International Telecommunication Union

# ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

# Series Q

**Supplement 37**

(07/2006)

SERIES Q: SWITCHING AND SIGNALLING

## DSS1 and DSS2 messages and information element identifiers

ITU-T Q-series Recommendations – Supplement 37

ITU-T

International Telecommunication Union

ITU-T Q-SERIES RECOMMENDATIONS

**SWITCHING AND SIGNALLING**

| | |
|---|---|
| SIGNALLING IN THE INTERNATIONAL MANUAL SERVICE | Q.1–Q.3 |
| INTERNATIONAL AUTOMATIC AND SEMI-AUTOMATIC WORKING | Q.4–Q.59 |
| FUNCTIONS AND INFORMATION FLOWS FOR SERVICES IN THE ISDN | Q.60–Q.99 |
| CLAUSES APPLICABLE TO ITU-T STANDARD SYSTEMS | Q.100–Q.119 |
| SPECIFICATIONS OF SIGNALLING SYSTEMS No. 4, 5, 6, R1 AND R2 | Q.120–Q.499 |
| DIGITAL EXCHANGES | Q.500–Q.599 |
| INTERWORKING OF SIGNALLING SYSTEMS | Q.600–Q.699 |
| SPECIFICATIONS OF SIGNALLING SYSTEM No. 7 | Q.700–Q.799 |
| Q3 INTERFACE | Q.800–Q.849 |
| DIGITAL SUBSCRIBER SIGNALLING SYSTEM No. 1 | Q.850–Q.999 |
| PUBLIC LAND MOBILE NETWORK | Q.1000–Q.1099 |
| INTERWORKING WITH SATELLITE MOBILE SYSTEMS | Q.1100–Q.1199 |
| INTELLIGENT NETWORK | Q.1200–Q.1699 |
| SIGNALLING REQUIREMENTS AND PROTOCOLS FOR IMT-2000 | Q.1700–Q.1799 |
| SPECIFICATIONS OF SIGNALLING RELATED TO BEARER INDEPENDENT CALL CONTROL (BICC) | Q.1900–Q.1999 |
| BROADBAND ISDN | Q.2000–Q.2999 |

*For further details, please refer to the list of ITU-T Recommendations.*

# Supplement 37 to ITU-T Q-series Recommendations

## DSS1 and DSS2 messages and information element identifiers

**Summary**

This supplement to the Q series of ITU-T Recommendations lists DSS1 and DSS2 message and information element identifiers. It also lists X.36 and X.76 message and information element identifiers since they use the same protocol discriminator as DSS1. Finally, this supplement records DSS2 message, information elements identifiers and information element code points reserved to the MFA Forum.

**Source**

Supplement 37 to ITU-T Q-series Recommendations was agreed on 28 July 2006 by ITU-T Study Group 11 (2005-2008).

## FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

## NOTE

In this publication, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

Compliance with this publication is voluntary. However, the publication may contain certain mandatory provisions (to ensure e.g. interoperability or applicability) and compliance with the publication is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the publication is required of any party.

## INTELLECTUAL PROPERTY RIGHTS

ITU draws attention to the possibility that the practice or implementation of this publication may involve the use of a claimed Intellectual Property Right. ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the publication development process.

As of the date of approval of this publication, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this publication. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at http://www.itu.int/ITU-T/ipr/.

© ITU 2006

All rights reserved. No part of this publication may be reproduced, by any means whatsoever, without the prior written permission of ITU.

