

Calendar No. 581

105TH CONGRESS
2^D SESSION

S. 2107

[Report No. 105-335]

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.

SEPTEMBER 17, 1998

Reported with an amendment

Calendar No. 581105TH CONGRESS
2^D SESSION**S. 2107****[Report No. 105-335]**

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

IN THE SENATE OF THE UNITED STATES

MAY 21, 1998

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

SEPTEMBER 17, 1998

Reported by Mr. MCCAIN, with an amendment

[Strike out all after the enacting clause and insert the part printed in *italic*]

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,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “Government Paper-
3 work Elimination Act”.

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

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

12 (1) 12 months; and

13 (2) 60 months; after the date of enactment of
14 this Act.

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

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

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

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

1 ~~(3)~~ available on an Internet web site controlled
2 by the Federal Government that contains an elec-
3 tronic link to the website described in section 6(f) of
4 this Act;

5 ~~(4)~~ available for downloading and printing;

6 ~~(5)~~ available for electronic storage by employers
7 that are required by law to collect, store, or file
8 paper versions of forms completed by employees; and
9 ~~(6)~~ acknowledged upon receipt by an agency
10 through prompt issuance of an electronic receipt.

11 **SEC. 4. PAYMENTS.**

12 Under the method established under section 2—

13 ~~(1)~~ any payment associated with a form submit-
14 ted electronically shall be no greater than the pay-
15 ment associated with any corresponding printed ver-
16 sion of such form;

17 ~~(2)~~ not less than 2 means of electronic payment
18 shall be provided; but such payment may not be re-
19 quired to precede submission of a form; and

20 ~~(3)~~ a prompt receipt for electronic payment
21 shall be issued electronically to each person who sub-
22 mits a payment electronically.

1 **SEC. 5. USE OF DIGITAL SIGNATURES BY FEDERAL OFFI-**
 2 **CIALS.**

3 (a) **AGENCY EMPLOYEES TO RECEIVE DIGITAL SIG-**
 4 **NATURES.**—The head of each agency shall issue guidelines
 5 for determining how and which employees in each respec-
 6 tive agency shall be provided digital signatures for use
 7 within the scope of their employment.

8 (b) **AVAILABILITY OF ELECTRONIC NOTICE.**—An
 9 agency may provide a person entitled to receive written
 10 notice of a particular matter with the opportunity to re-
 11 ceive electronic notice instead.

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

13 (a) **GUIDELINES FOR ACCEPTANCE OF CERTIFI-**
 14 **CATES.**—The Director shall issue guidelines governing the
 15 manner in which agencies may accept certificates.

16 (b) **ACCREDITATION.**—Under the guidelines issued
 17 under subsection (a), an agency shall accept certificates
 18 issued by—

19 (1) the agency; or

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

22 (A) a State or local government; or

23 (B) an appropriate accreditation body.

24 (c) **TRUSTED THIRD PARTY LIABILITY.**—Under the
 25 guidelines issued under subsection (a), an agency may ac-
 26 cept a certificate only from a trusted third party that, in

1 accordance with commercially reasonable standards, ac-
 2 cepts liability for and is insured against negligent issuance
 3 or handling of certificates.

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

7 (e) AGENCY ESTABLISHMENT OF TRUSTED THIRD
 8 PARTY.—No agency may establish a trusted third party
 9 except to—

10 (1) provide digital signatures to its employees;

11 (2) issue certificates relating to messages sent
 12 by such employees; or

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

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

21 **SEC. 7. STANDARDS FOR DIGITAL SIGNATURES; EFFECT OF**

22 **DIGITAL SIGNATURES.**

23 (a) TECHNICAL STANDARDS FOR DIGITAL SIGNA-
 24 TURES.—The Assistant Secretary shall provide to the Di-
 25 rector technical standards for the digital signatures ac-

1 cepted for purposes of the method established under sec-
2 tion 2 or provided under section 4.

3 (b) COMPATIBILITY WITH PRIVATE SECTOR.—The
4 standards referred to in subsection (a) shall be compatible
5 with standards and technology for digital signatures used
6 in commerce and industry and by State governments.

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

12 (d) RELIABILITY OF DIGITAL SIGNATURES.—Under
13 the standards referred to in subsection (a), a digital signa-
14 ture shall be as reliable as is appropriate for the purpose
15 for which an electronic message containing a digital signa-
16 ture is generated, in light of all the circumstances, includ-
17 ing any relevant agreement.

