



## State of Washington PUBLIC DISCLOSURE COMMISSION

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To: Members, Washington State Public Disclosure Commission  
From: Nancy Krier, General Counsel  
Date: January 16, 2013  
Re: Electronic Signatures on Employee Payroll Deduction Forms for Political Contributions – WAC 390-17-100 - Discussion at January 24, 2013 Meeting

### **Question Presented**

Under current PDC laws and rules, can employees and employers use electronic forms with electronic signatures to authorize payroll deductions for political contributions?

### **Staff Recommendation**

Staff recommends that the Commission interpret its rule to permit electronic or digital signatures on payroll deductions for political contributions, so long as the employer or other person or entity responsible for the disbursement of wages or salaries satisfies:

- (1) the procedures in RCW 19.34, the Washington Electronic Authentication Act (WEAA) if applicable, the Electronic Signatures in Global and National Commerce Act (ESIGN) if applicable, or similar procedures providing reliable authentication of the signature on the payroll deduction form, and security of the process, and
- (2) the requirements in RCW 42.17A that (a) the employee receive required notifications about the payroll deduction process, and (b) the completed forms are maintained and open for public inspection for three years, and provided to the Commission upon request.

This recommendation is similar to the Federal Election Commission's approach when it has been faced with comparable questions.

This recommendation does not suggest electronic signature authorizations would be required; it provides only that the PDC rule could be read to permit them. This recommendation also addresses only PDC statutes and rules, except where otherwise noted. Staff recognizes that some employers or others responsible for the disbursement of wages or salaries may have payroll deduction systems that do not accommodate electronic authorizations or electronic signatures.<sup>1</sup>

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<sup>1</sup> For example, payroll deductions for public officers and employees are also described in RCW 41.04. For state employees, payroll is administered by the employing agencies through a central system that is largely electronic. Other employers may use different payroll mechanisms. Employers may also be subject to other

## **Background**

The question is presented by stakeholders James Oswald and Dmitri Iglitzin, attorneys who work with labor organizations. See their enclosed November 30, 2012 letter, page 2, under the section titled “Need for Clarification of Regulations Regarding Contribution Withholding Authorization.” They note the FEC has approved electronic authorizations for payroll deductions for federal political contributions. They also note they are not anticipating that the authorizations could be made via text message.

## **PDC Laws and Rules – Payroll Deductions Under RCW 42.17A**

**Statute.** RCW 42.17A.495(3) governs political contributions by employees on a payroll deduction authorization form. It provides that:

No employer or other person or entity responsible for the disbursement of funds in payment of wages or salaries may withhold or divert a portion of an employee's wages or salaries for contributions to political committees or for use as political contributions except upon the **written request** of the employee. **The request must be made on a form prescribed by the commission** informing the employee of the prohibition against employer and labor organization discrimination described in subsection (2) of this section. The employee may revoke the request at any time. At least annually, the employee shall be notified about the right to revoke the request.  
(Emphasis added).

Copy of statute enclosed. The requests must be maintained by the employer and open for public inspection for three years,<sup>2</sup> and copies of such information shall be delivered to the Commission upon request. RCW 42.17A.495(4).

**Rule and Form.** WAC 390-17-100 provides the contribution withholding steps, a reference to the notice requirements,<sup>3</sup> and the form. See attached. The rule requires “the written authorization of the individual subject to the payroll withholding or diversion of wages.” WAC 390-17-100(1)(b). WAC 390-17-100(2) provides that the forms are to conform to the suggested format in the rule, “or in a different format if it provides the following information ...” The information must include the “individual’s **signature**.” WAC 390-17-100(2)(g). The sample form also includes a line for the employee’s written **signature**.

The rule and form are silent on whether a digital or other electronic signature will satisfy the signature requirement.

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laws or collective bargaining agreements concerning their payroll systems and procedures.

<sup>2</sup> Except as provided in WAC 390-17-105 for annual aggregate contributions of \$25 or less.

