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**SENATE BILL 5638**

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**State of Washington**

**66th Legislature**

**2019 Regular Session**

**By** Senators Brown, Rivers, Becker, and Short

1 AN ACT Relating to recognizing the validity of distributed ledger  
2 technology; amending RCW 19.34.010 and 19.34.020; adding a new  
3 section to chapter 19.34 RCW; and creating a new section.

4 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

5 **Sec. 1.** RCW 19.34.010 and 1999 c 287 s 1 are each amended to  
6 read as follows:

7 This chapter (~~shall~~) must be construed consistently with what  
8 is commercially reasonable under the circumstances and to effectuate  
9 the following purposes:

10 (1) To facilitate commerce by means of reliable electronic  
11 messages;

12 (2) To ensure that electronic signatures are not denied legal  
13 recognition solely because they are in electronic form;

14 (3) To provide a voluntary licensing mechanism for digital  
15 signature certification authorities by which businesses, consumers,  
16 courts, government agencies, and other entities can reasonably be  
17 assured as to the integrity, authenticity, and nonrepudiation of a  
18 digitally signed electronic communication;

19 (4) To establish procedures governing the use of digital  
20 signatures for official public business to provide reasonable

1 assurance of the integrity, authenticity, and nonrepudiation of an  
2 electronic communication;

3 (5) To minimize the incidence of forged digital signatures and  
4 fraud in electronic commerce;

5 (6) To implement legally the general import of relevant  
6 standards; ~~((and))~~

7 (7) To establish, in coordination with states and other  
8 jurisdictions, uniform rules regarding the authentication and  
9 reliability of electronic messages; and

10 (8) To encourage the development of distributed ledger  
11 technology.

12 **Sec. 2.** RCW 19.34.020 and 2000 c 171 s 50 are each amended to  
13 read as follows:

14 ~~((Unless the context clearly requires otherwise,))~~ The  
15 definitions in this section apply throughout this chapter ~~((+))~~ unless  
16 the context clearly requires otherwise.

17 (1) "Accept a certificate" means to manifest approval of a  
18 certificate, while knowing or having notice of its contents. Such  
19 approval may be manifested by the use of the certificate.

20 (2) "Accept a digital signature" means to verify a digital  
21 signature or take an action in reliance on a digital signature.

22 (3) "Asymmetric cryptosystem" means an algorithm or series of  
23 algorithms that provide a secure key pair.

24 (4) "Certificate" means a computer-based record that:

25 (a) Identifies the certification authority issuing it;

26 (b) Names or identifies its subscriber;

27 (c) Contains the subscriber's public key; and

28 (d) Is digitally signed by the certification authority issuing  
29 it.

30 (5) "Certification authority" means a person who issues a  
31 certificate.

32 (6) "Certification authority disclosure record" means an online,  
33 publicly accessible record that concerns a licensed certification  
34 authority and is kept by the secretary.

35 (7) "Certification practice statement" means a declaration of the  
36 practices that a certification authority employs in issuing  
37 certificates.

1 (8) "Certify" means to declare with reference to a certificate,  
2 with ample opportunity to reflect, and with a duty to apprise oneself  
3 of all material facts.

4 (9) "Confirm" means to ascertain through appropriate inquiry and  
5 investigation.

6 (10) "Correspond," with reference to keys, means to belong to the  
7 same key pair.

8 (11) "Digital signature" means an electronic signature that is a  
9 transformation of a message using an asymmetric cryptosystem such  
10 that a person having the initial message and the signer's public key  
11 can accurately determine:

12 (a) Whether the transformation was created using the private key  
13 that corresponds to the signer's public key; and

14 (b) Whether the initial message has been altered since the  
15 transformation was made.

16 (12) "Electronic" means electrical, digital, magnetic, optical,  
17 electromagnetic, or any other form of technology that entails  
18 capabilities similar to these technologies.

19 (13) "Electronic record" means a record generated, communicated,  
20 received, or stored by electronic means for use in an information  
21 system or for transmission from one information system to another.

22 (14) "Electronic signature" means a signature in electronic form  
23 attached to or logically associated with an electronic record,  
24 including but not limited to a digital signature.

25 (15) "Financial institution" means a national or state-chartered  
26 commercial bank or trust company, savings bank, savings association,  
27 or credit union authorized to do business in the state of Washington  
28 and the deposits of which are federally insured.

29 (16) "Forge a digital signature" means either:

30 (a) To create a digital signature without the authorization of  
31 the rightful holder of the private key; or

32 (b) To create a digital signature verifiable by a certificate  
33 listing as subscriber a person who either:

34 (i) Does not exist; or

35 (ii) Does not hold the private key corresponding to the public  
36 key listed in the certificate.

37 (17) "Hold a private key" means to be authorized to utilize a  
38 private key.

1 (18) "Incorporate by reference" means to make one message a part  
2 of another message by identifying the message to be incorporated and  
3 expressing the intention that it be incorporated.

4 (19) "Issue a certificate" means the acts of a certification  
5 authority in creating a certificate and notifying the subscriber  
6 listed in the certificate of the contents of the certificate.

7 (20) "Key pair" means a private key and its corresponding public  
8 key in an asymmetric cryptosystem, keys which have the property that  
9 the public key can verify a digital signature that the private key  
10 creates.

11 (21) "Licensed certification authority" means a certification  
12 authority to whom a license has been issued by the secretary and  
13 whose license is in effect.

14 (22) "Message" means a digital representation of information.

15 (23) "Notify" means to communicate a fact to another person in a  
16 manner reasonably likely under the circumstances to impart knowledge  
17 of the information to the other person.

18 (24) "Official public business" means any legally authorized  
19 transaction or communication among state agencies, tribes, and local  
20 governments, or between a state agency, tribe, or local government  
21 and a private person or entity.

