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Technical Report

**Digital Video Broadcasting (DVB);
Allocation of Service Information (SI)
and Data Broadcasting Codes codes for
Digital Video Broadcasting (DVB) systems**

European Broadcasting Union   Union Européenne de Radio-Télévision

EBU·UER

Reference

DTR/JTC-DVB-10

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Foreword

This Technical Report (TR) has been produced by the Joint Technical Committee (JTC) Broadcast of the European Broadcasting Union (EBU), Comité Européen de Normalization ELECtrotechnique (CENELEC) and the European Telecommunications Standards Institute (ETSI).

The present document is based on the DVB document TM1324, rev. X / 162 rev. 13, and it may be converted into a standard after market feedback. For this purpose, the wording of a standard (normative elements) rather than of a technical report (informative elements) has been used.

NOTE: The EBU/ETSI JTC Broadcast was established in 1990 to co-ordinate the drafting of standards in the specific field of broadcasting and related fields. Since 1995 the JTC Broadcast became a tripartite body by including in the Memorandum of Understanding also CENELEC, which is responsible for the standardization of radio and television receivers. The EBU is a professional association of broadcasting organizations whose work includes the co-ordination of its members' activities in the technical, legal, programme-making and programme-exchange domains. The EBU has active members in about 60 countries in the European broadcasting area; its headquarters is in Geneva.

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Founded in September 1993, the DVB Project is a market-led consortium of public and private sector organizations in the television industry. Its aim is to establish the framework for the introduction of MPEG-2 based digital television services. Now comprising over 200 organizations from more than 25 countries around the world, DVB fosters market-led systems, which meet the real needs, and economic circumstances, of the consumer electronics and the broadcast industry.

1   Scope

This ETSI Technical Report (ETR) supplements the European Telecommunication Standard (ETS) ETS 300 468 [1] which describes the Service Information (SI) to be used with Digital Video Broadcasting (DVB) systems.

This ETR identifies the SI codes allocated for DVB systems. Four sets of code values are identified:

- the Network_id used to identify a network;

- the Bouquet_id used to identify a bouquet;

- the CA_system_id used to identify the kind of encryption used;

- the Country code used to identify a country or region.

These codes are allocated by the Joint Technical Committee (JTC) of the European Broadcasting Union (EBU) and the European Telecommunications Standards Institute (ETSI) at the request of potential service providers and once allocated, become part of EN 300 468 [1] by reference. Further details can be obtained by contacting the ETSI secretariat or the DVB Project Office:

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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, edition number, version number, etc.) or non-specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies.

- A non-specific reference to an EN shall also be taken to refer to later versions published as an EN with the same number.

[1]   ETSI EN 300 468: "Digital Video Broadcasting (DVB); Specification for Service Information (SI) in DVB systems".

[2]   ETSI TR 101 211: "Digital Video Broadcasting (DVB); Guidelines on implementation and usage of Service Information (SI)".

[3]   ETSI EN 301 192: "Digital Video Broadcasting (DVB); DVB specification for data broadcasting".

[4]   ETSI TR 101 202: "Digital Video Broadcasting (DVB); Implementation guidelines for Data Broadcasting".

3   Definitions and abbreviations

3.1   Definitions

For the purposes of this ETR, the definitions given in EN 300 468 [1] and EN 301 192 [3] apply.

3.2   Abbreviations

For the purposes of the present document, the following abbreviations apply:

CA   Conditional Access
DVB   Digital Video Broadcasting
SI   Service Information

4   Register of Service Information (SI) codes

4.1   Original Network identification coding

The values given in table 1 are to be used to identify networks within the application area of EN 300 468 [1], by insertion in the field original_network_id. The rules for the allocation of original_network_ids are as follows:

1) In principle only one original_network_id would be allowed per network operator.

2) Original_network_ids are a scarce resource and their allocation is under responsibility of ETSI. Application of multiple original_network_ids is subject to exhaustive verification and discouraged.

3) 256 original_network_ids values are reserved for private/temporary use. Their allocation is not subject of the ETSI standard.

Note: The concept of distinction between the allocation of Original_Network_id and Network_id is new since edition 1 of this ETR. The introduction of this concept was necessary because the address space for Network_ids and Original Network_ids was limited to 65535 values and it was considered that terrestrial networks and cable networks might require a large number of Network_ids.

Since these networks have in most cases a clearly identified geographical region of validity, the re-usage of Network_ids is possible. However, Original_Network_ids have to be unique independent of geographical region, since they are used to uniquely identify the source of a signal particularly if this signal is retransmitted.

As a consequence, this ETR contains one table for the unique identification of Original_Network_ids and another table for the identification of unique and re-usable Network_ids. In order to explain the matter a examples are given below in Annex A.

Table 1: Original_network_id

Original_network_id	Description	Operator
0x0000	Reserved	Reserved
0x0001	Astra Satellite Network 19,2°E	Société Européenne des Satellites
0x0002	Astra Satellite Network 28,2°E	Société Européenne des Satellites
0x0003 - 0x0019	Astra n (n =1-23)	Société Européenne des Satellites
0x001A	Quiero Televisión	Quiero Televisión
0x001F	Europe Online Networks (EON)	Europe Online Networks S.A
0x0020	ASTRA	Société Européenne des Satellites
0x0021	Hispasat Network 1	Hispasat S.A.
0x0022	Hispasat Network 2	Hispasat S.A.
0x0023	Hispasat Network 3	Hispasat S.A.
0x0024	Hispasat Network 4	Hispasat S.A.
0x0025	Hispasat Network 5	Hispasat S.A.
0x0026	Hispasat Network 6	Hispasat S.A.
0x0027	Hispasat 30°W	Hispasat FSS
0x0028	Hispasat 30°W	Hispasat DBS
0x0029	Hispasat 30°W	Hispasat America
0x0030	Canal+ Satellite Network	Canal+ SA°E
0x0031	Hispasat – VIA DIGITAL	Hispasat S.A.
0x0032	Hispasat Network 7	Hispasat S.A.
0x0033	Hispasat Network 8	Hispasat S.A.
0x0034	Hispasat Network 9	Hispasat S.A.
0x0035	Nethold Main Mux System	NetHold IMS
0x0036	TV Cabo	TV Cabo Portugal
0x0037	STENTOR	France Telecom, CNES and DGA
0x0038	OTE	Hellenic Telecommunications Organization S.A.
0x0040	Croatian Post and Telecommunications	HPT – Croatian Post and Telecommunications
0x0041	Mindport network	Mindport
0x0046	1 degree W #1	Telenor
0x0047	1 degree W #2	Telenor
0x0048	STAR DIGITAL	STAR DIGITAL A.S.
0x0049	Sentech Digital Satellite	Sentech
0x0050	Croatian Radio and Television	HRT – Croatian Radio and Television
0x0051	Havas	Havas
0x0052	Osaka Yusen Satellite	StarGuide Digital Networks
0x0055	Sirius Satellite System European Coverage	NSAB (Teracom)
0x0058	(Thiacom 1 & 2 co-located 78.5°E)	UBC Thailand
0x005E	Sirius Satellite System Nordic Coverage	NSAB
0x005F	Sirius Satellite System FSS	NSAB
0x0060	MSG MediaServices GmbH	MSG MediaServices GmbH
(0x0069)	(Optus B3 156°E)	(Optus Communications)
0x0070	BONUM1; 36 Degrees East	NTV+
(0x0073)	(PanAmSat 4 68.5°E)	(Pan American Satellite System)
0x007E	Eutelsat Satellite System at 7°E	European Telecommunications Satellite Organization
0x007F	Eutelsat Satellite System at 7°E	EUTELSAT – European Telecommunications Satellite Organization
0x0085	BetaTechnik	BetaTechnik
0x0090	National network	TDF
0x00A0	National Cable Network	News Datacom
0x00A1	News Satellite Network	News Datacom
0x00A2	News Satellite Network	News Datacom
0x00A3	News Satellite Network	News Datacom

