

BEFORE THE  
POSTAL RATE COMMISSION  
WASHINGTON, D.C. 20268-0001

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Docket No. R2000-1

DIRECT TESTIMONY  
OF  
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ON BEHALF OF  
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## 1 I. Introduction

2 My name is Thomas C. Kuhr. I have been a full time employee of  
3 Stamps.com, Inc. for over a year, previously as the Director of Product Management  
4 - Server Technologies, and currently as the Vice President of Technology  
5 Operations. Stamps.com is one of the four vendors that are approved for full  
6 commercial distribution of PC Postage under the Information Based indicium  
7 Program (IBIP). I have been working with the USPS and the IBIP group since the  
8 Beta 2 stage of IBIP testing, and have worked through many iterations of our product  
9 through Beta 3, Final Approval and commercial launch of the Stamps.com Internet  
10 Postage service. I have been directly responsible for designing much of  
11 Stamps.com's Internet Postage software product, concentrating on the functionality  
12 of the Stamps.com Postage Servers - including communications, security, Postal  
13 Service reporting and address verification. I have a background in product  
14 management, program management and product marketing, and have worked for  
15 other software and internet companies designing and documenting feature  
16 requirements and functionality.

17 One of the main functions of my job is to translate program, customer, and  
18 vendor requirements into useable systems. I have also worked with many different  
19 departments within the Postal Service to define and meet the IBIP or meter related  
20 criteria of their respective areas. To this end, I have extensively reviewed,  
21 commented on, and interpreted the specification created for the IBIP Program,  
22 entitled *Performance Criteria for Information-Based Indicia and Security Architecture*

1 *for Open IBI Evidencing Systems (PCIBI-0)*. This document outlines the majority of  
2 the requirements and restrictions to which each vendor must adhere to be considered  
3 for commercial approval under the IBIP program. A copy of this document is  
4 provided as a library reference. (See Stamps.com-LR-1.)

## 5 **II. Purpose of Testimony**

6 The purpose of this testimony is to explain the requirements of the Information  
7 Based Indiciam Program (IBIP) and how Stamps.com Internet Postage software  
8 enables postal customers to print postage. There are many requirements of the IBIP  
9 program and many of them pertain to meeting USPS mailpiece automation  
10 requirements. This testimony describes the process of: registering to use the  
11 Stamps.com Internet Postage software and service; submitting addresses for  
12 verification and correction according to USPS's AMS database; and printing postage  
13 using the software. In essence, the use of Stamps.com software ensures that  
14 USPS's automation standards are met on each mailpiece produced by our  
15 customers.

## 16 **III. The Information Based Indicia Program**

17 The USPS started the Information Based Indiciam Program (IBIP) as early as  
18 1995. The program was formally kicked off in 1996 and the first Beta test  
19 commenced in March 1998. The primary document defining the parameters of the  
20 program is called the *Performance Criteria for Information-Based Indicia and Security*

1 *Architecture for Open IBI Evidencing Systems, (PCIBI-O)*. The program allows postal  
2 customers to use software and/or hardware technologies to print postage directly  
3 from their personal computers onto standard laser or inkjet printers.

4 **A. Stamps.com's Compliance with the IBIP program**

5 Stamps.com first joined the IBIP program in 1996. We were the first company  
6 to attempt the program with a software-only solution. This means that our customers  
7 do not need any special hardware for postage value storage or for printing. Our  
8 customers can use their home PC and standard printer to print postage when they  
9 connect to the Internet.

10 Stamps.com, like all IBIP vendors, was required to go through three beta  
11 phases of product testing before being allowed to release the service commercially.  
12 The first part of the beta test was concerned with general functionality. We tested the  
13 software in the field with 25 beta customers to ensure the software met all basic  
14 functionality. The second test was with 500 beta customers and focused on financial  
15 integrity and accountability. We were audited by the USPS to ensure proper  
16 accounting practices and accountability for postage sold through our system. The  
17 Beta 3 test involved about 1,500 customers and was the final phase of testing. The  
18 USPS did final testing on the software and subjected Stamps.com to a review of the  
19 entire security system.

20 We completed the required Beta Phases on August 9, 1999 -- about 3 years  
21 after our first software release. On this date, the USPS approved the Stamps.com  
22 Internet Postage software for commercial launch, making Stamps.com an official "PC

1 Postage" vendor, the consumer name used for vendors operating under the IBIP  
2 program.

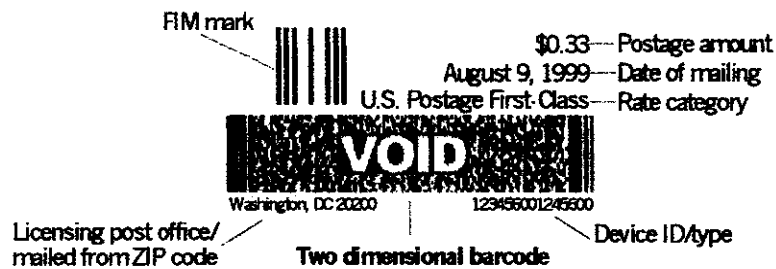
3 Stamps.com released its Internet Postage Software to the public on October  
4 24, 1999. During our first quarter financial results announcement on April 10, 2000,  
5 we reported 187,000 licensed and active customers using our service, and the  
6 number of new customers continues to grow each day.

## 7 **B. IBIP Program Regulations**

8 The IBIP program's PCIBI-O documentation primarily focuses on three  
9 features: security, payment accountability, and mailpiece formatting for automation.  
10 While security is the primary concern, the PCIBI-O also specifically states that all  
11 IBIP mail must be automation-ready. The document describes a new postage mark,  
12 called an 'indicium' (described in Section A of the PCIBI-O), which contains several  
13 pieces of information to ensure the security and uniqueness of the postage mark.  
14 Because all of the human-readable information is encoded into a 2-dimensional  
15 barcode, the indicium can be scanned by the USPS to quickly verify its authenticity,  
16 value, weight, origination point, and destination. Each indicium is unique. This  
17 ensures that any duplicates can be caught as soon as they are scanned, no matter  
18 where they enter the mail stream. Since each indicium indicates its origin, both  
19 location (the Licensing Post Office ZIP code) and owner (the customer's device ID  
20 and meter number), fraudulent activity can be detected and traced more readily and  
21 rapidly than with a traditional postage meter mark. In addition, since the Stamps.com  
22 servers are responsible for generating the indicium, users can be remotely disabled

1 from using the service if fraud is suspected, even if their physical location is  
2 unknown. This is inherently superior to a traditional postal meter, since there is no  
3 way to disable improper use of a traditional meter short of confiscating the meter from  
4 the customer.

