Apple's Internet Strategy

Internet Access by Platform

Other 4%

DOS 5%

Windows 61%

Unix 9%

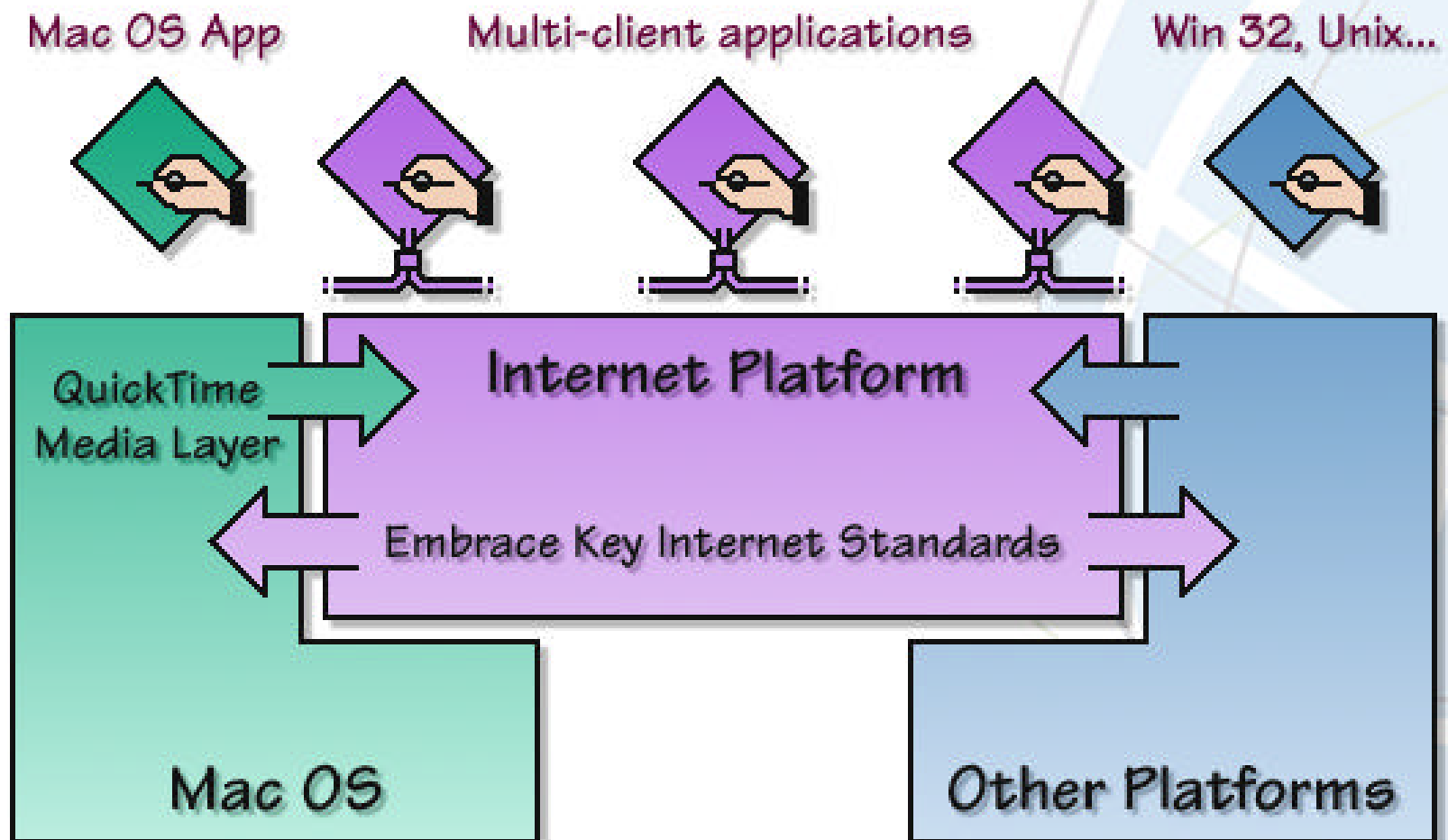Macintosh 21%
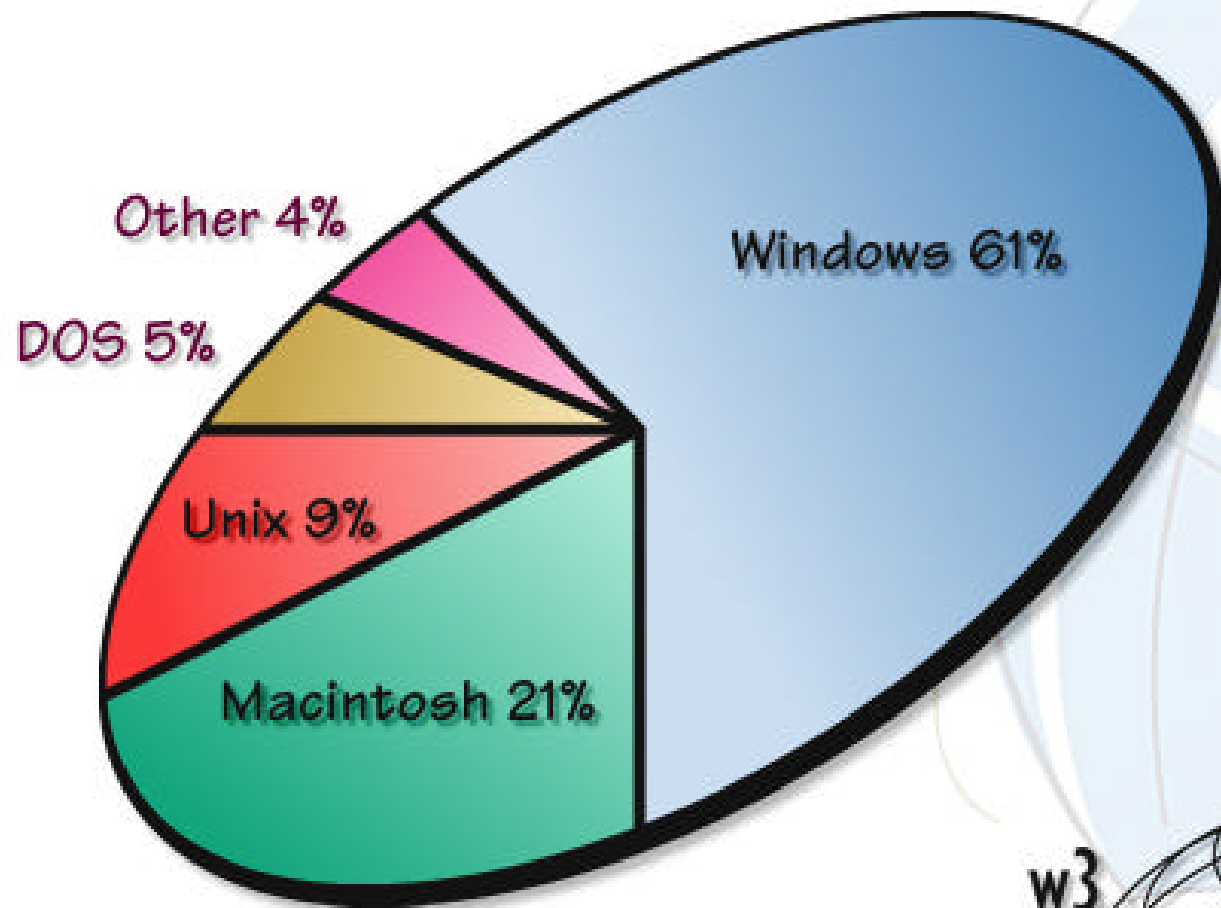
Versus 8.7% Overall Share

w3

http://www.mirai.com

The Open Internet Platform

Apple will work with any vendor that is committed to open Internet standards

Mac OS App   Multi-client applications   Win 32, Unix...

