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Contents

Intellectual Property Rights 2
Foreword 2
Modal verbs terminology 2
Foreword 10
Introduction 10
1 Scope 11
2 References 11
3 Measurement family and abbreviations 14
3.1 Measurement family 14
3.2 Abbreviations 14
4 Functionality related measurements 17
4.1 Measurements related to CSCF 17
4.1.1 Registration related measurements 17
4.1.1.1 Initial registration 17
4.1.1.1.1 Attempted initial registration procedures 17
4.1.1.1.2 Successful initial registration procedures 17
4.1.1.1.3 Failed initial registration procedures 17
4.1.1.1.4 IMS initial registration set-up time (Mean) 18
4.1.1.1.5 Attempted initial registration procedures per access technology 19
4.1.1.1.6 Successful initial registration procedures per access technology 19
4.1.1.2 Re-registration 19
4.1.1.2.1 Attempted re-registration procedures 19
4.1.1.2.2 Successful re-registration procedures 20
4.1.1.2.3 Failed re-registration procedures 20
4.1.1.2.4 Attempted re-registration procedures per access technology 20
4.1.1.2.5 Successful re-registration procedures per access technology 21
4.1.1.3 De-registration 22
4.1.1.3.1 De-registrations initiated by UE 22
4.1.1.3.1.4 Attempted de-registrations initiated by UE per access technology 23
4.1.1.3.1.5 Successful de-registrations initiated by UE per access technology 23
4.1.1.3.2 De-registration initiated by HSS 23
4.1.1.3.3 De-registration initiated by service platform 25
4.1.1.4 Third party registration 26
4.1.1.4.1 Attempted third party registration procedures 26
4.1.1.4.2 Successful third party registration procedures 26
4.1.1.4.3 Failed third party registration procedures 26
4.1.1.5 User registration status query 27
4.1.1.5.1 Attempted user registration status query procedures 27
4.1.1.5.2 Successful user registration status query procedures 27
4.1.1.5.3 Failed user registration status query procedures 27
4.1.1.6 S-CSCF registration/deregistration notification 28
4.1.1.6.1 Attempted S-CSCF registration/deregistration notification procedures 28
4.1.1.6.2 Successful S-CSCF registration/deregistration notification procedures 28
4.1.1.6.3 Failed S-CSCF registration/deregistration notification procedures 29
4.1.2 Session control related measurements 30
4.1.2.1 Attempted session establishments 30
4.1.2.2 Successful session establishments 30
4.1.2.3 Answered session establishments 30
4.1.2.4 Failed session establishments 31
4.1.2.5 Simultaneous online and answered sessions (Maximum) 31
4.1.2.6 Successful session establishment time (Mean) 32
4.1.2.7 Simultaneous online and answered sessions (Mean) 32
4.1.2.8 Dropped sessions 32

