

Title: PHS-FWA System:General Description of Network  
and System Configuration

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Version	Date	Outline
01	Dec. 17, 1996	Established
02	June 7, 2000	Changed all WLL into FWA

**PHS-FWA System:  
General Description of  
Network and System Configuration**

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This document describes general description of PHS-FWA network and system configuration.

## **1. Introduction**

PHS-FWA System is a new wireless access lines for ordinary telephone network, ISDN, or sometimes for limited mobile-phone network.

The system structure that is described in C-NW1.00. Readers can read it when they want to know the detail of the PHS-FWA system configuration.

The initial cost of PHS-FWA is often lower than that of cable access facilities, because aerial cables and drop wires are not needed, and because of the effect of line concentration. The initial cost of PHS-FWA is lower than that of all-copper-cable facilities when constant subscriber density is lower than a certain level.

PHS-FWA can be constructed in a short time and does not require facility arrangements for access to extensive cable paths. PHS-FWA also brings the advantage of easy management and maintenance other devices have been installed, because facilities arrangements only need to be made for the points at which the WACs, WCSs. Due to the above features, FWA is being adopted in many developing countries for the purpose of speedy preparation of initial-stage telecommunication infrastructures.

The influence of radio-propagation fluctuations is small in comparison with PHS for public use, because PHS-FWA WSUs are fixed, and transmission quality is thus improved. Installation and maintenance costs are expected to be reduced by future expansion of a cell radius. PHS-FWA can also be applied to relatively high-teledensity areas such as small cities by increasing of the number of carriers per WCS using group-WCS control or by more efficient use of radio frequencies though directional antennas.