<sup>3</sup> WAC 390-17-110 also provides more information on the employee **notification** requirements. Under that rule, the notifications must be in a communication directed to the employee, which can include email, but cannot include notifications made through a passive posting on a website or bulletin board. See attached.

## **Electronic Filing of Campaign Finance and Lobbying Reports Under RCW 42.17A**

These payroll deduction forms are submitted to the employer or other person or entity responsible for the withholding.

In a different context, before filing forms with the PDC electronically, a filer must complete and mail to the PDC a written signature authorization document. The original signature is maintained on file at the PDC. The PDC does not accept electronic copies of original signatures, to start the electronic filing process. WAC 390-19-020(2).

## **Electronic Signature Laws**

**Washington Electronic Authentication Act (WEAA).** In 1999, Washington enacted the Electronic Authentication Act "to facilitate commerce by means of reliable electronic messages." Chapter 19.34 RCW. This is a statute referenced in the attached letter. The WEAA is designed to enhance economic development and trade through the use of digital signatures in electronic commerce. The Secretary of State adopted rules at WAC 434-180.

**Electronic & digital signatures.** Under the WEAA, "**electronic signature**" means a signature in electronic form attached to or logically associated with an electronic record, including but not limited to a digital signature. RCW 19.34.020(14). "**Digital signature**" means a unique, encrypted code created with a software program that also protects against alteration of the signature. RCW 19.34.020(11). The WEAA provides a certification process for a stable and secure framework for certification authorities and other businesses who participate in secure electronic commerce. See also RCW 43.19.794 (the Department of Enterprise Services may become a certification authority for official public business).

**Status of WEAA.** The WEAA is still "on the books." However, its status appears somewhat uncertain, given a federal law enacted in 2000 called the Electronic Signatures in Global and National Commerce Act (ESIGN). 15 U.S.C. § 7001 *et seq.* According to a recent Washington State legislative bill report, ESIGN preempts some provisions in a model law adopted by 47 other states (the Uniform Electronic Transactions Act or UETA), and non-conforming provisions in other state electronic records laws. *Senate Bill Report*, Senate Bill 6069 (2012). SB 6069, introduced last session, would have repealed the WEAA and essentially substituted the UETA in Washington. The bill did not pass.

## **Other Electronic Signature Procedures by Courts and FEC**

**Courts.** Digital and electronic signatures are used in a variety of settings beyond commerce. For example, under Washington General Court Rule 30, documents may be filed electronically with the state's courts. The comment states that, "The form of 'digital signature' that is acceptable is not limited to the procedure defined in chapter 19.34 RCW, but may include other equivalently reliable forms of authentication as adopted by local court rule or general." The WEAA authorizes the courts to adopt their own procedures for digital signatures. RCW 19.34.321.

**FEC.** The FEC has approved the use of electronic signatures authorizing payroll deductions for contributions to federal political committees, when certain conditions are

met. The FEC does not require the process to conform to the federal E-SIGN, although the approaches it approved were similar to that act and the result was “technologically neutral.” Advisory Opinion (AO) 2001-04.

For example, in **AO 1999-03**, the FEC determined that Microsoft Corporate PAC may accept digital electronic signatures from the corporation’s employees who authorize payroll deduction of contributions to its PAC. The FEC determined an electronic signature constitutes a valid written authorization for the deductions as required by federal law. The FEC considered:

- **Security.** Microsoft used electronic signatures for other company-wide purposes and attested that the practice was secure.
- **Confirmation.** Microsoft proposed a confirmation process: when the PAC received an electronically signed payroll deduction form by e-mail, it would send an e-mail reply to notify the employee of the receipt of the form and request a second confirmation of the employee’s choice to participate in the payroll deduction program.
- **Records retention.** The Microsoft proposal satisfied the FEC recordkeeping requirements to retain authorization forms for three years.

