ISO/IEC TR 29181-6:2013-04 (E)

Information technology - Future Network - Problem statement and requirements - Part 6: Media transport

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Terms and definitions 1

4 Symbols (and abbreviated terms) 4

5 Overview 5
5.1 Networks evolving to support of media 5
5.2 User demand for media-based services 6

6 General concept of FN media transport 7
6.1 Support of connection-oriented and connection-less model 8
6.2 Classification of basic services and composite service 8
6.3 Deployment of MANE (Media Aware Network Element) in the network 9
6.4 Content delivery networking 10

7 Problem statement 10
7.1 Protocol overhead and useless information 10
7.2 Limitation of Layered Coding 11
7.3 No media-awareness 11
7.4 No information exchange between protocol stacks (layered network stack) 11
7.5 Support for new types of media 11
7.6 Merging of current solutions in supporting media transport 12
7.7 Contents are left to the end-system 12

8 Requirements for media transport in Future Network 12
8.1 General requirements 12
8.2 Requirements related to functionality of MANE 14
8.3 Requirements related to media delivery and network 14

Annex A (informative) Use cases for media transport 16

A.1 HD Multiparty videoconference 16
A.1.1 Current Solution 16
A.1.2 Future Network Solution 16
A.2 Web browsing 17
A.2.1 Current Solution 17
A.2.2 Future Network Solution 18
A.3 Media Aware Network Element 18
A.3.1 Content-aware based congestion control 18
A.3.2 Decision-making 19
A.3.3 Seamless mobility 20

Annex B (informative) Related standardization and research activities 22

B.1 MMT (MPEG Media Transport) 22
B.2 SMART of Ambient Network 23
B.3 MEDIEVAL (MultimEDia transport for mobIlE Video AppLications) 24
B.4 CDNi (Content Delivery Network Interconnection) 25
B.5 ALICANTE architecture 26

Bibliography 29