5 Section A of the PCIBI-O, and supporting documents such as USPS  
6 Publication 25, *Designing Letter Mail*, describe general mailpiece preparation for the  
7 program. An IBIP indicium is required to meet the placement, printing, and  
8 reflectance standards listed in Section A of the PCIBI-O. In addition, the indicium,  
9 POSTNET barcode, delivery, address, and FIM (when required), must meet the  
10 requirements described in Publication 25, *Designing Letter Mail* for all domestic mail.  
11 All of these standards ensure that IBIP mail can be processed by USPS automated  
12 equipment with little or no manual intervention. The illustration in Figure 1 below  
13 shows the relative placement of an IBIP indicium and FIM, as well as their design.  
14 As part of the IBIP program, the Stamps.com indicium meets all these standards.



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Fig 1. Sample of IBI Indicium.

The indicium replaces a traditional meter imprint or postage stamp and contains mailpiece routing information as well as postage value.



## **IV. Registering with Stamps.com**

Before a customer may use Stamps.com, they must first install our software on their computer and apply for a USPS meter license. When customers install and launch Stamps.com's software, they are guided through a Registration Wizard which captures all the information necessary for their PS-3601-A Meter License Application. The following steps must be taken before a customer is permitted to print postage using our software:

- Apply for a Stamps.com Internet Postage account
- Apply and be approved for a USPS Meter License
- Provide valid payment information to purchase postage
- Pass a Printer Verification test
- Print a Quality Assurance envelope and mail it to Stamps.com
- Have their Quality Assurance envelope pass all checks for compliance

Only customers that the USPS approves through the traditional Meter License Application process may use our software to print postage. The application asks the customer for their mailing address, the physical address at which they will be printing postage, telephone number, and other contact information. Stamps.com does not let a customer complete the license application unless the following checks are passed: (1) the physical address cannot be a P.O. Box; (2) the physical address must have a valid city - state combination; and (3) the mailing address must have a valid ZIP+4 and delivery point.

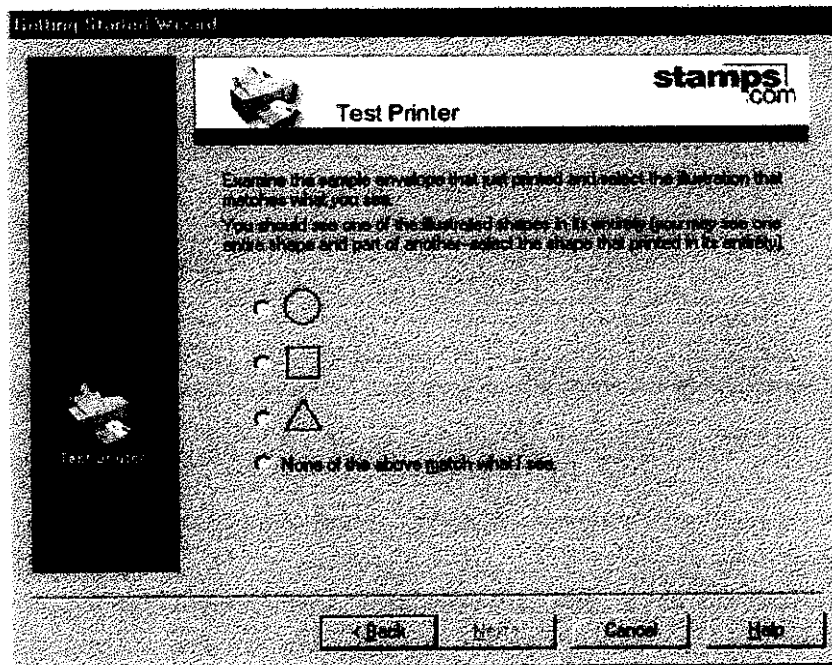
1       The Registration Wizard also has the customer select a Stamps.com service plan  
2 and initiate their first postage purchase, although the purchase is not processed until  
3 after the customer has received their license. The customer can choose between  
4 Visa, MasterCard, Discover Card, American Express, Diners Club, Carte Blanche,  
5 and Direct Account Withdrawal (ACH) for their payment method. Payments for  
6 postage are sent directly to the Postal Service's authorized banking agent.

7           **a)       Registration Wizard - Print Test**

8           After the license and purchase information has been captured, Stamps.com  
9 requires the customer to complete a printer test to verify that they can print envelopes  
10 that meet IBIP specifications. It is important to note that if the customer does not  
11 complete the print test, they will not be able to continue to apply for a meter license.  
12 Before the test begins, Stamps.com's software looks on the customer's machine for  
13 installed printer drivers. It compares the selected printer driver and computer  
14 operating system to a printer driver database on Stamps.com's postage servers.

15           If the customer's printer driver is in the database – and in most cases it is --  
16 the customer skips to the next printer verification step. In the few cases where the  
17 customer's particular printer driver and operating system combination is not found in  
18 our printer database, a Print Alignment Test is required to see how the printer feeds  
19 envelopes. To test printer feed, the customer is asked to load a test envelope and  
20 then verify which shape prints completely (see *Fig. 2* "Printer Configuration Dialog  
21 Box" below). If the customer selects the "None of the above match what I see"  
22 option, they are given another opportunity to print an envelope and verify the shape.

- 1 If they cannot pass this test, they are only allowed to print on labels as it is most likely
- 2 that envelopes do not feed correctly with their printer.



