Scheme name

BE:Supervision/Accreditation Status List of certification services from Certification Service Providers, which are supervised/accredited by the referenced Member State for compliance with the relevant provisions laid down in Directive 1999/93/EC and its implementation in the referenced Member State's laws.

Legal Notice

The applicable legal framework for the present TSL implementation of the Trusted List of supervised/accredited Certification Service Providers for Belgium is the Directive 1999/93/EC of the European Parliament and of the Council of 13 December 1999 on a Community framework for electronic signatures and its implementation in Belgian laws. The applicable legal national framework is the Belgian CSP act of 9 July 2001 to create a legal framework for the usage of electronic signatures and certification services.

Scheme territory

Scheme status appropriate

determination approach

Scheme type http://uri.etsi.org/TrstSvc/eSigDir-1999-93-EC-TrustedList/schemerules/common community rules

http://uri.etsi.org/TrstSvc/eSigDir-1999-93-EC-TrustedList/schemerules/BE

Issue date 2013-05-01T00:00:00.000Z Next update 2013-09-15T00:00:00.000Z

Historical information 10959 days

period

Sequence number 11

Scheme information

http://tsl.belgium.be/

Scheme Operator

Scheme operator FPS Economy, SMEs, Self-employed and Energy - Quality and Security -

Information Management name

NG III - Koning Albert II-laan 16 Scheme operator street address

Scheme operator

1000 postal code

Scheme operator locality

Scheme operator

state

Scheme operator

country

Brussels

Brussels

BE

Scheme operator

contact

http://economie.fgov.be

mailto:be.sign@economie.fgov.be

Trust Service Providers

Certipost NV/SA

Service provider trade name

Certipost NV/SA

Information URI

http://repository.eid.belgium.be/

http://www.certipost.be/dpsolutions/en/e-certificates-legal-info.html

Service provider street address

Muntcentrum

Service provider

1000

postal code

Service provider

Brussels

locality

Service provider state Brussels

Service provider

BE

country

CN=Belgium Root CA, C=BE

Type CA/OC

undersupervision Status

2003-01-26T23:00:00.000Z Status starting time

Service digital identity (X509)

Version

Serial number 117029288888937864350596520176844645968

Signature algorithm SHA1withRSA

Issuer CN=Belgium Root CA, C=BE Valid from Mon Jan 27 00:00:00 CET 2003 Valid to Mon Jan 27 00:00:00 CET 2014 CN=Belgium Root CA, C=BE Subject Public key Sun RSA public key, 2048 bits

2532727247174242475310876111302551541350771290487408393990707355 3139389403581555633427000903307438065008396155423372038139338001 12922839738743756616914614756910113215373514757637257855001524459884908283374968661826239871065222401938973133495715806769163244 25612414624508684175386094854329316298060568772223745205611112189904505418533484099385023144445138975351025575749503679547226381 90266507753545893758022556650119414854675563337473296025894960416159860774175448506963241118776049541934983183035608916277217984

30948172071644141969017225065301229219951

public exponent: 65537

Subject key identifier 10f00c569b61ea573ab635976d9fddb9148edbe6 Authority key

10f00c569b61ea573ab635976d9fddb9148edbe6

identifier

Key usage keyCertSign

cRLSign

CA=true; PathLen=unlimited Basic constraints

SHA1 Thumbprint dfdfac8947bdf75264a9233ac10ee3d12833dacc

SHA256 Thumbprint 7c7ed4240bb253bb35c376e12e00b027f1659df9d8267422a93eed75edc7adfb

Extension (critical: true)

Qualifications

Qualifier: QCSSCDStatusAsInCert

Assert: atLeastOne

Policy OID: 2.16.56.1.1.1.2.1 Policy OID: 2.16.56.1.1.1.7.1

Additional service information

```
RootCA-QC
The decoded certificate:
Version: V3
Subject: CN=Belgium Root CA, C=BE
Signature Algorithm: SHA1withRSA, OID = 1.2.840.113549.1.1.5
Key: Sun RSA public key, 2048 bits
77417544850696324111877604954193498318303560891627721798430948172071644141969017225065301229219951
public exponent: 65537
Validity: [From: Mon Jan 27 00:00:00 CET 2003,
To: Mon Jan 27 00:00:00 CET 2014]
Issuer: CN=Belgium Root CA, C=BE
SerialNumber: [ 580b056c 5324dbb2 5057185f f9e5a650]
Certificate Extensions: 6
[1]: ObjectId: 2.5.29.35 Criticality=false
AuthorityKeyIdentifier [
KeyIdentifier [
0000: 10 F0 0C 56 9B 61 EA 57 \, 3A B6 35 97 6D 9F DD B9 \, ...V.a.W:.5.m...
0010: 14 8F DB F6
[2]: ObjectId: 2.5.29.19 Criticality=true
BasicConstraints:[
CA:true
PathLen:2147483647
[3]: ObjectId: 2.5.29.32 Criticality=false
CertificatePolicies [
[CertificatePolicyId: [2.16.56.1.1.1]
[PolicyQualifierInfo: [
qualifierID: 1.3.6.1.5.5.7.2.1
qualifier: 0000: 16 20 68 74 74 70 3A 2F 2F 72 65 70 6F 73 69 74 . http://reposit
. 0010: 6F 72 79 2E 65 69 64 2E 62 65 6C 67 69 75 6D 2E ory.eid.belgium.
0020: 62 65
[4]: ObjectId: 2.5.29.15 Criticality=true
KeyUsage [
Key CertSign
[5]: ObjectId: 2.16.840.1.113730.1.1 Criticality=false
NetscapeCertType [
 SSL CA
 Object Signing CA]
[6]: ObjectId: 2.5.29.14 Criticality=false
SubjectKeyIdentifier [
KeyIdentifier [
```

