

CELLULAR COMMUNICATION SYSTEM UTILIZING UPGRADED MOVING RELAYS
AND METHODS USEFUL IN CONJUNCTION THEREWITH

ABSTRACT

A moving cellular communication system comprising at least one upgraded moving relay including at least two base station functionalities and at least one mobile station functionality and a relay resource manager, all co-located, wherein each base station functionality from among the at least two base station functionalities of the upgraded moving relay is operative to communicate via antennae with at least one mobile station thereby to define a first radio link therebetween, and wherein each base station functionality has a connection to its co-located relay resource manager, wherein each mobile station functionality of the upgraded moving relay communicates via antennae with a unit which has base station functionality thereby to define at least one second radio link, respectively, wherein the relay resource manager in each individual moving relay comprises a radio resource manager; and functionality for exchanging information with relay resource managers is included in moving relays other than the individual moving relay.

Figure 1b