Answer ALL Parts of the Question.

A large multinational company has a long, and successful history of installing conventional telephone, facsimile and data communications networks. It has heard about the new services that can be offered over the Internet, and wants to thoroughly modernise its operations. It will do this by sending- out a Request for Tender to a number of suppliers - for services, equipment and software; it will then evaluate the responses it receives. A *Request for Tender* is a document sent to suppliers stating- the services and equipment the suppliers should provide, and the criteria they should meet; it invites them to state what they would provide, when and how they would provide it, and what the price would be. Because the company does not fully understand the technology or the services required for this modernisation, it decides to hire a consultant with the following briefs:

1. Outline of the sorts of traffic and service estimates that the operating, parts of the company should provide for the preparation of real Request(s) for Tender

2. Prepare an outline specification of the sorts of services that should be required

3. Prepare an outline of the sort of technical questions that those scanning, the responses for Request(s) for Tender should ask, and the criteria by which the responses should be judged.

[20 Marks]

Clearly these briefs are too vague, and after starting the consultant ascertains the following,:

The company has main sites in 5 European major capitals (including London), and one each on the East (New York) and West coasts of the US; the London and New York are the main data centres. Its current data requirements for internal interactive transaction and file transfer services already justify 34 Mbps between London and New York, and at least 2 x El service from London to each other European capital site, and 3 x T1 between New York and the West Coast centre. There are three secondary sites in the catchment area of each main site, and some dozen salesmen who work from home near each secondary site. Several hundred people work at each main site, and several dozen at each secondary site.

The internal services that the company knows it wants to provide include the following,:

a) Monthly new product announcements, including video, simultaneously to all the primary and secondary sites; these should allow interaction with personnel at those sites. If possible, the salesman should also be able to watch the presentations and interact with them - possibly with reduced performance. If any are unable to watch the presentations at the time, they should be able to watch them that evening.

b) Regular weekly sales and strategy discussions between staff at a number of the sites; here again video is considered important.

c) Sensitive electronic mail between the employees, even if they are working from home.

d) While employees are in post, their document files should be kept encrypted. There should be reasonable assurance that if employees leave, the documents that they have stored will be accessible by other company employees.

[40 Marks]

Amongst external services to be provided are the following:

a) Access to product data, brochures and price lists, in a convenient way by electronic means to customers and retailers;

b) Electronic commerce with other companies and suppliers;

c) Confidential video conferences with other companies

d) Ability to invite people from other companies to selective parts of the monthly product meetings.

Indicate as much as you can of what the consultant should respond on each of the above three briefs.

[40 Marks]

End of Paper