WHAT IS CLAIMED IS:

1. A communication method, applied to a user equipment (UE), comprising:

determining a target entity from one or more application servers (ASs), wherein the UE communicates with the target entity through an authentication proxy (AP) entity; and

deriving an application key based on a Fully Qualified Domain Name (FQDN) of the target entity, wherein the application key is used for the AP entity to perform UE authentication.

2. The method according to claim 1, further comprising:

sending an Authentication and Key Management for Applications (AKMA) Key Identifier (A-KID) of the UE and/or the FQDN of the target entity to the AP entity.

3. The method according to claim 2, further comprising:

sending an application session establishment request message to the AP entity, wherein the application session establishment request message carries the A-KID of the UE and/or the FQDN of the target entity.

4. The method according to claim 3, further comprising:

receiving an application session establishment response message sent by the AP entity.

5. The method according to claim 4, further comprising:

determining a first communication authority according to the application session establishment response message, wherein the first communication authority comprises one or more of:

the UE having an access authority to the target entity;

the UE having an access authority to the AP entity;

the AP entity having a proxy authority to the target entity; or

the target entity having an acquisition authority to an identity of the subscriber of the UE.

6. The method according to claim 4 or 5, wherein the application session establishment response message is received from the AP entity in a case where the AP entity receives the application key from an AKMA Anchor Function (AAnF) entity, and the AP entity sends the application session establishment response message to the UE, wherein the application key is derived by the AAnF entity based on the FQDN of the target entity sent by the AP entity to the AAnF entity; or

wherein the application session establishment response message is received from the AP entity in a case that the AP entity does not receive the application key from an AKMA Anchor Function (AAnF) entity, and the application session establishment response message comprises a failure indication, wherein the application key is derived by the AAnF entity based on the FQDN of the target entity sent by the AP entity to the AAnF entity.

7. A communication method, applied to an authentication proxy (AP) entity, comprising:

performing UE authentication according to an application key, wherein the application key is derived according to a Fully Qualified Domain Name (FQDN) of a target entity in one or more application servers (ASs), and the UE communicates with the target entity through the AP entity.

8. The method according to claim 7, further comprising:

sending an identity of the subscriber to the target entity in a case where the UE authentication is

successful.

9. The method according to claim 7 or 8, further comprising:

sending an Authentication and Key Management for Applications (AKMA) Key Identifier (A-KID) of the UE and/or the FQDN of the target entity to an AKMA Anchor Function (AAnF) entity.

10. The method according to claim 9, further comprising:

receiving the application key sent by the AAnF entity, wherein the application key is derived by the AAnF entity according to the FQDN of the target entity.

11. The method according to claim 9 or 10, further comprising:

receiving the A-KID of the UE and/or the FQDN of the target entity from the UE.

12. The method according to claim 11, further comprising:

receiving an application session establishment request message from the UE, wherein the application session establishment request message carries the A-KID of the UE and/or the FQDN of the target entity.

13. The method according to claim 12, further comprising:

sending an application session establishment response message to the UE.

14. The method according to any one of claims 10-13, further comprising:

determining a first communication authority according to the application key received from the AAnF entity, wherein the first communication authority comprises one or more of:

the UE having an access authority to the target entity;

the UE having an access authority to the AP entity;

the AP entity having a proxy authority to the target entity; or

the target entity having an acquisition authority to an identity of the subscriber of the UE.

15. A communication method, applied to a target entity in one or more application servers (ASs), comprising:

receiving an identity of the subscriber sent by an authentication proxy (AP) entity, in a case where UE authentication performed by the AP entity is successful, wherein the target entity communicates with the UE through the AP entity.

16. The method according to claim 15, wherein performing the UE authentication by the AP entity comprises:

performing the UE authentication by the AP entity according to an application key, wherein the application key is derived based on a Fully Qualified Domain Name (FQDN) of the target entity.

17. The method according to claim 15 or 16, further comprising:

determining a first communication authority, wherein the first communication authority comprises one or more of:

the UE having an access authority to the target entity;

the UE having an access authority to the AP entity;

the AP entity having a proxy authority to the target entity; or

the target entity having an acquisition authority to an identity of the subscriber of the UE.

18. A communication method, applied to an AKMA Anchor Function (AAnF) entity, comprising:

receiving a AKMA Key Identifier (A-KID) of the UE, and/or a Fully Qualified Domain Name (FQDN) of a target entity from an authentication proxy (AP) entity; and

sending an application key to the AP entity, wherein the application key is derived based on the FQDN of the target entity.

19. The method according to claim 18, wherein the application key is used for the AP entity to perform UE authentication, and the UE communicates with the target entity through the AP entity.

20. A communication apparatus, applied to user equipment (UE), comprising:

a processing module, configured to:

determine a target entity from one or more application servers (ASs), wherein the UE communicates with the target entity through an authentication proxy (AP) entity; and

derive an application key based on a Fully Qualified Domain Name (FQDN) of the target entity, wherein the application key is used for the AP entity to perform UE authentication.

21. A communication apparatus, applied to an authentication proxy (AP) entity, comprising:

a processing module, configured to:

perform UE authentication according to an application key, wherein the application key is derived based on a Fully Qualified Domain Name (FQDN) of a target entity in one or more application servers (ASs), and the UE communicates with the target entity through the AP entity.

22. A communication apparatus, applied to a target entity in one or more application servers (ASs), comprising:

a transceiver module, configured to:

receive an identity of the subscriber sent by an authentication proxy (AP) entity, in a case where that UE authentication performed by the AP entity is successful, wherein the target entity communicates with the UE through the AP entity.

23. A communication apparatus, applied to an AKMA Anchor Function (AAnF) entity, comprising:

a transceiver module, configured to:

receive an AKMA Key Identifier (A-KID) of the UE, and/or a Fully Qualified Domain Name (FQDN) of a target entity from an authentication proxy (AP) entity; and

send an application key to the AP entity, wherein the application key is derived according to the FQDN of the target entity.

24. A communication device, comprising:

one or more processors; and

a memory, coupled to the one or more processors, and having stored therein computer-readable instructions that, when executed by the processor, cause the communication device to perform the method according to any one of claims 1 to 19.

25. A computer-readable storage medium, having stored therein computer program instructions that, when executed by a processor, cause the method according to any one of claims 1 to 19 to be implemented.