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# Authentication on *GPO* Access: A Closer Look

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## GPO Authentication Initiative

- GPO is engaged in a major authentication initiative designed to assure users that the information made available by GPO is official and authentic and that trust relationships exist between all participants in electronic transactions.
- This initiative, which employs Public Key Infrastructure (PKI) technology, will allow users to determine that the files are unchanged since GPO authenticated them.



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AUTHENTICATED  
U.S. GOVERNMENT  
INFORMATION

GPO



The Seal of Authenticity enables the viewer to verify the authentic nature of a particular document, ensuring that the content has remained unchanged since GPO first authenticated it.



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## How It Works

- GPO uses a digital certificate to apply digital signatures to PDF documents.
- The digital certificate is issued by a Certificate Authority (CA) upon receiving proof of identity.
- A certification path between the certificate and the CA must be established to validate the signature.



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# Validating a Certification Path

## Driver's license certification path

- State of Iowa
  - Iowa Department of Transportation
    - John Doe

## Digital certificate certification path

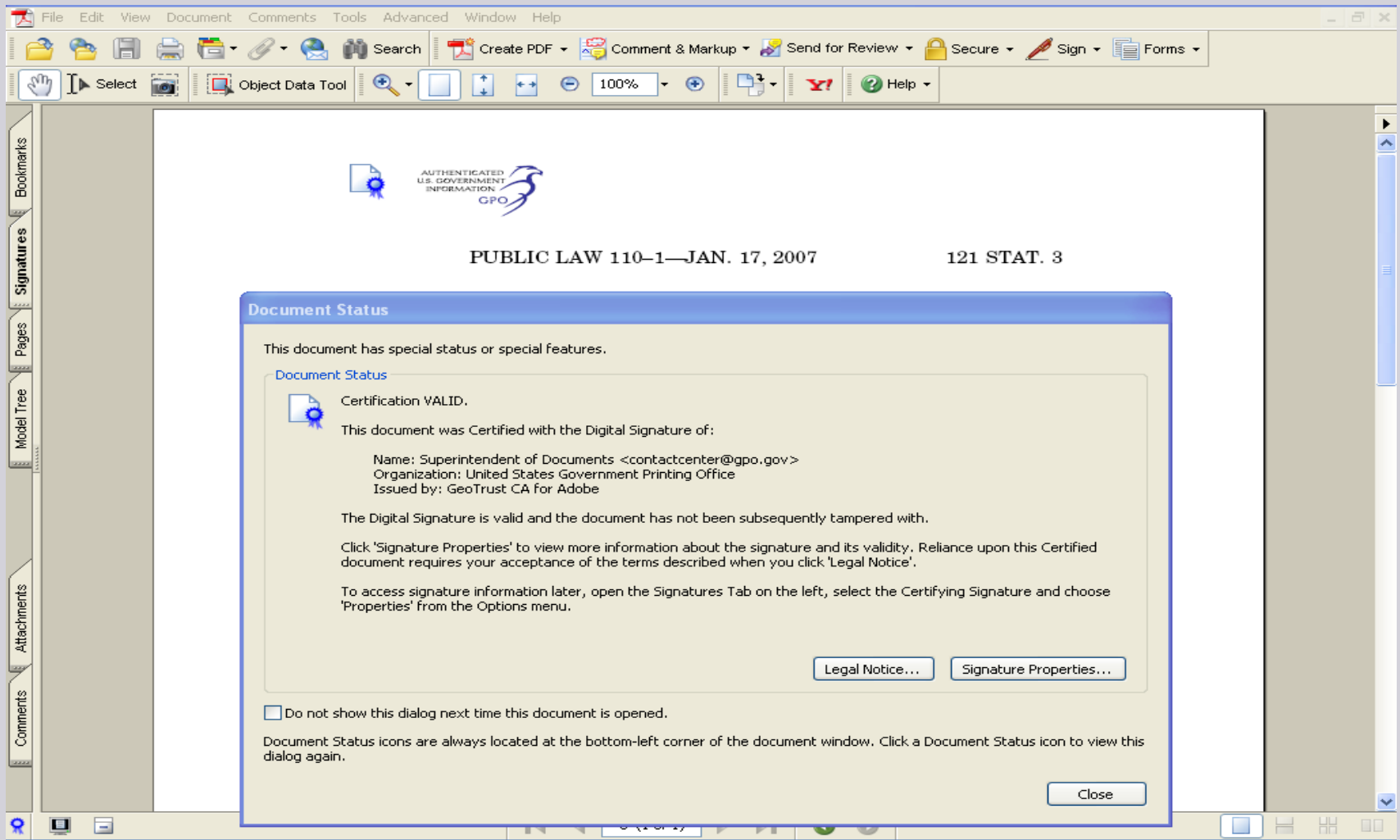
- Adobe Root CA
  - GeoTrust CA
    - Superintendent of Documents