QuickTime Media Layer → Internet Platform ←

← Embrace Key Internet Standards →

Mac OS   Other Platforms

Apple and the Internet
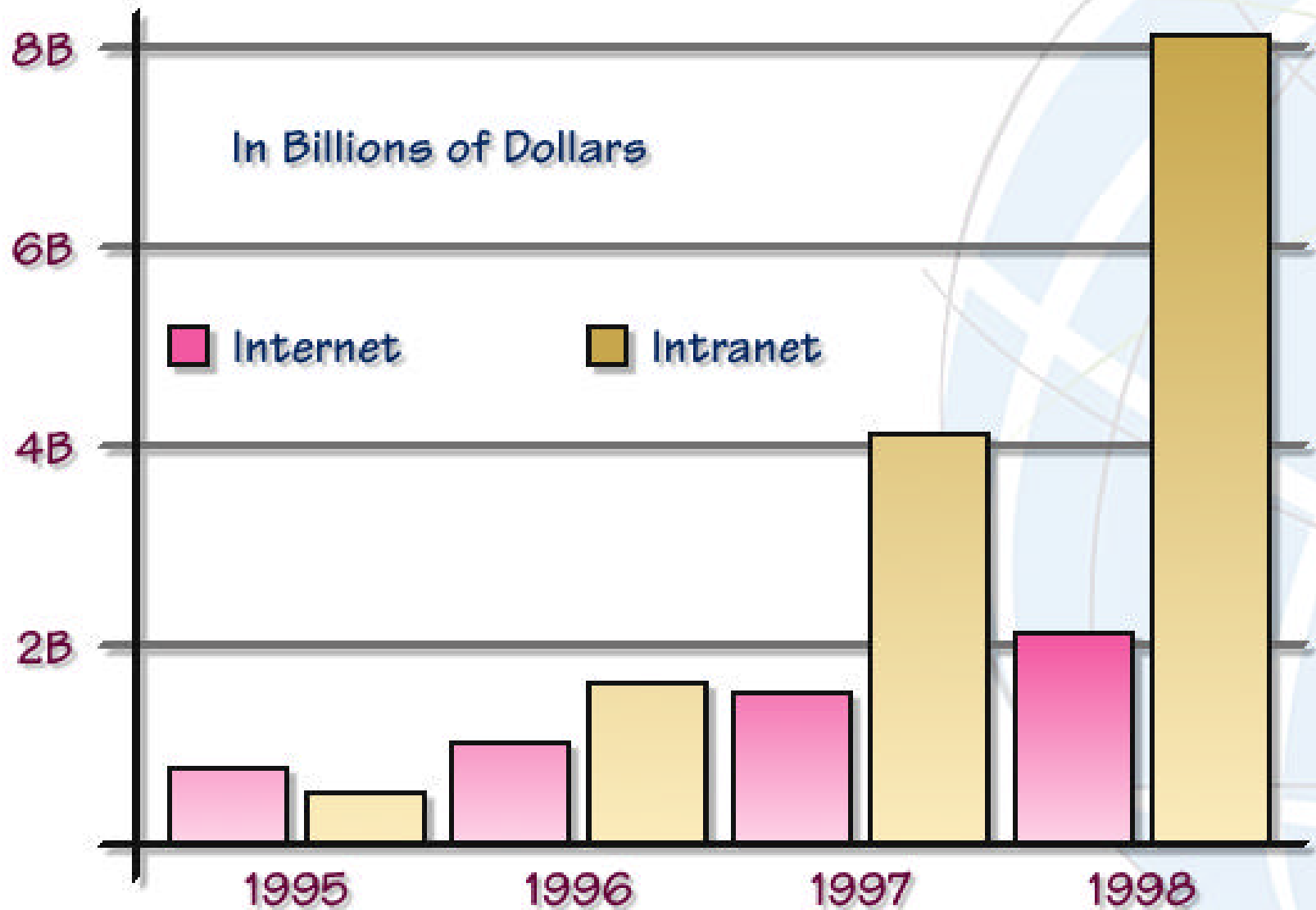
- Capitalizing on our core strengths

