

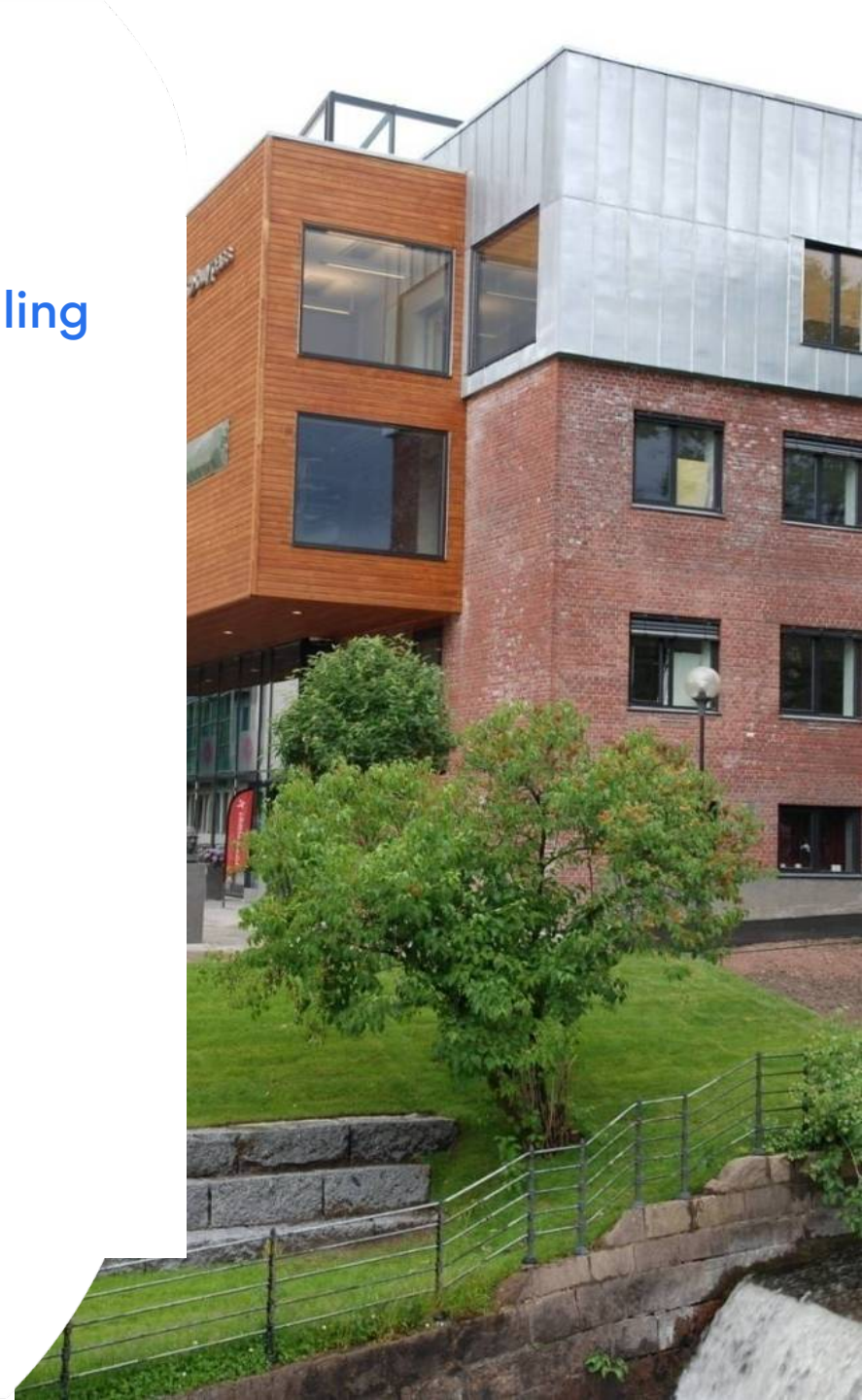
PSD2 og eIDAS-sertifikater

Seminar Finanstilsynet 2.april 2019



Fakta om Buypass

- Norsk selskap eid av EVRY og Norsk Tipping
- Et løsningshus for elektronisk identitet, signatur og betaling
 - 2,8 mill sluttbrukere
 - 36 milliarder NOK i formidlet omsetning (2018)
 - Mer enn 45 millioner transaksjoner pr måned (2018)
 - Utsteder av digitale sertifikater for personer og virksomheter
 - Leverandør i alle offentlige prosjekter
- TLS/SSL
 - Rot CA og utsteder av TLS/SSL sertifikater
 - Medlem av CA/Browser Forum
- Sertifisert for informasjonssikkerhet og kvalitet
 - ISO/IEC 27001 and ISO/IEC 9001
 - PCI DSS
 - ETSI EN 319 411 (digitale sertifikater)
- QTSP i hht eIDAS



Regulatory Technical Standard (RTS)

Article 34

Certificates

13.3.2018

EN

COMMISSION

supplementing Directive (EU) 2015/2366
regard to regulatory technical

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Fun

Having regard to Directive (EU) 2015/2366
payment services in the internal m
Regulation (EU) No 1093/2010, and i
Article 98(4) thereof,

1. For the purpose of identification, as referred to in Article 30(1)(a), payment service providers shall rely on qualified certificates for electronic seals as referred to in Article 3(30) of Regulation (EU) No 910/2014 or for website authentication as referred to in Article 3(39) of that Regulation.

2. For the purpose of this Regulation, the registration number as referred to in the official records in accordance with Annex III (c) or Annex IV (c) to Regulation (EU) No 910/2014 shall be the authorisation number of the payment service provider issuing card-based payment instruments, the account information service providers and payment initiation service providers, including account servicing payment service providers providing such services, available in the public register of the home Member State pursuant to Article 14 of Directive (EU) 2015/2366 or resulting from the notifications of every authorisation granted under Article 8 of Directive 2013/36/EU of the European Parliament and of the Council ⁽¹⁾ in accordance with Article 20 of that Directive.

3. For the purposes of this Regulation, qualified certificates for electronic seals or for website authentication referred to in paragraph 1 shall include, in a language customary in the sphere of international finance, additional specific attributes in relation to each of the following:

(a) the role of the payment service provider, which maybe one or more of the following:

- (i) account servicing;
- (ii) payment initiation;
- (iii) account information;
- (iv) issuing of card-based payment instruments;

(b) the name of the competent authorities where the payment service provider is registered.

4. The attributes referred to in paragraph 3 shall not affect the interoperability and recognition of qualified certificates for electronic seals or website authentication.

eIDAS-forordningen

Regulation (EU) No 910/2014 of 23 July 2014

eIDAS Regulation N°910/2014

for electro
and

The screenshot shows the LOVDATA website interface. At the top, there is a search bar with the text "Søk etter lover, forskrifter, dommer og stortingsvedtak". Below the search bar, a navigation menu lists "Rettskilder" with sub-items: "Lover", "Stortingsvedtak", "Sentrale forskrifter", "Lokale forskrifter", "Norsk Lovtidend", "Norges traktater", "Dommer", "Statens personalhåndbok", and "Oversatte lover / Translated Acts". The main content area displays the title "Lov om gjennomføring av EUs forordning om elektronisk identifikasjon og tillitstjenester for elektr..." and a button "Gå til opprinnelig kunnngjort versjon". Below this is a table with the following data:

Dato	LOV-2018-06-15-44
Departement	Nærings- og fiskeridepartementet
Ikrafttredelse	15.06.2018
Endrer	LOV-2001-06-15-81
Kunngjort	15.06.2018
Korttittel	Lov om elektroniske tillitstjenester

Below the table, there is a reference: "Jf. tidligere lov 15. juni 2001 nr. 81. – Jf. EØS-avtalen vedlegg XI nr. 5I (forordning (EU) nr. 910/2014)."