4.1.2.9 Attempted originating session establishments 33
4.1.2.10 Successful originating session establishments 33
4.1.2.11 Attempted terminating session establishments....33
4.1.2.12 Successful terminating session establishments 34
4.1.2.13 Accumulated originating session time 34
4.1.2.14 Accumulated terminating session time....35
4.1.2.15 Attempted session establishments per access technology 35
4.1.2.16 Successful session establishments per access technology 36
4.1.2.17 Answered session establishments per access technology 36
4.1.2.18 Failed session establishments per access technology....36
4.1.2.19 The number of release before ringing 37
4.1.2.20 The number of release while ringing....37
4.1.3 User location query related measurements 39
4.1.3.1 Attempted user location query procedures....39
4.1.3.2 Successful user location query procedures....39
4.1.3.3 Failed user location query procedures....39
4.1.4 Inter-network domain calling related measurements 41
4.1.4.1 Attempted session establishments from users of other network domains 41
4.1.4.2 403 (Forbidden) generated for sessions from users of other network domains....41
4.1.4.3 Attempted session establishments to users of other network domains....42
4.1.4.4 403 (Forbidden) received for sessions to users of other network domains 42
4.1.4.5 Successful session establishments from users of other network domains....43
4.1.4.6 Successful session establishments to users of other network domains....43
4.1.5 Roaming users related measurements....44
4.1.5.1 Initial registrations of visiting users from other IMS network domains....44
4.1.5.2 Number of SIP 403 (Forbidden) messages for the roamers 44
4.1.5.3 Roaming users to other IMS network domains 44
4.1.5.4 Number of 200 OK (Successful) messages for the roamers....45
4.1.6 Authentication related measurements 46
4.1.6.1 Attempted Authentication procedures....46
4.1.6.2 Successful Authentication procedures....46
4.1.6.3 Failed Authentication procedures....46
4.1.7 HSS initiated update of User Profile related measurements 48
4.1.7.1 Attempted HSS initiated User Profile Update procedures 48
4.1.7.2 Successful HSS initiated User Profile Update procedures 48
4.1.7.3 Failed HSS initiated user profile update procedures 48
4.1.8 Subscription procedure related measurements....50
4.1.8.1 Number of attempted Subscription procedures 50
4.1.8.2 Number of successful Subscription procedures 50
4.1.8.3 Number of failed Subscription procedures....50
4.1.9 Notify procedure related measurements 51
4.1.9.1 Number of emitted Notify procedures....51
4.1.9.2 Number of successful Notify procedures 51
4.1.9.3 Number of failed Notify procedures 51
4.1.10 Immediate Messaging related measurements 52
4.1.10.1 Attempted Immediate Messaging procedures 52
4.1.10.2 Successful Immediate Messaging procedures 52
4.1.10.3 Failed Immediate Messaging procedures 52
4.1.11 Emergency session procedure related measurements 53
4.1.11.1 Attempted emergency session procedures 53
4.1.11.2 Successful emergency session procedures 53
4.1.11.3 Failed emergency session procedures 53
4.1.11.4 Successful emergency session establishment time (Mean) 54
4.2 Measurements related to HSS 54
4.2.1 HSS database usage related measurements....54
4.2.1.1 Provisioning related measurements....54
4.2.1.1.1 Number of provisioned IMS subscriptions currently stored in a HSS....54
4.2.1.1.2 Number of provisioned Private User Identity stored in a HSS....54
4.2.1.1.3 Number of provisioned Public User Identities with SIP URI format stored in a HSS 55
4.2.1.1.4 Number of provisioned Public User Identities with TEL URI format stored in a HSS....55
4.2.1.1.5 Number of Private Service Identities stored in a HSS....55
4.2.1.1.6 Number of Public Service Identities with SIP URI format stored in a HSS....56

4.2.1.1.7 Number of Public Service Identities with TEL URI format stored in a HSS 56
4.2.1.2 Registration Status related measurements 56
4.2.1.2.1 Number of Public User Identities in registered state 56
4.2.1.2.2 Number of Public User Identities in unregistered state 56
4.2.1.2.3 Number of Private User Identities in registered state 57
4.2.2 Void 58
4.2.3 Void 58
4.2.4 Void 58
4.2.5 Void 58
4.2.6 Void 58
4.2.7 Void 58
4.2.8 Void 58
4.2.9 Void 58
4.2.10 Void 58
4.2.11 Void 58
4.2.12 Interaction related measurements between HSS and other NEs 58
4.2.12.1 Total number of request messages 58
4.2.12.2 Total number of answered messages 58
4.3 Measurements related to BGCF 60
4.3.1 Session Control related measurements 60
4.3.1.1 Overview 60
4.3.1.2 Attempted sessions at BGCF 60
4.3.1.3 Attempted sessions forwarded to MGCF 60
4.3.1.4 Attempted sessions forwarded to BGCF 61
4.3.1.6 Successful sessions forwarded to BGCF 62
4.4 Measurements related to MGCF 64
4.4.1 Call control related measurements 64
4.4.1.1 Call control related measurements, CS network originated 64
4.4.1.1.1 Overview 64
4.4.1.1.2 Attempted calls, CS network originated 65
4.4.1.1.3 Successful calls, CS network originated 65
4.4.1.1.4 Answered calls, CS network originated 65
4.4.1.1.5 Failed calls, CS network originated 65
4.4.1.1.6 Call set-up time (Mean), CS network originated 66
4.4.1.2 Call control related measurements, IM CN originated 66
4.4.1.2.1 Overview 66
4.4.1.2.2 Attempted calls, IM CN originated 67
4.4.1.2.3 Successful calls, IM CN originated 67
4.4.1.2.4 Answered calls, IM CN originated 68
4.4.1.2.5 Failed calls, IM CN originated 68
4.4.1.2.6 Call set-up time (Mean), IM CN originated 68
4.4.1.3 Call control related measurements, call release 69
4.4.1.3.1 Overview 69
4.4.1.3.2 Call release initiated by CS network 69
4.4.1.3.3 Call release initiated by IM CN subsystem 69
4.4.1.3.4 Call release initiated by MGCF 70
4.4.1.3.5 Call release initiated by MGW 71
4.4.1.4 Number of simultaneous online and answered calls (Maximum) 71
4.4.1.5 Number of simultaneous online and answered calls (mean) 71
4.5 Measurements related to IM-MGW 72
4.6 Measurements related to MRFC 72
4.6.1 Session control related measurements 72
4.6.1.1 Attempted session establishments 72
4.6.1.2 Successful session establishments 72
4.6.1.3 Answered session establishments 73
4.6.1.4 Failed session establishments 73
4.6.2 Multi-party sessions related measurements 73
4.6.2.1 Attempted session establishments for multi-party sessions 73
4.6.2.2 Successful session establishments for multi-party sessions 74
4.6.2.3 Answered session establishments for multi-party sessions 74
4.6.2.4 Failed session establishments for multi-party sessions 74
4.6.2.5 Attempted event subscription procedures for multi-party sessions 75