    Ease of use

    Media rich content
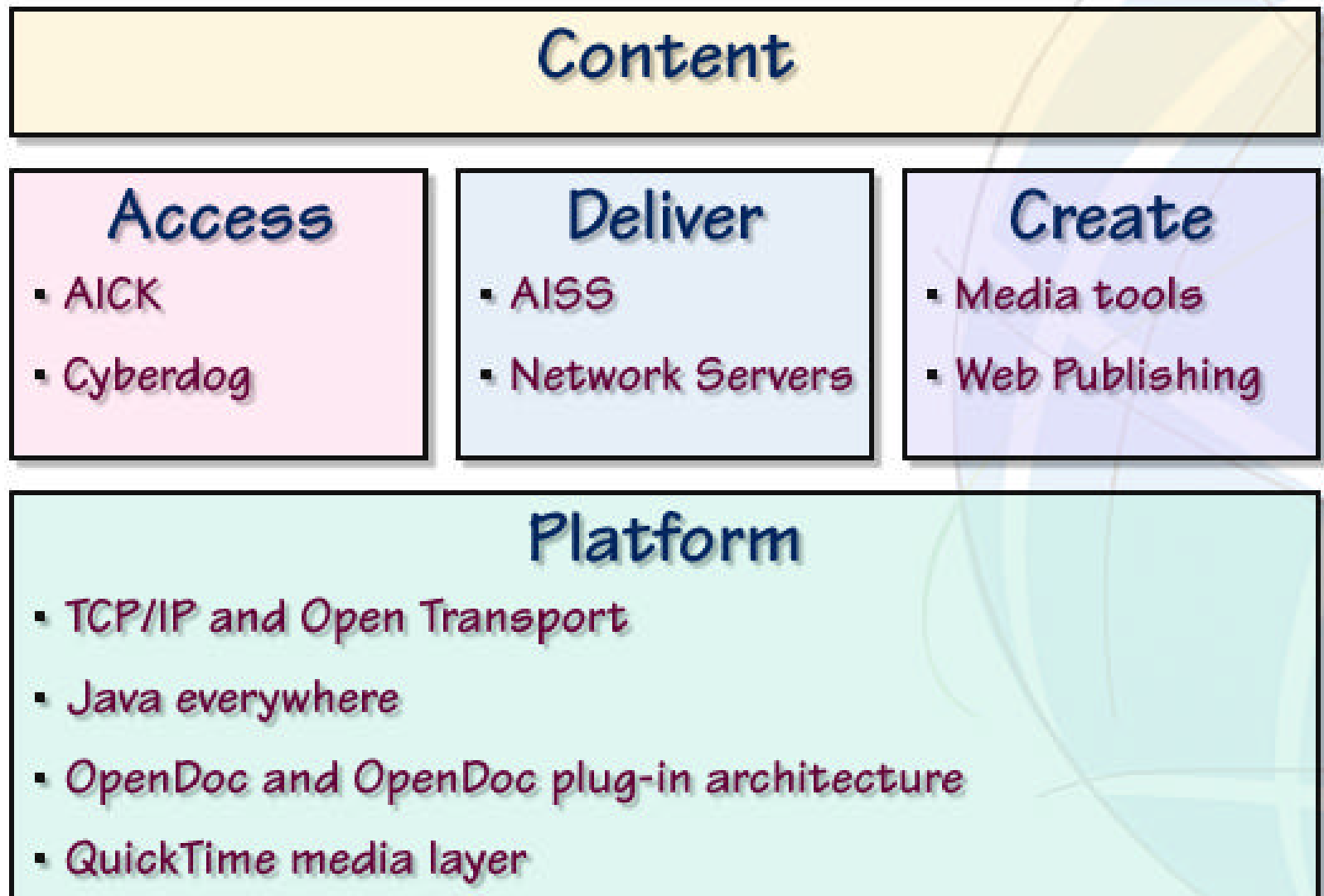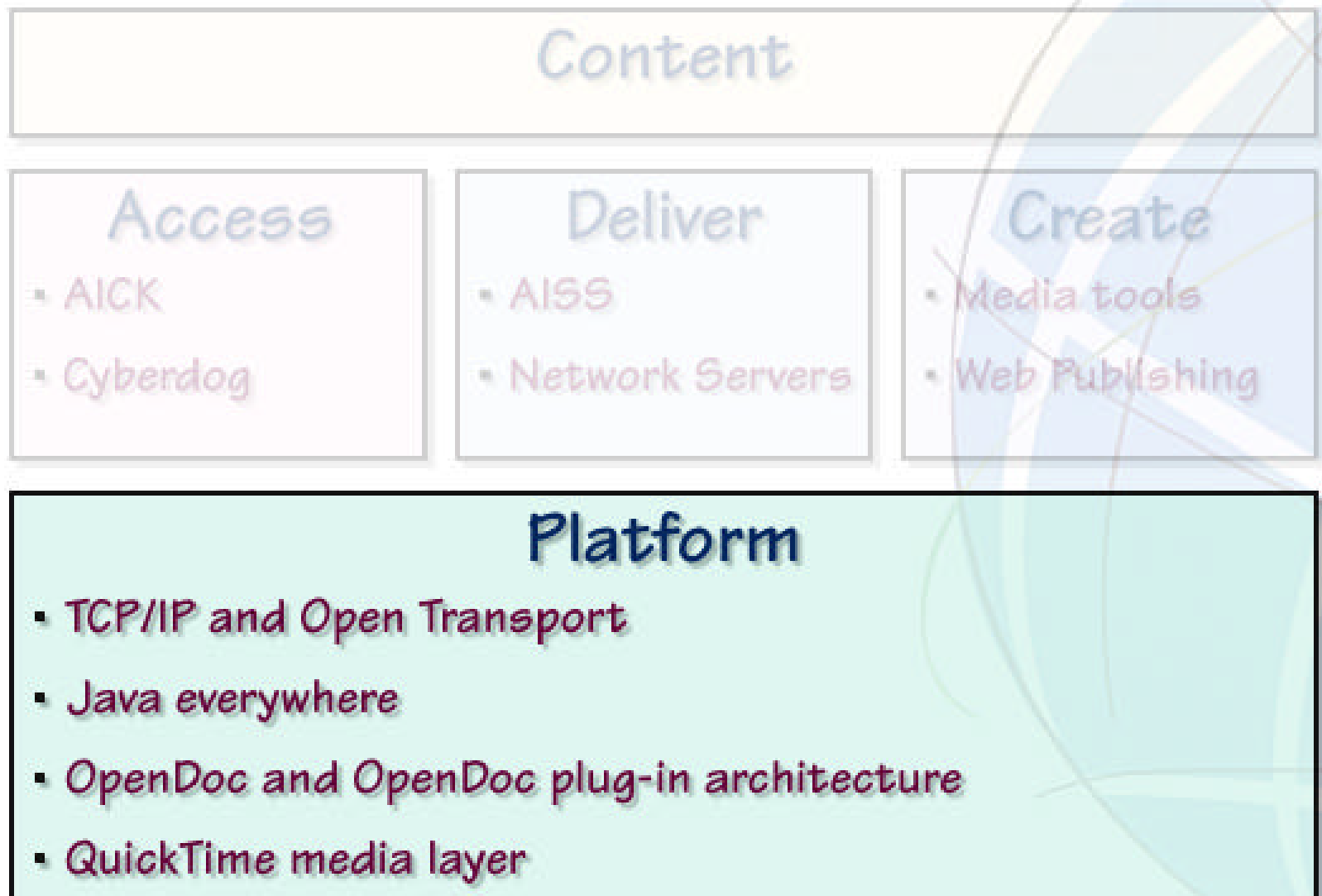
Top IS Objectives

- Align IS and corporate goals: flexibility

- User access to cross-functional data

- Move legacy systems to new architectures

- Connect to customers and suppliers

- React to rapid shifts in technology

Source: 1996 Computer Sciences Corporation survey

Apple Internet Value Chain

Content

Access
- AICK
- Cyberdog

Deliver
- AISS
- Network Servers

Create
- Media tools
- Web Publishing

Platform
- TCP/IP and Open Transport
- Java everywhere
- OpenDoc and OpenDoc plug-in architecture
- QuickTime media layer

Apple Internet Value Chain

Content

Access
- AICK
- Cyberdog

Deliver
- AISS
- Network Servers

Create
- Media tools
- Web Publishing

Platform

- TCP/IP and Open Transport

- Java everywhere

- OpenDoc and OpenDoc plug-in architecture

- QuickTime media layer

Internet Platform Technologies

- **An open standards approach**
  - TCP/IP
  - HTTP
  - Java
  - OpenDoc
  - QuickTime media layer
  - HotSauce MCF

TCP/IP and Apple

- **The future of Apple networking is TCP/IP**

- **Open Transport made TCP/IP a peer protocol with AppleTalk**

- **TCP/IP across all client platforms:**
  - Macintosh
  - Pippin
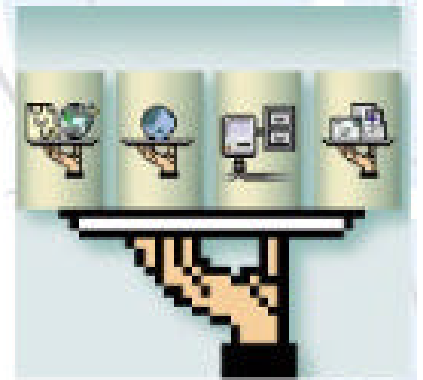 - Newton

- **Open Transport 1.1.1 and ARA 3.0**

TCP/IP and Apple

- ## OT/PPP
  - IP over PPP
  - Beta available on the web
  - Final and posted on web by Dec. 1

- ## FutureShare
  - Supports FTP, POP3/SMTP, AFP, AFP over IP
  - Beta in November/December
  - FCS by mid-February

Java Everywhere

- MacOS Runtime (VM) pre-released

  - available on the web:

    www.devtools.apple.com/mrj

- Driving it onto all of our platforms

- Integration with OpenDoc and QuickTime media layer

- Performance and reliability are key

OpenDoc

- **Apple integrating Internet into Mac OS via OpenDoc**

- **Recent developer commitments include:**
  - Digital Harbor Wave container
  - Corel WordPerfect container

- **OpenDoc plug-in architecture supports:**
  - Netscape plug-ins
  - Java applets
  - OpenDoc parts
  - Other component architectures...

