C-ITS Point of Contact

CPOC-WEB Logbook: Level 0 Environment

Logbook of published L0 TLM Certificates

& L0 ECTLs of the CPOC-WEB

Release 1.30, 14 September 2026

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Joint
Research
Centre

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Version History

Release Version	Date	Main changes
Release 1	28.08.2020	Initial file
Release 1.1	31.08.2020	Updates of L0 RCA Information (DC URLs)
Release 1.2	10.09.2020	Updates of L0 RCA Information (DC URLs, HashedID8)
Release 1.3	24.09.2020	Updates on new L0 ECTL v2 & L0 RCA Information
Release 1.4	01.12.2020	Updates on new L0 TLM Certificate, L0 ECTL v3 including new DC URL entries & updated L0 RCA Information
Release 1.5	09.02.2021	Updates on new L0 TLM Certificate, L0 ECTL v4 including new DC URL entries & updated L0 RCA Information, new successorTo entry of a re-keyed RCA Certificate for testing
Release 1.6	23.04.2021	Updates on re-keyed L0 TLM Certificate (v4) with link certificate message, L0 ECTL v5 including re-keyed TLM certificate v4 (not active yet), new DC URL entries & updated L0 RCA Information, new successorTo entries of two re-keyed RCA Certificates. Removed parsed ECTLs due to very long unmanagemble length. Available on request.
Release 1.7	21.05.2021	Reduced scope of document to the L0 environment. Included the L0 ECTL v6 with no RCA content changes, but already signed by the TLM certificate v4 which became ative on 15.05.2021.
Release 1.8	16.06.2021	Included the L0 ECTL v7 with one RCA revocation and the addition of a new RCA from the same organization replacing the revoked one. Imporved visibility of TLM certificate parameters using a table. Added TLM Certificate table to the overview. Added next L0 ECTLs planned issue date section.
Release 1.9	15.09.2021	Included the L0 ECTL v8 with one RCA revocation, one RCA rekey (with link certificate message) and the addition of five new RCAs. Added next L0 ECTLs v10 and v11 planned issue dates.
Release 1.10	15.12.2021	Signed new ECTL with netxUpdate=15/04/2022. No new RCAs added, one expired RCA removed.
Release 1.11	15.03.2022	Signed new ECTL with netxUpdate=15/07/2022. No new RCAs added. No RCAs have been rekeyed. No expired or revoked RCAs have been removed.

Release 1.12	15.06.2022	Signed new ECTL with netxUpdate=14/10/2022. No new RCAs added. No RCAs have been rekeyed. No expired or revoked RCAs have been removed.
Release 1.13	15.09.2022	Signed new ECTL with netxUpdate=15/01/2023. Two new RCAs added. No RCAs have been rekeyed. No expired or revoked RCAs have been removed.
Release 1.14	15.12.2022	Signed new ECTL with netxUpdate=15/04/2023. Five RCAs revoked and removed, one expired RCA removed, three new RCAs added. No RCAs rekeyed. L0 ECTLs schedule updated with 2023 planned signing sessions.
Release 1.15	15.03.2023	Signed new ECTL with netxUpdate=15/07/2023. Two RCAs revoked and removed, one expired RCA removed. No new RCAs added. No RCAs rekeyed.
Release 1.16	15.06.2023	Signed new ECTL with netxUpdate=15/10/2023. One expired RCA removed. Two new RCAs added. One RCA rekeyed.
Release 1.17	15.09.2023	Signed new ECTL with netxUpdate=15/01/2024. One expired RCA removed. One RCA revoked. One new RCA added.
Release 1.18	15.12.2023	Signed new ECTL with netxUpdate=15/04/2024. No expired RCAs have been removed. No RCAs have been revoked. No RCAs have been added or re-keyed.
Release 1.19	15.03.2024	Signed new ECTL with netxUpdate=15/07/2024. One expired RCA has been removed. No RCAs have been revoked. No RCAs have been added or re-keyed.
Release 1.20	15.04.2024	Signed new ECTL with netxUpdate=14/07/2024. Updated the previous L0 ECTL following the re-key of the L0 TLM Certificate (v5 - not active yet) with link certificate message. One new RCA has been added. No RCAs have been re-keyed. No expired or revoked RCAs have been removed.
Release 1.21	14.06.2024	Signed new ECTL with netxUpdate=13/10/2024. The previous TLM Certificate v4 has been removed as the new TLM Certificate v5 has become active. Two new RCAs have been added. No RCAs have been re-keyed. Two RCAs have been revoked and removed.
Release 1.22	13.09.2024	Signed new ECTL with netxUpdate=15/01/2025. One expired RCA has been removed

Release 1.23	13.12.2024	Signed new ECTL with netxUpdate=14/04/2025. Two new RCAs have been added.
Release 1.24	14.03.2025	Signed new ECTL with netxUpdate=13/07/2025. Two RCAs have been re-keyed.
Release 1.25	15.06.2025	Signed new ECTL with netxUpdate=15/10/2025. One RCA has been re-keyed. One RCA has been revoked and one removed due to expiry.
Release 1.26	11.09.2025	Signed new ECTL with netxUpdate=15/01/2026. One new RCA has been added.
Release 1.27	15.12.2025	Signed new ECTL with netxUpdate=15/04/2026. One expired RCA has been automatically removed. No RCAs have been revoked. No RCAs have been added or re-keyed.
Release 1.28	13.03.2026	Signed new ECTL with netxUpdate=13/07/2026. No RCAs have been automatically removed due to expiry. No RCAs have been revoked. No RCAs have been added or re-keyed.
Release 1.29	12.06.2026	Signed new ECTL with netxUpdate=12/10/2026. Two RCAs have been automatically removed due to expiry. No RCAs have been revoked. Three new RCAs have been added and one RCA has been re-keyed.
Release 1.30	14.09.2026	Signed new ECTL with netxUpdate=14/01/2027. Four new RCAs have been added. Two RCAs have been revoked.

1 Scope

This logbook summarises all publications of the European C-ITS Point of Contact (CPOC) via the CPOC-WEB Distribution center (DC) available at https://cpoc.jrc.ec.europa.eu/ implemented according to the CPOC protocol.

For each TLM Environment (TLM Level 0, TLM Level 1 and TLM Level 2) the published TLM Certificates and ECTLs are recorded in a dedicated logbook.

This is the logbook for the L0 Environemnt, as defined by the Commission Expert Group on C-ITS Security (E01941), the "Level 0" (L0) Environment of the TLM aims to support all C-ITS stakeholders in the EU to test C-ITS implementations. Hence, the L0 TLM Certificate as well as L0 ECTL provided on this website are strictly only intended for testing purposes of C-ITS Services.

For each publication a parsed version of the Certificate as well as a description of the main changes/updates are given.

Each ECTL and TLM is labelled with a version number, which is a consecutive number for the purpose of this document. The date of each TLM Certificate and ECTL indicates the date of creation of the cryptopgrahic file.

This logbook only serves as additional input to the actual cryptographic TLM Certificates and ECTL files to ease their processing and contextual understanding.

Contact Information regarding this logbook: JRC-CPOC@ec.europa.eu

2 TLM Level 0 Environment

2.1 L0 TLM Certificates

2.1.1 L0 TLM Certificate v1 27.08.2020, HashedID8: 3D42B8257DFA8B19

2.1.1.1 Description

Initial TLM L0 Certificate.

L0 TLM Certificate	
Version	v1
Issue date	27.08.2020
Start of validity	27.08.2020
HashedID8	3D42B8257DFA8B19
Link Certificate Message HashedID8	Not applicable

2.1.1.2 Parsed Certificate (3D42B8257DFA8B19)

```
value EtsiTs103097Certificate ::= {
  version 3,
  type explicit,
  issuer self : sha384,
  toBeSigned {
    id name : "EU-TLM_L0",
    cracaId '000000'H,
    crlSeries 0,
    validityPeriod {
      start 525622503,
      duration years : 4
    },
    appPermissions {
      {
        psid 624,
        ssp bitmapSsp : '01C8'H
      }
    },
    verifyKeyIndicator    verificationKey    :    ecdsaBrainpoolP384r1    :    compressed-y-0    :
'601A07DA23EBEFAE3B4E81C96CD738D0562093FB3F596F877B584ADD0478C825D44DAE'H -- truncated --
  },
  signature ecdsaBrainpoolP384r1Signature : {
    rSig   x-only   :   '025CED661FC231641F34291AAC2B2BCB1EA5E3733D9D8C5F3DC61BEE463CDD959242AB'H   --
truncated --,
    sSig '1FF68F4BF3A72536903E408539D59E61D8C0990857365BD167F0CEE8B704FB1B086CB5'H -- truncated --
  }
}
```

2.1.2 L0 TLM Certificate v2 01.12.2020, HashedID8: 303AA10804B13D09

2.1.2.1 Description

2nd TLM L0 Certificate. This is a re-keyed new TLM L0 Certificate. No TLM Link Certificate Message is provided in this release.

L0 TLM Certificate	
Version	v2
Issue date	01.12.2020
Start of validity	01.12.2020
HashedID8	303AA10804B13D09
Link Certificate (v1->v2) Message HashedID8	Not available

2.1.2.2 Parsed Certificate (303AA10804B13D09)

```
value EtsiTs103097Certificate ::= {
  version 3,
  type explicit,
  issuer self : sha384,
  toBeSigned {
    id name : "EU-TLM_L0",
    cracaId '000000'H,
    crlSeries 0,
    validityPeriod {
      start 533862003,
      duration years : 4
    },
    appPermissions {
      {
        psid 624,
        ssp bitmapSsp : '01C8'H
      }
    },
    verifyKeyIndicator     verificationKey     :     ecdsaBrainpoolP384r1     :     compressed-y-1     :
'3D5262882D3D704B37D9B5B07FF8D2CA52840C1D2CC08376FF5C23378981AB9EBAD855'H -- truncated --
  },
  signature ecdsaBrainpoolP384r1Signature : {
    rSig   x-only   :   '070150077AC047AA1003B7CC727524E88C142DCF7715F4F98261D3250293BA73FA9A51'H   --
truncated --,
    sSig '4D1BDAC0CAB70166CE8BCE13662A9E8916357A00F585B5574700744D1322DEAC757147'H -- truncated --
  }
}
```

2.1.3 L0 TLM Certificate v3 08.02.2021, HashedId8: D7EE97420E4A6865

2.1.3.1 Description

3rd TLM L0 Certificate. This is a re-keyed new TLM L0 Certificate due to a necessary software update of the TLM.

L0 TLM Certificate	
Version	v3
Issue date	08.02.2021
Start of validity	08.02.2021
HashedID8	D7EE97420E4A6865
Link Certificate (v2->v3) Message HashedID8	Not available

2.1.3.2 Parsed Certificate (D7EE97420E4A6865)

```
value EtsiTs103097Certificate ::= {
  version 3,
  type explicit,
  issuer self : sha384,
  toBeSigned {
    id name : "EU-TLM_L0",
    cracaId '000000'H,
    crlSeries 0,
    validityPeriod {
      start 539823603,
      duration years : 4
    },
    appPermissions {
      {
        psid 624,
        ssp bitmapSsp : '01C8'H
      }
    },
    verifyKeyIndicator    verificationKey    :    ecdsaBrainpoolP384r1    :    compressed-y-1    :
'7BC286B24546AC77A6F6CB590EE912A1EFF7741ACF4536B15286B568367387ACC88BB7'H -- truncated --
  },
  signature ecdsaBrainpoolP384r1Signature : {
    rSig   x-only   :   '14297434DFD183B1346FBF12BC1F42B3A2C23AD7D14B0E87C05C833D87665BF3D1A34F'H   --
truncated --,
    sSig '214BAD099B533BCEC089BB4E7181FD4A6D8DF004706DBE4E683937CA2466095A1EC665'H -- truncated --
  }
}
```

2.1.4 L0 TLM Certificate v4 23.04.2021, HashedId8: 1D261F9E338ECB5B

2.1.4.1 Description

4th TLM L0 Certificate. This is a re-keyed new TLM L0 Certificate with link certificate message (DFF1266B8F5C376D). This TLM L0 certificate becomes active on 15.05.2021 and is already included in the L0 ECTL v5 of 23.04.2021 signed still with the 3rd L0 TLM Certificate (D7EE97420E4A6865).
The ECTL v6 of 18.05.2021 is already signed by this 4th TLM L0 certificate (1D261F9E338ECB5B)

L0 TLM Certificate	
Version	v4
Issue date	23.04.2021
Start of validity	15.05.2021
HashedID8	1D261F9E338ECB5B
Link Certificate (v3->v4) Message HashedID8	DFF1266B8F5C376D

2.1.4.2 Parsed Certificate (1D261F9E338ECB5B)

```
value EtsiTs103097Certificate ::= {
  version 3,
  type explicit,
  issuer self : sha384,
  toBeSigned {
    id name : "EU-TLM_L0",
    cracaId '000000'H,
    crlSeries 0,
    validityPeriod {
      start 548114403,
      duration years : 4
    },
    appPermissions {
      {
        psid 624,
        ssp bitmapSsp : '01C8'H
      }
    },
    verifyKeyIndicator verificationKey : ecdsaBrainpoolP384r1 : compressed-y-1 :
'50F275F27AB3A08F9DCDCF6822DBB53348C520FD8CC1F20AB9CD3FA4C6F31774AE1814'H -- truncated --
  },
  signature ecdsaBrainpoolP384r1Signature : {
    rSig x-only : '0D90C99B4F275AB7BB53C5F9D8D4E4D6C352A4D636299B0CCD93EEE60B370DBC954FA4'H --
truncated --,
    sSig '5A7CE1D63B851EEA6F967CA208A0486F5A19494BE4F7C95701284E24777706578D1333'H -- truncated --
  }
}
```