§ 1. eID og elektroniske tillitstjenester i EØS



INFRASTRUCTURE AVAILABLE UNDER CONNECTING EUROPE FACILITY (CEF) | RDS APPEL AND VOLUNTARY USE OF EU TRUST MARK IS AVAILABLE

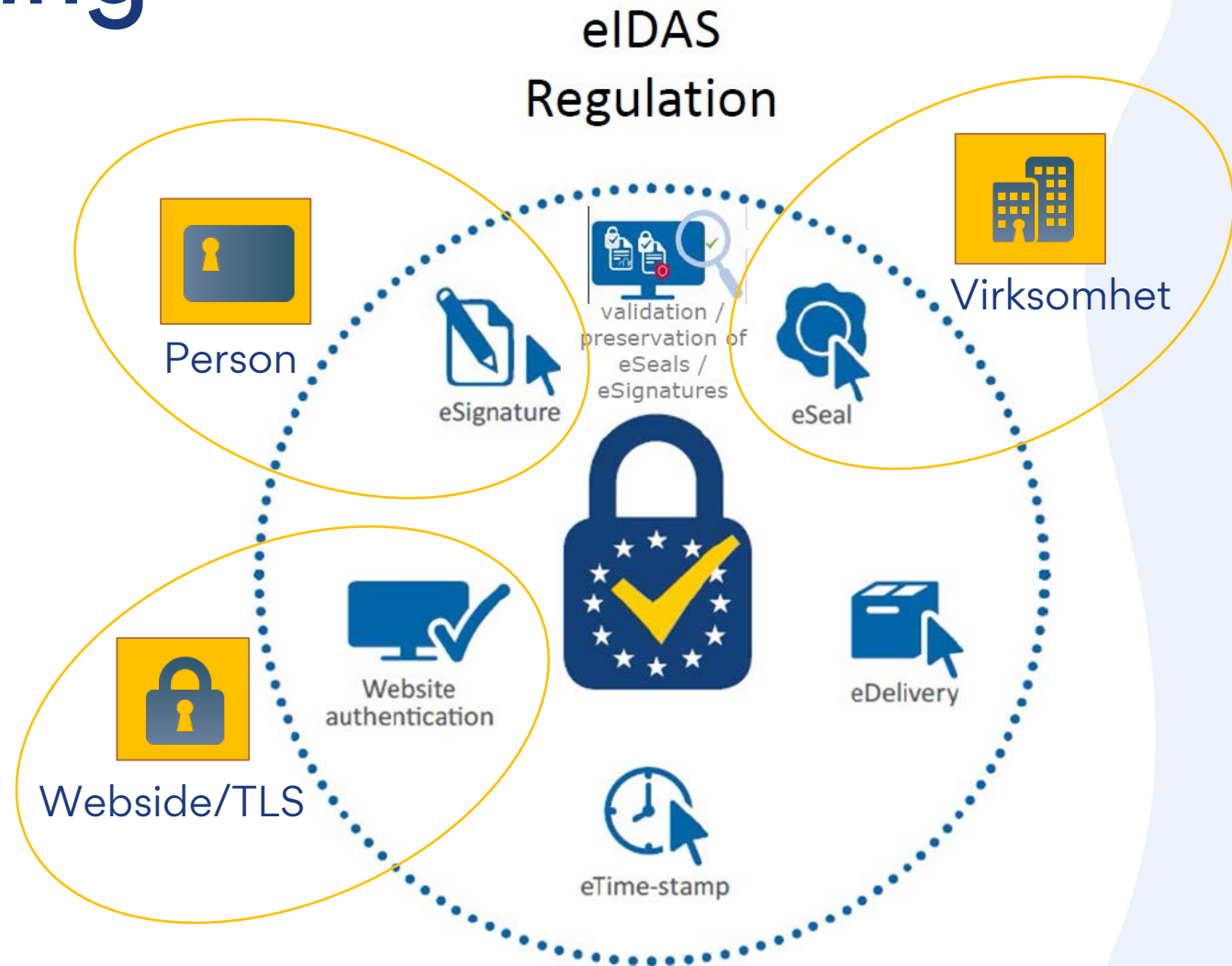
For more information visit <http://bit.ly/eIDAS> and follow @EU_eIDAS on Twitter

eIDAS forordning

Directive
1999/93/EC



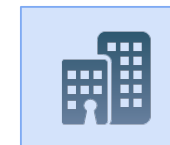
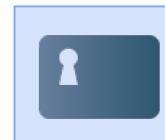
Person





Hva er et sertifikat?

- Elektronisk dokument på et standardisert format som knytter en offentlig nøkkel til en identitet (person, virksomhet, system etc)
- Utstedes av sertifikatutsteder (Certificate Authority) som er ansvarlig for å verifisere sertifikatnehavers identitet og annen informasjon som skal inn i sertifikatet
- Et sertifikat inneholder blant annet:
 - Gyldighetsperiode
 - Sertifikatnehavers identitet
 - Offentlig nøkkel - som knyttes til sertifikatnehaver
 - Sertifikatutsteder (for eksempel Buypass Class 3 CA 3)
 - Sertifikatutstедers digitale signatur
- Sertifikatet er signert av sertifikatutsteder som med dette ”går god for” innholdet i sertifikatet





Hva er et kvalifisert sertifikat?

- **Et sertifikat som er regulert av eIDAS-forordningen**
 - Skal øke tilliten til elektroniske transaksjoner i EU (og EØS)
 - eIDAS-forordningen stiller krav til kvalifiserte sertifikater og utstedere av slike (QTSP)
- **Et kvalifisert sertifikat er et sertifikat som har en juridisk forankring og som tilfredsstiller tekniske og sikkerhetsmessige krav**
- **Kravene til kvalifiserte sertifikater er i samsvar med industristandarder og gjeldende praksis, men forsterket for å sikre tilliten**



eIDAS forordningen – artikkel 24

Article 24

Requirements for qualified trust service providers

1. When issuing a qualified certificate for a trust service, a qualified trust service provider shall verify, by appropriate means and in accordance with national law, the identity and, if applicable, any specific attributes of the natural or legal person to whom the qualified certificate is issued.

The information referred to in the first subparagraph shall be verified by the qualified trust service provider either directly or by relying on a third party in accordance with national law:

- (a) by physical presence of the natural person or of an authorised representative of the legal person; or
- (b) remotely, using electronic identification means, for which prior to the issuance of the qualified certificate, a physical presence of the natural person or of an authorised representative of the legal person was ensured and which meets the requirements set out in Article 8 with regard to the assurance levels ‘substantial’ or ‘high’; or
- (c) by means of a certificate of a qualified electronic signature or of a qualified electronic seal issued in compliance with point (a) or (b); or
- (d) by using other identification methods recognised at national level which provide equivalent assurance in terms of reliability to physical presence. The equivalent assurance shall be confirmed by a conformity assessment body.



eIDAS og tillitslister



European Commission: List of Trusted List information as notified by Member States



NORGE (NORWAY) : Trusted List



2 - TSP: Buypass AS

TSPName

Name [en] Buypass AS

Name [no] Buypass AS

ElectronicAddress

URI mailto:post@buypass.no

TSPInformationURI

URI [en] <http://www.buypass.com/home/support/ca-documentation>

URI [no] <http://www.buypass.no/bedrift/kundeservice/dokumentasjon>

2.1 - Service: Certification Authority issuing Qualified Certificates

ServiceTypeIdentifier <http://uri.etsi.org/TrstSvc/Svctype/CA/QC>

ServiceName



Den norske tillitslisten



Trusted List Browser

Tool to browse the national Trusted Lists and the European List of Trusted Lists (LOTL).

