

Elec 6861 – Higher Layer Telecommunication Protocols

Mid-Term Exam

Question 1

Give two examples of architectural approaches for cross layer design and for each one of them give an example of implementation approach that could be used to implement it.

Question 2

Give two examples of design decisions made for DNS and give an example of requirement / design goal that is met by each design decision.

Question 3

How is data stored in an unstructured peer to peer overlay? Give an example of the advantages and an example of the disadvantages.

Question 4

Let us assume John and Mary have established a call. During the conversation Mary decides to transfer the call to Alice at Alice office number. When the call reaches Alice office number, it is answered by the Interactive Voice Response (IVR) of the office. The IVR then ask John to enter Alice extension. When the extension is entered the call finally goes to Alice who answers. Draw a sequence diagram with SIP messages starting from when Mary transfers the call to Alice office number to when a call is finally established between John and Alice. The following entities should appear on the diagram: John, Mary, IVR and Alice.

Question 5

Give two examples of techniques that can be used to enhance the performance of Web servers.

Question 6

Give two examples of mail submission protocols