

# **Official Transcript of Proceedings**

# Before the

# UNITED STATES POSTAL RATE COMMISSION

In the Matter of:

MAILING ONLINE SERVICE

Docket No.

MC98-1

## VOLUME 3

- DATE: Thursday, August 27, 1998
- PLACE: Washington, D.C.
- PAGES: 695 815



| 1  | BEFORE THE  |
|----|---|
| 2  | POSTAL RATE COMMISSION                            |
| 3  | X   |
| 4  | In the Matter of: : Docket No. MC98-1             |
| 5  | MAILING ONLINE SERVICE :                          |
| 6  | X   |
| 7  |   |
| 8  | Third Floor Hearing Room                          |
| 9  | Postal Rate Commission                            |
| 10 | 1333 H Street, N.W.                               |
| 11 | Washington, D.C. 20268                            |
| 12 |   |
| 13 | Thursday, August 27, 1998                         |
| 14 |   |
| 15 | The above matter came on for hearing, pursuant to |
| 16 | notice, at 9:30 a.m.                              |
| 17 |   |
| 18 | BEFORE: EDWARD J. GLEIMAN, Chairman               |
| 19 | W. H. "TREY" LeBLANC, III, Commissioner           |
| 20 | GEORGE W. HALEY, Commissioner                     |
| 21 | GEORGE OMAS, Commissioner                         |
| 22 | RUTH GOLDMAN, Commissioner                        |
| 23 |   |
| 24 |   |
| 25 |   |
|    |   |

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|----|----------------------|---------------|---------|------------|----------|
| 2  | WITNESS              | DIRECT        | CROSS   | REDIRECT   | RECROSS  |
| 3  | DANIEL STIREWALT     |               |         |            |          |
| 4  | BY MR. RUBIN         | 704           |         | 808        |          |
| 5  | BY MR. COSTICH       |               | 763     |            |          |
| 6  | BY MR.VOLNER         |               | 785     |            | 812      |
| 7  |                      |               |         |            |          |
| 8  | DOCUMENTS TRANSCRIBE | D INTO THE RI | ECORD : |            | PAGE     |
| 9  | Designated Written C | ross Examinat | tion    |            |          |
| 10 | of Daniel Stirewalt  |               |         |            | 708      |
| 11 |                      | ЕХНІВ         | ITS     |            |          |
| 12 | EXHIBITS AND/OR TEST | IMONY         |         | IDENTIFIED | RECEIVED |
| 13 | Direct testimony and | exhibits of   |         |            |          |
| 14 | Daniel Stirewalt, U  | SPS-T-3       |         |            | 706      |
| 15 | Designated Written C | ross Examinat | tion    |            | 708      |
| 16 | of Daniel Stirewalt  |               |         |            |          |
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1 PROCEEDINGS 2 [9:30 a.m.] COMMISSIONER LeBLANC: Good morning. Today we 3 will complete hearings to receive the direct case of the 4 5 Postal Service in support of its proposal for a market test 6 for Mailing Online service. Transcript corrections for the 7 prehearing conference and this week's hearing will be due a week from today, September 3, 1998. 8 9 Now does any participant have any procedural matters to raise before we begin? And I know Mr. Hollings 10 11 does, based on what we had left over from yesterday on the 12 evidentiary part, so you can handle that, I believe, if you'll wait just one second, Ian will move. 13 Mr. Hollies? 14 15 MR. HOLLIES: Yesterday when the testimony of 16 Witness Campanelli was introduced into evidence and his written cross-examination was likewise introduced, they were 17 18 not accompanied by declarations executed by him to the 19 effect that were he to testify orally his testimony would be 20 the same and were he to answer the written cross-examination 21 questions orally his answers would be the same. 22 I have those here with me today, and with your 23 permission, I would like to hand them to the reporter for inclusion in the record. 24 25 COMMISSIONER LeBLANC: Thank you very much.

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Mr. Volner. 1 MR. VOLNER: At the commencement of yesterday's 2 hearing, Commissioner, you asked that all participants who 3 intended to present rebuttal witnesses inform you of this at 4 the close of the hearing today. I'm in a position to inform 5 you now that Pitney Bowes will be presenting a rebuttal 6 7 witness as to one aspect of the case. COMMISSIONER LeBLANC: Thank you very much. We 8 9 will get to that later on, but now we can cross one off. Anybody else have any procedural matters? Then we 10 11 can begin today's hearing. 12 Mr. Hollies, will you introduce your witness, please? 13 14 Oh, I'm sorry, Mr. Rubin, will you be doing the work today, as they say? 15 MR. RUBIN: Yes, I will. 16 17 COMMISSIONER LeBLANC: Okay. MR. RUBIN: And the Postal Service calls Daniel 18 Stirewalt as its next witness. 19 20 COMMISSIONER LeBLANC: Mr. Stirewalt, will you stand up, please. Is that Stairwalt or Stirewalt? 21 THE WITNESS: Stirewalt. 22 COMMISSIONER LeBLANC: Stirewalt. I may still 23 blow it. 24 25 Whereupon,

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| 1  | DANIEL STIREWALT,  |
|----|--|
| 2  | a witness, was called for examination by counsel for the     |
| 3  | United States Postal Service and, having been first duly     |
| 4  | sworn, was examined and testified as follows:                |
| 5  | COMMISSIONER LeBLANC: Mr. Rubin, will you have               |
| 6  | your witness attest to the accuracy of his revised testimony |
| 7  | and so forth?  |
| 8  | MR. RUBIN: Yes.  |
| 9  | DIRECT EXAMINATION   |
| 10 | BY MR. RUBIN:  |
| 11 | Q Mr. Stirewalt, I've handed you two copies of a             |
| 12 | document titled "Direct Testimony of Daniel Stirewalt on     |
| 13 | behalf of United States Postal Service" designated as        |
| 14 | USPS-T-3. I have also provided you with two copies of        |
| 15 | Library Reference 1, which is incorporated in this           |
| 16 | testimony.   |
| 17 | Were this testimony and its library reference                |
| 18 | prepared by you or under your supervision?                   |
| 19 | A Yes.   |
| 20 | Q The library reference includes errata that were            |
| 21 | filed on July 23. If you were to testify orally here today,  |
| 22 | would this be your testimony?                                |
| 23 | A Yes, it would.   |
| 24 | Q Do you have one correction to make to the library          |
| 25 | reference?   |
|    |  |

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Α 1 Yes, I do. I have one correction to make to the 2 library reference. In Attachment 1, page 11, in the 3 right-hand column, named Sources, there is a note regarding the total call hours. The note states "total initial call 4 hours plus total ongoing hours." It should read "total 5 initial call hours times total ongoing call hours." 6 7 The original said "total initial call hours 0 times -- " 8 9 Α I'm sorry. 10 0 "Total ongoing call hours." I'm sorry about that. You're correct. That's 11 Α 12 correct. 13 0 And what is the correction? "Plus." Α 14 15 MR. RUBIN: Thank you. That change has been 16 marked in the copies that are with you. In that case, I 17 will provide two copies of the testimony of Daniel Stirewalt 18 on behalf of the United States Postal Service to the 19 reporter, and I will also provide the two copies of Library 20 Reference MC98 1-1 and ask that they both be entered into evidence in this proceeding. 21 22 COMMISSIONER LeBLANC: Any objections? 23 The testimony and exhibits of Witness Stirewalt are received into evidence, and as we did yesterday, they 24 will not be transcribed. 25

[Direct testimony and exhibits of 1 2 Daniel Stirewalt, USPS-T-3, were 3 received into evidence.] COMMISSIONER LeBLANC: Mr. Stirewalt, have you had 4 an opportunity to examine the packet of designated written 5 cross-examination that was available in the hearing room 6 7 this morning? THE WITNESS: Yes, I have. 8 9 COMMISSIONER LeBLANC: If these questions were 10 asked of you today orally, would your answers be the same as those you previously gave in writing? 11 12 THE WITNESS: Yes, they would. I do have a few corrections to make, though. 13 COMMISSIONER LeBLANC: Please, let's hear them. 14 15 THE WITNESS: All right. The first is on page 6, the first attachment of my response to USPS/OCA-T-3-1. 16 It's the same presentation as the library reference where there's 17 18 a column on the right-hand side with respect to total call 19 Instead of saying "total initial call hours times hours. total ongoing call hours," it should say "plus." 20 21 COMMISSIONER LeBLANC: Are there any other corrections? 22 23 THE WITNESS: Yes, there are. In response to OCA-T-3-8, part (b), the word "number" should be inserted 24 between the words "the" and "of." 25

COMMISSIONER GOLDWAY: OCA-8? 1 2 THE WITNESS: I'm sorry? COMMISSIONER GOLDWAY: OCA-8? 3 That's in part (b). THE WITNESS: T-3-8. 4 In addition, the word "four" or the number "four" 5 should appear between the words "a" and "hour." 6 7 COMMISSIONER LeBLANC: You said "four" or "for," f-o-r? 8 THE WITNESS: F-o-u-r. 9 COMMISSIONER LeBLANC: Thank you. 10 11 THE WITNESS: The number four. 12 COMMISSIONER LeBLANC: Are there any other corrections? 13 THE WITNESS: Yes, there are. 14 The response to OCA-T-3-5, part (a). 15 16 The parentheses are shown around the words cost They should be around the words unit cost. 17 shown. In Section C, the first four words of the response 18 19 are the term, quote, cost component, unquote. It should be the term cost element, unquote. 20 The last correction is in response to OCA-T3-6, 21 part E, the word the should appear between the words of and 22 23 periods. 24 COMMISSIONER LeBLANC: And that's it today? THE WITNESS: That's it. 25

| 1  | COMMISSIONER LEBLANC: All right.                            |
|----|---|
| 2  | Are there any objections?                                   |
| 3  | [No response.]  |
| 4  | COMMISSIONER LeBLANC: Then I will admit the                 |
| 5  | designated written cross examination with the changes just  |
| 6  | mentioned into evidence and direct that they be transcribed |
| 7  | into the record at this point.                              |
| 8  | [The Designated Written Cross                               |
| 9  | Examination of Daniel Stirewalt was                         |
| 10 | received in evidence and                                    |
| 11 | transcribed into the record.]                               |
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1 COMMISSIONER LeBLANC: Thank you, Mr. Hollies. 2 Does any participant have additional written cross 3 examination for the witness at this time? Excuse me one second. Mr. Reporter, do you have 4 enough -- do you have both copies? Thank you. 5 6 No other one. 7 At the prehearing conference, MASA, OCA and Pitney 8 Bowes indicated that they might cross examine this witness. Does any other participant want to cross examine the witness 9 this morning? 10 11 Okay. I see that MASA is not here. We'll move on 12 with OCA again. We'll stay with the same order. 13 Mr. Costich. 14 MR. COSTICH: Thank you, Mr. Presiding Officer. 15 CROSS EXAMINATION 16 BY MR. COSTICH: Good morning, Mr. Stirewalt. 17 0 18 Α Good morning. My name is Rand Costich, and I'll be asking you 19 0 questions on behalf of the OCA this morning. 20 Could you turn to your response to Interrogatory 21 OCA/USPS-T3-13. 22 23 Α I have it. 24 In this response, you discuss the differences 0 25 between a mail merge job and a non-mail merge job; is that

#### BEFORE THE POSTAL RATE COMMISSION WASHINGTON, DC 20268-0001

## Mailing Online Service

Docket No. MC98-1

#### DESIGNATION OF WRITTEN CROSS-EXAMINATION OF UNITED STATES POSTAL SERVICE WITNESS DANIEL STIREWALT (USPS-T3)

Party Office of the Consumer Advocate

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#### Interrogatories

MASA/USPS-T3-1, 4-7 OCA/USPS-T3-1-16

Respectfully submitted,

hed Shan Mar

Margaret P. Crenshaw Secretary

#### INTERROGATORY RESPONSES OF UNITED STATES POSTAL SERVICE WITNESS DANIEL STIREWALT (T3) DESIGNATED AS WRITTEN CROSS-EXAMINATION

| Interrogatory: | Designating Parties: |
|----------------|----------------------|
| MASA/USPS-T3-1 | OCA                  |
| MASA/USPS-T3-4 | OCA                  |
| MASA/USPS-T3-5 | OCA                  |
| MASA/USPS-T3-6 | OCA                  |
| MASA/USPS-T3-7 | OCA                  |
| OCA/USPS-T3-1  | OCA                  |
| OCA/USPS-T3-2  | OCA                  |
| OCA/USPS-T3-3  | OCA                  |
| OCA/USPS-T3-4  | OCA                  |
| OCA/USPS-T3-5  | OCA                  |
| OCA/USPS-T3-6  | OCA                  |
| OCA/USPS-T3-7  | OCA                  |
| OCA/USPS-T3-8  | OCA                  |
| OCA/USPS-T3-9  | OCA                  |
| OCA/USPS-T3-10 | OCA                  |
| OCA/USPS-T3-11 | AOO                  |
| OCA/USPS-T3-12 | OCA                  |
| OCA/USPS-T3-13 | OCA                  |
| OCA/USPS-T3-14 | OCA                  |
| OCA/USPS-T3-15 | OCA                  |
| OCA/USPS-T3-16 | OCA                  |

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MASA/USPS-T3-1. Does the Postal Service cost estimate include any costs associated with marketing MOL? If so, identify the costs associated with marketing and state the basis for the cost estimates. If not, explain fully why such costs have not been included in cost estimates for MOL.

#### RESPONSE

I do not include marketing costs in my estimates. However, see the Response of

the United States Postal Service to OCA/USPS-T1-29(b)-(c), redirected from

witness Garvey.

.

MASA/USPS-T3-4. Confirm that all costs associated with customer services have been estimated in the category "Technical Help Desk". If you cannot confirm, explain in detail why not and include an identification of all costs associated with customer service.

#### RESPONSE

I cannot confirm. My involvement is limited to estimating information technology

costs. With respect to the Technical Help Desk , this includes all activities to

support the information technology as described in my response to

MASA/USPS-3-6(b), below. Please also see witness Garvey's response to

MASA/USPS-T3-3, redirected from me.

MASA/USPS-T3-5. Confirm that for the two year period during which the experimental classification for MOL is proposed to be in effect:

a) the total personnel cost estimated in the cost category Technical Help Desk is

|    | 1999                    | 282,000                       |
|----|-------------------------|-------------------------------|
|    | 2000                    | 282,000                       |
| b) | the total number of use | ers of MOL is estimated to be |
|    | 1999                    | 5,981                         |
|    | 2000                    | 10.439                        |

c) "users" as used in LR-1, Attachment 1, does not include potential customers who make inquiry about MOL, but do not end up utilizing the service.