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

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

23 If an employer is required by law to collect, store,
24 or file paper forms that are completed by employees, such

1 employer may store such forms electronically if such forms
2 are submitted electronically.

3 **SEC. 9. IMPLEMENTATION BY AGENCIES.**

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

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

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

15 Because there is no meaningful difference between
16 contracts executed in the digital world and contracts exe-
17 cuted in the analog world, it is the sense of the Congress
18 that such contracts should be treated similarly under fed-
19 eral law. It is further the sense of the Congress that such
20 contracts should be treated similarly under state law.

21 **SEC. 11. DEFINITIONS.**

22 For purposes of this Act:

23 (1) ASSISTANT SECRETARY.—The term ‘Assist-
24 ant Secretary’ means the Assistant Secretary for
25 Communications and Information (the head of the

1 National Telecommunications and Information Ad-
2 ministration) of the Department of Commerce.

3 (2) AGENCY.—The term ‘agency’ has the mean-
4 ing given the term ‘executive agency’ in section 105
5 of title 5, United States Code.

6 (3) CERTIFICATE.—(A) The term ‘certificate’
7 means a statement meeting the requirements of sub-
8 paragraph (B) that permits a person holding such
9 statement to determine that a digital signed mes-
10 sage—

11 (i) was signed by the person whose digital
12 signature appears to be attached to the mes-
13 sage; and

14 (ii) has not been altered since the digital
15 signature was attached.

16 (B) For purposes of subparagraph (A), the
17 statement must—

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

20 (ii) identify the person whose digital signa-
21 ture the trusted third party or agency is au-
22 thenticating with such statement;

23 (iii) specify the operational period of such
24 statement; and

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

3 (4) **DIGITAL SIGNATURE.**—The term ‘digital
4 signature’ means a method of signing an electronic
5 message that—

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

8 (B) indicates such person’s approval of the
9 information contained in such electronic mes-
10 sage.

11 (5) **DIRECTOR.**—The term ‘Director’ means the
12 Director of the Office of Management and Budget.

13 (6) **FORM.**—The term ‘form’ means a document
14 produced by an agency—

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

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

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

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

24 (7) **RELIABLE AUTHORITY.**—The term ‘reliable
25 authority’ means an entity licensed to serve as a no-

1 tary that vouches to a trusted third party for the
 2 identity of a person who seeks a certificate to be
 3 issued on such person's behalf.

4 ~~(8) TRUSTED THIRD PARTY.—The term ‘trust-~~
 5 ~~ed third party’ means an entity (other than an agen-~~
 6 ~~cy) that issues a certificate.~~

7 **SECTION 1. SHORT TITLE.**

8 *This Act may be cited as the “Government Paperwork*
 9 *Elimination Act”.*

10 **SEC. 2. STUDIES ON USE OF ELECTRONIC SIGNATURES TO**
 11 **ENHANCE ELECTRONIC COMMERCE.**

12 *The Secretary shall conduct an ongoing study of the*
 13 *enhancement of electronic commerce and the impact on in-*
 14 *dividual privacy due to the use of electronic signatures pur-*
 15 *suant to this Act, and shall report findings to the Commerce*
 16 *Committee of the House and to the Commerce, Science, and*
 17 *Transportation Committee of the Senate not later than 18*
 18 *months after the date of enactment of this Act.*

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

20 *(a) NEW FORMS, QUESTIONNAIRES, AND SURVEYS.—*
 21 *The head of an agency or operating unit shall provide for*
 22 *the availability to the affected public in electronic form for*
 23 *downloading or printing through the Internet or other suit-*
 24 *able medium of any agency form, questionnaire, or survey*
 25 *created after the date of enactment of this Act that is to*

1 *be submitted to the agency by more than 1,000 non-govern-*
2 *ment persons or entities per year, except where the head*
3 *of the agency or operating unit determines by a finding*
4 *that providing for such availability would be impracticable*
5 *or otherwise unreasonable.*

6 **(b) ALL FORMS, QUESTIONNAIRES, AND SURVEYS.—**
7 *As soon as practicable, but not later than 18 months after*
8 *the date of enactment of this Act, each Federal agency shall*
9 *make all of its forms, questionnaires, and surveys that are*
10 *expected to be submitted to such agency by more than 1,000*
11 *non-government persons or entities per year available to the*
12 *affected public for downloading or printing through the*
13 *Internet or other suitable electronic medium. This require-*
14 *ment shall not apply where the head of an agency or operat-*
15 *ing unit determines that providing such availability for*
16 *particular form, questionnaire or survey documents would*
17 *be impracticable or otherwise unreasonable.*