4.6.2.6 Successful event subscription procedures for multi-party sessions 75
4.6.2.7 Failed event subscription procedures for multi-party sessions 76
4.6.3 Announcement service related measurements 76
4.6.3.1 Attempted session establishments for announcements 76
4.6.3.2 Successful session establishments for announcements 76
4.6.3.3 Answered session establishments for announcements 77
4.6.3.4 Failed session establishments for announcements 77
4.6.4 Transcoding service related measurements 78
4.6.4.1 Attempted session establishments for transcoding service 78
4.6.4.2 Successful session establishments for transcoding service 78
4.6.4.3 Answered session establishments for transcoding service 79
4.6.4.4 Failed session establishments for transcoding service 79
4.7 Measurements related to MRFP 80
4.7.1 RTP related measurements 80
4.7.1.1 Number of incoming RTP packets 80
4.7.1.2 Number of outgoing RTP packets 80
4.7.1.3 Number of octets of incoming RTP packets 80
4.7.1.4 Number of octets of outgoing RTP packets 80
4.7.1.5 Number of lost incoming RTP packets 81
4.8 Void 82
4.9 Measurements related to SLF 83
4.9.1 All routing information interrogations related measurements 83
4.9.1.1 Attempted routing information interrogation procedures 83
4.9.1.2 Successful routing information interrogation procedures 83
4.9.2 Routing information interrogation from CSCF related measurements 84
4.9.2.1 Overview 84
4.9.2.2 Attempted routing information interrogation procedures from CSCF 84
4.9.2.3 Successful routing information interrogation procedures from CSCF 85
4.9.3 Routing information interrogation from AS related measurements 86
4.9.3.1 Overview 86
4.9.3.2 Attempted routing information interrogation procedures from AS 86
4.9.3.3 Successful routing information interrogation procedures from AS 86
4.10 Measurements related to AS 88
4.10.1 Session control related measurements 88
4.10.1.1 IM CN originated session establishments 88
4.10.1.1.1 Attempted IM CN originated session establishments 88
4.10.1.1.2 Successful IM CN originated session establishments 88
4.10.1.1.3 Answered IM CN originated session establishments 88
4.10.1.1.4 Failed IM CN originated session establishments 89
4.10.1.2 AS originated session establishments 89
4.10.1.2.1 Attempted AS originated session establishments 89
4.10.1.2.2 Successful AS originated session establishments 90
4.10.2 Messaging service related measurements 90
4.10.2.1 Message related measurements, Page-Mode 90
4.10.2.1.1 Attempted incoming messages, Page-Mode 90
4.10.2.1.2 Successful incoming messages, Page-Mode 90
4.10.2.1.3 Attempted outgoing messages, Page-Mode 91
4.10.2.1.4 Successful outgoing messages, Page-Mode 91
4.10.2.2 Message related measurements, Session-Mode 91
4.10.2.2.1 Overview 91
4.10.2.2.2 Attempted messaging session establishments, Session Mode 92
4.10.2.2.3 Successful messaging session establishments, Session-Mode 93
4.10.3 Conference service related measurements 93
4.10.3.1 Overview 93
4.10.3.2 Attempted creations of conference 101
4.10.3.3 Successful creations of conference 101
4.10.3.4 Attempted joining of conference 102
4.10.3.5 Successful joining of conference 102
4.10.3.6 Attempted invitations for another user to join conference 102
4.10.3.7 Successful invitations for another user to join conference 103
4.10.3.8 Attempted subscriptions for the conference event 103
4.10.3.9 Successful subscriptions for the conference event 103

