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(54) **Title:** COMMUNICATIONS METHOD, APPARATUS AND COMPUTER PROGRAM
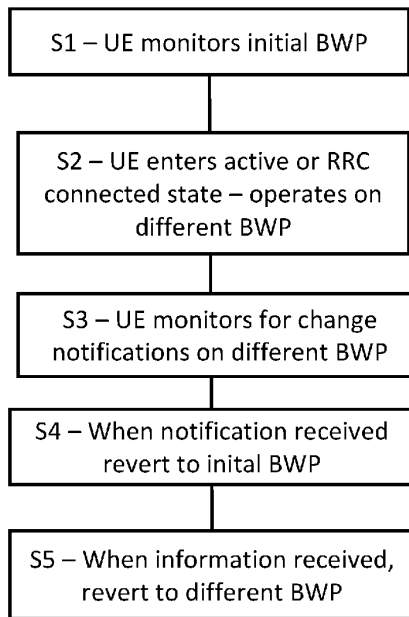
Figure 4

(57) **Abstract:** A method comprises receiving an indication on a first bandwidth part at a user device. The user device, in response to receiving said indication, receives a second bandwidth part. The second bandwidth part is different to said first bandwidth part. The first and second bandwidth parts are part of a same carrier and the second bandwidth part comprises information associated with said indication.

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COMMUNICATIONS METHOD, APPARATUS AND COMPUTER PROGRAM

Field

This disclosure relates to communications, and more particularly to a method, apparatus and computer program in a wireless communication system. In particular but not exclusively, some embodiments relate to use of bandwidth parts.

Background

A communication system can be seen as a facility that enables communication between two or more devices such as user terminals, machine-like terminals, base stations and/or other nodes by providing communication channels for carrying information between the communicating devices. A communication system can be provided for example by means of a communication network and one or more compatible communication devices. The communication may comprise, for example, communication of data for carrying data for voice, electronic mail (email), text message, multimedia and/or content data communications and so on. Non-limiting examples of services provided include two-way or multi-way calls, data communication or multimedia services and access to a data network system, such as the Internet.

In a wireless system at least a part of communications occurs over wireless interfaces. Examples of wireless systems include public land mobile networks (PLMN), satellite based communication systems and different wireless local networks, for example wireless local area networks (WLAN). A local area wireless networking technology allowing devices to connect to a data network is known by the tradename WiFi (or Wi-Fi). WiFi is often used synonymously with WLAN. The wireless systems can be divided into cells, and are therefore often referred to as cellular systems. A base station provides at least one cell.

A user can access a communication system by means of an appropriate communication device or terminal capable of communicating with a base station. Hence nodes like base stations are often referred to as access points. A communication device of a user is often referred to as user equipment (UE). A communication device is provided with an appropriate signal receiving and transmitting apparatus for enabling communications, for example enabling communications with the base station and/or communications directly with other user

devices. The communication device can communicate on appropriate channels, e.g. listen to a channel on which a station, for example a base station of a cell, transmits.

A communication system and associated devices typically operate in accordance with a given standard or specification which sets out what the various entities associated with the system are permitted to do and how that should be achieved. Communication protocols and/or parameters which shall be used for the connection are also typically defined. Non-limiting examples of standardised radio access technologies include GSM (Global System for Mobile), EDGE (Enhanced Data for GSM Evolution) Radio Access Networks (GERAN), Universal Terrestrial Radio Access Networks (UTRAN) and evolved UTRAN (E-UTRAN). An example communication system architecture is the long-term evolution (LTE) of the Universal Mobile Telecommunications System (UMTS) radio-access technology. The LTE is standardized by the third Generation Partnership Project (3GPP). The LTE employs the Evolved Universal Terrestrial Radio Access Network (E-UTRAN) access and a further development thereof which is sometimes referred to as LTE Advanced (LTE-A).

Since introduction of fourth generation (4G) services increasing interest has been paid to the next, or fifth generation (5G) standard. 5G may also be referred to as a New Radio (NR) network. Standardization of 5G or New Radio networks is an on-going study item.

Summary

According to an aspect, there is provided a method comprising: causing receiving, on a first bandwidth part, at a user device, an indication; and in response to said indication, causing said user device to receive a second bandwidth part, said second bandwidth part being different to said first bandwidth part, said first and second bandwidth parts being part of a same carrier and said second bandwidth part comprising information associated with said indication

The carrier may be a wideband carrier.

The first and second bandwidth parts may belong to the same serving cell.

The method may comprise causing tuning of said user device to a frequency associated with said second bandwidth part, in response to said indication.

The indication may comprises an indication of one or more of alert information and change information. The change information may be update information.

The method may comprise causing receiving, as said information, one or more of said change information and alert information on said second bandwidth part.

The alert information may comprise one or more of earthquake and tsunami warning system information and commercial mobile alert system information.

The change information may comprise one or more changes in system information.

The method may comprise monitoring a paging occasion on said first bandwidth part.

The indication may be provided in a paging message.

The indication may be provided by downlink control information.

The information may be provided periodically on said second bandwidth part.

The method may comprise after receiving said information associated with said indication, causing receiving a different bandwidth part to said second bandwidth part.

The different bandwidth part may comprise said first bandwidth part.

The method may comprise causing information to be transmitted from said user device to cause said user device to receive said different bandwidth part.

The second bandwidth part may be an initial bandwidth part.

The second bandwidth part may comprise system information blocks.

The method may comprise causing receiving said first bandwidth part and said second bandwidth part at the same time.

According to another aspect, there is provided a method comprising: causing transmission, on a first bandwidth part, to a user device, an indication; and causing transmission to said user device of a second bandwidth part, said second bandwidth part being different to said first bandwidth part, said first and second bandwidth parts being part of a same carrier and said second bandwidth part comprising information associated with said indication

The carrier may be a wideband carrier.

The first and second bandwidth parts may belong to the same serving cell.

The indication may comprises an indication of one or more of alert information and change information. The change information may be update information.

The method may comprise causing transmission, as said information, one or more of said change information and alert information on said second bandwidth part.

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