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# Adobe Acrobat or Reader 7.0 Validation Process





When you open a digitally signed file in Adobe Acrobat or Reader 7.0, you will see this dialog box. The “blue ribbon” lets you know that the document has not been modified since it was certified and the digital signature is valid. Click on “**Signature Properties....**”

## Signature Properties



Document Certification is valid, signed by Superintendent of Documents <contactcenter@gpo.gov>.

Summary

Document

Signer

Date/Time

Legal

Signed by: Superintendent of Documents <contactcenter@gpo.gov>




Show Certificate...

Reason: GPO attests that this document has not been altered since it was disseminated by GPO.

Date: 2007/05/10 18:34:25 -04'00'

Location: U.S. Government Printing Office

### Validity Summary

-  The document has not been modified since it was certified.
-  The Signer's Identity is valid.
-  Signature is timestamped.

Signature was created using Adobe Acrobat 7.0.9.

Verify Signature

Close

Click on “**Show Certificate.**”



## Certificate Viewer

This dialog allows you to view the details of a Certificate and its entire issuance chain. The details shown correspond to the selected entry.

Show all certification paths found

Adobe Root CA  
GeoTrust CA for Adobe  
Superintendent of Documents

General Details Revocation Trust Policies Legal Notice



Superintendent of Documents  
United States Government Printing Office

Issued by: GeoTrust CA for Adobe  
GeoTrust Inc.

Valid from: 2007/05/09 16:53:52 -04'00'

Valid to: 2008/05/22 16:53:52 -04'00'

Intended usage: Sign transaction, Sign document, Encrypt keys,  
Acrobat Authentic Documents

Export...



The selected certificate path is valid.

The path validation checks were done at 2007/05/10 18:13:38 -04'00'

OK


Click on “OK,” and close all dialog boxes.

File Edit View Document Comments Tools Advanced Window Help

Create PDF Comment & Markup Send for Review Secure Sign Forms

Select Object Data Tool 100% Help

Bookmarks Signatures Pages Model Tree Attachments Comments



PUBLIC LAW 110-1—JAN. 17, 2007 121 STAT. 3

Public Law 110-1  
110th Congress

An Act

To redesignate the White Rocks National Recreation Area in the State of Vermont as the “Robert T. Stafford White Rocks National Recreation Area”. Jan. 17, 2007  
[S. 159]

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

**SECTION 1. ROBERT T. STAFFORD WHITE ROCKS NATIONAL RECREATION AREA.** 16 USC 460nn-1 note.

(a) REDESIGNATION.—The White Rocks National Recreation Area in the State of Vermont, as established by section 202 of the Vermont Wilderness Act of 1984 (16 U.S.C. 460nn-1), is redesignated as the “Robert T. Stafford White Rocks National Recreation Area”.

(b) REFERENCES.—Any reference in a law, map, regulation, document, paper, or other record of the United States to the recreation area referred to in subsection (a) shall be deemed to be a reference to the Robert T. Stafford White Rocks National Recreation Area. 16 USC 460nn, 460nn-1, 460nn-3.

Approved January 17, 2007.

3 (1 of 1)




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# Adobe Acrobat or Reader 8.0 Validation Process

File Edit View Document Tools Window Help

3 (1 of 1) 102% Find

This document was certified by Superintendent of Documents <contactcenter@gpo.gov>, United States Government Printing Office with a valid signature and has restrictions. Signature Properties

 AUTHENTICATED U.S. GOVERNMENT INFORMATION GPO

PUBLIC LAW 110-1—JAN. 17, 2007 121 STAT. 3

Public Law 110-1  
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When you open a digitally signed file in Adobe Acrobat or Reader 8.0, you will see this pink box at the top of the page. The “blue ribbon” lets you know that the document has not been modified since it was certified and the digital signature is valid. The next slide shows other Adobe validation icons.