The FEC stated that in the past, it had interpreted its regulations in such a way as to accommodate technological innovations where the use of technology does not compromise the intent of the federal campaign disclosure law. It concluded that electronic signatures would be authorized for Microsoft PAC provided that the following conditions were met:

1. An employee must be able to use the electronic signature or a written signature to revoke or modify the amount of the authorization at any time, and,
2. A record of the electronic signature, including a verification that the signature came from a particular employee, must be maintained in a retrievable form available to the FEC in the event of an audit or investigation.

In **AO 2001-04**, the FEC applied the Microsoft PAC opinion to the Morgan Stanley Dean Witter & Co. PAC. The difference between the Microsoft proposal and the Morgan Stanley proposal was that Morgan Stanley used a different form of electronic signature to activate the payroll deduction form. Microsoft used a digital signature; Morgan Stanley used a “click through” process. However, the FEC determined the distinction was not significant. It appears both systems satisfied the need for an **individualized signature** that was **secure**, a **confirmation** process, and met records **retention** requirements.

Enclosures: November 30, 2012 Letter  
RCW 42.17A.495  
WAC 390-17-100  
WAC 390-17-110  
Frequently Asked Questions About Digital Signatures (Secretary of State)

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November 30, 2012

Public Disclosure Commission  
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Re: Response to Request for Comments Regarding Campaign Activities  
on the Internet and Campaign Fundraising by Text Message  
Our File No. 2800-046

Dear Commissioners:

We write to you on behalf of the Service Employees International Union and the Washington State Labor Council (collectively, "labor organizations"). We will address both the questions posed in Lori Anderson's notice of the December 4 meeting and the need to adjust certain rules regarding labor organization fundraising in light of your proposed changes facilitating fundraising by text message.

Response to Stakeholder Questions

1.a Labor organizations typically use websites to communicate primarily to members. It is typically self-evident that the website is sponsored by the labor organization. Political committees sponsored by labor organizations typically do not maintain websites.

1.a.i Adding a "paid for by" would be superfluous in the case of labor organization websites, as the sponsor is evident and persons viewing the website are typically members of the labor organization.

1.a.ii The cost of political communications by or from a political committee is typically a very small percentage of the total cost of the labor organization's website. We do not have a figure for that very small portion, and do not believe the overall cost of the labor organization website is useful in the analysis.

2.a It does not seem unreasonable to adopt either the 200 or the 500 item threshold, as either of the proposed thresholds is well below the number of identical emails or text messages that would typically be generated by a political committee or candidate using electronic communication to reach potential voters or even potential donors.

2.b It is our impression that Washington state campaigns commonly send "blast" electronic communications of the type you describe.

2.c It is our impression that at least campaigns for statewide office typically assign paid staff to maintain an ongoing series of "blast" electronic communications to supporters and potential supporters.

3.a No, we are not aware of campaigns fundraising by text messaging in Washington.

3.b We are not in a position to assess the general level of interest in developing a regulatory system to permit fundraising by text messaging. We envision that such a regulatory system would be of limited utility to labor organizations and political committees sponsored by labor organizations.

3.c We do not have specific questions about fundraising by text messaging.



Need for Clarification of Regulations Regarding  
Contribution Withholding Authorizations

Labor organizations appreciate the need to adjust campaign finance statutes and regulations to adapt to changing technology. As the PDC is aware, fundraising via internet communications and websites is well-established. The proposals regarding fundraising by text messaging are a logical next step to that evolution.

In that spirit, labor organizations believe it is appropriate that the PDC clarify the regulations regarding contribution withholding authorizations. Contribution withholding authorizations are, by far, the primary means by which members contribute to union-sponsored political committees. RCW 42.17A.495 requires that a member authorization be "upon the written request of the employee" and "on a form prescribed by the commission." WAC 390-17-100 provides such a form, and requires that the form include the "signature" of the employee. As of this date, the Commission has not clarified that the "signature" required by the WAC may be in electronic form.