2.1.4.3 Parsed Link Certificate Message (DFF1266B8F5C376D)

```
value Ieee1609Dot2Data ::= {
  protocolVersion 3,
  content signedData : {
    hashId sha384,
    tbsData {
      payload {
        data {
          protocolVersion 3,
          content unsecuredData :
'018A370027B32D7381301E3D7F659C82EAE073965238214BE5CADA51F02811C0D3BD58'H -- truncated --
        }
      },
      headerInfo {
        psid 624,
        generationTime 546254740000000
      }
    },
    signer digest : 'D7EE97420E4A6865'H,
    signature ecdsaBrainpoolP384r1Signature : {
      rSig x-only : '60FA0D7F3B3540BDD21AC2D3A57A5BBF74BAB1C0F285E11FB55ACAD7BE730B97A9FC87'H --
truncated --,
      sSig '4B40B888E1EC201637C072F7D2745C4B8CDFF15ED1424D3513A4D330C6A66FEC564EF9'H -- truncated --
    }
  }
}

==========================================================================================
value EtsiTs102941Data ::= {
  version v1,
  content linkCertificateTlm : {
    expiryTime 666054003,
    certificateHash sha384HashedData :
'1E3D7F659C82EAE073965238214BE5CADA51F02811C0D3BD58CCE5EA7083EF86C9CC12'H -- truncated --
  }
}
```

2.1.5 L0 TLM Certificate v5 15.04.2024, HashedId8: 8FFE810BDB0D71E6

2.1.5.1 Description

5th L0 TLM Certificate. This is a re-keyed new L0 TLM Certificate with link certificate message (C4022CA335F17123). This L0 TLM certificate becomes active on 15.05.2024 and is already included in the L0 ECTL v19 of 15.04.2024 signed still with the 4th L0 TLM Certificate (1D261F9E338ECB5B).
The ECTL v20 of 14.06.2024 has been signed with this 5th L0 TLM certificate (8FFE810BDB0D71E6).

L0 TLM Certificate	
Version	v5
Issue date	15.04.2024
Start of validity	15.05.2024
HashedID8	8FFE810BDB0D71E6
Link Certificate (v4->v5) Message HashedID8	C4022CA335F17123

2.1.5.2 Parsed Certificate (8FFE810BDB0D71E6)

```
value EtsiTs103097Certificate ::= {
  version 3,
  type explicit,
  issuer self : sha384,
  toBeSigned {
    id name : "EU-TLM_L0",
    cracaId '000000'H,
    crlSeries 0,
    validityPeriod {
      start 642808803,
      duration years : 4
    },
    appPermissions {
      {
        psid 624,
        ssp bitmapSsp : '01C8'H
      }
    },
    verifyKeyIndicator verificationKey : ecdsaBrainpoolP384r1 : compressed-y-0 :
'20DC9EC322686CDC747EE738037A8B7DB8C21159B3083303D760320696F67C9BB9A4AC'H -- truncated --
  },
  signature ecdsaBrainpoolP384r1Signature : {
    rSig x-only : '62E76B1D08220374B6BAFFAED4C447B8A135794854D92DF4201E35575EFFA8FBEE8F3E'H --
truncated --,
    sSig '2544EA47E23B08ED6844CFFB0EAC7EF263ACAC9C487702823FC0F67F991B61DA15747D'H -- truncated --
  }
}
```

2.1.5.3 Parsed Link Certificate Message (C4022CA335F17123)

```
value Ieee1609Dot2Data ::= {
  protocolVersion 3,
  content signedData : {
    hashId sha384,
    tbsData {
      payload {
        data {
          protocolVersion 3,
          content unsecuredData :
'018A37002831AF63813049835942309 8F4639F19F9295C4AEBB8D445D76BA6848BD318'H -- truncated --
        }
      },
      headerInfo {
        psid 624,
        generationTime 640259634000000
      }
    },
    signer digest : '1D261F9E338ECB5B'H,
    signature ecdsaBrainpoolP384r1Signature : {
      rSig x-only : '13648D0C9AE2601CCCCF7EC2E2287258F745A8A1C44DF9F52C107A5BCFB2EAE854BA14'H --
truncated --,
      sSig '3C737B3FC5694BEBF2B43310C8F829345E930045CA247765B939F394314337C2A69B89'H -- truncated --
    }
  }
}

==========================================================================================
value EtsiTs102941Data ::= {
  version v1,
  content linkCertificateTlm : {
    expiryTime 674344803,
    certificateHash sha384HashedData :
'498359423098F4639F19F9295C4AEBB8D445D76BA6848BD31814A46DDE4F3AC68CE584'H -- truncated --
  }
}
```

2.2 L0 ECTLs

2.2.1 L0 ECTL v1 27.08.2020, HashedID8: 1663533477E1D7BE

Initial L0 ECTL, signed with TLM Certificate "L0 TLM Certificate v1 27.08.2020, HashedID8: 3D42B8257DFA8B19".

This ECTL has been created on the basis of the TLM software, which has been also used at the two ETSI plugtests in 2019. Hence, this initial L0 ECTL does not yet fully comply to the new specifications according to the CPOC Protocol Release 1.1, which was released in August 2020 (e.g. no RCA DC URL entries yet in the ECTL).

Root CAs included in this ECTL and the comments that have been received by the CPOC are summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**

RCA CertificateID:
`BSI V2X Pilot PKI Root`
 	
RCA Certificate HashedID8:
`EB31001691B8FE70`
 	
DC URL:
`http://bsi.v2x-pilot.escrypt.com/dc`
	Full Company Name: ESCRYPT GmbH
	
	RCA CertificateID: "BSI V2X Pilot PKI Root" is not conformant to CPOC Protocol Release 1.1., Draft v10 because the certificate was issued in 2019 when the scheme was not known to us. BSI stands for "Bundesamt für Sicherheit in der Informationstechnik" which is the Federal Office for Information Security in Germany.
	
	Context description of testing purpose: This PKI is used for pilot deployments in scope of the European C-ITS Corridor and of C-Roads including C-Roads Urban Nodes (at least German and Austrian test sides).
	
	Contextual information or constraints: Certificate contains old SSP version 1 of the TLC service permission and no ITS-AID for the TLC Status Service. Certificate lifetime is set as hours (21840 = approx. 2.5y) instead of years. We intend to remove this certificate from L0 ECTL at latest after end of C-Roads project (30.06.2021).

RCA CertificateID: C2C-CC V2X Pilot PKI Root **RCA Certificate HashedID8:** 8615663AE95735F7 **DC URL:** http://c2ccc.v2x-pilot.escrypt.com/dc	Full Company Name: ESCRYPT GmbH RCA CertificateID: "C2C-CC V2X Pilot PKI Root" is not conformant to CPOC Protocol Release 1.1., Draft v10 because the certificate was issued in February 2020 when the scheme was not known to us. C2C-CC stands for "Car to Car Communication Consortium". Context description of testing purpose: This PKI is used for testing activities by C2C-CC members. Contextual information or constraints: Certificate contains old SSP version 1 of the TLC service permission and no ITS-AID for the TLC Status Service. Certificate lifetime is 8 years following the CP instead of 5 years following the CPOC Protocol.
RCA CertificateID: C-Roads CZ Pilot Root CA **RCA Certificate HashedID8:** C50756DCA2EB0EC1 **DC URL:** http://cits-pki.o2.cz/v1/dc	Full Company Name: TeskaLabs Ltd RCA CertificateID: Not sure if this certificate is fully compliant with CPOC Protocol Release 1.1 since it has been generated before that policy was put in place. If RCA should change the name, we have to plan that properly with C-Roads CZ people. Context description of testing purpose: RootCA for C-Roads pilot in CZ Any other important contextual information: Will be used for cross-border testing with C-Roads.
RCA CertificateID: dars.si http://pki.seacat.io/dars.si/cits/dc **RCA Certificate HashedID8:** 7672848FBF07F701 **DC URL:** http://pki.seacat.io/dars.si/cits/dc	Full Company Name: TeskaLabs Ltd RCA CertificateID: dars.si http://pki.seacat.io/dars.si/cits/dc The Root CA certificate name has been selected by the client (Dars.si) because they wanted to follow the "Root CA best practice" document, which was Work-in-progress in a time of this RCA setup. I hope it is OK for now. Context description of testing purpose: RootCA for C-Roads pilot in Slovenia Any other important contextual information: Will be used for cross-border testing with C-Roads. It is likely possible to negotiate with Dars.si to change the name of the Root CA certificate to be more aligned with CPOC Protocol.

RCA CertificateID: 0_EU-ROOT-CA_L0 **RCA Certificate HashedID8:** FD43C421A7D771A8 **DC URL:** https://0.eu-dc.l0.c-its-pki.eu/	Full Company Name: Atos IDnomic RCA certificate ID: 0_EU-ROOT-CA_L0 Description: - This is the certificate of L0 EU Root CA - The PKI is operated by Atos IDnomic - Attributes (e.g. naming, validity duration) are compliant to the CPOC Protocol Release 1.1
RCA CertificateID: Open C-ITS Test PKI Root CA **RCA Certificate HashedID8:** 546B0D01F5EF855C **DC URL:** https://via.teskalabs.com/cits-otenv/v1.3/dc	Full Company Name: TeskaLabs Ltd RCA CertificateID: This Root CA was introduced nearly a year ago, prior CPOC Protocol introduction. Context description of testing purpose: It is used for testing, currenly more than 40 companies are registered in the test. Any other important contextual information: We may schedule a rekeying/rebuild of this PKI in order to make it "more current" but it has to be coordinated activity since there are many involved parties.
RCA CertificateID: RCA PILOT PP FRANCE **RCA Certificate HashedID8:** 8341C0D422119691 **DC URL:** https://dc-pilot-pp.france.c-its-pki.eu/	Full Company Name: Atos IDnomic Description: - This is the certificate of the PKI used by French partners (under the coordination of the French Ministry of Transports) for L0 purposes (i.e. validation also named PP - Pre Production). It will be used in C-Roads France and InDiD projects. - The PKI is operated by Atos IDnomic. - Attributes (e.g. naming, validity duration) are not compliant to the CPOC Protocol Release 1.1, because this RCA has been generated in March 2020, before the release of new CPOC requirements. It is planned to be compliant for the next update of this RCA. - 2 test PSIDs (16491 and 16492) are configured in this RCA.
RCA CertificateID: Test BSI V2X Pilot PKI Root **RCA Certificate HashedID8:** 327A270AABCB9672 **DC URL:** http://test.bsi.v2x-pilot.escrypt.com/dc	Full Company Name: ESCRYPT GmbH RCA CertificateID: "Test BSI V2X Pilot PKI Root" is not conformant to CPOC Protocol Release 1.1., Draft v10 because the certificate was issued in February 2020 when the scheme was not known to us. BSI stands for "Bundesamt für Sicherheit in der Informationstechnik" which is the Federal Office for Information Security in Germany. Context description of testing purpose: This PKI is used for testing activities in scope of the European C-ITS Corridor and of C-Roads including C-Roads Urban Nodes (at least German and Austrian test sides). This root certificate was successfully used in multiple ETSI Plugtests. Contextual information or constraints: Certificate contains old SSP version 1 of the TLC service permission and no ITS-AID for the TLC Status Service. Certificate contains a

	propriatey ITS-AID 999 which is used to authorize the propriatey registration process in our PKI implementation. Certificate lifetime is 8 years following the CP instead of 5 years following the CPOC Protocol. We intend to remove this certificate from L0 ECTL at latest after end of C-Roads project (30.06.2021).
RCA CertificateID: 0_VWG-Root-CA_L0 **RCA Certificate HashedID8:** 290743A956E3A2E0 **DC URL:**	Full Company Name: Volkswagen AG RCA CertificateID: 0_VWG-Root-CA_L0 Context description: test

2.2.2 L0 ECTL v2 23.09.2020, HashedID8: 0CE71108DF697729

L0 ECTL v2, signed with TLM Certificate "L0 TLM Certificate v1 27.08.2020, HashedID8: 3D42B8257DFA8B19".

