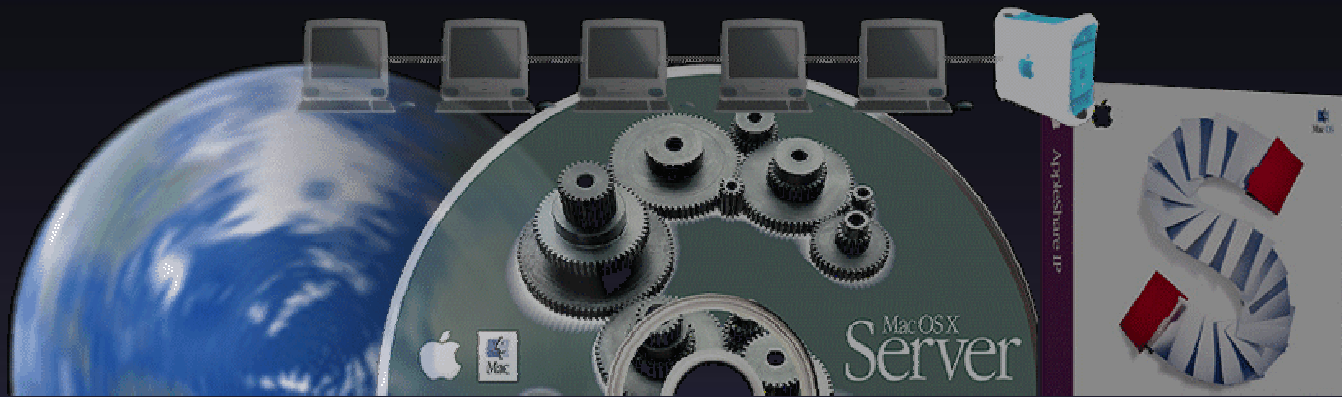99 Worldwide Developers Conference

Apple Server Software

Server Software

- Server Strategy
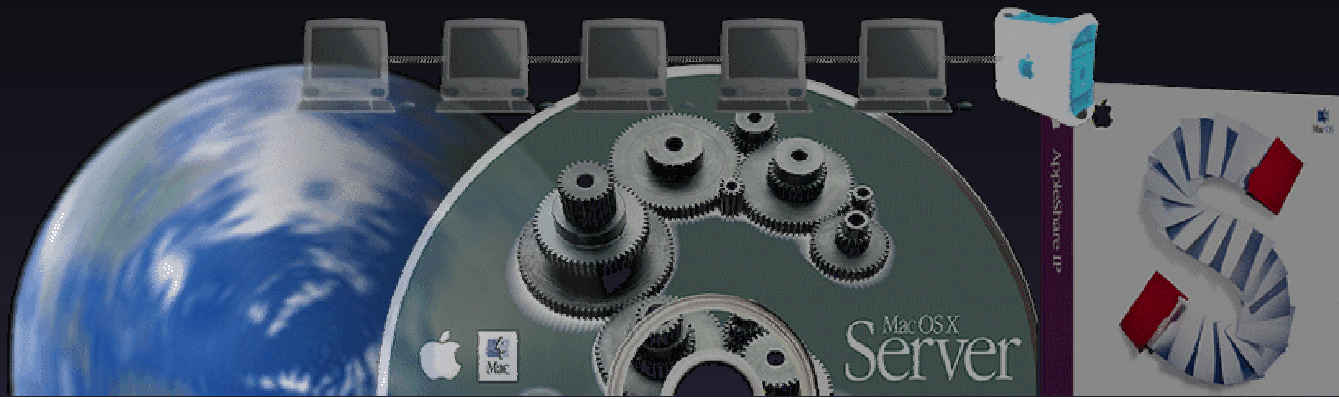- AppleShare
- Mac OS Client
- Mac OS X Server