## CONTENTS


| | | Page |
|---|---|---|
| 1 | Introduction | 1 |
| | 1.1 References | 1 |
| | 1.2 Conventions | 3 |
| 2 | DSS1 and DSS2 message identifiers | 3 |
| 3 | DSS1 and DSS2 information element identifiers | 6 |
| 4 | DSS2 information elements code points reserved to the MFA Forum | 11 |
| | 4.1 Broadband bearer capability information element | 11 |
| | 4.2 ATM traffic descriptor information element | 11 |
| | 4.3 Broadband repeat indicator information element | 11 |
| | 4.4 ABR setup parameters information element | 12 |

# Supplement 37 to ITU-T Q-series Recommendations

## DSS1 and DSS2 messages and information element identifiers

### 1 Introduction

DSS1 and DSS2 message and information element identifiers are defined in several Recommendations of the Q-series [1] to [24]. Frame Relay DTE-DCE and NNI signalling defined in ITU-T Recs X.36 and X.76 [25] and [26] use the same protocol discriminator as DSS1 and therefore the same identifier spaces. In addition, several message and information element identifiers have been allocated to the MFA Forum from DSS2 identifier spaces and some information element code points have been reserved to the MFA Forum.

The purpose of this supplement is to record in one place DSS1 and DSS2 message and information element identifiers defined in the following Recommendations:

- DSS1 Recommendations: ITU-T Recs Q.931, Q.932 and Q.952 [1], [2] and [4].
- DSS2 Recommendations: ITU-T Recs Q.2931 and other Recommendations [5] to [24].
- Frame relay Recommendations: ITU-T Recs Q.933, X.36 and X.76 [3], [25] and [26].

In addition, this supplement records DSS2 message and information element identifiers and DSS2 information element code points reserved to the MFA Forum.

This supplement is structured as follows: clause 1.1 lists ITU-T Recommendations referred to in this supplement. Clause 1.2 explains the convention used to create the two tables of DSS1 and DSS2 messages and information elements. Clauses 2 and 3 list DSS1 and DSS2 messages and information elements respectively. Finally, clause 4 records DSS2 information element code points reserved to the MFA Forum.

### 1.1 References


[1] ITU-T Recommendation Q.931 (1998), *ISDN user-network interface layer 3 specification for basic call control*.

[2] ITU-T Recommendation Q.932 (1998), *Digital subscriber signalling system No. 1 – Generic procedures for the control of ISDN supplementary services*.

[3] ITU-T Recommendation Q.933 (2003), *ISDN digital subscriber signalling system No. 1 (DSS1) – Signalling specifications for frame mode switched and permanent virtual connection control and status monitoring*.

[4] ITU-T Recommendation Q.952 (1993), *Stage 3 description for call offering supplementary services using DSS1 – Diversion supplementary services*.

[5] ITU-T Recommendation Q.2931 (1995), *Digital subscriber signalling system No. 2 – User-Network Interface (UNI) layer 3 specification for basic call/connection control*.

[6] ITU-T Recommendation Q.2932.1 (1996), *Digital subscriber signalling system No. 2 – Generic functional protocol: Core functions*.

[7] ITU-T Recommendation Q.2933 (1996), *Digital subscriber signalling system No. 2 – Signalling specification for frame relay service.*

[8] ITU-T Recommendation Q.2941.1 (1997), *Digital subscriber signalling system No. 2 – Generic identifier transport*.

[9] ITU-T Recommendation Q.2955.1 (1997), *Stage 3 description for community of interest supplementary services using B-ISDN digital subscriber signalling system No. 2 (DSS2): Closed User Group (CUG)*.

[10] ITU-T Recommendation Q.2957.1 (1995), *Stage 3 description for additional information transfer supplementary services using B-ISDN digital subscriber signalling system No. 2 (DSS2) – Basic call: User-to-user signalling (UUS)*.

[11] ITU-T Recommendation Q.2959 (1996), *Digital subscriber signalling system No. 2 – Call priority*.

[12] ITU-T Recommendation Q.2961.1 (1995), *Digital subscriber signalling system No. 2 – Additional traffic parameters: Additional signalling capabilities to support traffic parameters for the tagging option and the sustainable cell rate parameter set*.

[13] ITU-T Recommendation Q.2961.2 (1997), *Digital subscriber signalling system No. 2 – Additional traffic parameters: Support of ATM transfer capability in the broadband bearer capability information element*.

