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| Comment Resolution for Chapter of Authorization, QoS, and policy control |
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| **Authors:**  |
| Name  | Affiliation  | Phone  | Email  |
| Hao Wang | Fujitsu R&D Center | +86-10-59691000 | wangh@cn.fujitsu.com |
| Xiaojing Fan | Fujitsu R&D Center | +86-10-59691000 | fanxiaojing@cn.fujitsu.com |
| Su Yi | Fujitsu R&D Center | +86-10-59691000 | yisu@cn.fujitsu.com |
| Ryuichi Matsukura | Fujitsu/Fujitsu Laboratory | +81-44-754-2667 | r.matsukura@jp.fujitsu.com |
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Abstract

This document provides the comment resolution for authorization, QoS and policy control in Recommended Practice specification of IEEE 802.1CF D0.2 to address the technical comment of #56 of omniRAN-16/0059 (CID number refers to the line number in the excel).

**Comments on D0.2:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| CID | Category | Page | Sub-Cause | Line# | Comment | Proposed Change | Must Be Satisfied |
| 56 | Technical | 70 | 7.6.7 | 1990 | More texts are needed for the TBD part in 7.6.7 |  |  |

**Discussion:**

For comment CID#56, revision for chapter 7.6.7 is proposed.

**Proposed Text Changes:**

Instruction to Editor:

Please replace the t.b.d of 7.6.7 of IEEE802.1CF D0.2 with the following text.

------------- Begin Text Changes ---------------

### Detailed procedures

#### Pre-provisioned service flow establishment

The user specific QoS policy is passed to ANC from SS during the authorization process, together with the information about pre-provisioned service flows (SF), such as the number of pre-provisioned service flows and the relative QoS parameters. After that, ANC assigns SFID to each pre-provisioned service flow, and initiates the service flow establishment by sending data path registration request to NA, as shown in Fig. 32.

Upon receiving the request, NA may reject or permit the establishment based on the admission control policy towards the pre-provisioned service flows and its available resources.

* If permitted, the service flow will be attached to a data path (DP), and NA will send SF addition request to TE including the permitted QoS parameters. If these parameters are accepted by TE according to its QoS capability, the pre-provisioned service flow is established. NA then reserves the resource and notifies ANC with data path registration response about the service flow establishment. The pre-provisioned service flow is activated by data path registration ACK and SF addition ACK.
* If rejected, NA responses to ANC with the preferred QoS parameters for negotiation. In this case, ANC may adjust the QoS parameters for the pre-provisioned service flow and restart the whole procedure. If it is rejected for certain times, ANC will declare failure of the pre-provisioned service flow establishment to SS.



Fig.32 Pre-provisioned service flow establishment procedure

#### Service flow initialization by terminal

Terminal may initiate service flows with the preferred QoS parameters after authorization during the user session by sending service flow addition request to NA. Upon receiving the request, NA should reply service flow addition received message to TE as an immediate acknowledgement, then decide to admit or reject the request based on the admission control policy.

In case of admission, NA attaches the permitted service flow to a data path, and sends data path registration request to ANC, including the QoS parameters of the service flow and data path ID. If the request is accepted by ANC applying the user specific policy, it will assign SFID for the service flow and notify NA with the data path registration response, so that NA will reserve resources for the accepted service flows. NA sends service flow addition response to TE to notify the service flow establishment.

TE should reply service flow addition ACK, and NA should send data path registration ACK to confirm with ANC.



Fig. 33 Service flow initialization by terminal

#### Service flow initialization by access router

Access router may initiate service flows with the preferred QoS parameters after authorization by sending service flow addition request to BH. Upon receiving the request, BH should reply service flow addition received message to AR as an immediate acknowledgement, then decide to admit or reject the request based on the admission control policy.

In case of admission, BH attaches the permitted service flow to a data path, and sends data path registration request to ANC, including the permitted QoS parameters of the service flow and data path ID. If the request is accepted by ANC applying the user specific QoS policy, it will assign SFID for the service flow and notify BH with data path registration response, so that BH will reserve resources for the accepted service flows. BH will send service flow addition response to AR to notify the service flow establishment.

AR should reply service flow addition ACK, and BH should send data path registration ACK to confirm with ANC.



Fig. 34 Service flow initialization by access router

#### Service flow modification by terminal

Terminal can modify the ongoing service flows by sending service flow change request to NA, including the modified QoS parameter and the specified service flow. Upon receiving the request, NA should reply service flow change received message to TE as an immediate acknowledgement, then decide to admit or reject the request based on the admission control policy.

In case of admission, NA sends data path modification request to ANC, including the permitted modification on the QoS parameter. If the request is accepted by ANC applying the user specific QoS policy, it will send data path modification response to NA as a confirmation. And then, NA should change the reserved resources for the service flows, and send service flow change response to TE to notify the modification.

TE should reply service flow change ACK, and NA should send data path modification ACK to confirm with ANC.



Fig. 35 Service flow modification by terminal

#### Service flow termination by terminal

Terminal can terminate the ongoing service flows by sending service flow delete request to NA, including information of the service flows to be terminated. Upon receiving the request, NA should reply service flow delete response to TE indicating that the resource reserved for the specified service flow has been found, and send data path de-registration request to ANC including the relative information about service flow and data path. ANC then removes the specified service flow, terminates the accounting, and replies data path de-registration response to NA indicating that the service flow has been successfully removed.

NA will release the reserved resources, delete the service flows, and send data-path de-registration ACK to ANC.



Fig. 36 Service flow termination by terminal

#### Change of authorization by subscription service

SS can change the QoS policies of specific user by sending the authorization change request to ANC. Upon receiving the request, ANC should update the QoS policies specified to the users, and initiate deletion and modification on the related service flows which may conflict with the new QoS policies.



Fig. 37 Change of authorization by subscription service

-------------- End Text Changes ----------------