18 **(c) APPLICABILITY OF SECTION.—***The requirements of*
19 *this section shall not apply to surveys that are both distrib-*
20 *uted and collected one-time only or that are provided di-*
21 *rectly to respondents by the agency.*

22 **(d) AVAILABILITY.—***Forms subject to this section shall*
23 *be available for electronic submission (with an electronic*
24 *signature when necessary) under the provisions of section*

1 8, and shall be available for electronic storage by employers
2 as described in section 7.

3 (e) *PAPER FORMS TO BE AVAILABLE.*—Each agency
4 and operating unit shall continue to make forms, question-
5 naires, and surveys available in paper form.

6 **SEC. 4. PAYMENTS.**

7 *In conjunction with the process required by section 8—*

8 (1) *where they deem such action appropriate and*
9 *practicable, and subject to standards or guidance of*
10 *the Department of the Treasury concerning Federal*
11 *payments or collections, agencies shall seek to develop*
12 *or otherwise provide means whereby persons submit-*
13 *ting documents electronically are accorded the option*
14 *of making any payments associated therewith by elec-*
15 *tronic means.*

16 (2) *payments associated with forms, applica-*
17 *tions, or similar documents submitted electronically,*
18 *other than amounts relating to additional costs asso-*
19 *ciated with the electronic submission such as charges*
20 *imposed by merchants in connection with credit card*
21 *transactions, shall be no greater than the payments*
22 *associated with the corresponding printed version of*
23 *such documents.*

1 **SEC. 5. USE OF ELECTRONIC SIGNATURES BY FEDERAL**
2 **AGENCIES.**

3 (a) *AGENCY EMPLOYEES TO RECEIVE ELECTRONIC*
4 *SIGNATURES.*—*The head of each agency shall issue guide-*
5 *lines for determining how and which employees in each re-*
6 *spective agency shall be permitted to use electronic signa-*
7 *tures within the scope of their employment.*

8 (b) *AVAILABILITY OF ELECTRONIC NOTICE.*—*An agen-*
9 *cy may provide a person entitled to receive written notice*
10 *of a particular matter with the opportunity to receive elec-*
11 *tronic notice instead.*

12 (c) *PROCEDURES FOR ACCEPTANCE OF ELECTRONIC*
13 *SIGNATURES.*—*The Director, in consultation with the Sec-*
14 *retary, shall coordinate agency actions to comply with the*
15 *provisions of this Act and shall develop guidelines concern-*
16 *ing agency use and acceptance of electronic signatures, and*
17 *such use and acceptance shall be supported by the issuance*
18 *of such guidelines as may be necessary or appropriate by*
19 *the Secretary.*

20 (1) *The procedures shall be compatible with*
21 *standards and technology for electronic signatures as*
22 *may be generally used in commerce and industry and*
23 *by State governments, based upon consultation with*
24 *appropriate private sector and State government*
25 *standard setting bodies.*

1 (2) *Such procedures shall not inappropriately*
2 *favor one industry or technology.*

3 (3) *Under the procedures referred to in sub-*
4 *section (a), an electronic signature shall be as reliable*
5 *as is appropriate for the purpose, and efforts shall be*
6 *made to keep the information submitted intact.*

7 (4) *Successful submission of an electronic form*
8 *shall be electronically acknowledged.*

9 (5) *In accordance with all other sections of the*
10 *Act, to the extent feasible and appropriate, and de-*
11 *scribed in a written finding, an agency, when it re-*
12 *ceives electronically 50,000 submittals of a particular*
13 *form, shall take all steps necessary to ensure that*
14 *multiple formats of electronic signatures are made*
15 *available for submitting such forms.*

16 **SEC. 6. ENFORCEABILITY AND LEGAL EFFECT OF ELEC-**
17 **TRONIC RECORDS.**

18 *Electronic records submitted or maintained in accord-*
19 *ance with agency procedures and guidelines established pur-*
20 *suant to the Act, or electronic signatures or other forms of*
21 *electronic authentication used in accordance with such pro-*
22 *cedures and guidelines, shall not be denied legal effect, va-*
23 *lidity or enforceability because they are in electronic form.*