This ECTL is an update directly based on ECTLv1 (see section 2.2.1). It has been updated with new RCA Certificates that have been received by the CPOC as summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**
RCA CertificateID: CONCORDA V2X Pilot PKI Root **RCA Certificate HashedID8:** 626C128FA1BFB162 **DC URL:** http://concorda.v2x-pilot.escrypt.com/dc	Full Company Name: ESCRYPT GmbH RCA CertificateID: "CONCORDA V2X Pilot PKI Root" is not conformant to CPOC Protocol Release 1.1., Draft v10 because the certificate was issued in February 2019 when the scheme was not known to us. CONCORDA is an European funded project which ends mid of 2021. Context description of testing purpose: This PKI is used for testing activities by CONCORDA members. Contextual information or constraints: Certificate contains old SSP version 1 of the TLC service permission and no ITS-AID for the TLC Status Service. Certificate lifetime is set to hours (17544 = approx. 2y) instead of years. We intend to remove this certificate from L0 ECTL at latest after expiration of the root certificate (14.02.2021).
RCA CertificateID: 0_CTAG-1-ROOT-CA_L0 **RCA Certificate HashedID8:** 7F70A3CDB9F2192D **DC URL:** 0.ctag-dc.l0.siscoga4cad.com/DC	Full Company Name: FUNDACIÓN PARA LA PROMOCIÓN DE LA INNOVACIÓN, LA INVESTIGACIÓN Y EL DESARROLLO TECNOLÓGICO EN LA INDUSTRIA DE AUTOMOCIÓN DE GALICIA (CTAG) Context description of testing purpose: RootCA for C-Roads pilot in Spain and cross-border testing with others partners. Contextual information or constraints: The certificate currently deployed is not compliant with CPOC version 1.1 because it was deployed on December'2019. The certificate here attached once is validated and published on CPOC will replace the current one for CRoads pilot and crosstest.
RCA CertificateID: 0_HH-Pilot-Root_L0 **RCA Certificate HashedID8:** 3684070CC8E2161E **DC URL:** http://hamburg.v2x-pilot.escrypt.com/dc	Full Company Name: ESCRYPT GmbH RCA CertificateID: 0_HH-Pilot-Root_L0. HH stands for "Hanseatic City of Hamburg". Context description of testing purpose: This PKI is used for testing activities by city of Hamburg, Germany. Contextual information or constraints: Following the requirements of CPOC Protocol Release 1.1.

RCA CertificateID: MicrosecNistP256RootCA **RCA Certificate HashedID8:** B65E3B8FBBEC3910 **DC URL:** http://v2x-pki-test.microsec.com/v2x_rootca_nistp256	Full Company Name: Microsec Ltd. RCA CertificateID: 'MicrosecNistP256RootCA' The certificateId is not conformant with the CPOC Protocol Release 1.1 because it was issued before the release of the document. Context description of testing purpose: This PKI is used for testing and piloting purposes as a service of Microsec Ltd. Later on, we plan to update it for a CPOC compatible version.

2.2.3 L0 ECTL v3 01.12.2020, HashedID8: AAD3A59378BB5F4B

L0 ECTL v3, signed with TLM Certificate "L0 TLM Certificate v2 01.12.2020, HashedID8: 303AA10804B13D09".

This ECTL is an update directly based on the contents of ECTLv2 (see section 2.2.2). It has been updated with new RCA Certificates and revocation requests that have been received by the CPOC as summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**
RCA CertificateID: ~~0_CTAG-1-ROOT-CA_L0~~ Certificate revoked **RCA Certificate HashedID8:** ~~7F70A3CDB9F2192D~~ Certificate revoked **DC URL:** ~~0.ctag-dc.l0.siscoga4cad.com/DC~~ Certificate revoked	Full Company Name: FUNDACIÓN PARA LA PROMOCIÓN DE LA INNOVACIÓN, LA INVESTIGACIÓN Y EL DESARROLLO TECNOLÓGICO EN LA INDUSTRIA DE AUTOMOCIÓN DE GALICIA (CTAG) **REVOCATION** of this certificate as it was not conformant to CPOC 1.1 requirements and best practices as intended, replaced by 1_CTAG-2-ROOT-CA_L0 without rekey.
RCA CertificateID: 1_CTAG-2-ROOT-CA_L0 **RCA Certificate HashedID8:** BA23FBBEB9388FAA **DC URL:** http://1.ctag-dc.L0.siscoga4cad.com/DC	Full Company Name: FUNDACIÓN PARA LA PROMOCIÓN DE LA INNOVACIÓN, LA INVESTIGACIÓN Y EL DESARROLLO TECNOLÓGICO EN LA INDUSTRIA DE AUTOMOCIÓN DE GALICIA (CTAG) Context description of testing purpose: RootCA for C-Roads pilot in Spain and cross-border testing with others partners. Other important contextual information: The certificate currently deployed is not compliant with CPOC version 1.1 because it was deployed on December'2019. The certificate here attached once is validated and published on CPOC will replace the current one for CRoads pilot and crosstest.
RCA CertificateID: rca.dev.etsi.c2x.isscms.com **RCA Certificate HashedID8:** 0EDD1B2F185D1184 **DC URL:** https://dc.dev.etsi.c2x.isscms.com/	Full Company Name: Integrity Security Services LLC Contextual information or constraints: "rca.dev.etsi.c2x.isscms.com" is not conformant with CPOC Protocol Release 1.1, Draft v10 because the certificate was issued in 2019, before the guidance was published. The next certificate issuance is intended to be compliant with the current CPOC protocol. Context description of testing purpose: This is our test system's root CA certificate, currently used by some C2C stack developers.

2.2.4 L0 ECTL v4 08.02.2021, HashedID8: BC29D6EB21200EE8

L0 ECTL v4, signed with TLM Certificate "L0 TLM Certificate v3 08.02.2021, HashedId8: D7EE97420E4A6865".

This ECTL is an update directly based on the contents of ECTLv3 (see section 2.2.3). It has been updated with new RCA Certificates that have been received by the CPOC as summarised below:

Note: This version makes use of "**successorTo**" entries (re-key of RCA Certificate, hence also DC URL entries with multiple HashedID8) inside the ECTL for the first time, following the definitions in CPOC Protocol Release 1.1

RCA CertificateID / HashedID8 / DC URL	**Comments**
RCA CertificateID: 1_CONCORDA-Root_L0 **RCA Certificate HashedID8:** BB6FEA308F339E95 **DC URL:** http://concorda.v2x-pilot.escrypt.com/dc	Full Company Name: ESCRYPT GmbH Context description of testing purpose: "1_CONCORDA-Root_L0" is not fully conformant to CPOC Protocol Release 1.1. because the certificate is the successor of 626C128FA1BFB162 and we aim to avoid changes in the remaining project phase. <CPA-ID> is set to 1 to indicate this certificate is the successor of 626C128FA1BFB162. CONCORDA is an European funded project which ends mid of 2021. This PKI is used for testing activities by CONCORDA members. Other important contextual information: The "**successorTo**" parameter in the RootCaEntry is set to the previous trusted RCA **626C128FA1BFB162** to allow testing of migration. Certificate contains old SSP version 1 of the TLC service permission and no ITS-AID for the TLC Status Service. We intend to remove this certificate from L0 ECTL after end of CONCORDA project including a grace period (31.12.2021).
RCA CertificateID: 0_FR-ROOT-CA_L0 **RCA Certificate HashedID8:** C7591A167144A543 **DC URL:** https://0.fr-dc.l0.c-its-pki.eu/	Full Company Name: Atos IDnomic Context description of testing purpose: - This is the certificate of the PKI used by French partners (under the coordination of the French Ministry of Transports) for L0 puroposes. It will be used in C-Roads France and InDiD projects. - The PKI is operated by Atos IDnomic. - Attributes (e.g. naming, validity duration) are compliant to the CPOC Protocol Release 1.1. - 2 test PSIDs (16491 and 16492) are configured in this RCA.

2.2.5 L0 ECTL v5 23.04.2021, HashedID8: 94D3D5B12C8AC464

L0 ECTL v5, signed with TLM Certificate "L0 TLM Certificate v3 08.02.2021, HashedId8: D7EE97420E4A6865".

The TLM Certificate v3 has been re-keyed, the new TLM Certificate v4 (HashedId8: DFF1266B8F5C376D) will become active on 15.05.2021 and is already included in this ECTL v5. The TLM Certificate v4 (HashedId8: DFF1266B8F5C376D) will sign future ECTLs issued after 15.05.2021.

This ECTL is an update directly based on the contents of ECTLv4 (see section 2.2.3). It has been updated with new RCA Certificates that have been received by the CPOC as summarised below:

Note: This version makes use of "**successorTo**" entries (re-key of RCA Certificate, hence also DC URL entries with multiple HashedID8) inside the ECTL for the first time, following the definitions in CPOC Protocol Release 1.1

RCA CertificateID / HashedID8 / DC URL	**Comments**
RCA CertificateID: 0_CryptaMira-Root-CA_L0 **RCA Certificate HashedID8:** 2DC8E948307E628F **DC URL:** http://pki.seacat.io/crypta_mira_l0/cits/dc	Full Company Name: - HORIBA MIRA Ltd. - Crypta Labs Ltd. - TeskaLabs Ltd (PKI operator) Context description of testing purpose: - C-ITS Root CA for Horiba Mira, United Kingdom. It is used for initial testing and adoption of C-ITS security on Horiba Mira test facilities. Contextual information or constraints: - This is an intial Root certificate submission to L0 ECTL.
RCA CertificateID: 0_C2CCC-Root_L0 **RCA Certificate HashedID8:** 4E31BB174A492DF6 **DC URL:** http://c2ccc.v2x-pilot.escrypt.com/dc	Full Company Name: ESCRYPT GmbH "0_C2CCC-Root_L0" is conformant to CPOC Protocol Release 1.1. C2CCC stands for "Car to Car Communication Consortium". Context description of testing purpose: This PKI is used for testing activities by C2C-CC members. Contextual information or constraints: the "successorTo" parameter in the RootCaEntry to the previous trusted RCA 8615663AE95735F7 of the Car to Car Communication Consortium to allow testing of migration. The certificate contains ITS-AID 638 and 639 of non finalized ETSI standards.
RCA CertificateID: 0_CMC-Root-CA_L0 **RCA Certificate HashedID8:** 87E580DD2B0D47FF **DC URL:** http://pki.seacat.io/cmc_l0/cits/dc	Full Company Name: - CMC (Connected Motorcycle Consortium) GbR - TeskaLabs Ltd (PKI operator) Context description of testing purpose: - C-ITS Root CA for Connected Motorcycle Consortium. It is used for initial testing and adoption of C-ITS security among members of the consortium. Contextual information or constraints: - This is an intial Root certificate submission to L0 ECTL.

RCA CertificateID: 0_PT-CROADS-PILOT-ROOT-CA_L0 **RCA Certificate HashedID8:** 2972225BE0604139 **DC URL:** https://0.dc.pilot.croads.ccms.pt/	Full Company Name: - IP Telecom, Serviços de Telecomunicações S.A. Context description of testing purpose: - RootCA for C-Roads pilots in Portugal and cross-border testing with other partners. Contextual information or constraints: - Following the requirements of CPOC Protocol Release 1.1. - The certificate contains ITS-AID 638 and 639 of non finalized ETSI standards.
RCA Certificate ID: 1_SVV-NO-Root-CA_L0 **RCA Certificate HashedID8:** 246D4A091407E82D **DC URL:** http://pki.seacat.io/ssv-no-l0/cits/dc	Full Company Name: - Norwegian Public Roads Administration - TeskaLabs Ltd (PKI operator) Context description of testing purpose: - C-ITS Root CA for C-Roads pilot in Norway and cross-border testing with other partners. Contextual information or constraints: - This is an intial Root certificate submission to L0 ECTL.
RCA Certificate ID: 0_EU-ROOT-CA_L0 **RCA Certificate HashedID8:** D875151DE8A41EBD **DC URL:** https://0.eu-dc.l0.c-its-pki.eu/	Company: Atos IDnomic RCA Name: EU Root CA Context description of testing purpose: This PKI is used for testing activities of EU Root CA clients. Description: - This is a re-keyed certificate of L0 EU Root CA, the predecessor (FD43C421A7D771A8) remains valid (no revocation needed). - Attributes (e.g. naming, validity duration) are compliant to the CPOC Protocol Release 1.1 - The certificate contains PSIDs 639, 540801 and 540802 whose standardisation is still in progress - 2 test PSIDs (16491 and 16492) are configured in this RCA

2.2.6 L0 ECTL v6 18.05.2021, HashedID8: 9E085DAA3A716F50

L0 ECTL v6, signed with TLM Certificate "v4 23.04.2021, HashedId8: 1D261F9E338ECB5B".

The L0 TLM Certificate v3 has been re-keyed, the L0 TLM Certificate v4 (HashedId8: DFF1266B8F5C376D) became active on 15.05.2021 and was included in the L0 ECTL v5.

The L0 TLM Certificate v4 (HashedId8: DFF1266B8F5C376D) has been used for the first time to sign a L0 ECTL on 18.05.2021: L0 ECTL v6

L0 ECTL v6 does not bring any changes in RCA contents from ECTLv5.

2.2.7 L0 ECTL v7 16.06.2021, HashedID8: AB12E56AA86C505E

L0 ECTL v7, signed with TLM Certificate "v4 23.04.2021, HashedId8: 1D261F9E338ECB5B".

