Recommendation
ITU-T Q.1902.3 (2001) Amd. 6 (12/2023)

SERIES Q: Switching and signalling, and associated measurements and tests

Specifications of signalling related to Bearer Independent Call Control (BICC)

Bearer Independent Call Control protocol (Capability Set 2) and Signalling System No.7 ISDN User Part: Formats and codes
Amendment 6 – Extensions for the support for the calling line identification authentication

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Recommendation ITU-T Q.1902.3

Bearer Independent Call Control protocol (Capability Set 2) and Signalling System No.7 ISDN User Part: Formats and codes

Amendment 6 – Extensions for the support for the calling line identification authentication

Summary

Amendment 6 to Recommendation ITU-T Q.1902.3 was produced to meet the need for the implementation of calling line identification authentication (CIDA) as specified in Recommendation ITU-T Q.3063 (2022). This amendment contains the modifications to Recommendation ITU-T Q.1902.3 (2001) in order to accommodate these needs. This amendment should be read in connection with the related amendments to Recommendations ITU-T Q.1902.1 and ITU-T Q.1902.2.

History [*]

Edition	Recommendation	Approval	Study Group	Unique ID
1.0	ITU-T Q.1902.3	2001-07-02	11	11.1002/1000/5447
1.1	ITU-T Q.1902.3 (2001) Cor. 1	2002-04-13	11	11.1002/1000/6018
1.2	ITU-T Q.1902.3 (2001) Amd. 1	2002-12-29	11	11.1002/1000/6207
1.3	ITU-T Q.1902.3 (2001) Amd. 2	2004-04-13	11	11.1002/1000/7266
1.4	ITU-T Q.1902.3 (2001) Amd. 3	2006-01-27	11	11.1002/1000/8615
1.5	ITU-T Q.1902.3 (2001) Amd. 4	2006-09-13	11	11.1002/1000/8907
1.6	ITU-T Q.1902.3 (2001) Amd. 5	2009-10-29	11	11.1002/1000/10231
1.7	ITU-T Q.1902.3 (2001) Amd. 6	2023-12-14	11	11.1002/1000/15752

Keywords

BICC, CIDA, SSN7.

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Recommendation ITU-T Q.1902.3

Bearer Independent Call Control protocol (Capability Set 2) and Signalling System No.7 ISDN User Part: Formats and codes

Amendment 6 – Extensions for the support for the calling line identification authentication

1 Scope

This amendment was produced to meet the need for the implementation of the calling line identification authentication. The amendment contains the modifications to Recommendation ITU-T Q.1902.3 (2001) in order to accommodate these needs.

2 Formats and codes of BICC

1)   Clause 4 – Abbreviations

Add the following abbreviations in alphabetical order:

IAM   Initial Address Message

UTC   Coordinated Universal Time

2)   Table 2

Modify Table 2 in order to introduce the following new certificate (6.112), new signature (6.113) and new indicator:

Table 2/Q.1902.3 – Parameter name codes

Parameter name	Reference (subclause)	Code	Note
Certificate	6.112	1001 0000	
Signature	6.113	1001 0001	
Calling line identification authentication indicator	6.114	1001 0010	

3)   Table 38

Modify Table 38 to include the certificate, signature and indicator parameters in the initial address message (IAM) message.

Table 38/Q.1902.3

Message Type: Initial address			
Parameter name	**Reference (subclause)**	**Type**	**Length (octets)**
Certificate	6.112	O	41-?
Signature	6.113	O	66-?
Calling line identification authentication indicator	6.114	O	3

4)   New clause 6.112 – certificate

Add new clause 6.112 defining the certificate parameter as follows:

6.112 Certificate

The format of the certificate parameter field is shown in Figure 129.

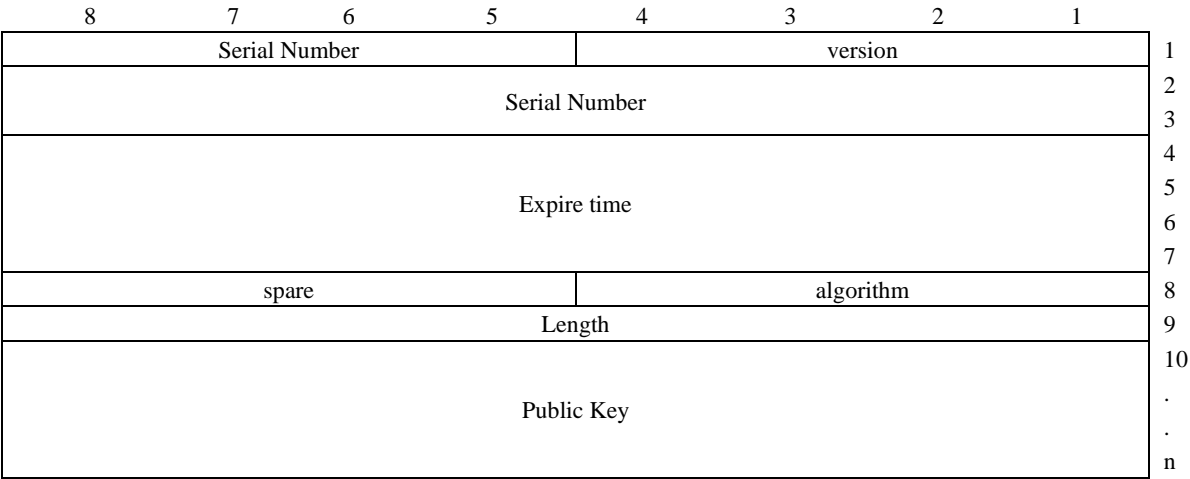| 8	7	6	5	4	3	2	1	
Serial Number				version				1
Serial Number								2
								3
Expire time								4
								5
								6
								7
spare				algorithm				8
Length								9
Public Key								10
								.
								.
								n