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# Adobe Validation Icons



The Blue Ribbon icon indicates that the certification is valid.



The Question Mark icon indicates that the signature could not be verified.



The Certification Question Mark icon means that the document was certified, but the validity is unknown.



The Warning Sign icon indicates that the document was modified after the signature was added.



The Check Mark icon indicates that the signature is valid.



The Red "X" icon indicates that the certification is not valid.



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# Beta Testing on GPO Access

- In May 2007 GPO launched a beta 110<sup>th</sup> Congress Authenticated Public & Private Laws application

The screenshot shows a Microsoft Internet Explorer browser window displaying the GPO Access website. The address bar shows the URL: <http://fdlpdev.gpo.gov/plaws/index.html>. The page features a navigation menu with options like 'LEGISLATIVE', 'EXECUTIVE', and 'JUDICIAL'. The main content area is titled 'Authenticated Public and Private Laws: Main Page --Beta Release--'. It includes a section for 'DATABASE FEATURES' with links to 'Main Page', 'Browse', and 'About/Help'. There is also a 'PROVIDE FEEDBACK' button. The page mentions that the application provides authenticated Adobe Portable Document Format (PDF) files for the 110th Congress only. A 'Quick Search' form is visible at the bottom, with a search box containing the text '(ex: "public law 110-3", "42usc4001")' and a 'Submit' button.



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# Beta 110<sup>th</sup> Congress Authenticated Public & Private Laws Application

- Beta application included unsigned text files and digitally signed PDF files of Public and Private Laws passed during the 110<sup>th</sup> Congress.
- WAIS application with the same look and feel as the previously existing Public & Private Laws application.
- Existing Public and Private Laws application, containing text files and unsigned PDF files of Public and Private Laws from the 104<sup>th</sup> through the 110<sup>th</sup> Congresses, remained in full production & available on *GPO Access*.
- This approach allowed for testing of technology and analysis of user feedback before full release. There was a link from the application web page to a survey to collect feedback.





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## Automated PDF Signing (APS) System Deployment

- GPO deployed an Automated PDF Signing (APS) system in January 2008.
- APS allows GPO to automate the digital signing of PDF files so that PDF files can be efficiently signed and posted to *GPO Access*.
- The first application of the system was to digitally sign the PDF files for the FY2009 E-Budget on *GPO Access*, released in February 2008.



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## Authentication of the E-Budget



The U.S. Government Printing Office (GPO) made history in the distribution of the Budget of the U.S. Government on February 4th, 2008. President George W. Bush released the first ever Electronic Budget (E-Budget) and GPO authenticated the E-Budget by digital signature on *GPO Access*.



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## Budget Web Page on GPO Access

**Budget of the United States Government: Main Page - Microsoft Internet Explorer provided by U.S. GPO**

Address: <http://www.gpoaccess.gov/usbudget/index.html>

**GPO Access** Resources by Topic  Site Search:  [advanced](#)

**LEGISLATIVE EXECUTIVE JUDICIAL** [HELP](#) [ABOUT](#)

[A-Z RESOURCE LIST](#) [FIND A FEDERAL DEPOSITORY LIBRARY](#) [BUY PUBLICATIONS](#)

[Home Page](#) > [Executive Branch](#) > Budget of the United States Government

### Budget of the United States Government: Main Page

FISCAL YEAR 2009

AUTHENTICATED U.S. GOVERNMENT INFORMATION **BUDGET** OF THE U.S. GOVERNMENT

Issued by the Office of Management and Budget (OMB), the Budget of the United States Government is a collection of documents that contains the budget message of the President, information about the President's budget proposals for a given fiscal year, and other budgetary publications that have been issued throughout the fiscal year. Other related and supporting budget publications, such as the Economic Report of the President, are included, which may vary from year to year. [More on the Budget.](#)

**For the first time, Fiscal Year 2009 Budget on GPO Access has been digitally signed and certified.** GPO and OMB have collaborated on the transmission of the electronic files. GPO has signed and certified the PDF files to assure users that the online documents are official and authentic. [More on GPO's Authentication Initiative.](#)

The digitally signed PDF files should be viewed using Adobe Acrobat or Reader version 7.0 or 8.0. Download the most recent version of [Adobe Acrobat Reader.](#)

**Fiscal Year 2009 Budget (FY09)**  
Transmitted to Congress on February 4, 2008. Covers the fiscal year beginning October 1, 2008.