Explain why Technical Help Desk costs for 1999 and 2000 are the same while the number of users is expected to increase.

RESPONSE

(a) Confirmed.

(b) Confirmed.

(c) Confirmed.

I used a set of calculations to arrive at a total number of calls hours for years 1999 and 2000, described explicitly in Attachment 1, page 11, and elaborated upon in my responses to OCA/USPS-T3-14, OCA/USPS-T3-15, and OCA/USPS-T3-16. According to these calculations, the required Technical Help Desk staff resource years for 1999 and 2000 are 1.33 and 1.8, respectively. To be conservative, I included an estimate of 3 resource years for both 1999 and 2000. That is why the Technical Help Desk costs for both years are the same.

MASA/USPS-T3-6.

- (a) Confirm that the Postal Service estimates that it will be necessary to assign 4 employees to functions in the Technical Help Desk category during 1999 and 2000. If you are unable to confirm, explain fully.
- (b) Describe in detail all job functions to be performed in the Technical Help Desk cost category.
- (c) Confirm that personnel assigned to perform job functions in the Technical Help Desk cost category will not perform job functions in any other cost category. If you cannot confirm, explain fully.

#### RESPONSE

- a) Confirmed. Refer to Attachment 1, page 11, my responses to OCA/USPS-T3-14 and OCA/USPS-T3-15, OCA/USPS-T3-16, and MASA/USPS-T3-5 above.
- b) Technical Help Desk functions include: 1) Responding to information technology-related problems, 2) Documenting reported problems as "problem tickets," 3) Answering technical queries and/or referring technical queries to appropriate technical personnel both inside and outside the Mailing Online processing site, 4) Monitoring the status of "problem tickets," 5) Elevating problems to appropriate levels of management, 6) Monitoring and reporting the status of the Mailing Online technology components in terms of availability (to users), the number of outstanding problem tickets.
- c) Confirmed.

MASA/USPS-T3-7. For purposes of the interrogatory, reference is made to LR-1, Attachment 1, page 11, under the heading "Technical Help Desk Resource Years".

- (a) Define the following terms: (I) Help Desk resource Years, (ii) First time call Hours, and (iii) On-going call hours.
- (b) Confirm that the "Total Call Hours" line is derived as the sum of the Total First Time Call Hours and Total On-going Call Hours, and not the product of those two numbers as reflected in the source column. If you cannot confirm, explain fully.
- (c) Explain fully the way you have treated "Total Call Hours" and "Technical Help Desk Call Hours" for purposes of your cost estimates.
- (d) Explain fully the methodology you have used to estimate "Total On-going Call Hours". Include in your answer a full description of the "experience during operational test" relied upon in making your estimate.
- (e) With respect to the line "percentage of customer calls requiring technical help" describe fully the "experience during the pilot referred to in the source column. Explain fully what percentage is indicated by that experience and why you used a "lower" percentage

#### RESPONSE

a. Help Desk Resource Years refers to the numbers of work years required to man the Technical Help Desk. As shown in Attachment 1, page 11, Help Desk Resource Years is calculated by dividing the Total Help Desk hours by 2, then divided by (an assumed) 1800-hour work year. First Time Call Hours refers to the number of hours required to handle customers' initial calls. As shown in Attachment 1, page 11, First Time Call Hours is calculated by multiplying the estimated duration of the first customer call by the number increase in customers over the previous year, multiplied by a "turn over" factor of 1.5. As explained in my response to OCA/USPS-T3-15-a, I refer to

the number of calls over any given period of time, excluding the initial call for any given customer, as "on-going". As shown in Attachment 1, page 11 On-Going Call Hours is calculated by multiplying the total number of customers by .1 hour estimated average duration for any given on-going call, and multiplying by 3 calls average per year.

- b. Confirmed.
- c. For estimating purposes, I assumed that the Technical Help Desk would be contacted for a percentage of customer calls related to the Mailing Online Service. As I explained in my response to OCA/USPS-T3-16(b), in my professional opinion, less than 50% of calls should require technical assistance. I therefore felt it was reasonable to assume that the estimated "Technical Help Desk Call Hours" should be one half of the "Total Call Hours".
- d. Refer to my response to "a" above for a description of how I arrived at a figure for "Total On-going Call Hours". Refer to my response to OCA/USPS-T3-15(b) for a full description of the "experience during operational test" relied upon in making my estimate.
- e. Refer to my response to OCA/USPS-T3-15(b) for a full description of the "experience during operational test" relied upon in making my estimate.

Refer to my response to (c) above for an explanation of how I arrived at a 50% percentage.

• 1 • .

OCA/USPS-T3-1. Please refer to USPS-LR-1/MC98-1, Attachments 1 and 2. Please identify the specific numbers in Attachment 1 that are used to support Attachment 2.

**RESPONSE:** 

Please see the attached additional explanation of the relationship of Attachments 1 and 2.

## Overview

The additional information on the following pages is provided in response to interrogatories OCA/USPS-T3 1 - 4. This information is broken into three sections:

- Computer and Telecommunications Capacity Analysis submitted in the original testimony as Attachment 1. Each item with a direct relationship to a cost component in the Detailed Cost Estimates has been assigned a number.
- Detailed Cost Estimates submitted in the original testimony as Attachment 2.
   Every cost component has been given an identifier.
- A Cost Component Sources/Derivations Worksheet showing the source of the unit cost and number of units for each and every component in the Detailed Cost Estimates, and the relationship between numbered items in the Computer and Telecommunications Analysis and cost components in the Detailed Cost Estimates.

# **Computer and Telecommunications Capacity Analysis**

| CATEGORY / COMPONENT<br>Description, Item #  | YR 1999<br>Estimate   | YR 2000<br>Estimate   | YR 2001<br>Estimate   | YR 2002<br>Estimate   | YR 2003<br>Estimate | SOURCE  |
|--|-----------------------|-----------------------|-----------------------|-----------------------|---------------------|---|
| TELECOMMUNICATIONS INTERNET<br>CONNECTION Customers<br>Accessing Mailing Online                    |                       |                       |                       |                       |                     |   |
| ACCESS - CUSTOMER/USPS<br>Totel Number of Users  | 5,981                 | 10,439                | 16,275                | 22,815                | 26,650              | Library Reference USPS-LR-2/MC98-1, Section E - Survey Results<br>Table 19A (# businesses = # users assumed)  |
| Average customer sessions per user per year  | 12                    | 12                    | _ 12                  | 12                    |                     | Frequency is unknown at this time; One per month is assumed<br>based on expected mail content: invokces, announcements,<br>statements, forms (Library Reference USPS-LR-2/MC96-1, Section<br>(C, Table 5)                           |
| Customer sessions per business dey   | 230.04                | 401.50                | 625.96                | 877.50                | 1025.00             | Calculated (sessions per year / 312 business days in a year, 6 day<br>work week assumed)  |
| Percentage usage during daily pask period  | 0.75                  | 0.75                  | 0.75                  | 0.75                  | 0,75                | A Peek Period of Usage is required to plan for maximum capacity. %<br>of users expected during such a period is unknown, 75% usage is<br>therefore assumed.   |
| Customer sessions during peak period<br>Average session duration (no. hours)                       | 172.53<br>0.5         | 301 13<br>0 5         | 469.47<br>0.5         | 658.13<br>0.5         |                     | Calculated (Cust. Sessions Per day * Peak Percentage)<br>5 hour estimated based on observation during testing<br>(registration/logon on, file uploads=10 minutes, document review/job<br>submit = 20 minutes)                       |
| Peek Usege Period Hours  | 4                     | 4                     | 4                     | 4                     | 4                   | No peak usage period has been observed during the operation test,<br>but must be considered to plan for maximum capacity: 1PM-5PM<br>EST is assumed here  |
| #1A Avg. No. Concurrent Sessions During Pask Hours   | 21.57                 | 37.84                 | 58.68                 | 82.27                 | 96.09               | Calculated (Customer sessions during peak period/peak<br>period/avg. session duration)  |
| Access Ports Required During Peek Hours<br>THRCUGHPUT - CUSTOMER/USPS                              | 21.57                 | 37.64                 | 58.68                 | 62.27                 | 96.09               | One for each session  |
| Incoming Documents/Meiling Lists Per Second During Peak Period                                     | 0.01                  | 0.02                  | 0.03                  | 0.05                  | 0.05                | Calculated (Cust sessions during peak period / ( no. hours * 3600 seconds per hr)   |
| Number of pages per Document   | 3.2                   | 3.2                   | 3.2                   | 32                    | 3.2                 | 68% 1-2 pages, 11% 3-4 pages, 9% 5-8 pages, 3% 7-10 pages, 2%<br>11-15 pages, 7% 15+ pages (Library Reference USPS-LR-2/MC98-<br>1, Section E, Table 12)  |
| Number of Byles Per Page Word Processing/DeskTop Publishing  | 5020                  | 5020                  | 5020                  | 5020                  | 5020                | The size in bytes of an electronic "page" can vary widely, depending<br>of volume of text and presence of graphics. A Microsoft Word file<br>with several paragraphs plain text can require up to 10K bytes. 5K is<br>assumed here. |
| Number of Addresses Per Mailing List   | 4,120                 | 4,119                 | 4,119                 | 4,119                 | 4,119               | Calculated (annual mail volume estimate /(tolaf customer<br>estimale/avg mailings per customer per annum)   |
| Number of bytes per address  | 200                   | 200                   | 200                   | 200                   | 200                 | Although address fields are defined, number of characters, other<br>characteristics of address affect the size, 200 bytes is assumed here   |
| Average Bytes Per Incoming Customer Transmission<br>#1 Incoming bytes Per Second During Peak Hours | 839964.69<br>10063.76 | 839921.65<br>17563.99 | 839956.47<br>27384.40 | 839956.18<br>38388.62 |                     | Calculated (Average no. of pages " no. bytes per page)<br>Calculated (Average Bytes Per Transmission " Incoming documents<br>per second)  |

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Response Of Postal & Ce Witness Stirewalt To OCA Interrogatory