To permit employees to authorize political contribution withholding by electronic signature is consistent with the purposes of RCW 19.34.010, which include "facilitating commerce by means of reliable electronic messages." The statute defines "electronic signature" as a signature "in electronic form attached to or logically associated with an electronic record."

Labor organizations believe that the purpose of both RCW 42.17A.495 and RCW 19.34.010 would be served by PDC guidelines that permit employees to electronically authorize contribution withholding deductions. Labor organizations anticipate that such guidelines would require that the labor organization obtain and retain proof that the employee authorizing the deduction both (1) received and read the admonitions included in WAC 390-17-100, and (2) provided the information required on the form by that regulation.

In light of the general rule that electronic signatures are to be accepted in Washington, it is arguable that it is currently permissible for labor organizations to obtain these authorizations electronically. However, to avoid any confusion – and to assure that labor organizations are not

uniquely disadvantaged as the Commission modifies its guidelines to reflect changing technology – labor organizations request that the Commission explicitly permit electronic authorizations.

It is useful to note, in this context, that at the federal level, the Federal Election Commission (“FEC”) has repeatedly stated its acceptance of electronic authorization as an acceptable method by which contributors may indicate their affirmative authorization of a payroll deduction.

Similarly to the law in Washington, when a payroll deduction or other check-off process is used for a contribution related to a federal PAC, there must be an affirmative authorization by the contributor in order for the deduction to be lawful. *Federal Election Commission v. National Education Association*, 457 F. Supp. 1102 (D.D.C. 1978). The specific and voluntary donative intent of the solicited employee needs to be manifested in a written authorization by him or her prior to the actual deduction of any contributions. See FEC Advisory Opinion 1997-25.

The FEC has repeatedly held that this written authorization requirement may be satisfied via electronic means. See, e.g., FEC Advisory Opinion 1999-03, Microsoft PAC, which concluded that an eligible Microsoft employee may use her electronic signature to authorize payroll deduction for her contributions to Microsoft PAC, so long as (1) she is able to use her electronic signature or a written signature to revoke or modify the amount of her authorization at any time, and (2) a record of the submission of the authorizing signature, including verification that the signature came from the particular employee, is maintained. “Verification” could be obtained, in this context, by a confirmatory process through which the PAC, upon receiving an electronically approved payroll deduction form by e-mail, will send an e-mail reply to notify the employee of its receipt of the form and to request final confirmation of the employee’s intention to participate in the payroll deduction program.

In approving the use of the electronic signature in that Advisory Opinion, the Commission noted that its advisory opinions have previously interpreted Commission regulations “to be consistent with contemporary technological innovations, including the maintenance of records in non-paper form and the performance of committee transactions, where the use of the technology would not compromise the intent of the Act or regulations.”

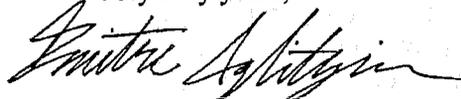
See also FEC Advisory Opinion 2000-22, Air Transportation Association (permitting the use of electronic signatures as a method of granting prior approval for solicitations for SSFs) and FEC Advisory Opinion 2001-04, MSDW PAC (same, noting with approval the use of an “affirmation statement” which requires users to review disclaimers prior to authorizing a deduction, and accepting the typing in of the full name of the employee and his/her Social Security number as constituting an acceptable “electronic signature”).

Labor organizations do not request that contribution withholding authorizations be permitted via text messaging, as the technology is not sufficiently robust to permit labor organizations to provide the disclaimers required or to obtain the information contemplated in WAC 390-17-100.

Public Disclosure Commission  
November 30, 2012  
Page 4 of 4

We look forward to the opportunity to discuss this issue with you at greater length in connection with the December 4, 2012 meeting.

Very truly yours,



James D. Oswald  
Dmitri Iglitzin

*Schwerin Campbell Barnard Iglitzin & Lavitt, LLP*

## RCW 42.17A.495

## Limitations on employers or labor organizations.

(1) No employer or labor organization may increase the salary of an officer or employee, or compensate an officer, employee, or other person or entity, with the intention that the increase in salary, or the compensation, or a part of it, be contributed or spent to support or oppose a candidate, state official against whom recall charges have been filed, political party, or political committee.

