

RTCP XR Report Block for QoE metric Reporting

draft-ietf-xrblock-rtcp-xr-qoe-06

Alan Clark
Roland Scott
Qin Wu
Glen Zorn

Document Status

- What is this draft about?
 - Dealing with two use cases
 - each media sent in separate RTP stream
 - Multi-channel audios sent in the same RTP stream
 - Reporting media quality in the form of MOS Scores
- One issue raised in the last Atlanta IETF meeting was
 - How to make IANA registry for QoE measurement algorithms and their parameter when more and more parameters are specified
 - whether packets should contain a simple numeric code that directly references a MOS type or a calculation algorithm type, rather than expanding the RTCP XR block to allow new parameters in the new fields.
 - or whether the numeric code in the packet should refer to a signalled value, which indirectly references a name in an IANA registry
- Recent update was submitted to address
 - SDP signaling update
 - Using SDP Signaling to indicate what MoS calculation algorithm is used
 - Map the name in the SDP to numeric code value “CAID” in the RTCP packet
 - Reference calg in the IANA registry via SDP signaling
 - Split P.1201 and P.1202 into P.1201.1,P.1202.2 and P.1202.1,P.1202.2 respectively.
 - Add evaluation of video stream QOE as an example.

SDP signaling update

- Using the syntax element "extmap" to map calculation name defined in the SDP to calculation ID in the RTCP QoE metric block

- Syntax:

a=extmap:<value> ["/"<direction>] <name> <extensionattributes>

- Example:

a = calg:1=G107,calg:2=P1202.1

RTCP XR QoE Metric Block

3.2.1. Single Stream per SSRC Segment

S	CAID=1	Payload Type	MoS Value
---	--------	--------------	-----------

SDP signaling update-cont.

- 8 calculation algorithm names are registered together with media type and references
 - Sub attribute “extensionname” in SDP for calg name

```
extensionname = "P564";ITU-T P.564 Compliant Algorithm [P.564]  
/ "G107";ITU-T G.107 [G.107]  
/ "TS101_329";ETSI TS 101 329-5 Annex E [ ETSI]  
/ "JJ201_01 ";TTC JJ201.01 [TTC]  
/ "P1201_01";ITU-T P.1201.2 [P.1201.1]  
/ "P1201_02";ITU-T P.1201.2 [P.1201.2]  
/ "P1202_01";ITU-T P.1202.1 [P.1202.1]  
/ "P1202_02";ITU-T P. NBAMS-HR [P.NBAMS-HR]  
/ non-ws-string
```

- IANA registration

- o Initial assignments are as follows:

Name	Name Description	Reference	Type
P564	ITU-T P.564 Compliant Algorithm	[P.564]	Voice
G107	ITU-T G.107	[G.107]	Voice
TS101_329	ETSI TS 101 329-5 Annex E	[ETSI]	Voice
JJ201_01	TTC JJ201.01	[TTC]	Voice
P1201_01	ITU-T P.1201.01	[P.1201.1]	Multimedia
P1201_02	ITU-T P.1201.02	[P.1201.2]	Multimedia
P1202_01	ITU-T P.1202.01	[P.1202.01]	Video
P1202_02	ITU-T P. NBAMS-HR	[P. NBAMS-HR]	Video

SDP signaling Update- Cont.

- Three Offer/Answer usages
 - Segment extensions sent in only one direction
 - Signaling mutually exclusive alternatives
 - Using 4096-4351 for negotiation identifiers for these alternatives
 - The same identifier for these alternative should be signaled
 - Signaling more segments than can be sent in a single session
 - Using 4096-4351 for negotiation identifiers for multiple segments sent in a single session
 - The different identifiers for multiple segments should be signaled.

Follow Up

- Open issue:
 - Is “direction” attribute in SDP used to indicate media stream direction or RTCP stream direction?
- One new version will be issued to address comments raised in the meeting