Apple's Server Strategy

- Build the world's best personal computers
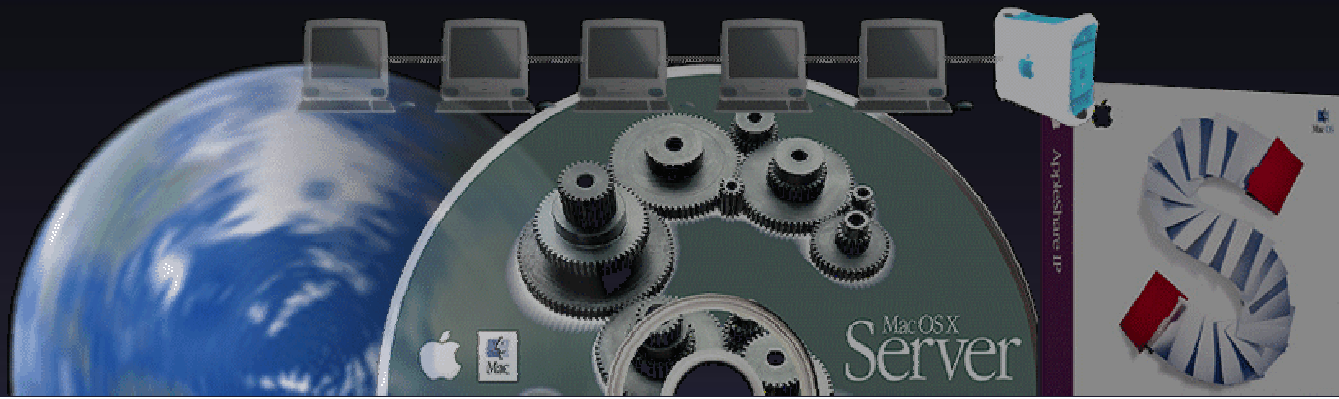- Support those computers with great server products

Apple's Server Strategy

- Strong server product offering including:
  - Innovative software products

  - High performance hardware

- A Platform to Build On

Servers at Apple

- #1 Server Software in K-12 Education
- #1 Server Software/Hardware solution in the Publishing market
- Strong growth outside of the US

Great Server Software

AppleShare IP

The world's easiest-to-use general-purpose server
Mac OS 8; File, Print, Mail and Web services

Mac OS X Server

Innovative services with greater scalability
UNIX; Apache, WebObjects, NetBoot and QuickTime

Roadmap

From two great servers

AppleShare IP

AppleShare IP

- Apple's easy to use, general purpose server

- Runs on Mac OS 8.5

- Full suite of server software
  - Apple and Windows file sharing
  - POP and IMAP mail servers
  - Fast, extensible web services
  - Print, DNS, firewall support and more

AppleShare Mail Server

- AppleShare IMAP Administration
  - Port 626

- Opportunities
  - Statistics reporting
  - Backup/Restore/Migration of individual user accounts
  - Inclusion of shared IMAP folders in IMAP clients

AppleShare Web Server

- Support for WebStar API v1.2
- Support for CGIs and ACGIs
- Support for Multi-hosting
  - Up to 50 unique web sites

- Foundation for AppleShare's Web Admin
- Opportunities
  - Web-based mail

AppleShare Server UAMs

- Allow AppleShare to fit into an existing authentication and directory infrastructure

- Possible examples:
  - Kerberos, LDAP, NDS, NIS and Windows NT Domains

- Server UAMs can also update the ASIP Registry

Mac OS Client

AppleShare Client UAMs

- Permit clients to connect to third party AFP servers using the server's native authentication

- The UAM API will remain the same for Mac OS X (client)

Secure Printing

- New with Mac OS 8.6 and LaserWriter 8.6.1 or later
  - AppleTalk and LPR print jobs

- New Document Structuring Comments
  - Query Server for supported Authentication methods
  - Optional Passwords and Password Encryption

- Secure Printing Protocol Specification

Mac OS X Server

Moving forward

Mac OS X Server

- Apple's first modern server operating system
- Based on open standards
- Performance, reliability and scalability
- Innovative Internet and workgroup services
  - NetBoot, QuickTime Streaming, WebObjects

