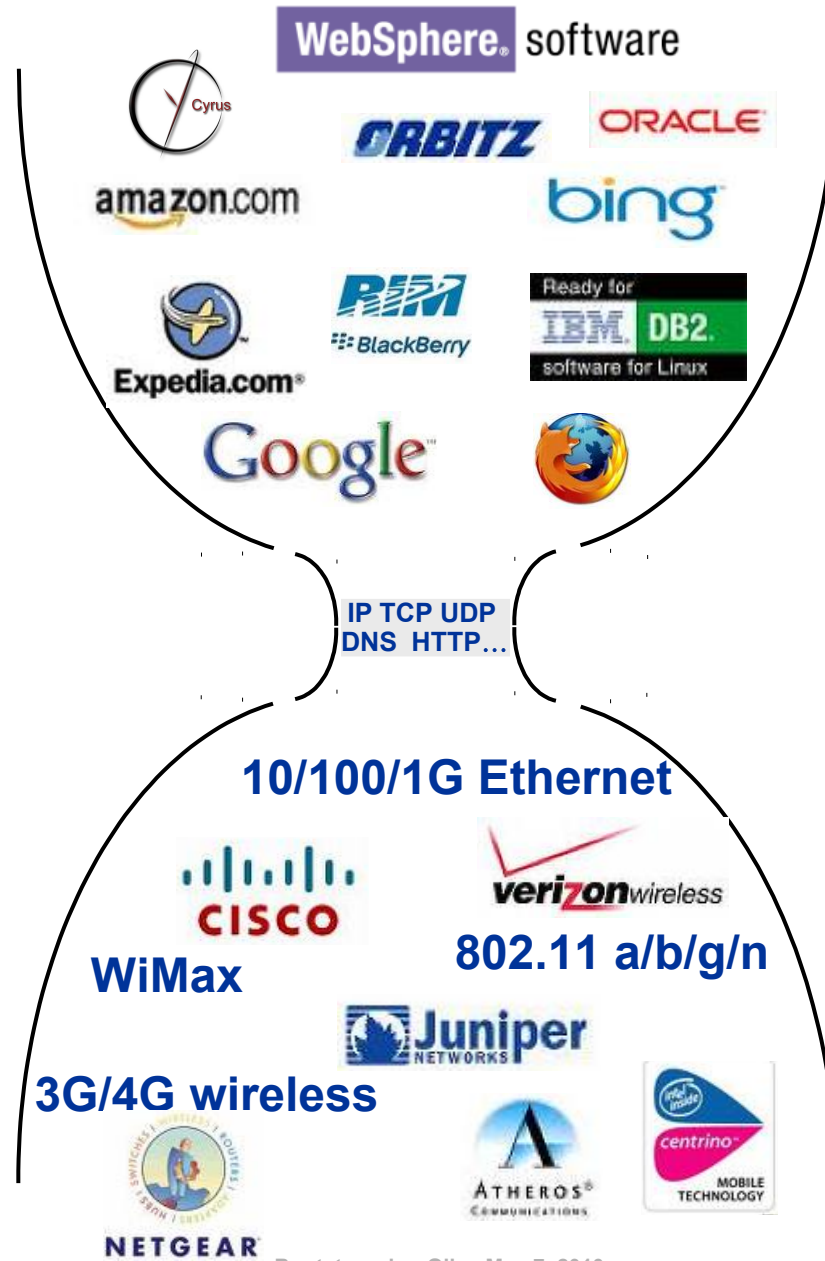