- **IBM Windows beta available on the web**
  - http:www.software.ibm.com/clubopendoc/odwinbeta.html

QuickTime Media Layer

- **QuickTime for the Internet– release 2.5**
  - FastStart, MPEG, MIDI Music Architecture
  - Mac OS and Windows feature parity

- **QuickTime Conferencing– backbone for QT Live events and collaboration**

- **QuickTime VR– de facto standard, under consideration for VRML**

- **QuickDraw 3D– part of VRML 2.0**

QuickTime™

HotSauce™ Meta Content Format

- An open standard for representing information "about" content
- Can describe the content of:
  - Web sites: Hierarchies of linked pages
  - Gopher/FTP sites: Hierarchies of "folders"
  - E-mail: Date, To, Subject, … fields
  - Catalogs: Merchants and Vendors
  - Databases: Hierarchical and Relational
- Platform/application independent

Why HotSauce MCF?

- HTML is good for describing pages, but loses information when structured content is rendered

- MCF is a standard for describing how and where information is stored in structured content sources

- No other general metadata format has been proposed and accepted as a standard

What MCF provides:

- Lets you use any MCF-savvy view/query tool to access and integrate information from multiple sources:

  - Local disk

  - LAN

  - Intranet

  - Internet

- As long as the content is described in MCF
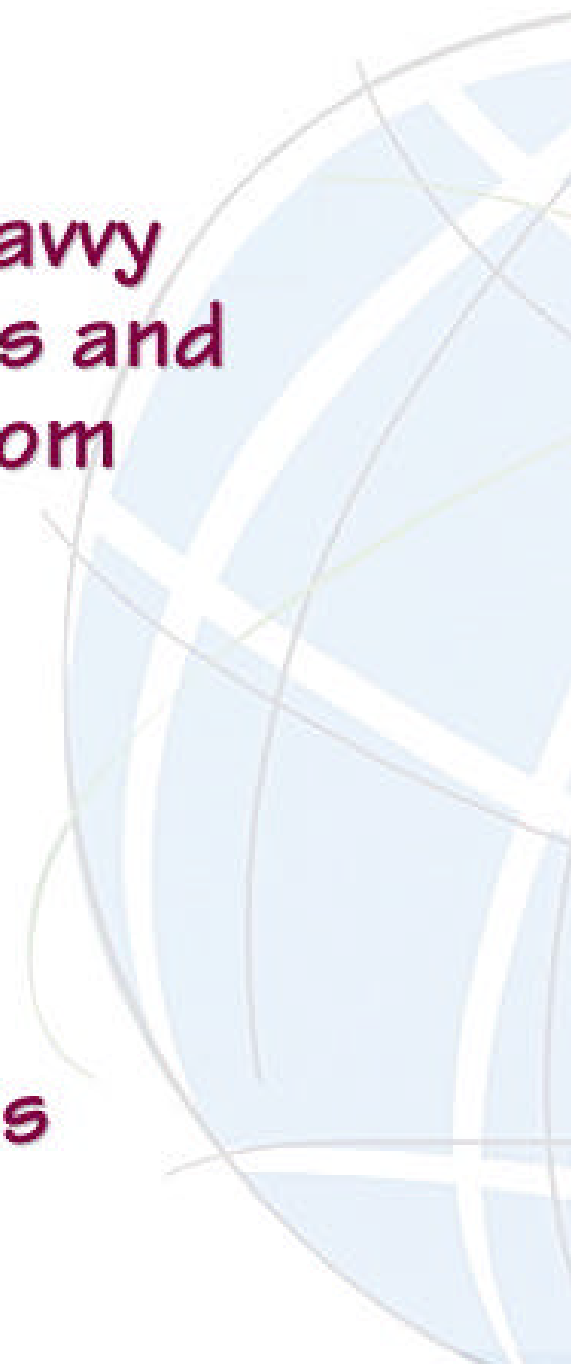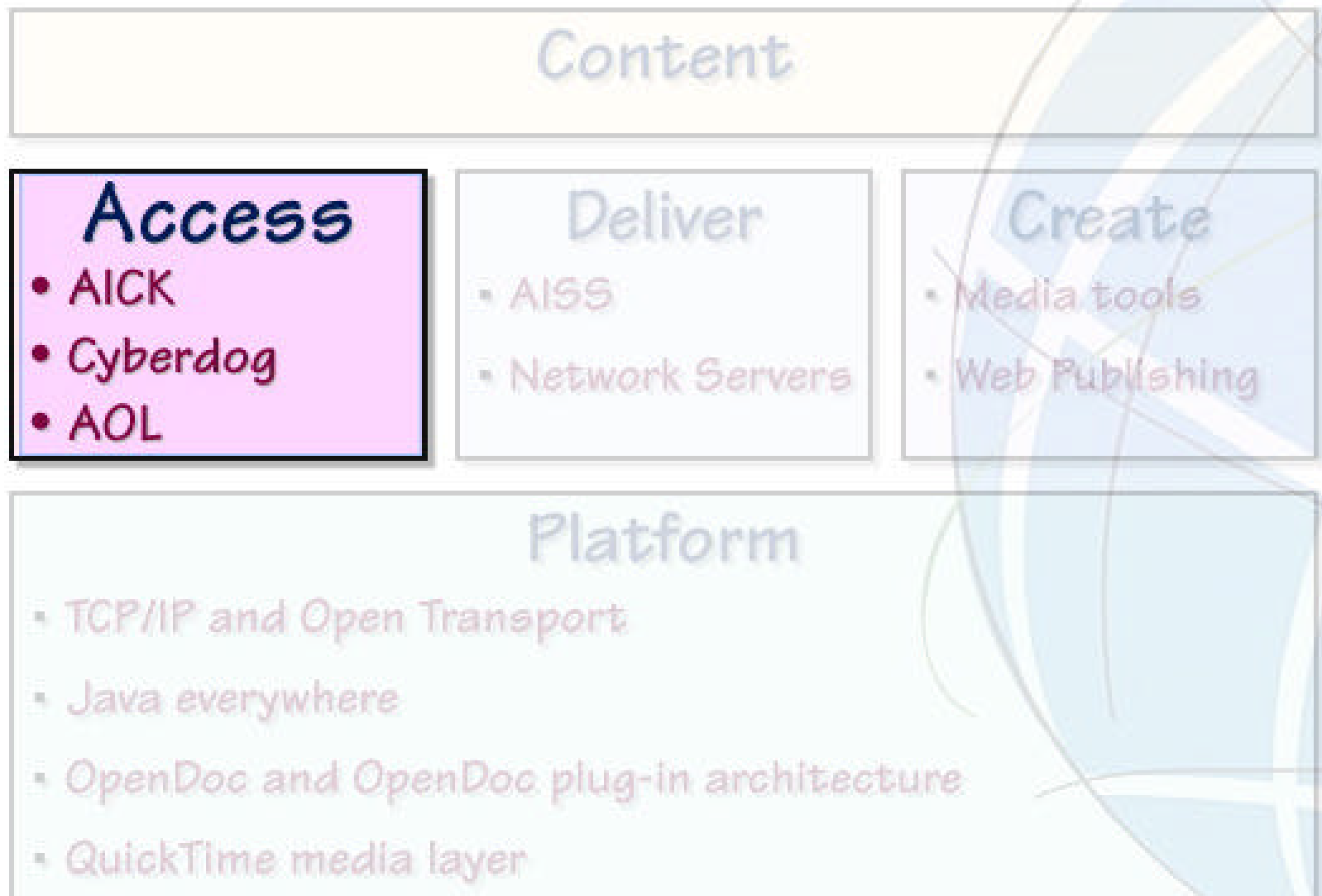
HotSauce fly-through plug-in