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4 *Fig 2. Printer Configuration Dialog Box*

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7 *This is one of the tests used in the registration process to*  
8 *ensure proper printer configuration and media output while*  
9 *using Stamps.com Internet Postage Software.*

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12 After it has been determined that the customer's printer driver is in our printer

13 database, or after the customer successfully passes the Print Alignment test, the

14 customer is asked to print a test envelope. The customer is asked to feed a standard

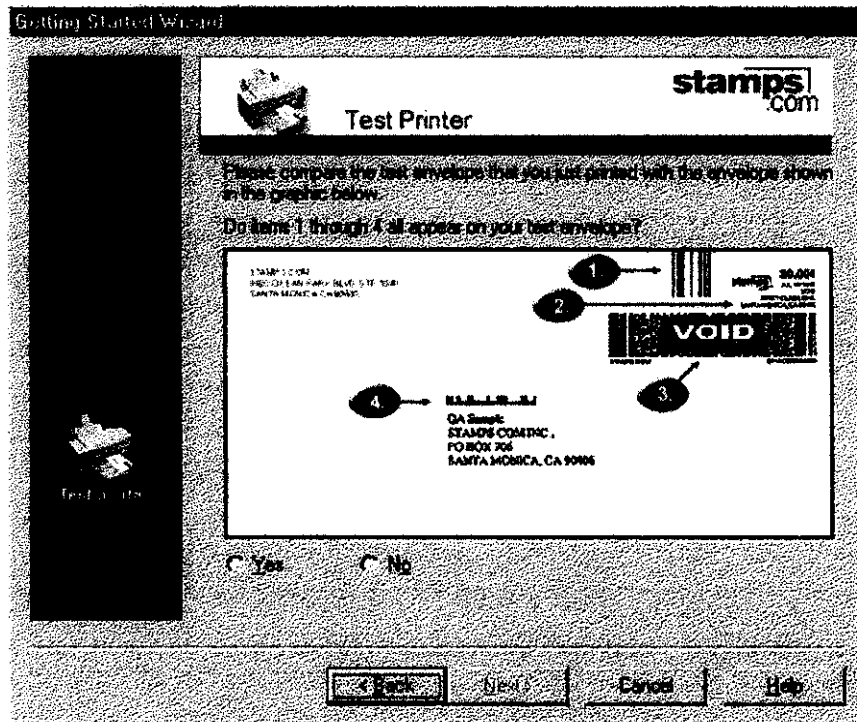
15 No. 10 envelope into their printer and hit the 'Print' button. They are then asked to

16 compare that envelope to a sample envelope shown on screen (see Fig. 3, "Print

Test Verification Dialog Box," below). If the customer selects, 'No', they are only

allowed to print on labels, as they have printed an envelope out of specification that

- 1 will not pass as a valid IBIP envelope. If the customer selects 'Yes' they will be able
- 2 to print on all envelopes and labels supported by their printer.



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Fig 3. Print Test Verification Dialog Box

Asks the customer to check all the parts of the printed envelope to ensure that FIM, the indicium, destination address, and POSTNET barcode are in the correct location.

#### 10           b)     **Submitting the Meter License Application**

11           Once the customer has completed their print test, they are able to submit their  
12     Meter License Application. At this point, the customer can open the Stamps.com  
13     software, but they cannot print postage until their meter license has been approved  
14     and their first postage purchase has been approved.

1           **c)    QA Envelope Check**

2           As a further check on correct printing, Stamps.com verifies the customer's  
3 print test results with a Quality Assurance (QA) Envelope check. The PCIBI-O  
4 specifies that each PC Postage customer is required to send in a QA envelope to  
5 Stamps.com immediately upon registration and again every 180 days thereafter. The  
6 Stamps.com software prompts the customer each time a QA envelope is due. This is  
7 the final check in the registration process to ensure the customer is printing postage  
8 in compliance with the IBIP program.<sup>1</sup>

9           When we receive QA envelopes, our personnel examine both the address and  
10 POSTNET barcode, and ensure that the ZIP code in the address matches the ZIP  
11 code in the indicium. If the customer's sample is slightly out of specification, we flag  
12 that customer's record and notify them that they must send in a new sample that is  
13 compliant. If the customer's sample is severely out of specification, their account is  
14 restricted from printing until they send in a QA Envelope that passes specification.  
15 They are not able to print anything but a QA envelope.

16           The IBIP program also requires Stamps.com to keep a valid and scannable  
17 QA Envelope on file at all times for every customer. We are subject to audits by the  
18 Postal Service to check compliance on the quality and presence of all QA Envelopes.

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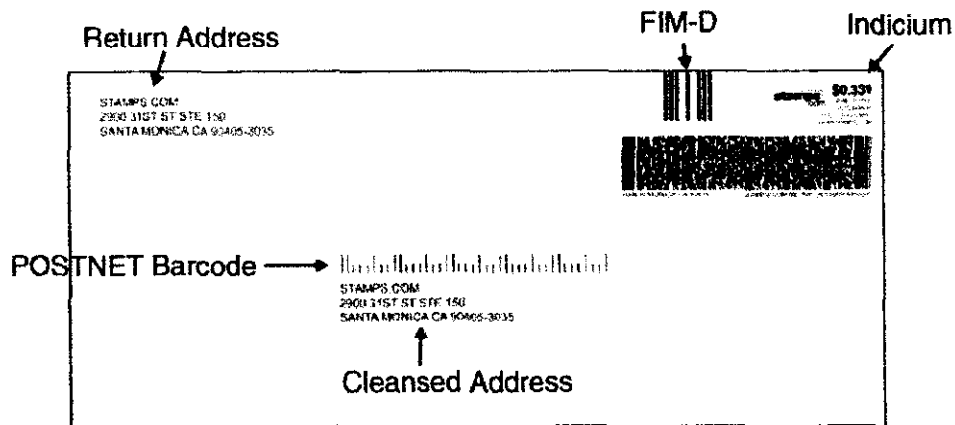
<sup>1</sup> Version 2.0 of Stamps.com's software (due to be released this summer) requires customers to print their QA Envelopes before they can use the software to print anything else.

1 **V. Mailpiece Formatting Requirements**

2 **A. Formatting for Automation**

3 Stamps.com currently supports First Class, Priority Mail, Express Mail, and  
4 Parcel Post. We take several measures to ensure that the Stamps.com Internet  
5 Postage Software can print automation-ready mailpieces for all classes. We adhere  
6 to all the tolerances specified by Notice 67, the Automation Template, and use the  
7 USPS Automation Gauge (Model 007) to enforce these tolerances when reviewing  
8 Quality Assurance envelopes. Stamps.com ensures that all of the elements in this  
9 automation-ready envelope are selected and printed properly.

