COMMFIDES

Commfides AS

Commfides Certificate Profiles

Version 1.6

PUBLIC

1 Document History

1.1 Archiving

This document is archived at Commfides backup server

1.2 Document versions

Date for this version: 24/09/2008	Date for next version:

Version number	Date	Revisions	Revision marked
1.1	10/01/2006	First version	N
1.2	31/05/2006	Revision	N
1.3	15/06/2006	Updated OIDs	Y
1.4	30.04.2007	Added Norwegian Enterprise profile	Y
1.5		Updated Norwegian Enterprise profile	Y
1.6	28.03.2011	Replaced old profiles with new for SHA256 CAs for Enterprise Norwegian, Person Standard and Person High. Old profiles are archived in version 1.5	Y

1.3 Approvals

This document needs the following approvals:

Name	Title
Stein Tore Glemmestad	SCD Commfides Norge AS
Kjell Olav Skogen	CEO Commfides Norge AS

1.4 Distribution

This document has been distributed to:

Name	Title
	All people involved at Commfides AS

1.5 References

Ref no	Document id	Version	Title (comments)
1			
2			
3			
4			

2 CONTENTS

3 Summary

Commfides Certificate Profiles

There will be three Certificate Classes:

1. CPN Person-Standard SHA256 Software profile
1.2. CPN Person-Standard SHA256 Hardware profile
2. CPN Person-High SHA256 Hardware profile
3. CPN Enterprise Norwegian SHA256 Software profile
3.2 CPN Enterprise Norwegian SHA256 Hardware profile

This document describe all five profiles

4 CPN Person-Standard SHA256 Class profile

4.1 Software Profile

If user chooses to buy Person-Standard "soft" cert, in that case only **one** certificate will be issued as follows:

FIELD	VALUE	MANDATORY
Issuer:		
countryName (C)	NO	Y
organisationName (O)	COMMFIDES NORGE AS - 988 312 495	Y
Subject DN:		
countryName (C)	NO	Y
serialNumber	9578-4503-<UNID>	Y
commonName (CN)	<First Middle Last>	Y
organisationName (O)		N
Subject Public Key Info	2048	Y
Key Usage	Set as "critical"	Y
	nonRepudiation, digitalSignature	Y
Extended Key Usage	Client Authentication (1.3.6.1.5.5.7.3.2) Secure Email (1.3.6.1.5.5.7.3.4)	Y
Subject alternative name	RFC822Name=<Subject email address> Other Name: Principal Name=<UPN>	Y
CRL Distribution point	http://crl1.commfides.com/CommfidesPerson-Standard-SHA256.crl http://crl2.commfides.com/CommfidesPerson-Standard-SHA256.crl	Y
Authority information access	http://ocsp1.commfides.com/ocsp	Y
Certificate criteria (non critical x.509 extension)	Certificate Policy: Policyidentifier=2.16.578.1.29.11.1.X.X OBJECT IDENTIFIER::= {joint-iso-itu-t(2) country(16) norway(578) organisasjon(1) CN (29) CPN Person-Standard SHA256 CA (11) certificatepolicy (1) version X.X}	Y
Subject information access	<field not in use>	N
Qualifed Certificate Statement	<field not in use>	N
Validity	(1, 2, 3 years) + 1 day	Y

4.2 Hardware profile

If user chooses to buy Person-Standard "hardware" cert, in that case **three** certificates (**signing, authentication** and **encryption**) will be issued as follows:

4.2.1 Signing Certificate

FIELD	VALUE	MANDATORY
Issuer:		
countryName (C)	NO	
organisationName (O)	COMMFIDES NORGE AS - 988 312 495	
Subject DN:		
countryName (C)	NO	Y
serialNumber	9578-4504-<UNID>	Y
commonName (CN)	<First Middle Last>	Y
organisationName (O)		N
Subject Public Key Info	2048	Y
Key Usage:	Set as "critical"	Y
	nonRepudiation	Y
Extended Key Usage	Client Authentication (1.3.6.1.5.5.7.3.2) Secure Email (1.3.6.1.5.5.7.3.4)	Y
Subject alternative name	RFC822Name=<Subject email address> Other Name: Principal Name=<UPN>	Y
CRL Distribution point	http://crl1.commfides.com/CommfidesPerson-Standard-SHA256.crl http://crl2.commfides.com/CommfidesPerson-Standard-SHA256.crl	Y
Authority information access	http://ocsp1.commfides.com/ocsp	Y
Certificate criteria (non critical x.509 extension)	Certificate Policy: Policyidentifier=2.16.578.1.29.11.1.X.X OBJECT IDENTIFIER::= {joint-iso-itu-t(2) country(16) norway(578) organisasjon(1) CN (29) CPN Person-Standard SHA256 CA (11) certificatepolicy (1) version X.X}	Y
Subject information access	<field not in use>	N
Qualifed Certificate Statement	<field not in use>	N
Validity	(1, 2, 3 years) + 2 weeks	Y