0x00A4	News Satellite Network	News Datacom
0x00A5	News Satellite Network	News Datacom
0x00A6	ART	ART
0x00A7	Globecast	France Telecom
0x00A8	Foxtel	Foxtel
0x00A9	Sky New Zealand	Sky New Zealand
0x00B0-0x00B3	TPS	La Télévision Par Satellite
0x00B4	Telesat 107.3°W	Telesat Canada
0x00B5	Telesat 111.1°W	Telesat Canada
0x00B6	Telstra Saturn	TelstraSaturn Limited
0x00BA	Satellite Express – 6 (80°E)	Satellite Express
0x00C0-0x00CD	Canal +	Canal+
0x00EB	Eurovision Network	European Broadcasting Union
0x0100	ExpressVu	ExpressVu Inc.
0x010E	Eutelsat Satellite System at 10°E	European Telecommunications Satellite Organization
0x010F	Eutelsat Satellite System at 10°E	EUTELSAT – European Telecommunications Satellite Organization
0x0110	Mediaset	Mediaset
0x013E	Eutelsat Satellite System 13°E	European Telecommunications Satellite Organization
0x013F	Eutelsat Satellite System at 13°E	EUTELSAT – European Telecommunications Satellite Organization
0x016E	Eutelsat Satellite System at 16°E	European Telecommunications Satellite Organization
0x016F	Eutelsat Satellite System at 16°E	EUTELSAT – European Telecommunications Satellite Organization
0x022E	Eutelsat Satellite System at 21.5°E	EUTELSAT – European Telecommunications Satellite Organization
0x022F	Eutelsat Satellite System at 21.5°E	EUTELSAT – European Telecommunications Satellite Organization
0x026E	Eutelsat Satellite System at 25.5°E	EUTELSAT – European Telecommunications Satellite Organization
0x026F	Eutelsat Satellite System at 25.5°E	EUTELSAT – European Telecommunications Satellite Organization
0x029E	Eutelsat Satellite System at 29°E	European Telecommunications Satellite Organization
0x029F	Eutelsat Satellite System at 28.5°E	EUTELSAT – European Telecommunications Satellite Organization
0x02BE	Arabsat	Arabsat (Scientific Atlanta, Eutelsat)
0x036E	Eutelsat Satellite System at 36°E	European Telecommunications Satellite Organization
0x036F	Eutelsat Satellite System at 36°E	EUTELSAT – European Telecommunications Satellite Organization
0x03E8	Telia	Telia, Sweden
0x047E	Eutelsat Satellite System at 12.5°W	EUTELSAT – European Telecommunications Satellite Organization
0x047F	Eutelsat Satellite System at 12.5°W	EUTELSAT – European Telecommunications Satellite Organization
0x048E	Eutelsat Satellite System at 48°E	European Telecommunications Satellite Organization
0x048F	Eutelsat Satellite System at 48°E	EUTELSAT – European Telecommunications Satellite Organization
0x052E	Eutelsat Satellite System at 8°W	EUTELSAT – European Telecommunications Satellite Organization
0x052F	Eutelsat Satellite System at 8°W	EUTELSAT – European Telecommunications Satellite Organization
0x0600	UPC Satellite	UPC
0x0601	UPC Cable	UPC
0x0602	Tevel	Tevel Cable (Israel)
0x0800	Nilesat 101	Nilesat
0x0801	Nilesat 101	Nilesat
0x0880	MEASAT 1, 91.5°E	MEASAT Broadcast Network Systems SDN. BHD. (Kuala Lumpur, Malaysia)

0x0882	MEASAT 2, 91.5°E	MEASAT Broadcast Network Systems SDN. BHD. (Kuala Lumpur, Malaysia)
0x0883	MEASAT 2, 148.0°E	Hsin Chi Broadcast Company Ltd.
0x088F	MEASAT 3	MEASAT Broadcast Network Systems SDN. BHD. (Kuala Lumpur, Malaysia)
0x1000	Optus B3 156°E	Optus Communications
0x1001	DISH Network	Echostar Communications
0x1002	Dish Network 61.5 W	Echostar Communications
0x1003	Dish Network 83 W	Echostar Communications
0x1004	Dish Network 119 W	Echostar Communications
0x1005	Dish Network 121 W	Echostar Communications
0x1006	Dish Network 148 W	Echostar Communications
0x1007	Dish Network 175 W	Echostar Communications
0x1008	Dish Network W	Echostar Communications
0x1009	Dish Network X	Echostar Communications
0x100A	Dish Network Y	Echostar Communications
0x100B	Dish Network Z	Echostar Communications
0x1010	ABC TV	Australian Broadcasting Corporation
0x1011	SBS	SBS Australia
0x1012	Nine Network Australia	Nine Network Australia
0x1013	Seven Network Australia	Seven Network Limited
0x1014	Network TEN Australia	Network TEN Limited
0x1015	WIN Television Australia	WIN Television Pty Ltd
0x1016	Prime Television Australia	Prime Television Limited
0x1017	Southern Cross Broadcasting Australia	Southern Cross Broadcasting (Australia) Limited
0x1018	Telecasters Australia	Telecasters Australia Limited
0x1019	NBN Australia	NBN Limited
0x101A	Imparja Television Australia	Imparja Television Australia
0x101B	Reserved for Australian broadcasters	Reserved for Australian broadcasters
0x101C	Reserved for Australian broadcasters	Reserved for Australian broadcasters
0x101D	Reserved for Australian broadcasters	Reserved for Australian broadcasters
0x101E	Reserved for Australian broadcasters	Reserved for Australian broadcasters
0x101F	Reserved for Australian broadcasters	Reserved for Australian broadcasters
0x2000	Thiacom 1 & 2 co-located 78.5°E	Shinawatra Satellite
0x2024	Australian Digital Terrestrial Television	Australian Broadcasting Authority
0x20F6	Finnish Digital Terrestrial Television	Telecommunicatoins Administratoin Centre, Finland
0x2114	German Digital Terrestrial Television	IRT on behalf of the German DVB-T broadcasts
0x2174	Irish Digital Terrestrial Television	Irish Telecommunications Regulator
0x2178	Israeli Digital Terrestrial Television	BEZEQ (The Israel Telecommunication Corp Ltd.)
0x22BE	Singapore Digital Terrestrial Television	Singapore Broadcasting Authority
0x22D4	Spanish Digital Terrestrial Television	"Spanish Broadcasting Regulator
0x22F1	Swedish Digital Terrestrial Television	"Swedish Broadcasting Regulator"
0x233A	UK Digital Terrestrial Television	Independent Television Commission
0x3000	PanAmSat 4 68.5°E	Pan American Satellite System
0x5000	Irdeto Mux System	Irdeto Test Laboratories
0x616D	BellSouth Entertainment	BellSouth Entertainment, Atlanta, GA, USA
0x6600	UPC Satellite	UPC
0x6601	UPC Cable	UPC
0xF000	Small Cable networks	Small cable network network operators