10 (See Fig. 4 below.)



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12 *Fig 4. Example of envelope produced by Stamps.com software.*

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15 *Envelopes printed using Stamps.com's Internet Postage*  
16 *software possess a verified and automation compatible*  
17 *address and pre-printed POSTNET barcode, as well as*  
*security features embedded in the BIP indicium.*

1           **a)    The Indicium**

2           The Stamps.com indicium meets the specifications described in Section A of  
3 the PCIBI-O. This includes positioning requirements so that the indicium does not  
4 infringe on the OCR read area. In addition, the indicium is placed within the area  
5 required by the automation template. The Stamps.com print engine automatically  
6 adjusts the position and size of the indicium and associated graphics according to the  
7 size of the envelope to ensure correct positioning. The indicium includes many  
8 different pieces of information that are not available through a traditional meter  
9 stamp. This information in the indicium includes data for the following 19 fields.

Data Element	Human-Readable Data	Machine-Readable Data
Indicia Version Number	No	Yes
Algorithm ID	No	Yes
Certificate Serial Number	No	Yes
Device ID		
<i>PSD Manufacture ID</i>	Yes	Yes
<i>PS Model ID</i>	Yes	Yes
<i>PSD Serial ID</i>	Yes	Yes
Ascending Register	No	Yes
Postage	Yes	Yes
Date of Mailing	Yes	Yes
Originating Address		
<i>City, State</i>	Yes	No
<i>ZIP Code</i>	Yes	Yes
Destination Delivery Point	No	Yes
Software ID	No	Yes
Descending Register	No	Yes
Mail Class or Category		
<i>Rate Category</i>	No	Yes
<i>Endorsement (Mail Class)</i>	Yes	No
Digital Signature	No	Yes
Reserved Field	No	Yes
Reserved Field	No	Yes

Fig 5. Elements of the IBIP Indicium.

The IBIP indicium contains 17 separate data elements, as well as 2 fields reserved for future use.

**b) FIM Placement for Automation**

Stamps.com software places a FIM code on all envelopes. The purpose of the FIM is to "allow letter mail that does not contain luminescent stamps or meter imprints to be faced (oriented) and canceled (postmarked) by machine." See page 59 of Publication 25, *Designing Letter Mail*. The PCIBI-O specifies that vendors in the IBIP



1 program must use a specially designated FIM-D for all mailpieces. Stamps.com  
2 designed our software to properly design and position the FIM-D according to the  
3 specifications described on page 61 in Designing Letter Mail. The requirements for  
4 FIM placement state that the FIM must be no more than 1/8th of an inch from the top  
5 edge of the mailpiece. We have painstakingly tested hundreds of the most popular  
6 printers and printer drivers on the market to ensure that we are compliant with this  
7 requirement. As a result, all mailpieces created through Stamps.com that use the  
8 FIM can be processed with the USPS processing equipment (facers - cancelers). To  
9 ensure that all mailpieces requiring a FIM have one, version 2.0 of Stamps.com's  
10 software forces the user to print a FIM each time they print on an envelope.<sup>2</sup>

11 **c) FIM Substitute - Fluorescent Labels**

12 When using the Stamps.com service, all First Class envelopes and postcards  
13 must have either a FIM or fluorescent stripe to orient the mailpiece with existing  
14 Postal facer-canceler machines. For mailpieces using address labels, the fluorescent  
15 stripe acts as a replacement for a FIM-D. Since there is no way to guarantee that a  
16 FIM printed on a label will be placed by a customer within the 1/8" of the edge  
17 tolerance required by Publication 25, the fluorescent stripe is used to orient the  
18 mailpiece. In cases where customers choose to print on labels for a First Class  
19 envelope or postcard, Stamps.com's software requires the customer to select labels

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2 Version 2.0 is now undergoing beta tests and is expected to be released early this summer. Once released, the previous version will no longer be useable. Currently, our software allows the customer to turn off the FIM code.

1 that contain a USPS-approved fluorescent stripe. The customer cannot override the  
2 label options to use a non-fluorescent label. These labels are specially sized, so the  
3 customer may not substitute other, non-fluorescent mass-produced labels in their  
4 place.

5 **d) Address Area**

6 Stamps.com ensures that the delivery address placement and format meets  
7 the standards listed in section 4 of Publication 25, Designing Letter Mail.  
8 Stamps.com controls the mailpiece options available in the software. Because of this  
9 control, the Stamps.com print engine is able to utilize the dimensions of the mailpiece  
10 to correctly position the address within the OCR read area, directly under the  
11 POSTNET barcode. The customer cannot modify the address position.

12 Stamps.com supports up to a 6-line address with the delivery address line as  
13 the second to last line and the city, state ZIP+4 as the last line. The address is  
14 always left-aligned to ensure that the OCR can properly read and interpret the  
15 address data. The customer is not allowed to include any logos or other non-address  
16 printing anywhere in the OCR read area.

