Announcements

- Read Messerschmitt Ch 7 for Thursday.
- Folio 2 due Thursday (if you are doing a folio!)
- Database assignment to be issued Thursday
  - Tutorial sessions
    - 2 Nov 2010 Time: 9:00-10:30AM, Soc Sci Room135
    - 5 Nov 2010 Time: 4:00-5:30PM, BE 109
    - 9 Nov 2010 Time: 9:00-10:30am, social science 135
    - 12 Nov 2010 Time: 4:00-5:30PM, BE 109

Student Talks

Sun Case

(continued)

Sun N-tier case

- What does Sun make?
  - Workstations
  - Servers
  - Software

How Successful had Sun been up to 1998?

- Founded in 1982
- Open Standards Workstation
  - Unix Operating System (Solaris)
  - TCP/IP networking
- 1988 - Revenues $1 billion
- 1993 - Market value $3.0 billion
- 1997 - Jumped from 3rd to 1st in Unix Server Market.
How Successful had Sun been up to 1998?
- 1993 - "The network is the computer."
- 1994 - Internet explodes in popularity

Microsoft mid to late 90s
- Dominated Desktop software
  - Users familiar with Windows, Office, etc.
- NT servers
  - Fine for small intranets, "not industrial strength"

Sun N-Tier Case
- What is Java?
  - Programming Language
  - Portable between computers with different operating systems
  - Easy to write programs in
  - Easier re-use
  - But, programs are slow

What problems did the micro era produce?
- Desktops are expensive to maintain
  - TCO for windows PC $9900!
- Every PC had a lot of software that had to be maintained
  - Office, Windows, etc...
- Small differences, like the order in which software is installed, could make different PCs behave differently!

Sun's Vision
- Thin Client model.
- Application Servers with Applications written in Java.
- NCs could retrieve applications from application server as needed.
- Applications compatible with any NC hardware and OS.
- Applications could be fixed, added, updated at the server level, rather than maintaining each PC.

Microsoft Vision
- Keep "fat-client" model
- Add some features to Windows to reduce administration costs
Today

- 3-tier model common.
- Sun's version of 4-tier model not common.
- N-tier model where Webserver and Application Server on separate equipment also common.
- Sun's hardware business not strong.
  - Linux on cheap PCs most common servers
  - Microsoft desktops replacing Sun workstations

Today

- Java
  - Common in Server implementations
    - Example: Java Servlet implementing application logic in a banking application.
  - Often used to push simple applets onto client
  - Not common
    - For "big" desktop applications
    - Office Suite in Java not popular
  - Microsoft is still in business...
What could have Sun done?

- Compete on price with cheap PC servers running Linux?
- Sell a fat-client workstation that runs Windows and is price competitive with Dell, HP PCs, etc...
- Sell workstations at a price premium over PCs, focus on software reliability, run some Microsoft application, build brand cachet.
- Focus on Java based software and IT services for enterprises, withdraw from low-end hardware...
- Something else?