IEEE 802.11

802 LAN Access Method for Wireless Physical Medium

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TITLE: A Report of Wireless LAN Standardization Efforts in JAPAN

AUTHOR: Hideaki Haruyama,

Research Scientist
Communication Systems & Technology Lab.
TOSHIBA CORPORATION
70, Yanagi-cho, Saiwai-ku,
Kawasaki, 210 JAPAN
Telephone: +81-44-548-5350
Facsimile: +81-44-555-7405

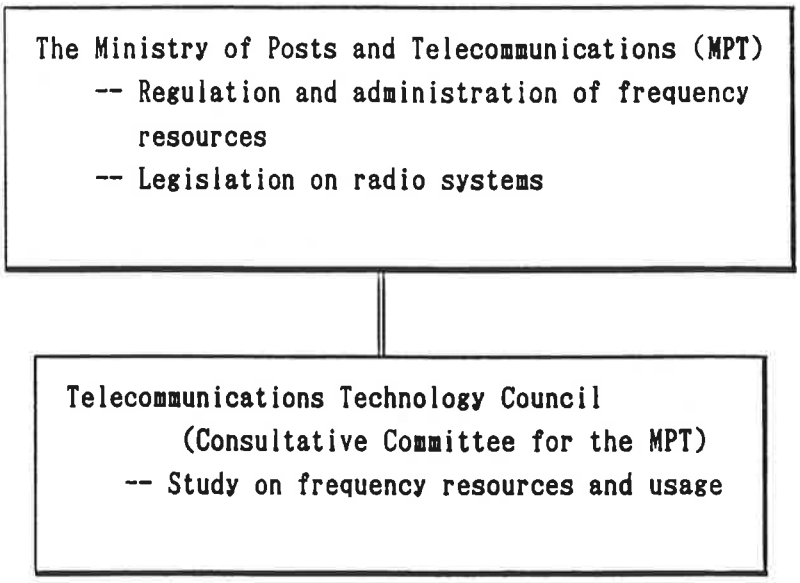
(Member of Wireless LAN Standardization Working Group,
Research & Development Center for Radio Systems in Japan)

SUMMARY

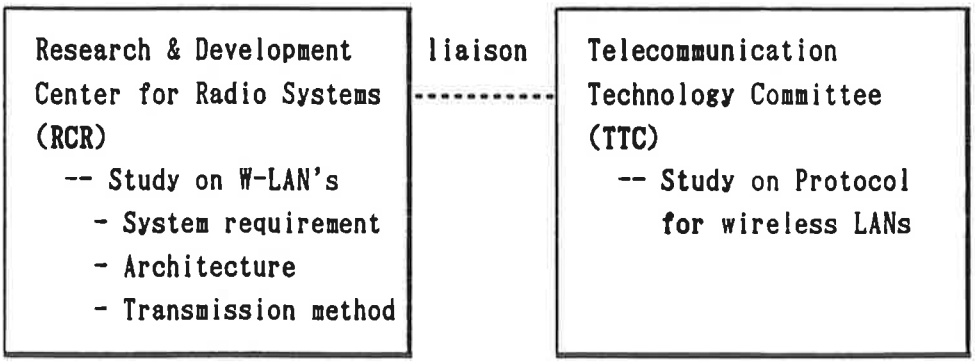
This report is aimed at introducing current status of standardizing wireless LAN in Japan. The organization for standardizing wireless LAN system, the target of the system, the current studies are shown.

THE ORGANIZATION FOR STANDARDIZATION

i) Regulatory Bodies of Wireless LANs



ii) Working Groups for Standardizing Wireless LAN



Current Studies of Wireless LANs

ISM band (2.4-2.5GHz)
-- 10Mb/s, CSMA/CD (IEEE802.3 compatible)
-- several hundreds kb/s (spread spectrum)

18-19GHz band
-- 10Mb/s, CSMA/CD, IEEE802.3 compatible

Schedule

May, 1991 Wireless LAN study group of RCR kick off
June, 1991 Wireless LAN WG under the study group kick off
Sept., 1991 Radio SWG under the WG kick off
- 2.4GHz band
- 18GHz band
- ISM, SS

Mar., 1992 Draft

Target

-- 10BASE5 compatible at AUI (Attachment Unit Interface)

Current Studies of ISM band Wireless LAN

-- Access method in air: CSMA/CD without access point
-- Information transmission speed: 10Mb/s
-- Packet loss: less than 4E-5 (packet length = 512 octets)
-- Collision detection failure rate: less than 4E-5
-- Bit error rate: less than 1E-8
-- Outage: less than 0.1% / service area / day
-- Throughput: 60% or more than that of 10BASE5
(shortest packet : longest packet = 8 : 2)
-- Maximum system delay: less than 49.9us
-- Service area: less than 20 meters radius / BSA
-- Required frequency bandwidth: 40 - 70MHz for 4 BSAs