4.2.2 Authentication Certificate

FIELD	VALUE	MANDATORY
Issuer:		
countryName (C)	NO	
organisationName (O)	COMMFIDES NORGE AS - 988 312 495	
Subject DN:		
countryName (C)	NO	Y
serialNumber	9578-4504-<UNID>	Y
commonName (CN)	<First Middle Last>	Y
organisationName (O)		N
Subject Public Key Info	2048	Y
Key Usage:	Set as "critical"	Y
	digitalSignature	Y
Extended Key Usage	Client Authentication (1.3.6.1.5.5.7.3.2) Secure Email (1.3.6.1.5.5.7.3.4) Smart Card logon (1.3.6.1.4.1.311.20.2.2)	Y
Subject alternative name	RFC822Name=<Subject email address> Other Name: Principal Name=<UPN>	Y
CRL Distribution point	http://crl1.commfides.com/CommfidesPerson-Standard-SHA256.crl http://crl2.commfides.com/CommfidesPerson-Standard-SHA256.crl	Y
Authority information access	http://ocsp1.commfides.com/ocsp	Y
Certificate criteria (non critical x.509 extension)	Certificate Policy: Policyidentifier=2.16.578.1.29.11.1.X.X OBJECT IDENTIFIER::= {joint-iso-itu-t(2) country(16) norway(578) organisasjon(1) CN (29) CPN Person-Standard SHA256 CA (11) certificatepolicy (1) version X.X}	Y
Subject information access	<field not in use>	N
Qualifed Certificate Statement	<field not in use>	N
Validity	(1, 2, 3 years) + 2 weeks	Y

4.2.3 Encryption Certificate

FIELD	VALUE	MANDATORY
Issuer:		
countryName (C)	NO	
organisationName (O)	COMMFIDES NORGE AS - 988 312 495	
Subject DN:		
countryName (C)	NO	Y
serialNumber	9578-4504-<UNID>	Y
commonName (CN)	<First Middle Last>	Y
organisationName (O)		N
Subject Public Key Info	2048	Y
Key Usage:	Set as "critical"	Y
	Key Encipherment, Data Encipherment, Key Agreement	Y
Extended Key Usage	Client Authentication (1.3.6.1.5.5.7.3.2) Secure Email (1.3.6.1.5.5.7.3.4)	Y
Subject alternative name	RFC822Name=<Subject email address> Other Name: Principal Name=<UPN>	Y
CRL Distribution point	http://crl1.commfides.com/CommfidesPerson-Standard-SHA256.crl http://crl2.commfides.com/CommfidesPerson-Standard-SHA256.crl	Y
Authority information access	http://ocsp1.commfides.com/ocsp	Y
Certificate criteria (non critical x.509 extension)	Certificate Policy: Policyidentifier=2.16.578.1.29.11.1.X.X OBJECT IDENTIFIER::= {joint-iso-itu-t(2) country(16) norway(578) organisasjon(1) CN (29) CPN Person-Standard SHA256 CA (11) certificatepolicy (1) version X.X}	Y
Subject information access	<field not in use>	N
Qualifed Certificate Statement	<field not in use>	N
Validity	(from 1 - 12 years **) + 2 weeks	Y
	** Validity cannot be longer that the remaining lifetime of the signing CA.	