This ECTL is an update directly based on the contents of ECTLv6 (see section 2.2.6). It has been updated with one RCA revocation and the addition of a new RCA from the same organization replacing the revoked one. The RCA Certificates that have been received by the CPOC as summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**
RCA CertificateID: ~~0_PT-CROADS-PILOT-ROOT-CA_L0~~ Certificate revoked **RCA Certificate HashedID8:** ~~2972225BE0604139~~ Certificate revoked **DC URL:** ~~https://0.dc.pilot.croads.ccms.pt/~~ Certificate revoked	Full Company Name: - IP Telecom, Serviços de Telecomunicações S.A. **REVOCATION** of this certificate as it contained an error in the 'certIssuePermissions'. Replaced by 1_PT-CROADS-PILOT-ROOT-CA_L0 without rekey.
RCA CertificateID: 1_PT-CROADS-PILOT-ROOT-CA_L0 **RCA Certificate HashedID8:** 85987527EE188A49 **DC URL:** https://0.dc.pilot.croads.ccms.pt	Full Company Name: - IP Telecom, Serviços de Telecomunicações S.A. Context description of testing purpose: - RootCA for C-Roads pilots in Portugal and cross-border testing with other partners. Contextual information or constraints: - Following the requirements of CPOC Protocol Release 1.1. - The certificate contains ITS-AID 638 and 639 of non finalized ETSI standards. - This certificate replaces a previous one with CertificateID '0_PT-CROADS-PILOT-ROOT-CA_L0' which contained an error in the 'certIssuePermissions'.

Note: This version makes use of "**successorTo**" entries (re-key of RCA Certificate, hence also DC URL entries with multiple HashedID8) inside the ECTL for the first time, following the definitions in CPOC Protocol Release 1.1

2.2.8 L0 ECTL v8 15.09.2021, HashedID8: E43ACA63B0A8882E

L0 ECTL v8, signed with TLM Certificate "v4 23.04.2021, HashedId8: 1D261F9E338ECB5B".

This ECTL is an update directly based on the contents of ECTLv7 (see section 2.2.7). It has been updated with one RCA revocation, one RCA rekey (with link certificate message) and the addition of five new RCAs. The RCA requests that have been received by the CPOC as summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**
RCA CertificateID: 0_CITS-CZ-ROOT-CA_L0 **RCA Certificate HashedID8:** 3B49ECA411F89706 **DC URL:** http://pki.c-its.cz/l0/dc	Full Company Name: - Reditelstvi Silnic a Dalnic (RSD) - TeskaLabs Ltd (PKI operator) Context description of testing purpose: - C-ITS Root CA for the Czech Republic. - This C-ITS Root CA will be used by Czech C-ITS partners under the coordination of the Czech Ministry of Transport; for L0 purposes. - RSD is a subordinate organization to the Czech Ministry of Transport. - This PKI is operated by TeskaLabs Ltd, using SeaCat PKI for C-ITS. Contextual information or constraints: - This is an initial Root certificate submission to L0 ECTL. - Following the requirements of CPOC Protocol Release 1.1.
RCA CertificateID: 0_COSTAIN-Root-CA_L0 **RCA Certificate HashedID8:** 3BC2562D2165A3C4 **DC URL:** http://pki-mfm-cits.costain.technology/costain_l0/cits/dc	Full Company Name: - Costain Group plc. - Crypta Labs Ltd. - TeskaLabs Ltd (PKI operator) Context description of testing purpose: - C-ITS Root CA for Costain, United Kingdom. It is used for initial testing and adoption of C-ITS security on Costain test facilities. Contextual information or constraints: - This is an initial Root certificate submission to L0 ECTL.
RCA CertificateID: 0_CROADS-GR-ROOT-CA_L0 **RCA Certificate HashedID8:** 9F9A5858D4D5A48F **DC URL:** http://pki.seacat.io/croads_gr_l0/cits/dc	Full Company Name: - Institute of Communication & Computer Systems Greece - TeskaLabs Ltd (PKI operator) Context description of testing purpose: - C-ITS Root CA for C-Roads pilot in Greece. Contextual information or constraints: - This is an initial Root certificate submission to L0 ECTL.
RCA CertificateID: L0-Telefonica-V2X-ROOT **RCA Certificate HashedID8:** 2620105587473BFA **DC URL:**	Full Company Name: - Telefonica Moviles España Context description of testing purpose: - Telefonica C-ITS Root CA for C-V2X Innovation pilots in Spain and interoperability testing with other partners under 5G Telefonica network.

http://v2x.dev.pki. telefonica.com/dc/	Contextual information or constraints: - Following the requirements of CPOC Protocol Release 1.1. - This PKI is operated by Criptographic Services - Cybersecurity Deparment under Telefonica Digital Security Unit using 5G Telefonica network capabilities.
RCA CertificateID: 0_FR-ROOT-CA_L0 **RCA Certificate HashedID8:** A1333B3F8489F688 **DC URL:** https://0.fr-dc.l0. c-its-pki.eu/	Full Company Name: - Atos IDnomic Context description of testing purpose: - This is a re-keyed certificate of 0_FR-ROOT-CA_L0 with link certificate message privided, the predecessor (C7591A167144A543) remains valid. - This is the certificate of the PKI used by French partners (under the coordination of the French Ministry of Transports) for L0 puroposes. It will be used in C-Roads France and InDiD projects. Contextual information or constraints: - The PKI is operated by Atos IDnomic. - Attributes are compliant to the CPOC Protocol Release 1.1. - 2 test PSIDs (16491 and 16492) are configured in this RCA.
RCA CertificateID: ~~RCA-PILOT-PP-FRANCE~~ **RCA Certificate HashedID8:** ~~8341C0D422119691~~ **DC URL:** ~~https://dc-pilot- pp.france.c-its-pki.eu/~~	Full Company Name: Atos IDnomic **REVOCATION** of this certificate requested by the RCA operator.
RCA CertificateID: 0_MICROSEC_2021_ROOT_CA_L0 **RCA Certificate HashedID8:** CAE9E9E76237E1C0 **DC URL:** http://v2x-pki- test.microsec.com/ v2x_rootca_eu_cp_l0	Full Company Name: - Microsec Ltd. Context description of testing purpose: - This PKI is used for testing and piloting purposes as a service of Microsec Ltd. - This new RootCA is created to enable the testing with new services and create an RCA certificate compatible with the CPOC protocol. Contextual information or constraints: - We keep both our root CA certificates active and on the ECTL, because the old one is used for testing by our partners.

Note: This version makes use of "**successorTo**" entries (re-key of RCA Certificate, hence also DC URL entries with multiple HashedID8) inside the ECTL for the first time, following the definitions in CPOC Protocol Release 1.1

2.2.9 L0 ECTL v9 14.12.2021, HashedID8: EE2E1052D42B2215

L0 ECTL v9, signed with TLM Certificate "v4 23.04.2021, HashedId8: 1D261F9E338ECB5B".

NextUpdate=15/04/2022

This L0 ECTL release start implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 15/04/2022 while the next L0 ECTL (v10) is scheduled to be issued one month earlier on 15/03/2022.

This ECTL is an update directly based on the contents of ECTLv8 (see section 2.2.8). It has been updated with one expired RCA removed, no new RCAs have been added, no RCAs have been rekey in this release. The changes are summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**
RCA CertificateID: ~~BSI V2X Pilot PKI Root~~ Certificate expired **RCA Certificate HashedID8:** EB31001691B8FE70 **DC URL:** http://bsi.v2x-pilot.escrypt.com/dc	**REMOVED from L0 ECTL due to RCA expiry** Full Company Name: ESCRYPT GmbH RCA CertificateID: "BSI V2X Pilot PKI Root" is not conformant to CPOC Protocol Release 1.1., Draft v10 because the certificate was issued in 2019 when the scheme was not known to us. BSI stands for "Bundesamt für Sicherheit in der Informationstechnik" which is the Federal Office for Information Security in Germany. Context description of testing purpose: This PKI is used for pilot deployments in scope of the European C-ITS Corridor and of C-Roads including C-Roads Urban Nodes (at least German and Austrian test sides). Contextual information or constraints: Certificate contains old SSP version 1 of the TLC service permission and no ITS-AID for the TLC Status Service. Certificate lifetime is set as hours (21840 = approx. 2.5y) instead of years. We intend to remove this certificate from L0 ECTL at latest after end of C-Roads project (30.06.2021).

Note: This version makes use of "**successorTo**" entries (re-key of RCA Certificate, hence also DC URL entries with multiple HashedID8) inside the ECTL for the first time, following the definitions in CPOC Protocol Release 1.1

2.2.10 L0 ECTL v10 15.03.2022, HashedID8: 9303881FABC56575

L0 ECTL v10, signed with TLM Certificate "v4 23.04.2021, HashedId8: 1D261F9E338ECB5B".

NextUpdate=15/07/2022

This L0 ECTL release continues implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 15/07/2022 while the next L0 ECTL (v11) is scheduled to be issued one month earlier on 15/06/2022.

This L0 ECTL is an update directly based on the contents of ECTLv9 (see section 2.2.9). It contains no new or rekeyed RCAs, no RCAs have been removed in this release due to expiry or revocation.

Note: This version makes use of "**successorTo**" entries (re-key of RCA Certificate, hence also DC URL entries with multiple HashedID8) inside the ECTL for the first time, following the definitions in CPOC Protocol Release 1.1/1.2

2.2.11 L0 ECTL v11 15.06.2022, HashedID8: 542534CEF70B592F

L0 ECTL v11, signed with TLM Certificate "v4 23.04.2021, HashedId8: 1D261F9E338ECB5B".

NextUpdate=14/10/2022

This L0 ECTL release continues implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 14/10/2022 while the next L0 ECTL (v12) is scheduled to be issued one month earlier on 15/09/2022.

This L0 ECTL is an update directly based on the contents of ECTLv10 (see section 2.2.10). It contains no new or rekeyed RCAs, no RCAs have been removed in this release due to expiry or revocation.

Note: This version makes use of "**successorTo**" entries (re-key of RCA Certificate, hence also DC URL entries with multiple HashedID8) inside the ECTL for the first time, following the definitions in CPOC Protocol Release 1.1/1.2

2.2.12 L0 ECTL v12 15.09.2022, HashedID8: 3FE4D69878AC4BAA

L0 ECTL v12, signed with TLM Certificate "v4 23.04.2021, HashedId8: 1D261F9E338ECB5B".

NextUpdate=15/01/2023

This L0 ECTL release continues implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 15/01/2023 while the next L0 ECTL (v13) is scheduled to be issued one month earlier on 15/12/2022.

This L0 ECTL is an update directly based on the contents of ECTLv11 (see section 2.2.11). It contains two new RCAs. No RCAs have been rekeyed. No RCAs have been removed in this release due to expiry or revocation.

The RCA requests that have been received by the CPOC as summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**
RCA CertificateID: 1_DARS-SI-2022-ROOT-CA_L0 **RCA Certificate HashedID8:** 2722515B1756032F **DC URL:** http://pki.seacat.io/dars-l0/cits/dc	Full Company Name: - Motorway Company in the Republic of Slovenia (DARS) - TeskaLabs Ltd (PKI Operator) Context description of testing purpose: - The new C-ITS PKI built for DARS (Motorway Company in the Republic of Slovenia) that is scheduled to replace previous C-ITS PKI with RCA 7672848FBF07F701 - It is used for initial adoption of C-ITS in Slovenia. - This PKI is operated by TeskaLabs Ltd, using SeaCat PKI for C-ITS. Contextual information or constraints: - This is an initial Root certificate submission to L0 ECTL. - Follows requirements of CPOC Protocol Release 1.1.
RCA CertificateID: 1_Autobahn-V2X-RootCA-2021-1_L0 **RCA Certificate HashedID8:** 38B3B35DEEC7D350 **DC URL:** http://autobahn-dc2021-1-l0.v2x-pki.com/	Full Company Name: - Die Autobahn GmbH des Bundes Context description of testing purpose: - This is the RCA belonging to the C-ITS Test-PKI System of Deutsche Autobahn GmbH, operated by Microsec Ltd. - The RCA aims to enable interoperability testing between the Autobahn PKI system and the new partners of Autobahn GmbH. Also, this system is used in the pilot projects where Autobahn GmbH is participating. Contextual information or constraints: - The RCA certificate is a new certificate, generated on the 2nd of February 2022.

Note: This version makes use of "**successorTo**" entries (re-key of RCA Certificate, hence also DC URL entries with multiple HashedID8) inside the ECTL for the first time, following the definitions in CPOC Protocol Release 1.1/1.2

2.2.13 L0 ECTL v13 15.12.2022, HashedID8: 66E5A0B5169608C7

L0 ECTL v13, signed with TLM Certificate "v4 23.04.2021, HashedId8: 1D261F9E338ECB5B".

NextUpdate=15/04/2023

This L0 ECTL release continues implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 15/04/2023 while the next L0 ECTL (v14) is scheduled to be issued one month earlier on 15/03/2023.

This L0 ECTL is an update directly based on the contents of ECTLv12 (see section 2.2.12). Five RCAs have been revoked and removed, one expired RCA has been removed, three new RCAs have been added. No RCAs have been rekeyed.