Menu ▾

European Commission > CEF Digital > eSignature > Trusted List Browser > Norway

Trusted List Norway

Trust service providers

Currently active trust service providers

Bankenes ID-tjeneste AS QCert for ESig

Buypass AS QCert for ESig QCert for ESeal QWAC

Commfides Norge AS QCert for ESig QCert for ESeal

DNB Bank ASA QCert for ESig

Danske Bank QCert for ESig

Eika Gruppen AS QCert for ESig

Nordea Bank Norge ASA QCert for ESig

Signicat AS QTimestamp

SpareBank 1 Banksamarbeidet DA QCert for ESig

Trust service providers without currently active trust services



Buypass CA – QTSP i hht eIDAS



Buypass CA



QC eSignature



QC eSeal



QWAC

Kvalifiserte sertifikater for PSD2



PSD2 QWAC

PSD2 QC eSeal



QWAC

QC eSeal



Extended Validation (EV)

Virksomhets-sertifikater



Kvalifiserte sertifikater for PSD2

ETSI TS 119 495 V1.3.1 (2019-03)



**Electronic Signatures and Infr
Sector Specific Requ
Qualified Certificate Profiles and TS
under the payment services Dire**

4	General concepts
4.1	Use of Qualified Certificates
4.2	Roles.....
4.3	Payment Service Provider Authorizations and Services Passporting
4.4	PSD2 Authorization Number
4.5	Registration and Certificate Issuance
4.6	Certificate Validation and Revocation
5	Certificate profile requirements.....
5.1	PSD2 QCStatement
5.2	Encoding PSD2 specific attributes
5.2.1	PSD2 Authorization Number or other recognized identifier
5.2.2	Roles of payment service provider
5.2.3	Name and identifier of the competent authority
5.3	Requirements for QWAC Profile
5.4	Requirements for QsealC Profile.....
6	Policy requirements.....
6.1	General policy requirements.....
6.2	Additional policy requirements
6.2.1	Certificate profile.....
6.2.2	Initial identity validation.....
6.2.3	Identification and authentication for revocation requests
6.2.4	Publication and repository responsibilities
6.2.5	Certificate renewal.....
6.2.6	Certificate revocation.....

To ulike typer sertifikater

For the purpose of identification PSPs shall rely on



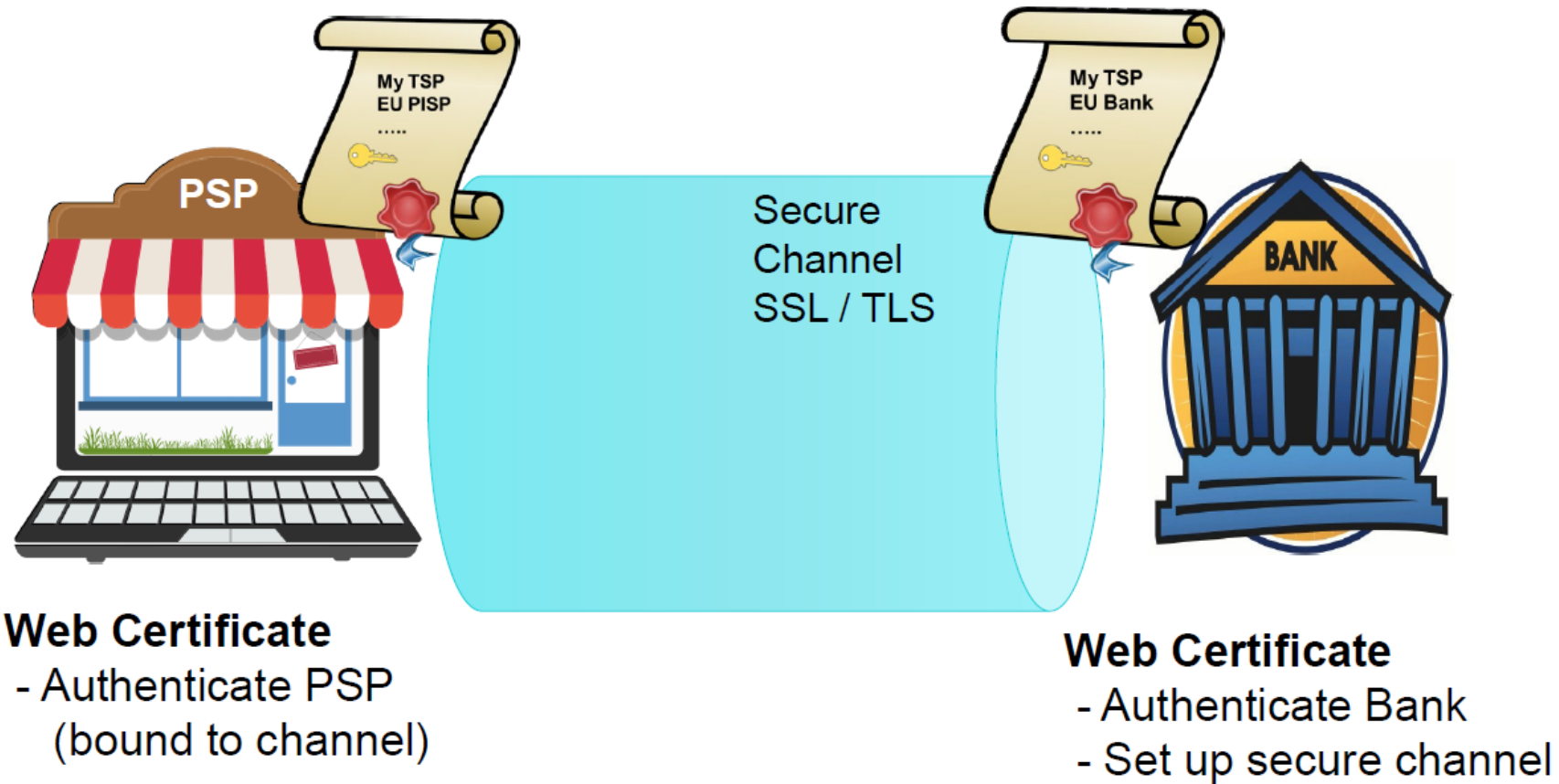
Qualified Certificates for Seals (QCSEALs)
EU 910/2014 (eIDAS)
Annex III



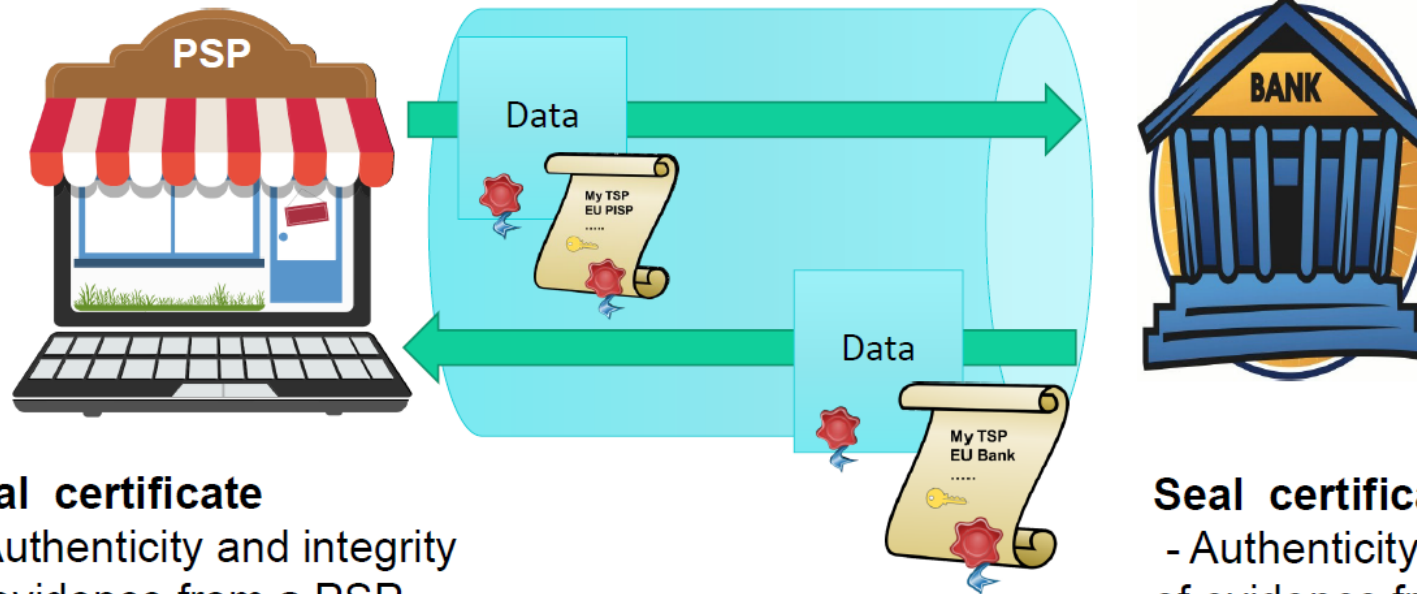
Qualified Website Certificates (QWACs):
EU 910/2014 (eIDAS)
Annex IV