[14] ITU-T Recommendation Q.2961.3 (1997), *Digital subscriber signalling system No. 2 – Additional traffic parameters: Signalling capabilities to support traffic parameters for the available bit rate (ABR) ATM transfer capability*.

[15] ITU-T Recommendation Q.2961.4 (1997), *Digital subscriber signalling system No. 2 – Additional traffic parameters: Signalling capabilities to support traffic parameters for the ATM Block Transfer (ABT) ATM transfer capability*.

[16] ITU-T Recommendation Q.2961.5 (1999), *Digital subscriber signalling system No. 2 – Additional traffic parameters: Additional traffic parameters for cell delay variation tolerance indication*.

[17] ITU-T Recommendation Q.2961.6 (1998), *Digital subscriber signalling system No. 2 – Additional traffic parameters: Additional signalling procedures for the support of the SBR2 and SBR3 ATM transfer capabilities*.

[18] ITU-T Recommendation Q.2962 (1998), *Digital subscriber signalling system No. 2 – Connection characteristics negotiation during call/connection establishment phase*.

[19] ITU-T Recommendation Q.2963.1 (1999), *Digital subscriber signalling system No. 2 – Connection modification: Peak cell rate modification by the connection owner*.

[20] ITU-T Recommendation Q.2964.1 (1996), *Digital subscriber signalling system No. 2 – Basic look-ahead*.

[21] ITU-T Recommendation Q.2965.2 (1999), *Digital subscriber signalling system No. 2 – Signalling of individual Quality of Service parameters*.

[22] ITU-T Recommendation Q.2971 (1995), *Digital subscriber signalling system No. 2 – User-network interface layer 3 specification for point-to-multipoint call/connection control*.

[23] ITU-T Recommendation Q.2982 (1999), *Broadband integrated services digital network (B-SDN) – Digital subscriber signalling system No. 2 (DSS2) – Q.2931-based separated call control protocol*.

[24] ITU-T Recommendation Q.2983 (1999), *Broadband integrated services digital network (B-ISDN) – Digital subscriber signalling No. 2 (DSS2) – Bearer control protocol*.

[25] ITU-T Recommendation X.36 (2003), *Interface between data terminal equipment (DTE) and data circuit-terminating equipment (DCE) for public data networks providing frame relay data transmission service by dedicated circuit*.

[26] ITU-T Recommendation X.76 (2003), *Network-to-network interface between public networks providing PVC and/or SVC frame relay data transmission service*.

## 1.2 Conventions

- For DSS1 and DSS2 messages and information elements, Tables of three columns are provided with the following information:
  - Message and information element names;
  - Message and information element numerical identifiers in binary;
  - The reference(s) where message or information elements are defined or used.
- Messages and information elements are listed in numerical ascending order of their identifiers.
- When a message or information element identifier is not assigned, the last two columns of the Tables are left blank. When four or more consecutive identifiers are unassigned, only the first and last values of the range are listed in the first column and it is explicitly stated that the range is unassigned.

# 2 DSS1 and DSS2 message identifiers

| Message identifier | Message name | Reference |
|---|---|---|
| **Call establishment messages** | | |
| 0000 0001 | ALERTING | Q.931, Q.2931, X.76 |
| 0000 0010 | CALL PROCEEDING | Q.931, Q.2931, X.36, X.76 |
| 0000 0011 | PROGRESS | Q.931, Q.2931, X.76 |
| 0000 0100 | | |
| 0000 0101 | SETUP | Q.931, Q.2931, X.36, X.76 |
| 0000 0110 | | |
| 0000 0111 | CONNECT | Q.931, Q.2931, X.36, X.76 |
| 0000 1000 through 0000 1100 | Unassigned | |
| 0000 1101 | SETUP ACKNOWLEDGE | Q.931, Q.2931 |
| 0000 1110 | | |
| 0000 1111 | CONNECT ACKNOWLEDGE | Q.931, Q.2931 |
| 0001 0000 through 0001 0100 | Unassigned | |
| 0001 0101 | CO-BI SETUP | Q.2932.1 |
| 0001 0110 | | |
| 0001 0111 | | |
| 0001 1000 | CALL SETUP | Q.2982 |
| 0001 1001 through 0001 1111 | Unassigned | |