(2) No employer or labor organization may discriminate against an officer or employee in the terms or conditions of employment for (a) the failure to contribute to, (b) the failure in any way to support or oppose, or (c) in any way supporting or opposing a candidate, ballot proposition, political party, or political committee. At least annually, an employee from whom wages or salary are withheld under subsection (3) of this section shall be notified of the provisions of this subsection.

 (3) No employer or other person or entity responsible for the disbursement of funds in payment of wages or salaries may withhold or divert a portion of an employee's wages or salaries for contributions to political committees or for use as political contributions except upon the written request of the employee. The request must be made on a form prescribed by the commission informing the employee of the prohibition against employer and labor organization discrimination described in subsection (2) of this section. The employee may revoke the request at any time. At least annually, the employee shall be notified about the right to revoke the request.

 (4) Each person or entity who withholds contributions under subsection (3) of this section shall maintain open for public inspection for a period of no less than three years, during normal business hours, documents and books of accounts that shall include a copy of each employee's request, the amounts and dates funds were actually withheld, and the amounts and dates funds were transferred to a political committee. Copies of such information shall be delivered to the commission upon request.

[2010 c 204 § 613; 2002 c 156 § 1; 1993 c 2 § 8 (Initiative Measure No. 134, approved November 3, 1992). Formerly RCW 42.17.680.]

## Notes:

**Effective date -- 2002 c 156:** "This act takes effect July 1, 2002." [2002 c 156 § 2.]

WAC 390-17-100  
Contribution withholding authorizations.

(1) Each employer or other person who withholds or otherwise diverts a portion of wages or salary of a Washington resident or a nonresident whose primary place of work is in the state of Washington.

(a) For the purpose of making one or more contributions to any political committee required to report pursuant to RCW 42.17A.205, 42.17A.215, 42.17A.225, 42.17A.235 or 42.17A.240; or



(b) For use, specifically designated by the contributing employee, for political contributions to candidates for state or local office is required for (a) and (b) of this subsection to have on file the written authorization of the individual subject to the payroll withholding or diversion of wages.

(2) Forms used for payroll deduction may either conform to the suggested format below or in a different format if it provides the following information:

(a) The name of the individual authorizing the withholding or diversion;

(b) The name of the individual's employer;

(c) The name of each political committee for which contributions are to be withheld;

(d) If more than one political committee is specified, the total dollar amount per pay period (or per week, month or year) to be withheld for each committee;

(e) A statement specifying that the authorization may be revoked at any time and such revocation shall be in writing;

(f) A statement that reads: "No employer or labor organization may discriminate against an officer or employee in the terms or conditions of employment for (i) the failure to contribute to, (ii) the failure in any way to support or oppose, or (iii) in any way supporting or opposing a candidate, ballot proposition, political party, or political committee"; or a statement that informs the employee of the prohibition against employer and labor organization discrimination described in RCW 42.17A.495;



(g) The individual's signature; and

(h) The date on which the form was completed.

(3) Forms used for payroll deduction may have information in addition to that listed above.

**Political Contribution Withholding Authorization**

**No employer or other person may withhold a portion of a Washington State resident's earnings (or that of a nonresident whose primary place of work is in Washington) in order to make contributions to a political committee that must report to the Public Disclosure Commission or to a candidate for state or local office without written permission from that individual. Completion of this form entitles the entity specified to make such a withholding. This authorization form remains in effect until revoked in writing by the employee.**

I, \_\_\_\_\_, authorize  

First Name	Middle Initial	Last Name	Name of Employer or Other Person
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\_\_\_\_\_ to withhold \$ \_\_\_\_\_ per/pay period/week/month/year/  
Amount Circle One

from my earnings in order to make political contributions to

\_\_\_\_\_  
Name of

\_\_\_\_\_  
political committee(s) and/or candidate(s) to receive deductions

If more than one recipient is indicated, each is to receive the following portion of the

deduction  
made:

\_\_\_\_\_



**Signature:**

\_\_\_\_\_

**Date:**

\_\_\_\_\_

*According to state law, no employer or labor organization may discriminate against an officer or employee in the terms or conditions of employment for (a) the failure to contribute to, (b) the failure in any way to support or oppose, or (c) in any way supporting or opposing a candidate, ballot proposition, political party, or political committee.*

[Statutory Authority: RCW 42.17A.110. 12-03-002, § 390-17-100, filed 1/4/12, effective 2/4/12. Statutory Authority: RCW 42.17.370. 03-08-052, § 390-17-100, filed 3/28/03, effective 4/28/03; 93-16-064, § 390-17-100, filed 7/30/93, effective 8/30/93.]

## WAC 390-17-110

## Employee notification of withholding provisions.

(1)(a) By June 30, 2003, and at least annually by June 30 thereafter, employees from whom funds are being withheld for contributions to a candidate or political committee under RCW 42.17A.495 shall be notified, in writing, of the nondiscriminatory provisions of RCW 42.17A.495(2). Employee notification shall include the following language:

"No employer or labor organization may discriminate against an officer or employee in the terms or conditions of employment for:

- (i) The failure to contribute to;
- (ii) The failure in any way to support or oppose; or
- (iii) In any way supporting or opposing a candidate, ballot proposition, political party, or political committee."

(b) The written notification shall be provided by the employer or labor organization. The employer or labor organization may agree on which entity shall send the notification.

(2)(a) Pursuant to RCW 42.17A.495(3), by June 30, 2003, and at least annually by June 30 thereafter, each employer or other person or entity responsible for the disbursement of funds in payment of wages or salaries shall ensure written notification is directly provided to the employees from whom funds are being withheld for contributions to a candidate or political committee stating that the employee authorization for withholding of wages or salary for such contributions may be revoked at any time. The employer or other person or entity responsible for the disbursement of funds in payment of wages or salaries and the candidate, political committee, or sponsor of the political committee may agree on which of them shall send the notification.

(b) The written notification shall identify where an employee can submit the revocation, which shall be either:

- (i) The name and address of employer's contact; or
  - (ii) The name and address of the person or entity responsible for the disbursement of funds in payment of wages or salaries.
- (c) The employee withholding authorization is revoked as of:

- (i) The date specified in the revocation; or
- (ii) If no date is specified, as of the date the written notification is received by the employer or other person or entity responsible for the disbursement of funds in payment of wages or salaries pursuant to RCW 42.17A.495.

(3) "Written notification" means notice provided by mail, e-mail, newsletter, payroll insert or other similar direct communication in writing that is addressed to the employee. Posting information on web sites, bulletin boards and other passive communication vehicles shall not constitute notification under RCW 42.17A.495. If the written notification appears in a newsletter or similar publication, the notice shall be prominently displayed or announced on the first page of the written communication.

(4) Each employer or other person who provides notice pursuant to subsection (1) or (2) of this section shall maintain a copy of the annual notification and a listing of employees notified for a period of no less than five years.

[Statutory Authority: RCW 42.17A.110. 12-03-002, § 390-17-110, filed 1/4/12, effective 2/4/12. Statutory Authority: RCW 42.17.370. 03-08-050, § 390-17-110, filed 3/28/03, effective 4/28/03.]

# Frequently Asked Questions about Digital Signatures

## Overview

[Digital Signatures and the Electronic Authentication Act](#)

[Frequently Asked Questions about Digital Signatures](#)

[Glossary of Digital Signature Terms](#)

## What is a digital signature?

A digital signature is a convenient, time-saving, and secure way of signing electronic documents.

