

DATABASE MANAGEMENT ISSUES IN MOBILE COMPUTING

Lesson 08

Quality of Service (QoS) Issues

QUALITY OF SERVICE (QoS) IN A MOBILE NETWORK

- Affected by network connectivity
- QoS tools measure the bandwidth availability, which controls data transfer rates, connection reliability, and data loss risks.

QUALITY OF SERVICE (QoS) IN GPRS NETWORK

- GPRS supports user specification of QoS (data throughput, delay, reliability, and precedence), and the radio interface allocates resources as per the QoS profile. Loss of connection affects QoS.

QoS

- Loss of connection affects QoS.

QoS NETWORK TOOLS

- Some network protocols, for example, WAP, take into account the issue of connection loss while maintaining the QoS., such as J2ME CLDC (Connection Limited Device Configuration)
- Support emulation of QoS of the network during application development

ADAPTING TO QoS

- An important consideration in distributed multimedia streams and for adapting of visual displays on small screen to a certain sustainable level in case of loss of connectivity and loss of frames

QoS OBJECT MODELS

- (i) QoS_capability (an object to model the capability)
- (ii) QoS_requirement and two interfaces—QoS_obligation and QoS_expectation
- (iii) QoS_contract and two interfaces—QoS_obligation and QoS_expectation

QoS OBJECT MODELS

- (iv) QoS_offer
- (v) QoS_constraint_container_type
- (vi) QoS_constraint_container and three interfaces—QoS_constraint, QoS_obligation, and QoS_expectation
- (vii) QoS_value and its extended objects—QoS_characteristic_type, QoS_type,

QoS OBJECT MODELS

- QoS_characteristic, and interface QoS_characteristic_feature

QoS_REQUIREMENT INTERFACES

- The object—QoS_obligation and QoS_expectation

SUMMARY

- QoS Object Models

End of Lesson 08

QoS Issues