# **Computer and Telecommunications Capacity Analysis (Continued)**

| POMEINT         YR 1999         YR 2000         YR 2001         YR 2001         YR 2002         YR 2003           ULCATION SERVER         Estimate         Estimate         Estimate         Estimate         Estimate           Onversion         10063.16         1766.35         77364.00         77364.00         3938.62         44444.42           Onversion         10063.16         1766.35         77364.00         3938.62         4444.42           DOST COMMAND         30700         30700         3734.40         3938.62         4444.42           Peak Hours         10063.16         1/160.35         27.344.40         39386.62         4444.42           Peak Hours         1,514.331         2,4133         4,136         4,137         4,135           Peak Hours         1,514.331         2,4133         2,413,713         4,135,444         2,073           Peak Hours         1,514.331         4,136         4,137,444         2,073         2,073           Peak Hours         1,514.331         2,134,40         3,134,713         4,134,444         2,073           Peak Hours         1,514.331         2,134,40         3,134,713         4,134,444         2,073           Peak Hours         1,514.31         2,144.3   | Computed and releconnique and is capacity markers (conninued)           | CallUIS C        | <u>apauly</u>    | Allalysis   |               | ieu)          |  |
|--|---|------------------|------------------|-------------|---------------|---------------|--|
| Estimate         Estimate         Estimate         Estimate         Estimate         Estimate         Estimate           1066.1/6         1763.39         27364.40         39396.62         44641.42           1066.1/6         17563.39         27364.40         39396.62         44641.42           1066.1/6         17563.39         27364.40         39396.62         44641.42           307.20         307.20         30720         30720         30720           307.20         30720         30720         30720         30720           307.20         30720         30720         30720         30720           307.20         30720         30720         30720         30720           307.20         30720         30720         30720         30720           30720         30720         30720         30720         30720           30720         30720         30720         30720         30720           30720         30720         30720         30720         4041.42           10         10         1737.86.000         1,127.86.000         1,37.404.000           30720         30720         30720         30720         30720         4.4441.42   | CATEGORY / COMPONENT  | YR 1999          | YR 2000          | YR 2001     | YR 2002       | YR 2003       | SOURCE   |
| 1966.1/6         1763.39         27364.40         35386.62         44641.42           1006.1/6         17563.39         27394.40         36386.62         46441.42           1005.1/6         17563.39         27394.40         36386.62         46441.42           30720         30720         30720         30720         30720           40         19         4,119         4,119         4,119           4,120         4,119         4,119         4,119         30720           30720         30720         30720         30720         30720           30720         30720         30720         30720         30720           30750         555.5565.000         516.015.000         64.557.100         1,127.256.000         4,119           30720         30720         30720         307.4227         4,222.440         307.440.000           30750         307.66.57.000         516.657.000         1,127.256.600         1,217.440.000         1,217.440.000           30750         307.4227         4,125.666.77.64.50         3.144.277         4,222.440         220           30750         307.4227         1,223.440         3.144.277         4,222.440           0.15         0.15  | Description, Nem #  | Estimate         | Estimate         | Estimate    | Estimale      | Estimate      |  |
| FDOST COMMAND         1966.1/6         1756.39         27384.40         38386.62         44641.42           POST COMMAND         Sources         4,120         4,119   | PROCESSING CENTER - APPLICATION SERVER<br>Source File to PDF Conversion |                  |                  |             |               |               |  |
| MMANUD<br>Sources<br>filons<br>filons<br>filons<br>filons<br>Admin 41<br>20053 / 6 1765.99 22734.40 38386.62 44841421<br>4,120 4,119 4,119 4,119 4,119 4,119 4,119 4,119 20<br>7,514,231 2,446,231 4,113 4,113 4,119 4,119 20<br>2,516,655 000 516,015,000 1,177,856,000 1,317,440,000<br>285,665,000 516,015,000 0,045,311,000 1,127,856,000 1,317,440,000<br>285,665,000 516,015,000 0,045,311,000 1,127,856,000 1,317,440,000<br>285,665,000 516,015,000 0,045,311,000 1,127,856,000 1,317,440,000<br>285,665,000 516,015,000 0,045,311,000 1,127,856,000 1,317,440,000<br>285,665,000 516,015,000 0,045,511,000 1,127,856,000 1,317,440,000<br>285,665,000 516,015,000 0,015 0,05 0,05 0,05<br>0,15 0,15 0,15 0,05 0,05 0,05 0,05 0,05<br>0,15 0,15 0,15 0,05 0,05 0,05 0,05 0,05<br>0,15 0,15 0,15 0,05 0,05 0,05 0,05 0,05   | #2 Bytes Per Second During Peak Hours                                   | 10063.76         | 98.69311         | 27384.40    | 38388.62      | 44841.42      | 44841.42 Caturated (Average Byles Per Transnission * Incoming documents<br>per second)   |
| 10053.15         17553.59         27.344.40         38386.6.2         448414.2           4,120         4,120         30720 <th>INTER - NETPOST COM</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>  | INTER - NETPOST COM   |                  |                  |             |               |               |  |
| 4,120         4,119         4,119         4,119         4,119         4,119         4,119         4,119         4,119         4,119         4,119         4,119         4,119         4,119         4,119         4,119         4,119         4,119         3,0720         30720 <t< th=""><th>hooming bytes Per Second During Peak Hours</th><th>10063.76</th><th>17563.99</th><th>27384.40</th><th>38389.62</th><th>44841.42</th><th>44841.42 Celoulated (Average Bytes Per Transmission * Incoming documents<br/>(per second)</th></t<> | hooming bytes Per Second During Peak Hours                              | 10063.76         | 17563.99         | 27384.40    | 38389.62      | 44841.42      | 44841.42 Celoulated (Average Bytes Per Transmission * Incoming documents<br>(per second)   |
| ACCO         ACCO <th< th=""><th>Average mailing pieces per document</th><th>4,120</th><th>4,119</th><th></th><th>4,119</th><th>4,119</th><th>4,119 Calculated (total mell volume estimate / total customer estimate)</th></th<>   | Average mailing pieces per document                                     | 4,120            | 4,119            |             | 4,119         | 4,119         | 4,119 Calculated (total mell volume estimate / total customer estimate)  |
| 49         86         1.34         188         2,446,231         2,446,231         4,125,800         9,131,723         4,735,916         250           7         10         17         2,546,231         4,125,800         9,131,723         4,735,916         250           8         10         17         25         25         25         25         25           947,644         1,633,894         2,576,655         3,514,827         4,722,449         30720         30720         30720         30720         30720         30720         30720         30720         30720         30720         30720         4,722,449         05         0,  | Number of Byles Per Mailing Plece Transaction                           | 07/06            | 02706            | 02706       | 02700         | 02/06         | 30/20 Actual Number is unknown, eslimate based on observation of file<br>sizes generated during Maliting Online software testing activity  |
| 1,516,231         2,646,231         4,725,600         4,725,600         4,743,723         6,745,616           VVERS         10         17         25         25         25         25           ES         10         17         25         25         25         25           255,655,000         516,015,000         904,531,000         1,127,875,000         1,317,404,000         255,645         255,645         255,645         255,645         255,645         255,645         255,645         255,645         255,645         255,645         255,645         255,446         <   | Mail Merge Transactions Per Second During Peak Hours                    | 64               | 86               | Đ           | 166           | 220           | 220 Calculated (average pieces per document * incoming documents per<br>second)  |
| - FTP SERVERS<br>to Print Sites<br>10 11 255.665.000 516.015.000 11 255 255 255 255 255 255 255 255 255  | E3 Bytes Processed Per Second During Peak Hours                         | 1,516,231        | 2,646,231        | 4,125,800   | 5,71,237,2    | 6,755,916     | 6,735,918 Catourated (Mail Merge Transactions Per Second * Number of Bytes<br>per piece)   |
| 10         17         25         25         25         25           295,665,000         516,015,000         B04,531,000         1,127,856,000         1,317,444,000           297,644         30720         30720         30720         30720         30720           297,644         30720         30720         30720         30720         30720           297,644         0.5         0.5         0.5         0.5         0.5           01         0.5         0.5         0.5         0.5         0.5           01         0.5         0.5         0.5         0.5         0.5           015         0.15         0.15         0.15         0.15         0.15         0.15           015         0.15         0.15         0.15         0.15         0.15         0.15           015         0.15         0.15         0.15         0.15         0.15         0.15           11,15721E+15         3.57499E+15         1.259449E+16         1.72317E+16         1.72317E+16         1.72317E+16  | TELECOMMUNICATIONS - FTP SERVERS<br>Data Sent from USPS to Print Sites  |                  |                  |             |               |               |  |
| Z95,665,000         516,015,000         604,531,000         1,127,855,000         1,317,464,000           947,644         30720         30720         30720         30720         30720           947,644         30720         30720         30720         30720         4,223,449           05         05         05         05         05         05         05           05         05         05         05         05         05         05           05         05         05         05         05         05         05           05         05         05         015         0.15         0.15         0.15         0.15           015         0.15         0.15         0.15         0.15         0.15         0.15         0.15           015         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15           1,15721E+15         3.52499E+15         0.75         0.75         0.15         0.15         0.15           0         0         0.15         0.15         0.15         0.15         0.15         0.15           0         0.75         0.75         0.75         <   | Number of Printers  | 0                | 11               | 25          | 25            | 22            | 25 PRICE WATERHOUSE LIBRARY REFERENCE Exhibit A. Table 9,<br>Item 20, page 15  |
| 947,644         1,653,094         2,576,625         3,614,027         4,222,444           30720         30720         30720         30720         30720         30720           05         0,5         0,5         0,5         0,5         0,5         0,5           0         0         0         0         0         0,5         0,5         0,5         0,5           0         1         0.15         0,15   | Number of Meil Please Per Year  | 295,665,000      | 516,015,000      | 804,531,000 | 1,127,826,000 | 1.317,404,000 | 1.317,404,000 Library Reference USPS-LR-2MC30-1, Section E, Teble 12   |
| Octational human         30720         0.15  | Number of Mail Pleces Per Business Day                                  | 947,644          | 1,653,894        | 2,578,625   | 3,614,827     | 4,222,449     | 4.222.449 Calculated (pieces per year / 312 business days in a year, 6 day<br>work week assumed as per marketing plan)   |
| 05         0.5   | Average Byles Per Page in Postschol formet                              | 30720            | 30720            | 30720       | 30720         | 30720         | 30720 Estimate based on observation of file sizes generated by the Mailing<br>Online software during the pilot.  |
| 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5  | Percentage mail marge jobs  | 0.5              | 0.5              |             | 0.5           | 50<br>0       | 0.5 Both mail-merge and no mail-merge are available with Mailing<br>Owner. Three is no data to invite a wait percentagor of customer<br>orders require mail merge and since file size varies greatly between<br>the two options, they both must be considered. |
| 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15  | Percentage non mail merge joba  | 0.5              | 0.5              |             | 0.5           | 0.5           | 0.5 in this analysis. A 50%-50% split is assumed here.   |
| 1.15721E+15 3.52499E+15 8.56842E+15 1.68384E+16 2.297499<br>0.75 0.75 0.75 0.75 0.75 0.75 0.75 1.72312   | Compression factor using ZIP  | 0<br>2<br>2      | 0<br>15          |             | 0.15          | 0             | 0.15 Files are compressed using a data compression utility15 is an<br>estimate of the average compression factor using any of several data<br>compression utilities used by the Postal Service and industry.   |
| 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75  | Number of Bytes Per Business Day  | 1.15721E+15      | 3.52499E+15      | 8.56842E+15 | 1.6838ME+16   | 2.29749E+16   | 2.29749E+16 Calculated (phoces/pages per day * bytes per posiscript page * mail<br>merge factor * compression factor/fidocuments per day * bytes per<br>posiscript page * (1*mail merge lador))*(documents per day * bytes<br>per mailing isi)                 |
| 8 67905E+14 2 64374E+15 6 42612E+15 1 26269E+16  | Percentage usage during daily peak period                               | 0.75             | 0.75             |             | 0.75          | 0.75          | 0.75 A Peek Period of Usage is required to plan for maximum capacity. %<br>of users expected during such a period is unknown, 75% usage is<br>liherefore assumed.  |
|  | Number of bytes during daily peak period<br>Peak Usage Period Hours     | 8.67905E+14<br>4 | 2.64374E+15<br>4 | 6.42632E+15 | 1 26289E+16   | 1.72312E+16   | 1.72312E+16 Cakculated (Total bytes per day " peak usage percentage)<br>4 PPM SPM EST assumed  |

# Response Of Postal S. , e Witness Stirewalt To OCA Interrogatory

| Computer and Telecommun   |             | Japacny     | Analysis    | Conunc      | ieu/         |   |
|---|-------------|-------------|-------------|-------------|--------------|---|
| CATEGORY / COMPONENT  | YR 1999     | YR 2000     | YR 2001     | YR 2002     | YR 2003      | SOURCE  |
| Description, Item #   | Estimate    | Estimate    | Estimate    | Estimate    | Estimate     |   |
| Peak Usage Period Seconds   | 14400       | 14400       | 14400       | 14400       | 14400        | Calculated (hours / 3600)   |
| 44 Peak Usage Throughput Per Second to each Print Sile                          | 6027115280  | 10799610223 | 17650676702 | 35079699904 | 47864327483  | Calculated (bytes during peak period / total seconds in period/ no. of<br>printers)   |
| PROCESSING CENTER - DATA STORAGE<br>Financial Transactions                      |             |             |             |             |              |   |
| Total Transactions Per Day  | 230.04      | 401.50      | 625.96      | 877.50      |              | One Payment Per Session   |
| Iolal Transactions Per Weak   | 1,150       | 2,009       | 3,130       | 4,388       |              | Calculated (Financial trans. per day * 5) weekend amount minimal  |
| Iolal Transactions Per Year   | 59,810      | 104,390     | 162,750     | 228,150     |              | Calculated (Financial trans. per week * 52)   |
| MA Bytes Per Transaction  | 221         | 221         | 221         | 221         |              | Calculated. See Attachment 5: Sources for Details   |
| Transaction On-line Storage Duration Requirement (days)                         | Ţ           | 1           | 1           | 1           | 1            | Online retrieval of payment transaction data would be required for<br>settlement purposes only. Financial transactions are settled daily. |
| Transaction Backup Duration Requirement (days)                                  | 180         | 180         | 180         | 180         | 180          | Per Postal Service Finance and agreement with financial institutions  |
| n   | 1460        | 1460        | 1460        | 1460        | 1460         | Duration required by Visa and MasterCard  |
| Transaction Archive Duration Requirement (days)<br>Compression factor using ZIP | 0.15        | 0.15        | 0.15        | 0.15        |              | Files are compressed using a data compression utility15 is an   |
| Compression rector using zin  | 0,13        | 0.10        | •           |             |              | estimate of the average compression factor using any of several dat<br>compression utilities used by the Postal Service and Industry.     |
| #5 Transaction On-line Data Requirement (bytes)                                 | 7625,78     | 13309.73    | 20750.63    | 29085,13    | 33978.75     | Calculated (bytes per transaction * trans per day * req. no. of days * comp. factor)  |
| # Transaction Beckup Data Requirement (bytes)                                   | 1372639.50  | 2395750.50  | 3735112.50  | 5236042.50  | 6116175.00   | Calculated (bytes per inansaction * inans per day * reg. no. of days * comp. factor)  |
| #7 Transaction Archive Data Requirement (bytes)                                 | 11133631.50 | 19432198.50 | 30295912.50 | 42470122.50 | 49608975.00  | Calculated (bytes per transaction * trans per day * reg. no. of days * comp. factor)  |
| PROCESSING CENTER - DATA STORAGE<br>PDF Files                                   |             |             |             |             |              |   |
| Totel Documents Per Day   | 230.04      | 401.50      | 625.96      | 677.50      | 1025.00      | Calculated (transaction per year * average pieces per transaction)  |
|   | 1,150       | 2.008       | 3,130       | 4,388       | 5 125        | Calculated (Trans. per day * 5) weekend amount minimal  |
| Total Documents Per Veek  | 59,810      | 104,390     |             | 228,150     |              | Calculated (Trans. per week * 52)   |
| Average Bytes Per Page in PDF format  | 5,020       | 5,020       |             | 5,020       |              | Actual size is unknown at this time; Estimate based on observation (<br>files sizes created during the Mailing Online software testing    |
| PDF File On-line Storage Duration Requirement (days)                            | 30          | 30          | 30          | 30          | 30           | Mailing Online software design leaves document in Win95 Directory   |
| PDF File Backup Duration Requirement (days)                                     | 90          | 90          | 90          | 90          | 90           | No beckup duration has been agreed upon. 90 days is assumed there.  |
| PDF File Archive Duration Requirement (days)                                    | 120         | 120         | 120         | 120         | 120          | No archive duration has been agreed upon. 120 days is assumed here.   |
| Compression factor using ZIP  | 0.15        | 0 15        | 0.15        | 0.15        |              | Assumes all backup and archives lifes will be compressed (.15<br>compression factor assumed)  |
| 55 PDF File On-line Data Requirement (bytes)                                    | 5196568.85  | 9069885.00  | 14140471.15 | 19822725.00 | 23154750.00  | Calculated (bytes per mailing "mailings per day " req. no. of days "<br>mail merge % " comp factor)                                       |
| #9 PDF File Backup Data Requirement (bytes)                                     | 15589706.54 | 27209655.00 | 42421413.46 | 59468175.00 | \$9454250.00 | Calculated (bytes per mailing "mailings per day " req. no. of days "<br>mail merge % " comp factor)                                       |