## What does a digital signature look like?

-----BEGIN SIGNATURE-----

```
IQB1AwUBMVSIA5QYCuMfgNYjAQFAKgL/ZkBfbeNEsbthba4BlrcnjqabcKgNv+
a5kr4537y8RCd+RHm75yYh5xxA10jELwNhhb7cltrp2V7LlOnAelws4S87UX8oc
LBtBcN6AACf11qymC2h+Rb2j5SU+rmXWru+=QFMx
```

-----END SIGNATURE-----

## What is an electronic document?

An electronic document is any document that is generated or stored on a computer, such as a letter, a contract, or a will. In addition, an electronic document can be an image, such as a blueprint, a survey plat, a drawing, or even a photograph. A digital signature can be used to sign these documents.

## Does that mean that the authenticity of any electronic document can be verified by a digital signature?

Yes, but only if the document originally was "signed" using a digital signature program (software).

## This sounds complicated. What is it like to actually sign an electronic document?

It's a simple process and may vary slightly in the software you use, but your digital signature software does all the work. You select the signature option, then select the document, and finally enter your secret authorization code. Everything is accomplished electronically; you do not take a pen in hand and sign a paper.

## Can you actually see the signer's handwritten signature?

No, there is no relationship to the signer's handwritten signature. While there's more to it behind the scenes, the visible portion of the digital signature is the signer's name, title and firm name,

along with the certificate serial number and the certification authority name.

### **How do I get a digital signature certificate?**

When you choose your digital signature software, it may come with an application for the certificate. The application requests information used to verify your identity and protect you against unauthorized use of your signature. You may also obtain a certificate directly from a certificate authority.

### **What is a certificate? What does it mean to "publish" a certificate?**

A certificate is a computer-based record that identifies the subscriber, contains the public key, and is digitally signed by the certification authority. The digital signature certificate must be associated with both a private key and a public key. When you publish the certificate, you identify yourself to the certification authority by providing it with your public key.

### **How am I identified as the signer?**

When you use your digital signature software, you create a matched pair of keys. One is the "private" key, which is typically installed on your computer. The private key is used only by you and is required during the signing process.

The second key is the "public" key. The public key is available for use by anyone wishing to authenticate documents you sign. The public key will "read" the digital signature created by the private key and verify the authenticity of documents created with it. It would be similar to the process of accessing a safety deposit box. Your key must work with the bank's key before opening the box.

### **If my private key is stored on my computer, can't someone sign the documents without my permission by getting access to the computer?**

No. Your private key is encrypted when it is stored on your computer. When you sign an electronic document, you enter a digital signature Authorization Code to decrypt the private key for as long as it takes to sign the document.

If someone learns of your Authorization Code and also has access to the computer holding your private key, the integrity of your private key is compromised. In this case you would revoke your digital signature certificate and obtain another. This would be the same as reporting a stolen or lost credit card.

### **Can a digital signature be forged?**

Not likely. It is protected by several layers of highly complex encryption.

We like to think that a handwritten signature is unique to the signer and to the pieces of paper which hold it. What if someone produces a good likeness of your handwritten signature? Or, what if on a long contract, someone changes the text of the pages previous to the signature page? In these instances, the signature is valid, but the document has been altered.

With digital signatures, forgery is next to impossible – much more difficult than forging a handwritten signature. First, a digital signature is more of a process than just affixing a signature.

For example, when the document is "digitally signed," the digital software scans the document and creates a calculation which represents the document. This calculation becomes part of the "digital signature." When the recipient authenticates the signature, a similar process is carried out. The sender's and the receiver's calculations are then compared. If the results are the same, the signature is valid; if they are different, the signature is not valid.

**What are the responsibilities and the liability of a digital signature certificate subscriber?**

The subscriber is responsible for safeguarding access to the private key.

**What are the practical uses of a digital signature?**

It is a secure form of transacting. Contracts, images, letters, etc, may be digitally signed and sent electronically in seconds. Everyone has equal opportunities to transact business with the private or public sectors, no matter the distance.

You can find this information at: [http://www.sos.wa.gov/ea/overview\\_faq.aspx?](http://www.sos.wa.gov/ea/overview_faq.aspx?)

