

WHAT IS CLAIMED IS:

1. A first apparatus in a radio resource control (RRC) layer of a terminal device, the first apparatus comprising:

at least one processor; and

at least one memory including computer program code;

wherein the at least one memory and the computer program code are configured to, with the at least one processor, cause the apparatus device to:

receive, by the first apparatus, from a device, a quality of experience (QoE) measurement collection (QMC) activation message for a service and an RRC configuration indicating a first identity associated with the QoE configuration for the service;

determine, by the first apparatus based at least in part on the first identity indicated in the RRC configuration, a second identity associated with the QoE configuration of the service;

transmit, by the first apparatus and to a second apparatus, the QoE configuration and the second identity associated with the QoE configuration of the service;

receive, by the first apparatus and from the second apparatus, a QoE report of the service with the second identity;

determine, by the first apparatus, the device to which the QoE report is forwarded based on the second identity; and

transmit, by the first apparatus, the QoE report of the service to the device.

2. The first apparatus of claim 1, wherein the at least one memory and the computer program codes are configured to, with the at least one processor, further cause the first apparatus to determine the second identity for the QoE configuration by:

determining the second identity based on the first identity and other identity information.

3. The first apparatus of claim 1, wherein the at least one memory and the computer program codes are configured to, with the at least one processor, further cause the first apparatus to:

store a mapping between the second identity and the device.

4. The first apparatus of claim 1, wherein the first identity comprises one of:
a RRC identifier,
a measurement application layer identifier associated by the RRC layer, or
a container identifier.

5. The first apparatus of any one of claims 1-5, wherein the first apparatus is at a terminal device, the second apparatus is at the terminal device, and the device is a network device.

6. A second apparatus in an application layer at a terminal device, the second apparatus comprising:

at least one processor; and

at least one memory including computer program code;

wherein the at least one memory and the computer program code are configured to, with the at least one processor, cause the second apparatus to:

receive, by the second apparatus, from a first apparatus, a quality of experience (QoE) configuration of a service and a second identity,

wherein the second identity is generated by the first apparatus based on a first identity,

wherein the first identity is provided by a device to the first apparatus in an RRC configuration of a QoE measurement collection (QMC) activation message for the service,

wherein the first identity indicates the QoE configuration of the service;

measure a QoE of the service, by the second apparatus, based at least on the QoE configuration of the service and the second identity associated with the QoE configuration of the service,

generate, by the second apparatus, based on the measuring the QoE of the service, a QoE report of the service; and

transmit, by the second apparatus and to the first apparatus, the QoE report of the service.

7. The second apparatus of claim 6, wherein the at least one memory and the computer program codes are configured to, with the at least one processor, further cause the second apparatus to:

associate, by the second apparatus, the second identity and an identity of the second

apparatus; and

store, by the second apparatus, a mapping between the second identity and the identity of the second apparatus.

8. The second apparatus of any one of claims 6-7, wherein the first apparatus is at a terminal device and the second apparatus is at the terminal device.

9. A method, comprising:

receiving, at a first apparatus in a radio resource control (RRC) layer of a terminal device, from a device, a quality of experience (QoE) measurement collection (QMC) activation message for a service and an RRC configuration indicating a first identity associated with the QoE configuration for the service;

determining, by the first apparatus based at least in part on the first identity indicated in the RRC configuration, a second identity associated with the QoE configuration of the service;

transmitting, by the first apparatus and to a second apparatus, the QoE configuration and the second identity associated with the QoE configuration of the service;

receiving, by the first apparatus and from the second apparatus, a QoE report of the service with the second identity;

determining, by the first apparatus, the device to which the QoE report is forwarded based on the second identity; and

transmitting, by the first apparatus, the QoE report of the service to the device.

10. The method of claim 9, wherein determining the second identity for the QoE configuration comprises:

determining the second identity based on the first identity and other identity information.

11. The method of claim 9, further comprising:

storing, by the first apparatus, a mapping between the second identity and the device.

12. The method of claim 9, wherein the first identity comprises one of:

a RRC identifier,

a measurement application layer identifier associated by the RRC layer, or
a container identifier.

13. The method of any one of claims 9-12, wherein the first apparatus is at a terminal device, the second apparatus is at the terminal device, and the device is a network device.

14. A method, comprising:

receiving, at a second apparatus in an application layer at a terminal device, from a first apparatus, a quality of experience (QoE) configuration of a service and a second identity,

wherein the second identity is generated by the first apparatus based on the first identity,

wherein the first identity is provided by a device to the first apparatus in an RRC configuration of a QoE measurement collection (QMC) activation message for the service,

wherein the first identity indicates the QoE configuration of the service;

measure a QoE of the service, by the second apparatus, based at least on the QoE configuration of the service and the second identity associated with the QoE configuration of the service;

generating, by the second apparatus, based on the measuring the QoE of the service, a QoE report of the service; and

transmitting, by the second apparatus and to the first apparatus, the QoE report of the service.

15. The method of claim 14, further comprising:

associating, by the second apparatus, the second identity and an identity of the second apparatus; and

storing, by the second apparatus, a mapping between the second identity and the identity of the second apparatus.

16. The method of claim 14, wherein the second identity is a first identity generated in radio resource control (RRC) layer by a device, or

wherein the second identity is determined based on the first identity and other identity information.

17. The method of any one of claims 14-16, wherein the first apparatus is at a terminal device and the second apparatus is at the terminal device.

18. A computer readable medium comprising program instructions for causing an apparatus to perform the method of any one of claims 9-13 or any one of claims 14-17.