# **Computer and Telecommunications Capacity Analysis (Continued)**

Computer and Telecommunications Capacity Analysis

722

### Response Of Postal Conce Witness Stirewalt To OCA Interrogatory

# **Computer and Telecommunications Capacity Analysis (Continued)**

| CATEGORY / COMPONENT   | YR 1999      | YR 2000      | YR 2001      | YR 2002      | YR 2003     | SOURCE  |
|--|--------------|--------------|--------------|--------------|-------------|---|
| Description, Item #  | Estimate     | Estimate     | Estimate     | Estimate     | Estimate    |   |
| 10 PDF File Archive Data Requirement (bytes)                                 | 20786275.38  | 36279540.00  | 56561884.62  | 79290900.00  | 926 #000.00 | Calculated (bytes per mailing 'mailings per day ' req. no. of days '<br>mail merge % ' comp factor}   |
| PROCESSING CENTER - DATA STORAGE<br>Postscript Files For Non-Mail Merge Jobs |              |              |              |              |             |   |
| werage Bytes Per Page in Postscript format                                   | 30720        | 30720        | 30720        | 30720        | 30720       | Actual size is unknown at this time; Estimate based on observation<br>file sizes generated by the Malling Online software testing activity  |
| verage Bytes In Full Mailing in Postacripi format                            | 126,551,145  | 126,544,535  | 126,549,884  | 126,549,838  | 126,549,878 | Calculated ( bytes per transaction * average pieces per transactio  |
| lercenløge non-møll mærge  | 0.5          | 0.5          | 0.5          | 0.5          | 0.5         | Both mell-merge and no mail-merge are available with Mailing<br>Online. There is no data to indicate what percentage of customer<br>orders require mail merge. 50% is assumed here.                     |
| ostscript On-Ine Storage Duration Requirement (days)                         | 30           | 30           | 30           | 30           | 30          | Mailing Online software design leaves document in Win95 Directo   |
| Postscript File Backup Duration Requirement (days)                           | 90           | . 90         | 90           | 90           | 90          | No backup duration has been agreed upon, 90 days is assumed<br>here.  |
| osiscripi File Archive Duration Requirement (days)                           | 120          | 120          | 120          | 120          | 120         | No archive duration has been agreed upon. 120 days is assumed<br>here.  |
| Compression factor using ZIP   | 0.15         | 0.15         | 0.15         | 0.15         | 0.15        | Assumes all backup and archives files will be compressed (.15<br>compression factor assumed)  |
| I 11 Postscript File On-line Data Requirement (bytes)                        | 65501169231  | 1.14317E+11  | 1.76235E+11  | 2.49857E+11  | 2.91856E+11 | Calculated (bytes per mailing "mailings per day " req. no. of days<br>mail merge % " comp factor)   |
| 12 Postscript Beckup Data Requirement (bytes)                                | 1.96504E+11  | 3.42952E+11  | 5.34704E+11  | 7.49571E+11  | 8.75567E+11 | Calculated (bytes per mailing *mailings per day * req. no. of days<br>mail merge % * comp factor)   |
| 13 Postscript Archive Data Requirement (bytes)                               | 2.62005E+11  | 4.57269E+11  | 7.12938E+11  | 9.99427E+11  | 1.16742E+12 | Calculated (bytes per mailing "mailings per day " req. no. of days<br>mail merge % " comp factor)   |
| PROCESSING CENTER - DATA STORAGE<br>Mail Lists                               |              |              |              |              |             |   |
| otal Transactions Per Day  | 230.04       | 401.50       | 625.96       | 877.50       | 1025.00     | One Mailing List Per Session  |
| Internations Per Week  | 1,150        | 2,008        | 3,130        | 4,300        |             | Calculated (Mailing lists per day * 5) weekend amount minimal   |
| otal Transactions Per Year   | 59,810       | 104,390      | 162,750      | 228,150      |             | Calculated (Mailing lists per week * 52)  |
| lumber of Addresses Per Mailing Lisi<br>lumber of byles per address          | 4,120<br>200 | 4,119<br>200 | 4,119<br>200 | 4,119<br>200 |             | Calculated = avg. number of pieces per Mailing On-line mailing<br>Athough address fields are defined, number of characters, other<br>characteristics of address affect the size, 200 bytes is assumed h |
| tumber of bytes Per mailing list   | 623,901      | 823,858      | 823,892      | 623,892      | 823,892     | Calculated = avg, number of bytes per address X avg. no. of<br>addresses  |
| ransaction On-line Storage Duration Requirement (days)                       | 30           | 30           | 30           | 30           | 30          | No online storage requirement has yet been identified. It is assun<br>here for purposes of determining maximum possible storage<br>requirement.   |
| Transaction Backup Duration Requirement (days)                               | 90           | 90           | 90           | 90           | 90          | No backup storage requirement has yet been identified. It is<br>assumed here for purposes of determining maximum possible<br>storage requirement.   |
| Transaction Archive Duration Requirement (days)                              | 120          | 120          | 120          | 120          | 120         | No archive storage requirement has yet been identified. It is<br>assumed here for purposes of determining maximum possible<br>storage requirement.  |

# Response Of Postal S. ... e Witness Stirewalt To OCA Interrogatory

# **Computer and Telecommunications Capacity Analysis (Continued)**

| computer and relecommun   | Gauona v    | Japacity   | <u>Anary 515</u> | 1001111     |             |   |
|---|-------------|------------|------------------|-------------|-------------|---|
| CATEGORY / COMPONENT  | YR 1999     | YR 2000    | YR 2001          | YR 2002     | YR 2003     | SOURCE  |
| Description, Item #   | Estimate    | Estimate   | Estimate         | Estimate    | Estimate    |   |
| compression factor using ZIP  | 0.15        | 0.15       | 0.15             | 0.15        | 0.15        | Assumes all backup and archives files will be compressed (.15   |
|   |             |            |                  |             |             | compression factor assumed)   |
| 14 Transaction On-line Data Regultement (bytes)   | 852879807.7 | 1486504806 | 2320782500       | 3253344231  | 3600203646  | Calculated (bytes per transaction * trans per day * reg. no. of days *<br>comp. factor)   |
| 15 Transaction Backup Data Requirement (bytes)  | 2558639423  | 4485514423 | 6962287500       | 9760032692  | 11400811538 | Calculated (bytes per transaction * trans per day * reg. no. of days *<br>comp. factor)   |
| 16 Transaction Archive Data Requirement (bytes)   | 3411519231  | 5954019231 | 9283050000       | 13013376923 | 15200815385 | Calculated (bytes per transaction * trans per day * reg. no. of days comp. factor)  |
| PROCESSING CENTER - APPLICATION SERVER<br>Backup Financial Transactions (Night Only)                      |             |            |                  |             |             |   |
| folal Transactions Per Day  | 230 04      | 401.50     | 625.96           | 877.50      | 1025.00     | One Payment Per Session   |
| Byles Per Transaction   | 221         | 221        | 221              | 221         |             | SEE ATTACHMENT E  |
| Backup Time (Minutes)   | 30          | 30         | 30               | 30          | 30          | Four hour estimated nightly maintenance period / 8  |
| F17 Bytes Per Second  | 28.24       | 49.30      | 76.85            | 107.74      | 125.85      | Number of trans. per day * no. of bytes * total secs  |
| PROCESSING CENTER - APPLICATION SERVER<br>Backup PDF Files (Night Only)                                   |             |            |                  |             |             |   |
| Total Transactions Per Day  | 230 04      | 401,50     | 625.96           | 877.50      | 1025 00     | Calculated (transaction per year * average pieces per transaction)  |
| Average Byles Per Page in PDF format  | 5,020       | 5,020      | 5,020            | 5,020       | 5,020       | The size in bytes of an electronic "page" can vary widely, dependin<br>of volume of lexit and presence of graphics. A Microsoft Word file<br>with several paragraphs plain lexit can require up to 10K bytes. 5K i<br>assumed here. |
| Backup Time (Minutes)   | 60          | 60         | 60               | 60          | 60          | Four hour estimated nightly maintenance period / 4  |
| FIB Bytes Per Second  | 320.78      | 559,87     | 872.87           | 1223.83     |             | Number of trans, per day * no. of bytes * total secs  |
| PROCESSING CENTER - APPLICATION SERVER<br>Backup Postscript Files For Non-Mail Merge Jobs<br>(Night Only) |             |            |                  |             |             |   |
| Total Transactions Par Day  | 230.04      | 401 50     | 625.96           | 677.50      | 1025.00     |   |
| Average Byles Per Page in Postscript formet   | 30720       | 30720      | 30720            | 30720       | 30720       | Actual size is unknown; Estimate based on observation of file sizes<br>generated by the Mailing Online software testing activity.   |
| Number of pages per Document  | 3           | 3          | 3                | 3           | 3           | Three Assumed For Basic Service: 21% 5+pages, 79% 1-4 pages -<br>Feasibility Study, page 29   |
| Backup Time (Minutes)   | 60          | 60         | 60               | 60          | 60          | Four hour estimate nightly maintenance period / 4   |
| #19 Byles Per Second  | 5088.98     | 10278.40   | 16024.62         | 22464.00    | 26240.00    | Number of trans. per day " no. of byles " total secs  |
| PROCESSING CENTER - APPLICATION SERVER<br>Backup Mail Lists   |             |            |                  |             |             |   |
| Total Transactions Per Day  | 230.04      | 401.50     | 625.96           | 877,50      | 1025 00     |   |
| Number of bytes Per mailing list  | 823,901     | 623,658    | 623,692          | 823,892     | -           | Calculated = avg. number of bytes per address X avg. no. of<br>addresses  |
| Beckup Time (Minutes)   | 120         | 120        | 120              | 120         | 120         | Two hours estimate nightly maintenance period / 2   |
| #20 Bytes Per Second  | 26323.45    | 45941.51   | 71528.47         | 100411.86   | 117290.24   | Number of trans. per day * no. of bytes * total secs  |

724

# Response Of Postal S :: e Witness Stirewalt To OCA Interrogatory

# **Computer and Telecommunications Capacity Analysis (Continued)**

| CATEGORY / COMPONENT<br>Description, Item #                       | YR 1999<br>Estimate | YR 2000<br>Estimate | YR 2001<br>Estimate | YR 2002<br>Estimate | YR 2003<br>Estimate | SOURCE   |  |  |  |  |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|--|--|--|--|--|
| TECHNICAL HELP DESK RESOURCE YEARS<br>Help Desk Volumes/Durations |                     |                     |                     |                     |                     |  |  |  |  |  |
| Total First Time Call Hours                                       | 2,991               | 3,344               | 4,377               | 4,905               |                     | No of new customers (increase over previous year X 1.5 to accoun<br>for customer lum over) X.5 hour estimate for initial call X 1 initial<br>call per year - average call times estimated from experience during<br>operational test |  |  |  |  |
| Total On-going calls hours  | 1,794               | 3,132               | 4,883               | 6,645               |                     | Total no. of customers X .1 hour estimate for on-going calls X 3 cal<br>average per year - average call times estimated from experience<br>during operational test.  |  |  |  |  |
| Total call hours  | 4,785               | 6,475               | 9,260               | 11,750              | 10.871              | Total initial call hours + total on-going call hours   |  |  |  |  |
| Total Help Desk Resource Years                                    | 2.66                | 3.60                | 5.14                | 6.53                |                     | Total hours / 1800 average workhours per resource year   |  |  |  |  |
| Percentage of customer calls requiring lechnical help             | 0 50                | 0.50                | 0.50                | 0 50                | 0.50                | Experience during the pilot indicates that this percentage is low, bu<br>50% assumed for capacity planning.  |  |  |  |  |
| #21 Technical Help Desk Call Hours                                | 2392                | 3238                | 4630                | 5875                | 5436                | Total On-Going Call hours X % of calls req. technical help   |  |  |  |  |
| #22 Technical Help Desk Resource Years                            | 1.33                | 1.80                | 2.57                | 3.24                | 3.02                | Total Help Desk hours X % of calls req. Inchnical help   |  |  |  |  |
|   |                     |                     |                     |                     |                     |  |  |  |  |  |

# Response Of Postal L .ce Witness Stirewalt To OCA Interrogatory

# **Detailed Cost Estimates**

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| CATEGORY   | FIXED  | ÝŔ  | 1999      |                 | ANNUAL                                  | COSTS   |   | YR        | 1999            | YR              | 2000            | YR 2001                                 |                 | YR 2002                               |                 | YR 2003                                 |                 |   |
|--|--|---|-----------|-----------------|---|---|---|-----------|-----------------|-----------------|-----------------|---|-----------------|---------------------------------------|-----------------|---|-----------------|---|
|  | Component<br>(Component ID)  | Unit  | Unil Cost | No. of<br>Units | Amount (Unit<br>Cost X No. of<br>Units) | Component<br>(Component ID)   | Unit  | Unit Cost | No. of<br>Units | Amount          | No. of<br>Units | Amount<br>(Unit Cast X<br>No. of Units) | No. of<br>Units | Amouni<br>(Uni Cost X<br>No of Units) | No. of<br>Units | Amount<br>(Unit Cast X<br>No. of Units) | No. of<br>Units | Amount<br>(Unit Cost X<br>No. of Units) |
| Technical Help<br>Desk                                     |  |   |           |                 |   | Technical Help<br>Desk Manager<br>(HD 13)   | Resource<br>Yr  | 100,000   | 1               | 100,000         | 1               | 100,000                                 | 1               | 100,000                               | 1               | 100,000                                 | 1               | 100,000                                 |
| (Refor Altachment<br>3, Page 13, for<br>Capacity Analysis) |  |   |           |                 |   | Technical Help<br>Desk Staff<br>(HD 14)   | Resource<br>Yr  | 60,000    | 3               | <b>160,00</b> 0 | э               | 180,000                                 | 5               | 300,000                               | 5               | 300,000                                 | 5               | 300,000                                 |
|  | Workstations<br>(HD 1)   | Digital<br>PC5100<br>w/Lexmark<br>Printer and<br>3 Yr Winty | 2000      | 3               | 6,000                                   | Workstallions (HD<br>15)  | Digital<br>PC5100<br>w/Lexmark<br>Printer and<br>3 Yr Wrnty | 2000      |                 | O               |                 | 0                                       | 2               | 4,000                                 | 0               | o                                       |                 |   |
|  | Calar Printer (HD<br>2)  | HP Color<br>Laser 5   | 4050      | 1               | 4,050                                   | Color Printer<br>(HD 16)  | HP Color<br>Laser 5   | 4050      |                 | 0               |                 | D                                       | 1               | 4,050                                 |                 | o                                       |                 | с<br>1                                  |
|  | Print Driver<br>Software (HD 3)  | Adobe<br>Postscript<br>Level 2<br>SIMM                      | 498       | 1               | 496                                     | Prini Oriver<br>Software (HD 17)  | Adobe<br>Postscript<br>Level 2<br>SIMM                      | 498       |                 | 0               |                 | o                                       | 1               | 499                                   |                 | o                                       |                 | C                                       |
|  | Printer Warranty<br>(HD 4)   | Three Year<br>Warranly                                      | 3645      | 1               | 3,645                                   | Printer Warran  | 1<br>11y (140-18)   | 3645      |                 | 0               |                 | 0                                       | +               | 3,645                                 |                 | 0                                       |                 | i e                                     |
|  | Training for New<br>Hires/<br>Replacements<br>(HO 5)                                 | 1 week<br>course in<br>MOL                                  | 1000      | 3               | 3,000                                   | Training for New<br>Hires/<br>Replacements (HD<br>19)                                 | course in   | 1000      | 2               | 2,000           | 2               | 2,000                                   | 2               | 2,000                                 | 3               | 3,000                                   | 3               | 3,00                                    |
|  | Word Processing/<br>Desk Top<br>Publishing<br>Software for Help<br>Desk staff (HD 8) | Ventura<br>Publishing<br>7.0                                | 682       | 3               | 2,046                                   | Word Processing/<br>Desk Top<br>Publishing<br>Software for Help<br>Desk staff (HD 20) | Publishing<br>7.0   | 682       | 0               | O               | 0               | o                                       | 2               | 1,364                                 | 0               | 0                                       | 0               |   |
|  | (HD 7)   | Quark<br>Express  | 732       | 3               | 2,196                                   | (HD 21)   | Quark<br>Express  | 732       | o               | 0               | 0               | 0                                       | 2               | 1,464                                 | 0               | o                                       | 0               |   |
|  | (F4C 8)  | Word<br>Perfect<br>Suite 8.0                                | 346       |                 | 1,038                                   | (HD 22)   | Word<br>Perfect<br>Suite 8 0                                | 346       | 0               | o               | 0               | 0                                       | 2               | 692                                   | 0               | o                                       | 0               | c                                       |