Kvalifisert TLS-sertifikat - QWAC



Kvalifisert sertifikat for elektronisk segl (QC eSeal - QSealC)



Seal certificate

- Authenticity and integrity of evidence from a PSP

Seal certificate

- Authenticity and integrity of evidence from a bank

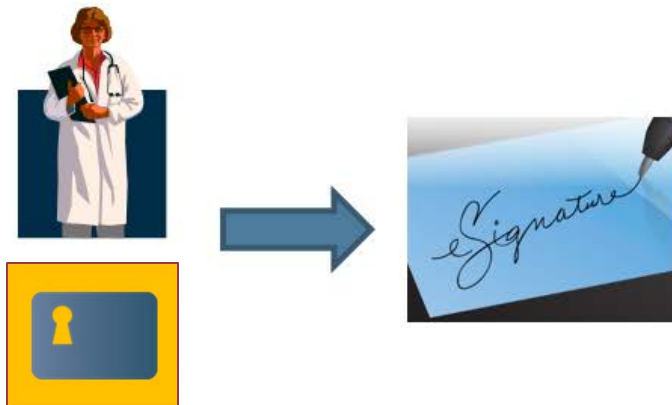




Elektronisk signatur og elektronisk segl

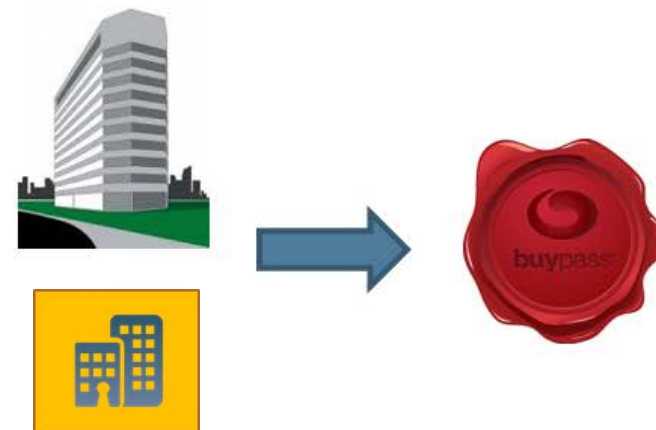
- **Elektronisk signatur (eSignature)**

- Privatperson ”generer digital signatur” på data
 - Signaturen uttrykker samtykke til data som signeres
 - (og sikrer integritet og opprinnelse til data)
- Digitalt sertifikat bekrefter personens identitet

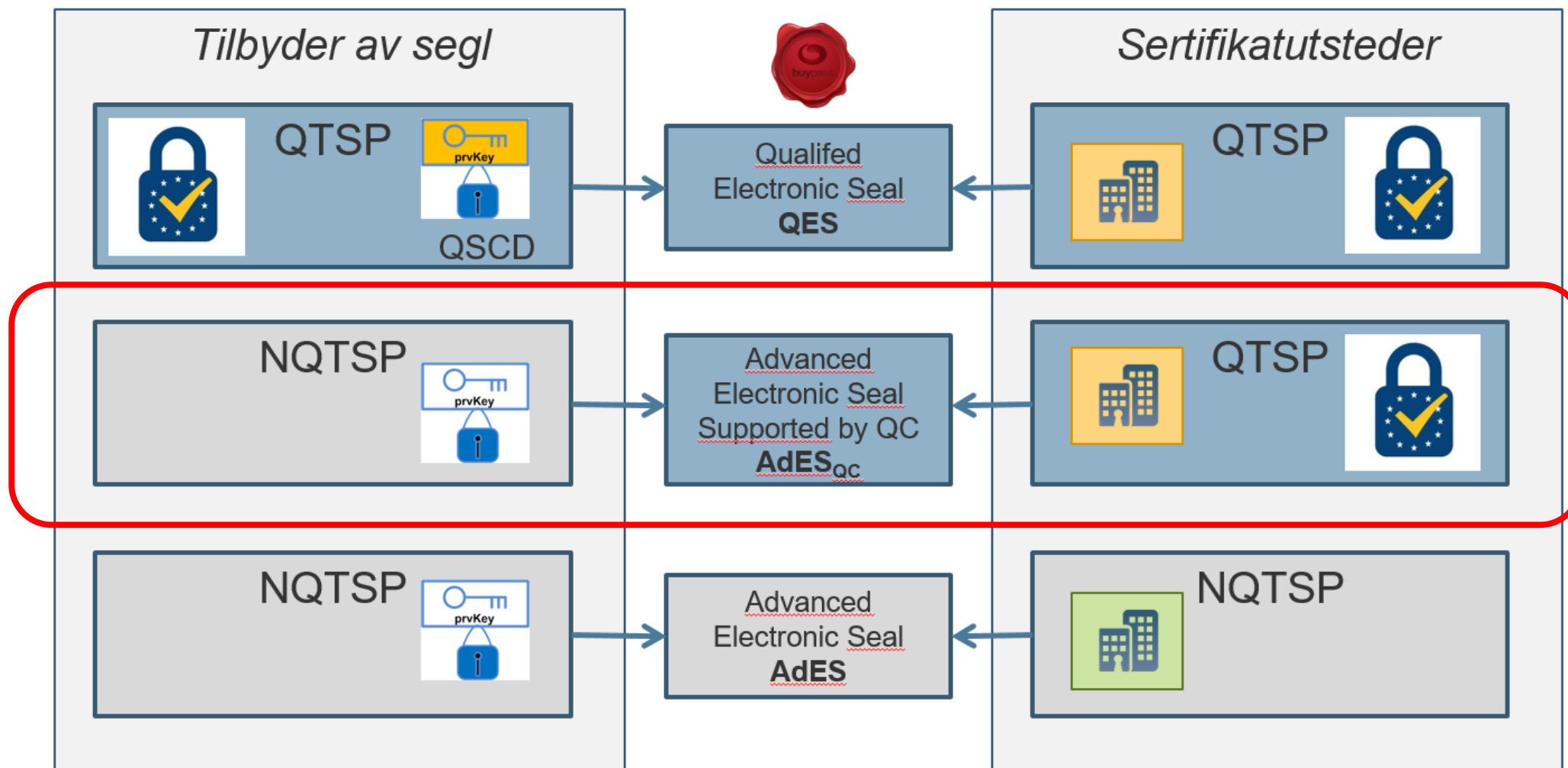


- **Elektronisk segl (eSeal)**

- Virksomhet ”genererer digital signatur” på data
 - Seglet sikrer integritet og opprinnelse til data
- Digitalt sertifikat bekrefter virksomhetens identitet



