

Exercise 1

1 LAN Design (First Try, 3 Points)

You are an IT expert at OV&B, a well-known IT consulting company. One day Professor X, the head of the computer science department at city Y calls you. He is very excited, because the HAL company has approved a new institute on multi-media technologies at the Y campus. The institute will be placed in a new building, including servers, administration, 5 floors and on each floor there will be a research group of about 50 people. Professor X asks you for an IT project proposal that covers the overall IT network infrastructure for the new building.

Prepare a proposal. What are the most important topics to be addressed?

2 LAN Properties (First Try, 3 Points)

Assume you are responsible for the LAN in a reasonably big company. Name the top three properties you would like the LAN to be and give for every property a short explanation.

3 Reliability of Service (First Try, 4 Points)

Typically, a service is rated of type 1, if an outage of the service must not last longer than 4 hours. It is of type 2, if an outage of the service must not last longer than 8 hours. It is of type 3, if an outage of the service must not last longer than a day.

1. Discuss for each of the three services email, computation, file service scenarios where the services should be rated of type 1, 2, 3.
2. A typical network hardware contract includes a break fix service in 4 hours and a faster break fix service is typically not affordable. What does this mean for services that are ranked type 1?

Write your name on every sheet of paper. Write in a readable way. Think of it.