**DATABASE FEATURES**

- Budget Main Page
- [Simple Search](#)
- [Advanced Search](#)
- [Browse](#)
- [Search Tips](#)
- [About the Budget](#)

**RELATED RESOURCES**

- [Authentication](#)
- [Economic Indicators](#)
- [Economic Report of the President](#)

**ABOUT GOVERNMENT**

- [Ben's Guide to U.S. Government](#)



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## Continued APS System Deployment

- GPO's second use of the APS system was to integrate it into the workflow for the beta release of Authenticated Public and Private Laws for the 110<sup>th</sup> Congress on *GPO Access*.
- After successful integration of the APS into the beta application, the database containing the digitally signed PDF files was integrated into the live Public and Private Laws application.



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## Public and Private Laws Web Page on GPO Access

The screenshot shows a Microsoft Internet Explorer browser window displaying the GPO Access website. The address bar shows the URL <http://www.gpoaccess.gov/plaws/index.html>. The page features a navigation menu with tabs for LEGISLATIVE, EXECUTIVE, and JUDICIAL. The main content area is titled "Public and Private Laws: Main Page" and includes a search bar, a "Resources by Topic" dropdown, and a "Site Search" field. The page text describes the database of public and private laws, mentioning that they are prepared and published by the Office of the Federal Register (OFR), National Archives and Records Administration (NARA), and GPO Access. It also notes that the database is updated when a slip law is authorized by OFR. The page includes sections for "Current Congress Only, 110th Congress (2007-08)" and "Previous Congresses -- 104th (1995-96) through 110th (2007-08) Congress". There are also sections for "Related Documents" and "Other Services".

**Public and Private Laws: Main Page**

Public and private laws are prepared and published by the Office of the Federal Register (OFR), National Archives and Records Administration (NARA), GPO Access contains the text of public and private laws enacted from the 104th Congress to the present. The database for the current session of Congress is updated when the publication of a slip law is authorized by OFR. Documents are available as ASCII text and Adobe Portable Document Format (PDF) files. [More on Public and Private Laws](#).

**Beginning with the 110th Congress, the Public and Private Laws on GPO Access have been digitally signed and certified.** GPO has signed and certified the PDF files to assure users that the online documents are official and authentic. [More on GPO's Authentication Initiative](#).

The digitally signed PDF files should be viewed using Adobe Acrobat or Reader version 7.0 or 8.0. Download the most recent version of [Adobe Acrobat Reader](#).

**Current Congress Only, 110th Congress (2007-08)**

- Quick Search: (ex: "public law 110-1 ", "121 stat 3 ", "16 usc 460nn")   [Search Tips](#)
- [Browse public and private laws for the 110th Congress](#)

**Previous Congresses -- 104th (1995-96) through 110th (2007-08) Congress**

- [Search](#)
- [Browse](#)
- [Search Tips](#)

**Related Documents:**

- [History of Line Item Veto Notices](#) (as published in the *Federal Register*) prior to Supreme Court Opinion No. 97-1374 [TEXT](#) | [PDF](#) (Argued April 27, 1998 -- Decided June 25, 1998)
- [How Our Laws Are Made](#) (Senate Document 105-14) [TEXT](#) (166K) | [PDF](#) (327K)

**Other Services**

- [Sign up](#) to freely receive the a listing of new public and private laws via e-mail.
- Purchase a subscription to public laws from the U.S. Government Online Bookstore.
- [Buy a Copy](#)
- Locate public and private laws in a local [Federal depository library](#)





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## Next steps

- GPO is currently conducting a Beta test with House and Senate staff regarding authentication of the Congressional Bills on *GPO Access*.
- GPO plans to sign from 110<sup>th</sup> Congress / 2007 forward as new applications are authenticated on *GPO Access*.



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# Authentication Web Page on *GPO* Access

- <http://www.gpoaccess.gov/authentication/>
- Links to E-Budget and Public and Private Laws
- Slide presentations describing validation process in Adobe Acrobat and Reader versions 7.0 & 8.0
- General information on authentication, including definitions of many terms.





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## Path Forward

- Launch Digitally Signed Congressional Bills Application
- Authenticate additional applications in coordination with publishing agencies with FDsys.
- Expand digital signature capabilities for various file formats and levels of granularity over time.



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# Comments or Questions?

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