Figure 129/Q.1902.3 – certificate parameter field

The following codes are used in the certificate parameter field:

a)   Version

The version shall hold the version of the encoded public-key certificate.

0000 spare

0001 version 1

0010 version 2

0011 version 3

b)   Serial Number

Serial Number is a pure binary representation of the integer assigned to the certificate.

c)   Expire time

The Expiry Time shall be given in UTC time with format "YYYYMM-DDThh:mm:ssTZD" as described by [b-W3C DTF]. This is generated by the CA.

d)   **algorithm**

The code of the algorithm which this public key is an instance of.

0000	RSAEncryption
0001	dhpublicnumber
0010	id-dsa
0011	id-ecPublicKey
0100	
…	reserve
1111	

e)   length

The length indicates length of public key

f)   Public key

The **Public Key** shall hold the public key being certified.

5)   New clause 6.113 – Signature

Add new clause 6.113 defining the signature parameter as follows:

6.113   Signature

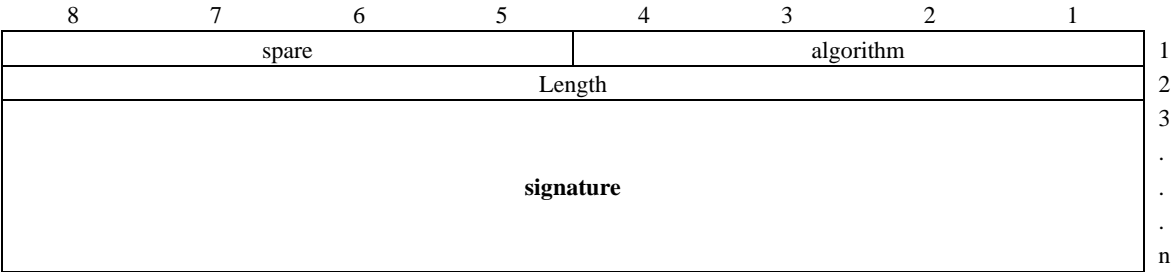The format of the signature parameter field is shown in Figure 130.

8	7	6	5	4	3	2	1	
spare				algorithm				1
Length								2
signature								3 . . . n

Figure 130/Q.1902.3 – signature parameter field

The following codes are used in the signature parameter field:

a)   Algorithm

0000	sha256WithRSAEncryption
0001	sha384WithRSAEncryption
0010	dsa-with-sha256
0011	ecdsa-with-SHA256
0100	
…	reserve
1111	

b)   length

The length indicates length of public key

c)   signature

The **signature** shall hold the signature being signed.

6)   New clause 6.114 – Calling line identification authentication indicator

Add new clause 6.113 defining the calling line identification authentication indicator parameter as follows:

6.114   Calling line identification authentication indicator

The format of the calling line identification authentication indicator parameter field is shown in Figure 131.
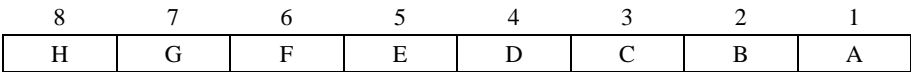
8	7	6	5	4	3	2	1
H	G	F	E	D	C	B	A

Figure 131/Q.1902.3 – calling line identification authentication indicator parameter field

The following codes are used in the calling line identification authentication indicator parameter field:

    bit <u>A</u>   *calling line identification authentication indicator*

       0   successful authentication

       1   unsuccessful authentication

    bits H-B   *Spare*

3   Bibliography

Add a Bibliography with the following entries:

[b-ITU-T Q.1902.1]   Recommendation [ITU-T Q.1902.1 (2001), *Bearer Independent Call Control protocol (Capability Set 2): Functional description*.

[b-ITU-T Q.1902.2]   Recommendation [ITU-T Q.1902.2 (2001), *Bearer Independent Call Control protocol (Capability Set 2) and Signalling System No.7 ISDN User Part: General functions of messages and parameters*.

[b-W3C DTF]   W3C (1997), Date and Time Formats.
https://www.w3.org/TR/NOTE-datetime

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