0xF001	Deutsche Telekom	Deutsche Telekom AG
0xF010	Telefónica Cable	Telefónica Cable SA
0xF020	Cable and Wireless Communication	Cable and Wireless Communications
0xF100	Casema	Casema N.V.
0xFBFC	MATAV	MATAV (Israel)
0xFBFD	Telia Kabel-TV	Telia, Sweden
0xFBFE	TPS	La Télévision Par Satellite
0xFBFF	Stream	Stream Spa.
~~0xFC00~~	~~France Telecom Cable~~	~~France Telecom~~
0xFC10	Rhône Vision Cable	Rhône Vision Cable
0xFC41	France Telecom Cable	France Telecom
0xFD00	National Cable Network	Lyonnaise Communications
0xFE00	TeleDenmark Cable TV	TeleDenmark
0xF750	Telewest Communications Cable Network	Telewest Communications Plc
0xFEC0-FF00	Network Interface Modules	Common Interface
0xFF00-FFFF	Private_temporary_use	ETSI

4.1   Network identification coding

The values given in table 3 are to be used to identify networks within the application area of EN 300 468 [1], by insertion in the field network_id.

The rules for the allocation of network_ids are as follows:

1)   Network_ids will be allocated on a geographical basis such that no conflict of network ids occurs in any geographical region. (Satellite network ids will be unique world-wide).

2)   Network_ids are a scarce resource and their allocation is under responsibility of ETSI. Application of multiple network_ids is subject to exhaustive verification and is discouraged.

3)   256 network_ids values are reserved for private/temporary use. Their allocation is not subject of the ETSI standard.

4)   Network_ids will be allocated according to the following table

Table 2: Network_id allocation template

Network_id	Description	Network type	Country code(s) validity	Comment
0x0000	Reserved	Reserved	Reserved	Reserved
0x0001 - 0x2000	Unique satellite	Satellite	902	(4096 values)
0x2001 – 0x3000	Unique terrestrial	Terrestrial	902	(4096 values)
0x3001 – 0x3100	Re-useable terrestrial	Terrestrial	Countries of colour A	(256 values)
0x3101 – 0x3200	Re-useable terrestrial	Terrestrial	Countries of colour B	(256 values)
0x3201 – 0x3300	Re-useable terrestrial	Terrestrial	Countries of colour C	(256 values)
0x3301 – 0x3400	Re-useable terrestrial	Terrestrial	Countries of colour D	(256 values)
0x3401 – 0x3500	Re-useable terrestrial	Terrestrial	Countries of colour "E" (to be used only in case of collision)	(256 values)
0x3501 – 0x3600	Re-useable terrestrial	Terrestrial	Countries of colour "F" (to be used only in case of collision)	(256 values)
0x3601 – 0xA000	Reserved for future use	Terrestrial		(27136 values)
0xA001 – 0xB000	Re-useable cable	Cable	To be specified	(4096 values)
0xB001 – 0xF000	Reserved for future use	Cable		(16384 values)
0xF001 – 0xFF00	Unique cable	Cable	902	(3840 values)
0xFEC0 – 0xFF00	Network Interface Modules	Common Interface	902	(64 Values)
0xFF01 – 0xFFFF	Temporary_private_ use	Not defined	902	(255 values)

5)   Network_ids for the terrestrial delivery medium will be made available to the appropriate national telecommunications regulator and their allocation in each country is under responsibility of this regulator.

6)   In order to avoid the uneconomical use of network_ids, the values will be given in blocks of 256 values on a country by country basis. Non-allocated network_ids will be kept reserved.

7)   The allocation of terrestrial network ids shall be based on a 4-colour-map approach (see Annex B). Two blocks of 256 values are reserved for the eventual case of collision.

8)   If 256 values are not sufficient for a country, a new block of 256 colours will be allocated. This block can be used by all countries with the same colour in the colour map

Table 3: Network_id

Network_id	Description	Network type	Country code(s) of validity	Operator
0x0001 – 0x2000	*Unique satellite*	*Satellite*	*902*	*Satellite Operator*
0x0000	Reserved	Reserved	Reserved	Reserved
0x0001	Astra Satellite Network 19,2°E	Satellite	902	Société Européenne des Satellites
0x0002	Astra Satellite Network 28,2°E	Satellite	902	Société Européenne des Satellites
0x0003 – 0x0019	Astra n (n =1-23)	Satellite	902	Société Européenne des Satellites
0x0020	ASTRA	Satellite	902	Société Européenne des Satellites
0x0021	Hispasat Network 1	Satellite	902	Hispasat S.A.
0x0022	Hispasat Network 2	Satellite	902	Hispasat S.A.
0x0023	Hispasat Network 3	Satellite	902	Hispasat S.A.
0x0024	Hispasat Network 4	Satellite	902	Hispasat S.A.
0x0025	Hispasat Network 5	Satellite	902	Hispasat S.A.
0x0026	Hispasat Network 6	Satellite	902	Hispasat S.A.
0x0027	Hispasat 30°W	Satellite	902	Hispasat FSS
0x0028	Hispasat 30°W	Satellite	902	Hispasat DBS
0x0029	Hispasat 30°W	Satellite	902	Hispasat America
0x002A	Multicanal	Satellite	902	Multicanal
0x002B	Telstra Saturn Satellite	Satellite	902	TelstraSaturn Limited
0x0030	Canal+ Satellite Network	Satellite	902	Canal+ SA
0x0031	Hispasat – VIA DIGITAL	Satellite	902	Hispasat S.A.
0x0032	Hispasat Network 7	Satellite	902	Hispasat S.A.
0x0033	Hispasat Network 8	Satellite	902	Hispasat S.A.
0x0034	Hispasat Network 9	Satellite	902	Hispasat S.A.
0x0036	TV Cabo	Satellite	902	TV Cabo Portugal
0x0037	STENTOR	Satellite	902	France Telecom, CNES and DGA
0x0038	OTE	Satellite	902	Hellenic Telecommunications Organization S.A.
0x0039	PMSI	Satellite	902	PMSI (Philippines)
0x0040	HPT – Croatian Post and Telecommunications	*To be defined*	902	HPT – Croatian Post and Telecommunications
0x0041	To be defined See Wim Mooij	Satellite	902	Mindport
0x0046	1 degree W	Satellite	902	Telenor
0x0047	1 degree W	Satellite	902	Telenor
0x0048	STAR DIGITAL	Satellite	902	STAR DIGITAL A.S.
0x0049	Sentech Digital Satellite	Satellite	902	Sentech
0x0050	HRT – Croatian Radio and Television	*To be defined*	902	HRT – Croatian Radio and Television
0x0051	Havas	Satellite	902	Havas
0x0055	Sirius Satellite System European Coverage	Satellite	902	NSAB (Teracom)
(0x0058)	(Thiacom 1 & 2 co-located 78.5°E)	(Satellite)	902	UBC Thailand
0x005E	Sirius Satellite System Nordic Coverage	Satellite	902	NSAB
0x005F	Sirius Satellite System FSS	Satellite	902	NSAB
0x0060	MSG MediaServices GmbH	Satellite	902	MSG MediaServices GmbH
0x0069	Optus B3 156°E	Satellite	902	Optus Communications
0x0070	BONUM1; 36 Degrees East	Satellite	902	NTV+
0x0071	TV Polsat	Satellite	902	Telewizja Polsat
0x007E	Eutelsat Satellite System at 7°E	Satellite	902	European Telecommunications Satellite Organization

