WHAT IS CLAIMED IS:

1. A multi-link communication method, performed by a multi-link access point device, comprising:

determining a first message frame on a first link, wherein the first message frame comprises first information about a change in system information of an access point device corresponding to at least one link of a plurality of links, and the first message frame indicates a station on the at least one link to receive a second message frame sent by the access point device so as to acquire changed system information; and

sending the first message frame.

2. The multi-link communication method of claim 1, wherein the first information comprises a first identifier,

wherein the first identifier is configured to indicate the change in the system information on the at least one link of the plurality of links.

3. The multi-link communication method of claim 2, wherein the first information further comprises a second identifier,

wherein the second identifier corresponds to the at least one link of the plurality of links.

4. The multi-link communication method of claim 3, wherein the change in the system information is determined on the at least one link of the plurality of links, the first identifier and the second identifier exist in pairs in the first message frame ~~in response to the change in the system information on the at least one link of the plurality of links~~,

wherein the second identifier corresponds to a link with a change in system information.

5. The multi-link communication method of claim 3, wherein the second identifier comprises a plurality of bits, wherein the plurality of bits correspond to the plurality of links, respectively.

6. The multi-link communication method of claim 5, wherein a change in system information is determined on the first link, a value of the first identifier is changed, and a bit of the plurality of bits corresponding to the first link is set to a first value ~~in response to a change in system information on the first link~~.

7. The multi-link communication method of claim 5, wherein no change in system information is determined on the first link but changes in system information are determined on the other links, a value of the first identifier is not changed, and bits of the plurality of bits corresponding to other links different from the first link are set to a first value ~~in response to no change in system information on the first link but changes in system information on the other links~~.

8. The multi-link communication method of any one of claims 2 to 7, wherein the first information further comprises a multi-link device identifier,

wherein the multi-link device identifier corresponds to a multi-link device to which a link with a change in system information belongs.

9. The multi-link communication method of claim 8~~, wherein the multi-link device identifier is a media access control (MAC) address of the multi-link device.~~

~~10. The multi-link communication method of claim 8 or 9~~, wherein the plurality of links comprise a second link corresponding to a first multi-link access point device and a second multi-link access point device,

wherein in the first multi-link access point device, the second link corresponds to a first access point device, and in the second multi-link access point device, the second link corresponds to a second access point device,

wherein the first information comprises a third identifier, which is configured to indicate that a change in system information of the first access point device is the same as a change in system information of the second access point device.

~~11~~10. The multi-link communication method of claim ~~10~~9, wherein the communication method further comprises:

sending a third message frame to carry system information with a same change of the first access point device and the second access point device.

~~12~~11. The multi-link communication method of any one of claims 2 to ~~11~~10, wherein the first information further comprises: a traffic indication map (TIM) element~~.~~,

~~13. The multi-link communication method of claim 12,~~ wherein ~~the~~a number of ~~traffic indication map (~~TIM~~)~~ elements is related to ~~the~~at least one of a number of links with changes in system information in the plurality of links~~.~~

~~14. The multi-link communication method of claim 13, wherein the number of the traffic indication map (TIM) elements is related to the~~, or a number of the plurality of links.

~~15~~12. A multi-link communication method, performed by a multi-link station device, comprising:

receiving a first message frame on a first link, wherein the first message frame comprises first information about a change in system information of an access point device corresponding to at least one link of a plurality of links;

determining a link with a change in system information based on the first message frame; and

receiving a second message frame sent by the access point device to acquire changed

system information.

~~16~~13. The multi-link communication method of claim ~~15~~12, wherein the first information comprises a first identifier,

wherein the first identifier is configured to indicate the change in the system information on the at least one link of the plurality of links~~.~~, and

~~17. The multi-link communication method of claim 16, wherein~~ the first information further comprises a second identifier,

wherein the second identifier corresponds to the at least one link of the plurality of links.

~~18~~14. The multi-link communication method of claim ~~17~~13, wherein the second identifier corresponds to a link with a change in system information,

wherein determining the link with the change in the system information based on the first message frame comprises determining a link with a change in system information in the plurality of links based on the first identifier and the second identifier existing in pairs in the first message frame.

~~19~~15. The multi-link communication method of claim ~~17~~13, wherein the second identifier comprises a plurality of bits, wherein the plurality of bits correspond to the plurality of links, respectively.

~~20~~16. The multi-link communication method of claim ~~19~~15, wherein determining the link with the change in the system information based on the first message frame comprises:

~~determining a link with a change in system information as the first link in response to~~ determining that a value of the first identifier is changed and a bit of the plurality of bits corresponding to the first link is set to a first value, and determining a link with a change in system information as the first link.

~~21~~17. The multi-link communication method of claim ~~19~~15, wherein determining the link with the change in the system information based on the first message frame comprises:

determining that a value of the first identifier has not changed and the at least one bit is set to a first value, and determining that system information has not changed on the first link, and the system information has changed on a link corresponding to at least one bit of the plurality of bits ~~in response to determining that a value of the first identifier has not changed and the at least one bit is set to a first value~~.

~~22~~18. The multi-link communication method of any one of claims ~~16~~12 to ~~21~~17, wherein the first information further comprises a multi-link device identifier,

wherein the multi-link device identifier corresponds to a multi-link device to which a link with a change in system information belongs.

~~23~~19. The multi-link communication method of claim ~~22~~18, wherein the plurality of links comprise a second link corresponding to a first multi-link access point device and a second multi-link access point device,

wherein in the first multi-link access point device, the second link corresponds to a first access point device, and in the second multi-link access point device, the second link corresponds to a second access point device,

wherein the first information comprises a third identifier, which is configured to indicate that a change in system information of the first access point device is the same as a change in system information of the second access point device.

~~24. The multi-link communication method of any one of claims 15 to 23, wherein the first information further comprises a traffic indication map (TIM) element.~~

~~25. A multi-link communication device, performed by a multi-link access point device, comprising:~~

~~a processing module configured to determine a first message frame on a first link, wherein the first message frame comprises first information about a change in system information of an access point device corresponding to at least one link of a plurality of links, and the first message frame indicates a station on the at least one link to receive a second message frame sent by the access point device so as to acquire changed system information; and~~

~~a communication module configured to send the first message frame.~~

~~26. A multi-link communication device, performed by a multi-link station device, comprising:~~

~~a communication module configured to receive a first message frame on a first link, wherein the first message frame comprises first information about a change in system information of an access point device corresponding to at least one link of a plurality of links; and~~

~~a processing module configured to determine a link with a change in system information based on the first message frame and control the communication module to receive a second message frame sent by the access point device to acquire changed system information.~~

~~27~~20. An electronic device, comprising:

~~a memory,~~

a processor, and

a memory storing a computer program ~~stored in the memory and~~ executable ~~on~~by the processor,

wherein the processor is configured to implement the method of any one of claims 1 to

~~14~~11 or any one of claims ~~15~~12 to ~~24~~19 when running the computer program.

~~28. A computer-readable storage medium having stored therein computer programs that, when executed by a processor, cause the method of any one of claims 1 to 14 or any one of claims 15 to 24 to be implemented.~~