The RCA requests that have been received by the CPOC and other L0 ECTL changes are summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**
RCA CertificateID: ~~1_CTAG-2-ROOT-CA_L0~~ Certificate revoked **RCA Certificate HashedID8:** ~~BA23FBBEB9388FAA~~ Certificate revoked **DC URL:** ~~http://1.ctag-dc.L0.siscoga4cad.com/DC~~ Certificate revoked	Full Company Name: FUNDACIÓN PARA LA PROMOCIÓN DE LA INNOVACIÓN, LA INVESTIGACIÓN Y EL DESARROLLO TECNOLÓGICO EN LA INDUSTRIA DE AUTOMOCIÓN DE GALICIA (CTAG) **REVOCATION** of this certificate has been requested to be replaced by 0_CTAG-ROOT-CA_L0 without rekey.
RCA CertificateID: 0_CTAG-ROOT-CA_L0 **RCA Certificate HashedID8:** DBF851D9AFAB2EFE **DC URL:** http://1.ctag-dc.l0.siscoga4cad.com/DC	Full Company Name: FUNDACIÓN PARA LA PROMOCIÓN DE LA INNOVACIÓN, LA INVESTIGACIÓN Y EL DESARROLLO TECNOLÓGICO EN LA INDUSTRIA DE AUTOMOCIÓN DE GALICIA (CTAG) Context description of testing purpose: This PKI is used for testing, validation and piloting purposes in SISCOGA corridor and other European projects. The RootCA is a new certificate generated to support new messages such as CPMs

RCA CertificateID: 0_SwarcoNL-Root_L0 **RCA Certificate HashedID8:** 4B6357FFC9CC44C9 **DC URL:** http://swarconl.staging.cycurv2x.com/dc	Full Company Name: ETAS GmbH (former ESCRYPT GmbH) Context description of testing purpose: This PKI is used for testing activities.
RCA CertificateID: ~~1_PT-CROADS-PILOT-ROOT-CA_L0~~ Certificate revoked **RCA Certificate HashedID8:** ~~85987527EE188A49~~ Certificate revoked **DC URL:** ~~https://0.dc.pilot.croads.ccms.pt~~ Certificate revoked	Full Company Name: IP Telecom, Serviços de Telecomunicações S.A. **REVOCATION** of this certificate has been requested to be replaced by 2_PT-CROADS-PILOT-ROOT-CA_L0 without rekey.
RCA CertificateID: 2_PT-CROADS-PILOT-ROOT-CA_L0 **RCA Certificate HashedID8:** 2AF15FFF35B8F4D2 **DC URL:** https://0.dc.pilot.croads.ccms.pt/	Full Company Name: IP Telecom, Serviços de Telecomunicações S.A. Context description of testing purpose: RootCA for C-Roads pilots in Portugal and cross-border testing with other partners. Contextual information or constraints: Following the requirements of CPOC Protocol Release 1.1. This certificate replaces a previous one with CertificateID '1_PT-CROADS-PILOT-ROOT-CA_L0'.
RCA CertificateID: ~~Test BSI V2X Pilot PKI Root~~ Certificate revoked **RCA Certificate HashedID8:** ~~327A270AABCB9672~~ Certificate revoked **DC URL:** ~~http://test.bsi.v2x-pilot.escrypt.com/dc~~ Certificate revoked	Full Company Name: ESCRYPT GmbH. **REVOCATION** of this certificate has been requested by the RCA.

RCA CertificateID: ~~0_HH-Pilot-Root_L0~~ Certificate revoked **RCA Certificate HashedID8:** ~~3684070CC8E2161E~~ Certificate revoked **DC URL:** ~~http://hamburg.v2x-pilot.escrypt.com/dc~~ Certificate revoked	Full Company Name: ESCRYPT GmbH. **REVOCATION** of this certificate has been requested by the RCA.
RCA CertificateID: ~~C2C-CC V2X Pilot PKI Root~~ Certificate revoked **RCA Certificate HashedID8:** ~~8615663AE95735F7~~ Certificate revoked **DC URL:** ~~http://c2ccc.v2x-pilot.escrypt.com/dc~~ Certificate revoked	Full Company Name: ESCRYPT GmbH. **REVOCATION** of this certificate has been requested by the RCA.
RCA CertificateID: ~~Open C-ITS Test PKI Root CA~~ Certificate expired **RCA Certificate HashedID8:** ~~546B0D01F5EF855C~~ Certificate expired **DC URL:** ~~https://via.teskalabs.com/cits-otenv/v1.3/dc~~ Certificate expired	Full Company Name: TeskaLabs Ltd **EXPIRY.** This certificate has been automatically removed due to its expiry.

2.2.14 L0 ECTL v14 15.03.2023, HashedID8: DA18E24D5233EC91

L0 ECTL v14, signed with TLM Certificate "v4 23.04.2021, HashedId8: 1D261F9E338ECB5B".

NextUpdate=15/07/2023

This L0 ECTL release continues implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 15/07/2023 while the next L0 ECTL (v15) is scheduled to be issued one month earlier on 15/06/2023.

This L0 ECTL is an update directly based on the contents of ECTLv13 (see section 2.2.13). Two RCAs have been revoked and removed, one expired RCA has been removed. No new RCAs have been added. No RCAs have been rekeyed.

The RCA requests that have been received by the CPOC and other L0 ECTL changes are summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**
RCA CertificateID: ~~1_CONCORDA-Root_L0~~ Certificate revoked **RCA Certificate HashedID8:** ~~BB6FEA308F339E95~~ Certificate revoked **DC URL:** ~~http://concorda.v2x-pilot.escrypt.com/dc~~ Certificate revoked	Full Company Name: ESCRYPT GmbH. **REVOCATION** of this certificate has been requested by the RCA.
RCA CertificateID: ~~0_C2CCC-Root_L0~~ Certificate revoked **RCA Certificate HashedID8:** ~~4E31BB174A492DF6~~ Certificate revoked **DC URL:** ~~http://c2ccc.v2x-pilot.escrypt.com/dc~~ Certificate revoked	Full Company Name: ESCRYPT GmbH. **REVOCATION** of this certificate has been requested by the RCA.
RCA CertificateID: ~~dars.si~~ ~~http://pki.seacat.io/dars.si/cits/dc~~ Certificate expired **RCA Certificate HashedID8:** ~~7672848FBF07F701~~ Certificate expired **DC URL:** ~~http://pki.seacat.io/dars.si/cits/dc~~ Certificate expired	Full Company Name: TeskaLabs Ltd **EXPIRY.** This certificate has been automatically removed due to its expiry.

2.2.15 L0 ECTL v15 15.06.2023, HashedID8: 69DAABE5BB1987D9

L0 ECTL v15, signed with TLM Certificate "v4 23.04.2021, HashedId8: 1D261F9E338ECB5B".

NextUpdate=15/10/2023

This L0 ECTL release continues implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 15/10/2023 while the next L0 ECTL (v16) is scheduled to be issued one month earlier on 15/09/2023.

This L0 ECTL is an update directly based on the contents of ECTLv14 (see section 2.2.14). One expired RCA has been removed. Two new RCAs have been added. One RCA has been rekeyed.

The RCA requests that have been received by the CPOC and other L0 ECTL changes are summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**
RCA CertificateID: 0_TESKALABS-OPENTEST-ROOT-CA_L0 **RCA Certificate HashedID8:** ADB60E2871BA306B **DC URL:** http://pki.seacat.io/cits-otenv/cits/dc	Full Company Name: TeskaLabs Ltd Context description of testing purpose: - Open Test C-ITS PKI is used for ITS-S security stack development, testing, and validation. It is freely available for the C-ITS community. Contextual information or constraints: - This PKI replaces the previous instance predating ECTL L0 specifications, which is already removed from ECTL L0. This instance is compliant with ECTL L0 requirements.
RCA CertificateID: 0_AUTOCRYPT-ROOT-CA_L0 **RCA Certificate HashedID8:** BF082E09704AB8B0 **DC URL:** http://etsi.autocrypt.io/dc	Full Company Name: Autocrypt Context description of testing purpose: - Pilot for ETSI SCMS
RCA CertificateID: ~~C-Roads CZ Pilot Root CA~~ Certificate expired **RCA Certificate HashedID8:** ~~C50756DCA2EB0EC1~~ Certificate expired **DC URL:** ~~http://cits-pki.o2.cz/v1/dc~~ Certificate expired	Full Company Name: TeskaLabs Ltd **EXPIRY.** This certificate has been automatically removed due to its expiry.

RCA CertificateID: 0_FR-ROOT-CA_L0 **RCA Certificate HashedID8:** B735AC70F6A82B2D **DC URL:** https://0.fr-dc.l0. c-its-pki.eu/	Full Company Name: - Atos IDnomic Context description of testing purpose: - This is a re-keyed certificate of 0_FR-ROOT-CA_L0, the predecessor (A1333B3F8489F688) remains valid (no revocation needed). - A link message is provided (B735AC70F6A82B2D.link) - This is the certificate of the PKI used by French partners (under the coordination of the French Ministry of Transports) for L0 puroposes. It will be used in InDiD project. Contextual information or constraints: - The PKI is operated by Atos IDnomic. - Attributes (e.g. naming, validity duration) are compliant to the CPOC Protocol Release 1.1. - 5 test PSIDs (16491 to 16495) are configured in this RCA.

2.2.16 L0 ECTL v16 15.09.2023, HashedID8: 946AE518AA8EC149

L0 ECTL v16, signed with TLM Certificate "v4 23.04.2021, HashedId8: 1D261F9E338ECB5B".

NextUpdate=15/01/2024

This L0 ECTL release continues implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 15/01/2024 while the next L0 ECTL (v16) is scheduled to be issued one month earlier on 15/12/2023.

This L0 ECTL is an update directly based on the contents of ECTLv15 (see section 2.2.15). One expired RCA has been removed. One RCA has been revoked. One new RCA has been added.

The RCA requests that have been received by the CPOC and other L0 ECTL changes are summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**
RCA CertificateID: 0_Microsec-CCMS-RCA-2023-1_L0 **RCA Certificate HashedID8:** DCA3229227BFBE74 **DC URL:** http://microsec-ccms-dc-2023-1-l0.v2x-pki.com	Full Company Name: Microsec Ltd. Context description of testing purpose: - Microsec Shared Pilot CCMS hierarchy (0_Microsec-CCMS-RCA-2023-1_L0) is used for field testing and small pilot or proof of concept projects for L0. Contextual information or constraints: - This is a new certificate on the top of a new hierarchy.
RCA CertificateID: ~~0_FR-ROOT-CA_L0~~ Certificate revoked **RCA Certificate HashedID8:** ~~C7591A167144A543~~ Certificate revoked **DC URL:** ~~https://0.fr-dc.l0.c-its-pki.eu/~~ Certificate revoked	Full Company Name: - Atos IDnomic **REVOCATION** of this certificate has been requested by the RCA.
RCA CertificateID: ~~0_VWG-Root-CA_L0~~ Certificate expired **RCA Certificate HashedID8:** 290743A956E3A2E0 Certificate expired **DC URL:** Certificate expired	Full Company Name: Volkswagen AG **EXPIRY.** This certificate has been automatically removed due to its expiry.

2.2.17 L0 ECTL v17 15.12.2023, HashedID8: 8FF625C548FAC4CD

L0 ECTL v17, signed with TLM Certificate "v4 23.04.2021, HashedId8: 1D261F9E338ECB5B".

NextUpdate=15/04/2024

This L0 ECTL release continues implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 15/04/2024 while the next L0 ECTL (v16) is scheduled to be issued one month earlier on 15/03/2024.

This L0 ECTL is an update directly based on the contents of ECTLv16 (see section 2.2.16). No expired RCAs have been removed. No RCAs have been revoked. No RCAs have been added or re-keyed.

2.2.18 L0 ECTL v18 15.03.2024, HashedID8: 6F1895D16BA90EAE

L0 ECTL v18, signed with TLM Certificate "v4 23.04.2021, HashedId8: 1D261F9E338ECB5B".

NextUpdate=15/07/2024

This L0 ECTL release continues implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 15/07/2024 while the next L0 ECTL (v19) is scheduled to be issued one month earlier on 14/06/2024.

This L0 ECTL is an update directly based on the contents of ECTLv17 (see section 2.2.17). One expired RCA has been removed. No RCAs have been revoked. No RCAs have been added or re-keyed.

The L0 ECTL changes in v18 are summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**
RCA CertificateID: ~~0_CryptaMira-Root-CA_L0~~ Certificate expired **RCA Certificate HashedID8:** ~~2DC8E948307E628F~~ Certificate expired **DC URL:** ~~http://pki.scacat.io/crypta_mira_l0/cits/dc~~ Certificate expired	Full Company Name: - HORIBA MIRA Ltd. - Crypta Labs Ltd. - TeskaLabs Ltd (PKI operator) **EXPIRY.** This certificate has been automatically removed due to its expiry.

2.2.19 L0 ECTL v19 15.04.2024, HashedID8: 226BCD8A97B96630

L0 ECTL v19, signed with TLM Certificate "v4 23.04.2021, HashedId8: 1D261F9E338ECB5B".

NextUpdate=14/07/2024

This L0 ECTL release continues implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 14/07/2024 while the next L0 ECTL (v20) is scheduled to be issued one month earlier on 14/06/2024.

The TLM Certificate v4 has been re-keyed, the new TLM Certificate v5 (HashedId8: 8FFE810BDB0D71E6) will become active on 15.05.2024 and is already included in this ECTL v19. The TLM Certificate v5 (HashedId8: 8FFE810BDB0D71E6) will sign future ECTLs issued after 15.05.2024.

This L0 ECTL is an update directly based on the contents of ECTLv18 (see section 2.2.18). One new RCA has been added. No RCAs have been re-keyed. No expired or revoked RCAs have been removed.