0000: 10 F0 0C 56 9B 61 EA 57 3A B6 35 97 6D 9F DD B9 ...V.a.W:.5.m...

```
0010: 14 8E DB E6
Algorithm: [SHA1withRSA]
Signature:
0000: C8 6D 22 51 8A 61 F8 0F
                               96 6E D5 20 B2 81 F8 C6 .m"Q.a...n.
0010: DC A3 16 00 DA CD 6A E7
                               6B 2A FA 59 48 A7 4C 49
                                                       .....j.k*.YH.LI
0020: 37 D7 73 A1 6A 01 65 5E
                               32 BD E7 97 D3 D0 2E 3C 7.s.j.e^2.....<
0030: 73 D3 8C 7B 83 EF D6 42
                               C1 3F A8 A9 5D 0F 37 BA s.....B.?..].7.
0040: 76 D2 40 BD CC 2D 3F D3
                               44 41 49 9C FD 5B 29 F4 v.@..-?.DAI..[).
0050: 02 23 22 5B 71 1B BF 58
                               D9 28 4E 2D 45 F4 DA E7 .#"[q..X.(N-E...
0060: B5 63 45 44 11 0D 2A 7F
                               33 7F 36 49 B4 CE 6E A9 .cED..*.3.6I..n.
                               42 7B D7 F1 60 F2 D7 87 .1.\...B...`
0070: 02 31 AE 5C FD C8 89 BF
0080: F6 57 2E 7A 7E 6A 13 80
                               1D DC E3 D0 63 1E 3D 71 .W.z.j.....c.=q
0090: 31 B1 60 D4 9E 08 CA AB
                               F0 94 C7 48 75 54 81 F3 1.`.....HuT..
00A0: 18 AD 77 9C F8 B2 8F DB
                               83 AC 8F 34 6B E8 BF C3 ..w.....4k...
00B0: D9 F5 43 C3 64 55 EB 1A
                               BD 36 86 36 BA 21 8C 97 ..C.dU...6.6.!..
                               EC A7 1D AB BE B9 4A 9B
00C0: 1A 21 D4 EA 2D 3B AC BA
00D0: 35 2F 1C 5C 1D 51 A7 1F
                               54 ED 12 97 FF F2 6E 87 5/.\.Q..T....n.
                               7D E6 59 6E 06 94 04 E4 .F.t...=..Yn...
00E0: 7D 46 C9 74 D6 EF EB 3D
```

The certificate in PEM format:

----BEGIN CERTIFICATE-----

MIIDlDCCAnvaAwIBAaIOWAsFbFMk27JOVxhf+eWmUDANBakahkiG9w0BAOUFADAn MQswCQYDVQQGEwJCRTEYMBYGA1UEAxMPQmVsZ2l1bSBSb290IENBMB4XDTAzMDEy NjIzMDAwMFoXDTE0MDEyNjIzMDAwMFowJzELMAkGA1UEBhMCQkUxGDAWBgNVBAMT D0JlbGdpdW0qUm9vdCBDOTCCASIwDOYJKoZIhvcNAOEBBOADqqEPADCCAOoCqqEB AMihcekcRkJ5eHFvna6pqKsot03HIOswkVp19eLSz8hMFJhCWK3HEcVAQGpa+XQS J4fpn0VxTiIs0RIYqjBeoiG52bv/9nTrMQHn035YD5EWTXaJqAFPrSJmcPpLHZXB MFjqvNll2Jq0i0tJRlLf0lMVdssUXRlJsW9q09P9vMIt7EU/CT9YvvzU7wCMgTVy v/cY6pZifSsofxVsY9LKyn0FrMhtB20yvmi4BUCuVJhWPmbxM0jvxKuTXgfeMo8S dKpbNCNUwOpszv42kqgJF+qhLc9s44Qd3ocuMws8d0IhUDiVLlzg5cYx+dtA+mqh pIqTm6chBocdJ9PEoclMsG8CAwEAAa0BuzCBuDA0BgNVHQ8BAf8EBAMCAQYwDwYD VROTAQH/BAUwAwEB/zBCBgNVHSAEOzA5MDcGBWA4AQEBMC4wLAYIKwYBBQUHAgEW IGh0dHA6Ly9yZXBvc2l0b3J5LmVpZC5iZWxnaXVtLmJlMB0GA1UdDgQWBBQQ8AxWarder and the property of thm2HqVzq2NZdtn925FI7b5jARBglghkgBhvhCAQEEBAMCAAcwHwYDVR0jBBgwFoAU EPAMVpth6lc6tjWXbZ/duRS02+YwDQYJKoZIhvcNAQEFBQADggEBAMhtIlGKYfgP lm7VILKB+MbcoxYA2s1q52sq+llIp0xJN9dzoWoBZV4yveeX09AuPHPTjHuD79ZC wT+ogV0PN7p20kC9zC0/00RBSZz9Wvn0AiMiW3Ebv1iZKE4tRfTa57ViRU0RDSp/ M382SbT0bqkCMa5c/ciJv0J71/Fg8teH9lcuen5qE4Ad30PQYx49cTGxYNSeCMqr 8JTHSHVUgfMbrXec6LKP240sjzRr6L/D2fVDw2RV6xq9NoY2uiGMlxoh10ot06y6 7Kcdq765Sps1LxxcHVGnH1TtEpf/8m6HfUbJdNbv6z195lluBpQE5KJVhzgoaiJe 4r50ErAEQyo=

----END CERTIFICATE-----

CN=Belgium Root CA2, C=BE

Type CA/QC

Status undersupervision

Status starting time 2007-10-04T10:00:00.000Z

Service digital identity (X509)

Version 3

Serial number 3098404661496965511

Signature algorithm SHA1withRSA

Public key Sun RSA public key, 2048 bits

modulus:

2505202035897286929802442931365977782136110157856742564234839581 64367953802839672248769831300340203168205752163553604166050045334718830407023741150537135469000352360279650474826843696574001315 552436395329655960576829372646274868386780797947622304693692109500887975787577283413392923336546545109817976430306701793579151565262158435123606358334230710497624432217765218126527057253528859 3688668361490384043063624052887014382463758810568004079588144865 4643858460532713400822409146679502714797245542101554942867836639 3080491585356622044306227220916440412947986826263456222477031966

11536459503012648921426461410998536799349

public exponent: 65537

Subject key identifier 858aebf4c5bbbe0e590394ded6800115e3109c39 858aebf4c5bbbe0e590394ded6800115e3109c39

Authority key identifier

Key usage keyCertSign

cRLSign

Basic constraints CA=true; PathLen=unlimited

SHA1 Thumbprint 51cca0710af7733d34acdc1945099f435c7fc59f

SHA256 Thumbprint 9f9744463be13714754e1a3becf98c08cc205e4ab32028f4e2830c4a1b2775b8

Extension (critical: true)

Qualifications

Qualifier: QCSSCDStatusAsInCert

Assert: atLeastOne

[CertificatePolicyId: [2.16.56.9.1.1]

Policy OID: 2.16.56.9.1.1.2.1 Policy OID: 2.16.56.9.1.1.7.1

Additional service information

RootCA-QC

```
The decoded certificate:
Version: V3
 Subject: CN=Belgium Root CA2, C=BE
Signature Algorithm: SHA1withRSA, OID = 1.2.840.113549.1.1.5
Key: Sun RSA public key, 2048 bits
modulus:
25052020358972869298024429313659777821361101578567425642348395816436795380283967224876983130034020316820575216355360416605904533471883040702374115053713546900035236027965047
10497624432217765218126527057253528859368866836149038404306362405288701438246375881056800407958814486546438584605327134008224091466795027147972455421015549428678366393080491
58535662204430622722091644041294798682626345622247703196611536459503012648921426461410998536799349
public exponent: 65537
Validity: [From: Thu Oct 04 12:00:00 CEST 2007
           To: Wed Dec 15 09:00:00 CET 20211
Issuer: CN=Belgium Root CA2, C=BE
SerialNumber: [
                2affbe9f a2f0e987]
Certificate Extensions: 6
[1]: ObjectId: 2.5.29.35 Criticality=false
AuthorityKeyIdentifier [
KeyIdentifier [
0000: 85 8A EB F4 C5 BB BE 0E 59 03 94 DE D6 80 01 15 ......Y.....
0010: E3 10 9C 39
[2]: ObjectId: 2.5.29.19 Criticality=true
BasicConstraints:[
CA:true
 PathLen: 2147483647
[3]: ObjectId: 2.5.29.32 Criticality=false
CertificatePolicies [
```

```
[PolicyQualifierInfo: [
qualifierID: 1.3.6.1.5.5.7.2.1
qualifier: 0000: 16 20 68 74 74 70 3A 2F 2F 72 65 70 6F 73 69 74 . http://reposit
0010: 6F 72 79 2E 65 69 64 2E 62 65 6C 67 69 75 6D 2E ory.eid.belgium.
11 1
[4]: ObjectId: 2.5.29.15 Criticality=true
Key CertSign
Crl Sign
[5]: ObjectId: 2.16.840.1.113730.1.1 Criticality=false
NetscapeCertType [
 SSI CA
 S/MIME CA
 Object Signing CA]
[6]: ObjectId: 2.5.29.14 Criticality=false
SubjectKeyIdentifier [
KevIdentifier [
0000: 85 8A EB F4 C5 BB BE 0E 59 03 94 DE D6 80 01 15 ......Y.....
Algorithm: [SHA1withRSA]
Signature:
9A 9A BA 18 F2 0B 88 AC .J..t.+....
0010: F3 4A 01 0C 74 BF 2B B3
0020: 1C B3 33 AF CE E5 13 01
                              27 92 84 58 9A 10 B9 F7
                                                     ..3.....'..X....
                              E8 51 EF BF FA 4A 25 A7 ...kt....Q...J%.
0030: CC 14 92 6B 74 16 8A 96
                              CF 11 72 B6 1E B9 39 41 ..c+1.X...r...9A
0040: 89 B6 63 2B 5D 94 58 D1
0050: 16 4D 29 BC 35 53 0B DA
                              DE 8E 0E CD A9 95 77 25 .M).5S......w%
0060: CA 94 5A E9 B2 69 AE D8
                              CO 13 BE 98 FC 96 9C 84
                              20 A4 A4 36 68 6B 4D 60 .U..<....6hkM
0070: 7F 55 13 E6 3C 87 E3 BC
0080: 66 1C F9 BF AC 80 94 66
                              2E B9 41 8A D3 65 D3 84 f.....f..A..e..
0090: 80 02 EF 50 1D 5E 46 DC
                              F7 C9 BA B5 34 7C 2A F3 ...P.^F....4.*.
                             CD 11 E7 FD 14 02 83 66 ..__T..M......f
CE 14 FE BB 1F A7 61 F7 ^...._a.
00A0: C6 D8 5F 5F 54 9D DB 4D
00B0: 5E C8 A6 00 12 A0 5F BE
00C0: AB 4A F1 06 14 9F CA 49
                              42 C2 A9 BC ED 85 B1 AB .J....IB.....
00D0: 81 41 E6 0D C5 42 69 53
                              87 39 9D 4C 1F 00 0E 3E .A...BiS.9.L...>
00E0: 07 0D 75 57 44 A8 53 B4
00F0: 46 6E 14 5D 5E 47 53 8D 78 4D E0 27 BB 8E 85 76 Fn.]^GS.xM.'...v
```

The certificate in PEM format:

