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(54) **Title:** ON-DEMAND REQUEST FOR SYSTEM INFORMATION

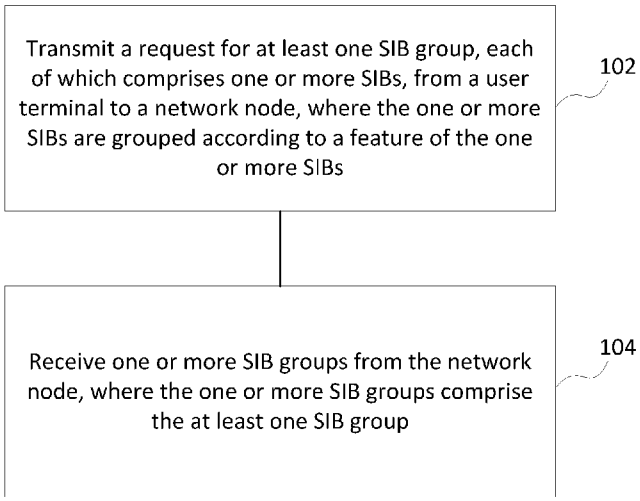

Fig.1

(57) **Abstract:** A method for requesting system information is proposed. The method may comprise transmitting a request for at least one system information block group, each of which comprises one or more system information blocks, from a user terminal to a network node. The one or more system information blocks may be grouped according to a feature of the one or more system information blocks. The method may further comprise receiving one or more system information block groups from the network node. The one or more system information block groups may comprise the at least one system information block group.

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ON-DEMAND REQUEST FOR SYSTEM INFORMATION

FIELD OF THE INVENTION

[0001] The present disclosure generally relates to communications, and more specifically, relates to wireless communications.

BACKGROUND

[0002] In a communication network such as Long Term Evolution (LTE) system, system information (SI) is important as it can provide necessary information to a user terminal, such as a user equipment (UE) or a wireless device, for linking with the communication network. In new radio (NR), SI may be classified into minimum SI and other SI. Minimum SI is the SI that a user terminal must read before it can know how to access the network. Other SI is the SI not within minimum SI. SI may be transmitted to the user terminal in a master information block (MIB) and/or a system information block (SIB). For example, minimum SI may correspond to MIB, SIB1 and SIB2 in LTE. Other SI may correspond to those remaining SIBs. Since other SI is not necessary for a user terminal to access network, in order to achieve energy efficiency, it may be desirable that the SI may be requested on demand.

SUMMARY

[0003] This summary is provided to introduce a selection of concepts in a simplified form that are further described below in detailed description. This summary is not intended to identify key features or essential features of the claimed subject matter, nor is it intended to be used to limit the scope of the claimed subject matter.

[0004] The present disclosure proposes a solution of on-demand request for SI, which may enable a communication network to transmit or broadcast SI, such as

other SI as mentioned previously, according to a request for the SI from a user terminal.

[0005] According to a first aspect of the present disclosure, there is provided a method for requesting SI, which may be performed at an apparatus such as a user terminal. The method may comprise transmitting a request for at least one SIB group, each of which comprises one or more SIBs, from a user terminal to a network node. The one or more SIBs may be grouped according to a feature of the one or more SIBs. The method may further comprise receiving one or more SIB groups from the network node. The one or more SIB groups may comprise the at least one SIB group.

[0006] In an exemplary embodiment, the method according to the first aspect of the present disclosure may further comprise receiving notification information from the network node. For example, transmission of the at least one SIB group may be predefined or derived based at least partly on the notification information.

[0007] In an exemplary embodiment, the method according to the first aspect of the present disclosure may further comprise receiving an indicator from the network node. The indicator may indicate at least one of: which SIB group is being transmitted from the network node, and which SIB group is scheduled to be transmitted from the network node.

[0008] According to a second aspect of the present disclosure, there is provided an apparatus for requesting SI. The apparatus may comprise at least one processor and at least one memory comprising computer program code. The at least one memory and the computer program code may be configured to, with the at least one processor, cause the apparatus at least to perform any step of the method according to the first aspect of the present disclosure.

[0009] According to a third aspect of the present disclosure, there is provided a

computer program product comprising a computer-readable medium bearing computer program codes embodied therein for use with a computer. The computer program codes may comprise code for performing any step of the method according to the first aspect of the present disclosure.

[0010] According to a fourth aspect of the present disclosure, there is provided an apparatus for requesting SI. The apparatus may comprise a transmitting module and a receiving module. In accordance with some exemplary embodiments, the transmitting module may be operable to carry out at least the transmitting step of the method according to the first aspect of the present disclosure. The receiving module may be operable to carry out at least the receiving step of the method according to the first aspect of the present disclosure.

[0011] In accordance with an exemplary embodiment, the transmission of the request may comprise transmitting a preamble for indicating the at least one SIB group.

[0012] In accordance with an exemplary embodiment, the transmission of the request may comprise: selecting, from a plurality of preambles, a preamble associated with the at least one SIB group; and transmitting the request to the network node. The request may include the selected preamble.

[0013] In accordance with an exemplary embodiment, the at least one SIB group may be indicated by transmission timing of the preamble.

[0014] In accordance with an exemplary embodiment, the transmission of the request may comprise transmitting the request to the network node in accordance with a selected transmission timing associated with the at least one SIB group.

[0015] According to a fifth aspect of the present disclosure, there is provided a method for transmission of SI, which may be performed at an apparatus such as a

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