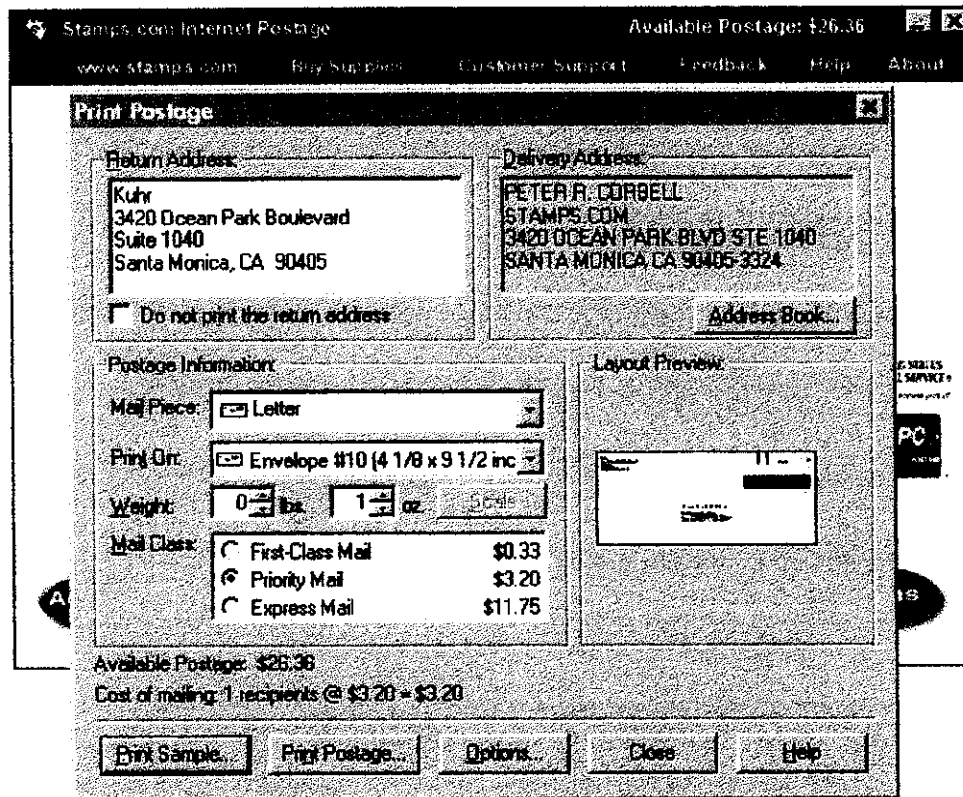
17 **e) Delivery Point POSTNET Barcode**

18 Stamps.com automatically and correctly positions the 11-digit delivery point  
19 POSTNET barcode on all mailpieces created through our software. The POSTNET  
20 is a barcode that can be read by sorting equipment, and contains the mailpiece's  
21 routing information down to the carrier code (the ZIP+4+2). For letters and flats,  
22 Stamps.com uses the barcoding standards described in section C840 of the

1 Domestic Mail Manual as well as the requirements in Publication 25, Designing Letter  
2 Mail. For packages, Stamps.com uses the standards described in section C850 of  
3 the *DMM*. This ensures that the format, design, and content of the POSTNET always  
4 meet the standards for automated mail and further eliminates undeliverable address  
5 issues.

## 6 **VI. Printing Postage using Stamps.com**

7 Before a customer may use Stamps.com to print postage, the customer must  
8 start up the software and provide their username and password. To print postage  
9 with Stamps.com software, the customer clicks a button that says "Print Postage."  
10 This opens the "Print Postage" dialog box (see Fig. 6 below) that contains all of the  
11 options the customer has in printing a mailpiece or label.



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Fig 6. Print Postage Dialog Box.

*The Print Postage dialog box presents all the options available to the customer for producing their mailpiece. The customer does not set the postage amount, but rather chooses the appropriate criteria and services desired. The desktop software automatically calculates the correct postage amount based on the customer's choices.*

10 Each parameter in the Print Postage dialog box has its own constraints, which may  
 11 be 'hard' (fixed) or 'dynamic' (variable, depending on other options). All of these  
 12 parameters must be specified before the customer can print postage, and before they  
 13 will be presented with postage rates.

1       **A.    Selecting a Recipient**

2           Usually, the first thing a customer does when printing postage is select a  
3 recipient or a group of recipients. The customer may either manually enter a  
4 recipient name and address directly in the Print Postage window, or select a single  
5 recipient or group of recipients from an address book. The user may also opt to  
6 import a mailing list into the Stamps.com address book from an external file or  
7 database. This allows the customer to make efficient large group mailings from  
8 customer lists. For each recipient that is selected, the software checks to see if the  
9 recipient's address has been recently cleansed against the AMS database. For  
10 manually entered addresses, the software automatically verifies and cleanses the  
11 address against USPS's AMS database. The Stamps.com address book technology  
12 keeps a record of the last time an address has been checked against AMS. If the  
13 AMS database has been updated on the servers since the last time the address was  
14 used, it is checked again.

15       **B.    Address Matching System**

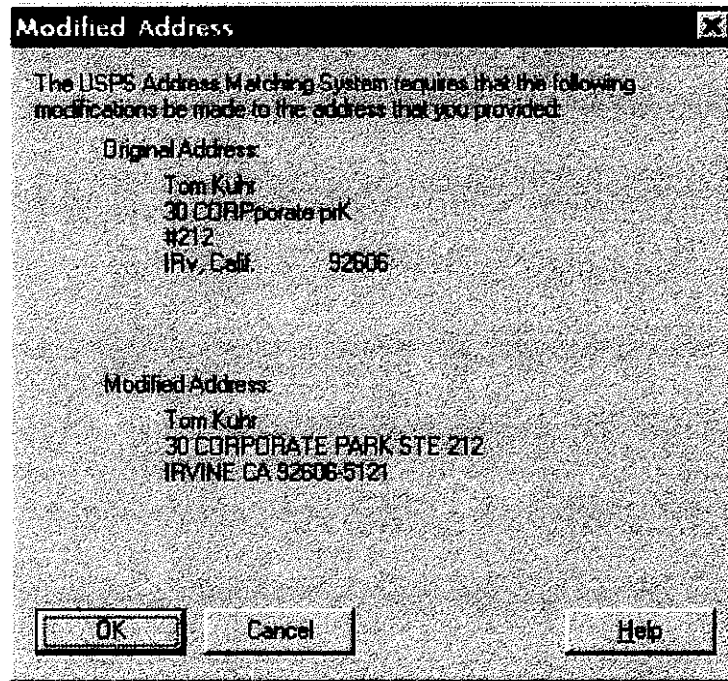
16           The PCIBI-O requires that all addresses must be verified and corrected  
17 against a CASS certified address database (CASS stands for Coding Accuracy  
18 Support System). The verification and correction process ensures that an address  
19 has all the proper elements required for delivery, including the appropriate ZIP+4 and  
20 POSTNET barcode. *The customer cannot print the address or postage indicia*  
21 *unless the address has been verified and corrected.* Stamps.com uses our own  
22 proprietary CASS certified software combined with the USPS's Address Matching

1 System (AMS) database and programming tools (APIs) to provide the best possible  
2 address match and properly correct the address. The AMS system always provides  
3 the most up to date ZIP+4 for all addresses. Stamps.com updates the AMS  
4 database on our server monthly, within 7 days of issue by the USPS.