1 **SEC. 7. EMPLOYER ELECTRONIC STORAGE OF FORMS.**

2 *If an employer is required by any Federal law or regu-*
3 *lation to collect or store, or to file with a Federal agency*
4 *forms containing information pertaining to employees, such*
5 *employer may, after 18 months after enactment of this Act,*
6 *store such forms electronically unless the relevant agency*
7 *determines by regulation that storage of a particular form*
8 *in an electronic format is inconsistent with the efficient se-*
9 *cure or proper administration of an agency program. Such*
10 *forms shall also be accepted in electronic form by agencies*
11 *as provided by section 8.*

12 **SEC. 8. IMPLEMENTATION BY AGENCIES.**

13 *(a) IMPLEMENTATION.—Consistent with the Privacy*
14 *Protection Act of 1980 (42 U.S.C. 2000aa) and after con-*
15 *sultation with the Attorney General, and subject to applica-*
16 *ble laws and regulations pertaining to the Department of*
17 *the Treasury concerning Federal payments and collections*
18 *and the National Archives and Records Administration*
19 *concerning the proper maintenance and preservation of*
20 *agency records, Federal agencies shall, not later than 18*
21 *months after the enactment of this Act, establish and imple-*
22 *ment policies and procedures under which they will use and*
23 *authorize the use of electronic technologies in the transmit-*
24 *tal of forms, applications, and similar documents or*
25 *records, and where appropriate, for the creation and trans-*

1 *mission of such documents or records and their storage for*
2 *their required retention period.*

3 (b) *ESTABLISHMENT OF A TIMELINE FOR IMPLEMEN-*
4 *TATION.—Within 18 months after the date of enactment of*
5 *this Act, Federal agencies shall establish timelines for the*
6 *implementation of the requirements of subsection (a).*

7 (c) *GENERAL ACCOUNTING OFFICE REPORT.—The*
8 *Comptroller General shall report to the Senate Committee*
9 *on Commerce, Science, and Transportation and the House*
10 *of Representatives Committee on Commerce 21 months after*
11 *the date of enactment of this Act on the proposed implemen-*
12 *tation policies and timelines described in subsections (a)*
13 *and (b).*

14 (d) *IMPLEMENTATION DEADLINE.—Except where an*
15 *agency makes a written finding that electronic filing of a*
16 *form is either technically infeasible, economically unreason-*
17 *able, or may compromise national security, all Federal*
18 *forms must be made available for electronic submission*
19 *within 60 months after the date of enactment of this Act.*

20 **SEC. 9. SENSE OF THE CONGRESS.**

21 *Because there is no meaningful difference between con-*
22 *tracts executed in the electronic world and contracts exe-*
23 *cuted in the analog world, it is the sense of the Congress*
24 *that such contracts should be treated similarly under Fed-*

1 eral law. It is further the sense of the congress that such
2 contracts should be treated similarly under State law.

3 **SEC. 10. APPLICATION WITH OTHER LAWS.**

4 *Nothing in this this Act shall apply to the Department*
5 *of the Treasury or the Internal Revenue Service, to the ex-*
6 *tent that—*

7 (1) *it involves the administration of the internal*
8 *revenue laws; and*

9 (2) *it conflicts with any provision of the Internal*
10 *Revenue Service Restructuring and Reform Act of*
11 *1998 or the Internal Revenue Code of 1986.*

12 **SEC. 11. DEFINITIONS.**

13 *For purposes of this Act:*

14 (1) *SECRETARY.*—*The term “Secretary” means*
15 *the Secretary of Commerce.*

16 (2) *AGENCY.*—*The term “agency” means execu-*
17 *tive agency, as that term is defined in section 105 of*
18 *title 5, United States Code.*

19 (3) *ELECTRONIC SIGNATURE.*—*The term “elec-*
20 *tronic signature” means a method of signing an elec-*
21 *tronic message that—*

22 (A) *identifies a particular person as the*
23 *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 *(4) DIRECTOR.—The term “Director” means the*
5 *Director of the Office of Management and Budget.*

6 *(5) FORM, QUESTIONNAIRE, OR SURVEY.—The*
7 *terms “form”, “questionnaire”, and “survey” include*
8 *documents produced by an agency to facilitate inter-*
9 *action between an agency and non-government per-*
10 *sons.*