Kvalifisert sertifikat vs kvalifisert segl

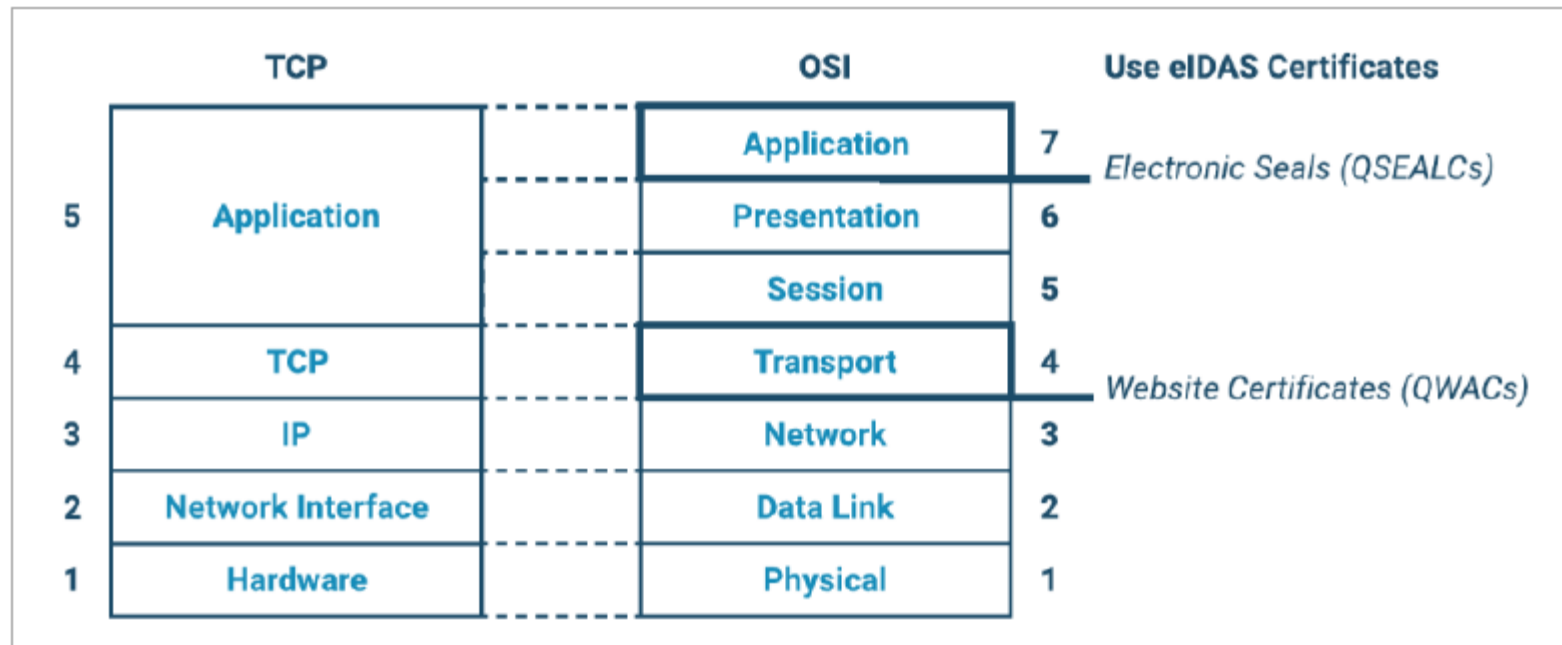


QSealC eller QWAC?

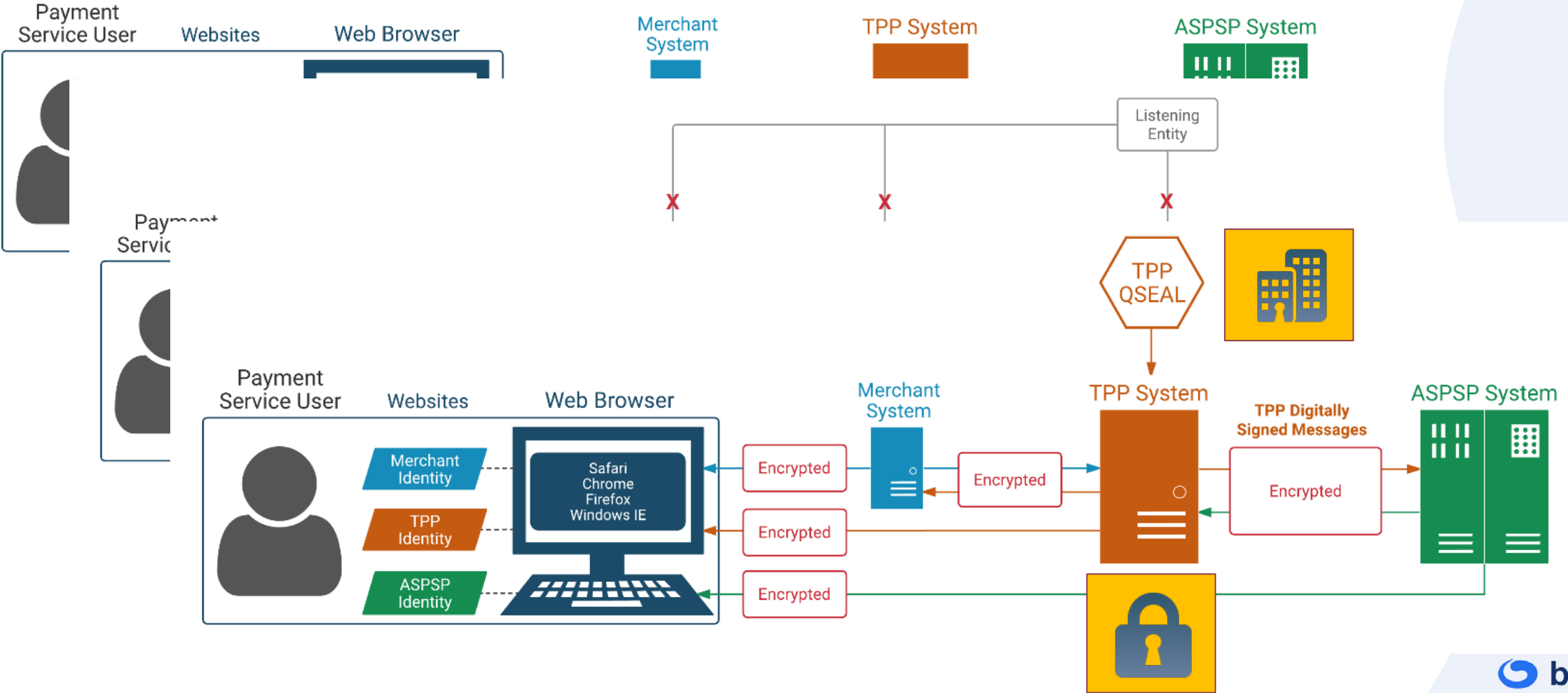
Feature	QSealC with Electronic Seal	QWAC with Transport Layer Security
Where is protection applied?	During communication and in storage	Just during communication
Is data protected when passed through intermediary?	Protection applies end-to-end, even if passed through intermediary	Only applied to direct peer-to-peer communications
What data is protected?	Specific data block	All data passing through channel

Evidential value?

Type of protection?