The L0 ECTL RCA changes in v19 are summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**

RCA CertificateID:
`0_CP4SC-ROOT-CA_L0`
 	
RCA Certificate HashedID8:
`260F273A7108C70C`
 	
DC URL:
`https://0.cp4sc-dc.l0.c-its-pki.eu`
	Full Company Name:
	- Eviden IDnomic
	
	Context description of testing purpose:
	- This certificate is for the french project CP4SC (Cloud Platform for Smart City). This project includes C-ITS services for traffic management.
	
	Contextual information or constraints:
	- This is an intial Root certificate submission to L0 ECTL.

2.2.20 L0 ECTL v20 14.06.2024, HashedID8: B3FE6CEB2FC0758F

L0 ECTL v20, signed with TLM Certificate "v5 15.04.2024, HashedId8: 8FFE810BDB0D71E6".

NextUpdate=13/10/2024

This L0 ECTL release continues implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 13/10/2024 while the next L0 ECTL (v21) is scheduled to be issued one month earlier on 13/09/2024.

The TLM Certificate v4 has been removed from the L0 ECTL as the new TLM Certificate v5 (HashedId8: 8FFE810BDB0D71E6) is active since 15.05.2024. L0 ECTL v20 has been the first L0 ECTL signed by TLM Certificate v5 (HashedId8: 8FFE810BDB0D71E6).

This L0 ECTL is an update directly based on the contents of ECTLv19 (see section 2.2.19). Two new RCAs have been added. No RCAs have been re-keyed. Two RCAs have been revoked and removed.

The L0 ECTL RCA changes in v20 are summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**
RCA CertificateID: 0_CHT-ROOT-CA-2024-1_L0 **RCA Certificate HashedID8:** 143F594D8947E396 **DC URL:** https://0.CHT-DC-2024-1.L0.ccms.com.tw/	Full Company Name: - Chunghwa Telecom Co., Ltd. Context description of testing purpose: - Chunghwa Telecom shared pilot CCMS hierarchy (0_CHT-ROOT-CA-2024-1_L0) is utilized for field testing, small pilot projects, and proof-of-concept initiatives at the L0 level. Contextual information or constraints: - This is a new certificate on the top of a new hierarchy.
RCA CertificateID: 0_DARS-SI-ROOT-CA_L0 **RCA Certificate HashedID8:** C0212CA0FFC651A6 **DC URL:** http://c-its-pki.itsdars.si/l0/dc	Full Company Name: - Motorway Company in the Republic of Slovenia (DARS) - TeskaLabs Ltd (PKI operator) Context description of testing purpose: - C-ITS Root CA for the Republic of Slovenia. - It will gradually replace `1_DARS-SI-2022-ROOT-CA_L0` certificate. - This PKI is operated by TeskaLabs Ltd, using SeaCat PKI for C-ITS. Contextual information or constraints: - This is an initial Root certificate submission to L0 ECTL. - Following the requirements of CPOC Protocol Release 1.1.
RCA CertificateID: ~~0_SwarcoNL-Root_L0~~ Certificate revoked **RCA Certificate HashedID8:** ~~4B6357FFC9CC44C9~~ Certificate revoked **DC URL:** ~~http://swarconl.staging.eycurv2x.com/dc~~	Full Company Name: - ETAS GmbH (former ESCRYPT GmbH) **REVOCATION** of this certificate has been requested by the RCA.

Certificate revoked	
RCA CertificateID: ~~0_MICROSEC_2021_ROOT_CA_L0~~ Certificate revoked **RCA Certificate HashedID8:** ~~CAE9E9E76237E1C0~~ Certificate revoked **DC URL:** ~~http://v2x-pki-test.microsec.com/v2x_rootca_eu_cp_l0~~ Certificate revoked	Full Company Name: - Microsec Ltd. **REVOCATION** of this certificate has been requested by the RCA.

2.2.21 L0 ECTL v21 13.09.2024, HashedID8: C3A1556FAC2AA309

L0 ECTL v21, signed with TLM Certificate "v5 15.04.2024, HashedId8: 8FFE810BDB0D71E6".

NextUpdate=15/01/2025

This L0 ECTL release continues implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 15/01/2025 while the next L0 ECTL (v22) is scheduled to be issued one month earlier on 13/12/2024.

L0 ECTL v21 has been signed by TLM Certificate v5 (HashedId8: 8FFE810BDB0D71E6).

This L0 ECTL is an update directly based on the contents of ECTLv20 (see section 2.2.20). One RCA expired and it has been removed.

The L0 ECTL RCA changes in v21 are summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**
RCA CertificateID: ~~L0-Telefonica-V2X-ROOT~~ Certificate expired **RCA Certificate HashedID8:** ~~2620105587473BFA~~ Certificate expired **DC URL:** ~~http://v2x.dev.pki.telefonica.com/dc/~~ Certificate expired	Full Company Name: - Telefonica Moviles España **EXPIRY.** This certificate has been automatically removed due to its expiry.

2.2.22 L0 ECTL v22 13.12.2024, HashedID8: 9DB08F539512C9D6

L0 ECTL v22, signed with TLM Certificate "v5 15.04.2024, HashedId8: 8FFE810BDB0D71E6".

NextUpdate=14/04/2025

This L0 ECTL release continues implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 14/04/2025 while the next L0 ECTL (v23) is scheduled to be issued one month earlier on 14/03/2025.

L0 ECTL v22 has been signed by TLM Certificate v5 (HashedId8: 8FFE810BDB0D71E6).

This L0 ECTL is an update directly based on the contents of ECTLv21 (see section 2.2.21). Two new RCAs have been added.

The L0 ECTL RCA changes in v22 are summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**
RCA CertificateID: 0_SAESOLTECH-ROOT-CA_L0 **RCA Certificate HashedID8:** 6BC91BE3845B138C **DC URL:** https://dc.v2x-scms.saesoltech.io	Full Company Name: - Saesol Tech, Inc. Context description of testing purpose: - Conducting interoperability testing with other CCMS providers, such as Microsec and Autocrypt Contextual information or constraints: -
RCA CertificateID: 0_CHT-ROOT-CA-2024-2_L0 **RCA Certificate HashedID8:** 75038BE08FE7F851 **DC URL:** https://0.CHT-DC-2024-2.L0.ccms.com.tw/	Full Company Name: - Chunghwa Telecom Co., Ltd. Context description of testing purpose: - Chunghwa Telecom shared pilot CCMS hierarchy (0_CHT-ROOT-CA-2024-2_L0) based on NIST P-256 is utilized for field testing, small pilot projects, and proof-of-concept initiatives at the L0 level. Contextual information or constraints: - This is a new certificate on the top of a new hierarchy.

2.2.23 L0 ECTL v23 14.03.2025, HashedID8: E3B49921E05A5953

L0 ECTL v23, signed with TLM Certificate "v5 15.04.2024, HashedId8: 8FFE810BDB0D71E6".

NextUpdate=13/07/2025

This L0 ECTL release continues implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 13/07/2025 while the next L0 ECTL (v24) is scheduled to be issued one month earlier on 13/06/2025.

L0 ECTL v23 has been signed by TLM Certificate v5 (HashedId8: 8FFE810BDB0D71E6).

This L0 ECTL is an update directly based on the contents of ECTLv22 (see section 2.2.22). Two RCAs have been re-keyed.

The L0 ECTL RCA changes in v23 are summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**
RCA CertificateID: 0_DARS-SI-ROOT-CA_L0 **RCA Certificate HashedID8:** DAF300CB6F96C029 **DC URL:** http://c-its-pki.itsdars.si/l0/dc	Full Company Name: - Motorway Company in the Republic of Slovenia (DARS) - TeskaLabs Ltd (PKI operator) Context description of testing purpose: - C-ITS Root CA for the Republic of Slovenia. - It will gradually replace `1_DARS-SI-2022-ROOT-CA_L0` certificate. - This PKI is operated by TeskaLabs Ltd, using SeaCat PKI for C-ITS. Contextual information or constraints: - This new RCA (DAF300CB6F96C029) will replace the existing one, C0212CA0FFC651A6, that will be removed from the ECTL in the next version in June 2025. - Following the requirements of CPOC Protocol Release 1.1.
RCA CertificateID: 0_CHT-ROOT-CA-2024-2_L0 **RCA Certificate HashedID8:** EB20AB6D7637896D **DC URL:** https://0.CHT-DC-2024-2.L0.ccms.com.tw/	Full Company Name: - Chunghwa Telecom Co., Ltd. Context description of testing purpose: - Chunghwa Telecom shared pilot CCMS hierarchy (0_CHT-ROOT-CA-2024-2_L0) based on NIST P-256 is utilized for field testing, small pilot projects, and proof-of-concept initiatives at the L0 level. Contextual information or constraints: - This is a re-keyed certificate of 0_CHT-ROOT-CA-2024-2_L0, the predecessor (75038BE08FE7F851) remains valid.

2.2.24 L0 ECTL v24 13.06.2025, HashedID8: 45EA7785238FD93C

L0 ECTL v24, signed with TLM Certificate "v5 15.04.2024, HashedId8: 8FFE810BDB0D71E6".

NextUpdate=15/10/2025

This L0 ECTL release continues implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 15/10/2025 while the next L0 ECTL (v25) is scheduled to be issued one month earlier on 15/09/2025.

L0 ECTL v24 has been signed by TLM Certificate v5 (HashedId8: 8FFE810BDB0D71E6).

This L0 ECTL is an update directly based on the contents of ECTLv23 (see section 2.2.23). One RCA has been re-keyed. One RCA has been revoked and one RCA has been removed due to expiry.

The L0 ECTL RCA changes in v24 are summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**
RCA Certificate ID: 0_EU-ROOT-CA_L0 **RCA Certificate HashedID8:** 1B5CB4BEBE6FE9E9 **DC URL:** https://0.eu-dc.l0.c-its-pki.eu/	Company: Atos IDnomic RCA Name: EU Root CA Context description of testing purpose: This PKI is used for testing activities of EU Root CA clients. Description: - This is a re-keyed certificate of L0 EU Root CA, the predecessor (D875151DE8A41EBD) remains valid (no revocation needed). - Attributes (e.g. naming, validity duration) are compliant to the CPOC Protocol Release 3.1 - 2 test PSIDs (16491 and 16492) are configured in this RCA
RCA CertificateID: ~~0_DARS-SI-ROOT-CA_L0~~ Cerificate revoked **RCA Certificate HashedID8:** ~~C0212CA0FFC651A6~~ Cerificate revoked **DC URL:** ~~http://c-its-pki.itsdars.si/l0/dc~~ Cerificate revoked	Full Company Name: - Motorway Company in the Republic of Slovenia (DARS) - TeskaLabs Ltd (PKI operator) **REVOCATION** of this certificate has been requested by the RCA.
RCA CertificateID: ~~0_EU-ROOT-CA_L0~~ Certificate expierd **RCA Certificate HashedID8:** ~~FD43C421A7D771A8~~ Certificate expierd **DC URL:** ~~https://0.eu-dc.l0.c-its-pki.eu/~~ Certificate expierd	Full Company Name: Atos IDnomic RCA certificate ID: 0_EU-ROOT-CA_L0 **EXPIRY.** This certificate has been automatically removed due to its expiry.

2.2.25 L0 ECTL v25 11.09.2025, HashedID8: 5DB6323808969B84

L0 ECTL v25, signed with TLM Certificate "v5 15.04.2024, HashedId8: 8FFE810BDB0D71E6".

NextUpdate=11/01/2026

This L0 ECTL release continues implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 15/01/2026 while the next L0 ECTL (v26) is scheduled to be issued one month earlier on 11/12/2025.

L0 ECTL v25 has been signed by TLM Certificate v5 (HashedId8: 8FFE810BDB0D71E6).

This L0 ECTL is an update directly based on the contents of ECTLv24 (see section 2.2.24). One RCA has been added.

The L0 ECTL RCA changes in v25 are summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**

RCA Certificate ID:
`0_CITS-CZ-TEST-ROOT-CA_L0`
 	
RCA Certificate HashedID8:
`56D3026D2901AC2A`
 	
DC URL:
`http://pki.c-its.cz/l0_test/dc`
	Full Company Name:
	- Ředitelství silnic a dálnic s. p. (RSD)
	- TeskaLabs Ltd (PKI operator)
	
	Context description of testing purpose:
	- C-ITS PKI "L0 Test" aka L0 Root CA for the Czech Republic.
	- It will gradually replace `0_CITS-CZ-ROOT-CA_L0` certificate.
	- This PKI is operated by TeskaLabs Ltd, using SeaCat PKI for C-ITS.

2.2.26 L0 ECTL v26 15.12.2025, HashedID8: 7944410BC2EF43AD

L0 ECTL v26, signed with TLM Certificate "v5 15.04.2024, HashedId8: 8FFE810BDB0D71E6".

NextUpdate=15/04/2026

This L0 ECTL release continues implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 15/04/2026 while the next L0 ECTL (v27) is scheduled to be issued one month earlier on 13/03/2026.

L0 ECTL v26 has been signed by TLM Certificate v5 (HashedId8: 8FFE810BDB0D71E6).

This L0 ECTL is an update directly based on the contents of ECTLv25 (see section 2.2.25). One expired RCA has been removed. No RCAs have been revoked. No RCAs have been added or re-keyed.