0x007F	Eutelsat Satellite System at 7°E	Satellite	902	EUTELSAT – European Telecommunications Satellite Organization
0x0073	PanAmSat 4 68.5°E	Satellite	902	Pan American Satellite System
0x0085		Satellite	902	BetaTechnik
0x0090	National network	Terrestrial broadcast	902	TDF
0x00A0	National Cable Network	Cable	902	News Datacom
0x00A1	News Satellite Network	Satellite	902	News Datacom
0x00A2	News Satellite Network	Satellite	902	News Datacom
0x00A3	News Satellite Network	Satellite	902	News Datacom
0x00A4	News Satellite Network	Satellite	902	News Datacom
0x00A5	News Satellite Network	Satellite	902	News Datacom
0x00A6	ART	Satellite	902	ART
0x00A7	Globecast	Satellite	902	France Telecom
0x00A8	Foxtel	Satellite	902	Foxtel
0x00A9	Sky New Zealand	Satellite	902	Sky New Zealand
0x00B0-0x00B3	TPS	Satellite	902	La Télévision Par Satellite
0x00B4	Telesat 107.3°W	Satellite	902	Telesat Canada
0x00B5	Telesat 111.1°W	Satellite	902	Telesat Canada
0x00C0-0x00CD	Canal +	Satellite, Cable	902	Canal+
0x00EB	Eurovision Network	Satellite	902	European Broadcasting Union
0x0100	ExpressVu 1	Satellite	902	ExpressVu Inc.
0x0101	ExpressVu 2	Satellite	902	ExpressVu Inc.
0x0102	ExpressVu 3	Satellite	902	ExpressVu Inc.
0x0103	ExpressVu 4	Satellite	902	ExpressVu Inc.
0x010E	Eutelsat Satellite System at 10°E	Satellite	902	European Telecommunications Satellite Organization
0x010F	Eutelsat Satellite System at 10°E	Satellite	902	EUTELSAT – European Telecommunications Satellite Organization
0x0110	Mediaset	Satellite	902	Mediaset
0x013E	Eutelsat Satellite System 13°E	Satellite	902	European Telecommunications Satellite Organization
0x013F	Eutelsat Satellite System at 13°E	Satellite	902	EUTELSAT – European Telecommunications Satellite Organization
0x016E	Eutelsat Satellite System at 16°E	Satellite	902	European Telecommunications Satellite Organization
0x016F	Eutelsat Satellite System at 16°E	Satellite	902	EUTELSAT – European Telecommunications Satellite Organization
0x022F	Eutelsat Satellite System at 21.5°E	Satellite	902	EUTELSAT – European Telecommunications Satellite Organization
0x022F	Eutelsat Satellite System at 21.5°E	Satellite	902	EUTELSAT – European Telecommunications Satellite Organization
0x026E	Eutelsat Satellite System at 25.5°E	Satellite	902	EUTELSAT – European Telecommunications Satellite Organization
0x026F	Eutelsat Satellite System at 25.5°E	Satellite	902	EUTELSAT – European Telecommunications Satellite Organization
0x029E	Eutelsat Satellite System at 29°E	Satellite	902	European Telecommunications Satellite Organization
0x029F	Eutelsat Satellite System at 28.5°E	Satellite	902	EUTELSAT – European Telecommunications Satellite Organization

0x036E	Eutelsat Satellite System at 36°E	Satellite	902	European Telecommunications Satellite Organization
0x036F	Eutelsat Satellite System at 36°E	Satellite	902	EUTELSAT – European Telecommunications Satellite Organization
0x03E8	Telia	Satellite	902	Telia, Sweden
0x047E	Eutelsat Satellite System at 12.5°W	Satellite	902	EUTELSAT – European Telecommunications Satellite Organization
0x047F	Eutelsat Satellite System at 12.5°W	Satellite	902	EUTELSAT – European Telecommunications Satellite Organization
0x048E	Eutelsat Satellite System at 48°E	Satellite	902	European Telecommunications Satellite Organization
0x048F	Eutelsat Satellite System at 48°E	Satellite	902	EUTELSAT – European Telecommunications Satellite Organization
0x052E	Eutelsat Satellite System at 8°W	Satellite	902	EUTELSAT – European Telecommunications Satellite Organization
0x052F	Eutelsat Satellite System at 8°W	Satellite	902	EUTELSAT – European Telecommunications Satellite Organization
0x0601	UPC Satellite	Satellite	902	UPC
0x0616	BellSouth Entertainment	Satellite	902	BellSouth Entertainment, Atlanta, GA, USA
0x0800	Nilesat 101	Satellite	902	Nilesat
0x0880	MEASAT 1, 91.5°E	Satellite	902	MEASAT Broadcast Network Systems SDN. BHD. (Kuala Lumpur, Malaysia)
0x0882	MEASAT 2, 91.5°E	Satellite	902	MEASAT Broadcast Network Systems SDN. BHD. (Kuala Lumpur, Malaysia)
0x0883	MEASAT 2, 148.0°E	Satellite	902	Hsin Chi Broadcast Company Ltd.
0x088F	MEASAT 3	Satellite	902	MEASAT Broadcast Network Systems SDN. BHD. (Kuala Lumpur, Malaysia)
0x1000	Optus B3 156°E	Satellite	902	Optus Communications
0x1001	DISH Network	Satellite	902	Echostar Communications
0x1002	Dish Network 61.5 W	Satellite	902	Echostar Communications
0x1003	Dish Network 83 W	Satellite	902	Echostar Communications
0x1004	Dish Network 119 W	Satellite	902	Echostar Communications
0x1005	Dish Network 121 W	Satellite	902	Echostar Communications
0x1006	Dish Network 148 W	Satellite	902	Echostar Communications
0x1007	Dish Network 175 W	Satellite	902	Echostar Communications
0x1008	Dish Network W	Satellite	902	Echostar Communications
0x1009	Dish Network X	Satellite	902	Echostar Communications
0x100A	Dish Network Y	Satellite	902	Echostar Communications
0x100B	Dish Network Z	Satellite	902	Echostar Communications