5 CPN Person-High SHA256 Class 3 profile

5.1 Hardware Profile

If user chooses to buy Person-High certificate, **three** certificates (**signing, authentication** and **encryption**) will be issued as follows:

5.1.1 Signing Certificate

FIELD	VALUE	MANDATORY
Issuer:		
countryName (C)	NO	
organisationName (O)	COMMFIDES NORGE AS - 988 312 495	
Subject DN:		
countryName (C)	NO	Y
serialNumber	9578-4505-<UNID>	Y
commonName (CN)	<First Middle Last>	Y
organisationName (O)		N
Subject Public Key Info	2048	Y
Key Usage:	Set as "critical"	Y
	nonRepudiation	Y
Extended Key Usage	Client Authentication (1.3.6.1.5.5.7.3.2) Secure Email (1.3.6.1.5.5.7.3.4)	Y
Subject alternative name	RFC822Name=<Subject email address> Other Name: Principal Name=<UPN>	Y
CRL Distribution point	http://crl1.commfides.com/CommfidesPerson-High-SHA256.crl http://crl2.commfides.com/CommfidesPerson-High-SHA256.crl	Y
Authority information access	http://ocsp1.commfides.com/ocsp	Y
Subject information access	<field not in use>	N
Qualified Certificate Statement	QUALIFIED CERTIFICATE	Y
qCStatements extension	MUST include a OID as described in ETSI TS 101 862 point 5.2.1 (*) And an OID for Transaction limit on 10000 NOK must be specified as ETSI TS 101 862 point 5.2.2 *	Y
Validity	(1, 2, 3 years) + 2 weeks	Y
Certificate criteria (non critical x.509 extension)	Certificate Policy: Policyidentifier=2.16.578.1.29.12.1.X.X OBJECT IDENTIFIER::= {joint-iso-itu-t(2) country(16) norway(578) organisasjon(1) CN (29) CPN Person-High SHA256 CA (12) certificatepolicy (1) version X.X}	Y

* look bottom of document for definition of ETSI TS 101 862 - 5.2.1 and 5.2.2

5.1.2 Authentication Certificate

FIELD	VALUE	MANDATORY
Issuer:		
countryName (C)	NO	
organisationName (O)	COMMFIDES NORGE AS - 988 312 495	
Subject DN:		
countryName (C)	NO	Y
serialNumber	9578-4505-<UNID>	Y
commonName (CN)	<First Middle Last>	Y
organisationName (O)		N
Subject Public Key Info	2048	Y
Key Usage:	Set as "critical"	Y
	digitalSignature	Y
Extended Key Usage	Client Authentication (1.3.6.1.5.5.7.3.2) Secure Email (1.3.6.1.5.5.7.3.4) Smart Card logon (1.3.6.1.4.1.311.20.2.2)	Y
Subject alternative name	RFC822Name=<Subject email address> Other Name: Principal Name=<UPN>	Y
CRL Distribution point	http://crl1.commfides.com/CommfidesPerson-High-SHA256.crl http://crl2.commfides.com/CommfidesPerson-High-SHA256.crl	Y
Authority information access	http://ocsp1.commfides.com/ocsp	Y
Subject information access	<field not in use>	N
Validity	(1, 2, 3 years) + 2 weeks	Y
Certificate criteria (non critical x.509 extension)	Certificate Policy: Policyidentifier=2.16.578.1.29.12.1.X.X OBJECT IDENTIFIER::= {joint-iso-itu-t(2) country(16) norway(578) organisasjon(1) CN (29) CPN Person-High SHA256 CA (12) certificatepolicy (1) version X.X}	Y

5.1.3 Encryption Certificate

FIELD	VALUE	MANDATORY
Issuer:		
countryName (C)	NO	
organisationName (O)	COMMFIDES NORGE AS - 988 312 495	
Subject DN:		
countryName (C)	NO	Y
serialNumber	9578-4505-<UNID>	Y
commonName (CN)	<First Middle Last>	Y
organisationName (O)		N
Subject Public Key Info	2048	Y
Key Usage:	Set as "critical"	Y
	Key Encipherment, Data Encipherment, Key Agreement	Y
Extended Key Usage	Client Authentication (1.3.6.1.5.5.7.3.2) Secure Email (1.3.6.1.5.5.7.3.4)	Y
Subject alternative name	RFC822Name=<Subject email address> Other Name: Principal Name=<UPN>	Y
CRL Distribution point	http://crl1.commfides.com/CommfidesPerson-High-SHA256.crl http://crl2.commfides.com/CommfidesPerson-High-SHA256.crl	Y
Authority information access	http://ocsp1.commfides.com/ocsp	Y
Subject information access	<field not in use>	N
Validity	(1 - 12 years **) + 2 weeks	Y
Certificate criteria (non critical x.509 extension)	Certificate Policy: Policyidentifier=2.16.578.1.29.12.1.X.X OBJECT IDENTIFIER::= {joint-iso-itu-t(2) country(16) norway(578) organisasjon(1) CN (29) CPN Person-High SHA256 CA (12) certificatepolicy (1) version X.X}	Y