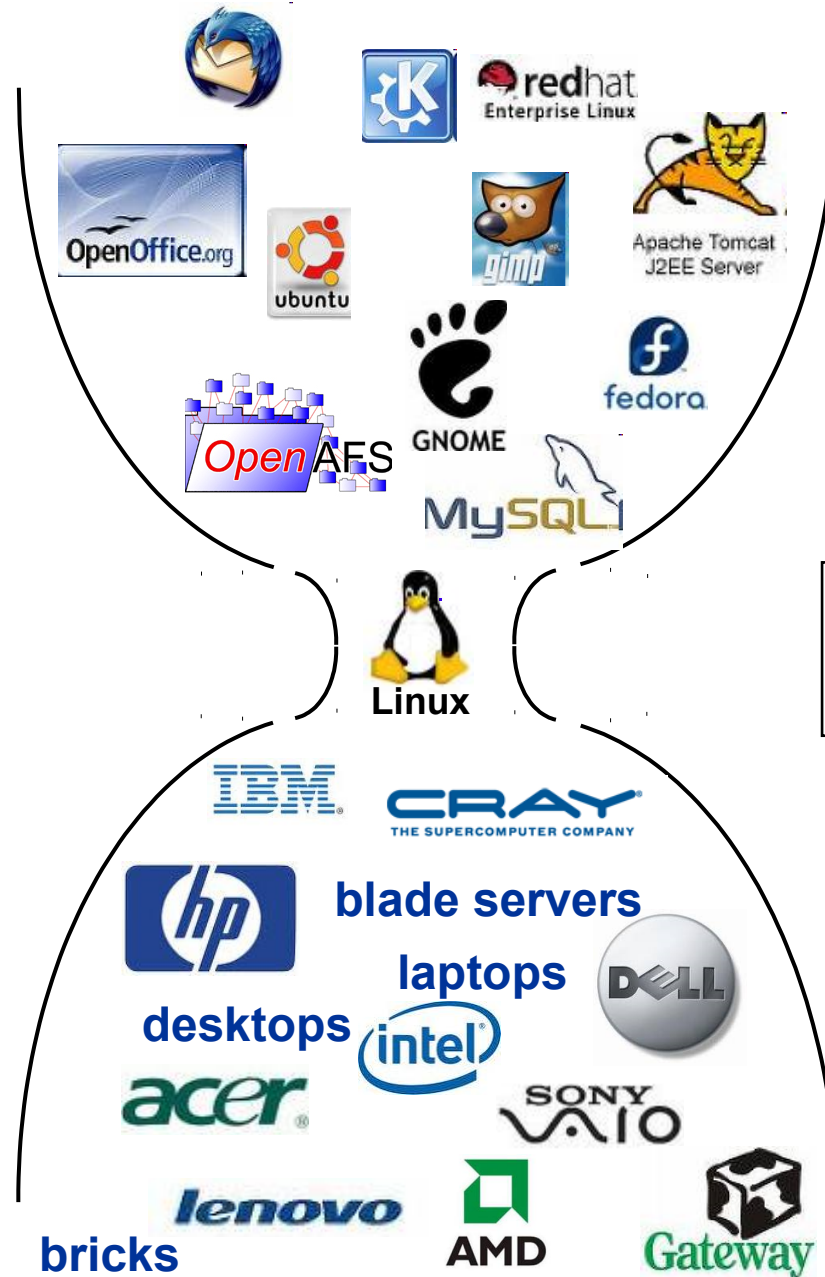


