

- 1) What are some application-layer protocols, and what are they used for?  
HTTP – Used often for communication of hosted information on the internet (web pages)  
FTP – Used often for transfer of files without a web interface (uploading, etc)  
SMTP/IMAP/POP3 – Email protocols  
DNS – Domain name resolution (from www.google.com to 173.194.33.176, etc)  
SCCP – used in VoIP  
etc..
- 2) How is client-server architecture different from peer-to-peer (P2P) architecture?  
In a client-server architecture, the server is always on and waiting for requests from clients, so when a request is received, the server can respond to the client. The client initiates communication with a server by sending a request.
- 3) We call a program that is running on a host a process.
- 4) What is the minimum necessary information for identifying a process on a remote host?  
What do we call this identifier?  
What do we call a pair of these identifiers (one on each end host)  
IP address & Port Number (process)  
Together, we call this a “socket” (or endpoint)  
We call a paired set of two sockets a “connection”.
- 5) What internet service uses default (“well-known”) port #606?  
(Hint: This is quite deeply buried in RFC #1700.)  
Cray Unified Resource Manager (URM)
- 6) How does a client application communicate with a server application, after the connection has been established?  
By sending data into a the socket involved in that connection