* same code base as workstation equivalent
* network server applications and client licensing
* command line operation

Commercial versus Open Source
* Commercial OS
  * user must purchase license
  * proprietary code kept secret by vendor
  * MS Windows, Apple macOS, Apple iOS
* Open Source OS
  * programming code freely published
  * can be ~~re~~ reused (with some conditions)
  * UNIX, Linux, Android

Embedded OS
* OS designed specifically for embedded CS
*

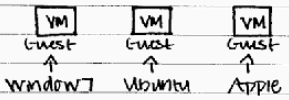
Cyber Notes

03/11

Physical computer is ~~some~~ called a host

Host "real deal"

"Hypervisor" another name for application VM ware is an example of an application, which could create virtual machines

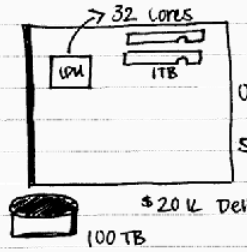


Virtual machines MUST share the same CPU, RAM, and Storage. These 3 factors are highly important in how these virtual machine will run. Virtual machines can have different CPU, RAM, and Storage FROM ALL GUEST!

For Example:

VM 1: Window	VM2: Ubuntu
CPU: Intel	CPU: AMD
RAM: Corsain	RAM: Intel
Storage: SCSI	Storage: SATA

Key is the Processor or CPU



Two types of hypervisor: Native (BM) and Hosted

Type 1: BM	Type 2: Hosted
Hypervisor	Hypervisor
↑	↑
Host	Host OS
	↑
	Host

Benefits
1). Cost- Savings
2). agility and speed
3). lower downtime

Cyber Notes

Linux

128	64	32	16	8	4	2
0	0	0	0	1	0	0
0	1	0	0	0	0	0
1	1	1	1	1	1	1

Binary

128	64	32	16	8	4	2	1	
1	1	1	0	0	1	0	1	229
1	0	1	0	1	1	1	0	174
1	1	1	1	1	1	1	1	255

255
- 229
(26) → ZERO
- 16* (0)
10
- 8* (0)
2* (0)

255
- 174
(81) → ZERO
- 64* (0)
17
- 16* (0)
1* (0)