

Nomadic wireless access systems including radio local area networks for mobile applications

(1995-1998-2000-2007)

The ITU Radiocommunication Assembly,

considering

- a) that there is a need to provide effective communication for moveable, portable and mobile computer based equipment not only within the workplace but also in many public spaces;
- b) that ITU-R has defined nomadic wireless access in Recommendation ITU-R F.1399 on vocabulary of terms for wireless access;
- c) that it is desirable to identify operational and technical characteristics for nomadic wireless access (NWA) systems including radio local area networks (RLAN) applications in the mobile service;
- d) that NWA systems including RLANs use frequency allocations designated for fixed and/or mobile services dependant on the application;
- e) that there are RLANs currently in operation and also in development for operation in various frequency bands (e.g. the frequency bands used for ISM applications);
- f) that in the broadband wired networks basic signal transfer methods based on asynchronous transfer mode (ATM) and internet protocol (IP) are being introduced;
- g) that the ATM and IP-based LAN using the high clock frequency may impact the design of NWA systems including RLANs as well as utilization of the radio-frequency spectrum;
- h) that there is a need to identify appropriate frequency bands for NWA systems in mobile applications;
- j) that technical constraints on NWA systems including RLANs may be needed to facilitate sharing with other services;
- k) that the standardization works of mobile NWA systems concerning architecture, technical features and spectrum needs are being studied by regional standardization bodies,

decides that the following Questions should be studied

- 1 What are the operational and technical requirements of NWA systems?
- 2 What specifications may be recommended for NWA systems?
- 3 What are the relationships of NWA systems including those based on ATM and IP with other radio systems to provide for multiple system operation?

* This Question should be brought to the attention of Radiocommunication Study Groups 1, 4, 7, 9 and of the Telecommunication Standardization Sector.

** Former Question ITU-R 212-3/8.

- 4 What types of system techniques, including multi-hop relay stations, provide for reliable area coverage for mobile NWA applications?
- 5 What are the frequency sharing or compatibility criteria between NWA systems including RLANs and other radio services?
- 6 What frequency bands are suitable for operation of NWA systems including RLANs considering the required operational and technical characteristics, and sharing compatibility with other services?
- 7 What amount of frequency spectrum is needed for NWA systems in particular for broadband applications higher than 10 Mbit/s ensuring wireless access from public spaces?

further decides

- 1 that the results of the above studies should be included in one or more Recommendations, Reports, or Handbooks;
- 2 the above studies should be completed by 2010.

Category: S2