NetBoot

- Plan for a fast-paced adoption of NetBoot by Apple customers

NetBoot

- Application developers need to be compatible with this technology

- Client/Server developers can count on having powerful servers in these environments

QuickTime Streaming

- QuickTime Streaming Server 1.0
  - Included with Mac OS X Server
  - RTP and RTSP
- Future releases will include a new server plug-in API
  - Similar to Apache plug-in structure
  - Support Developer plug-ins
  - Example: Statistics and logging tools

Open Source

- Darwin Streaming Server
  - Extends Apple's involvement with the Open Source community
  - Enables developers to offer streaming servers for QuickTime clients
  - Build your own streaming server

Apache Web Server

- Pure Apache

- Contribute to Apache effort

- Support Apache plug-ins

- Provides a standard deployment platform for web-based products

Application Server

- Tools for development and deployment
- Thin, ubiquitous clients—HTML and/or Java-based
- Session management is automatic
- Connectivity to back-end data systems
- Highly scalable from single-users up to high-volume Internet usage

WebObjects

Ideas for Developers

- Give your administrative applications a Web or Java client-based front end

- Use WebObjects to maintain persistent data for server-based apps in a database

- Develop WebObjects adapters to connect to other technologies and systems

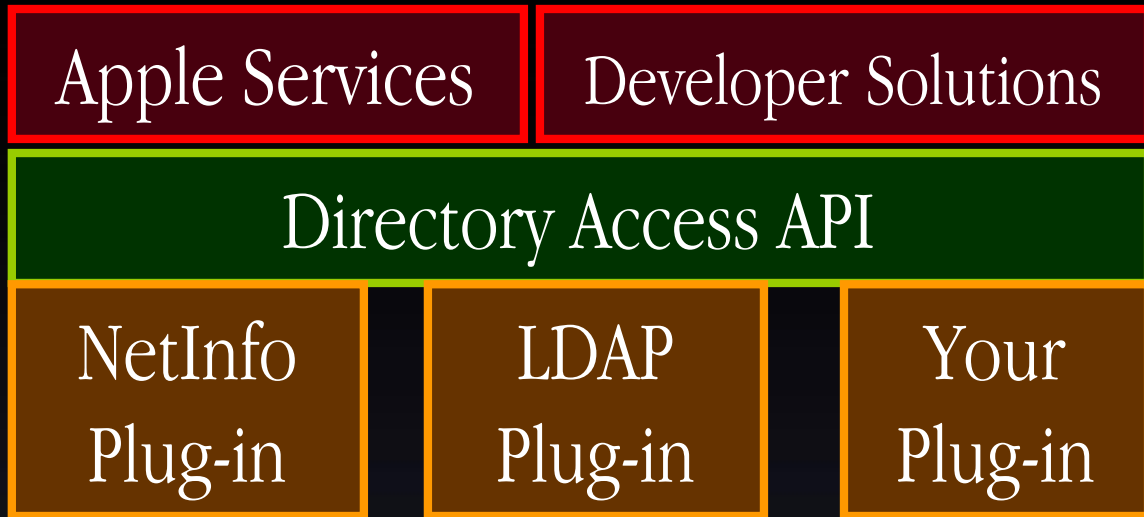- Develop reusable components

WebObjects

Directory Services

- Apple's future Mac OS 8 and Mac OS X software products will be based on a common directory access architecture