The L0 ECTL RCA changes in v26 are summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**
RCA CertificateID: ~~0_CMC-Root-CA_L0~~ **RCA Certificate HashedID8:** ~~87E580DD2B0D47FF~~ **DC URL:** ~~http://pki.scacat.io/cmc_l0/cits/dc~~	Full Company Name: - CMC (Connected Motorcycle Consortium) GbR - TeskaLabs Ltd (PKI operator) **EXPIRY.** This certificate has been automatically removed due to its expiry.

2.2.27 L0 ECTL v27 13.03.2026, HashedID8: 1A35D0FC10FE564E

L0 ECTL v27, signed with TLM Certificate "v5 15.04.2024, HashedId8: 8FFE810BDB0D71E6".

NextUpdate=13/07/2026

This L0 ECTL release continues implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 13/07/2026 while the next L0 ECTL (v28) is scheduled to be issued one month earlier on 15/06/2026.

L0 ECTL v27 has been signed by TLM Certificate v5 (HashedId8: 8FFE810BDB0D71E6).

This L0 ECTL is an update directly based on the contents of ECTLv26 (see section 2.2.26). No RCAs have been removed due to expiry. No RCAs have been revoked. No RCAs have been added or re-keyed.

2.2.28 L0 ECTL v28 12.06.2026, HashedID8: A7FB2A8B54E575E0

L0 ECTL v28, signed with TLM Certificate "v5 15.04.2024, HashedId8: 8FFE810BDB0D71E6".

NextUpdate=12/10/2026

This L0 ECTL release continues implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 12/10/2026 while the next L0 ECTL (v29) is scheduled to be issued one month earlier on 14/09/2026.

L0 ECTL v28 has been signed by TLM Certificate v5 (HashedId8: 8FFE810BDB0D71E6).

This L0 ECTL is an update directly based on the contents of ECTLv27 (see section 2.2.27). Two RCAs have been removed due to expiry. No RCAs have been revoked. Three RCAs have been added and one RCA has been re-keyed.

The L0 ECTL RCA changes in v28 are summarised below:

RCA CertificateID / HashedID8 / DC URL	**Comments**
RCA Certificate ID: ~~1_SVV-NO-Root-CA_L0~~ **RCA Certificate HashedID8:** ~~246D4A091407E82D~~ **DC URL:** ~~http://pki.seacat.io/ssv-no-l0/cits/dc~~	Full Company Name: - Norwegian Public Roads Administration - TeskaLabs Ltd (PKI operator) **EXPIRY.** This certificate has been automatically removed due to its expiry.
RCA Certificate ID: ~~0_EU-ROOT-CA_L0~~ **RCA Certificate HashedID8:** ~~D875151DE8A41EBD~~ **DC URL:** ~~https://0.eu-dc.l0.c-its-pki.eu/~~	Company: Atos IDnomic RCA Name: EU Root CA **EXPIRY.** This certificate has been automatically removed due to its expiry.
RCA CertificateID: 0_CHT-ROOT-CA-2026-01_L0 **RCA Certificate HashedID8:** 97F0904C4E323AC3 **DC URL:** https://0.CHT-DC-2026-01.L0.ccms.com.tw/	Full Company Name: - Chunghwa Telecom Co., Ltd. Context description of testing purpose: - Chunghwa Telecom shared pilot CCMS hierarchy (0_CHT-ROOT-CA-2026-1_L0) is utilized for field testing, small pilot projects, and proof-of-concept initiatives at the L0 level. Contextual information or constraints: - This is a new certificate on the top of a new hierarchy.

RCA CertificateID: 0_microsec-ccms-rca-sandbox_L0 **RCA Certificate HashedID8:** 733A8A8F9D42CC6D **DC URL:** http://microsec-sandbox-dc.v2x-pki.com/	Full Company Name: - Microsec Ltd. Context description of testing purpose: - This PKI will be used in Microsec Sandbox environment Contextual information or constraints: - This Root will replace the current Root in the sandbox environment in the future - Its name has been aligned to the CPOC regulation - New PSIDs have been added for testing (for example: DENM version 1 and version 2)
RCA CertificateID: 0_EU-ROOT-CA-2_L0 **RCA Certificate HashedID8:** 80FEBD6839117527 **DC URL:** http://0.eu-dc.10.c-its-pki.eu/	Full Company Name: - Atos IDnomic Context description of testing purpose: - This PKI is used for testing activities of EU Root CA clients. Contextual information or constraints: - This is a new EU Root CA certificate, generated in parallel with the existing certificate (1B5CB4BEBE6FE9E9 and A00E2DBB45343493), for partners who do not support certificate issue permissions with duplicate PSIDs. - Attributes (e.g. naming, validity duration) are compliant to the CPOC Protocol Release 3.2 - The certificate issue permissions of the 1B5CB4BEBE6FE9E9 certificate have been retained (in particular PSIDs 639, 540801, 540802, 16491 and 16492) with the exception of PSIDs 36 and 37 in their v2 version.
RCA Certificate ID: 0_EU-ROOT-CA_L0 **RCA Certificate HashedID8:** A00E2DBB45343493 **DC URL:** http://0.eu-dc.10.c-its-pki.eu/	Company: Atos IDnomic RCA Name: EU Root CA Context description of testing purpose: This PKI is used for testing activities of EU Root CA clients. Description: - This is the rekeying of RCA 1B5CB4BEBE6FE9E9 - Attributes (e.g. naming, validity duration) are compliant to the CPOC Protocol Release 3.2 - A new permission has been introduced: version 3 of the TLC Request Service message (SREM, PSID 140).

2.2.29 L0 ECTL v29 14.09.2026, HashedID8: B39B628A02E333D1

L0 ECTL v29, signed with TLM Certificate "v5 15.04.2024, HashedId8: 8FFE810BDB0D71E6".

NextUpdate=14/01/2027

This L0 ECTL release continues implementing the overlap period (minimum one week, maximum 1 month) defined in the CPOC Protocol. Therefore NextUpdate is set to 14/01/2026 while the next L0 ECTL (v30) is scheduled to be issued one month earlier on 14/12/2026.

L0 ECTL v29 has been signed by TLM Certificate v5 (HashedId8: 8FFE810BDB0D71E6).

This L0 ECTL is an update directly based on the contents of ECTLv28 (see section 2.2.28). Two RCAs have been revoked. Four RCAs have been added.

The L0 ECTL RCA changes in v29 are summarised below:

RCA CertificateID / HashedID8 / DC URL	Comments
RCA CertificateID: ~~CHT-ROOT-CA-2026-01_L0~~ Cerificate revoked **RCA Certificate HashedID8:** ~~97F0904C4E323AC3~~ Cerificate revoked **DC URL:** ~~https://0.CHT-DC-2026-01.L0.ccms.com.tw/~~ Cerificate revoked	Full Company Name: - Chunghwa Telecom Co., Ltd. **REVOCATION** of this certificate has been requested by the RCA.
RCA Certificate ID: ~~MicroseeNistP256RootCA~~ Cerificate revoked **RCA Certificate HashedID8:** ~~B65E3B8FBBEC3910~~ Cerificate revoked **DC URL:** ~~http://v2x-pki-test.microsec.com/v2x_rootca_nistp256~~ Cerificate revoked	Full Company Name: -Microsec Ltd. **REVOCATION** of this certificate has been requested by the RCA.
RCA CertificateID: 0_CHT-ROOT-CA-2026-06_L0 **RCA Certificate HashedID8:** 3489CA11CB74538E **DC URL:** https://0.CHT-DC-2026-06.L0.ccms.com.tw/	Full Company Name: - Chunghwa Telecom Co., Ltd. Context description of testing purpose: - Chunghwa Telecom shared pilot CCMS hierarchy (0_CHT-ROOT-CA-2026-06_L0) is utilized for field testing, small pilot projects, and proof-of-concept initiatives at the L0 level. Contextual information or constraints: - This is a new certificate on the top of a new hierarchy.

RCA CertificateID: MPI-ROOT-1_L0 **RCA Certificate HashedID8:** E2B7A7542F015577 **DC URL:** https://cits-pki.eu/dc/	Full Company Name: - Max-Planck-Gesellschaft zur Förderung der Wissenschaften e.V. Context description of testing purpose: - Academic research Contextual information or constraints: -
RCA CertificateID: 0_OpenTrafficMap-Root-CA-2_L0 **RCA Certificate HashedID8:** D0E0A69224C5E3F9 **DC URL:** https://pki.opentrafficmap.org/L0/	Full Company Name: - OpenTrafficMap - Verein für intelligente Verkehrssysteme Context description of testing purpose: - C-ITS PKI interoperability and certificate verification testing within the OpenTrafficMap project. This certificate is intended for L0 testing only. Contextual information or constraints: This is not a re-key or revocation request for an existing ECTL entry.

RCA CertificateID: 0_Urban-Mobility-Lab-Root-CA_L0 **RCA Certificate HashedID8:** AFD566A8034ED5DB **DC URL:** https://cits-dc.uml-hamburg.de	Full Company Name: - Hochschule für Angewandte Wissenschaften Hamburg (HAW Hamburg) Urban Mobility Lab Context description of testing purpose: - The RCA is used for research, field testing and proof-of-concept activities of the Urban Mobility Lab in the context of the micrOBU project. micrOBU investigates the integration of vulnerable road users into C-ITS through development of a lightweight, compact and low-cost VRU ITS-S using an MCU + mobile-phone architecture. Contextual information or constraints: - This is a new RCA and the first L0 submission for this RCA. No existing L0 entry is intended to be replaced or revoked. - The implementation, including the C-ITS protocol stack, signing functionality and VRU Awareness Basic Service, is under active development. Full implementation conformity is not claimed. - The declared RCA Distribution Centre is the intended permanent DC URL. At the time of this submission, the cits-dc.uml-hamburg.de subdomain and the required /getctl and /getcrl endpoints are still being commissioned and are not yet operational. - The RCA intentionally includes ITS-AID 638 (VRU Awareness basic service) with bitmap SSP range 01/FF for L0 VAM/VBS research. ITS-AID 638 is a standardized ETSI ITS-AID but is not contained in the current CPOC Protocol Release 3.3 Table 4 list; its inclusion is therefore an intentional L0 profile deviation. - The RCA private key is generated and maintained locally as an encrypted PKCS#8 NIST P-256 key for this L0 research environment. This software-based key storage is not claimed to satisfy production/L2 cryptographic-module requirements.

2.3 L0 ECTLs schedule

Future version	RCA requests deadline	Planned issue date	nextUpdate
L0 ECTL v30	11.12.2026	14.12.2026	14.04.2027
L0 ECTL v31	11.03.2027	15.03.2027	15.07.2027
L0 ECTL v32	10.06.2027	14.06.2027	14.10.2027
L0 ECTL v33	09.09.2027	13.09.2027	13.01.2028
L0 ECTL v34	09.09.2027	13.12.2027	13.04.2028

2.4 L0 TLM Certificates Overview

L0 TLM Cert. Version	L0 TLM Cert. HashedID8	L0 TLM Link Cert. Message from previous version
v1	3D42B8257DFA8B19	Not applicable
v2	303AA10804B13D09	Not available
v3	D7EE97420E4A6865	Not available
v4	1D261F9E338ECB5B	DFF1266B8F5C376D
v5	8FFE810BDB0D71E6	C4022CA335F17123

2.5 L0 ECTLs Summary Overview: v1 – v19

L0 ECTL Version	L0 ECTL HashedID8	Signed by L0 TLM Certificate
v1	1663533477E1D7BE	3D42B8257DFA8B19
v2	0CE71108DF697729	3D42B8257DFA8B19
v3	AAD3A59378BB5F4B	303AA10804B13D09
v4	BC29D6EB21200EE8	D7EE97420E4A6865
v5	94D3D5B12C8AC464	D7EE97420E4A6865
v6	9E085DAA3A716F50	1D261F9E338ECB5B
v7	AB12E56AA86C505E	1D261F9E338ECB5B
v8	E43ACA63B0A8882E	1D261F9E338ECB5B
v9	EE2E1052D42B2215	1D261F9E338ECB5B
v10	9303881FABC56575	1D261F9E338ECB5B
v11	542534CEF70B592F	1D261F9E338ECB5B
v12	3FE4D69878AC4BAA	1D261F9E338ECB5B
v13	66E5A0B5169608C7	1D261F9E338ECB5B
v14	DA18E24D5233EC91	1D261F9E338ECB5B
v15	69DAABE5BB1987D9	1D261F9E338ECB5B
v16	946AE518AA8EC149	1D261F9E338ECB5B
v17	8FF625C548FAC4CD	1D261F9E338ECB5B
v18	6F1895D16BA90EAE	1D261F9E338ECB5B
v19	226BCD8A97B96630	1D261F9E338ECB5B