---BEGIN CERTIFICATE----

MIIDjjCCAnagAwIBAgIIKv++n6Lw6YcwDQYJKoZIhvcNAQEFBQAwKDELMAkGA1UE WhcNMiExMiE1MDqwMDAwWiAoMOswCOYDVOOGEwJCRTEZMBcGA1UEAxMOOmVsZ2l1 bSBSb290IENBMjCCASIwDQYJKoZIhvcNAQEBBQADggEPADCCAQoCggEBAMZzQh6S /3UPi790hqc/7bIYLS2X+an7mEoj39WN4IzGMhwWLQdCli22bi+n9fzGhYJdld61 IgDMqFNAn68KNaJ6x+HK92AQZw6nUHMXU5WfIp8MXW+2QbyM69odRr2nlL/zGsvU +400HiPIltfsiFPekx40HopOcSZYtF3CiInaYNKJIT/e1wEYNm7hLHADBGXvmAYr XR5i3FVr/mZkIV/4L+HXmymvb82fqgxG0YjFnaKVn6w/Fa7yYd/vw2uaItgscf1Y HewApDgglVrH1Tdjuk+bqv5WRi5j2Qsj1Yr6tSPwiRuhFA0m2kHw0I8w7QUmecFLine American AmeriTaG4flVSOmlGhHUCAwEAAa0BuzCBuDA0BaNVH08BAf8EBAMCA0YwDwYDVR0TA0H/ BAUWAWEB/zBCBgNVHSAE0zA5MDcGBWA4CQEBMC4wLAYIKwYBBQUHAgEWIGh0dHA6 Ly9yZXBvc2l0b3J5LmVpZC5iZWxnaXVtLmJlMB0GA1UdDgQWBBSFiuv0xbu+DlkD lN7WgAEV4xCcOTARBglahkaBhvhCAOEEBAMCAAcwHwYDVR0iBBgwFoAUhYrr9MW7 vg5ZA5Te1oABFeMQnDkwDQYJKoZIhvcNAQEFBQADggEBAFHYhd27V2/MoGy1oyCc JaeJtmMrXZRY0c8RcrYeuTlBFk0pvDVTC9reig7NgZV3JcgUWumvaa7YwB0+mPvW nIR/VRPmPIfjvCCkpDZoa01gZhz5v6yAlGYuuUGK02XThIAC71AdXkbc98m6tTR8 KvPG2F9fVJ3bTc0R5/0UAoNmXsimABKgX770FP67H6dh96tK8QYUn8pJQsKpv02F sauB0eYNxUJpU4c5nUwfAA4+Bw11V0SoU702dmSZ3G7rPUZuFF1eR10NeE3gJ7u0 ----END CERTIFICATE----

CN=Certipost E-Trust Primary Qualified CA, O=Certipost s.a./n.v., C=BE

Type CA/QC

Status undersupervision

Status starting time 2005-07-26T10:00:00.000Z

Service digital identity (X509)

Version

Serial number 4835703278459639067624485

Signature algorithm SHA1withRSA

CN=Certipost E-Trust Primary Qualified CA, O=Certipost s.a./n.v., C=BE Issuer

Valid from Tue Jul 26 12:00:00 CEST 2005 Valid to Sun Jul 26 12:00:00 CEST 2020

Subject CN=Certipost E-Trust Primary Qualified CA, O=Certipost s.a./n.v., C=BE

Sun RSA public key, 2048 bits Public key

modulus:

2198165027276639742335246370299919491834299685174947076499863829 710198451108362985094873473925989264451780406693419632454996429131929507801877488868263056625892314811981652410138907899996057327037799082855868763511239453871155320357733059447691386874174245 6351418525550214828297591584323227847019805029382183516476456072 1350350984913304723496042939229874921930931967750335049019790482 8017572130561815887751919653650932481620948873902322540903538293 2017480465444929903218227769334668958530404811571842689601047281 9175682817566553198501338089830997047280971197474917236039149732

00214236187812432050305807187505398614653

public exponent: 65537

Subject key identifier f078f9077710bbdc1ea1ae79fb3010dbc634f817

Key usage keyCertSign

cRLSign

Basic constraints CA=true; PathLen=unlimited

SHA1 Thumbprint 742cdf1594049cbf17a2046cc639bb3888e02e33

SHA256 Thumbprint 058a40323ec8c46262c3052a5d357b91ac24d3da26351b3ff4407e99f7a4e9b4

Extension (critical: true)

Qualifications

Qualifier: QCForLegalPerson

Assert: atLeastOne

Policy OID: 0.3.2062.7.1.1.112.1 Policy OID: 0.3.2062.7.1.1.140.1 Policy OID: 0.3.2062.7.1.1.111.1

Additional service information

RootCA-QC

The decoded certificate:

Subject: CN=Certipost E-Trust Primary Qualified CA, O=Certipost s.a./n.v., C=BE

Signature Algorithm: SHA1withRSA, OID = 1.2.840.113549.1.1.5

Key: Sun RSA public key, 2048 bits

public exponent: 65537

Validity: [From: Tue Jul 26 12:00:00 CEST 2005, To: Sun Jul 26 12:00:00 CEST 2020]

Issuer: CN=Certipost E-Trust Primary Qualified CA, O=Certipost s.a./n.v., C=BE $\sim 10^{-5}$

SerialNumber: [04000000 00010552 64c425]