Apple Services: AFP, Mail…

Common Directory Access

Directory Services

Apple Services	Developer Solutions

| Directory Access API		
NetInfo Plug-in	LDAP Plug-in	Your Plug-in

Server Admin API

- Manage and monitor configuration, events and status

- Extend administration software or build additional monitoring and statistics capabilities
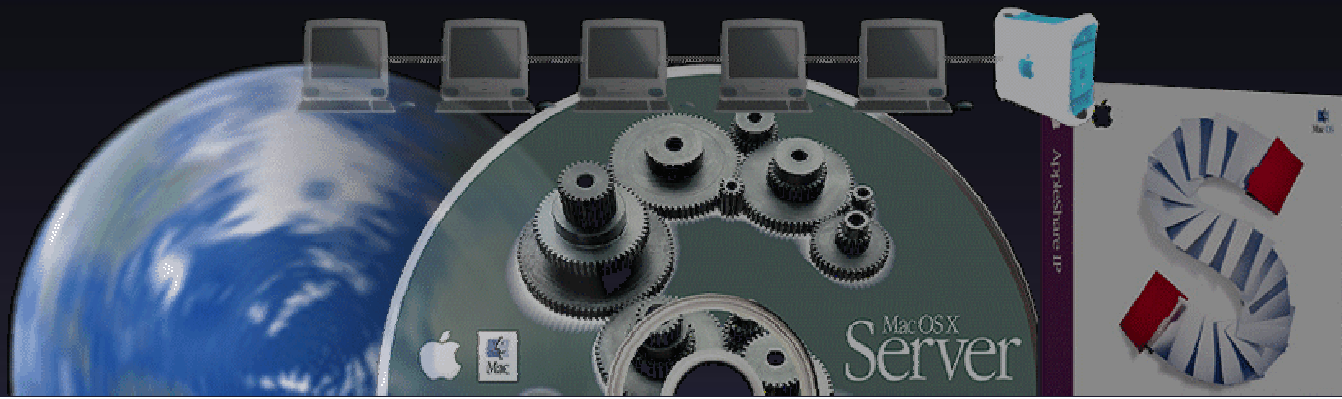
Apple Servers

- Offer feature rich services as part of flexible and scalable server software

- Deliver high-performance, high-value hardware to run it all
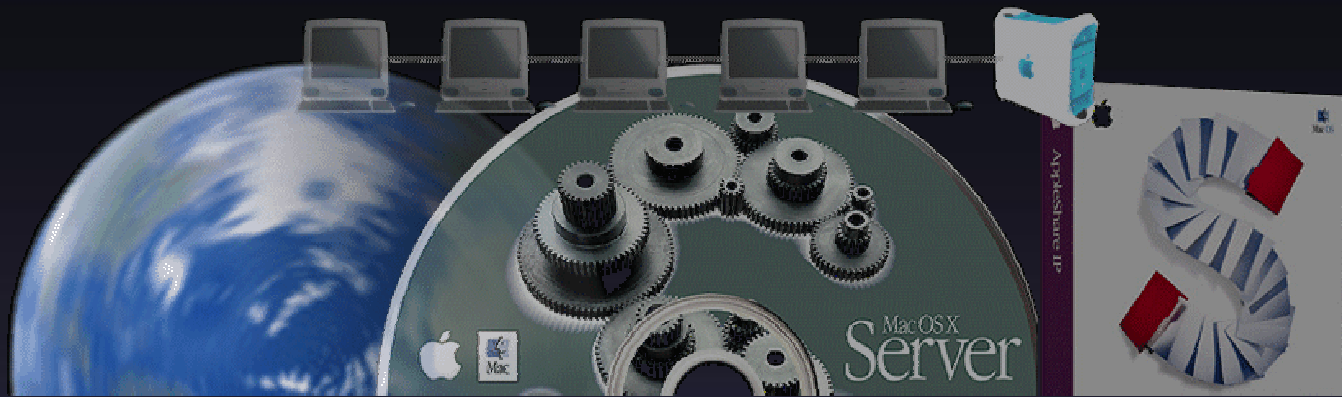
A Platform to Build On

- Both AppleShare and Mac OS X Server offer a variety of developer opportunities

Related Sessions Still Ahead

Directory Services and NetInfo:	Hall A2 **Thur., 4:00pm**
AppleShare Tech Overview:	Hall C **Thur., 2:30pm**
NetBoot Server:	Hall 2 **Thur., 10:00am**
Printing for Mac OS:	Hall A1 **Wed., 4:00pm**

Resources

- Apple Developer Connection:
  http://www.apple.com/developer

- WWDR Contacts:
  Tom Weyer
  weyer@apple.com

Think different.™

To Advance through Presentation
Use Page Up and Page Down Keys

99 | Worldwide
Developers
Conference