L0 RCA HashedID8	L0 RCA CertificateID:	DC URL:	ECTL v1	ECTL v2	ECTL v3	ECTL v4	ECTL v5	ECTL v6	ECTL v7	ECTL v8	ECTL v9	ECTL v10	ECTL v11	ECTL v12	ECTL v13	ECTL v14	ECTL v15	ECTL v16	ECTL v17	ECTL v18	ECTL v19
EB31001691B8FE70	BSI V2X Pilot PKI Root	http://bsi.v2x-pilot.escrypt.com/dc	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
8615663AE95735F7	C2C-CC V2X Pilot PKI Root	http://c2ccc.v2x-pilot.escrypt.com/dc	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
C50756DCA2EB0EC1	C-Roads CZ Pilot Root CA	http://cits-pki.o2.cz/v1/dc	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0
7672848FBF07F701	dars.si http://pki.seacat.io/dars.si/cits/dc	http://pki.seacat.io/dars.si/cits/dc	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0
FD43C421A7D771A8	0_EU-ROOT-CA_L0	https://0.eu-dc.l0.c-its-pki.eu/	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
546B0D01F5EF855C	Open C-ITS Test PKI Root CA	https://via.teskalabs.com/cits-otenv/v1.3/dc	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
8341C0D422119691	RCA PILOT PP FRANCE	https://dc-pilot-pp.france.c-its-pki.eu/	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
327A270AABCB9672	Test BSI V2X Pilot PKI Root	http://test.bsi.v2x-pilot.escrypt.com/dc	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
290743A956E3A2E0	0_VWG-Root-CA_L0		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
626C128FA1BFB162	CONCORDA V2X Pilot PKI Root	http://concorda.v2x-pilot.escrypt.com/dc	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7F70A3CDB9F2192D	0_CTAG-1-ROOT-CA_L0	0.ctag-dc.l0.siscoga4cad.com/DC	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3684070CC8E2161E	0_HH-Pilot-Root_L0	http://hamburg.v2x-pilot.escrypt.com/dc	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
B65E3B8FBBEC3910	MicrosecNistP256RootCA	http://v2x-pki-test.microsec.com/v2x_rootca_nistp256	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
BA23FBBEB9388FAA	1_CTAG-2-ROOT-CA_L0	http://1.ctag-dc.L0.siscoga4cad.com/DC	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
0EDD1B2F185D1184	rca.dev.etsi.c2x.isscms.com	https://dc.dev.etsi.c2x.isscms.com/	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
BB6FEA308F339E95	1_CONCORDA-Root_L0	http://concorda.v2x-pilot.escrypt.com/dc	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0
C7591A167144A543	0_FR-ROOT-CA_L0	https://0.fr-dc.l0.c-its-pki.eu/	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
2DC8E948307E628F	0_CryptaMira-Root-CA_L0	http://pki.seacat.io/crypta_mira_l0/cits/dc	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
4E31BB174A492DF6	0_C2CCC-Root_L0	http://c2ccc.v2x-pilot.escrypt.com/dc	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0
87E580DD2B0D47FF	0_CMC-Root-CA_L0	http://pki.seacat.io/cmc_l0/cits/dc	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2972225BE0604139	0_PT-CROADS-PILOT-ROOT-CA_L0	https://0.dc.pilot.croads.ccms.pt/	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
246D4A091407E82D	1_SVV-NO-Root-CA_L0	http://pki.seacat.io/ssv-no-l0/cits/dc	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
D875151DE8A41EBD	0_EU-ROOT-CA_L0	https://0.eu-dc.l0.c-its-pki.eu/	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
85987527EE188A49	1_PT-CROADS-PILOT-ROOT-CA_L0	https://0.dc.pilot.croads.ccms.pt	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0
3B49ECA411F89706	0_CITS-CZ-ROOT-CA_L0	http://pki.c-its.cz/l0/dc	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
3BC2562D2165A3C4	0_COSTAIN-Root-CA_L0	http://pki-mfm-cits.costain.technology/costain_l0/cits/dc	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
9F9A5858D4D5A48F	0_CROADS-GR-ROOT-CA_L0	http://pki.seacat.io/croads_gr_l0/cits/dc	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
2620105587473BFA	L0-Telefonica-V2X-ROOT	http://v2x.dev.pki.telefonica.com/dc/	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
A1333B3F8489F688	0_FR-ROOT-CA_L0	https://0.fr-dc.l0.c-its-pki.eu/	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
CAE9E9E76237E1C0	0_MICROSEC_2021_ROOT_CA_L0	http://v2x-pki-test.microsec.com/v2x_rootca_eu_cp_l0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
2722515B1756032F	1_DARS-SI-2022-ROOT-CA_L0	http://pki.seacat.io/dars-l0/cits/dc	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
38B3B35DEEC7D350	1_Autobahn-V2X-RootCA-2021-1_L0	http://autobahn-dc2021-1-l0.v2x-pki.com/	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
DBF851D9AFAB2EFE	0_CTAG-ROOT-CA_L0	http://1.ctag-dc.l0.siscoga4cad.com/DC	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
4B6357FFC9CC44C9	0_SwarcoNL-Root_L0	http://swarconl.staging.cycurv2x.com/dc	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
2AF15FFF35B8F4D2	2_PT-CROADS-PILOT-ROOT-CA_L0	https://0.dc.pilot.croads.ccms.pt/	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
ADB60E2871BA306B	0_TESKALABS-OPENTEST-ROOT-CA_L0	http://pki.seacat.io/cits-otenv/cits/dc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
BF082E09704AB8B0	0_AUTOCRYPT-ROOT-CA_L0	http://etsi.autocrypt.io/dc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
B735AC70F6A82B2D	0_FR-ROOT-CA_L0	https://0.fr-dc.l0.c-its-pki.eu/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
DCA3229227BFBE74	0_Microsec-CCMS-RCA-2023-1_L0	http://microsec-ccms-dc-2023-1-l0.v2x-pki.com	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
260F273A7108C70C	0_CP4SC-ROOT-CA_L0	https://0.cp4sc-dc.l0.c-its-pki.eu	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

2.6 L0 ECTLs Summary Overview: v20 – v29

L0 ECTL Version	L0 ECTL HashedID8	Signed by L0 TLM Certificate
v20	B3FE6CEB2FC0758F	8FFE810BDB0D71E6
v21	C3A1556FAC2AA309	8FFE810BDB0D71E6
v22	9DB08F539512C9D6	8FFE810BDB0D71E6
v23	E3B49921E05A5953	8FFE810BDB0D71E6
v24	45EA7785238FD93C	8FFE810BDB0D71E6
v25	5DB6323808969B84	8FFE810BDB0D71E6
v26	7944410BC2EF43AD	8FFE810BDB0D71E6
v27	1A35D0FC10FE564E	8FFE810BDB0D71E6
v28	A7FB2A8B54E575E0	8FFE810BDB0D71E6
v29	B39B628A02E333D1	8FFE810BDB0D71E6

L0 RCA HashedID8	L0 RCA CertificateID:	DC URL:	ECTL v20	ECTL v21	ECTL v22	ECTL v23	ECTL v24	ECTL v25	ECTL v26	ECTL v27	ECTL v28	ECTL v29
FD43C421A7D771A8	0_EU-ROOT-CA_L0	https://0.eu-dc.l0.c-its-pki.eu/	1	1	1	1	0	0	0	0	0	0
B65E3B8FBBEC3910	MicrosecNistP256RootCA	http://v2x-pki-test.microsec.com/v2x_rootca_nistp256	1	1	1	1	1	1	1	1	1	0
0EDD1B2F185D1184	rca.dev.etsi.c2x.isscms.com	https://dc.dev.etsi.c2x.isscms.com/	1	1	1	1	1	1	1	1	1	1
87E580DD2B0D47FF	0_CMC-Root-CA_L0	http://pki.seacat.io/cmc_l0/cits/dc	1	1	1	1	1	1	0	0	0	0
246D4A091407E82D	1_SVV-NO-Root-CA_L0	http://pki.seacat.io/ssv-no-l0/cits/dc	1	1	1	1	1	1	1	1	0	0
D875151DE8A41EBD	0_EU-ROOT-CA_L0	https://0.eu-dc.l0.c-its-pki.eu/	1	1	1	1	1	1	1	1	0	0
3B49ECA411F89706	0_CITS-CZ-ROOT-CA_L0	http://pki.c-its.cz/l0/dc	1	1	1	1	1	1	1	1	1	1
3BC2562D2165A3C4	0_COSTAIN-Root-CA_L0	http://pki-mfm-cits.costain.technology/costain_l0/cits/dc	1	1	1	1	1	1	1	1	1	1
9F9A5858D4D5A48F	0_CROADS-GR-ROOT-CA_L0	http://pki.seacat.io/croads_gr_l0/cits/dc	1	1	1	1	1	1	1	1	1	1
2620105587473BFA	L0-Telefonica-V2X-ROOT	http://v2x.dev.pki.telefonica.com/dc/	1	0	0	0	0	0	0	0	0	0
A1333B3F8489F688	0_FR-ROOT-CA_L0	https://0.fr-dc.l0.c-its-pki.eu/	1	1	1	1	1	1	1	1	1	1
2722515B1756032F	1_DARS-SI-2022-ROOT-CA_L0	http://pki.seacat.io/dars-l0/cits/dc	1	1	1	1	1	1	1	1	1	1
38B3B35DEEC7D350	1_Autobahn-V2X-RootCA-2021-1_L0	http://autobahn-dc2021-1-l0.v2x-pki.com/	1	1	1	1	1	1	1	1	1	1
DBF851D9AFAB2EFE	0_CTAG-ROOT-CA_L0	http://1.ctag-dc.l0.siscoga4cad.com/DC	1	1	1	1	1	1	1	1	1	1
2AF15FFF35B8F4D2	2_PT-CROADS-PILOT-ROOT-CA_L0	https://0.dc.pilot.croads.ccms.pt/	1	1	1	1	1	1	1	1	1	1
ADB60E2871BA306B	0_TESKALABS-OPENTEST-ROOT-CA_L0	http://pki.seacat.io/cits-otenv/cits/dc	1	1	1	1	1	1	1	1	1	1
BF082E09704AB8B0	0_AUTOCRYPT-ROOT-CA_L0	http://etsi.autocrypt.io/dc	1	1	1	1	1	1	1	1	1	1
B735AC70F6A82B2D	0_FR-ROOT-CA_L0	https://0.fr-dc.l0.c-its-pki.eu/	1	1	1	1	1	1	1	1	1	1
DCA3229227BFBE74	0_Microsec-CCMS-RCA-2023-1_L0	http://microsec-ccms-dc-2023-1-l0.v2x-pki.com	1	1	1	1	1	1	1	1	1	1
260F273A7108C70C	0_CP4SC-ROOT-CA_L0	https://0.cp4sc-dc.l0.c-its-pki.eu	1	1	1	1	1	1	1	1	1	1
143F594D8947E396	0_CHT-ROOT-CA-2024-1_L0	https://0.CHT-DC-2024-1.L0.ccms.com.tw/	1	1	1	1	1	1	1	1	1	1
C0212CA0FFC651A6	0_DARS-SI-ROOT-CA_L0	http://c-its-pki.itsdars.si/l0/dc	1	1	1	1	0	0	0	0	0	0
6BC91BE3845B138C	0_SAESOLTECH-ROOT-CA_L0	https://dc.v2x-scms.saesoltech.io	0	0	1	1	1	1	1	1	1	1
75038BE08FE7F851	0_CHT-ROOT-CA-2024-2_L0	https://0.CHT-DC-2024-2.L0.ccms.com.tw/	0	0	1	1	1	1	1	1	1	1
DAF300CB6F96C029	0_DARS-SI-ROOT-CA_L0	http://c-its-pki.itsdars.si/l0/dc	0	0	0	1	1	1	1	1	1	1
EB20AB6D7637896D	0_CHT-ROOT-CA-2024-2_L0	https://0.CHT-DC-2024-2.L0.ccms.com.tw/	0	0	0	1	1	1	1	1	1	1
1B5CB4BEBE6FE9E9	0_EU-ROOT-CA_L0	https://0.eu-dc.l0.c-its-pki.eu/	0	0	0	0	1	1	1	1	1	1
56D3026D2901AC2A	0_CITS-CZ-TEST-ROOT-CA_L0	http://pki.c-its.cz/l0_test/dc	0	0	0	0	0	1	1	1	1	1
97F0904C4E323AC3	0_CHT-ROOT-CA-2026-01_L0	https://0.CHT-DC-2026-01.L0.ccms.com.tw/	0	0	0	0	0	0	0	0	1	0
733A8A8F9D42CC6D	0_microsec-ccms-rca-sandbox_L0	http://microsec-sandbox-dc.v2x-pki.com/	0	0	0	0	0	0	0	0	1	1
80FEBD6839117527	0_EU-ROOT-CA-2_L0	http://0.eu-dc.l0.c-its-pki.eu/	0	0	0	0	0	0	0	0	1	1
A00E2DBB45343493	0_EU-ROOT-CA_L0	http://0.eu-dc.l0.c-its-pki.eu/	0	0	0	0	0	0	0	0	1	1
3489CA11CB74538E	0_CHT-ROOT-CA-2026-06_L0	https://0.CHT-DC-2026-06.L0.ccms.com.tw/	0	0	0	0	0	0	0	0	0	1
E2B7A7542F015577	MPI-ROOT-1_L0	https://cits-pki.eu/dc/	0	0	0	0	0	0	0	0	0	1
D0E0A69224C5E3F9	0_OpenTrafficMap-Root-CA-2_L0	https://pki.opentrafficmap.org/L0/	0	0	0	0	0	0	0	0	0	1
AFD566A8034ED5DB	0_Urban-Mobility-Lab-Root-CA_L0	https://cits-dc.uml-hamburg.de	0	0	0	0	0	0	0	0	0	1