

# A Technical Trend in Network

Fumio Shibui

## 1. LAN

The network which the computer of the range that a thing such as a company and school is said as local area network LAN. (Local Area Network)

Nowadays, one person one unit is comparatively, and those personal computers are connected to LAN in the company and school.

The outline of LAN is shown in the Figure 1.

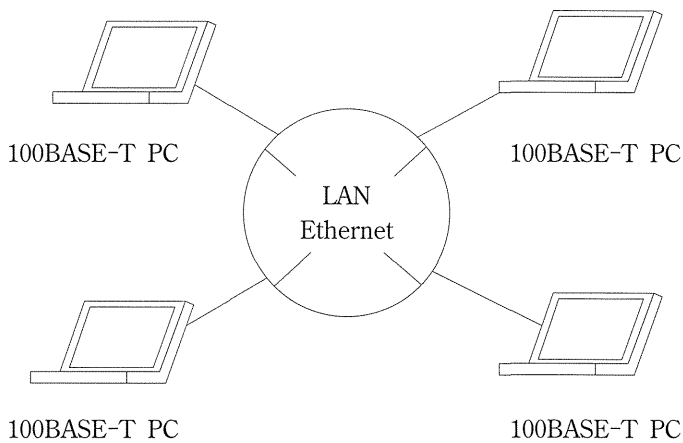


Figure 1 The outline of LAN

LAN is high speed Network and there is a transfer speed with 10M, 100M bit/s.

A cable is necessary to connect these though a personal computer and a peripheral device are connected to LAN.

A pair line, an optical cable, a radio, infrared rays, and so on are used for the cable of LAN with the same shaft cable.

Moreover, the LAN special network interface board, which connects a cable and a personal computer, is inserted into the personal computer, and a cable is connected to this board.

## 2. WAN (Wide Area Network)

Though, for example, LAN is the computer of each post of the head office and the branch of the enterprise is connected over the network inside the limited area, WAN is the network that an electrical and electronics engineers laid LAN of the head office and the thing between the LAN mutuality of the branches, and the Internet are used.

The outlines of WAN is shown in the Figure 2.

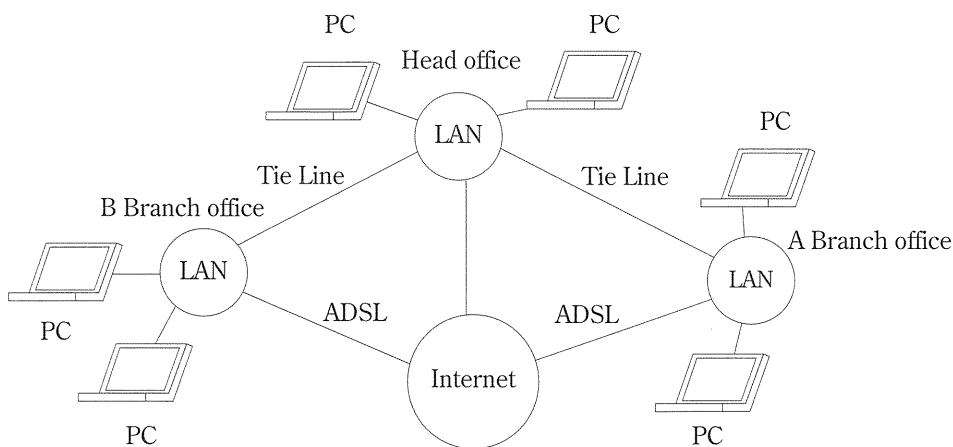


Figure 2 The outlines of WAN

An analog telephone network and ISDN, the packet network report service connect LAN's in the public line and the Tie line, and information is exchanged directly between LAN's.

The Internet is popularized widely, and WAN which the Internet was used for can be built at present, too.

Generally the Internet is used, and it builds WAN to connect LAN in the individual tied line because a circuit rental fee is expensive though a communication speed is high speed.

### 3. Broadband

Communication lines beyond 500kbps are mostly being called Broadband over the computer network realized by the diffusion of high-speed communication lines.

It is realized by using the cable communication technology such as ADSL which optical fiber and CATV, telephone lines were used for, wireless LAN and a wireless communication technology like the third generation cellular standard IMT-2000.

It has the various possibility by the telephone lines and the ISDN lines which the circuit doesn't have several 10 kbps, and the new service which an image and big capacity data such as a voice were used for has been appearing.

The outline Broadband is shown in the Figure 3.

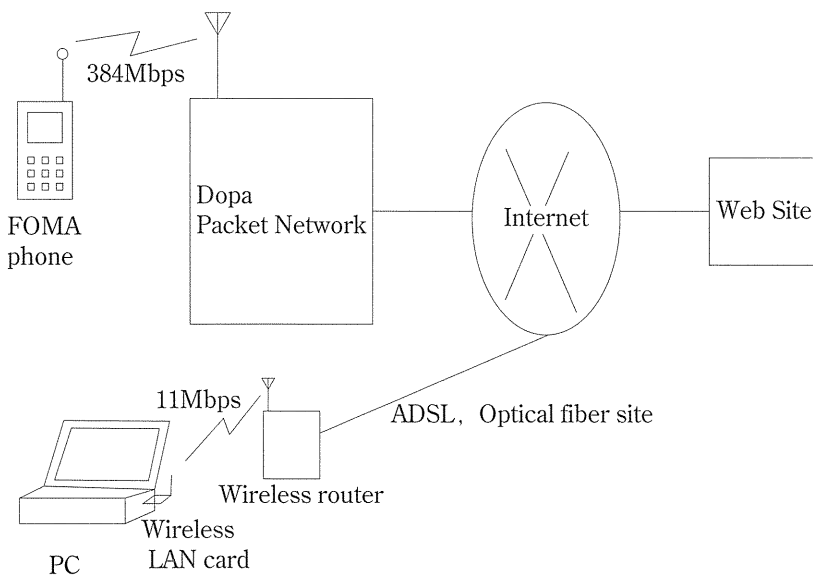


Figure 3 The outline of Broadband

### 4. i-mode

It is the name of an Internet connectivity service to provide by using the cellular phone network of the company the NTT DoCoMo group.

The outline i-mode is shown in the Figure 4.

There are information offer service which transmission and reception of the E-mail and WWW were used for, and an application service such as Internet banking and a reservation

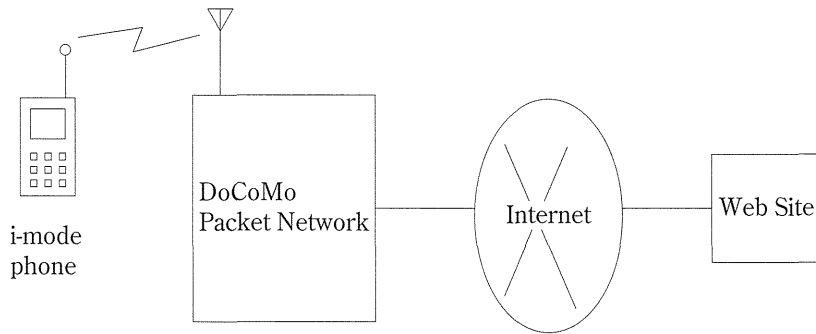


Figure 4 The outline of i-mode

for a ticket by using the cellular phone corresponding to i-mode.

Various enterprises provide a service for i-mode for a bank and a securities company, the credit card company, the newspaper company, the real estate company, and so on.

Recently the i-mode application service as well which makes it work is provided over the cellular phone Java application.

Browsing is made of the latest FOMA comfortably 384kbps.