4.10.3.10 Number of simultaneous online users (Maximum) 104
4.10.3.11 Number of simultaneous online conferences (Maximum) 104
4.10.3.12 Number of simultaneous online users (Mean) 104
4.10.3.13 Number of simultaneous online conferences (Mean) 104
4.10.4 Presence service related measurements 106
4.10.4.1 Number of simultaneous online watchers (Maximum) 106
4.10.4.2 Number of simultaneous online presentities (Maximum) 106
4.10.4.3 Number of simultaneous online watchers (Mean) 106
4.10.4.4 Number of simultaneous online presentities (Mean) 106
4.10.4.5 Attempted subscriptions for presence 107
4.10.4.6 Successful subscriptions for presence 107
4.10.4.7 Attempted notifications for presence 107
4.10.4.8 Successful notifications for presence 108
4.10.4.9 Attempted publications for presence 108
4.10.4.10 Successful publications for presence 108
4.10.5 PoC service related measurements 110
4.10.5.1 Attempted creations of PoC session 110
4.10.5.2 Successful creations of PoC session 110
4.10.5.3 Attempted joining of PoC session 110
4.10.5.4 Successful joining of PoC session 110
4.10.5.5 Attempted invitations for another user to join PoC session 111
4.10.5.6 Successful invitations for another user to join PoC session 111
4.10.5.7 Number of simultaneous online users (Maximum) 111
4.10.5.8 Number of simultaneous online PoC session (Maximum) 112
4.10.6 Measurements related to XDM Enabler 113
4.10.6.1 XCAP operation related measurements 113
4.10.6.1.1 Overview 113
4.10.6.1.2 Attempted HTTP PUT procedures 113
4.10.6.1.3 Successful HTTP PUT procedures 114
4.10.6.1.4 Attempted HTTP GET procedures 114
4.10.6.1.5 Successful HTTP GET procedures 114
4.10.6.1.6 Attempted HTTP DELETE procedures 115
4.10.6.1.7 Successful HTTP DELETE procedures 115
4.10.6.2 SIP related measurements 115
4.10.6.2.1 Overview 115
4.10.6.2.2 Attempted Subscription procedures 116
4.10.6.2.3 Successful Subscription procedures 116
4.10.6.2.4 Attempted Notification procedures 117
4.10.6.2.5 Successful Notification procedures 117
4.10.7 IMS supplementary services related measurements 117
4.10.7.1 Communication Diversion (CDIV) service establishments 117
4.10.7.1.1 Number of Communication Forwarding Unconditional (CFU) service procedure 117
4.10.7.1.2 Number of Communication Forwarding on Busy user(CFB) service procedure 117
4.10.7.1.3 Number of Communication Forwarding on no Reply (CFNR) service procedure 118
4.10.7.1.4 Number of Communication Forwarding on Subscriber Not Reachable (CFNRc) service procedure 118
4.10.7.1.5 Number of Communication Forwarding on Not Logged-in (CFNL) service procedure 118
4.10.7.1.6 Number of Communication Deflection (CD) service procedure 119
4.10.7.2 Void 119
4.10.7.3 Number of Call Waiting (CW) procedure 119
4.10.7.4 Number of Communication Hold (HOLD) procedure 119
4.10.7.8 Call Barring service establishments 120
4.10.7.8.1 Number of Outgoing Communication Barring (OCB) procedure 120
4.10.7.8.2 Number of Incoming Communication Barring (ICB) procedure 120
4.10.7.8.3 Number of Anonymous Communication Rejection (ACR) procedure 120
4.10.7.9 Originating Identification Presentation (OIP) and Originating Identification Restriction (OIR) service establishments 121
4.10.7.9.1 Number of Originating Identification Presentation (OIP) procedure 121
4.10.7.9.2 Number of Originating Identification Restriction (OIR) procedure 121
4.10.7.10 Terminating Identification Presentation (TIP) and Terminating Identification Restriction (TIR) service establishments 121
4.10.7.10.1 Number of Terminating Identification Presentation (TIP) procedure 121

