

Title (en)

WIRELESS COMMUNICATION SYSTEM WITH DYNAMIC CHANNEL ALLOCATION

Title (de)

DRAHTLOSES KOMMUNIKATIONSSYSTEM MIT DYNAMISCHER KANALZUTEILUNG

Title (fr)

SYSTEME DE COMMUNICATION SANS FIL A ATTRIBUTION DYNAMIQUE DE CANAUX

Publication

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Application

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Priority

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Abstract (en)

[origin: WO9733394A1] A plurality of base stations communicate with a plurality of mobile units. Each base station includes a base station transceiver that receives inbound information from the mobile units and transmits outbound information to the mobile units. A mobile switching center (MSC) is coupled to the base stations and communicates the inbound information and outbound information with the base stations. The base stations each include signal detectors that detect signal strength of the inbound information, co-channel information and adjacent channel information. The MSC maintains a table of signal strength per communication channel and allocates communication channels to the base stations based on the signal strength information. The inventive dynamic channel allocation includes several channel allocation algorithms that can be active at the same time. Only one of the algorithms is active at a time. The choice of the algorithm is based on current interference conditions and traffic load. The invention is implemented in the MSC and base stations of a digital cellular network using wideband technology for its air interface.

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