# Digital Signatures and the Electronic Authentication Act

## Overview

Digital Signatures and the Electronic Authentication Act

[Frequently Asked Questions about Digital Signatures](#)

[Glossary of Digital Signature Terms](#)

In 1997, the State of Washington enacted the Electronic Authentication Act "to facilitate commerce by means of reliable electronic messages." This landmark act, one of the first of its kind in the United States, is designed to enhance economic development and trade through the use of digital signatures in electronic commerce.

The following overview was prepared by the Office of the Secretary of State, which developed the EAA and administers the EAA's stringent certification and operating standards.

## What are digital signatures?

Written signatures indicate an individual's agreement to a document based on the assumption (sometimes verified by a notary public) that the signature is unique and authentic. Digital signatures do the same online, using various technologies that allow the receiver of the document to be certain of the identity of the person submitting the document.

Digital signatures are based on applied mathematics and the use of cryptographic algorithms. To create a digital signature the signer uses two "keys." These "keys" are extremely large numbers that have been uniquely assigned to the signer and are called the "private key" and the "public key." The signer uses the private key to sign an electronic document, and another person can then use the public key to verify that the signature is authentic. This verification process also establishes that the document was not altered as it was transmitted over the Internet.

## How are digital signatures verified?

An important element in this process is an intermediary called a "certification authority." It is the certification authority's job to establish the link between the signer and the keys used to create the digital signature. In essence, the certification authority reviews the signer's identification documents, such as a driver's license or passport, and then certifies that the person who is using the keys is actually the person they claim to be. Anyone who wishes to verify a digital signature may then rely on the certification authority's identification of the person instead of having to personally review the signer's identification documents. In this way, digital signatures work much in the same way as signature cards kept on file by banks which are taken out when needed to verify authenticity.

The digital signature is often invisibly attached to a submitted document in the form of an encrypted "certificate." This "certificate" would look like a scrambled series of letters and numbers if it were printed out. The person receiving the certificate would have software that could automatically decrypt the certificate and authenticate the signer's identity using the signer's public key. In this way digital signature technology adds little or no additional inconvenience to the transaction or communication.

### **What are the uses of digital signatures?**

Digital signature certificates issued by certification authorities are already important security elements of Netscape and Microsoft Internet browsers. In this capacity they are often used to identify the persons who are viewing Internet sites, and provide enhanced password protection allowing individuals access to otherwise restricted information.

Using digital signatures, individuals will be able to leverage the power of the personal computer and the Internet to avoid much of the drudgery of paperwork. It will also allow companies to save significant portions of the money they are currently spending filing and storing forms they must now deal with on paper. Similarly, it will result in a substantial cost savings for government agencies which may use those paper forms.

Perhaps most importantly, because of the high reliability of digital signatures courts can affirmatively recognize duties and obligations which are entered into online. This means that contracts or other transactions which may be entered into over the Internet can be upheld in court if there is a breach of the agreement. In this way, businesses can make significant purchases or sales online with confidence, and without the need for expensive travel or delay waiting to close an agreement.

### **Why should governments get involved in digital signature legislation?**

The most significant benefit of digital signature legislation is that it provides a stable framework for certification authorities and other businesses to participate in secure electronic commerce. It does this by providing assurances to the certification authority that if certain steps are taken the state will recognize the reliability of their services, and grant them protection from certain types of potential legal liability.

The steps that certification authorities are required to take include using computer systems that are trustworthy and secure, providing consumers with adequate knowledge of the certification authority's practices and procedures, and making sure that the systems are being operated by trustworthy and competent individuals. The failure of a certification authority to take these steps could result not only in harm to individuals and businesses, but could also erode public confidence in electronic commerce.

These potential benefits of electronic commerce are substantial. They include increased rural economic development as well as expanded opportunities for international trade. Businesses, both large and small, will find openings to new markets, and consumers will benefit from the added

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