4.10.7.10.2 Number of Terminating Identification Restriction (TIR) procedure 122
4.10.7.11 Number of Message Waiting Indication(MWI) event notification procedure 122
4.10.7.12 Number of Flexible Alerting (FA) procedure 122
4.10.7.13 Number of Customized Ringing Signal (CRS) procedure 122
4.10.7.14 Number of Customized Alerting Tones (CAT) procedure 123
4.10.7.15 Advice Of Charge (AOC) service establishments 123
4.10.7.15.1 Number of Charging information at communication set-up time (AOC-S) 123
4.10.7.15.1.1 Number of AOC-S when the served user is the originating user 123
4.10.7.15.1.2 Number of AOC-S when the served user is the terminating user 124
4.10.7.15.2 Number of Charging information during the communication (AOC-D) 124
4.10.7.15.3 Number of Charging information at the end of the communication (AOC-E) 124
4.10.7.16 Completion of Communications to Busy Subscriber (CCBS) and Completion of Communications by No Reply (CCNR) 125
4.10.7.16.1 Number of Completion of Communications to Busy Subscriber (CCBS) procedure 125
4.10.7.16.2 Number of Completion of Communications by No Reply (CCNR) procedure 125
4.10.7.17 Number of Closed User Group (CUG) procedure 125
4.10.7.18 Number of Malicious Communication Identification (MCID) procedure 125
4.10.7.19 Personal Network Management (PNM) service establishments 126
4.10.7.19.1 Number of PN-registration procedure 126
4.10.7.19.2 Number of PN-configuration procedure 126
4.10.7.19.3 Number of PN-query procedure 126
4.10.7.19.4 Number of PN UE redirection procedure 127
4.10.7.19.5 Number of PN access control procedure 127
4.10.7.20 Explicit Communication Transfer service establishments 127
4.10.7.20.1 Number of blind transfer procedure 127
4.10.7.20.2 Number of consultative transfer procedure 128
4.11 Measurements related to IBCF 129
4.11.1 Attempted session establishments from users of other network domains 129
4.11.2 403 (Forbidden) generated for sessions from users of other network domains 129
4.11.3 Attempted session establishments to users of other network domains 130
4.11.4 403 (Forbidden) received for sessions to users of other network domains 130

5 Equipment related measurements 131
5.1 Processor usage 131
5.1.1 Mean processor usage 131
5.1.2 Peak processor usage 131
5.2 Memory usage 131
5.2.1 Mean memory usage 131