0x2001 – 0x3000	*Unique terrestrial*	*Terrestrial*	*902*	*Terrestrial Operator*
0x2000	Thiacom 1 & 2 co-located 78.5°E	Satellite	902	Shinawatra Satellite
0x2001	Osaka Yusen Terrestrial A	Terrestrial	Japan	StarGuide Digital Networks
0x2002	Osaka Yusen Terrestrial B	Terrestrial	Japan	StarGuide Digital Networks

0x3000	PanAmSat 4 68.5°E	Satellite	902	Pan American Satellite System

0x3001 – 0x3100	Re-useable terrestrial	Terrestrial	Countries of Colour A	(256 Values)
0x3001 – 0x3100	UK Digital Terrestrial Television	Terrestrial	826	Independent Television Commission
0x3001 – 0x3100	German Digital Terrestrial Television	Terrestrial	276	IRT on behalf of the German DVB-T broadcasts
0x3001 – 0x3100	Spanish Digital Terrestrial Television	Terrestrial	Spain	Queiro Television on behalf of the Spanish Regulator

0x3101 – 0x3200	Re-useable terrestrial	Terrestrial	Countries of Colour B	(256 Values)
0x3101 – 0x3200	Swedish Digital Terrestrial Television	Terrestrial	752	Post och Telestyrelsen
0x3101 – 0x3200	US Digital Terrestrial Television	Terrestrial	840	BellSouth Entertainment, Atlanta, GA, USA (on behalf of US broadcasters)

0x3201 – 0x3300	Re-useable terrestrial	Terrestrial	Countries of Colour C	(256 Values)
0x3201 – 0x3300	Australian Digital Terrestrial Television	Terrestrial	Australia	Australian Broadcasting Authority
0x3201 – 0x3300	Irish Digital Terrestrial Television	Terrestrial	372	Irish OFCOM
0x3201 – 0x3300	Singapore Digital Terrestrial Television	Terrestrial	702	Singapore Broadcasting Authority

0x3301 – 0x3400	Re-useable terrestrial	Terrestrial	Countries of Colour D	(256 Values)
0x3301 – 0x3400	Finnish Digital Terrestrial Television	Terrestrial	246	Telecommunicatoins Administratoin Centre, Finland
0x3301 – 0x3400	Israeli Digital Terrestrial Television	Terrestrial	376	BEZEQ (The Israel Telecommunication Corp Ltd.)

0x3401 – 0x3500	Re-useable terrestrial	Terrestrial	Countries of Colour "E" – to be used only in case of colision	(256 Values)

0x3501 – 0x3600	Re-useable terrestrial	Terrestrial	Countries of Colour "F" – to be used only in case of colision	(256 Values)

0x3601 – 0xA000	Reserved for future use	Terrestrial	To be defined	(27136 Values)

0xA001 – 0xB000	*Re-useable cable*	*Cable*	*To be specified*	*(4096 Values)*
0xA001-0xA400	Tele Denmark	Cable	900	Tele Denmark
0xA010	Foxtel Cable	Cable	907 (Oceania)	Foxtel
0xA041 - 0xA043	Euskaltel TV On Line	Cable	724 (ES)	Euskaltel
0xA044	Primacom	Cable	Germany	Primacom A.G
0xA050 - 0xA070	Cable & Wireless Optus	Cable	907 (Oceania)	Cable & Wireless Optus
0xA050 – 0xA070	Cable and Wireless Communications	Cable	UK	Cable and Wireless Communications
0xA12B	Telstra Saturn Cable	Cable	907 (Oceania)	TelstraSaturn Limited
0xA500 – 0xA509	Usine d'Eléctricité de Metz Regie Municipale	Cable	250	Usine d'Eléctricité de Metz Regie Municipale
0xA510 – 0xA589	Telefónica Cable	Cable	724	Telefónica Cable SA
0xA600 – 0xA620	Cable Services de France	Cable	250	Cable Service de France
0xA600	Telstra HFC National Network	HFC	907 (Oceania)	Telstra
0xA600	Madritel	Cable	724 (Spain)	Madritel (Spain)
0xA601-A615	Rhône Vision Cable	Cable	250 (France)	Rhône Vision Cable
0xA602	Tevel	Cable	376 (incl. Palestine Terrestories)	Tevel Cable (Israel)
0xA603	Globo Cabo	Cable	076 (Brazil)	Globo Cabo (Brazil)
0xA604	Cablemas	Cable	484 (Mexico)	Cablemas (Mexico)
0xA605	Information Network Centre (INC)	Cable	156 (China)	Information Network Centre (China)
0xA61F	BellSouth Entertainment	Cable	USA	BellSouth Entertainment, Atlanta, GA, USA
0xA620 – 0xA640	Cable Services de France	Cable	250	Cable Service de France
0xA641-0xA660	Dexys	MMDS/Cable	Africa	Dexys
0xA661-0xA663	Est Video Communication	Cable	250	Video Communication
0xA664-A666	Est Video Communication Haut-Rhin	Cable	250	Video Communication Haut-Rhin
0xA670-0xA68F	SUDCABLE Services	Cable	250	SUDCABLE Services
0xA700	Madritel	Cable	724 (ES)	Madritel Comunicaciones S.A.
0xA701	NTL Cable Network	Cable	826 (UK)	NTL
0xA750	Telewest Communications Cable Network	Cable	826 (UK)	Telewest Communications Plc
0xA751-0xA75F	TVCabo	Cable	Portugal	TV Cabo
0xA800-0xA8FF	UPC Cable	Cable	826 (UK)	UPC

0xB001 – 0xF000	*Reserved for future use*	*Cable*	*To be defined*	*(16384 Values)*

0xF001 – 0xFF00	*Unique cable*	*Cable*	*902*	*(3840 Values)*
0xF001-0xF01F	MSG MediaServices GmbH	Cable	902	MSG MediaServices GmbH
0xF100	Casema	Cable	The Netherlands	Casema
0xFBFC	MATAV	Cable	376	MATAV Israel
0xFBFD	Telia Kabel-TV	Cable Network	902	Telia, Sweden
0xFBFE	TPS	Cable Networks	902	La Télévision Par Satellite
0xFBFF	Stream	Cable	902	Stream Spa.
0xFC00 to 0xFCFF	France Telecom Cable	Cable	France	France Telecom
0xFD00 to FDFF	National Cable Network	Cable	902	Lyonnaise Communications

0xFEC0 to FF00	Network Interface Modules	Common Interface	902	64 Values

0xFF01 – 0xFFFF	*Temporary_use*	*Network_type*	*902*	*(255 Values)*
0xFF01 to 0xFFFF	Private_temporary_ use	Not defined	902	User_defined

4.2   Bouquet_id

The values given in table 4 are to be used to identify bouquets within the application area of EN 300 468 [1], by insertion in the field bouquet_id.

