

## CLAIMS

What is claimed is:

1. An information processing method, performed by a relay device and comprising:  
triggering a pre-emptive buffer status report BSR; and  
5 canceling the pre-emptive BSR according to a first status in a process from triggering of the pre-emptive BSR to generation of the pre-emptive BSR, wherein the first status comprises at least one of the following:  
a reception status of uplink data of the relay device; and  
a triggering status of a target BSR, wherein the target BSR is at least one of a  
10 regular BSR and a periodic BSR.
2. The method according to claim 1, wherein in case that the first status is the reception status of uplink data of the relay device, the canceling the pre-emptive BSR according to a first status in a process from triggering of the pre-emptive BSR to generation of the pre-emptive BSR comprises:  
15 canceling the pre-emptive BSR in a case that data expected to be received has been received in the process from triggering of the pre-emptive BSR to generation of the pre-emptive BSR.
3. The method according to claim 1, wherein in case that the first status is the reception status of uplink data of the relay device, the canceling the pre-emptive BSR  
20 according to a first status in a process from triggering of the pre-emptive BSR to generation of the pre-emptive BSR comprises:  
canceling the pre-emptive BSR in a case that data corresponding to a highest-priority logical channel group LCG in first data has been received in the process from triggering of the pre-emptive BSR to generation of the pre-emptive BSR, wherein the  
25 first data is data expected to be received.
4. The method according to claim 1, wherein in case that the first status is the triggering status of the target BSR, the canceling the pre-emptive BSR according to a first status in a process from triggering of the pre-emptive BSR to generation of the pre-emptive BSR comprises:

canceling the pre-emptive BSR in a case that the target BSR has been triggered in the process from triggering of the pre-emptive BSR to generation of the pre-emptive BSR and that a first priority is higher than or equal to a second priority, wherein

5 the first priority is a priority of a highest-priority LCG corresponding to the target BSR, and the second priority is a priority of a highest-priority LCG corresponding to data expected to be received.

10 5. The method according to claim 1, wherein in case that the first status is the triggering status of the target BSR, the canceling the pre-emptive BSR according to a first status in a process from triggering of the pre-emptive BSR to generation of the pre-emptive BSR comprises:

canceling the pre-emptive BSR in a case that the target BSR has been triggered in the process from triggering of the pre-emptive BSR to generation of the pre-emptive BSR and that a media access control protocol data unit MAC PDU for carrying the pre-emptive BSR is unable to carry both the pre-emptive BSR and the target BSR.

15 6. An information processing apparatus, applied to a relay device and comprising:  
a triggering module, configured to trigger a pre-emptive BSR; and  
a processing module, configured to cancel the pre-emptive BSR according to a first status in a process from triggering of the pre-emptive BSR to generation of the pre-emptive BSR, wherein

20 the first status comprises at least one of the following:

a reception status of uplink data of the relay device; and

a triggering status of a target BSR, wherein the target BSR is at least one of a regular BSR and a periodic BSR.

25 7. The apparatus according to claim 6, wherein in case that the first status is the reception status of uplink data of the relay device, the processing module is specifically configured to:

cancel the pre-emptive BSR in a case that data expected to be received has been received in the process from triggering of the pre-emptive BSR to generation of the pre-emptive BSR.

8. The apparatus according to claim 6, wherein in case that the first status is the reception status of uplink data of the relay device, the processing module is specifically configured to:

cancel the pre-emptive BSR in a case that data corresponding to a highest-priority LCG in first data has been received in the process from triggering of the pre-emptive BSR to generation of the pre-emptive BSR, wherein the first data is data expected to be received.

9. The apparatus according to claim 6, wherein in case that the first status is the triggering status of the target BSR, the processing module is specifically configured to:

cancel the pre-emptive BSR in a case that the target BSR has been triggered in the process from triggering of the pre-emptive BSR to generation of the pre-emptive BSR and that a first priority is higher than or equal to a second priority, wherein

the first priority is a priority of a highest-priority LCG corresponding to the target BSR, and the second priority is a priority of a highest-priority LCG corresponding to data expected to be received.

10. The apparatus according to claim 6, wherein in case that the first status is the triggering status of the target BSR, the processing module is specifically configured to:

cancel the pre-emptive BSR in a case that the target BSR has been triggered in the process from triggering of the pre-emptive BSR to generation of the pre-emptive BSR and that a MAC PDU for carrying the pre-emptive BSR is unable to carry both the pre-emptive BSR and the target BSR.

11. A communication device, comprising a memory, a processor, and a computer program stored in the memory and capable of running on the processor, wherein when the computer program is executed by the processor, the steps of the information processing method according to any one of claims 1 to 5 are implemented.

12. A computer-readable storage medium, wherein the computer-readable storage medium stores a computer program, and when the computer program is executed by a processor, the steps of the information processing method according to any one of claims 1 to 5 are implemented.