

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

G.994.1
Amendment 7
(06/2016)

SERIES G: TRANSMISSION SYSTEMS AND MEDIA,
DIGITAL SYSTEMS AND NETWORKS

Digital sections and digital line system – Metallic access
networks

Handshake procedures for digital subscriber line
transceivers

Amendment 7

Recommendation ITU-T G.994.1 (2012) – Amendment 7

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Recommendation ITU-T G.994.1

Handshake procedures for digital subscriber line transceivers : Amendment 7

Summary

Amendment 7 to Recommendation ITU-T G.994.1 (2012) includes:

- New codepoints for the support of extended timeout of ITU-T G.9701 initialization.
- New codepoints for the support of the ITU-T G.9701 profile 106b.

History

Edition	Recommendation	Approval	Study Group	Unique ID*
1.0	ITU-T G.994.1	1999-07-02	15	11.1002/1000/4720
1.1	ITU-T G.994.1 (1999) Cor. 1	2000-04-04	15	11.1002/1000/5139
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4.1	ITU-T G.994.1 (2003) Amd. 1	2004-02-22	15	11.1002/1000/7080
4.2	ITU-T G.994.1 (2003) Amd. 2	2004-06-13	15	11.1002/1000/7351
4.3	ITU-T G.994.1 (2003) Amd. 3	2005-01-13	15	11.1002/1000/7495
4.4	ITU-T G.994.1 (2003) Amd. 4	2006-01-13	15	11.1002/1000/8549
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5.1	ITU-T G.994.1 (2007) Amd. 1	2007-11-22	15	11.1002/1000/9167
5.2	ITU-T G.994.1 (2007) Amd. 2	2008-04-13	15	11.1002/1000/9388
5.3	ITU-T G.994.1 (2007) Amd. 3	2009-03-22	15	11.1002/1000/9675
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5.5	ITU-T G.994.1 (2007) Amd. 5	2010-04-22	15	11.1002/1000/10415
5.6	ITU-T G.994.1 (2007) Amd. 6	2010-11-29	15	11.1002/1000/11018
5.7	ITU-T G.994.1 (2007) Amd. 7	2011-04-13	15	11.1002/1000/11129
5.8	ITU-T G.994.1 (2007) Cor. 1	2011-10-29	15	11.1002/1000/11417
5.9	ITU-T G.994.1 (2007) Amd. 8	2011-12-16	15	11.1002/1000/11416
6.0	ITU-T G.994.1	2012-06-13	15	11.1002/1000/11644
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6.2	ITU-T G.994.1 (2012) Amd. 2	2013-08-29	15	11.1002/1000/11994
6.3	ITU-T G.994.1 (2012) Amd. 3	2014-01-13	15	11.1002/1000/12093
6.4	ITU-T G.994.1 (2012) Amd. 4	2014-12-05	15	11.1002/1000/12094
6.5	ITU-T G.994.1 (2012) Amd. 5	2015-02-13	15	11.1002/1000/12373
6.6	ITU-T G.994.1 (2012) Amd. 6	2015-08-29	15	11.1002/1000/12564
6.7	ITU-T G.994.1 (2012) Amd. 7	2016-06-13	15	11.1002/1000/12797

* To access the Recommendation, type the URL <http://handle.itu.int/> in the address field of your web browser, followed by the Recommendation's unique ID. For example, <http://handle.itu.int/11.1002/1000/11830-en>.

FOREWORD

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

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As of the date of approval of this Recommendation, ITU had received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. 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/>.

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Recommendation ITU-T G.994.1

Handshake procedures for digital subscriber line transceivers: Amendment 7

1) Support of extended timeouts of ITU-T G.9701 initialization

1.1) Clause 9.4.35, Table 11.70.0.2

Modify Table 11.70.0.2 as follows:

Table 11.70.0.2 – Standard information field – [ITU-T G.9701] SPar(2) coding – Octet 3

Bits		ITU-T G.9701 SPar(2)s – Octet 3 2			
8	7	6	5 4 3 2 1		
x	x	x	x x x x	1	Number of DS initialization data symbols (s_{ds})
x	x	x	x x x	1 x	Downstream RMC offset
x	x	x	x x	1 x x	CD timeout Reserved for allocation by ITU-T
x	x	x	x	1 x x x	Reserved for allocation by ITU-T
x	x	x	1	x x x x	Reserved for allocation by ITU-T
x	x	1	x x x x	x x	Reserved for allocation by ITU-T
x	x	0	0 0 0 0	0 0	No parameters in this octet

1.2) Clause 9.4.35, Table 11.70.15

Add Table 11.70.15:

**Table 11.70.15 – Standard information field – [ITU-T G.9701]
CD timeout NPar(3) coding – Octet 1**

Bits		ITU-T G.9701 CD timeout NPar(3)s – Octet 1			
8	7	6	5 4 3 2 1		
x	x	x	x x x x	x x	CD timeout 1 (bits 3 to 1)
x	x	x	x x x x	x x	CD timeout 2 (bits 6 to 4)

2) Add codepoint for the support for ITU-T G.9701 profile 106b

2.1) Clause 9.4.35, Table 11.70.1

Modify Table 11.70.1 as follows:

**Table 11.70.1 – Standard information field – [ITU-T G.9701]
profiles NPar(3) coding – Octet 1**

		Bits						
8	7	6	5	4	3	2	1	ITU-T G.9701 profiles NPar(3)s – Octet 1
x	x	x	x	x	x	x	1	Profile 106 a -MHz
x	x	x	x	x	x	1	x	Profile 212 a -MHz
x	x	x	x	x	1	x	x	Reserved for allocation by ITU-T Profile 106b
x	x	x	x	1	x	x	x	Reserved for allocation by ITU-T
x	x	x	1	x	x	x	x	Reserved for allocation by ITU-T
x	x	1	x	x	x	x	x	Reserved for allocation by ITU-T
x	x	0	0	0	0	0	0	No parameters in this octet

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Series J	Cable networks and transmission of television, sound programme and other multimedia signals
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