| Message identifier | Message name | Reference |
|---|---|---|
| **Call information messages** | | |
| 0010 0000 | USER INFORMATION | Q.931 |
| 0010 0001 | SUSPEND REJECT | Q.931 |
| 0010 0010 | RESUME REJECT | Q.931 |
| 0010 0011 | | |
| 0010 0100 | HOLD | Q.932 |
| 0010 0101 | SUSPEND | Q.931 |
| 0010 0110 | RESUME | Q.931 |
| 0010 0111 | | |
| 0010 1000 | HOLD ACKNOWLEDGE | Q.932 |
| 0010 1001 through 0010 1100 | Unassigned | |
| 0010 1101 | SUSPEND ACKNOWLEDGE | Q.931 |
| 0010 1110 | RESUME ACKNOWLEDGE | Q.931 |
| 0010 1111 | | |
| 0011 0000 | HOLD REJECT | Q.932 |
| 0011 0001 | RETRIEVE | Q.932 |
| 0011 0010 | | |
| 0011 0011 | RETRIEVE ACKNOWLEDGE | Q.932 |
| 0011 0100 | | |
| 0011 0101 | | |
| 0011 0110 | | |
| 0011 0111 | RETRIEVE REJECT | Q.932 |
| 0011 1000 through 0011 1111 | Unassigned | |
| **Call clearing messages** | | |
| 0100 0000 | DETACH | (Note) |
| 0100 0001 through 0100 0100 | Unassigned | |
| 0100 0101 | DISCONNECT | Q.931, X.36 |
| 0100 0110 | RESTART | Q.931, Q.2931, X.36, X.76 |
| 0100 0111 | | |
| 0100 1000 | DETACH ACKNOWLEDGE | (Note) |
| 0100 1001 through 0100 1100 | Unassigned | |
| 0100 1101 | RELEASE | Q.931, Q.2931, X.36, X.76 |
| 0100 1110 | RESTART ACKNOWLEDGE | Q.931, Q.2931, X.36, X.76 |

| Message identifier | Message name | Reference |
|---|---|---|
| 0100 1111 through 0101 1001 | Unassigned | |
| 0101 1010 | RELEASE COMPLETE | Q.931, Q.2931, X.36, X.76 |
| 0101 1011 through 0101 1111 | Unassigned | |
| **Miscellaneous messages** | | |
| 0110 0000 | SEGMENT | Q.931 |
| 0110 0001 | | |
| 0110 0010 | FACILITY | Q.932, Q.2932.1 |
| 0110 0011 | | |
| 0110 0100 | REGISTER | Q.932 |
| 0110 0101 | | |
| 0110 0110 | | |
| 0110 0111 | | |
| 0110 1000 | CANCEL ACKNOWLEDGE | (Note) |
| 0110 1001 | | |
| 0110 1010 | FACILITY ACKNOWLEDGE | (Note) |
| 0110 1011 | | |
| 0110 1100 | REGISTER ACKNOWLEDGE | (Note) |
| 0110 1101 | | |
| 0110 1110 | NOTIFY | Q.931, Q.2931 |
| 0110 1111 | | |
| 0111 0000 | CANCEL REJECT | (Note) |
| 0111 0001 | | |
| 0111 0010 | FACILITY REJECT | (Note) |
| 0111 0011 | | |
| 0111 0100 | REGISTER REJECT | (Note) |
| 0111 0101 | STATUS ENQUIRY | Q.931, Q.2931, X.36, X.76 |
| 0111 0110 | Reserved | Appendix III/Q.2931 |
| 0111 0111 | Reserved | Appendix III/Q.2931 |
| 0111 1000 | | |
| 0111 1001 | CONGESTION CONTROL | Q.931 |
| 0111 1010 | | |
| 0111 1011 | INFORMATION | Q.931, Q.2931 |
| 0111 1100 | | |
| 0111 1101 | STATUS | Q.931, Q.2931, X.36, X.76 |
| 0111 1110 | Reserved | Appendix III/Q.2931 |
| 0111 1111 | Reserved | Appendix III/Q.2931 |

