

105TH CONGRESS  
2D SESSION

# S. 2107

To enhance electronic commerce by promoting the reliability and integrity of commercial transactions through establishing authentication standards for electronic communication, and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

MAY 21, 1998

Mr. ABRAHAM (for himself, Mr. WYDEN, Mr. MCCAIN, and Mr. REED) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science and Transportation

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## A BILL

To enhance electronic commerce by promoting the reliability and integrity of commercial transactions through establishing authentication standards for electronic communication, and for other purposes.

1       *Be it enacted by the Senate and House of Representa-*  
2       *tives of the United States of America in Congress assembled,*

3       **SECTION 1. SHORT TITLE.**

4       This Act may be cited as the “Government Paper-  
5       work Elimination Act”.

1 **SEC. 2 STUDIES ON USE OF DIGITAL SIGNATURES TO EN-**  
2 **HANCE ELECTRONIC COMMERCE.**

3 The Assistant Secretary shall conduct an ongoing  
4 study of the enhancement of electronic commerce due to  
5 the use of digital signatures pursuant to this Act, and  
6 shall report findings to the Commerce Committee of the  
7 House and to the Commerce, Science, and Transportation  
8 Committee of the Senate not later than—

9 (1) 12 months; and

10 (2) 60 months; after the date of enactment of  
11 this Act.

12 **SEC. 3. ELECTRONIC AVAILABILITY OF FORMS.**

13 The Director, in accordance with technical standards  
14 provided by the Assistant Secretary under section 6, shall  
15 not later than 12 months after the date of enactment of  
16 this Act establish a method for each Federal agency to  
17 make its forms available electronically. Such forms shall  
18 be—

19 (1) available for electronic submission (through  
20 use of a digital signature when necessary);

21 (2) substantially identical in content and re-  
22 quirements to any corresponding paper versions;

23 (3) available on an Internet web site controlled  
24 by the Federal Government that contains an elec-  
25 tronic link to the website described in section 6(f) of  
26 this Act;

1 (4) available for downloading and printing;

2 (5) available for electronic storage by employers  
3 that are required by law to collect, store, or file  
4 paper versions of forms completed by employees; and

5 (6) acknowledged upon receipt by an agency  
6 through prompt issuance of an electronic receipt.

7 **SEC. 4. PAYMENTS.**

8 Under the method established under section 2—

9 (1) any payment associated with a form submit-  
10 ted electronically shall be no greater than the pay-  
11 ment associated with any corresponding printed ver-  
12 sion of such form;

13 (2) not less than 2 means of electronic payment  
14 shall be provided, but such payment may not be re-  
15 quired to precede submission of a form; and

16 (3) a prompt receipt for electronic payment  
17 shall be issued electronically to each person who sub-  
18 mits a payment electronically.

19 **SEC. 5. USE OF DIGITAL SIGNATURES BY FEDERAL OFFI-**  
20 **CIALS.**

21 (A) AGENCY EMPLOYEES TO RECEIVE DIGITAL SIG-  
22 NATURES.—The head of each agency shall issue guidelines  
23 for determining how and which employees in each respec-  
24 tive agency shall be provided digital signatures for use  
25 within the scope of their employment.

1 (b) AVAILABILITY OF ELECTRONIC NOTICE.—An agen-  
 2 cy may provide a person entitled to receive written notice  
 3 of a particular matter with the opportunity to receive elec-  
 4 tronic notice instead.

5 **SEC. 6. CERTIFICATES FOR DIGITAL SIGNATURES.**

6 (a) GUIDELINES FOR ACCEPTANCE OF CERTIFI-  
 7 CATES.—The Director shall issue guidelines governing the  
 8 manner in which agencies may accept certificates.

9 (b) ACCREDITATION.—Under the guidelines issued  
 10 under subsection (a), an agency shall accept certificates  
 11 issued by—

12 (1) the agency; or

13 (2) a trusted third party that is licensed or ac-  
 14 credited by—

15 (A) a State or local government; or

16 (B) an appropriate accreditation body.

17 (c) TRUSTED THIRD PARTY LIABILITY.—Under the  
 18 guidelines issued under subsection (a), an agency may ac-  
 19 cept a certificate only from a trusted third party that, in  
 20 accordance with commercially reasonable standards, ac-  
 21 cepts liability for and is insured against negligent issuance  
 22 or handling of certificates.

23 (d) FOREIGN TRUSTED THIRD PARTY.—The Sec-  
 24 retary of State shall determine from which foreign coun-  
 25 tries agencies may accept certificates.

1 (e) AGENCY ESTABLISHMENT OF TRUSTED THIRD  
2 PARTY.—No agency may establish a trusted third party  
3 except to—

4 (1) provide digital signatures to its employees;

5 (2) issue certificates relating to messages sent  
6 by such employees; or

7 (3) act as a reliable authority on behalf on an-  
8 other trusted third party.

9 (f) DIRECTORY OF QUALIFIED TRUSTED THIRD  
10 PARTIES.—The Assistant Secretary shall compile and post  
11 on a website controlled by the Federal Government a list  
12 of trusted third parties (along with an electronic link, if  
13 any, to a web site controlled by each trusted third party)  
14 that are qualified under this section to issue certificates.