** Validity cannot be longer that the remaining lifetime of the signing CA.

6 CPN Norwegian Enterprise SHA356 Class Profile

6.1 Software Profile

If user buy Norwegian Enterprise "**SOFT**" certificate, **THREE** certificates will be issued as follows:

FIELD	VALUE	Critical	MANDATORY
Issuer:			
countryName (C)	NO		Y
organisationName(O)	COMMFIDES NORGE AS - 988 312 495		Y
Subject DN:			
countryName (C)	<ISO 3166 Countrycode>		Y
serialNumber	<Business number as stated in Brønnøysundsregistrene or equally international register>		Y
commonName (CN)	Subjectname <e.g. subscribername, systemname, applicationname, or Domain name owned by the Company>		Y
organisationName (O)	<SubscriberName as stated in Brønnøysundsregistrene or equally international register >		Y
OrganisationUnit(OU)	<Subscriber Department>		N
OrganisationUnit(OU)	NBR=<The National Business Register used for validating the organisationName>		Y
OrganisationUnit(OU)	NBR SN=<The National Business Register's own Business number as stated in the National Business Register>		Y
OrganisationUnit(OU)	Power of attorney Limitations. Individual option for each business to agree upon the limitations given to the certificate holder for the signing certificate. Given in the form of a transaction limitation or in a free form text.		N
Subject Public Key Info	2048		Y
Key Usage			Y
Signing Certificate	nonRepudiation	Y	Y
Authentication	digitalSignature	Y	Y
Encryption	Key Encipherment, Data Encipherment, Key Agreement	Y	Y
Extended Key Usage	Client Authentication (1.3.6.1.5.5.7.3.2), Secure Email (1.3.6.1.5.5.7.3.4), Server Authentication (1.3.6.1.5.5.7.3.19) Client Authentication (1.3.6.1.5.5.7.3.2)		Y
Subject alternative name	RFC822Name=<Subject emailaddress> Other Name: Principal Name=<UPN>		Y
CRL Distribution point	http://crl1.commfides.com/CommfidesEnterprise-SHA256.crl http://crl2.commfides.com/CommfidesEnterprise-SHA256.crl		Y
Authority information access	http://ocsp1.commfides.com/ocsp		Y
Certificate criteria (non critical x.509 extension)	Certificate Policy: Policyidentifier=2.16.578.1.29.13.1.X.X OBJECT IDENTIFIER::= {joint-iso-itu-t(2) country(16) norway(578) organisasjon(1) CN (29) CPN Enterprise Norwegian SHA256 CA (13) certificatepolicy (1) version X.X}		Y

Subject information access	<field not in use>		N
Qualifed Certificate Statement	<field not in use>		N
Validity	(1, 2, 3 years) + 14 day		Y

6.2 Hardware Profile

If user chooses to buy Norwegian Enterprise hardware certificate, **three** certificates (**signing, authentication** and **encryption**) will be issued as follows:

6.2.1 Signing Certificate

FIELD	VALUE	Critical	MANDATORY
Issuer:			
countryName (C)	NO		Y
organisationName(O)	COMMFIDES NORGE AS - 988 312 495		Y
Subject DN:			
countryName (C)	<ISO 3166 Countrycode>		Y
serialNumber	<Business number as stated in Brønnøysundsregistrene or equally international register>		Y
commonName (CN)	Subjectname <e.g. subscribername, systemname, applicationname, or Domain name owned by the Company>		Y
organisationName (O)	<SubscriberName as stated in Brønnøysundsregistrene or equally international register >		Y
OrganisationUnit(OU)	<Subscriber Department>		N
OrganisationUnit(OU)	NBR=<The National Business Register used for validating the organisationName>		Y
OrganisationUnit(OU)	NBR SN=<The National Business Register's own Business number as stated in the National Business Register>		Y
OrganisationUnit(OU)	Power of attorney Limitations. Individual option for each business to agree upon the limitations given to the certificate holder for the signing certificate. Given in the form of a transaction limitation or in a free form text.		N
Subject Public Key Info	2048		Y
Key Usage			Y
Signing Certificate	nonRepudiation	Y	Y
Extended Key Usage	**Secure Email (1.3.6.1.5.5.7.3.4)**		Y
Subject alternative name	RFC822Name=<Subject emailaddress> Other Name: Principal Name=<UPN>		Y
CRL Distribution point	http://crl1.commfides.com/CommfidesEnterprise-SHA256.crl http://crl2.commfides.com/CommfidesEnterprise-SHA256.crl		Y
Authority information	http://ocsp1.commfides.com/ocsp		Y