| Message identifier | Message name | Reference |
|---|---|---|
| **DSS2 Point-to-multipoint connection messages** | | |
| 1000 0000 | ADD PARTY | Q.2971 |
| 1000 0001 | ADD PARTY ACKNOWLEDGE | Q.2971 |
| 1000 0010 | ADD PARTY REJECT | Q.2971 |
| 1000 0011 | DROP PARTY | Q.2971 |
| 1000 0100 | DROP PARTY ACKNOWLEDGE | Q.2971 |
| 1000 0101 | ADD PARTY ALERTING | Q.2971 |
| 1000 0110 | | |
| 1000 0111 | | |
| 1000 1000 | MODIFY REQUEST | Q.2963.1 |
| 1000 1001 | MODIFY ACKNOWLEDGE | Q.2963.1 |
| 1000 1010 | MODIFY REJECT | Q.2963.1 |
| 1000 1011 | CONNECTION AVAILABLE | Q.2963.1, Q.2931 |
| 1000 1100 | CONNECTION TRACE | Reserved to the MFA Forum |
| 1000 1101 | CONNECTION TRACE ACKNOWLEDGE | Reserved to the MFA Forum |
| 1000 1110 through 1111 1110 | Unassigned | |
| 1111 1111 | Reserved for DSS2 extension mechanism | Q.2931 |

NOTE – These code points are reserved to ensure backward compatibility with earlier versions of DSS1 Recommendations.

## 3 DSS1 and DSS2 information element identifiers

| Information element identifier | Information element name | Reference |
|---|---|---|
| **Single octet information elements (DSS1 only)** | | |
| 1000 ---- | reserved | Q.931 |
| 1001 ---- | shift | Q.931 |
| 1010 0000 | more data | Q.931 |
| 1010 0001 | sending complete | Q.931 |
| 1010 0010 through 1010 1111 | Unassigned | |
| 1011 ---- | congestion level | Q.931 |
| 1100 ---- | | |
| 1101 ---- | repeat indicator | Q.931 |
| 1110 ---- | | |
| 1111 ---- | | |

| | Information element identifier | Information element name | Reference |
|---|---|---|---|
| | **Variable length information elements (DSS1 and DSS2)** | | |
| | 0000 0000 | segmented message | Q.931 |
| * | 0000 0001 | | |
| * | 0000 0010 | | |
| * | 0000 0011 | | |
| | 0000 0100 | bearer capability | Q.931, Q.932, Q.2931, X.36, X.76 |
| * | 0000 0101 | VPN indicator | Q.931 |
| * | 0000 0110 | | |
| * | 0000 0111 | | |
| | 0000 1000 | cause | Q.931, Q.2931, X.36, X.76 |
| * | 0000 1001 | | |
| * | 0000 1010 | called party SPVC | X.76 |
| * | 0000 1011 | calling party SPVC | X.76 |
| | 0000 1100 | connected address | (Note) |
| * | 0000 1101 | extended facility | Q.932 |
| * | 0000 1110 | | |
| * | 0000 1111 | | |
| | 0001 0000 | call identity | Q.931 |
| | 0001 0001 | | |
| | 0001 0010 | | |
| | 0001 0011 | | |
| | 0001 0100 | call state | Q.931, Q.932, Q.2931, X.36, X.76 |
| | 0001 0101 | | |
| | 0001 0110 | | |
| | 0001 0111 | | |
| | 0001 1000 | channel identification | Q.931, Q.932 |
| | 0001 1001 | data link connection identifier | Q.933 |
| | 0001 1010 | | |
| | 0001 1011 | | |
| | 0001 1100 | facility | Q.932, Q.2932.1 |
| | 0001 1101 | | |
| | 0001 1110 | progress indicator | Q.931, Q.2931, X.76 |
| | 0001 1111 | | |
| | 0010 0000 | network specific facilities | Q.931 |
| | 0010 0001 | | |
| | 0010 0010 | | |
| | 0010 0011 | | |
| | 0010 0100 | terminal capabilities | (Note) |
| | 0010 0101 | | |
| | 0010 0110 | | |