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# Response Of Postal & the Witness Stirewalt To OCA Interrogatory

# **Detailed Cost Estimates (Continued)**

| CATEGORY  | FIXED COSTS Y                       |   |           | 1999            | /9                                     | ANNUAL  | COSTS                |           | YR              | 1999    | YR              | 2000                                   | YR 2001         |  | YR 2002         |   | YR 2003         |  |
|---|-------------------------------------|---|-----------|-----------------|--|---|----------------------|-----------|-----------------|---------|-----------------|--|-----------------|--|-----------------|---|-----------------|--|
|   | Component<br>(Component ID)         | Unit  | Unil Cost | No. of<br>Units | Amount (Unit<br>Casi X No of<br>Units) | Component<br>(Component ID)   | Unit                 | Unit Cost | No. of<br>Units | Amount  | No. of<br>Units | Amount<br>(Unii Casi X<br>No of Units) | No. of<br>Units | Amount<br>(Unit Cinst X<br>No. of Units) | No. of<br>Units | Amount<br>[Unit Cost X<br>No. of Units} | No. of<br>Units | Amount<br>{Unit Cast #<br>No. of Units |
|   | (HiD 9)                             | Adobe<br>Acrobat 3.0  | 212       | 3               | 636                                    | (HD 23)   | Adobe<br>Acrobal 3.0 | 212       | 0               | 0       | 2               | 0                                      | 2               | 424                                      | 0               | 0                                       | 0               |  |
|   | (HD 10)                             | Access 97   | 361       | 3               | 1,083                                  | (HD 24)   | Access 97            | 361       | 0               | o       | 0               | O                                      | Z               | 722                                      | D               | 0                                       | 0               | (                                      |
|   | (HD 11)                             | Plus!<br>Version 1.0  | 58        | 3               | 174                                    | (HD 25)   | Plus!<br>Version 1.0 | 58        | 0               | 0       | 0               | 0                                      | 2               | 116                                      | 0               | 0                                       | 0               |  |
|   | (HD 12)                             | Microsoft<br>Office   | 400       | 3               | 1,200                                  |   | Microsoft<br>Office  | 400       | o               | 0       |                 | 0                                      | 2               | 800                                      |                 | o                                       | O               |  |
| TOTAL<br>TECHNICAL HELP<br>DESK                               |                                     |   |           |                 | 25,566                                 |   |                      |           |                 | 282,000 |                 | 282,000                                |                 | 419,775                                  |                 | 403,000                                 |                 | 403,000                                |
| Management/<br>Administration                                 | Workstation (MA<br>1)               | Digital<br>PC5100<br>w/Lexmark<br>Printer and<br>3 Yr Wrnty | 2000      | 1               | 2,000                                  | Program Manager<br>(Primary and<br>Secondary<br>Processing)<br>(MA 2)             | Resource<br>Yr       | 120,000   | 1               | 120,000 | 1               | 120,000                                | 1               | 120,000                                  | 1               | 120,000                                 | 1               | 120,000                                |
| Total<br>Management<br>Administration                         | L                                   | 1   | I         |                 | 2,000                                  |   | L                    | I         |                 | 120,000 | <b>I</b>        | 120,000                                |                 | 120,000                                  |                 | 120,000                                 | <u>_</u>        | 120,000                                |
| Processing<br>Center  |                                     |   |           |                 |  | System Manager<br>(Primary and<br>Secondary<br>Processing)<br>(PC 27)             | Resource<br>Yr       | 120,000   | 1               | 120,000 | 1               | 120,000                                | 1               | 120,000                                  | 1               | 120,000                                 | i               | 120,00                                 |
| (Refer Atlachment<br>3, Pages 9-13, for<br>Capacity Analysis) |                                     |   |           |                 |  | Data Base<br>Administrator<br>(Primary and<br>Secondary<br>Processing)<br>(PC 28) | Resource<br>Yr       | 100,000   | 1.5             | 150,000 | 1.5             | 150,000                                | 1.5             | 150,000                                  | 1.5             | 150,000                                 | 1.5             | 150,000                                |
|   | Data Storage<br>(On-Line)<br>(PC 1) | CD ROM 7<br>Bay Tower<br>w/4 Toshiba<br>12X Drives          | 1951      | 6               | 11,706                                 | Systems<br>Administration<br>(Primary and<br>Secondary<br>Processing)<br>(PC 29)  | Resource<br>Yr       | 100000    | 1.5             | 150,000 | 1.5             | 150,000                                | 1,5             | 150,000                                  | 1.5             | 150,000                                 | 1.5             | 150,00                                 |

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# Response Of Postal & Je Witness Stirewalt To OCA Interrogatory

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| FIXED COSTS YR 1999 | Unit Unit Cost                                     | Dels Storage FTK 97 10 50000<br>(Beckup)<br>(PC 2)                                     | Dein Storage FTK 9710 50000<br>(Archwe)<br>(PC 3) | Authention Unit Sun 110,000<br>Servers (Phraney Uhra<br>and Secondary Enterprise<br>Processing) 3000<br>(PC 4) | (PC 5) DASD 44.500 | (PC 6) Enhance 3.000<br>Service 7X24, four hour hour tesponse from vendor | FTP Servers Dynal 7,125<br>(Phimary and Phons Phons Secondary 2,06,700<br>Processing) One (PCC 7) Processor<br>(PC 7) Processor (PC 7) Mindows M1) | (PC 0) Enhance 2.650<br>Service 7.24, Iow<br>hour<br>response |
|---------------------|--|--|---|--|--------------------|---|--|---|
| 666                 | No. of Amount runa<br>Units Cost X No of<br>Units  | 2  | 2   | 220,000  | 4 178,000          | 6,000   | 2 14.250   | 2 5,700   |
| ANNUAL COSTS        | Component<br>(Component ID)                        | Application<br>Software Support<br>(Primary and<br>Secondary<br>Processing)<br>(PC 30) |   | Apphceiten<br>Servers (Prod.<br>Backup)<br>(PC 31)   |                    |   |  |   |
| COSTS               | 20   | Resource<br>Yr   |   | Unix Sun<br>Unrav<br>Additional<br>Processors<br>and<br>Clusters   | <u></u>            |   |  |   |
|                     | Unit Cost  | 100000   |   | 00005  |                    | _ <b></b>   |  |   |
| YR 1999             | No. of A<br>Units                                  | <u>~</u>   | ••  |  |                    |   | ·····  |   |
| 66                  | Amount N   | 000'002  |   |  |                    |   |  |   |
| YR 2000             | No. of Amount<br>Units (Uni Cost X<br>No of Units) | 200,000  |   |  |                    |   |  |   |
| *                   | A No. of   |  | <del>.</del>                                      | ~  |                    |   |  |   |
| YR 2001             | Amount<br>(Unit Coult X<br>No of Units)            | 2 200,000  |   | 100.000  |                    |   |  |   |
| ۲R                  | No. of<br>Units                                    | 2  |   | ~  |                    |   | ······   |   |
| YR 2002             | Amount<br>Rive Cost X<br>No. of Umai               | 200.000  |   | 400,000  |                    |   |  |   |
| 7                   | No. of<br>Units                                    |  |   |  |                    |   |  |   |
| YR 2003             | No. of Amount<br>Units Rum Cost X<br>No of Umits   | 2 200,000  |   | 2 (100,000   |                    |   |  |   |

Detailed Cost Estimates

728

| CATEGORY | FIXED   | COSTS  | YR        | 1999            |  | ANNUAL                      | COSTS |           | YR              | 1999   | YR              | 2000                                    | YR              | 2001                                    | YR              | 2002                                    | YR              | 2003                                   |
|----------|---|--|-----------|-----------------|--|-----------------------------|-------|-----------|-----------------|--------|-----------------|---|-----------------|---|-----------------|---|-----------------|--|
| :        | Component<br>(Component ID)                                     | Unit   | Unit Cost | No. of<br>Units | Amount (Unit<br>Cost X No of<br>Units) | Component<br>(Component ID) | Unit  | Unit Cost | No. of<br>Units | Amount | No. of<br>Units | Amount<br>(Unit Cost X<br>No. of Units) | No. of<br>Units | Amount<br>(Unit Cost X<br>No. of Units) | No. of<br>Units | Amount<br>(Unit Cost X<br>No. of Units) | No. of<br>Units | Amount<br>(Unit Cost )<br>No. of Units |
|          | Application<br>Servers (Testing<br>and Staging)<br>(PC 9)       | Unix   | 20,000    | 1               | 20,000                                 |                             |       |           |                 | · ·    |                 |   |                 |   |                 |   |                 |  |
|          | (PC 10)   | Enhance<br>Service<br>7X24, four<br>hour<br>response<br>from vendor                | 3,000     | 1               | 3,000                                  |                             |       |           |                 |        |                 |   |                 |   |                 |   |                 |  |
|          | NelPost Crnd Ctr<br>Servers (Testing<br>and Staging)<br>(PC 11) | Unix   | 20,000    | 1               | 20,000                                 |                             |       |           |                 |        |                 |   |                 |   |                 |   |                 |  |
|          | (PC 12)   | Enhance<br>Service<br>7X24, four<br>hour<br>response                               | 3,000     | 1               | 3,000                                  |                             |       |           |                 |        |                 |   |                 |   |                 |   |                 |  |
|          | FTP Servers<br>(Testing and<br>Staging)<br>(PC 13)              | from vendur<br>Digital<br>Prioris<br>ZX6200<br>One<br>Processor<br>(Windows<br>NT) | 7,125     | 1               | 7,125                                  |                             |       |           |                 |        |                 |   |                 |   |                 |   |                 |  |
|          | (PC 14)   | Enhance<br>Service<br>7X24, four<br>hour<br>response<br>from vendor                |           | t               | 2,850                                  |                             |       |           |                 |        |                 |   |                 |   |                 |   |                 |  |
|          | Payment Servers<br>(Testing and<br>Slaging)<br>(PC 15)          | Digital<br>Prioris<br>ZX6200<br>One<br>Processor<br>(Windows<br>NT)                | 7,125     | 1               | 7,125                                  |                             |       |           |                 |        |                 |   |                 |   |                 |   |                 |  |

# **Detailed Cost Estimates (Continued)**

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## **Detailed Cost Estimates (Continued)**

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| CATEGORY | FIXED   | COSTS   | YR        | 1999           |   | ANNUAL  | COSTS   |           | YR              | 1999   | YR              | 2000                                    | YR              | 2001                                    | YŔ              | 2002                                    | YR              | 2003                                  |
|----------|---|---|-----------|----------------|---|---|---|-----------|-----------------|--------|-----------------|---|-----------------|---|-----------------|---|-----------------|---------------------------------------|
|          | Component<br>(Component ID)   | Unit  | Unit Cosi | No of<br>Units | Amount (Unit<br>Cost X No. of<br>Units) | Component<br>(Component ID)   | Unil  | Unit Cost | No. of<br>Units | Amount | No. of<br>Units | Amount<br>(Unit Cost X<br>No. of Units) | No. of<br>Units | Amount<br>{Unit Cost X<br>No. of Units) | No. of<br>Units | Amount<br>(Unit Cost X<br>No. of Units) | No. of<br>Units | Amount<br>(Unit Cost X<br>No of Units |
|          | (PC 16)   | Enhance<br>Service<br>7X24, four<br>hour<br>response<br>from vendor | 2,850     | ĩ              | 2,850                                   |   |   |           |                 |        |                 |   |                 |   |                 |   |                 |                                       |
|          | Payment<br>Processing<br>Software<br>(Secondary and<br>Testing/Staging<br>Servers)<br>(PC 17)   | Talan<br>PC*Author-<br>ized Hub<br>(Two Pack)                       | 469       | 1              | 469                                     |   |   |           |                 |        |                 |   |                 |   |                 |   |                 |                                       |
|          | Address List<br>Management<br>Software:<br>Primary,<br>Secondary,<br>Testing/Slaging<br>(PC 18) | PostalSoft  | 65.528    | 3              | 196,584                                 | Address List<br>Management<br>Software Annual<br>Usage Fees<br>(PC 32)          | PostatSoft<br>Annual Fee<br>Production                        | 10010     | 1               | 10,010 | 1               | 10,010                                  | 1               | 1 <b>0,0</b> 10                         | 1               | 10,010                                  | 1               | 10,01                                 |
|          | Encryption<br>Software:<br>Primary,<br>Secondory,<br>Testing/Staging<br>(PC 19)                 | PGP Server<br>License   | 2,400     | 3              | 7,200                                   | Encryption<br>Software:<br>Primary,<br>Secondary,<br>Testing/Slaging<br>(PC 33) | PGP Annua<br>Mainlenanc<br>e                                  | 240       | 3               | 720    | ) 3             | 720                                     | 3               | 720                                     | 3               | 720                                     | 3               | 72                                    |
|          | Word Processing/<br>Desk Top<br>Publishing<br>Software<br>(PC 20)                               | Ventura<br>Publishing<br>7.0  | 682       | 1              | 682                                     | Address List<br>Management<br>Software Annual<br>Usage Fees<br>(PC 34)          | PostalSoft<br>Annual Fee<br>Secondary,<br>Testing<br>/Staging | 2000      | 2               | 4,000  | ) z             | 4,000                                   | 2               | 4,000                                   | 2               | 4,000                                   | 2               | 4,00                                  |
|          | (PC 21)   | Quark<br>Express  | 732       | ,              | 732                                     |   |   |           |                 |        |                 |   |                 |   |                 |   |                 |                                       |
|          | (PC 22)   | Word<br>Perfect<br>Suite 6.0  | 346       | 1              | 346                                     |   |   |           |                 |        |                 |   |                 | 1                                       |                 |   |                 |                                       |
|          | (PC 23)   | Adobe<br>Acrobat 3.0  | 212       |                | 212                                     |   |   |           |                 |        |                 |   |                 |   |                 |   |                 |                                       |