Certificate Extensions: 5

[1]: ObjectId: 2.5.29.19 Criticality=true

BasicConstraints:

```
CA:true
PathLen:2147483647
[2]: ObjectId: 2.5.29.32 Criticality=false
CertificatePolicies [
[CertificatePolicyId: [0.3.2062.7.1.0.1.2.0]
[PolicyQualifierInfo: [
qualifierID: 1.3.6.1.5.5.7.2.1
qualifier: 0000: 16 22 68 74 74 70 3A 2F 2F 77 77 77 2E 65 2D 74 ."http://www.e-t
0010: 72 75 73 74 2E 62 65 2F 43 50 53 2F 51 4E 63 65 rust.be/CPS/QNce
0020: 72 74 73 20
[3]: ObjectId: 2.5.29.15 Criticality=true
KevUsage [
Key CertSign
Crl_Sign
[4]: ObjectId: 2.16.840.1.113730.1.1 Criticality=false
NetscapeCertType [
 SSL CA
 Object Signing CA]
[5]: ObjectId: 2.5.29.14 Criticality=false
SubjectKeyIdentifier [
KeyIdentifier [
0010: C6 34 F8 17
0000: 6C E1 D8 5F 74 58 E9 70
                            49 D6 CA 0D 2C 58 DA CA l., tX.pI...X..
0010: 64 B6 51 4F C3 06 64 01
                            E9 8A 73 1D 9E CF 46 78 d.QO..d...s...Fx
0020: BF 3B 85 86 E2 3D 4A 18
                            94 2A 81 77 6F 82 F8 6F .;...=J..*.wo..o
                            60 BB 18 80 82 95 FB F9 .."...!r`.....
0030: F4 EE 22 FC 9D 18 21 72
                            B5 D2 B6 76 8B 3B 81 5C ...$.f.....v.;.\
                            09 40 EE F8 60 4C 19 E4 ...+....@..`L.
0050: B8 A1 0E 2B 01 14 8B 80
                            A4 08 C9 B4 BF 9E 50 4E ..'..c.....PN
0060: 17 CD 27 01 B3 63 12 05
0070: B5 DE 0F 92 33 66 75 D0
0080: FE 3E 2E 36 79 A1 E5 29
                            50 23 35 05 95 78 BB 9F
                                                   .>.6y..)P#5..x.
                            5C 33 CD C2 BB 7E 68 77 yd.WH',.\3....hw
0090: 79 64 DC 57 48 27 2C E2
00A0: A7 2F A3 49 17 72 E1 00
                            84 6B 7D 7A AF 39 0B 2C ./.I.r...k.z.9.,
00B0: D5 D8 57 64 32 6C 84 0A
                            6A 76 3A D3 AC CD 9D B1 ..Wd2l..jv:..
00C0: E7 37 DC EC 0C 2F C5 57
                            60 DF 88 F5 43 B1 01 64 .7.../.W`...C..d
00D0: 26 B4 27 82 10 B2 A3 50
                            EF 97 E6 7F BF 91 87 B3 &.'....P.....
00E0: DB 90 A9 2A E2 7A 34 6C
                            73 49 F4 E8 8D 2E 6B 8A ...*.z4lsI....k.
```

The certificate in PEM format:

----BEGIN CERTIFICATE----

 ${\tt MIID3jCCAsagAwIBAgILBAAAAAABBVJkxCUwDQYJKoZIhvcNAQEFBQAwXDELMAkG}$ A1UEBhMCOkUxHDAaBqNVBAoTE0NlcnRpcG9zdCBzLmEuL24udi4xLzAtBqNVBAMT JkNlcnRpcG9zdCBFLVRvdXN0IFBvaW1hcnkgUXVhbGlmaWVkIENBMB4XDTA1MDcv E0NlcnRpcG9zdCBzLmEuL24udi4xLzAtBgNVBAMTJkNlcnRpcG9zdCBFLVRydXN0 IFBvaW1hcnkgUXVhbGlmaWVkIENBMIIBIiANBgkghkiG9w0BA0EFAA0CA08AMIIB CgKCAQEAriDSeNuaoHKcBFIlLG1S2NcniT0g4bLV+zBlay1/HGe0DucfEt8XeRi7 $\verb+tBtv+D11G55nN/Dx+g917YadAwShKHAtPLJroHNR4zWpdKUIPpSFJzYqqnJk/Hfu$ dpOccuu/Msd3A2olaakFr19aPH+sG7vS6Dx0Wc7xfFOtOK6W8KxvoTMMIVoBuiMa W6CGAtVT3EkfqDKzrztG07bvnzmz0Avneor2KPmnb1ApyHlYi0nSpdiFflbxaRV4 RBE116VUPqtmJdLb4xjxLivicSMJN2RDQnQylnfel6LploacJUQJ1AGdUX4ztwlEurope and the property of th5YCXDWRbdxiXpUupnhCdh/pWp88Kf0IDAOABo4GaMIGdMA4GA1UdDwEB/w0EAwIB BjAPBgNVHRMBAf8EBTADAQH/MB0GA1UdDgQWBBTwePkHdxC73B6hrnn7MBDbxjT4 FzBIBgNVHSAEQTA/MD0GCQ0QDgcBAAECADAwMC4GCCsGAQUFBwIBFiJodHRw0i8v d3d3LmUtdHJ1c30uYmUv01BTL1F0Y2VvdHMqMBEGCWCGSAGG+EIBA00EAwIABzAN BgkqhkiG9w0BAQUFAAOCAQEAbOHYX3RY6XBJ1soNLFjaymS2UU/DBmQB6YpzHZ7P Rni/04WG4j1KGJQqgXdvgvhv904i/J0YIXJguxiAgpX7+feVJIFmwbXDtdK2dos7 gVy4oQ4rARSLgAlA7vhgTBnkF80nAbNjEgWkCMm0v55QTrXeD5IzZnXQPecifOol cXz+Pi42eaHlKVAjNQWVeLufeWTcV0gnL0JcM83Cu35od6cvo0kXcuEAhGt9eq85 h7PbkKkq4no0bHNJ90iNLmuK3aGKf2PQv1ger8w/klAt0Q== ----END CERTIFICATE--

CN=Certipost Public CA for Qualified Signatures, O=Certipost n.v./s.a., C=BE

Type CA/QC

Status undersupervision

2012-01-11T19:45:06.000Z Status starting time

Service digital identity (X509)

Version Serial number 904

Signature algorithm SHA256withRSA

Issuer CN=Verizon Global Root CA, OU=OmniRoot, O=Verizon Business, C=US

Valid from Wed Jan 11 20:45:06 CET 2012 Valid to Tue Jan 11 20:44:34 CET 2022

CN=Certipost Public CA for Qualified Signatures, O=Certipost n.v./s.a., C=BE Subject