| Information element identifier | Information element name | Reference |
|---|---|---|
| 0010 0111 | notification indicator | Q.931, Q.932, Q.2931 |
| 0010 1000 | display | Q.931 |
| 0010 1001 | date/time | Q.931 |
| 0010 1010 | | |
| 0010 1011 | | |
| 0010 1100 | keypad facility | Q.931 |
| 0010 1101 | | |
| 0010 1110 | | |
| 0010 1111 | | |
| 0011 0000 | keypad echo | (Note) |
| 0011 0001 | Transit counter | Annex H/Q.931 |
| 0011 0010 | information request | Q.932 |
| 0011 0011 | | |
| 0011 0100 | signal | Q.931 |
| 0011 0101 | | |
| 0011 0110 | switchhook | (Note) |
| 0011 0111 | | |
| 0011 1000 | feature activation | Q.932 |
| 0011 1001 | feature indication | Q.932 |
| 0011 1010 | service profile identification | Q.932 |
| 0011 1011 | endpoint identifier | Q.932 |
| 0011 1100 through 0011 1111 | Unassigned | |
| 0100 0000 | information rate | Q.931 |
| 0100 0001 | precedence level | Q.955.3 |
| 0100 0010 | end-to-end transit delay | Q.931, Q.2931, Q.2965.2, X.76 |
| 0100 0011 | transit delay selection and indication | Q.931, Q.2965.2 |
| 0100 0100 | packet layer binary parameters | Q.931 |
| 0100 0101 | packet layer window size | Q.931 |
| 0100 0110 | packet size | Q.931 |
| 0100 0111 | closed user group | Q.931, Q.2955.1, X.36 |
| 0100 1000 | link layer core parameters | Q.933, Q.2933, X.36, X.76 |
| 0100 1001 | link layer protocol parameters | Q.933, Q.2933, X.36, X.76 |
| 0100 1010 | reverse charging indication | Q.931, X.36, X.76 |
| 0100 1011 | | |
| 0100 1100 | connected number | Q.951, Q.2951, X.36, X.76 |
| 0100 1101 | connected subaddress | Q.951, Q.2951, X.36, X.76 |
| 0100 1110 | | |
| 0100 1111 | | |
| 0101 0000 | X.213 priority | Q.933, X.76 |

| Information element identifier | Information element name | Reference |
|---|---|---|
| 0101 0001 | report type | Q.933, X.36, X.76 |
| 0101 0010 | | |
| 0101 0011 | link integrity verification | Q.933, X.36, X.76 |
| 0101 0100 | endpoint reference | Q.2971 |
| 0101 0101 | endpoint state | Q.2971 |
| 0101 0110 | | |
| 0101 0111 | PVC status | Q.933, X.36, X.76 |
| 0101 1000 | ATM adaptation layer parameters | Q.2931 |
| 0101 1001 | ATM traffic descriptor | Q.2931 |
| 0101 1010 | connection identifier | Q.2931 |
| 0101 1011 | OAM traffic descriptor | Q.2931 |
| 0101 1100 | quality of service parameter | Q.2931, Q.2965.1 |
| 0101 1101 | broadband high layer information (B-HLI) | Q.2931 |
| 0101 1110 | broadband bearer capability | Q.2931 |
| 0101 1111 | broadband low layer information (B-LLI) | Q.2931 |
| 0110 0000 | broadband locking shift | Q.2931 |
| 0110 0001 | broadband non-locking shift | Q.2931 |
| 0110 0010 | broadband sending complete | Q.2931 |
| 0110 0011 | broadband repeat indicator | Q.2931 |
| 0110 0100 | transaction number | Q.2931 |
| 0110 0101 | SPC status | Q.2931 |
| 0110 0110 | SPC report type | Q.2931 |
| 0110 0111 | Transit network identification | X.76 |
| 0110 1000 | closed user group interlock code | X.76 |
| 0110 1001 | call identification | X.76 |
| 0110 1010 | Priority and service class parameters | X.36 and X.76 |
| 0110 1011 | Clearing network identification | X.76 |
| 0110 1100 | calling party number | Q.931, Q.2931, X.36, X.76 |
| 0110 1101 | calling party subaddress | Q.931, Q.2931, X.36, X.76 |
| 0110 1110 | Generic application transport | X.76 |
| 0110 1111 | Reserved | X.36 and X.76 |
| 0111 0000 | called party number | Q.931, Q.2931, X.36, X.76 |
| 0111 0001 | called party subaddress | Q.931, Q.2931, X.36, X.76 |
| 0111 0010 | | |
| 0111 0011 | | |
| 0111 0100 | redirecting number | Q.931 |
| 0111 0101 | | |
| 0111 0110 | redirection number | Q.952 |
| 0111 0111 | | |
| 0111 1000 | transit network selection | Q.931, Q.2931, X.36, X.76 |