730

# **Detailed Cost Estimates (Continued)**

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| CATEGORY  | FIXED  | COSTS  | YR        | 1999            |   | ANNUAL   | COSTS   |           | YR              | 1999    | YR              | 2000                                    | YR              | 2001                                    | YR              | 2002                                    | YR              | 2003                                   |
|---|--|--|-----------|-----------------|---|--|---|-----------|-----------------|---------|-----------------|---|-----------------|---|-----------------|---|-----------------|--|
|   | Component<br>(Component 1D)                                | Unit   | Unii Cosl | No. of<br>Units | Amount (Unit<br>Cast X No. of<br>Units) | Component<br>(Component ID)  | Unit  | Unil Cosl | No. of<br>Units | Amount  | No. of<br>Units | Amouni<br>(Unit Cosi X<br>No. of Units) | No. of<br>Units | Amount<br>(Unit Cost X<br>No. of Units) | No. of<br>Units | Amount<br>(Unit Cost X<br>No: of Units) | No. of<br>Units | Amount<br>(Unit Cast )<br>No. of Units |
|   | (PC 24)  | Access 97  | 361       | 1               | 361                                     |  |   |           |                 |         |                 |   |                 |   |                 |   |                 |  |
|   | (PC 25)  | Plus!<br>Version 1.0   | 58        | 1               | 58                                      |  |   |           |                 |         |                 |   |                 |   |                 |   |                 |  |
|   | (PC 26)  | Visual<br>Studio 97  | 1,571     | 1               | 1,571                                   |  |   |           |                 |         |                 |   |                 |   |                 |   |                 |  |
| TOTAL<br>PROCESSING<br>CENTER                               |  |  |           |                 | 909,821                                 |  | <u>.</u>  | II        |                 | 634,730 | I               | 634,730                                 |                 | 734,730                                 |                 | 734,730                                 |                 | 734,7                                  |
| elecommunication  | Setup Network<br>Line to Initial Print<br>Sites<br>(TEL 1) | Dedicated<br>Network<br>Line (T1)  | 3500      | 10              | 35,000                                  | Selup Network<br>Line to Addt'l<br>Printers (TEL 4)                      | Dedicated<br>Network<br>Line (T1)   | 3500      | 0               | 0       | 7               | 24,500                                  | 8               | 28,000                                  |                 |   | 0               |  |
| Refer Altachment<br>3, Pages 6-9, for<br>Capacity Analysis) | Set Up Internet<br>Connection<br>(TEL 2)                   | Dedicated<br>Network<br>Line (T1)  | 3500      | 1               | 3,500                                   | Annual Charge<br>Network Line from<br>USPS to all Print<br>Sites (TEL 5) | T1 Annual<br>Charge<br>(Monthly X<br>12)                                  | 42000     | 10              | 420,000 | 17              | 714,000                                 | 25              | 1,050,000                               | 25              | 1,050,000                               | 25              | 1,050,0                                |
|   | Setup Network<br>Line to FDMS<br>(TEL 3)                   | Dedicaled<br>Network<br>Line (T1)  | 3500      | ,               | 3,500                                   | Annual Charge<br>Network Line from<br>USPS to FDMS<br>(TEL 6)            | T1 Annual<br>Charge<br>(Monthly X<br>12)                                  | 42000     | 1.              | 42,000  | 1               | 42,000                                  | 1               | 42,000                                  | 1               | 42,000                                  | 1               | 42,0                                   |
|   |  |  |           |                 |   | Help Desk 1-800<br>line (TEL 7)  | Charge per<br>hour use  | 3.3       | 2392            | 7,894   | 3238            | 10,685                                  | 4630            | 15,279                                  | 5875            | 19,386                                  | 5436            | 17.5                                   |
| TOTAL TELE-<br>COMMUNICATIONS                               |  |  | •         |                 | 42,000                                  |  | L   |           |                 | 469,894 |                 | 791,185                                 |                 | 1,135,279                               | <u> </u>        | 1,111,368                               |                 | 1,109,9                                |
| Printer Sites   | Initial Print Siles -<br>FTP Servers<br>(PR 1)             | Digital<br>Prioris<br>ZX6200<br>Single One<br>Processor<br>(Windows<br>NT) | 10,000    | 10              | 100,000                                 | Addt1 Siles - FTP<br>Servers (PR 5)                                      | Digital<br>Phoris<br>ZX6200<br>Single One<br>Processor<br>(Windows<br>NT) | 10,000    | 0               | 0       | 7               | 70,000                                  | 0               | 80,000                                  | 0               | 0                                       | 0               |  |
| (Refer Attachment<br>3, Pages 9, for<br>Capacity Analysis)  | Initial Print Siles -<br>Router (PR 2)                     | 1 Router   | 1500      | 10              | 15,000                                  | Addf1 Sites -<br>Routers (PR 6)  | Eslimate  | 1500      | 0               | o       | 7               | 10,500                                  | •               | 12,000                                  | o               | 0                                       | 0               |  |

731

# **Detailed Cost Estimates (Continued)**

| CATEGORY             | FIXED   | COSTS   | YR        | 1999            |   | ANNUAL  | COSTS  |           | YR             | 1999      | YR              | 2000                                    | YR              | 2001                                    | YR              | 2002                                    | YR              | 2003                                   |
|----------------------|---|---|-----------|-----------------|---|---|--|-----------|----------------|-----------|-----------------|---|-----------------|---|-----------------|---|-----------------|--|
|                      | Component<br>(Component ID)                                       | Unit  | Unit Cost | No. of<br>Units | Amount (Unit<br>Cost X No. of<br>Units) | Component<br>(Component ID)                                     | Unit   | Unil Cost | No of<br>Units | Amount    | No. of<br>Units | Amount<br>(Unit Cast X<br>No. of Units) | No. of<br>Units | Amount<br>(Unit Cost X<br>No. of Units) | Na. of<br>Units | Amount<br>(Unit Cost X<br>No. of Units) | No. of<br>Unils | Amount<br>(Unit Cost )<br>No. of Units |
|                      | Install Equipment<br>at Initial Print<br>Sites - Labor (PR<br>3)  | Resource<br>Hrs (6) (0)<br>\$65.00 per<br>hour                          | 40        | 10              | 26,000                                  | Inslati Equipment<br>al addi1 Print<br>Siles - Labor<br>(PR 7)  | Resource<br>Hrs @<br>\$65.00 per<br>hour                             | 40        | 0              | 0         | 7               | 18,200                                  | 0               | 20,600                                  | 0               | 0                                       | 0               |  |
|                      | Install Equipment<br>at Initial Print<br>Siles - Travel (PR<br>4) | Cost Per<br>Trip:<br>Airfare,<br>Hotel, Local<br>Transport,<br>Per Diem | 2500      | 10              | 25,000                                  | Install Equipment<br>at addr1 Print<br>Sites - Travel<br>(PR 8) | Cost Per<br>Trip: Airfare,<br>Hotel, Local<br>Transport,<br>Per Diem | 2500      | 0              | 0         | 7               | 17,500                                  | a               | 20,000                                  | 0               | 0                                       | 0               |  |
|                      |   |   |           |                 |   | USPS Equipment<br>Maintenance at all<br>Print Siles (PR 9)      | 100<br>Resource<br>hrs/yr (0)<br>\$65:00 per<br>hour                 | 80        | 10             | 52,000    | 17              | 68,400                                  | 25              | 130,000                                 | 25              | 130,000                                 | 25              | 130,00                                 |
| Total Print<br>Sites |   |   |           |                 | 166,000                                 |   | L  | i=        | I              | 52,000    | II              | 204,600                                 |                 | 262,800                                 | 1               | 130,000                                 | 1               | 130,00                                 |
| GRAND<br>TOTALS      |   |   |           |                 | 1,145,387                               |   |  |           | -              | 1,558,624 |                 | 2,032,515                               |                 | 2,672,584                               |                 | 2,499,118                               |                 | 2,497,66                               |

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All labor estimates are in resource years, not number of personnel. Personnel are not assumed to be working full-time on Mailing Online. Actual number of

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personnel assigned to Malling Online over time will vary according to work load.

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732

# Cost Component Sources/Derivations Worksheet

| Category                      | Component ID   | Unit Cost Source   | No. of Units Source/Derivation   |
|-------------------------------|--|--|--|
| Technical Help<br>Desk        | HD 1, HD 2, HD 3,<br>HD4   | Postal Service Contract Prices from<br>Digital Equipment Corporation   | Attachment 1 Item #22, Total Technical Help Desk Resource Years, Each help desk staff member requires a computer workstation, therefore units # resource (years). A printer will shared among all Help Desk staff.   |
|                               | HD 5   | No empirical data to support an<br>accurate estimate for training on Mailing<br>Online 1000S for a software class is<br>typical. | Attachment 1 item #22, Technical Help Desk Resource Years, Each<br>resource requires training  |
|                               | HD 6, HD 7 HD 8,<br>HD 9, HD 10, HD<br>11, HD 12, HD 21,<br>HD 22, HD 23, HD<br>24, HD 25, HD 26 |  | Attachment 1 Item #22 Technical Help Desk Resource Years, Each help<br>desk staff member requires software that simulates the Mailing Online<br>user's environment to understand, diagnose, and resolve user reported<br>problems therefore units = resource (years).  |
|                               | HD 13, HD 14   | Current internal charge for Information<br>Technology resource is \$97,000. This<br>estimate was rounded to \$100,000.           | Attachment 1 Item #22 Technical Help Desk Resource Years, HD 13, HD<br>14 = Item #22, rounded to the nearest resource year. Due to the lack of<br>empirical data regarding the amount of customer calls expected, one<br>additional year was added.  |
| Management/<br>Administration | MA 1   | Postal Service Contract Price from<br>Digital Equipment Corporation  | The Information Technology program manager required a workstation and printer.   |
|                               | MA 2   |  | Based on my professional experience I believe an information Systems<br>program manager will need to devote the total number of hours shown in<br>MA2 to over see all Mailing Online information technology related activity.  |
| Processing<br>Center          | PC 1   | Postal Service Contract Prices from<br>Digital Equipment Corporation   | Attachment 1 litems # 5, #8, # 11, and #14: Sum of these items equals on-<br>line storage requirements in bytes (P1).<br>Two sets of three units are necessary, one for the primary processing site,<br>another for the secondary site. The data storage equipment selected has<br>capacity greater than the total requirement as shown below. |

| On-line Storage Requirements   | 1999           | 2000        | 2001        | 2002        | 2003        |
|--|----------------|-------------|-------------|-------------|-------------|
| Item # 5 Financial Transactions                                      | 7625.78        | 13309.73    | 20750.63    | 29089.13    | 33978.75    |
| Item # 8 PDF files   | 5196568.85     | 9069885.00  | 14140471.15 | 19822725.00 | 23154750.00 |
| Item #11 Postscript files  | 65501169230.77 | 1.14317E+11 | 1.78235E+11 | 2.49857E+11 | 2.91856E+11 |
| Item #14 Mailing Lists   | 8.52880E+08    | 1.48850E+09 | 2.32076E+09 | 3.25334E+09 | 3.80020E+09 |
| Total On-line Storage Requirement (Items # 4 + # 8<br>+ # 11 + # 14) | 6.63593E+10    | 1.15815E+11 | 1.80569E+11 | 2.53130E+11 | 2.95679E+11 |
| Attachment #2 (PC 1, PC 5) Capacity (Primary &<br>Secondary)         | 3.36000E+11    | 3.39000E+11 | 3.39000E+11 | 3.39000E+11 | 3.39000E+11 |

# Cost Component Sources/Derivations Worksheet (Continued)

| Category | Component ID | Unit Cost Source   | No. of Units Source/Derivation   |
|----------|--------------|--|--|
|          | PC 2         | Postal Service Contract Prices from<br>Digital Equipment Corporation | Attachment 1 Items # 6, #9, # 12, and #15. Sum of these items equal<br>backup storage requirements in bytes (P2).  |
|          |              |  | Two units are necessary, one for the primary processing site, another for the secondary site. The data storage equipment selected has capacity greater than the total requirement, as shown below. |

| Backup Data Storage Requirements   | 1999        | 2000        | 2001        | 2002        | 2003        |
|--|-------------|-------------|-------------|-------------|-------------|
| Item # 6 Financial Transactions  | 1372639.50  | 2395750.50  | 3735112.50  | 5236042.50  | 6116175.00  |
| Item # 9 PDF files   | 15589706.54 | 27209655.00 | 42421413.46 | 59468175.00 | 69464250.00 |
| Item # 12 Postscript files   | 1.96504E+11 | 3.42952E+11 | 5.34704E+11 | 7.49571E+11 | 8.75567E+11 |
| Item # 15 Mailing Lists  | 2.55864E+09 | 4.46551E+09 | 6.96229E+09 | 9.76003E+09 | 1.14006E+10 |
| Total Backup Data Storage Requirement (Items # 6<br>+ # 9 + # 12 + # 15) | 1.99079E+11 | 3.47447E+11 | 5.41712E+11 | 7.59395E+11 | 8.87043E+11 |
| Attachment #2 (PC2) Capacity (Primary & Secondary)                       | 2.00000E+12 | 2.00000E+12 | 2.00000E+12 | 2.00000E+12 | 2.00000E+12 |

| PC 3 | Postal Service Contract Prices from<br>Digital Equipment Corporation | Attachment 1 Items # 7, #10, # 13, and #16. Sum of these items equal backup storage requirements in bytes (P3). Two units are necessaty, one for the primary processing site, another for the secondary site. The data storage equipment selected has capacity greater than the total requirement as shown below. |
|------|--|---|
|------|--|---|

| Archive Data Storage Requirements  | 1999          | 2000          | 2001          | 2002               | 2003               |
|--|---------------|---------------|---------------|--------------------|--------------------|
| Item # 7 Financial Transactions  | 1150.19       | 2007.50       | 3129.81       | 4387.50            | 5125.00            |
| Item # 10PDF files   | 20786275.38   | 36279540.00   | 56561884.62   | 79290900.00        | 92619000.00        |
| Item # 13 Postscript files   | 2.62005E+11   | 4.57269E+11   | 7.12938E+11   | 9.99427E+11        | 1.16742E+12        |
| Item # 16 Mailing Lists  | 3411519230.77 | 5954019230.77 | 9283050000.00 | 13013376923.0<br>8 | 15200815384.6<br>2 |
| Total Archive Data Storage Requirement (Items # 7<br>+ # 10 + # 13 + # 16) | 2.65437E+11   | 4.63259E+11   | 7.22278E+11   | 1.01252E+12        | 1.18272E+12        |
| FTK 9710 Storage Capacity (Primary and<br>Secondary)                       | 2.00000E+12   | 2.00000E+12   | 2.00000E+12   | 2.00000E+12        | 2.00000E+12        |

| PC 4, PC 5, PC 6 | Corporation  | Attachment 1 items #2, #3, #17, #18, #19, #20 (throughput), #1A<br>(number of concurrent processes/users)<br>For throughput: The processor must be able to process maximum number<br>of transactions on a given 24 hour period. Daytime peak = items #2 + #3 =<br>4,153,184 bytes per second. Night-time peak = items #17 + #18 + #19 +<br>#20 =<br>62915.6 bytes per second. The greater of these two sums (4,153,184<br>bytes per second in year 2001) is the throughput requirement for one<br>processor.<br>My professional opinion is that a UNIX processor is required to meet |
|------------------|--|--|
|                  |  | throughput and concurrent processes/user requirements. Two units are necessary, one for the primary processing site, another for the secondary site.   |
| <br>PC 7, PC 8   |  | Attachment 1 Item #4. Professional judgment was used to determine that<br>an NT processor will meet this requirement. Two units are necessary, one<br>for the primary processing site, another for the secondary site.   |
| <br>PC 9, PC 10  | Postal Service Contract Prices from Sun<br>Corporation | Attachment 1 Items #2. For testing, staging purpose only, thereby requiring<br>a reduced processing capacity. Professional judgment was used to<br>determine that an NT processor will meet the requirement. Only one<br>processor req. at the primary processing site.  |
| PC 11, PC 12     | Postal Service Contract Prices from Sun<br>Corporation | Attachment 1 Items #3. For testing, staging purpose only, thereby requiring<br>a reduced processing capacity. In my professional an NT processor will<br>meet the requirement. Only one necessary at the primary processing site.  |