5 The first address check is to see if there is an exact address match, meaning  
6 that no changes are required. If there is an exact match then the same address is  
7 returned and the customer can continue producing the mailpiece.

8 If there is a single address match but changes are required, the "Modified  
9 Address" dialog opens (see *Fig 7*). The customer must click the 'OK' button to  
10 accept the address and continue producing the mailpiece. The dialog box shows  
11 what the customer entered and the suggested correction. Stamps.com's AMS  
12 software is able to correct addresses that have been entered with very little  
13 information and formatting. Any part of the address that needs to be changed is  
14 highlighted so that the customer can quickly identify differences.

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Fig 7. Modified Address Dialog Box.

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*The original address is cleansed via Stamps.com's CASS-certified software and the USPS's AMS database. Changes are highlighted and must be accepted or the mailpiece cannot be printed.*

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If there are several potential address matches, the "Choose an Address"

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dialog box opens (see Fig 8). The addresses are ranked, with the best matches

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listed first. The customer must select an address and click 'OK' to continue

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producing the mailpiece.

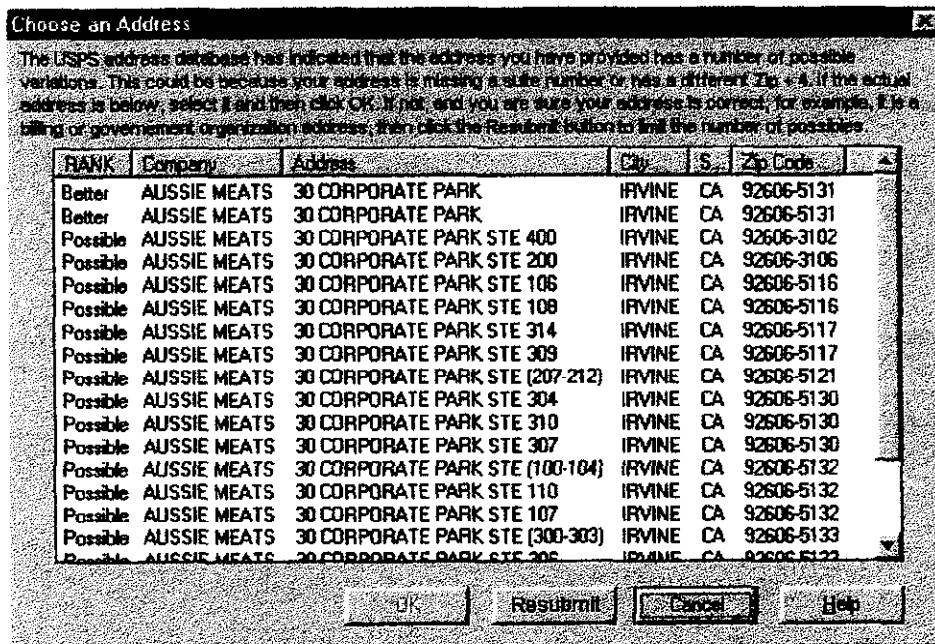


Fig 8. Choose an Address Dialog Box.

The original address entered has several potential matches after CASS/AMS cleansing. The customer must choose the correct match before the mailpiece can be printed.

If no match is found, the customer is advised that a match could not be found and is asked to try to correct the address (see Fig 9). When the customer clicks 'OK' they are taken back to the Print Postage screen. They must modify the existing delivery address and go through address checking again before they can continue producing the mailpiece.





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2 *Fig 9. No Address Match – Unable to Verify Address Dialog Box.*

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*When an address cannot be found in USPS's address database, the address cannot be printed. Instead, the customer must modify the address and go through the address checking process again.*

8

The latest version of the AMS programming tools (APIs) provided by the Postal Service gives Stamps.com the ability to recognize unique ZIP codes (e.g., a ZIP assigned to a single building or campus). If an address contains a unique ZIP code, the AMS will ignore the street address if one was not submitted. The city, state and ZIP will still be verified and the verified address is returned to the customer. This is an added convenience to our customers because many government agencies and private companies do not use street addresses, and thus cannot be found in the AMS database. However, it also ensures that the mailpiece is still automation compatible because of the cleansing of the city, state and ZIP.

17

It is important to note that some hardware-based versions of IBIP postage, such as Neopost's "Simply Postage" product, do not require cleansing for addresses. Unlike Stamps.com and E-Stamp, these systems use specialized printing hardware, and do not cleanse addresses against a CASS certified AMS database. Moreover, the indicia that these systems print do not contain all the data found in the Stamps.com indicium, and these systems do not ensure that a mailpiece is

22

1 automated. Stamps.com is not seeking a discount for mailpieces produced by these  
2 systems.

### 3 **C. Selecting a Mail Type and Print Media**

4 While in the Print Postage dialog box, the customer must select a mailpiece  
5 type from a drop-down list of available options. Selections are letter, large envelope,  
6 USPS flat rate envelope, package, large package, oversized package, and postcard.  
7 Each one of these options features a picture icon and a text description to further  
8 emphasize the mailpiece type.

9 The customer must also select a media type based on the mail type selected  
10 and the printer the user has configured. Stamps.com limits the 'Print On' options to  
11 media that support the automation standards listed in sections C810-850 of the  
12 *Domestic Mail Manual (DMM)* Issue 55. For envelopes and postcards, this means  
13 limiting the 'Print On' options to either the envelope or postcard itself, or a fluorescent  
14 label that uses the fluorescent stripe replacement for the FIM. For flats, large  
15 envelopes, and packages, the print options are dynamically limited to labels that  
16 meet the standards described in the *DMM*. All selections are further limited  
17 according to the printer the customer has configured. If the printer is known not to  
18 print on a certain size envelope or label, that selection will not appear in the list of  
19 options presented to the customer. The software intelligently controls the print media  
20 in this manner.

21 To further educate our customers about the standards for automation-ready  
22 mailpieces, the software's Help file includes information from the *DMM* describing the

1 standards and requirements for automation and explains in detail what each function  
2 of the Print Postage dialog box means.