| Information element identifier | Information element name | Reference |
|---|---|---|
| 0111 1001 | restart indicator | Q.931, Q.2931 |
| 0111 1010 | | |
| 0111 1011 | | |
| 0111 1100 | low layer compatibility | Q.931, Q.2931 |
| 0111 1101 | high layer compatibility | Q.931, Q.2931, X.76 |
| 0111 1110 | user-user | Q.931, Q.2957.1, X.36, X.76 |
| 0111 1111 | escape for extension (DSS1) | Q.931 |
| **Variable length information elements (DSS2 only)** | | |
| 0111 1111 | Generic identifier transport | Q.2941.1 |
| 1000 0000 | | |
| 1000 0001 | minimum acceptable traffic descriptor | Q.2962 |
| 1000 0010 | alternative ATM traffic descriptor | Q.2962 |
| 1000 0011 | network look-ahead indicator | Q.2964.1 |
| 1000 0100 | ABR setup parameters | Q.2961.3 |
| 1000 0101 | | |
| 1000 0110 | CDVT descriptor | Q.2961.5 |
| 1000 0111 | | |
| 1000 1000 | priority | Q.2959 |
| 1000 1001 | broadband report type | Q.2931 |
| 1000 1010 through 1000 1111 | Unassigned | |
| 1001 0000 | call identifier | Q.2982 |
| 1001 0001 | bearer identifier | Q.2983 |
| 1001 0010 | call capability | Q.2982 |
| 1001 0011 | call association | Q.2983 |
| 1110 0000 through 1110 1011 | reserved to the MFA Forum | |
| 1110 1100 | extended QoS parameters | Q.2965.2 |
| 1110 1101 through 1111 1001 | reserved to the MFA Forum | |
| 1111 1111 | escape for extension (DSS2) | Q.2931 |

NOTE – These code points are reserved to ensure backward compatibility with earlier versions of DSS1 Recommendations.

# 4 DSS2 information elements code points reserved to the MFA Forum

## 4.1 Broadband bearer capability information element

*BTC field (octet 5a)*

Bits

7 6 5 4 3 2 1

0 0 0 1 1 1 0 GFR 1

0 0 0 1 1 1 1 GFR 2

## 4.2 ATM traffic descriptor information element

*Subfield identifiers*

Bits

8 7 6 5 4 3 2 1

1 0 1 1 1 0 0 0 Forward MFS

1 0 1 1 1 0 0 1 Backward MFS

1 0 1 1 1 0 1 0 Forward BCT

1 0 1 1 1 0 1 1 Backward BCT

1 0 0 0 1 1 1 0 Best Effort Indicator

1 1 0 0 0 0 1 0 High Rate Forward Peak Cell Rate identifier (CLP = 0)