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# Cost Component Sources/Derivations Worksheet (Continued)

| Category                | Component ID                      | Unit Cost Source  | No. of Units Source/Derivation   |
|-------------------------|-----------------------------------|---|--|
|                         | PC 13, PC 14                      | Postal Service Contract Prices from<br>Digital Equipment Corporation  | Attachment 1 Items #2. For testing, staging purpose only, thereby<br>requiring a reduced processing capacity. In my professional judgment an<br>NT processor will meet the requirement. Only one necessary at the<br>primary processing site.              |
|                         | PC 15, PC 16                      | Postal Service Contract Prices from<br>Digital Equipment Corporation  | Attachment 1 Items #2. For testing, staging purpose only, thereby<br>requiring a reduced processing capacity. I used my professional judgment<br>to determine the model required. Only one necessary at the primary<br>processing site.                    |
| L                       | PC 17                             | Purchase price from Tellan  | Unit is a two pack, covers both primary and secondary processing sites   |
|                         | PC 18                             | Purchase price from Peoplesoft  | Three units required, one each for primary, secondary, and testing/staging   |
|                         | PC 19                             | Purchase price from PGP   | Three units required, one each for primary, secondary, and testing/staging.  |
|                         | 22, PC 23, PC 24,<br>PC 25, PC 26 | Purchase price from Pacific Computer<br>Supply  | One copy of user software will be kept at the processing site to maintain a<br>complete Mailing Online configuration   |
|                         | PC 27                             | Current internal charge for information<br>Technology resource is \$97,000. This<br>estimate was rounded to \$100,000. 20%<br>added to account for management<br>premium. | Based on my professional experience I believe a manager will be required<br>to oversee processing site operations.   |
|                         | PC 28                             | Current internal charge for Information<br>Technology resource is \$97,000. This<br>estimate was rounded to \$100,000.  | Based on my professional experience I believe the total number of hours<br>shown will be required to perform data base administration activities for<br>both primary and secondary processing sites as determined by<br>professional judgment.             |
|                         | PC 29                             | Current internal charge for Information<br>Technology resource is \$97,000. This<br>estimate was rounded to \$100,000.  | Based on my professional experience I believe the total number of hours<br>shown will be required to perform data systems administration activities<br>for both primary and secondary processing sites.  |
|                         | PC 30                             | Current internal charge for Information<br>Technology resource is \$97,000. This<br>estimate was rounded to \$100,000.  | Based on my professional experience I know that very configuration<br>requires software support. a number of hours equal to two resource years<br>is estimated to necessary based on the minor software enhancements<br>and fixes will be performed.       |
|                         | PC 31                             | Postal Service Contract Prices from Sun<br>Corporation  | Attachment 1 Item #4. Additional processing volume in succeeding years<br>indicates that an additional processor will be required by 2001. One unit<br>for the primary processing site, another for the secondary site.                                    |
|                         | PC 32                             | Price provided by Peoplesoft  | The annual fee is based on usage at primary processor (PC 4)   |
|                         | PC 33                             | Purchase price from Tellan  | One copy each for primary, secondary, and testing/staging application<br>servers (PC 4, PC 9)  |
|                         | PC 34                             | Price provided by Peoplesoft  | The annual fee is based on usage for secondary processing and testing/<br>staging application servers (PC 4, PC 9)   |
| Tele-<br>communications | TEL 1, TEL 4,<br>TEL 5            | Postal Service Contract Prices from MCI   | Attachment 1 Item #4 with consideration given to 1) Scheduling of<br>transmissions to print sites beyond the peak period and 2) a planned<br>change to the Mailing Online design to transmit files to print sites in a<br>more condensed format.           |
|                         | TEL 2                             | Postal Service Contract Prices from MCI   | Attachment 1 item #1 The requirement for year 2003 at 44841 bytes per<br>second (358731 bits per second). A T1 line can accommodate 1,5440,00<br>bits per second - over 400% of the requirement. One set-up required for<br>the processing site.           |
|                         |                                   |   | One line for each printer. Number of printers as per Exhibit USPS-2A,<br>Table 9, Item 20, page 15.  |
|                         | TEL 3, TEL 6                      |   | Throughput for FDMS data will be less than throughput into internet as follows: Max. numbers of session per day in 2003 (Item #1A, 1025) X number of bytes per financial transaction (Item #4A; 221) = 22652 bytes per day.                                |
|                         |                                   |   | 22652 bytes per day is less than 44841 bytes per second during peak<br>period for the internet connection (Item #1). The capacity determined for<br>item #1 (a T1 line) should therefore be adequate. One line connection<br>from processing site to FDMS. |
|                         | TEL 7                             | Postal Service Contract Price from<br>Sprint  | Attachment 1, # Item 21. One toll-free number will be provided for<br>customer help desk support.  |

# Cost Component Sources/Derivations Worksheet (Continued)

| Printer Sites |  | One unit per print site, number<br>9, item 20, page 15 | of print sites as per Exhibit USPS-2A, Table |
|---------------|--|--|--|
| <br>          |  |  |  |

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|          | PR 2, PR 6   | Typical purchase price for the Postal<br>Service.      | Number of installs corresponds to number of print sites. Number of print<br>sites as per Exhibit USPS-2A, Table 9, Item 20, page 15 |
|----------|--------------|--|---|
| Category | Component ID | Unit Cost Source                                       | No. of Units Source/Derivation  |
|          | PR 3, PR 7   | Estimate base on professional<br>experience, judgment. | Number of installs corresponds to number of print sites. Number of print<br>sites as per Exhibit USPS-2A, Table 9, Item 20, page 15 |
|          | PR 4, PR 8   | Estimate base on professional<br>experience, judgment. | One install for each print site. Number of print sites as per Exhibit USPS-<br>2A, Table 9, Item 20, page 15                        |
|          | PR 9         | Estimate base on professional<br>experience, judgment. | Maintenance required for each print site. Number of print sites as per<br>Exhibit USPS-2A, Table 9, Item 20, page 15                |

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OCA/USPS-T3-2. Please refer to USPS-LR-1/MC98-1, Attachments 1 and 2. Please identify the specific numbers in Attachment 2 that are derived from Attachment 1.

**RESPONSE:** 

See my response to OCA/USPS-T3-1.

OCA/USPS-T3-3. Please refer to USPS-LR-1/MC98-1, Attachments 1 and 2. Please show how the numbers in Attachment 2 are related to specific numbers in Attachment 1. For example, if there are numbers in Attachment 2 related to "Incoming bytes Per Second During Peak Hours" (Attachment 1, page 6), please show the mathematical or other relationship.

**RESPONSE:** 

See my response to OCA/USPS-T3-1.

OCA/USPS-T3-4. Please refer to USPS-LR-1/MC98-1, Attachment 2.

- a. Please show the derivation of the numbers appearing in the columns labeled "No. of Units."
- b. Please show the derivation of the numbers appearing in the columns labeled "Unit Cost."
- Please explain the basis for using the same "Unit Cost" for all years 1999-2003.

**RESPONSE:** 

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a. - b. See my response to OCA/USPS-T3-1.

c. I employed necessary assumptions regarding the behavior of these costs over time.

With respect to the cost of electronic devices and services, my judgment was based on several considerations. Unit prices for computers, printers, and peripheral devices have steadily decreased over the years. In the case of computers, rapid technological advances have caused the cost for a given amount of computing capacity to reduce by half approximately every 18 months a phenomenon loosely termed "Moore's Law". A similar decrease has occurred for long-distance telecommunication prices. However, there is no basis on which to predict with precision whether prices will continue to decrease in the future, and if so, at what rate, so I assumed that the unit costs would be constant over the time period in guestion.

In the case of human resources, the price of staff time would be expected to increase over time given a predictable rate of inflation. Again, however, I cannot precisely predict the rate of increase for such costs, so I assumed constancy for the years in question.

Given the fact that the human resources costs (HD 5, HD 13, HD 14, HD 19, PC 27, PC 28, PC 29, PC 30, PR 3, PR 4, PR 7, and PR 8, in the Cost Estimates) will likely increase by no more than five percent a year (given the rate

of inflation in recent years) while the technology costs (the remainder of the cost components in the Cost Estimates), which account for more than fifty percent of the total, are likely to decrease to a small fraction of the current costs, I believe the cost estimates are conservatively high. In addition, as noted in Attachment #2, Item #22, I calculated the number of Technical Help Desk Staff resource hours (component HD 14) based on 50% of customer call hours requiring technical assistance. I further noted in item #22 that my experience indicates that this percentage should be lower, but I used 50% for estimation purposes. Given all of the above, I believe the net effect of not calculating 1) the falling cost of technology, 2) inflation in human resource costs, and 3) an experience-based estimate of help desk hours, is an overestimate of the total cost.

OCA/USPS-T3-5. Please refer to USPS-LR-1/MC98-1, page 3. The following statement appears under the heading "Methodology":

A cost figure was assigned to each cost component based on the results reported in Attachment 1. *Attachment 2: Detailed Cost Estimates* documents all cost elements and the costs assigned to each.

a. Please define the expression "cost figure" as used here.

b. Please define the expression "cost component" as used here.

c. Please define the expression "cost elements" as used here.

d. Please define the expression "based on" as used here.

e. For each number in *Attachment 2: Detailed Cost Estimates* that is "based on the results reported in Attachment 1," show the derivation of the number and its relationship to "the results reported in Attachment 1."

#### **RESPONSE:**

a. The term "cost figure" is synonymous with unit "cost shown" in Attachment 2: Detailed Cost Estimates.

b. The term "cost component" is synonymous with "cost component" shown in Attachment 2: Detailed Cost Estimates. A "cost component" is the unit (generally the smallest) to which a "unit cost" can be assigned.

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c. The term "cost component" is synonymous with "cost component" shown in Attachment 2: Detailed Cost Estimates.

d. Specific information in Attachment 1 formed the basis for the assignment of a number of unit costs, numbers of units shown in Attachment 2: Detail cost Estimates. The Cost Components Source/Derivations chart included in my responses to OCA Interrogatories 1-4 described this in detail.

e. The Cost Components Source/Derivations chart included in my responses to OCA Interrogatories 1-4 described this in detail.

OCA/USPS-T3-6. Please refer to USPS-LR-1/MC98-1, page 3. The following statement appears under the heading "Assumptions":

There are 1500 miles mean distance from the Postal Service Mailing Online processing site to any given print site. Ten sites will perform printing for Mailing Online in 1999, with projections of 17 sites by 2000, and 25 sites in following years.

- a. Please define "mean distance" as used here.
- b. Please show how the 1500 miles is calculated.
- c. Does "distance" refer to air miles, road miles, wire miles, or some other concept. Please explain.
- d. Please identify all cells in the spreadsheets for Attachments 1 and 2 where the 1500 miles is used.
- e. What is the "mean distance from the Postal Service Mailing Online processing site to" printing sites during (i) the operations test period, (ii) the market test period, (iii) the experiment period, (iv) 1999, (v) 2000, (vi) "the following years"? Please show how each of these distances is calculated.
- f. Does any other Postal Service witness utilize the 1500 miles figure? If so, please identify the witness and specify the location where the number is used.

**RESPONSE:** 

- <u>'</u> ',

a. Average distance.

b. The processing site for Mailing Online is in California. Any given print site for mailing Online is presumed to be anywhere in the contiguous United States. Given the approximate length of the contiguous United States is 3000 air miles, an average of 1500 air miles distance is assumed between any given print site and the Mailing Online processing center.

c. Air miles. Neither road, nor wire miles have any bearing on the telecommunications costs. As noted in my response to "d" below, air mile distances also had no bearing on the cost estimate.

d. The 1500 mile distance assumption was originally included to account for any possible distance-based variance in telecommunications charges from the

Mailing Online processing site to the print sites. The current contract price the Postal Service must pay for telecommunications services was used to price this telecommunication link. Distance had no influence over the price estimated based on the contract price. Therefore the 1500 miles was not used in Attachments 1 or 2.

e. No distinction is made between any of periods specified. As noted in response to "d" above, the 1500 mile assumption was not used in the cost estimate calculation.

f. To the best of my knowledge, the 1500 mile assumption is not used by any other Postal Service witness.

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OCA/USPS-T3-7. Please refer to USPS-LR-1/MC98-1, page 6. You show "Average customer sessions per user per year" of 12. You state, "One per month is assumed based on expected mail content: invoices, announcements, statements, forms . . . ."

- a. Please confirm that "Advertising Mail" and "Newsletters" are also expected applications of Mailing Online. (See USPS-LR-2/MC98-1, page 13.) If you do not confirm please explain.
- b. Please confirm that the "Advertising Mail" and "Newsletters" applications contribute substantially to volume estimates of Mailing Online. (See USPS-LR-2/MC98-1, page 26.) If you do not confirm please explain.
- c. Please confirm that "Advertising Mail" and "Newsletters" are likely to be mailed more frequently than monthly. (See USPS-LR-2/MC98-1, page 13.) If you do not confirm please explain.
- d. Please confirm that most Mailing Online volume in 1999 and 2000 is expected to be Standard Mail. (See USPS-LR-2/MC98-1, page 34.) If you do not confirm, please explain.
- e. Did you request an estimate of the average frequency of use of Mailing Online from witness Rothschild or anyone else? If so, what was the response? If not, why not?
- f. Please confirm that the market research data collected by witness Rothschild can generate an estimate of the average frequency of use of Mailing Online by respondents. If you do not confirm, please explain. If you confirm, please provide that estimate.
- g. Please confirm that your estimate of "Incoming bytes Per Second During Peak Hours" is directly proportional to the assumed "Average customer sessions per user per year"—that is, doubling the latter would double the former. If you do not confirm, please state the mathematical relationship between "Incoming bytes Per Second During Peak Hours" and "Average customer sessions per user per year."