- Big picture of a web site
- Works with all popular web browsers
- Mac OS and Win32 compatible
- Alternate views available

  - Outline view (Finder-like)

  - Hyperbolic view (XSoft)

Benefits of MCF

- *Easier access to information and information relationships*

- *Open standards-based platform leverages development investment*

- *Faster / easier integration with MCF data outside corporate firewall*

Apple Internet Value Chain

Content

Access
- AICK
- Cyberdog
- AOL

Deliver
- AISS
- Network Servers

Create
- Media tools
- Web Publishing

Platform
- TCP/IP and Open Transport
- Java everywhere
- OpenDoc and OpenDoc plug-in architecture
- QuickTime media layer
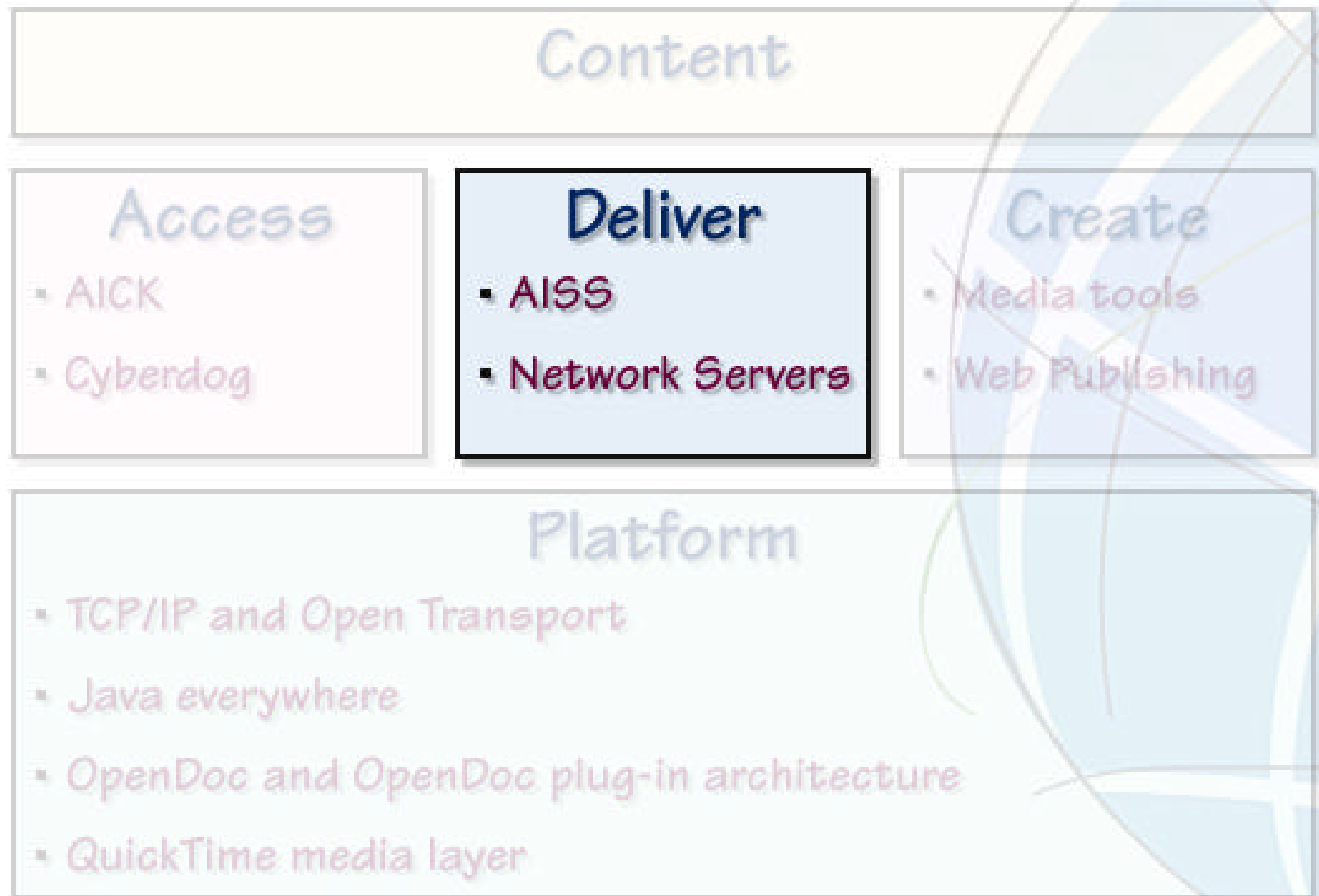
Internet Client Access

- ## Apple Internet Connection Kit (AICK)
  - Best of class Internet application bundle
  - Apple Guide lowers support costs

- ## Cyberdog
  - Component software internet application "suite"
  - Enables custom IS solutions

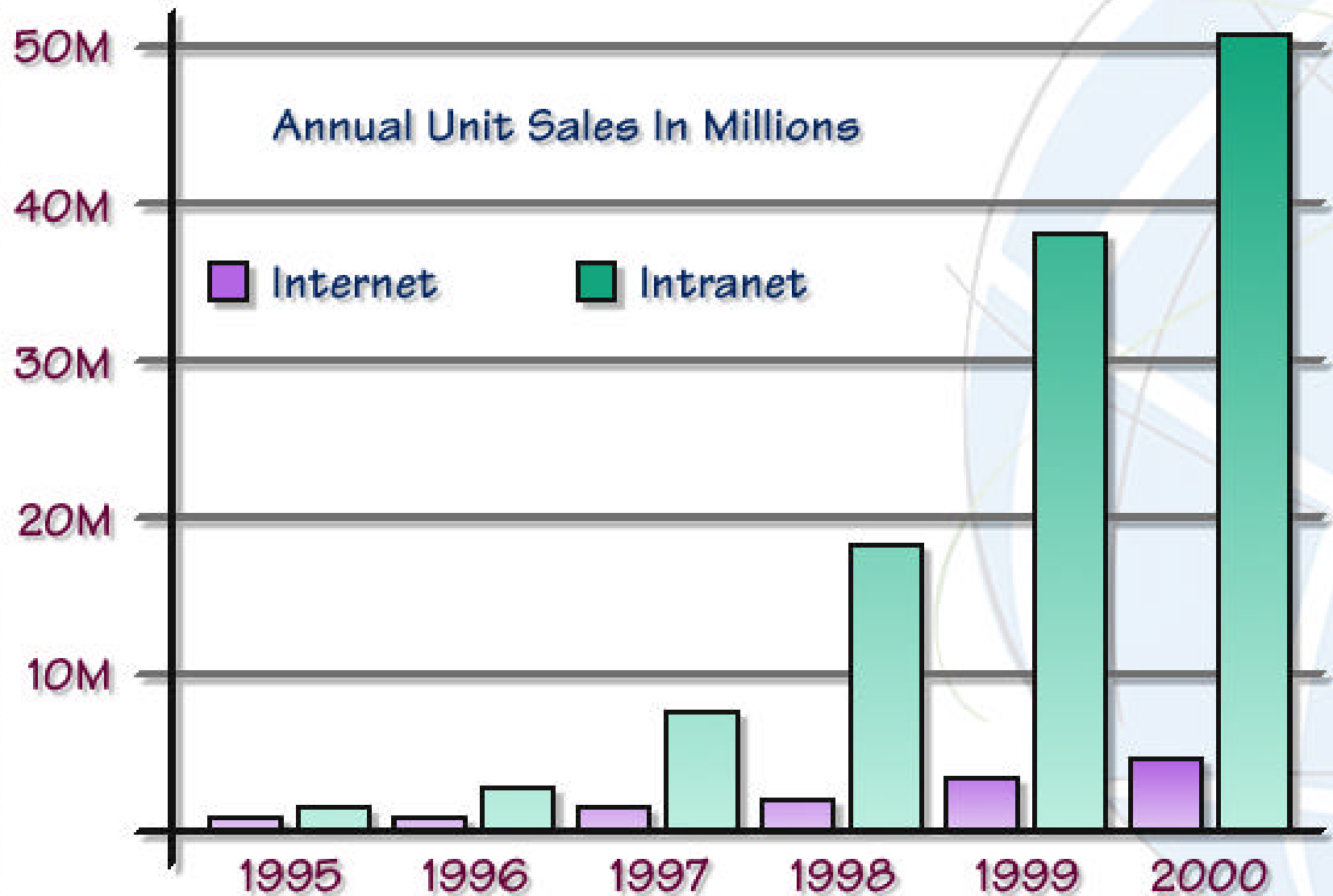- ## Apple will continue to develop and support both products