### 3 **D. Weighing the Mailpiece**

4 The Print Postage dialog box requires that the customer enter the weight of  
5 the mailpiece so that the software can correctly calculate the postage rate. They can  
6 enter the weight in pounds and ounces directly into the software. Stamps.com also  
7 separately sells two different scales for use with our software, which have been  
8 popular purchase options for our customers. One scale can be connected directly to  
9 the computer through a communications port and directly interfaces with the Internet  
10 Postage software. To weigh a mailpiece, the customer simply needs to click the  
11 "Scale" button in the Print Postage window. The scale then calculates the weight and  
12 reports the weight back to the software, entering it automatically. If a scale is  
13 integrated with the software, the user may not override the scale's input.  
14 Stamps.com also offers a scale that does not need to be connected to the computer.  
15 The customer places the mailpiece onto the scale, and then manually enters the  
16 weight directly into the software. Both of these scales are easy to use and ensure  
17 that our customers can obtain accurate weights for their mail.

### 18 **E. Calculating the Postage Cost**

19 After the weight has been entered the final step in printing postage is to select  
20 a mail class. The software will again intelligently limit the mail classes available to  
21 the user based on the weight and type of the mailpiece. We currently only support  
22 mail classes outlined by the IBIP program, including First Class, Priority, Express,

1 and Parcel Post. Once the mail class has been selected, the software automatically  
2 calculates the postage rate instantly on the customer's machine, including any  
3 applicable surcharges. The customer has no ability to manipulate or override this  
4 rate, so it is guaranteed to be correct. The rates are stored on the Stamps.com  
5 postage servers so that they may be easily and quickly updated for the entire  
6 Stamps.com customer base at any time, ensuring all customers are only using the  
7 most current rates. After these selections have been made, the customer is now  
8 ready to print, and can click the 'Print' button. A "Printer" dialog box appears asking  
9 the customer to confirm the printer. When the customer clicks 'OK' the software  
10 generates the print job and sends it directly to the print driver for a successful print.

## 11 **VII. Enforcing Correct Printing**

12 Stamps.com has taken many steps to ensure that customers comply with the  
13 automated mail requirements when printing IBIP postage. There are many different  
14 ways to control which customers may print, what they may print on, and what  
15 equipment they may use. In addition, printing issues that arise after software is  
16 distributed to the customer base may be corrected through a few different methods.  
17 The following sections describe each method Stamps.com employs to enforce the  
18 printing of automation-ready mail.

1       **A.    Proactive Measures for Correct Printing**

2           **a)    Stamps.com Printer Database**

3           To give our customers maximum flexibility, Stamps.com allows customers to  
4 print on any 300 dpi or better laser or inkjet. We do not require the user to buy  
5 additional printing hardware and have found greater acceptance in the marketplace  
6 because of this.

7           Before the commercial release of the Stamps.com Internet Postage software,  
8 we tested hundreds of printers and printer drivers to ensure that our printing  
9 technique would meet the requirements listed in Section A of the PCIBI-O and the  
10 corresponding requirements listed in Publication 25. We tested each of these  
11 printers with various drivers separately on Windows 95, Windows 98, and Windows  
12 NT 4.0, and have been subsequently testing on Windows 2000. In addition, we also  
13 tested these printers and drivers with #10, #11, #12, Personal, and Monarch size  
14 envelopes, as well as every label supported by the Stamps.com software. As a  
15 result, we built a comprehensive database of the media that could be supported by  
16 each printer, driver, and operating system combination. This database has been  
17 painstakingly compiled by testing printers in our print labs and is updated monthly  
18 with new data from the latest printer models. This knowledge has helped us in  
19 designing our software to work with printers that haven't been tested by Stamps.com  
20 while still meeting the requirements in the PCIBI-O, *DMM* and Publication 25,  
21 Designing Letter Mail.

1           The Stamps.com Printer Database is updated regularly, at least once per  
2 month, with the latest test results for the newest printers on the market. We are  
3 confident that our database contains specific information on the top 90% of all laser  
4 and inkjet printers on the market today. Stamps.com continues to test printers,  
5 drivers, and operating systems to ensure that our database information stays current  
6 as new printers, drivers, and operating systems are created. In addition,  
7 Stamps.com captures the results from each customer's print test so that our  
8 customer's tests augment our own. If we see repeated problems with a printer on  
9 customers' machines, we can globally prevent it from printing with our software until  
10 we can specifically test it ourselves.

11           If we detect that a customer is using a printer that has been found to print out  
12 of specification with a certain type of media (e.g. if #9 envelopes don't feed correctly),  
13 we are able to globally restrict the media options available in the Stamps.com  
14 software based on the printer, driver, and OS combination for our entire customer  
15 base. Just as Stamps.com can globally restrict a specific printer from being used  
16 with the software by all customers if it cannot print within specification, we can also  
17 instantly globally turn off a specific media type for all customers, allowing almost  
18 complete control over what can be printed from our software.

19           **b)     Continuous Printer Tests**

20           When a customer first registers with Stamps.com, their printer information as  
21 well as the results of their print test, is stored in the customer's Windows registry files.  
22 Every time a customer prints, their registry files are checked. If anything about the  
23 current printer's information (printer, driver, or OS) does not match what is in the

1 registry, the customer must go through the same printer configuration test they went  
2 through during registration. The results of this new test are stored in the registry,  
3 along with the original test. This way, Stamps.com can maintain a history of each  
4 printer the customer uses and impose the appropriate media restrictions, if any.  
5 Each time a driver or printer is changed, that printer or driver is verified separately,  
6 ensuring accurate printing all the time.

7 **c) QA Envelopes**

8 Stamps.com is committed to ensuring that all of our customers can print within  
9 IBIP and Publication 25 specifications. Stamps.com uses the Automation Template  
10 designed to work with Publication 25, Designing Letter Mail to verify that each QA  
11 Envelope meets all automation standards for FIM, POSTNET, indicium, and address  
12 placement. We also use this template to verify that the indicium and human-readable  
13 information are in specification as described in section A.5.2 of the PCIBI-O. The  
14 vast majority of all the Quality Assurance Envelopes we receive from our customers  
15 are within specification. If an envelope is even slightly out of specification, the  
16 customer is asked via email to resend an envelope to make sure that they can print  
17 within specification. The Internet Postage software will also prompt them each time  
18 they log in to print another compliant QA envelope.