1 1 0 0 0 0 1 1 High Rate Backward Peak Cell Rate identifier (CLP = 0)

1 1 0 0 0 1 0 0 High Rate Forward Peak Cell Rate identifier (CLP = 0 + 1)

1 1 0 0 0 1 0 1 High Rate Backward Peak Cell Rate identifier (CLP = 0 + 1)

1 1 0 0 1 0 0 0 High Rate Forward Sustainable Cell Rate identifier (CLP = 0)

1 1 0 0 1 0 0 1 High Rate Backward Sustainable Cell Rate identifier (CLP = 0)

1 1 0 1 0 0 0 0 High Rate Forward Sustainable Cell Rate identifier (CLP = 0 + 1)

1 1 0 1 0 0 0 1 High Rate Backward Sustainable Cell Rate identifier (CLP = 0 + 1)

1 1 1 0 0 0 0 0 High Rate Forward Maximum Burst Size identifier (CLP = 0)

1 1 1 0 0 0 0 1 High Rate Backward Maximum Burst Size identifier (CLP = 0)

1 1 1 1 0 0 0 0 High Rate Forward Maximum Burst Size identifier (CLP = 0 + 1)

1 1 1 1 0 0 0 1 High Rate Backward Maximum Burst Size identifier (CLP = 0 + 1)

1 1 0 1 0 0 1 0 High Rate Forward Minimum Cell Rate identifier (CLP = 0 + 1)

1 1 0 1 0 0 1 1 High Rate Backward Minimum Cell Rate identifier (CLP = 0 + 1)

1 1 1 1 1 0 1 0 High Rate Forward Burst Cell Tolerance identifier

1 1 1 1 1 0 1 1 High Rate Backward Burst Cell Tolerance identifier

## 4.3 Broadband repeat indicator information element

*Broadband repeat indicator field (octet 5)*

Bits

4 3 2 1

1 0 1 0 Last in, first out stack

## 4.4 ABR setup parameters information element

*Subfield identifiers*

| Bits<br>8 7 6 5 4 3 2 1 | |
|---|---|
| 1 1 1 0 0 0 1 0 | High Rate Forward ABR Initial Cell Rate identifier (CLP = 0 + 1) |
| 1 1 1 0 0 0 1 1 | High Rate Backward ABR Initial Cell Rate identifier (CLP = 0 + 1) |
| 1 1 1 0 0 1 0 0 | High Rate Forward ABR Transient Buffer Exposure identifier (CLP = 0 + 1) |
| 1 1 1 0 0 1 0 1 | High Rate Backward ABR Transient Buffer Exposure identifier (CLP = 0 + 1) |

## SERIES OF ITU-T RECOMMENDATIONS

| | |
|---|---|
| Series A | Organization of the work of ITU-T |
| Series D | General tariff principles |
| Series E | Overall network operation, telephone service, service operation and human factors |
| Series F | Non-telephone telecommunication services |
| Series G | Transmission systems and media, digital systems and networks |
| Series H | Audiovisual and multimedia systems |
| Series I | Integrated services digital network |
| Series J | Cable networks and transmission of television, sound programme and other multimedia signals |
| Series K | Protection against interference |
| Series L | Construction, installation and protection of cables and other elements of outside plant |
| Series M | Telecommunication management, including TMN and network maintenance |
| Series N | Maintenance: international sound programme and television transmission circuits |
| Series O | Specifications of measuring equipment |
| Series P | Telephone transmission quality, telephone installations, local line networks |
| **Series Q** | **Switching and signalling** |
| Series R | Telegraph transmission |
| Series S | Telegraph services terminal equipment |
| Series T | Terminals for telematic services |
| Series U | Telegraph switching |
| Series V | Data communication over the telephone network |
| Series X | Data networks, open system communications and security |
| Series Y | Global information infrastructure, Internet protocol aspects and next-generation networks |
| Series Z | Languages and general software aspects for telecommunication systems |

Printed in Switzerland
Geneva, 2006