CLAIMS

What is claimed is:

1. A method for determining a security protection mode, comprising:

receiving, by a second communication apparatus, a first security protection information from a first communication apparatus;

determining, by the second communication apparatus, a security protection mode corresponding to the PC5 interface communications mode based on the received first security protection information and a second security protection information; wherein, the PC5 interface is a communication interface between the first communication apparatus and the second communication apparatus;

sending, by the second communication apparatus, the security protection mode corresponding to the PC5 interface communications mode to the first communication apparatus.

2. The method according to claim 1, wherein the first security protection information comprises a first user plane security policy and the second security protection information comprises a second user plane security policy;

wherein the determining a security protection mode corresponding to the PC5 interface communications mode based on the received first security protection information and a second security protection information comprises:

determining that a protection level of security protection mode corresponding to the PC5 interface communications mode is not needed when both a protection level of the first user plane security policy and a protection level of the second user plane security policy are not needed.

3. The method according to claim 1, wherein the first security protection information comprises a first user plane security policy and the second security protection information comprises a second user plane security policy;

wherein the determining a security protection mode corresponding to the PC5 interface communications mode based on the received first security protection information and a second security protection information comprises:

determining that a protection level of security protection mode corresponding to the PC5 interface communications mode is needed when both a protection level of the first user plane security policy and a protection level of the second user plane security policy are needed.

4. The method according to claim 1, wherein the first security protection information comprises a first user plane security policy and the second security protection information comprises a second user plane security policy;

wherein the determining a security protection mode corresponding to the PC5 interface communications mode based on the received first security protection information and a second security protection information comprises:

determining, by the second communication apparatus, a protection level of security protection mode

corresponding to the PC5 interface communications mode based on a security protection capability of the second communication apparatus when both a protection level of the first user plane security policy and a protection level of the second user plane security policy are preferred.

5. The method according to claim 1, wherein the first security protection information comprises a first user plane security policy and the second security protection information comprises a second user plane security policy;

wherein the determining a security protection mode corresponding to the PC5 interface communications mode based on the received first security protection information and a second security protection information comprises:

determining, by the second communication apparatus, a protection level of security protection mode corresponding to the PC5 interface communications mode based on a protection level of the first user plane security policy and a protection level of the second user plane security policy, wherein the protection level of security protection mode corresponding to the PC5 interface communications mode is not lower than the protection level of the first user plane security policy and the second user plane security policy.

6. The method according to any one of claims 1 to 5, wherein the second security protection information is stored in the second communication apparatus, wherein the method further comprises:

receiving, by the second communication apparatus, an application identifier from the first communication apparatus; and

determining, by the second communication apparatus, the second security protection information based on the application identifier.

7. The method according to any one of claims 1 to 5, wherein the second security protection information is stored in the second communication apparatus, wherein the method further comprises:

receiving, by the second communication apparatus, a service identifier from the first communication apparatus; and

determining, by the second communication apparatus, the second security protection information based on the service identifier.

8. A communication apparatus, as a second communication apparatus, wherein the communication apparatus comprises a processor and a memory, the memory is configured to store program instructions, and the processor is configured to execute the program instructions stored in the memory to perform:

receiving a first security protection information from a first communication apparatus;

determining a security protection mode corresponding to the PC5 interface communications mode based on the received first security protection information and a second security protection information; wherein, the PC5 interface is a communication interface between the first communication apparatus and the second communication apparatus;

sending the security protection mode corresponding to the PC5 interface communications mode to the first communication apparatus.

9. The communication apparatus according to claim 8, wherein the first security protection information comprises a first user plane security policy and the second security protection information comprises a second user plane security policy;

wherein the processor is configured to execute the program instructions stored in the memory to further perform: determining that a protection level of security protection mode corresponding to the PC5 interface communications mode is not need when both a protection level of the first user plane security policy and a protection level of the second user plane security policy are not need.

10. The communication apparatus according to claim 8, wherein the first security protection information comprises a first user plane security policy and the second security protection information comprises a second user plane security policy;

wherein the processor is configured to execute the program instructions stored in the memory to further perform: determining that a protection level of security protection mode corresponding to the PC5 interface communications mode is need when both a protection level of the first user plane security policy and a protection level of the second user plane security policy are need.

11. The communication apparatus according to claim 8, wherein the first security protection information comprises a first user plane security policy and the second security protection information comprises a second user plane security policy;

wherein the processor is configured to execute the program instructions stored in the memory to further perform: determining a protection level of security protection mode corresponding to the PC5 interface communications mode based on a security protection capability of the second communication apparatus when both a protection level of the first user plane security policy and a protection level of the second user plane security policy are preferred.

12. The communication apparatus according to claim 8, wherein the first security protection information comprises a first user plane security policy and the second security protection information comprises a second user plane security policy;

wherein the processor is configured to execute the program instructions stored in the memory to further perform: determining a protection level of security protection mode corresponding to the PC5 interface communications mode based on a protection level of the first user plane security policy and a protection level of the second user plane security policy, wherein the protection level of security protection mode corresponding to the PC5 interface communications mode is not lower than the protection level of the first user plane security policy and the second user plane security

policy.

13. The communication apparatus according to any one of claims 8 to 12, wherein the second security protection information is stored in the second communication apparatus, wherein the processor is configured to execute the program instructions stored in the memory to further perform: receiving an application identifier from the first communication apparatus; and determining the second security protection information based on the application identifier.

14. The communication apparatus according to any one of claims 8 to 12, wherein the second security protection information is stored in the second communication apparatus, wherein the processor is configured to execute the program instructions stored in the memory to further perform: receiving a service identifier from the first communication apparatus; and determining the second security protection information based on the service identifier.

15. A computer storage medium, wherein the computer storage medium stores a computer program, and when the computer program is executed by a processor, the processor is caused to perform any one of claims 1 to 7.