Bruk av QWAC og QC eSeal





EBA-Op-2018-7

10 December 2018

Opinion of the EBA on the use of EIDAS certificates under the RTS on SCA and CSC

The opinion is addressed to the expectations it covers technical service providers (technical interface) initiatives, technical service providers as well as the establishment

14. Taking into account the legal requirements of Article 34(1) and Article 35(1) of the RTS and the specificities of QSealCs and QWACs, the EBA has identified three possible alternatives for the use of QWACs and QSealCs by AISPs, PISPs and CBPIIs.
 - a) *Parallel use of QWACs and QSealCs* – this will allow AISPs, PISPs and CBPIIs to identify themselves towards the ASPSPs and, at the same time, ensure that the communication is secure and that the data submitted originates from the PSP identified in the certificate.
 - b) *Use of QWACs only* – this will allow AISPs, PISPs and CBPIIs to communicate securely with and identify themselves towards the ASPSP, but cannot provide evidence that the data submitted originates from the PSP identified in the certificate.
 - c) *Use of QSealCs with an additional element that ensures secure communication* – QSealCs will allow AISPs, PISPs and CBPIIs to identify themselves towards the ASPSPs, but cannot ensure confidentiality during the communication session. Therefore, an additional element that ensures secure communication should be used in order to comply with the requirements of Article 35(1) of the RTS.
15. Although ASPSPs can choose any of the above three options, to ensure that (i) AISPs, PISPs and CBPIIs are able to identify themselves towards ASPSPs, (ii) AISPs, PISPs, CBPIIs and ASPSPs apply secure encryption throughout each communication session in order to safeguard the confidentiality and the integrity of the data and (iii) data provided are originated by the PSP identified in the certificate, the EBA recommends CAs to encourage ASPSPs to use both QWACs and QSealCs in parallel. However, the EBA reiterates that for establishing a secure

PSD2 attributter i sertifikater



QUALIFIED CERTIFICATE

Issued to: Payment Service Provider

Issued by: Qualified Trust Service

Valid from: 2018/03/20 **to:** 2020/03/20

...

Authorisation Number of PSP

PSD2 Role(s) of PSP

Name of Home Competent Authority

Verifisering av PSD2 attributter



QUALIFIED CERTIFICATE

Issued to: Payment Service Provider
Issued by: Qualified Trust Service
Valid from: 2018/03/20 to: 2020/03/20
...

Authorisation Number of PSP
PSD2 Role(s) of PSP
Name of National Competent Authority



Registrering og utstedelse

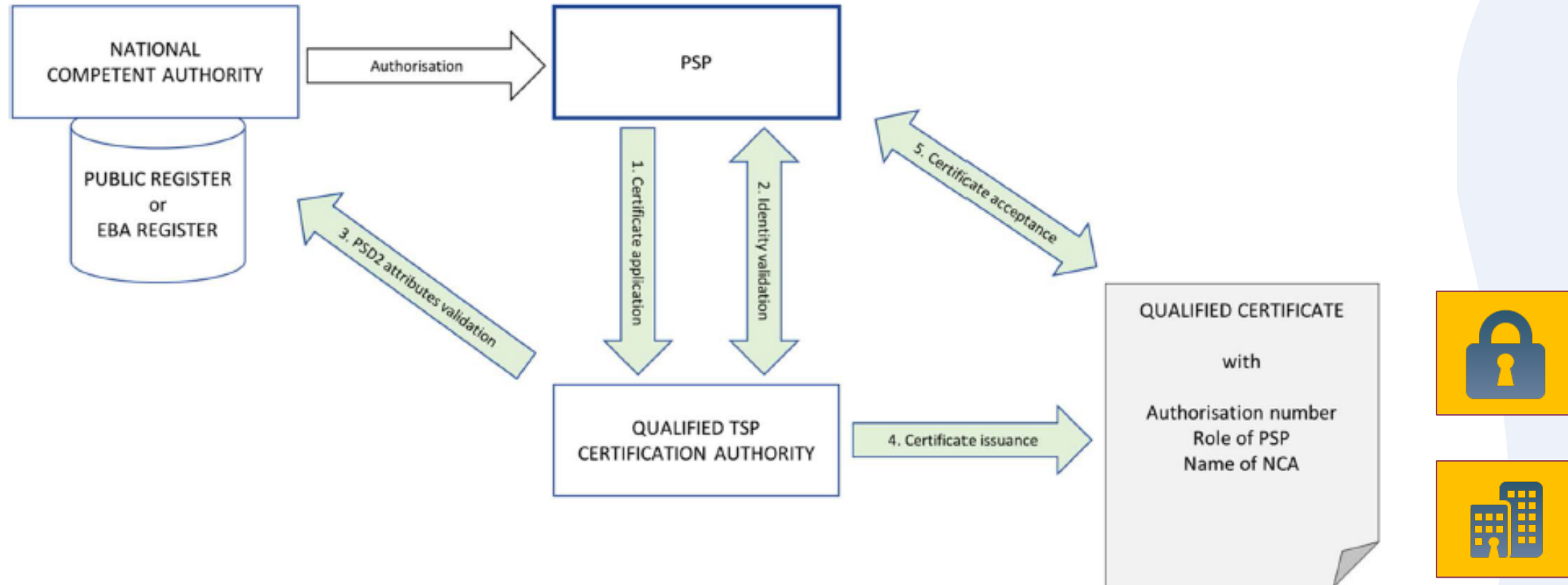


Figure 1: PSP Registration and certificate issuance



«PSD2 identitet» = Authorisation Number



The image shows a template for a 'QUALIFIED CERTIFICATE'. It features a logo in the top left corner with the word 'Certificate' and a seal. The main text includes: 'Issued to: Payment Service Provider', 'Issued by: Qualified Trust Service', and 'Valid from: 2018/03/20 to: 2020/03/20'. Below this, there is a section for the 'Authorisation Number of PSP' which contains a rounded box with the text 'PSD2 QCStatement' and a bulleted list: '• PSD2 Role(s) of PSP' and '• Name of National Competent Authority'.

organizationIdentifier

- "PSD"
- 2 character country code (NCA country)
- hyphen-minus "-"
- 2-8 character NCA identifier
- hyphen-minus "-"
- PSP identifier - authorisation number

PSDPL-PFSA-1234567890

PSP roller og NCA navn



QUALIFIED CERTIFICATE

Issued to: Payment Service Provider
Issued by: Qualified Trust Service
Valid from: 2018/03/20 **to:** 2020/03/20
...