Cyberdog 1.2

- Cyberdog 1.2
  - Improved user interface
  - Runs on PPC and 68K Macs
  - AppleTalk network browsing
  - Netscape plug-in support
  - WorldScript (double byte) aware

Apple Internet Value Chain

Content

Access
- AICK
- Cyberdog

Deliver
- AISS
- Network Servers

Create
- Media tools
- Web Publishing

Platform
- TCP/IP and Open Transport
- Java everywhere
- OpenDoc and OpenDoc plug-in architecture
- QuickTime media layer

Inter vs. Intranet Server Sales

Annual Unit Sales In Millions

■ Internet   ■ Intranet

50M
40M
30M
20M
10M

1995   1996   1997   1998   1999   2000
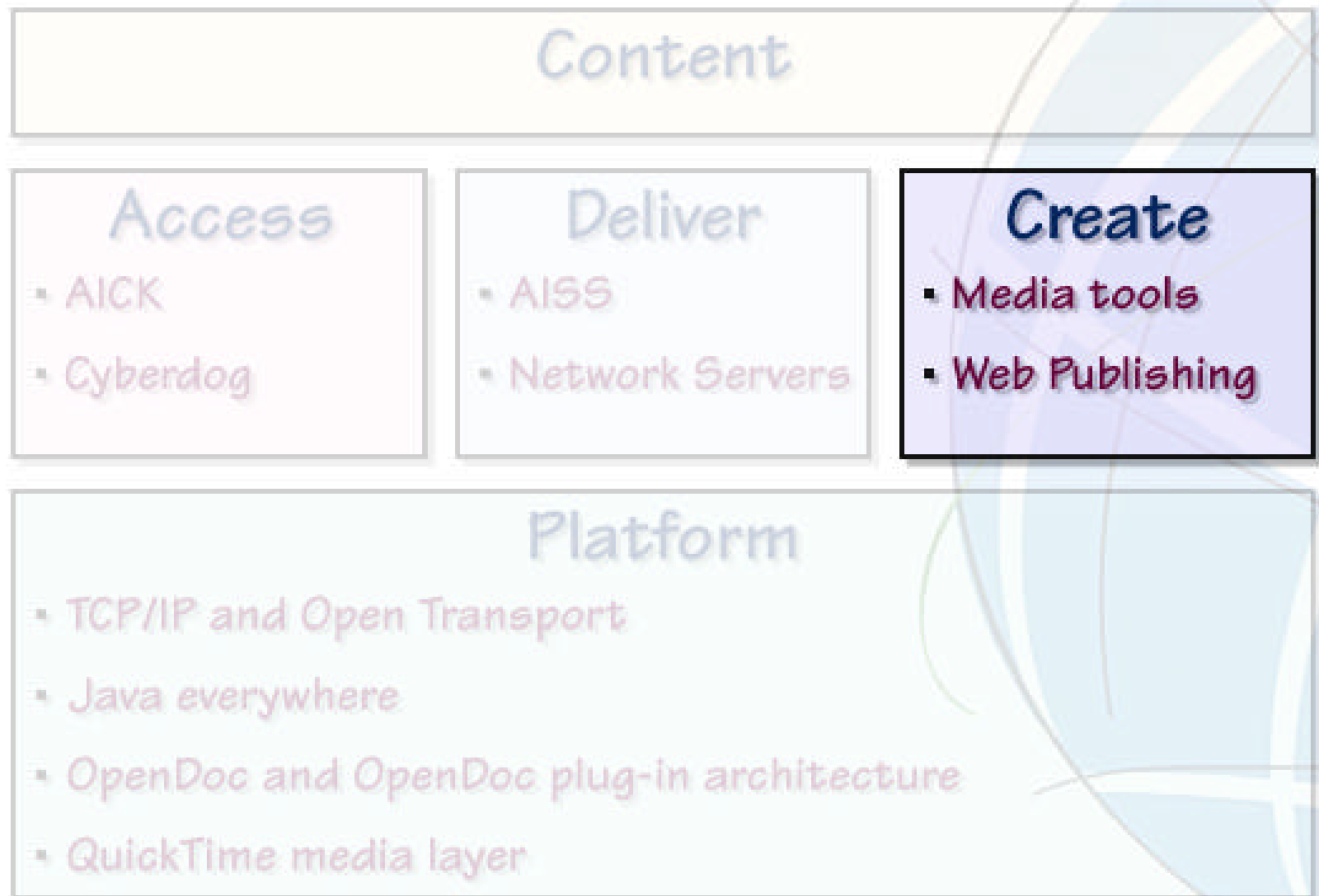
IDC Web Server Software Report 1/96

Internet Delivery: Servers

- **Apple Internet servers scale from the workgroup to the enterprise**

- **Apple Internet Server Solution (AISS)**
  - Mac OS based
  - Easy to setup and administer
  - Complete web server solution
  - 100,000s of hits per day

