

INU PESH

Pg # 01

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Programme : Bs (Tele)

Subject : QoS

Exam : mid term

Submitted to :

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Q # 1 :-

PART a) :- Define QoS and explain its importance.

Answer :- Quality of Service (QoS) refers to any technology that manages data traffic to reduce packet loss, latency and jitter on the network.

QoS controls and manages network resources by setting priorities for specific types of data on the network.

Importance of QoS :

1. Growth of real time network application is fast.
2. Growth of bandwidth cannot catch up the needs.
3. Simply expanding bandwidth is not effective.
4. Solution: Good management of bandwidth.

Q # 1 :-

PART b) :- One of the principles of defining and measuring QoS is Cost Effectiveness. Explain how does it help in measurement of QoS.

Answer :- Cost - Effective

- This measurement of QoS can be realized only when the means of quantifying or estimating any measure is consciously selected on the basis of consideration of both the intended use of the measure and readily available sources of data.

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Explain how does it help in measurement of QoS ?

⇒ Explanation :-

In multiservice networks, QoS monitoring needs to be carried out in a per-class basis so that each service class measuring requirements and behavior are met and sensed properly. Facing the shortage of off-the-shelf class-based monitoring tool oriented to multiservice networks.

In this context, after discussing main QoS monitoring issues, we propose a flexible QoS monitoring Java application, totally user parameterized and supporting service differentiation. Benefiting from an edge-to-edge design perspective, this service-oriented tool is able to make periodic evaluation of relevant QoS metric for each service class,

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on an intra-domain or end-to-end Path basis.

Monitoring result, stored in a MySQL database, are useful to drive both online and offline traffic engineering and Service management tasks.

Q#2 :- Evaluation of QoS is done on the basis of 3 interrelated properties:

1. Intrinsic Quality
2. Perceived Quality
3. Assessed Quality.

Explain these 3 qualities and tell that how are these three interrelated.

Answer:-

1. Intrinsic Quality :-

⇒ Intrinsic Quality of Service is what may make a particular Service attractive to a buyer in the first place.

⇒ Intrinsic quality is achieved via:

- Technical design of the transport network and terminations, which determine the characteristics of the connections made through the network.

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- Provisioning of network accesses, terminations, and switch - to - switch links, which determine whether the network will have adequate capacity to handle the anticipated demand.

2. Perceived Quality :-

Perceived quality refer to the quality that customers acknowledge via the look, the touch, and the feel of a car.

For example, in a showroom, the customer would first take a glance around the car, then open the door, sit on the seat, and check the quality of the details.

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3. Assessed Quality -

Quality assessment is the data collection and analysis through which the degree of conformity to ~~data~~ predetermined standards and criteria are exemplified.

If the quality, through this process is found to be unsatisfactory, attempts are made to discover the reason for this.

⇒ Intrinsic interrelated to Perceived QoS:

- It is perceived, rather than intrinsic, quality that ultimately determines whether a user will be satisfied with the service delivered.
- Adequacy of Post Dial Delay (PDD).
- The intrinsic quality of a particular service w.r.t PDD is set by the design of the underlying network, depending on.

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- How Calls are routed
- Whether dialed digits are translated for switching.
- How variable length numbers are handled.
- node-to-node Signaling i.e. in-band or out-band.

⇒ Perceived interrelated to Assessed QoS:

- Perceived determines whether that buyer will find the service acceptable when it is delivered.
- Assessed determine whether the buyer will retain the service or dump it at the first opportunity.
- Basic requirement of Assessed quality is perceived quality is acceptable to the user community.
- Factors that result in unsatisfactory assessment.
 - Disconnect
 - Dropped
 - Bill