Table 4: Bouquet_id

Bouquet_id	Bouquet name	Country Code of Validity	Bouquet operator
0x0000	Reserved	902	Reserved
0x006E	Europe Online Networks (EON)	902	Europe Online Networks S.A
0x006F	WRN D-Radiosat	902	WRN (World Radio Network)
0x0070-0x007F	Eutelsat Satellite System n° (n°=1-16)	902	EUTELSAT – European Telecommunications Satellite Organization
0x0080	Digital Platform	902	Digital Platform
0x0081	TV Polsat	902	Telewizja Polsat
0x0082	TV Cabo Portugal	902	TV Cabo Portugal
0x0083	Dijital Yayýn Pazarlama ve Ticaret A.Þ.	902	Dijital Yayýn Pazarlama ve Ticaret A.Þ.
0x061F	BellSouth Entertainment	902	BellSouth Entertainment, Atlanta, GA, USA
0x1000 - 0x101F	BskyB n° (n°=1-32)	902	British Sky Broadcasting
0x1020 – 0x103F	DISH Network n (n =1-32)	902	Echostar Communications
0x1040 – 0x107F	ARD n (n =1-64)	902	ARD
0x1080 – 0x109F	ZDF n (n =1-32)	902	ZDF
0x10A0 – 0x10BF	ORF n (n =1-32)	902	ORF
0x10C0	NTV+	902	NTV+
0x10C1	RTL Television	902	RTL Television
0x10D1	Primacom n°1	276	Primacom A.G.
0x10D2	Primacom n°2	276	Primacom A.G.
0x10D3	Primacom n°3	276	Primacom A.G.
0x10D4	Primacom n°4	276	Primacom A.G.
0x10D5	Primacom n°5	276	Primacom A.G.
0x10D6	Primacom n°6	276	Primacom A.G.
0x10D7	Primacom n°7	276	Primacom A.G.
0x10D8	Viasat n°1	Scandinavia (900)	Viasat
0x10D9	Viasat n°2	Scandinavia (900)	Viasat
0x10DA	Viasat n°3	Scandinavia (900)	Viasat
0x10DB	Viasat n°4	Scandinavia (900)	Viasat
0x10DC	Teracom n°1	Scandinavia (900)	Teracom AB
0x10DD	Teracom n°2	Scandinavia (900)	Teracom AB
0x10DE	Teracom n°3	Scandinavia (900)	Teracom AB
0x10DF	Teracom n°4	Scandinavia (900)	Teracom AB
0x1500 – 0x150F	ExpressVu n (n =1-16)	902	ExpressVu Inc.
0x2000	Kaleidascope Multichoice	902	Filmnet
0x2001	Osaka Yusen	902	StarGuide Networks
0x2010	WIZJATV	902	AT Entertainment Ltd.
0x2011	WIZJATV n°1	902	AT Entertainment Ltd.
0x2012	WIZJATV n°2	902	AT Entertainment Ltd.
0x2013	WIZJATV n°3	902	AT Entertainment Ltd.
0x2100 – 0x212F	TSA n (n =1-48)	902	Telefónica Servicios Audiovisuales
0x3000 - 0x300F	TPS n (n =1-16)	902	La Télévision Par Satellite
0x3010 - 0x3015	Sentech n (n =1-6)	902	Sentech
0x3100	STENTOR	902	France Telecom, CNES and DGA
0x322B	Telstra Saturn Satellite	902	TelstraSaturn Limited
0x332B	Telstra Saturn Cable	907 (Oceania)	TelstraSaturn Limited

0x3622	Irdeto Bouquet of Download data Services	902	Irdeto
0x3623	To be defined (see Wim Mooij)	902	Mindport
0x3800	OTE	902	OTE
0x4000	HPT	902	HPT
0x4010	HRT	902	HRT
0x4040 – 0x407F	OpenTV n (n =1-64)	902	OpenTV Inc.
0x5000 - 0x501F	BetaTechnik n° (n°=1-32)	902	BetaTechnik
0x6000 - 0x60BF	NDC n° (n°=1-192)	902	News Datacom
0x60C0 - 0x60FF	NDS (n°=193-256)	To be defined	NDS
		To be defined	
0x6180 – 0x62FF	Information Network Centre (INC) (n°=1-128)	156 (China)	Information Network Centre (China)
0x6200 – 0x62FF		To be defined	
0x6600	UPC 1	902	UPC
0x6601	UPC 2	902	UPC
0x7000 – 0x700F	MediaServices n (n =1-16)	902	MSG MediaServices GmbH
0xBBBn (n=1-9)	BBGn (n=1-9)	902	Bertelsmann Broadband Group
0xBBBB	BBG	902	Bertelsmann Broadband Group
0xBBBC	SISAL	Europe	SISAL
0xC000 - 0xC01F	Canal+ n° (n°=1-32)	902	Canal +
0xFC00 – 0xFCFF	France Telecom n° (n°=1-256)	902	France Telecom
0xFD08	Xtra Music	902	Xtra Music

ETSI

4.3   CA_system_id

The values given in table 5 are to be used to identify CA systems within the application area of EN 300 468 [1], by insertion in the field CA_system_id.

Table 5: CA_system_id

CA_system_id values	CA system specifier
0x0000	Reserved
0x0001 to 0x00FF	Standardized systems
0x0100 to 0x01FF	Canal Plus
0x0200 to 0x02FF	CCETT
0x0300 to 0x03FF	MSG MediaServices GmbH
0x0400 to 0x04FF	Eurodec
0x0500 to 0x05FF	France Telecom
0x0600 to 0x06FF	Irdeto
0x0700 to 0x07FF	Jerrold/GI/Motorola
0x0800 to 0x08FF	Matra Communication
0x0900 to 0x09FF	News Datacom
0x0A00 to 0x0AFF	Nokia
0x0B00 to 0x0BFF	Norwegian Telekom
0x0C00 to 0x0CFF	NTL
0x0D00 to 0x0DFF	Philips
0x0E00 to 0x0EFF	Scientific Atlanta
0x0F00 to 0x0FFF	Sony
0x1000 to 0x10FF	Tandberg Television
0x1100 to 0x11FF	Thomson
0x1200 to 0x12FF	TV/Com
0x1300 to 0x13FF	HPT - Croatian Post and Telecommunications
0x1400 to 0x14FF	HRT - Croatian Radio and Television
0x1500 to 0x15FF	IBM
0x1600 to 0x16FF	Nera
0x1700 to 0x17FF	BetaTechnik
0x1800 to 0x18FF	Kudelski SA
0x1900 to 0x19FF	Titan Information Systems
0x2000 to 0x20FF	Telefónica Servicios Audiovisuales
0x2100 to 0x21FF	STENTOR (France Telecom, CNES and DGA)
0x2200 to 0x22FF	Tadiran Scopus
0x2300 to 0x23FF	BARCO AS
0x2400 to 0x24FF	StarGuide Digital Networks
0x2500 to 0x25FF	Mentor Data System, Inc.
0x2600 to 0x26FF	European Broadcasting Union
0x4700 to 0x47FF	General Instrument
0x4800 to 0x48FF	Telemann
0x4900 to 0x49FF	Digital TV Industry Alliance of China
0x4A00 to 0x4A0F	Tsinghua TongFang
0x4A10 to 0x4A1F	Easycas

4.4   Country code values

The values given in table 6 are to be used to identify groups of countries or parts of countries within the application area of EN 300 468 [1]. These are supplementary to ISO 3166.