access			
Certificate criteria (non critical x.509 extension)	Certificate Policy: Policyidentifier=2.16.578.1.29.13.1.X.X OBJECT IDENTIFIER::= {joint-iso-itu-t(2) country(16) norway(578) organisasjon(1) CN (29) CPN Enterprise Norwegian SHA256 CA (13) certificatepolicy (1) version X.X}		Y
Subject information access	<field not in use>		N
Qualifed Certificate Statement	<field not in use>		N
			Y
Validity	(1, 2, 3 years) + 14 day		Y

6.2.2 Authentication Certificate

FIELD	VALUE	Critical	MANDATORY
Issuer:			
countryName (C)	NO		Y
organisationName(O)	COMMFIDES NORGE AS - 988 312 495		Y
Subject DN:			
countryName (C)	<ISO 3166 Countrycode>		Y
serialNumber	<Business number as stated in Brønnøysundsregistrene or equally international register>		Y
commonName (CN)	Subjectname <e.g. subscribername, systemname, applicationname, or Domain name owned by the Company>		Y
organisationName (O)	<SubscriberName as stated in Brønnøysundsregistrene or equally international register >		Y
OrganisationUnit(OU)	<Subscriber Department>		N
OrganisationUnit(OU)	NBR=<The National Business Register used for validating the organisationName>		Y
OrganisationUnit(OU)	NBR SN=<The National Business Register's own Business number as stated in the National Business Register>		Y
Subject Public Key Info	2048		Y
Key Usage			Y
Signing Certificate	digitalSignature	Y	Y
Extended Key Usage	**Secure Email (1.3.6.1.5.5.7.3.4), Server Authentication (1.3.6.1.5.5.7.3.19 Client Authentication (1.3.6.1.5.5.7.3.2)**		Y
Subject alternative name	RFC822Name=<Subject emailaddress> Other Name: Principal Name=<UPN>		Y
CRL Distribution point	http://crl1.commfides.com/CommfidesEnterprise-SHA256.crl		Y

	http://crl2.commfides.com/CommfidesEnterprise-SHA256.crl		
Authority information access	http://ocsp1.commfides.com/ocsp		Y
Certificate criteria (non critical x.509 extension)	Certificate Policy: Policyidentifier=2.16.578.1.29.13.1.X.X OBJECT IDENTIFIER::= {joint-iso-itu-t(2) country(16) norway(578) organisasjon(1) CN (29) CPN Enterprise Norwegian SHA256 CA (13) certificatepolicy (1) version X.X}		Y
Subject information access	<field not in use>		N
Qualifed Certificate Statement	<field not in use>		N
			Y
Validity	(1, 2, 3 years) + 14 day		Y

6.2.3 Encryption Certificate

FIELD	VALUE	Critical	MANDATORY
Issuer:			
countryName (C)	NO		Y
organisationName(O)	COMMFIDES NORGE AS - 988 312 495		Y
Subject DN:			
countryName (C)	<ISO 3166 Countrycode>		Y
serialNumber	<Business number as stated in Brønnøysundsregistrene or equally international register>		Y
commonName (CN)	Subjectname <e.g. subscribername, systemname, applicationname, or Domain name owned by the Company>		Y
organisationName (O)	<SubscriberName as stated in Brønnøysundsregistrene or equally international register >		Y
OrganisationUnit(OU)	<Subscriber Department>		N
OrganisationUnit(OU)	NBR=<The National Business Register used for validating the organisationName>		Y
OrganisationUnit(OU)	NBR SN=<The National Business Register's own Business number as stated in the National Business Register>		Y
Subject Public Key Info	2048		Y
Key Usage			Y
Signing Certificate	Key Encipherment, Data Encipherment, Key Agreement	Y	Y
Extended Key Usage	Secure Email (1.3.6.1.5.5.7.3.4),		Y
Subject alternative name	RFC822Name=<Subject emailaddress> Other Name: Principal Name=<UPN>		Y