19 If an envelope is completely out of specification or if information is missing,  
20 which is the case for less than 1% of all envelopes, that customer is automatically  
21 suspended from printing with the Stamps.com Internet Postage software. As soon as  
22 the customer is suspended, a Stamps.com Customer Support Representative calls  
23 them to further troubleshoot and correct the problem that is causing the customer to

1 fail. The Support Representative will work with them on the problem until it is  
2 resolved and walk them through the steps to print another QA envelope. The  
3 customer is not allowed to print again until Stamps.com receives, evaluates and  
4 approves another QA Envelope.

5 In the same manner, if a customer is suspected of fraudulent activity or non-  
6 payment on their postage account, we will suspend them from printing. Since our  
7 service is controlled by our postage servers, we have this control over all accounts on  
8 an individual basis.

9 **d) Reimbursing Customers For Misprints**

10 Occasionally, a user will encounter a problem when printing postage, even  
11 after correctly printing envelopes for any period of time. Different issues may arise;  
12 from a paper jam in the printer to an envelope flipped the wrong way on the paper  
13 feeder. Stamps.com has a generous policy for misprinted postage and we strongly  
14 encourage our customers to get credit for their misprinted postage. Our policy is to  
15 reimburse 100% of the value of the misprinted mailpiece to the user, whether we can  
16 scan the indicium or not. In return, the USPS will reimburse us for some misprinted  
17 mail, but to obtain reimbursement from USPS we must have proof of the misprint and  
18 must be able to verify and scan the indicium. Our customer policy is a blanket policy.  
19 We do not differentiate between scannable and non-scannable postage. We thus  
20 assume the costs associated with credits for misprinted postage that the USPS will  
21 not reimburse us for.



1           We've found that misprint problems usually occur with novice users, and have  
2 designed our refund program to accommodate this. We will refund up to \$2.00 of  
3 misprinted postage, no questions asked, and no proof of the misprint required. A  
4 customer can contact our Customer Support department via phone, email or website  
5 chat to take advantage of this refund. They are asked for each misprinted  
6 mailpiece's value, and the ZIP code for accounting purposes. Stamps.com refunds  
7 100% of all misprints to customers by adding this value directly into their postage  
8 account. This is fast, easy, and no paperwork is required. After the \$2.00 limit is  
9 reached for a customer, they must send us the physical evidence of the misprinted  
10 postage to be eligible for further refunds. All of these processes are completely and  
11 fully explained on our website.

## 12           **B.   Reactive Measures for Correct Printing**

### 13           **a)   Auto-Update**

14           Stamps.com continually strives to improve our knowledge of printers and our  
15 control over their output. As a result, we may make minor changes to our software  
16 before our next major release. To ensure that our users are always current with  
17 these changes, we utilize a software package designed to update software remotely,  
18 without user intervention. The Auto-Update software has the ability to detect the  
19 difference between the change and the customer's current software down to the byte  
20 level, and only install what the user is missing. Each time a customer logs in, Auto-  
21 Update checks to see if there any differences between the customer's current version  
22 and the latest version available on the Stamps.com Postage Servers. If a change

1 has been made on the Servers (such as an update to the print engine) the Auto-  
2 Update downloads and installs this change or new version before the customer can  
3 proceed with using the software. This ensures that the customer will always have  
4 and use the latest version of the software, no matter when they last logged in. If we  
5 ever found a problem with our print engine, we could globally update our customers  
6 with a new version almost invisibly.

7 **b) Globally Restricting Printers**

8 Because of our printer database and the way our server architecture has been  
9 designed, Stamps.com can globally restrict a printer type from being used with our  
10 software. In addition, we can also globally restrict any printer driver or media type  
11 from being used by our customer base. This gives us a very granular level of control  
12 over print output from the Stamps.com software across hundreds of printer  
13 combinations.

14 **c) Suspending Individual Accounts**

15 In addition to printer restrictions, Stamps.com can suspend a particular  
16 account from printing if there are repeated problems. This ability to restrict accounts  
17 ensures that the majority of our customers do not have to be affected due to isolated  
18 problems that aren't global factors.

## **VIII. Future Support**

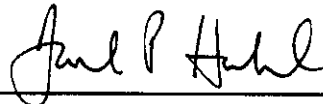
In the future, there are many things that Stamps.com can do to give the user control over what is printed on the mailpiece. We could easily make any or all of the mailpiece automation features optional to the user, such as AMS cleansing, FIM printing, and POSTNET printing, etc. Each of these items could affect the end postage rate that is available to the customer after that feature is selected or deselected and the software could calculate a rate based on the amount of automated areas of the mailpiece. For example, we could give the user the option to turn off AMS address cleansing and calculate the postage rate for that piece at the full retail, non-automated single piece postage rate. We could also allow the user to turn off the FIM or the POSTNET and also pay the full rate. We could also give the user the option to remove their address from the indicium (but still keep the meter number for tracking purposes) and charge the customer a rate higher than the current single piece rate. This would have no effect on IBIP security requirements. As a user selects or deselects any of these options, the software would re-calculate the postage rate automatically. Even though these options would allow the user to create non-automation mail, these pieces would still guard against postal fraud because the indicium could still be scanned and verified by USPS equipment. In addition, the OCR could still process the printed address.

If the user has these options to control the look of their mailpiece and the time they dedicate in its preparation, they will use Stamps.com service more often. It would make it more attractive for people who hand-write envelopes right now, as they are people who do not see an advantage to spending extra time with one-time

1 mailpiece preparation. It would also make it more attractive to higher volume mailers  
2 if they felt they could benefit from a discounted automation rate when printing a fully  
3 automated mailpiece. Stamps.com (and the USPS) could ultimately increase  
4 demand for our service, and our customer's mail volume with this additional  
5 convenience, flexibility, and cost savings as compared to other package delivery  
6 services.

**CERTIFICATE OF SERVICE**

I hereby certify that I have this 22 day of May 2000, served the direct testimony of Stamps.com witness Thomas C. Kuhr (Stamps.com-T-2) upon all participants of record in this proceeding in accordance with the Commission's Rules of Practice.



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David P. Hendel