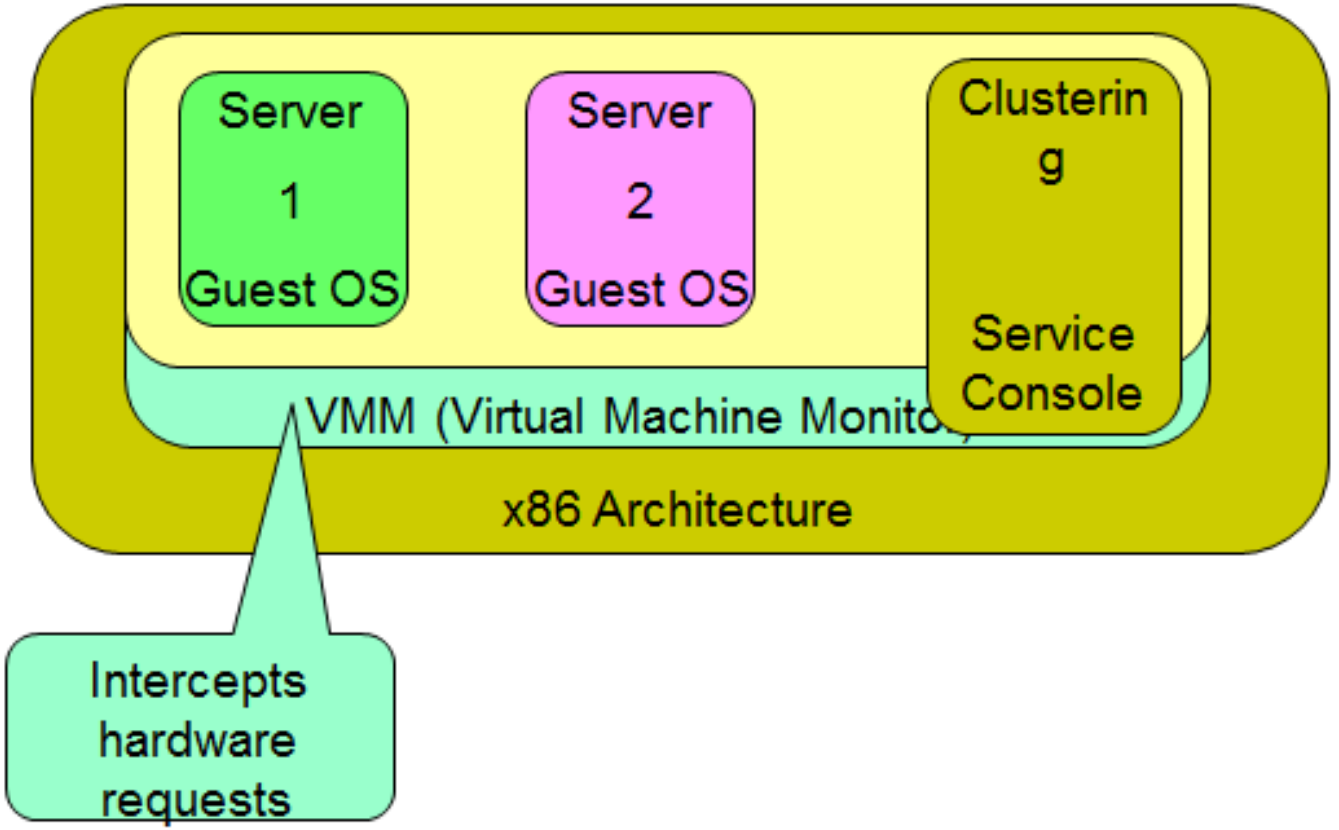
Server Virtualization



Server Virtualization

- Virtual servers seek to encapsulate the server software away from the hardware
- This includes the OS, the applications, and the storage for that server.
- Servers end up as mere files stored on a physical box, or in enterprise storage.
- A virtual server can be serviced by one or more hosts
- One host may house more than one virtual server

Server Virtualization

- Virtual servers can still be referred to by their function i.e. email server, database server, etc.
- If the environment is built correctly, virtual servers will not be affected by the loss of a host.
- Hosts may be removed and introduced almost at will to accommodate maintenance.

Server Virtualization

- Virtual servers can be scaled out easily.
- If the administrators find that the resources supporting a virtual server are being taxed too much, they can adjust the amount of resources allocated to that virtual server
- Server templates can be created in a virtual environment to be used to create multiple, identical virtual servers.
- Virtual servers themselves can be migrated from host to host

Server Virtualization

- Pros
  - Resource pooling
  - Highly available
  - Rapidly deploy new servers
  - Easy to deploy
  - Reconfigurable while services are running
  - Optimizes physical resources by doing more with less
- Cons
  - Slightly harder to conceptualize
  - Slightly more costly (must buy hardware, OS, Apps, and now the abstraction layer)

References

- *Cloud Computing*, Sandeep Bhowmik
- Inforit: https://www.informit.com/articles/article.aspx?p=2093407&seqNum=2