Authorisation Number of PSP

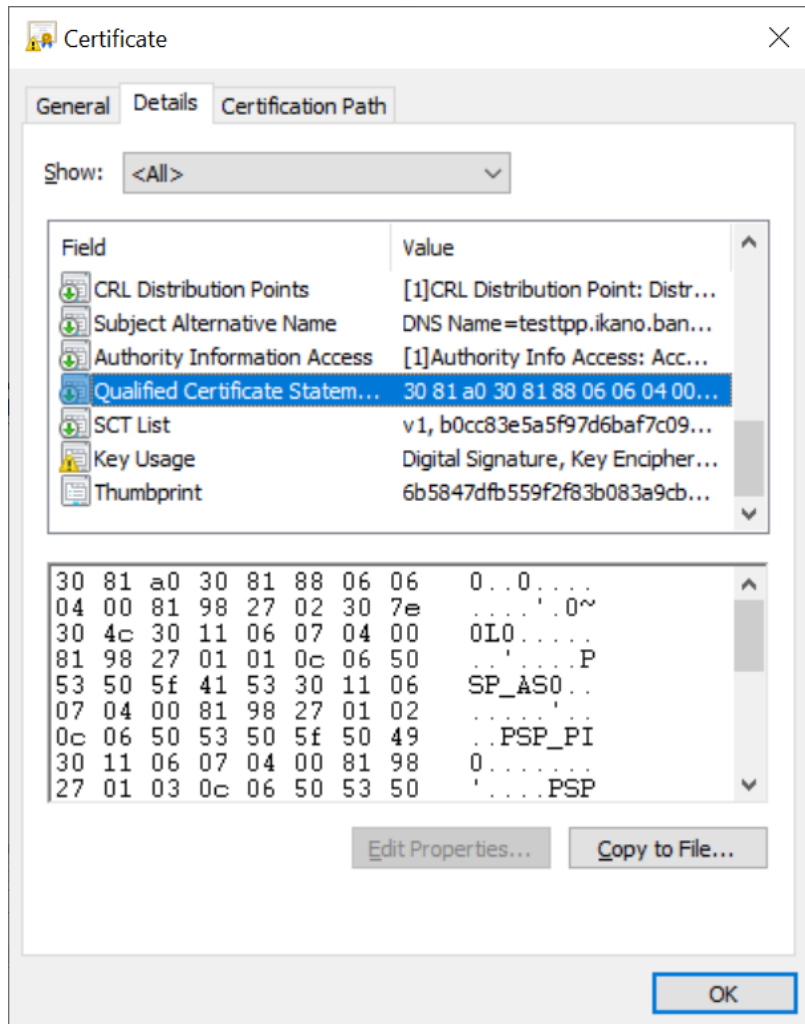
PSD2 QCStatement

- PSD2 Role(s) of PSP
- **Name of National Competent Authority**

PSD2 QCStatement

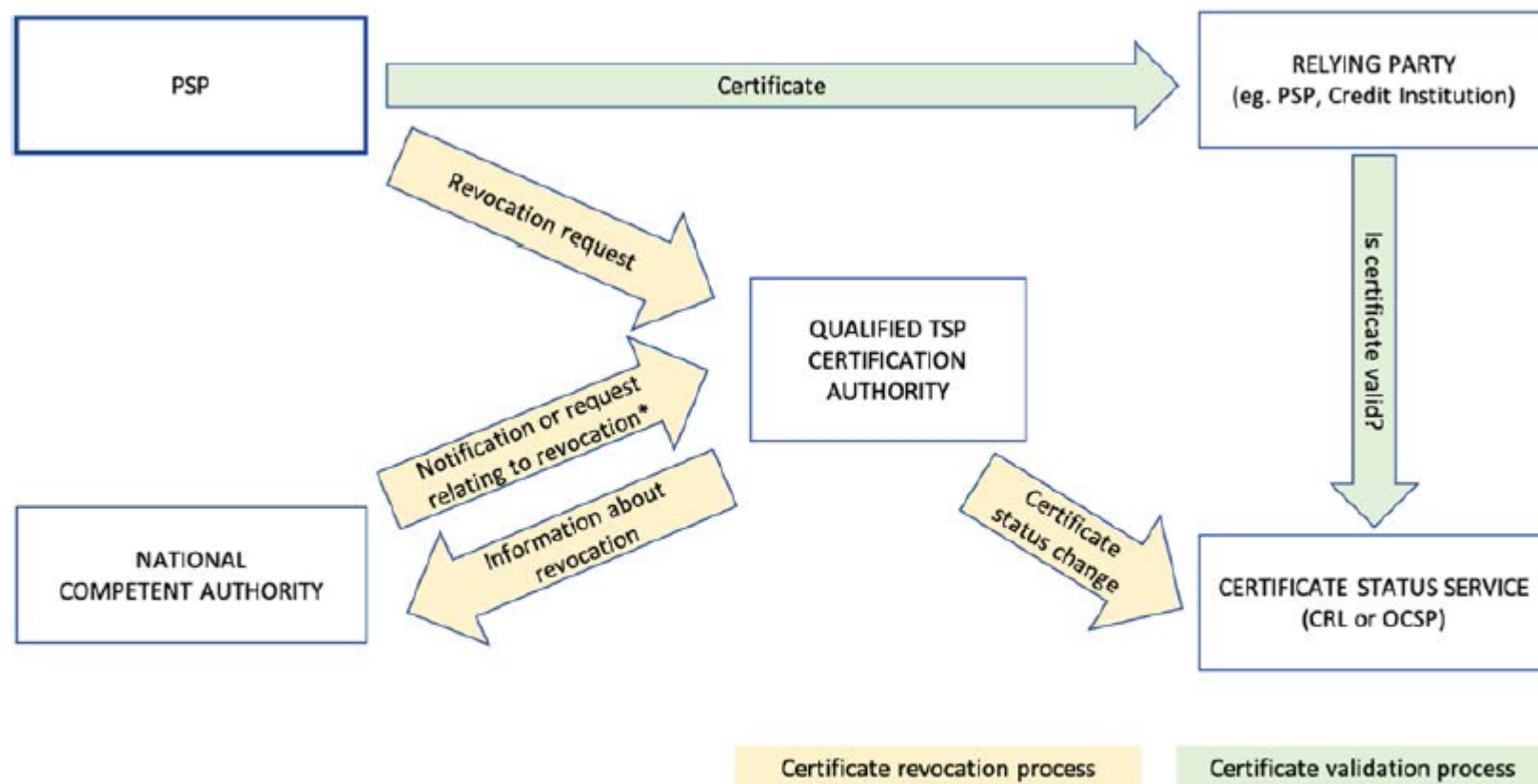
- **ROLES:**
 - (i) account servicing (**PSP_AS**);
 - (ii) payment initiation (**PSP_PI**);
 - (iii) account information (**PSP_AI**);
 - (iv) issuing of card-based payment instruments (**PSP_IC**);
- **NAME OF NCA (NATIONAL COMPETENT AUTHORITY)**

qcStatements i Buypass testsertifikater



```
1012 194: SEQUENCE {
1015 8:   OBJECT IDENTIFIER qcStatements (1 3 6 1 5 5 7 1 3)
1025 181:   OCTET STRING, encapsulates {
1028 178:     SEQUENCE {
1031 98:       SEQUENCE {
1033 6:         OBJECT IDENTIFIER '0 4 0 19495 2'
1041 88:         SEQUENCE {
1043 38:           SEQUENCE {
1045 17:             SEQUENCE {
1047 7:               OBJECT IDENTIFIER '0 4 0 19495 1 2'
1056 6:               UTF8String 'PSP_PI'
:             }
1064 17:             SEQUENCE {
1066 7:               OBJECT IDENTIFIER '0 4 0 19495 1 3'
1075 6:               UTF8String 'PSP_AI'
:             }
:           }
1083 39:           UTF8String 'Swedish Financial Supervision Authority'
1124 5:           UTF8String 'SE-FI'
:         }
:       }
1131 19:     SEQUENCE {
1133 6:       OBJECT IDENTIFIER '0 4 0 1862 1 6'
1141 9:       SEQUENCE {
1143 7:         OBJECT IDENTIFIER '0 4 0 1862 1 6 2'
:       }
:     }
1152 55:   SEQUENCE {
1154 6:     OBJECT IDENTIFIER '0 4 0 1862 1 5'
1162 45:     SEQUENCE {
1164 43:       SEQUENCE {
1166 37:         IA5String 'https://www.buypass.no/pds/pds_en.pdf'
1205 2:         PrintableString 'en'
:       }
:     }
:   }
```

Revokering av sertifikater



NOTE: The present document does not place any specific requirements on the NCA regarding revocation.

Figure 2: Illustration of PSP Certificate validation and revocation

Validering av sertifikatene

When a party uses a PSD2 Qualified Certificate to identify another party, they will want to check that the certificate is 'valid'. This check generally involves checks on the following aspects of a certificate:

What to Check	How to Check it
That the Trust Service Provider (TSP) is Qualified	EU Trusted Lists
That the certificate is technically correct and has not expired	A raft of standards and practices in current use today
That the certificate is Qualified	<i>QCStatement</i> marking certificate as Qualified, etc.
That the certificate contains the required PSD2 information	Checking against ETSI TS 119 495
That the certificate has not been revoked since it was issued	Certificate Revocation List (CRL) / Online Certificate Status Protocol (OCSP) checks

Note these checks confirm the validity of the certificate and the identity authentication supported by the certificate. However, it does not necessarily confirm that the authorisations for the PSP are up-to-date (please see 5.4 Are PSP Authorisation & Roles updates synchronised with certificates? on page 14).

“

*If you want to go fast, travel alone.
If you want to go far, travel together.*

”

- African proverb



OPEN
BANKING
EUROPE

Trusted in EU

EBA Clearing & Preta MyBank have been delivering successfully with Banks in Europe for over 10 years.