Table 6: Country code values

Code	Grouping
900	Scandinavia
901	North America (Canada, Caribbean, Mexico, United States of America)
902	All countries
903	South America
904	Latin America
905	Europe
905	Middle East
906	North Africa
907	Oceania (Australia, New Zealand, Melanesia, Micronesia, Polynesia)

4.5   Private data specifier values

The values given in table 7 are to be used to identify private SI by insertion in the field private_data_specifier.

Table 7: Private data specifier values

Private data specifier values	Organisation specifying private SI codes
0x00000000	Reserved
0x00000001	SES
0x00000002	BskyB 1
0x00000003	BskyB 2
0x00000004	BskyB 3
0x00000005	ARD, ZDF, ORF
0x00000006	Nokia Multimedia Network Terminals
0x00000007	AT Entertainment Ltd.
0x00000008	TV Cabo Portugal
0x00000009	Nagravision SA – Kudelski 1
0x0000000A	Nagravision SA – Kudelski 2
0x0000000B	Nagravision SA – Kudelski 3
0x0000000C	Nagravision SA – Kudelski 4
0x0000000D	Nagravision SA – Kudelski 5
0x0000000E	Valvision SA
0x0000000F	Quiero Televisión
0x00000010	La Télévision Par Satellite (TPS)
0x00000011	Echostar Communications
0x00000012	Telia AB
0x00000013	Viasat
0x00000014	Senda (Swedish Terrestrial TV)
0x00000015	MediaKabel
0x00000016	Casema
0x00000017	Humax Electronics Co. Ltd.
0x00000018	@Sky
0x00000019	Singapore Digital Terrestrial Television
0x00000020	Lyonnaise Cable 1
0x00000021	Lyonnaise Cable 2
0x00000022	Lyonnaise Cable 3
0x00000023	Lyonnaise Cable 4
0x00000025	MTV Europe
0x00000026	Pansonic
0x00000027	Mentor Data System, Inc.
0x00000028	EACEM
0x00000030	Telenor
0x00000031	TeleDenmark
0x00000035	Europe Online Networks S.A.
0x00000038	OTE
0x00000039	Telewizja Polsat
0x000000A0	Sentech
0x000000A1	TechniSat Digital GmbH
0x000000BE	BetaTechnik
0x000000C0	Canal+
0x000000D0	Dolby Laboratories Inc.
0x000000E0	ExpressVu Inc.
0x000000F0	France Telecom, CNES and DGA (STENTOR)
0x00000100	OpenTV
0x00000150	Loewe Opta GmbH
0x00000600	UPC 1
0x00000601	UPC 2
0x00001000	La Télévision Par Satellite (TPS)
0x000022D4	"Spanish Broadcasting Regulator
0x000022F1	"Swedish Broadcasting Regulator"
0x0000233A	Independent Television Commission
0x00006000	News Datacom
0x00006001	NDC 1
0x00006002	NDC 2
0x00006003	NDC 3
0x00006004	NDC 4
0x00006005	NDC 5
0x00006006	NDC 6

0x00362275	Irdeto
0x004E544C	NTL
0x00532D41	Scientific Atlanta
0x5347444E	StarGuide Digital Networks
0x00600000	Rhône Vision Cable
0x44414E59	News Datacom (IL) 1
0x46524549	News Datacom (IL) 1
0x46545600 - 0x46545620	FreeTV 1 to FreeTV 33
0x4A4F4A4F	MSG MediaServices GmbH
0x4F545600 - 0x4F5456FF	OpenTV 1 to OpenTV 256
0x50484900 – 0x504849FF	Philips DVS 1 to Philips DVS 256
0x53415053	Scientific Atlanta
0xBBBBBBBB	Bertelsmann Broadband Group
0xECCA0001	ECCA (European Cable Communications Association)
0xFCFCFCFC	France Telecom

4.6   Data_broadcast_id

The values given in table 8 are to be used to identify private SI by insertion in the field Data_broadcast_id.

Table 8: Data_broadcast_id

Data broadcast specification	Data_broadcast_id
Reserved for future use	0x0000
Data pipe	0x0001
Asynchronous data stream	0x0002
Synchronous data stream	0x0003
Synchronised data stream	0x0004
Multi protocol encapsulation	0x0005
Data Carousel	0x0006
Object Carousel	0x0007
DVB ATM streams	0x0008
Higher Protocols based on asynchronous data streams	0x0009
Reserved for future use by DVB	0x000A-0x00FF
Reserved for registration	0x0100-0xFFFE
Reserved for future use	0xFFFF

There is a wide range of values (0x0100 - 0xFFFE) that can be used for the registration of private systems. Table 9 gives a list of all registered data_broadcast_ids.

Table 9: Registered data_broadcast_ids

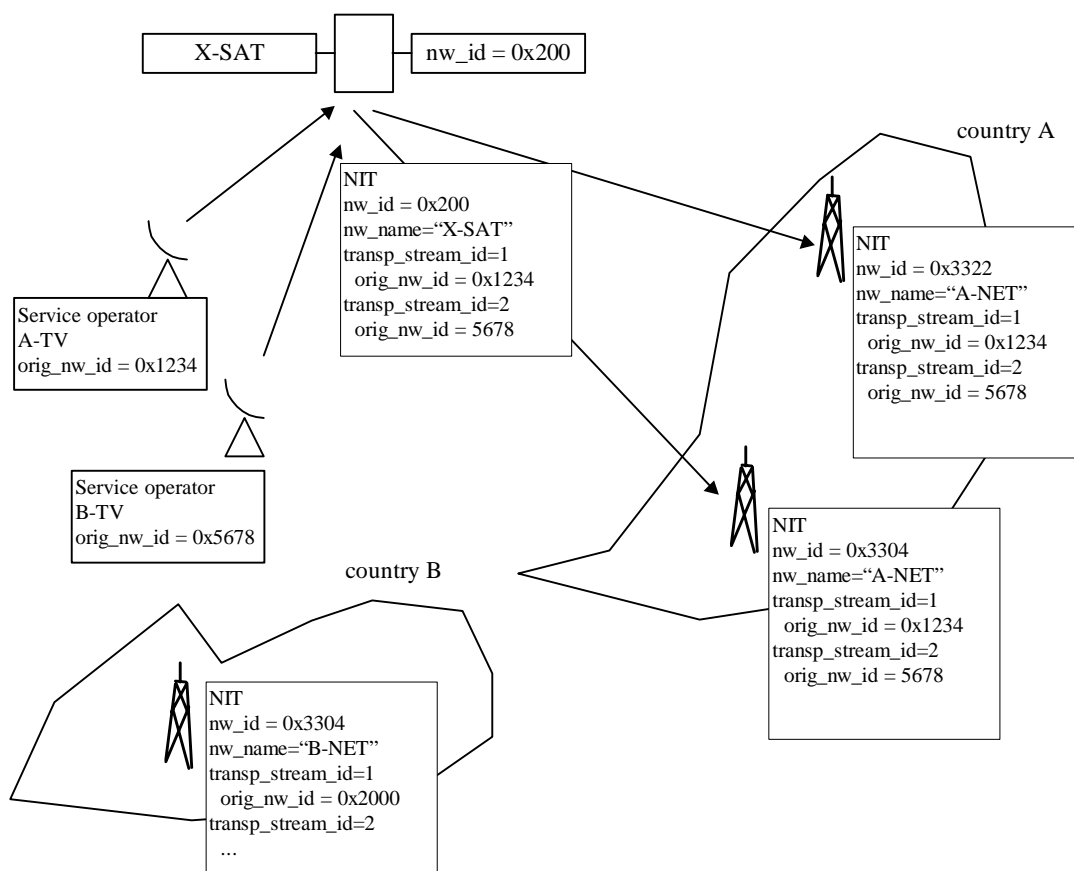| Data_broadcast_id	Data broadcast specification name
0x0100	Eutelsat Data Piping
0x0101	Eutelsat Data Streaming
0x0102	SAGEM IP encapsulation in MPEG-2 PES packets
0x0103	BARCO Data Broadcasting
0x0104	CyberCity Multiprotocol Encapsulation (New Media Communications Ltd.
0x0105	CyberSat Multiprotocol Encapsulation (New Media Communications Ltd.
0x0106	The Digital Network
0x0107	OpenTV Data Carousel
0x0108	Panasonic
0x0109	MSG MediaServices GmbH
0x0110	Televizja Polsat
0x0111	UK DTG
0x0112	SkyMedia
0xBBBB	Bertelsmann Broadband Group
0xBBB1	BBG Data Caroussel
0xBBB2	BBG Object Caroussel