- **Network Server 500 and 700**
  - AIX based
  - Value added server hardware
  - Faster real time processing
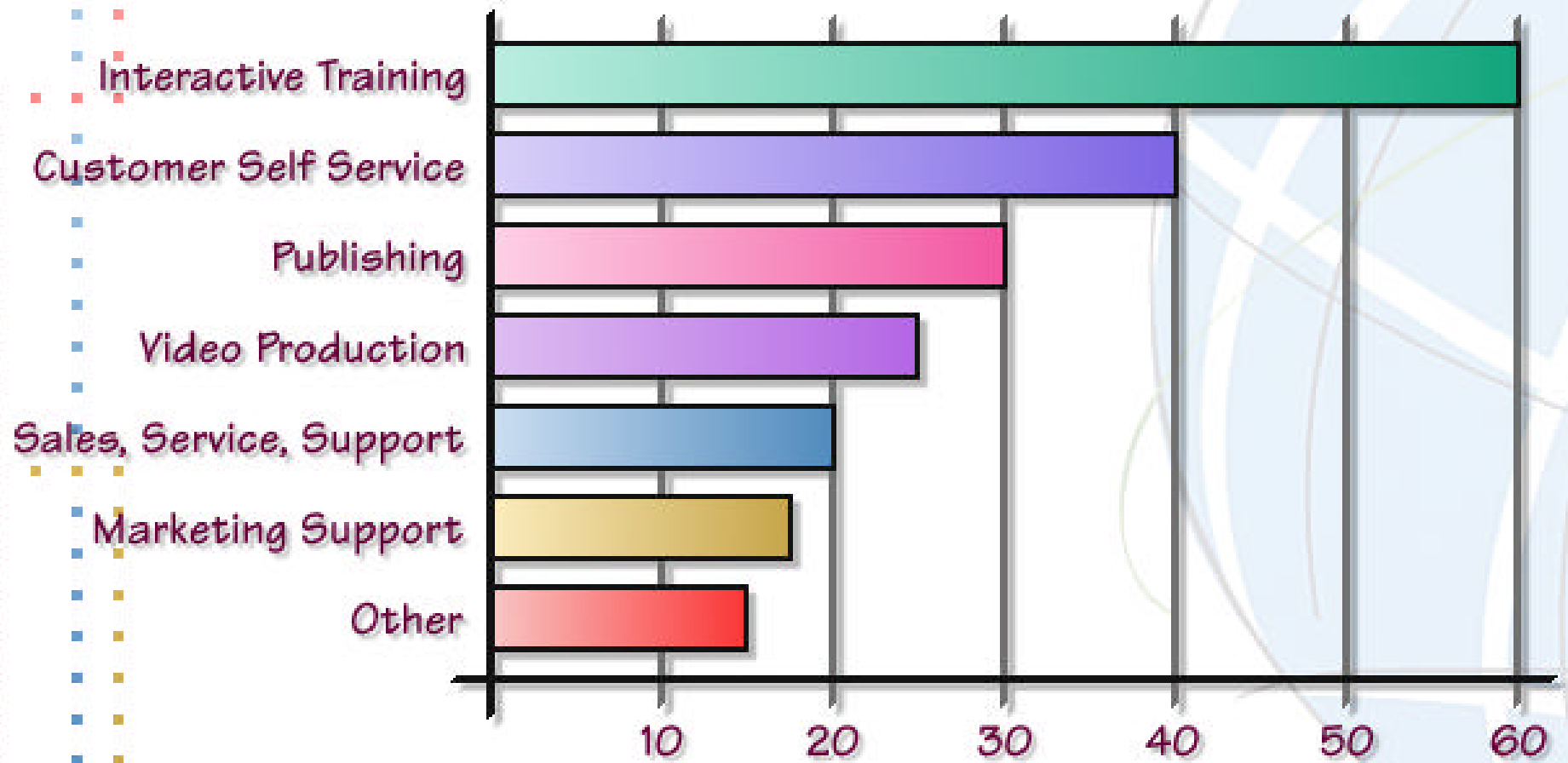 - 1,000,000s of hits per day
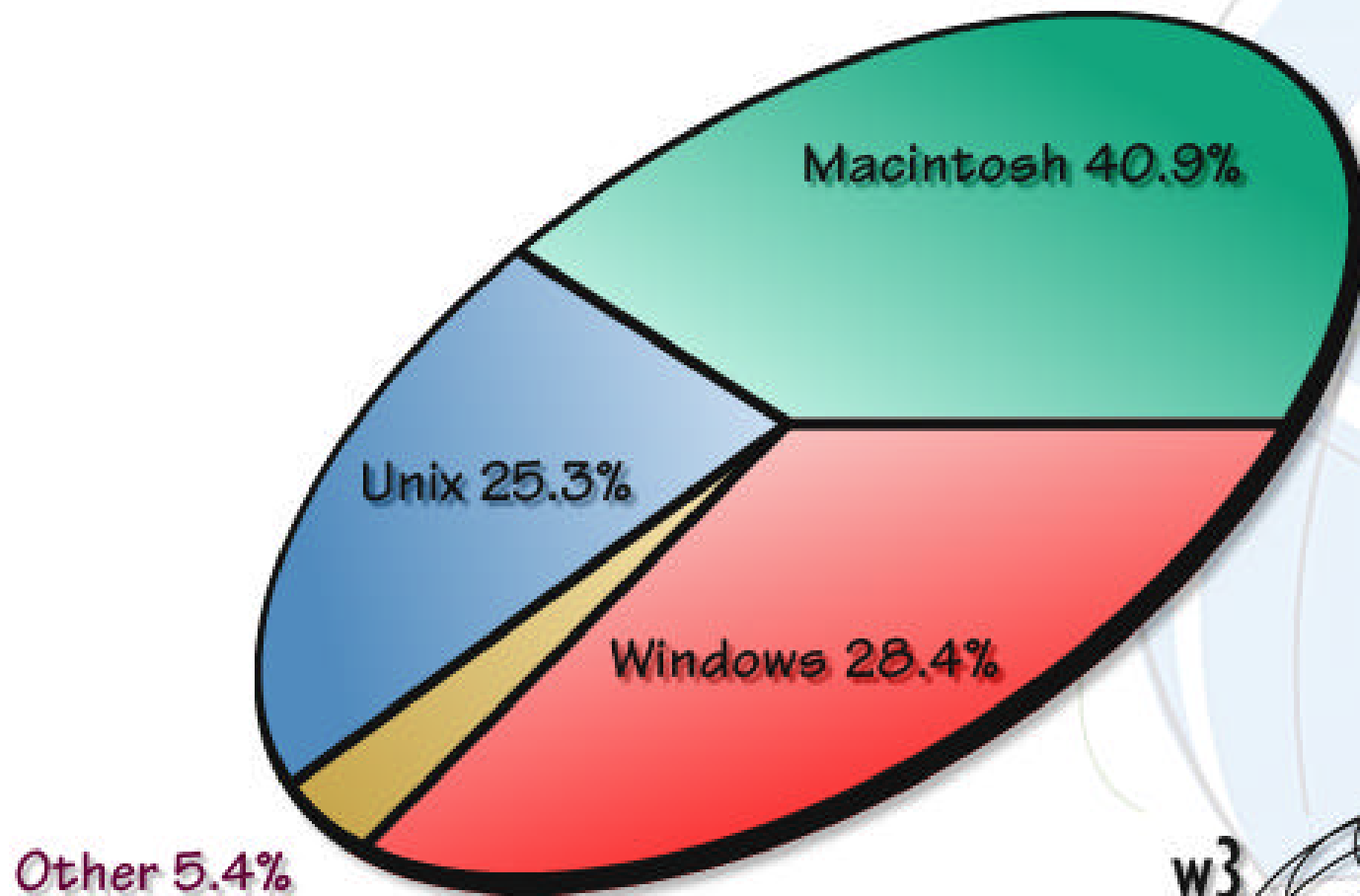
Apple Internet Value Chain

Content

Access
- AICK
- Cyberdog

Deliver
- AISS
- Network Servers

Create
- Media tools
- Web Publishing

Platform
- TCP/IP and Open Transport
- Java everywhere
- OpenDoc and OpenDoc plug-in architecture
- QuickTime media layer

IS Goes Hollywood?

