MPAK Router

The MPAK Router (MPR) serves as a transparent gateway between fixed terminals (FST) and the Mobitex network. By taking advantage of the host group functionality in Mobitex, the MPR allows a single fixed terminal to appear at several connection points.

The fixed terminal can be virtually present at numerous locations in the network, while the MPR handles the additional complexity introduced by the host group functionality. No implementation changes are required in the application running on the fixed terminal.

The result is that the traffic load on upper levels of the network is reduced, thus allowing network utilization to be increased.

Management and supervision

The MPR is configured remotely through a command-line interface accessed via a telnet session to the machine on which the MPR software is running.

For supervision purposes the MPR uses standard SNMP agents. This solution makes it possible to use standard SNMP management software to supervise all alarms generated and to analyze performance metrics.

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MPR architecture
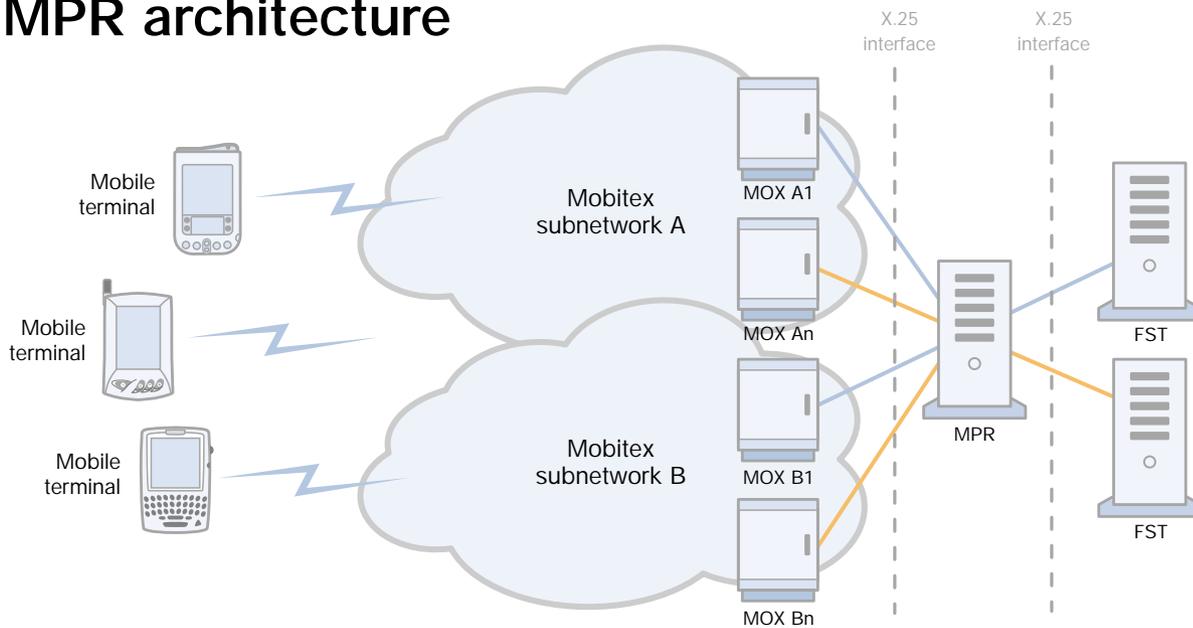
The MPR connects to several local area exchanges (MOX) in the Mobitex network, where it provides an interface between the Mobitex network and the fixed terminals (FST). When an MPR is used, the customer application host appears as a host group application in the network without any modification of the implementation. Connecting a fixed terminal through an MPR thus transforms the fixed terminal into a host group from a network point of view. The MPR keeps track of the MOX

with which a mobile terminal most recently communicated and uses this information to route packets from the fixed terminal. The location register of the MPR is updated by incoming traffic from mobile terminals.

Fixed terminals (FST) are configured with a subscription MAN number of the host group type in the network control center (NCC).

It is important to note that the MPR introduces no new hardware or software requirements in the Mobitex network.

Technical specifications

General

- Support for up to 10 fixed terminals, each connected to 1 to 31 different Mobitex local area exchanges
- Support for Mobitex host group functionality

Software requirements

- Solaris 8 operating system, 64-bit kernel
- A Solstice X.25 desktop slimkit version 9.2
- Java 2 SDK, version 1.3.1.10

Supervision & management workstation requirements

- SNMP manager (HP Open View 6 or higher recommended)
- A web browser, e.g. Netscape Navigator 4.5.1 (or higher), or Adobe Acrobat Reader for accessing MPR documentation

Hardware requirements

- A Sun Ultra 10 workstation equipped with at least a 333 MHz Ultrasparc II processor, 1024 MB memory and a 9 GB hard disk
- The workstation has to be equipped with a communication board configured for synchronous communication and an RS-449 (balanced) interface. A SUN HSI communication board (or equivalent) is recommended
- A SUN HSI cable kit with an RS-449 interface is required by the SUN HSI communication board
- Connection cables (optional):
  HSI - Cable RS449 for MXA / SUN HW RPM 113 6079
  HSI - Cable RS449 for MXB / SUN HW RPM 113 6078