15 **SEC. 7. STANDARDS FOR DIGITAL SIGNATURES; EFFECT OF**  
16 **DIGITAL SIGNATURES.**

17 (a) TECHNICAL STANDARDS FOR DIGITAL SIGNA-  
18 TURES.—The Assistant Secretary shall provide to the Di-  
19 rector technical standards for the digital signatures ac-  
20 cepted for purposes of the method established under sec-  
21 tion 2 or provided under section 4.

22 (b) COMPATIBILITY WITH PRIVATE SECTOR.—The  
23 standards referred to in subsection (a) shall be compatible  
24 with standards and technology for digital signatures used  
25 in commerce and industry and by State governments.

1 (c) STANDARDS SHALL BE TECHNOLOGY NEU-  
 2 TRAL.—The Secretary, in setting standards for digital sig-  
 3 nature technologies to be used by the Federal Govern-  
 4 ment, shall take all steps necessary to ensure that such  
 5 standards do not inappropriately favor one industry.

6 (d) RELIABILITY OF DIGITAL SIGNATURES.—Under  
 7 the standards referred to in subsection (a), a digital signa-  
 8 ture shall be as reliable as is appropriate for the purpose  
 9 for which an electronic message containing a digital signa-  
 10 ture is generated, in light of all the circumstances, includ-  
 11 ing any relevant agreement.

12 (e) LEGAL SIGNIFICANCE OF DIGITAL SIGNA-  
 13 TURES.—For purposes of digital signed forms accepted  
 14 under section 2, a digital signature shall have the same  
 15 force and effect as a written signature.

16 **SEC. 8. EMPLOYER ELECTRONIC STORAGE OF FORMS.**

17 If an employer is required by law to collect, store,  
 18 or file paper forms that are completed by employees, such  
 19 employer may store such forms electronically if such forms  
 20 are submitted electronically.

21 **SEC. 9. IMPLEMENTATION BY AGENCIES.**

22 (a) IMPLEMENTATION.—Not later than 36 months  
 23 after the date of enactment of this Act, each agency shall  
 24 implement the method established under section 2 of this  
 25 Act and the guidelines issued under section 4 of this Act.

1 (b) REPORT TO CONGRESS.—Not later than 12  
2 months after the date of enactment of this Act, the Assist-  
3 ant Secretary shall submit a report to the Commerce Com-  
4 mittee of the House and to the Commerce, Science, and  
5 Transportation Committee of the Senate that details the  
6 technical standards described in section 6.

7 **SEC. 10. SENSE OF THE CONGRESS.**

8 Because there is no meaningful difference between  
9 contracts executed in the digital world and contracts exe-  
10 cuted in the analog world, it is the sense of the Congress  
11 that such contracts should be treated similarly under fed-  
12 eral law. It is further the sense of the Congress that such  
13 contracts should be treated similarly under state law.

14 **SEC. 11. DEFINITIONS.**

15 For purposes of this Act:

16 (1) ASSISTANT SECRETARY.—The term “Assist-  
17 ant Secretary” means the Assistant Secretary for  
18 Communications and Information (the head of the  
19 National Telecommunications and Information Ad-  
20 ministration) of the Department of Commerce.

21 (2) AGENCY.—The term “agency” has the  
22 meaning given the term “executive agency” in sec-  
23 tion 105 of title 5, United States Code.

24 (3) CERTIFICATE.—(A) The term “certificate”  
25 means a statement meeting the requirements of sub-

1 paragraph (B) that permits a person holding such  
2 statement to determine that a digital signed mes-  
3 sage—

4 (i) was signed by the person whose digital  
5 signature appears to be attached to the mes-  
6 sage; and

7 (ii) has not been altered since the digital  
8 signature was attached.

9 (B) For purposes of subparagraph (A), the  
10 statement must—

11 (i) identify the trusted third party or agen-  
12 cy issuing such statement;

13 (ii) identify the person whose digital signa-  
14 ture the trusted third party or agency is au-  
15 thenticating with such statement;

16 (iii) specify the operational period of such  
17 statement; and

18 (iv) be digitally signed by the trusted third  
19 party or agency issuing such statement.

20 (4) DIGITAL SIGNATURE.—The term “digital  
21 signature” means a method of signing an electronic  
22 message that—

23 (A) identifies a particular person as the  
24 source of such electronic message; and



1 (B) indicates such person's approval of the  
2 information contained in such electronic mes-  
3 sage.

4 (5) DIRECTOR.—The term “Director” means  
5 the Director of the Office of Management and  
6 Budget.

7 (6) FORM.—The term “form” means a docu-  
8 ment produced by an agency—

9 (A) that is used by the agency to facilitate  
10 interaction between the agency and persons;

11 (B) that is completed by a person by in-  
12 serting information as required by the agency;

13 (C) that is submitted to an agency more  
14 than 1,000 times per year; and

15 (D) that is not required to be completed in  
16 the presence of a Federal official or at a par-  
17 ticular location.

18 (7) RELIABLE AUTHORITY.—The term “reliable  
19 authority” means an entity licensed to serve as a no-  
20 tary that vouches to a trusted third party for the  
21 identity of a person who seeks a certificate to be  
22 issued on such person's behalf.

1           (8) TRUSTED THIRD PARTY.—The term “trust-  
2       ed third party” means an entity (other than an  
3       agency) that issues a certificate.

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