Bootstrapping Olive

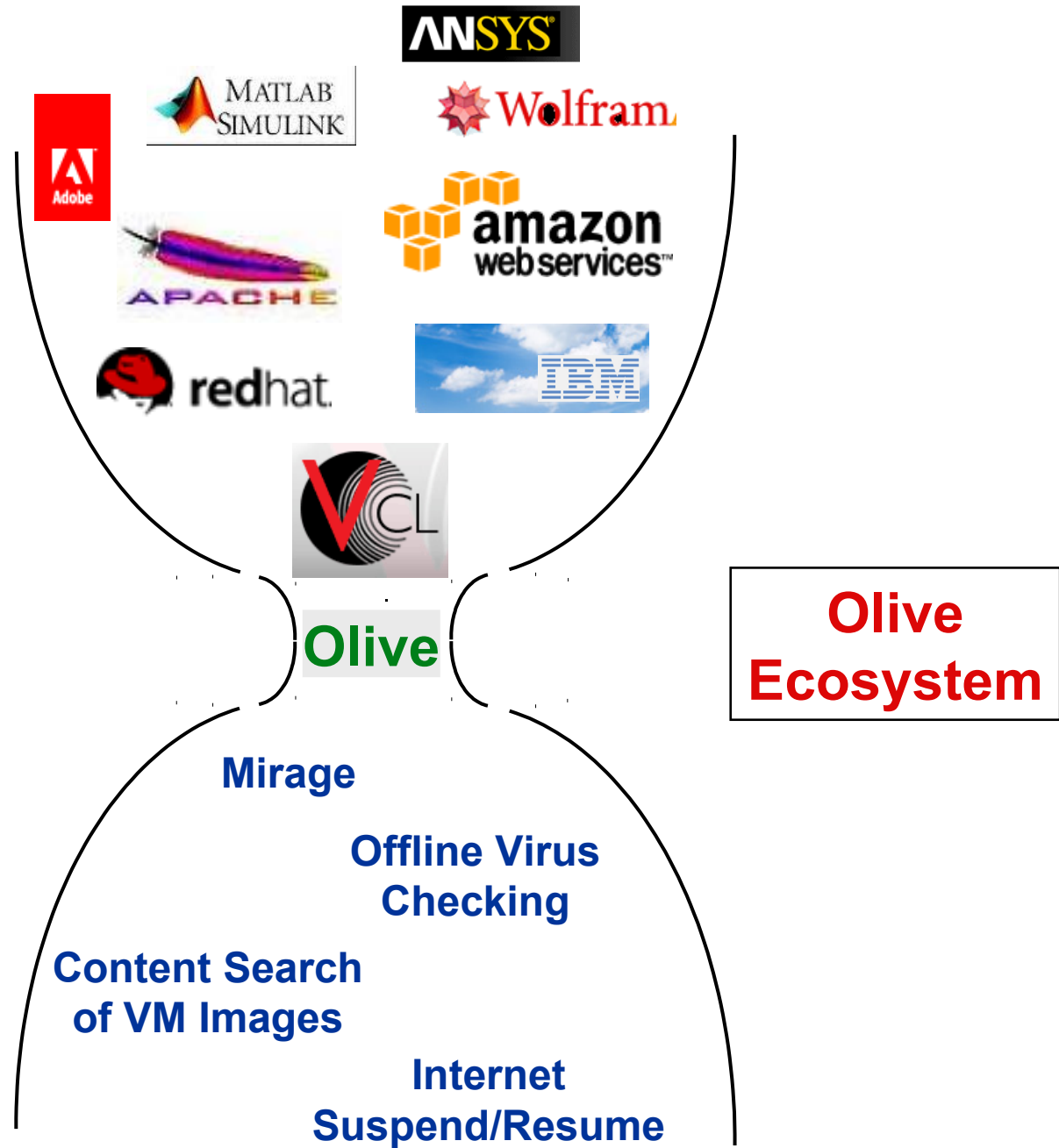
Mahadev Satyanarayanan
School of Computer Science
Carnegie Mellon University



Internet Ecosystem



**Linux
Ecosystem`**



Global Olive

Few instances
1 to 10 worldwide

- librarian viewpoint
- ~10 to 100 year timescale
- no execution capability
- archiving & preservation concerns foremost
- provenance tracking critical
- rigorous licensing scrutiny and enforcement
- heavyweight publication process
- not in mission-critical path

few to many
relationship

Cloud Olive

Numerous instances
10 to 1000 worldwide

One or few per
Fortune 500 enterprise

vcl.ncsu.edu, vcl.gmu.edu,
watson.rc2.ibm.com,
zurich.rc2.ibm.com,
almaden.rc2.ibm.com, ...

- cloud operator viewpoint
- ~1 to 5 year timescale
- reliability and availability concerns foremost
- usage metering important (for some licenses)
- revocation of licenses possible
- lightweight publication process (within cloud and from edge to cloud)

one to many
relationship

Edge Olive

Myriad instances
 10^2 to 10^6 per cloud

- end user viewpoint
- crisp interaction foremost
- availability important
- disconnected operation possible
- “disposable” computing hardware

Z axis
Software
Publishers