

CIS 100

Module 15: Fall 2008

Business

- ◎ Monday 24-November is a lab only day. I have to present my Forensics paper in Baltimore.

Mobos

- ◎ **Biggest issue is to match**
 - FSB
 - Components
 - With what you want.
- ◎ **The MOBO will be the single greatest determinant of what you can do with that system.**

Issues

◎ Number of CPUs

- Usually 1 but “server” mobos often have more.
- Server mobos are usually just “better” and more complicated mobos.
- Server mobos often have some limited features and rarely have video or audio (that’s good) capabilities.

Issues

- ◎ Amount and type of RAM
- ◎ Mobos are usually limited to sizes and configurations (number of trays).
 - Common are 2 trays and 4 trays
 - Remember 4Gb limit
 - Remember dual channel requires two sticks

Issues

◎ Power Molex requirements

- 20 and 24 are common
- Some require additional 12 volt molexes.
- Better power supplies usually can accommodate everything but check and see.

Issues

◎ Card Slots

- EISE – very old and uncommon these days
- PCI – Older but still common to have 1 of these. Used for lots of audio, NICs, and other add ons.
- PCIX-8 and PCIX-16 – usually video slots but you have to be sure you the right one for the card(s) you want.

◎ Should be listed in the spec. Be sure there are enough for your needs.

Issues

◎ Size

- ATX
- Micro-ATX
- Extended-ATX

BUS Size

◎ 32 vs. 64 bits again

Most common problems

- ◎ Fit in case is the biggest problem.
- ◎ Don't forget heat sink placement problems due to weird CPU locations
- ◎ Mismatch components
 - ZIF Sockets etc.
- ◎ Missing expansion ports

Tips

- ◎ Pick your processor
- ◎ List what add-ons you want
 - Any decent desktop for anything beyond Office type use will need add on video.
 - Add on audio is the other common expansion
 - Most mobos have built in nics now (but check and see)
 - Some mobos have built in wifi now

Tips

- ◎ **Check your video wishes**
 - Against your monitor
 - Against your mobo
- ◎ **Check your audio wishes**
 - Against your speakers
 - Against your mobo
- ◎ **Check your RAM needs**
 - Against your OS/Apps
 - Against your mobo
 - Use the configurator if possible.

Tips

- ◎ Check sizes against the case you have/are buying.
- ◎ Verify your power supply
- ◎ Google the CPU, MOBO, and other pieces for problems.
- ◎ Think about heat and keep an eye out when you google.

Intel vs. AMD

◎ Read up and see at any given time.

MOBOs

- ◎ I like (notice I said like, not recommend or anything)
 - Biostar – website terrible
 - ASUS – website even worse than biostar
 - DSI – be careful about their flashy products – website terrible
 - ABIT – website not so bad as ASUS but worse than DSI

MOBOs

◎ I Don't like:

- MSI – some people really like them but I have had problems with their low end stuff
- EPOX – I used to LOVE EPOX but their website is basically useless now and there started to be issues with their boards

MOBOS

◎ Other MOBOS I have used

- INTEL – Their server boards are nice but very hard to use and expensive. Some products like their XEON chips don't work in other boards.
- TYAN – High end server boards. I have always had good experience with them but their website and docs are terrible.

Last word

◎ Remember

- Server boards assume you are an expert and usually have no video or audio capabilities.
 - Server boards may have limited capability for video and so forth.
- ◎ Be sure and google parts and make sure there aren't severe problems.
- ◎ Be sure and check out the components on the company site **BEFORE YOU BUY** and see if the website will meet your needs.