Public key Sun RSA public key, 2048 bits

modulus:

20583708081178068867195678561473200619452921905927961291793273671328005822028265845465542836756717140506081882114668638826442932 4840744781703307017746497136667158332106505285154357277431791645 6871430942741492265542773700746837231916763966290548158739950199 2029174676515494584699514099891322542890739713299134792579834056 6654074619687706565029583663340264770269856720101489447350341548966791713163396699033788554016153919715403847864063923111310679136635894864931180660425047376424983469143686703090472699223090766138772412256664686136790625895780242652401177074998149327839849

23682396679386042809154363424543342942381

public exponent: 65537

Subject key identifier 0e3733c7286ebfce5fe62ae698908bacc1e62844

CRL distribution

points

http://cdp1.public-trust.com/CRL/Omniroot2034.crl

Authority key identifier

4c3811b898005b5a2b703eaa78e4d5676767a77e

Key usage

keyCertSign

cRLSign

Basic constraints CA=true; PathLen=0

SHA1 Thumbprint 05e88c57c47c3b510aed61a8c9d427ffe2925c01

SHA256 Thumbprint 4671a19c0fb1e221aeda10c7d745b7e5bf4faaffafc63fc2e2f8add187adab69

[2]: ObjectId: 2.5.29.19 Criticality=true

```
The decoded certificate:
Subject: CN=Certipost Public CA for Qualified Signatures, O=Certipost n.v./s.a., C=BE
Signature Algorithm: SHA256withRSA, OID = 1.2.840.113549.1.1.11
Key: Sun RSA public key, 2048 bits
public exponent: 65537
Validity: [From: Wed Jan 11 20:45:06 CET 2012,
      To: Tue Jan 11 20:44:34 CET 2022]
Issuer: CN=Verizon Global Root CA, OU=OmniRoot, O=Verizon Business, C=US
SerialNumber: [
Certificate Extensions: 6
[1]: ObjectId: 2.5.29.35 Criticality=false
AuthorityKeyIdentifier [
KeyIdentifier [
0000: 4C 38 11 B8 98 00 5B 5A 2B 70 3E AA 78 E4 D5 67 L8....[Z+p>.x..g
0010: 67 67 A7 7E
```

```
BasicConstraints:
 CA:true
PathLen:0
[3]: ObjectId: 2.5.29.31 Criticality=false
CRLDistributionPoints [
[DistributionPoint:
    [URIName: http://cdp1.public-trust.com/CRL/Omniroot2034.crl]
[4]: ObjectId: 2.5.29.32 Criticality=false
CertificatePolicies [
 [CertificatePolicyId: [2.5.29.32.0]
[PolicvOualifierInfo: [
 qualifierID: 1.3.6.1.5.5.7.2.1
 qualifier: 0000: 16 24 68 74 74 70 73 3A 2F 2F 77 77 77 2E 63 65 .$https://www.ce
0010: 72 74 69 70 6F 73 74 2E 63 6F 6D 2F 73 68 6F 77 rtipost.com/show
0020: 70 6F 6C 69 63 79
                                                            policy
11 1
[5]: ObjectId: 2.5.29.15 Criticality=true
KeyUsage [
Key_CertSign
[6]: ObjectId: 2.5.29.14 Criticality=false
SubjectKeyIdentifier [
0000: 0E 37 33 C7 28 6E BF CE 5F E6 2A E6 98 90 8B AC .73.(n.._.*....
0010: C1 E6 28 44
                                                            ..(D
 Algorithm: [SHA256withRSA]
 Signature:
0000: 73 F0 57 07 07 F3 34 DE
                                 48 53 1E 3E 0A 88 33 07 s.W...4.HS.>..3.
0010: 6C 55 49 D2 75 85 54 92
                                 F2 80 19 1C 86 5D D7 F4 lUI.u.T.....].
0020: 10 35 18 31 AC 35 F8 8D
                                 4B 0F 6D 66 4B 15 4C 28 .5.1.5..K.mfK.L(
0030: 91 12 78 3B C4 B3 42 65
                                 A8 44 46 A2 10 8C F6 38 ..x;..Be.DF....8
0040: A0 AA EB 8D 42 18 10 E1
                                 21 AC 5B 2C 0D C9 7C 35
                                 22 36 B4 DC AF 2D F2 87
0050: 6A D2 0C 7E 9D 83 EC 5B
                                                           i.....["6...-
0060: 6B F9 7F 16 77 0B 25 7B
                                 A3 66 52 4B EA 44 BC 58
0070: 6F B9 FA 9D 65 49 60 67
                                 AE 3F 46 13 DC AB 56 55 o...eI`g.?F...VU
0080: EF 86 AC 26 E3 41 45 9E
                                 D2 E8 81 77 3F 1C C0 28 ...&.AE....w?..(
72 CD 51 A1 2F F4 08 9F 3.b...5r.Q./...
0090: 33 7D 62 DA 7C BC 9C 35
00A0: FA 68 94 BC 1E 30 5C F3
                                 AD D1 8F 7F 52 B1 C2 FF
                                 C3 69 F0 82 27 F1 4D B9 ...)...i..'.M.
9E 4D 59 8C 55 81 5A 5A .<.V#.a..MY.U.ZZ
00B0: CD 95 BE 29 A9 EF 2E FB
00C0: A0 3C D1 56 23 1D 61 EC
00D0: 62 6C 93 73 21 5A F6 52
                                 84 8A AF 97 01 96 7E B4 bl.s!Z.R.....
                                 27 B7 9A 29 AF A3 27 72 y...+..'..)..'r
E0 48 8F 9E B5 98 8A F8 (..s..?.H.....
00E0: 79 80 91 A5 E2 2B 7B 19
```

The certificate in PEM format:

---BEGIN CERTIFICATE-----

MIIELTCCAxWgAwIBAgICA4gwDQYJKoZIhvcNAQELBQAwXDELMAkGA1UEBhMCVVMx GTAXBqNVBAoMEFZlcml6b24q0nVzaW5lc3MxETAPBqNVBAsMCE9tbmlSb290MR8w HQYDVQQDDBZWZXJpem9uIEdsb2JhbCBSb290IENBMB4XDTEyMDExMTE5NDUwNloX DTIyMDExMTE5NDQzNFowYjELMAkGA1UEBhMCQkUxHDAaBgNVBAoTE0NlcnRpcG9z dCBuLnYuL3MuYS4xNTAzBqNVBAMTLENlcnRpcG9zdCB0dWJsaWMq00EqZm9vIFF1 YWxpZmllZCBTaWduYXR1cmVzMIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKC A QEAow 3 rmuZKZMnGhQRGeEzZK4THeq59CIqK6BseSxLmZ3sh8znY0FBNK40XmFEj0Y990nIvAJxnU5bcvSSBF0KPwtD5cFcmpcvP7BR0i6/MvJCE6BMD8wcS61CJfLlm 8/p/VRF9KsDfa6fMd/Wlghbq780wa22+UgXpFr27eqBCsUzEiZya5cILWXM0hmP+ ZE30i7pLZ/Dh+50tn/R+P0IVBBIypiycnx/u4Q/loEqMyy+DFliuMfCbCpE2Pbwz 0R+SCalFNeR09dlfmJ5XlpSr5K7dKXJP8DaoMw8Cu5fGLU8z2awax+3Zv0XdxDNF e2g8HHX4WdMymhSzbmnLjGVYrQIDAQABo4HyMIHvMBIGA1UdEwEB/wQIMAYBAf8C ${\tt AQAwRQYDVR0gBD4wPDA6BgRVHSAAMDIwMAYIKwYBBQUHAgEWJGh0dHBz0i8vd3d3}$ LmNlcnRpcG9zdC5ib20vc2hvd3BvbGlieTA0BqNVH08BAf8EBAMCA0YwHwYDVR0i BBgwFoAUTDgRuJgAWlorcD6qe0TVZ2dnp34wQgYDVR0fBDsw0TA3oDWgM4YxaHR0 c DovL2NkcDEucHVibGljLXRydXN0LmNvbS9DUkwvT21uaXJvb3QyMDM0LmNybDAdBqNVHQ4EFqQUDjczxyhuv85f5irmmJCLrMHmKEQwDQYJKoZIhvcNAQELBQADqqEB AHPwVwcH8zTeSFMePgqIMwdsVUnSdYVUkvKAGRyGXdf0EDUYMaw1+I1LD21mSxVM KJESeDvEs0JlqERGohCM9jigquuNQhgQ4SGsWywNyXwlatIMfp2D7FsiNrTcry3y $\label{lem:h2v5fxZ3CyV7o2ZSS+pEvFhvufqdZUlgZ64/RhPcq1ZV74asJuNBRZ7S6IF3PxzAKDN9Ytp8vJw1cs1RoS/0CJ/6aJS8HjBc863Rj39SscL/zZW+KanvLvvDafCCJ/FNCACCJ/FNC$ uaA80VYjHWHsnk1ZjFWBWlpibJNzIVr2UoSKr5cBln60eYCRpeIrexknt5opr6Mr ciipCXObk6c/4EiPnrWYivg= ----END CERTIFICATE---

Trusted List Signer

```
Belgique/België (Belgium): Trusted List
Subject
                           OU=Ministry of Economic Affairs, O=Belgian Federal Government, C=BE,
                           CN=Belgian Trust List Scheme Operator
                           OU=Ministry of Economic Affairs, O=Belgian Federal Government, C=BE,
Issuer
                           CN=Belgian Trust List Scheme Operator
Not before
                           Fri Feb 26 11:42:04 CET 2010
                           Mon Feb 24 11:42:04 CET 2020
Not after
Serial number
                           15681248625855287085
Version
Public key SHA1
                           0e2b1b3ce368b11ae8b9221982ce69740e3dceb9
Thumbprint
Public key SHA256
                           2efdccbd9b768ea9654152816c48a53857f658c50462c12f66f5d56c0961616d
Thumbprint
The decoded certificate:
 Subject: OU=Ministry of Economic Affairs, O=Belgian Federal Government, C=BE, CN=Belgian Trust List Scheme Operator
Signature Algorithm: SHA1withRSA, OID = 1.2.840.113549.1.1.5
Key: Sun RSA public key, 2048 bits
72260024738022754521550978668073613848886314527876619695170205142182992106517625874476574000109694632025016183163606961399776610711940089307587500742164497411652253547139771
public exponent: 65537
 Validity: [From: Fri Feb 26 11:42:04 CET 2010,
          To: Mon Feb 24 11:42:04 CET 2020]
 Issuer: OU=Ministry of Economic Affairs, O=Belgian Federal Government, C=BE, CN=Belgian Trust List Scheme Operator
 SerialNumber: [
             d99efc8a daafcf2d]
Certificate Extensions: 4
[1]: ObjectId: 2.5.29.19 Criticality=false
BasicConstraints:
CA:false
PathLen: undefined
[2]: ObjectId: 2.5.29.37 Criticality=false
0.4.0.2231.3.0
[3]: ObjectId: 2.5.29.15 Criticality=false
KevUsage [
DigitalSignature
[4]: ObjectId: 2.5.29.14 Criticality=false
SubjectKeyIdentifier [
KevIdentifier [
0000: 95 B3 07 E5 F3 52 B0 CB 0F E9 6B 00 1F D0 B4 65 .....R....k....e
0010: 75 CC 6E 6C
 Algorithm: [SHA1withRSA]
Signature:
0000: A6 25 D0 FC 3F B8 08 E8 D5 9F E5 E2 BF DD FA E7 .%..?.....
0010: A9 C1 F0 5F 2E 7B FC 54
                      B8 1A 69 D0 2B 4F 2B BE ..._..T..i.+0+.
0020: 52 F0 D2 53 FF 11 C5 BD
                      1E 6B B5 A7 CD 58 B2 1B R..S....k...X..
0030: 1C 49 23 70 0C ED ED 1C
                      33 32 5F 2E 01 6D 43 CC .I#p....32_..mC.
                      59 77 11 4F 2B 01 22 9C
0040: D1 BF F2 A0 8C BC 6D 1A
                                         ....m.Yw.0+."
0050: 48 57 D5 E2 74 07 1F 51
                      9A C7 26 6C 1C 40 FC 41 HW..t..Q..&l.@.A
0060: 57 1E 9E F8 E4 41 03 7F
                      DF 7E E1 58 BB 68 6D 00 W....A....X.hm.
0070: 1B E4 B0 D7 03 9C 6B DC
                      17 EA 1E 49 93 16 23 B5 .....k...I..#.
0080: 82 0F 66 D2 F6 D6 BF 8D
                      1A 28 3B 4A 5A DB DF 9C
```