Pan-EU Coverage

Preta has ability to reach all Countries in the EU today, through existing relationships, trust and operational branches.

Experts in the Market

Our SMEs are connected within EU for Interfaces, Regulatory Practices, and International Standards Organisations.

Community Led

Design Decisions made by consensus and priority, so Europe's stakeholders can agree on standards before we all build XS2A.

Preta: Open Banking Europe Community



Competent Authorities & Associations

Get support for Regulatory Data Standards reviews & engage with EU dialogue on NCA data exchange procedures



ASPSPs

Join fellow ASPSPs as a stakeholder, to design and implement pan-EU PSD2 access to account services.



Third Party Providers

Sign-up to give early input to Identity and data mechanisms that will help smooth XS2A across the EU.



Qualified Trust Service Providers

Sign-up to engage with PSD2 Certificate issues and show the market that there are services available.



Solution Providers

Become a directory distributor for client deployments across the EU.

Preta: Open Banking Europe (OBE) “Working. Together.”

16th November 2018

OBE PSD2 QTSPs Engagement Group

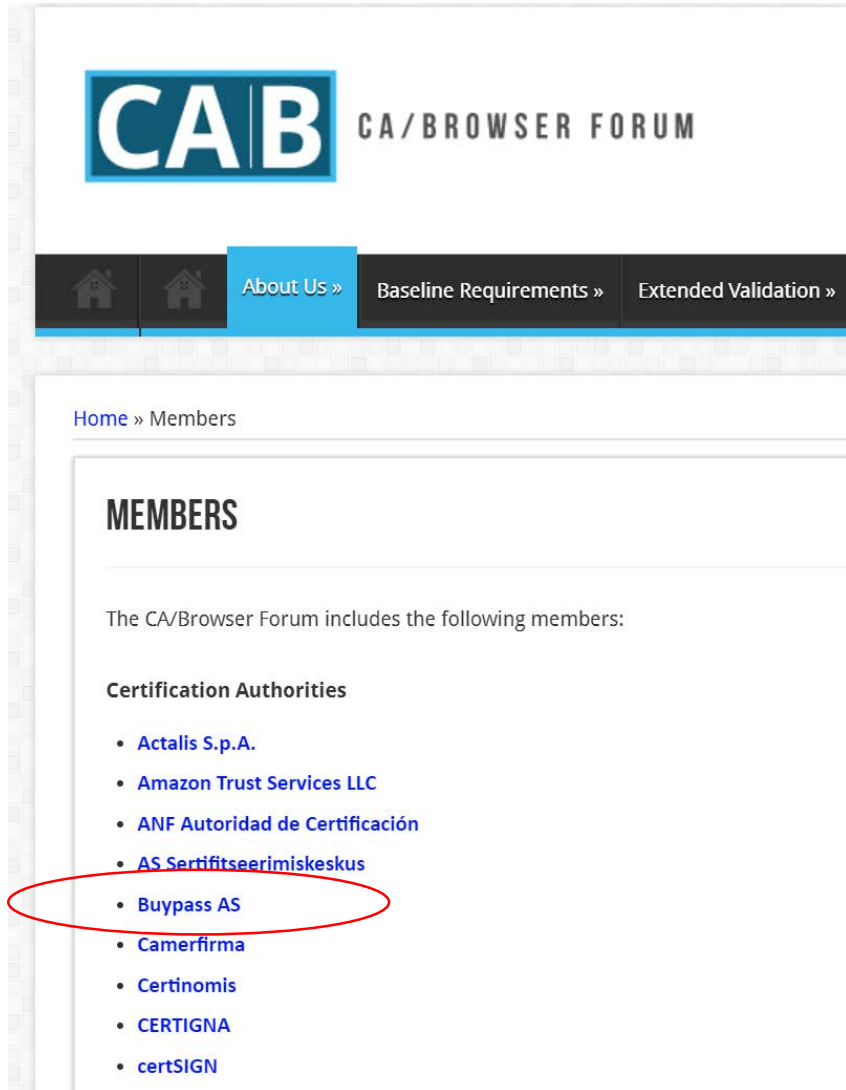
© PRETA All rights reserved.

Preta S.A.S. is a wholly owned subsidiary of EBA CLEARING

QTSP	Country
Aruba	Italy
Buypass	Norway
CertEurope	France
CertSign	Romania
D-Trust & (Bundesdruckerei)	Germany
Firmaprofesional	Spain
Global Sign	Belgium
Harica	Greece

QTSP	Country
Infocert	Italy
LuxTrust	Luxembourg
Microsec	Hungary
Multicert	Portugal
Namirial	Italy
SwissCom	Austria (Switzerland)
Trans Sped	Romania
Quovadis (Wisekey)	Netherlands (France)

CA/Browser Forum (cabforum.org)



The screenshot shows the CA/Browser Forum website. At the top left is the logo with 'CAB' in a blue box and 'CA/BROWSER FORUM' to its right. Below the logo is a navigation bar with 'About Us' highlighted in blue, and 'Baseline Requirements' and 'Extended Validation' in grey. Below the navigation bar is a breadcrumb trail: 'Home » Members'. The main content area is titled 'MEMBERS' and contains the text 'The CA/Browser Forum includes the following members:'. Underneath is a section 'Certification Authorities' with a bulleted list of members. The member 'Buypass AS' is circled in red.

CAB CA/BROWSER FORUM

Home » Members

MEMBERS

The CA/Browser Forum includes the following members:

Certification Authorities

- [Actalis S.p.A.](#)
- [Amazon Trust Services LLC](#)
- [ANF Autoridad de Certificación](#)
- [AS Sertifitseerimiskeskus](#)
- [Buypass AS](#)
- [Camerfirma](#)
- [Certinomis](#)
- [CERTIGNA](#)
- [certSIGN](#)

PDS2-sertifikater for Test

- Buypass kan levere test PSD2-sertifikater både for QWAC og QC eSeal
- Vi trenger følgende informasjon:
 - Organisasjonsnummer (og navn)
 - Kontaktinformasjon
 - PSD2-attributter
 - Authorization Number – tildelt av NCA (for eksempel Finanstilsynet)
 - NCA informasjon – land (og identifikator og navn)
 - PSP-roller – vilkårlig kombinasjon av 4 definerte roller
- Tilleggsinformasjon
 - For QWAC:
 - CSR som inneholder offentlig nøkkel og domenenavn
 - For QC eSeal:
 - Buypass kan generere nøkkel => distribueres som PKCS#12-fil og aktiveringskode
 - Kunde kan generere nøkkel -> registrere CSR med offentlig nøkkel sammen med bestilling
- Ta kontakt med Salg (salg@buypass.no) for mer informasjon

PSD2-sertifikater i Produksjon

- **Krever noe mer informasjon:**
 - Kontraktsignerer – autorisert representant for virksomheten
 - Strengere valideringskrav:
 - Virksomhetens identitet må valideres mot godkjente registre (som Brønnøysundregistrene)
 - PSD2-attributter må verifiseres mot godkjente registre (NCA/EBA)
 - Personlig fremmøte
 - Signatur på abonnentavtale
- **Vi jobber med systemløsning for PSD2-sertifikater slik at kunde kan bestille selv via Web**
- **Planlagt ferdig Q2 - mai 2019**
 - Manuelle rutiner inntil dette er på plass, må avtales spesielt

Mer informasjon

- <https://www.buypass.com/products/eseal--and-enterprise-certificate/eidas-qualified-certificates>
- <https://www.openbankingeurope.eu/resources/public-resources/>
- <https://www.openbankingeurope.eu/qtspas-and-eidas/>
- <https://www.openbankingeurope.eu/national-registers/>
- <https://portal.etsi.org//TBSiteMap/ESI/ESIActivities.aspx>
- https://www.etsi.org/deliver/etsi_ts/119400_119499/119495/

Spørsmål?