ANNEX A
Example Scenarios for the Utilisation of network_id and original_network_id

A.1   Re-transmission of a satellite signal in terrestrial networks

A service operator A-TV transmits his transport stream to satellite X-SAT. The signal is re-transmitted by the terrestrial network A-NET in country A.

- A-TV has the unique original_network_id 0x1234.

- Another television network B-TV (original_network_id = 0x5678) is using the same satellite for the contribution to A-Net in country A.

- The original_network_id of a DVB-T network is always the one given for that country according to table 1 of this TR. The originating service operator and its original_network_id does not occur in the NIT of terrestrial networks. One identical original_network_id has to be used for country A and a different one for country B.

- X-SAT has the network_id 0x0200 (in range of unique satellite networks)

- A-NET has the re-usable terrestrial network_id range of 0x3300 ... 0x334f

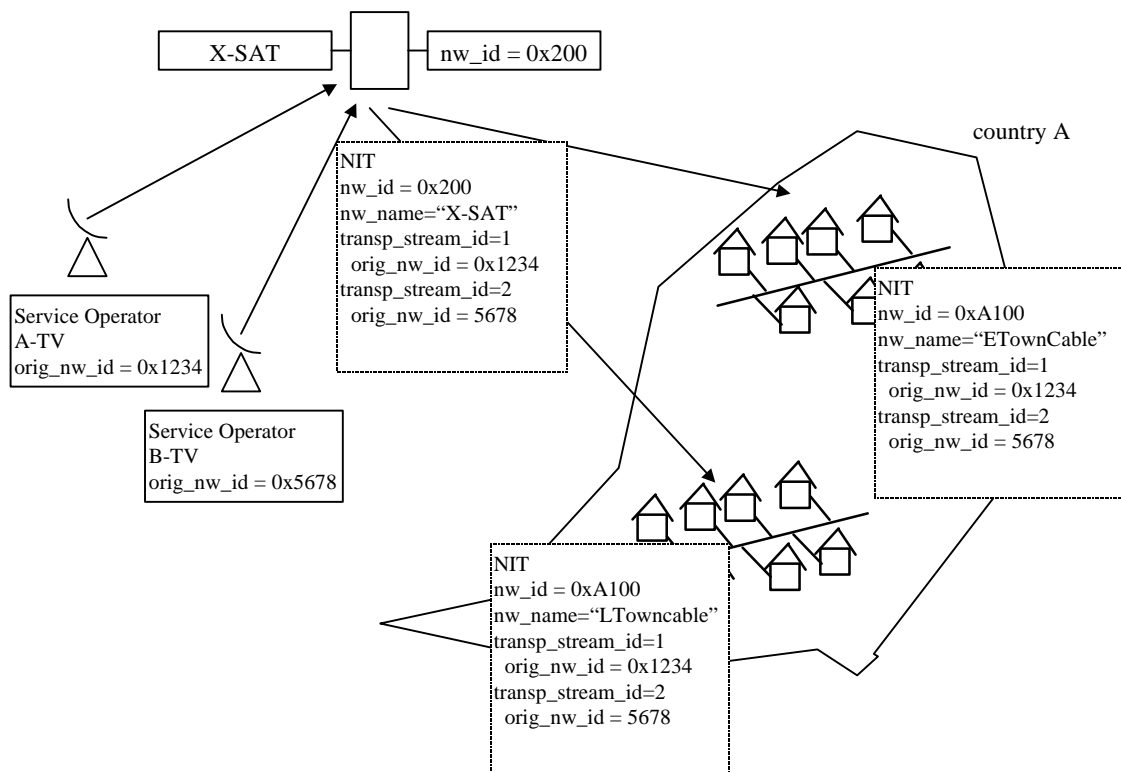The satellite NIT contains the original_network_id of A-TV and the network_id of X-SAT.

On the terrestrial network the original_network_id has always the value that has been allocated for a certain country by Table 1 of this TR. The network_id is replaced by one of the network_ids of country A that could be re-used in country B if it has the same colour in the colour-map (see Annex B).

A.2   Re-transmission of a satellite signal in cable networks

The same scheme as above applies. Cable networks generally shall use re-usable network_ids because there is no risk that IRDs are connected to two cable networks sharing the same network_id at the same time.

The satellite serves different cable networks in L-Town and in E-Town. They can use the same network_id because they are physically separated.

A special case is the transmission of cable network NITs as "foreign" NITs on a satellite. In this case the cable network_ids have to be in the unique range of values since a collision on other networks using the same re-usable network_id cannot be guaranteed. **Note that this method is not recommended since the number of unique network_ids is limited.**

ANNEX B
4-Colour Maps for the allocation of terrestrial network_ids

B.1   Western Europe

History

Document history	
October 1995	First Edition
December 1996	ETR 162 Edition 2 Draft for SI-DAT
February 1997	ETR 162 Edition 2 Draft for SI-DAT (SI-DAT 378)
March 1997	ETR 162 Edition 2 Draft for SI-DAT
July 1997	ETR 162 Edition 2 Draft SI-DAT 378 Rev. 2 for SI-DAT
September 1997	ETR 162 Edition 2 Draft SI-DAT 378 Rev. 3 for SI-DAT implementing rules in SI-DAT 419
July 2000	Application of new ETSI style sheet in the production of TR 100 162, addition of modifications for mobile reception consistent with TM 2277 Rev. 2.