

## Issues in Nomadicity as described by Kleinrock (1995)

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Enable interoperation among many kinds of infrastructures (e.g., wireline and wireless)

Deal with unpredictability of user behavior, network capability and computing platform

Provide for graceful degradation

Scale with respect to heterogeneity, address space, quality of service (QoS), bandwidth, geographical dimensions, number of users, and so on

Provide the user with an indication of the QoS he or she is currently receiving, the size of files about to be downloaded and so on

Provide for integrated access to services

Allow for ad hoc access to services

Deliver maximum independence between the network and the applications from the users' viewpoint as well as from the development viewpoint

Relieve the user from reconfiguring or rebooting each time the mode of communication access changes

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Match the nature of what is transmitted to the bandwidth availability (i.e., compression, approximation, partial information, etc.)

Enable cooperation among system elements such as sensors, actuators, devices, network, operating system, file system, middleware, services, applications and so forth

An integrated software framework which presents a common virtual network layer

Appropriate replication services at various levels

File synchronization

Predictive caching

Consistency services

Intelligent (adaptive) database management

Location services (to keep track of people and

Discovery of resources