CRL Distribution point	http://crl1.commfides.com/CommfidesEnterprise-SHA256.crl http://crl2.commfides.com/CommfidesEnterprise-SHA256.crl		Y
Authority information access	http://ocsp1.commfides.com/ocsp		Y
Certificate criteria (non critical x.509 extension)	Certificate Policy: Policyidentifier=2.16.578.1.29.13.1.X.X OBJECT IDENTIFIER::= {joint-iso-itu-t(2) country(16) norway(578) organisasjon(1) CN (29) CPN Enterprise Norwegian SHA256 CA (13) certificatepolicy (1) version X.X}		Y
Subject information access	<field not in use>		N
Qualifed Certificate Statement	<field not in use>		N
			Y
Validity	(1-12 years **) + 14 days		Y

** Validity cannot be longer that the remaining lifetime of the signing CA.

7 Regarding QC statement.

According to ETSI TS 101 862 - 5.2.1 and 5.2.2 and an **OID is required for Qualified Certificates Person High in qcStatement**

ETSI demand is that we include two OIDS in this fields.

One is for stating that the certificate is qualified, (ref ETSI TS 101 862 v1.3.3) and the other is for stating the transaction liability. These two OIDs must be present ONLY in the Person HIGH certificate (since this is the only one that is qualified)

IMPORTANT: these OIDs is defined in the ESTI TS 101 862 v1.3.3

Information for this is provided in the Certificate Profile definition for Person High certificates used to define Commfides Person High certificates.

1. The OID for Stating that a certificate is Qualified is:

OID: 0.4.0.1862.1.1
{itu-t(0) identified-organization(4) etsi(0) qc-profile(1862) qcs(1) qcs-QcCompliance(1)}

2. The OID according to our liability, transaction of 10.000 NOK

The OID for Stating the liability is: OID: 0.4.0.1862.1.2

esi4-qcStatement-2 QC-STATEMENT ::= { SYNTAX QcEuLimitValue IDENTIFIED
BY id-etsi-qcs-QcLimitValue }

SEQUENCE {currency INTEGER (578), amount INTEGER(5), exponent INTEGER(4) }

MAX AMOUNT NOK 1 EXPONENT 4 (10000 NOK)

3. Definitions of the two OIDs are described here:

ETSI TS 101 862

Statement claiming that the certificates is a Qualified certificate

The optional statement defined in this clause contains:
• An Identifier of the statement (represented by an OID), stating that the certificate is issued according to the EU-directive [1], as implemented in the country under which law the issuer is operating.
esi4-qcStatement-1 QC-STATEMENT ::= { IDENTIFIED
BY id-etsi-qcs-QcCompliance }
ETSI
7 ETSI TS 101 862 V1.1.1 (2000-12)
-- This statement is a statement by the issuer that this
-- certificate is issued as a Qualified certificate according
-- Annex I and II of the Directive 1999/93/EC of the European Parliament
-- and of the Council of 13 December 1999 on a Community framework
-- for electronic signatures, as implemented in the law of the country
-- specified in the issuer field of this certificate.

id-etsi-qcs-QcCompliance OBJECT IDENTIFIER ::= { id-etsi-qcs 1 }

Statement regarding limits on the value of transactions

This optional statement contains:
• an identifier of this statement (represented by an OID);
• a monetary value expressing the limit on the value of transactions.

```
esi4-qcStatement-2 QC-STATEMENT ::= { SYNTAX QcEuLimitValue IDENTIFIED
BY id-etsi-qcs-QcLimitValue }
-- This statement is a statement by the issuer which impose a
-- limitation on the value of transaction for which this certificate
-- can be used to the specified amount (MonetaryValue), according to
-- the Directive 1999/93/EC of the European Parliament and of the
-- Council of 13 December 1999 on a Community framework for
-- electronic signatures, as implemented in the law of the country
-- specified in the issuer field of this certificate.
QcEuLimitValue ::= MonetaryValue
MonetaryValue::= SEQUENCE {
currency INTEGER (1..999), -- per ISO 4217
amount INTEGER,
exponent INTEGER}
-- value = amount * 10^exponent
id-etsi-qcs-QcLimitValue OBJECT IDENTIFIER ::= { id-etsi-qcs 2 }
```