IS intends to implement multimedia applications

Category	Value
Interactive Training	60
Customer Self Service	40
Publishing	30
Video Production	25
Sales, Service, Support	20
Marketing Support	18
Other	15

Source: Gartner Group

WWW Graphics Design

Macintosh 40.9%

Unix 25.3%

Windows 28.4%

Other 5.4%

w3

http://www.mirai.com

Internet Video Content

MPEG 34.1%

AVI 12.3%

QuickTime 53.6%
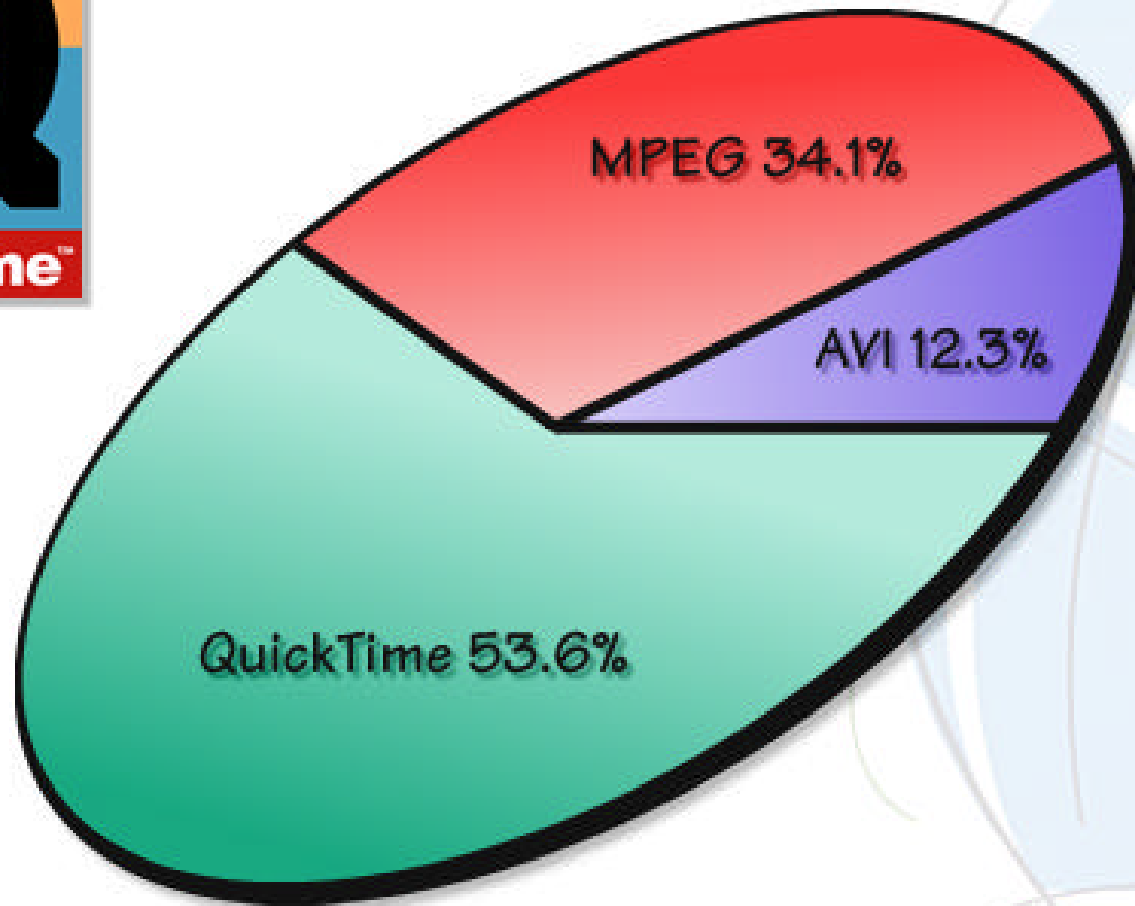
Source: Internet Multimedia Technology Survey

Internet Video Content

AVI 12.3%

QuickTime 2.5
Accessible 87.7%
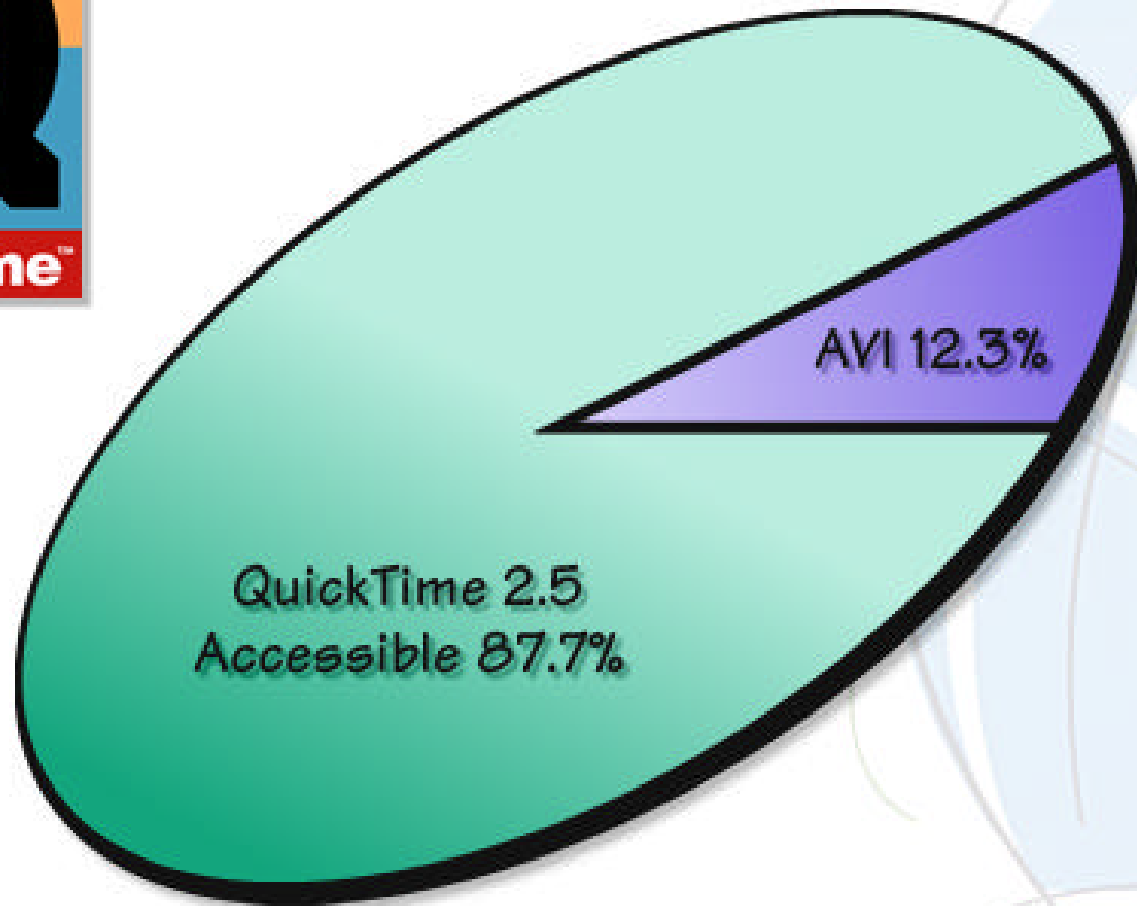
Source: Internet Multimedia Technology Survey

Internet Content Tools: Create

- **Extend leadership positions in publishing and media authoring to the Internet**

- **Work with developers to deliver:**
    - Media content creation tools
    - Electronic publishing tools
    - Web authoring tools
    - Dynamic web page tools
    - Innovative Java development tools

Summary

- Apple is committed to embracing open Internet standards
- Apple is contributing QuickTime and MCF to the Internet community
- OpenDoc component architecture integrates Multimedia and Internet everywhere
- Apple will make the Internet as easy to use as the Macintosh

The power to be your best

The power to be your best