The certificate in PEM format:

0090: 86 61 95 86 25 97 BD 40

00A0: 24 CE F8 E4 12 30 EE 6C

00B0: 88 4F B7 8B 8D CF 9D 69

00C0: CC 26 B5 11 CC 1A 20 A0

00D0: 96 FC 16 6C BC B2 BC 64

00E0: E7 AF 6E BA 99 50 5B 0C

00F0: 92 43 1B 65 1D 49 51 D5

09 70 9F B6 D7 C5 30 4D .a..%..@.p....0M

1D 5D 47 DA 91 81 63 99 \$....0.l.]G...c.

7D 74 B4 56 37 5B 58 DF .0....i.t.V7[X.

EB 95 53 C4 07 13 FE 01 ...l...d..S.....

75 D5 DB FC 69 22 9F 61 ..n..P[.u...i".a

51 1B 2C E1 36 BC D5 42 .C.e.IQ.Q.,.6..B

----BEGIN CERTIFICATE----

 ${\tt MIID3TCCAsWgAwIBAgIJANme/Irar88tMA0GCSqGSIb3DQEBBQUAMIGGMSswKQYD}$ VQQDEyJCZWxnaWFuIFRydXN0IExpc3QgU2NoZW1lIE9wZXJhdG9yMQswCQYDVQQG ${\tt EwJCRTEjMCEGA1UEChMaQmVsZ2lhbiBGZWRlcmFsIEdvdmVybm1lbnQxJTAjBgNV} \\$ BAs THE1 pbmlzdHJ5IG9mIEVjb25vbWljIEFmZmFpcnMwHhcNMTAwMjI2MTA0MjA0WhcNMjAwMjI0MTA0MjA0WjCBhjErMCkGAlUEAxMiQmVsZ2lhbiBUcnVzdCBMaXN0 IFNjaGVtZSBPcGVyYXRvcjELMAkGAlUEBhMCQkUxIzAhBgNVBAoTGkJlbGdpYW4g RmVkZXJhbCBHb3Zlcm5tZW50MSUwIwYDVQQLExxNaW5pc3RyeSBvZiBFY29ub21parter and the compact of the cYyBBZmZhaXJzMIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAviuMAu24 2Bg3jIlV+lKm1FNaAgBzjDDXtP9+zqI+0f0jzBacWXR67a5hUuPggpEgPt8yGe83 dQkjmhS8hpUwZbs7WcbDg0C6ewI7+LSEx4wq2sEU/9mXMbDTqyhmnxu5p0eM8fGV uBzQWWLj2ZsmRbeGEfZXbp37tT3X5ok289YbUp5ngyMrYZjlh75ncHT495JgaIVqV+y03zwJvTDHeBLZDvMucvPJX68lu7Pbfdw0pCrF/b04AzLAMARVsWv0olMvHUlF Fxh0enzVTEkduqtBzTicZNomw5qIdK0Lb6gWEcRbvBJzgcNauln30GgXuAlWMdVd3S0fAW0KvRb830IDA0ABo0wwSiAJBqNVHRMEAiAAMAsGA1UdDw0EAwIHqDAdBqNV HQ4EFgQUlbMH5fNSsMsP6WsAH9C0ZXXMbmwwEQYDVR0lBAowCAYGBACRNwMAMA0G CSqGSIb3DQEBBQUAA4IBAQCmJdD8P7gI6NWf5eK/3frnqcHwXy57/FS4GmnQK08r tYIPZtL21r+NGig7Slrb35yGYZWGJZe9QAlwn7bXxTBNJM745BIw7mwdXUfakYFj $\verb|mYhPt4uNz51pfXS0VjdbWN/MJrURzBogoK8ZANcEMw+MlvwWbLyyvGTrlVPEBxP+|\\$ AeevbrqZUFsMddXb/Gkin2GSQxtlHUlR1VEbL0E2vNVC

The public key in PEM format:

----BEGIN PUBLIC KEY--

MIIBIjANBgkqhkiG9w0BAQEFAAOCAQBAMIIBCgKCAQEAViuMAu242Bg3jIlV+lKm 1FNaAgBzjDDXtP9+zqI+0f0jzBacWXR67a5hUuPggpEgPt8yGe83dQkjmhS8hpUw Zbs7WcbDgDCGew17+L5Ex4wq2sEU/9mXMbDTqyhmnxu5pDeM8fGVuBzQWWLj2Zsm RbeGEfZXbp37tT3X5ok289YbUp5ngyMrYZjlh75ncHT495JgaIVqV+yO3zwJvTDH eBLZDvMucvPJX68lu7Pbfdw0pCrF/b04AzLAMARVsWv0olMvHUlFFxh0enzVTEkd uqtBzTicZNomw5qIdK0Lb6gWEcRbvBJzgcNauln30GgXuAlWMdVd3S0fAWQKvRb8 3QIDAQAB

-----END PUBLIC KEY-----