Annex A (normative): Use cases for performance measurements defintion 133

A.1 Use case of Immediate Messaging procedure related measurements at CSCF 133

A.2 Use case of IP-CAN Session Establishment related measurements 133

A.3 Use case of emergency session related measurements 133

A.4 Use case of CDIV service related measurements 133

A.5 Use case of OIP and OIR service related measurements 134

A.6 Use case of successful session establishments of inter-network domains 134

A.7 Use case of Gateway Control Session Establishment related measurements 134

A.8 Use case of Accumulated session time related measurements at CSCF 134

A.9 Use case of Equipment related measurements 134

A.10 Use case of session control related measurement per access technology 135

A.11 Use case of CW related measurements 135

A.12 Use case of Hold service related measurements 135

A.13 Use case of Call Barring related measuments 135

A.14 Use case of HSS related measurements....135
A.15 Use case of the number of release before ringing and the number of release while ringing at CSCF in session control related measurements....136
A.16 Use case of TIP and TIR service related measurements....136
A.17 Use case of MWI service related measurements....136
A.18 Use case of FA service related measurements....136
A.19 Use case of CRS service related measurements....136
A.20 Use case of CAT service related measurements....137
A.21 Use case of AOC service related measurements....137
A.22 Use case of CCBS and CCNR service related measurements....137
A.23 Use case of CUG service related measurements....137
A.24 Use case of MCID service related measurements....137
A.25 Use case of PNM service related measurements....137
A.26 Use case of ECT service related measurements....138
Annex B (informative): Void....139
Annex C (informative): Use case of successful session establishment mean time....140
Annex D (informative): Use case of Number of 200 OK (Successful) messages for the roamers....141
Annex E (informative): Change history....142
History....144

Foreword

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Introduction

The present document is part of a TS-family covering the 3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Telecommunication Management; as identified below:

TS 32.401: Performance Management (PM); Concept and requirements

TS 52.402: Performance Management (PM); Performance measurements - GSM

TS 32.404: Performance Management (PM); Performance measurements - Definitions and template

TS 32.405: Performance Management (PM); Performance measurements UTRAN

TS 32.406: Performance Management (PM); Performance measurements Core Network (CN) PS domain

TS 32.407: Performance Management (PM); Performance measurements Core Network (CN) CS domain

TS 32.408: Performance Management (PM); Performance measurements Teleservice

TS 32.409: Performance Management (PM); Performance measurements IMS

The present document is part of a set of specifications, which describe the requirements and information model necessary for the standardised Operation, Administration and Maintenance (OA&M) of a multi-vendor 3G-system.

During the lifetime of a 3G network, its logical and physical configuration will undergo changes of varying degrees and frequencies in order to optimise the utilisation of the network resources. These changes will be executed through network configuration management activities and/or network engineering, see 3GPP TS 32.600 [3].

Many of the activities involved in the daily operation and future network planning of a 3G network require data on which to base decisions. This data refers to the load carried by the network and the grade of service offered. In order to produce this data performance measurements are executed in the NEs, which comprise the network. The data can then be transferred to an external system, e.g. an Operations System (OS) in TMN terminology, for further evaluation. The purpose of the present document is to describe the mechanisms involved in the collection of the data and the definition of the data itself.

1 Scope

The present document describes the measurements of IMS.

3GPP TS 32.401 [5] describes Performance Management concepts and requirements.

The present document is valid for all measurement types provided by an implementation of an IMS network. These may be measurement types defined within the present document, measurements defined within other standards bodies, or vendor specific measurement types.

Only measurement types that are specific to IMS network are defined within the present documents. I.e. vendor specific measurement types and measurements related to "external" technologies used in IMS network, such as ATM or IP, are not covered. Instead, these could be applied as described by the other, "external" standards bodies (e.g. ITU-T or IETF) or according to manufacturer's documentation.

The definition of the standard measurements is intended to result in comparability of measurement data produced in a multi-vendor network, for those measurement types that can be standardised across all vendors' implementations.

The structure of the present document is as follows:

- Header 1: Network Element (e.g. measurements related to CSCF);
- Header 2: Measurement function (e.g. Registration related measurements);
- Header 3: Measurements.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TS 32.101: "Telecommunication management; Principles and high level requirements".

[2] 3GPP TS 32.102: "Telecommunication management; Architecture".

[3] 3GPP TS 32.600: "Telecommunication management; Configuration Management (CM); Concept and high-level requirements".

[4] 3GPP TS 32.632: "Telecommunication management; Configuration Management (CM); Core Network Resources Integration Reference Point (IRP): Network Resource Model (NRM)".

[5] 3GPP TS 32.401: "Telecommunication management; Performance Management (PM); Concept and requirements".

[6] 3GPP TS 23.003: "Numbering, addressing and identification".

[7] 3GPP TS 23.228: "IP Multimedia Subsystem (IMS); Stage 2".

[8] 3GPP TS 24.229: "Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3".

[9] 3GPP TS 29.228: "IP Multimedia (IM) Subsystem Cx and Dx Interfaces; Signalling flows and message".