22 (25) "Operative personnel" means one or more natural persons  
23 acting as a certification authority or its agent, or in the  
24 employment of, or under contract with, a certification authority, and  
25 who have:

26 (a) Duties directly involving the issuance of certificates, or  
27 creation of private keys;

28 (b) Responsibility for the secure operation of the trustworthy  
29 system used by the certification authority or any recognized  
30 repository;

31 (c) Direct responsibility, beyond general supervisory authority,  
32 for establishing or adopting policies regarding the operation and  
33 security of the certification authority; or

34 (d) Such other responsibilities or duties as the secretary may  
35 establish by rule.

36 (26) "Person" means a human being or an organization capable of  
37 signing a document, either legally or as a matter of fact.

38 (27) "Private key" means the key of a key pair used to create a  
39 digital signature.

1 (28) "Public key" means the key of a key pair used to verify a  
2 digital signature.

3 (29) "Publish" means to make information publicly available.

4 (30) "Qualified right to payment" means an award of damages  
5 against a licensed certification authority by a court having  
6 jurisdiction over the certification authority in a civil action for  
7 violation of this chapter.

8 (31) "Recipient" means a person who has received a certificate  
9 and a digital signature verifiable with reference to a public key  
10 listed in the certificate and is in a position to rely on it.

11 (32) "Recognized repository" means a repository recognized by the  
12 secretary under RCW 19.34.400.

13 (33) "Recommended reliance limit" means the monetary amount  
14 recommended for reliance on a certificate under RCW 19.34.280(1).

15 (34) "Repository" means a system for storing and retrieving  
16 certificates and other information relevant to digital signatures.

17 (35) "Revoke a certificate" means to make a certificate  
18 ineffective permanently from a specified time forward. Revocation is  
19 effected by notation or inclusion in a set of revoked certificates,  
20 and does not imply that a revoked certificate is destroyed or made  
21 illegible.

22 (36) "Rightfully hold a private key" means the authority to  
23 utilize a private key:

24 (a) That the holder or the holder's agents have not disclosed to  
25 a person in violation of RCW 19.34.240(1); and

26 (b) That the holder has not obtained through theft, deceit,  
27 eavesdropping, or other unlawful means.

28 (37) "Secretary" means the secretary of state.

29 (38) "Subscriber" means a person who:

30 (a) Is the subject listed in a certificate;

31 (b) Applies for or accepts the certificate; and

32 (c) Holds a private key that corresponds to a public key listed  
33 in that certificate.

34 (39) "Suitable guaranty" means either a surety bond executed by a  
35 surety authorized by the insurance commissioner to do business in  
36 this state, or an irrevocable letter of credit issued by a financial  
37 institution authorized to do business in this state, which, in either  
38 event, satisfies all of the following requirements:

39 (a) It is issued payable to the secretary for the benefit of  
40 persons holding qualified rights of payment against the licensed

1 certification authority named as the principal of the bond or  
2 customer of the letter of credit;

3 (b) It is in an amount specified by rule by the secretary under  
4 RCW 19.34.030;

5 (c) It states that it is issued for filing under this chapter;

6 (d) It specifies a term of effectiveness extending at least as  
7 long as the term of the license to be issued to the certification  
8 authority; and

9 (e) It is in a form prescribed or approved by rule by the  
10 secretary.

11 A suitable guaranty may also provide that the total annual  
12 liability on the guaranty to all persons making claims based on it  
13 may not exceed the face amount of the guaranty.

14 (40) "Suspend a certificate" means to make a certificate  
15 ineffective temporarily for a specified time forward.

16 (41) "Time stamp" means either:

17 (a) To append or attach a digitally signed notation indicating at  
18 least the date, time, and identity of the person appending or  
19 attaching the notation to a message, digital signature, or  
20 certificate; or

21 (b) The notation thus appended or attached.

22 (42) "Transactional certificate" means a valid certificate  
23 incorporating by reference one or more digital signatures.

24 (43) "Trustworthy system" means computer hardware and software  
25 that:

26 (a) Are reasonably secure from intrusion and misuse; and

27 (b) Conform with the requirements established by the secretary by  
28 rule.

29 (44) "Valid certificate" means a certificate that:

30 (a) A licensed certification authority has issued;

31 (b) The subscriber listed in it has accepted;

32 (c) Has not been revoked or suspended; and

33 (d) Has not expired.

34 However, a transactional certificate is a valid certificate only  
35 in relation to the digital signature incorporated in it by reference.

36 (45) "Verify a digital signature" means, in relation to a given  
37 digital signature, message, and public key, to determine accurately  
38 that:

39 (a) The digital signature was created by the private key  
40 corresponding to the public key; and

1 (b) The message has not been altered since its digital signature  
2 was created.

3 (46) "Blockchain" means a cryptographically secured,  
4 chronological, and decentralized consensus ledger or consensus  
5 database maintained via internet, peer-to-peer network, or other  
6 similar interaction.

7 (47) "Distributed ledger technology" means any distributed ledger  
8 protocol and supporting infrastructure, including blockchain, that  
9 uses a distributed, decentralized, shared, and replicated ledger.

10 NEW SECTION. Sec. 3. A new section is added to chapter 19.34  
11 RCW to read as follows:

12 An electronic record or electronic signature may not be denied  
13 legal effect, validity, or enforceability solely because it is  
14 generated, communicated, received, or stored using distributed ledger  
15 technology.

16 NEW SECTION. Sec. 4. The legislature intends for this act to  
17 comply with 15 U.S.C. Sec. 7002 and here makes specific reference to  
18 chapter 96 of Title 15 of the United States Code.

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