#### RESPONSE

a. I can neither confirm nor deny. My involvement was limited to estimating

information technology costs.

b. I can neither confirm nor deny. My involvement was limited to estimating

information technology costs.

c. I can neither confirm nor deny. My involvement was limited to estimating information technology costs.

d. I can neither confirm nor deny. My involvement was limited to estimating information technology costs.

e. No. Average frequency of use was not a data element in any published material available to me at the time I formulated my estimates.

f. I can neither confirm nor deny. My involvement was limited to estimating information technology costs.

g. Confirmed.

OCA/USPS-T3-8. Please refer to USPS-LR-1/MC98-1, page 6. You show "Percentage usage during daily peak period" of 0.75. You state, "A Peak Period of Usage is required to plan for maximum capacity. % of users expected during such a period is unknown, 75% usage is therefore assumed."

- a. If the 75-percent figure was chosen on some basis other than randomness, please state that basis.
- b. Is the assumption of 75 percent usage during the peak period mathematically equivalent to assuming that 75 percent of each customer's transmissions occurs during the peak period? If not, please explain further the purpose of this assumption.
- c. Please confirm that there is some positive probability that more than 75 percent of customer transmissions may occur in the peak period. For example, all customers might try to send their monthly transmissions during a peak period near the end of the month. If you do not confirm, please explain.
- d. Please confirm that your estimate of "Incoming bytes Per Second During Peak Hours" is directly proportional to the assumed "Percentage usage during daily peak period"—that is, increasing the latter by ten percent would increase the former by ten percent. If you do not confirm, please state the mathematical relationship between "Incoming bytes Per Second During Peak Hours" and "Percentage usage during daily peak period."

#### RESPONSE

a. It is not reasonable to assume that all customers on a given business day will use Mailing Online during any particular fraction of that day. Conversely, it is not reasonable to assume that usage will be spread evenly through any given business day. Information technology must be estimated to accommodate the maximum expected usage during any given business day. Information on a daily peak usage period was not made available to me at the time I formulated my estimates. I therefore assumed a four hour peak period because the vast majority of users would be within four time zones: Eastern, Central, Mountain, and Pacific. The period of time that the business day (9Am - 5PM) for all four time zones coincide is five hours (12Noon to 500PM Eastern time). I reduced

this period to 0100PM to 500PM Eastern. I assumed that the majority (i.e. over 50%), but not all (i.e. 100%), of the usage would be during this four hour period. Based on this I believe it is reasonable to assume a percentage usage of between 50 and 100%; that is 75%.

b. No. My calculation equates 75% peak usage with 75% of the of customer transmissions occurring within a hour period on any given business day.

c. I can not speculate regarding the example. I can confirm that there is some non-zero probability that over 75% of customer transactions may occur in the peak period.

d. An increase to the assumed "Percentage usage during daily peak period" alone will change the "Incoming bytes Per Second During Peak Hours" proportionally up to 25% (there cannot be more than 100% usage). As noted in my response to "a.", above, my professional opinion is that without specific facts available regarding the timing of Mailing Online usage during a business day, it is not reasonable to expect 100% usage during any given portion of a day. "Percentage usage during daily peak period" is one of several variables used to calculate "Incoming bytes Per Second During Peak Hours", as noted explicitly in Attachment #2 in the "Source" column. Two of these variables, "Average Session Duration", and "Peak Usage hours", are based on assumptions.

OCA/USPS-T3-9. Please refer to USPS-LR-1/MC98-1, page 6. You show "Avg. No. Concurrent Sessions During Peak Hours" of 21.57 for 1999. The formula for calculating this number is given as "Customer sessions during peak period/peak period/avg. session duration."

- a. Please confirm that this calculation assumes that customer sessions are all of exactly one-half hour duration. If you do not confirm, please explain.
- b. Please confirm that this calculation assumes that customer sessions are uniformly distributed over the peak period. If you do not confirm, please explain.
- c. Please confirm that this calculation assumes that exactly 21.57 customer sessions commence exactly at the beginning of the peak period, continue for exactly one-half hour, and are immediately replaced by another 21.57 customer sessions lasting exactly one-half hour, etc. until 172.53 customer sessions have been completed in four hours. If you do not confirm, please explain.
- d. Please confirm that there is a positive probability that more than 21.57 customers will attempt to transmit documents to the Mailing Online processing center simultaneously at some time during 1999. If you do not confirm, please explain.
- e. Please confirm that it is, in fact, virtually certain that more than 21.57 customers will attempt to transmit documents to the Mailing Online processing center simultaneously at some time during 1999. If you do not confirm, please explain.
- f. Please confirm that if 21.57 is, in fact, the average or expected number of customer sessions during the peak period, then this number will be exceeded on approximately one-half the business days in 1999. That is, to the extent that this average is a measure of central tendency, then one-half of all occurrences will be less than 21.57 and one-half will be greater. If you do not confirm, please explain.
- g. Is the "Avg. No. Concurrent Sessions During Peak Hours" of 21.57 for 1999 used at any other point in USPS-LR-1/MC98-1? If so, please identify all such other uses.
- h. Is the "Avg. No. Concurrent Sessions During Peak Hours" of 21.57 for 1999 used by any other witness in MC98-1? If so, please identify all such other uses.
- i. During the operations test period, how many access ports were available at the MOL processing center to receive transmissions from MOL customers? Did this number vary during the operations test period? If so, for what reasons? (E.g., did some or all of the ports fail temporarily?)
- j. Please confirm that "Avg. No. Concurrent Sessions During Peak Hours" is directly proportional to "Customer sessions during peak period" —that is, doubling the latter would double the former. If you do not confirm, please state the mathematical relationship between "Avg. No. Concurrent Sessions During Peak Hours" and "Customer sessions during peak period."

- k. Please confirm that "Avg. No. Concurrent Sessions During Peak Hours" is directly proportional to "Average session duration" —that is, doubling the latter would double the former. If you do not confirm, please state the mathematical relationship between "Avg. No. Concurrent Sessions During Peak Hours" and "Average session duration."
- 1. Please confirm that "Avg. No. Concurrent Sessions During Peak Hours" is inversely proportional to "Peak Usage Period Hours" —that is, doubling the latter would halve the former. If you do not confirm, please state the mathematical relationship between "Avg. No. Concurrent Sessions During Peak Hours" and "Peak Usage Period Hours."

#### RESPONSE

- a. Yes, one half hour exactly.
- b. Yes, uniformly spread across the four hour period.

c. No. As stated explicitly in Attachment 1 for "Avg .no Concurrent Sessions during Peak Hours", under the "Source" column, this figure is calculated as follows: Customer sessions during peak period/(Peak Usage Period Hours/session duration).

d. I confirm that there is a non-zero probability that this will occur. The telecommunications link specified for cost component TEL 2 in the Detailed Cost Estimates can accommodate 400% of the estimated "Incoming bytes per second during peak hours" . "Incoming bytes per second during peak hours" shown for year 2003 is 44841 bytes per second (358731 bits per second). The telecommunication line specified in TEL 2 can accommodate 1,5440,00 bits per second - over 400% of the requirement.

e. I can not confirm this. I have provided an estimate based on projections and assumptions. Refer to in my response to "d." above for details.

f. I can not confirm that 21.57 will be exceeded on half of the days in 1999.
As noted in my response to "d" above, the telecommunication link specified in the Detail Cost Estimate can accommodate over 400% of the estimated
"Incoming bytes per second during peak hours".

g. No, but "Incoming bytes per second during peak hours", which is partially derived from "Avg .no Concurrent Sessions during Peak Hours", is used in two other places in Attachment 1 to calculate Items #2 and #3.

h. To the best of knowledge, it is not.

i. I do not have this information.

j. Yes. Please refer to the "Source" column in the Attachment 1 for a description of the mathematical relationships of all elements.

K. There is no mathematical relationship between these two elements.
 Please refer to the "Source" column in the Attachment 1 for a description of the mathematical relationships of all elements.

I. Yes, they are inversely proportional.

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OCA/USPS-T3-10. Please refer to USPS-LR-1/MC98-1, page 6. You show "Peak Usage Period Hours" of 4. You state, "No peak usage period has been observed during the operation test, but must be considered to plan for maximum capacity: 1PM-5PM EST is assumed here."

- a. Please confirm that for purposes of your analysis, only the length of the peak period matters; i.e., the actual time of day (1PM-5PM EST) makes no difference. If you do not confirm, please explain.
- b. If the 4-hour figure was chosen on some basis other than randomness, please state that basis.
- c. Please confirm that the shorter the chosen duration of the peak period the lower the probability that all access ports are in use when an MOL customer attempts to transmit a job (because a shorter duration produces a higher number of access ports under your analysis). If you do not confirm, please explain.
- d. Please confirm that under your analysis, all access ports will be in use for the entire peak period of four hours. If you do not confirm, please explain.
- e. Please confirm that the length of time during which all ports are busy during a given 24 hours is virtually certain to be much less than four hours in 1999. If you do not confirm, please explain.
- f. Are there any data available from the operations test that would shed light on the likely length of the peak period? If so, please supply those data.

#### RESPONSE

a. Yes, the hours of the day did determine this, as I explained in my response to

OCA/USPS-T3-8(a).

- b. Please refer to my response to OCA/USPS-T3-8(a).
- c. Not confirmed. I did not calculate the probability of a user gaining access to a port.
- d. Not confirmed. I did not specify the number of access ports available, but the number required to accommodate peak usage.

- e. Not confirmed. I did not specify the number of access ports available, but the number required to accommodate peak usage.
- f. I don't know. No such data were available when I developed my estimates. I am informed that additional details regarding usage patterns during the operations test are being filed in response to OCA/USPS-T1-24.

OCA/USPS-T3-11. Please refer to USPS-LR-1/MC98-1, Attachment 1, pages 6 and 7. For the year 1999, please explain the difference between the figure 839964.69, "Average Bytes Per Incoming Customer Transmission," and the figure 30720, "Number of Bytes Per Mailing Piece Transaction."

#### RESPONSE

The figure "Average Bytes Per Incoming Customer Transmission " refers to the

size in bytes of an electronic document and mailing list transmitted by a

customer to the Mailing Online processing center. The figure "Number of Bytes

Per Mailing Piece Transaction" refers to the size in bytes of one page of a

electronic document in the Postscript format used for Mailing Online processing.

OCA/USPS-T3-12. Please refer to USPS-LR-1/MC98-1, Attachment 1, page 7. In the line, "Number of Mail Pieces Per Business Day," you assumed 312 business days per year, while witness Seckar assumed 302 business days per year. See USPS-T-2, Exhibit A, page 11. Please explain why there is a difference between the number of business days assumed by you and witness Seckar.

RESPONSE

I did not collaborate with Mr. Seckar in developing my estimates. My assumption

of 312 business days is based on 6 days per week X 52 weeks in a year. I do

not know how Mr. Seckar developed an estimate of 302 business days.

OCA/USPS-T3-13. Please refer to USPS-LR-1/MC98-1, Attachment 1, page 7. Please define "mail merge jobs" and "non mail merge jobs."

#### RESPONSE

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Documents that require an address to be embedded must be processed differently than documents that do not have this requirement. The former are processed as a single electronic document copy, and forwarded along with their associated mailing lists to the print sites . This process is referred to in my Attachment 1 as a "non mail merge job". A "mail merge job" refers to merging of electronic documents with the addresses in the mailing list. The entire set of electronic documents is then sent to the print sites. OCA/USPS-T3-14. Please refer to USPS-LR-1/MC98-1, Attachment 1, page 11, concerning the Technical Help Desk Resource Years.

- a. In the line "Total First Time Call Hours," please confirm that the factor 1.5 "to account for customer turn over" was obtained during the Mailing Online operational test period from
  - i. sampling data;
  - ii time-series data, or;
  - iii. personal observation.
  - If you do not confirm, please explain.
- b. In the line "Total First Time Call Hours," please confirm that the 0.5 hour "estimate for initial call" was estimated from experience during the Mailing Online operational test period from
  - i. sampling data;
  - ii time-series data, or;
  - iii. personal observation.
  - If you do not confirm, please explain.
- c. Please confirm that an increase in the 0.5 hour "estimate for initial call" would increase the estimated fixed costs to the Postal Service for Mailing Online service. If you do not confirm, please explain.
- d. Please identify where the figures in the line "Total First Time Call Hours" are used in Attachment 2: Detailed Cost Estimates of USPS-LR-1/MC98-1.

#### RESPONSE

• 1 • .

a. I assumed a 1.5 customer roll over factor because I felt it was reasonable

to assume that some current customers may discontinue using Mailing Online

and, conversely, that new customers should be expected to begin using Mailing

Online. The 1.5 roll over factor did not come from the operational test. The only

information I have from the operational test that has any bearing on Technical

Help Desk Resource Years is anecdotal; new customers require one half hour

with a Help Desk agent the first time they contact the Help Desk to review the

functionality of Mailing Online.

b. The 0.5 hour "estimate for initial call" is based on discussions with Help Desk agents after the first few weeks of the operational test.

c. Confirmed. However, I strongly believe that the half-hour figure is already very conservative, so if it is an inaccurate estimate, it errs only on the high side.

d. They are not used directly. Please refer to the Cost Component
 Sources/Derivations Worksheet included in my response to interrogatories
 OCA/USPS-T3-1-4 for a description of how Attachment 1 figures correspond to
 component unit costs and number of units shown in Attachment 2.

OCA/USPS-T3-15. Please refer to USPS-LR-1/MC98-1, Attachment 1, page 11, concerning the Technical Help Desk Resource Years.

- a. In the line "Total On-going calls hours," please define "on-going calls."
- In the line "Total On-going calls hours," please confirm that the 0.1 hour "estimate for on-going calls" was estimated from experience during the Mailing Online operational test period from
  - i. sampling data;
  - ii time-series data, or;
  - iii. personal observation.
  - If you do not confirm, please explain.
- In the line "Total On-going calls hours," please confirm that the estimate of "3 calls average per year" was obtained during the Mailing Online operational test period from
  - i. sampling data;
  - ii time-series data;
  - iii. personal observation, or;
  - iv. marketing survey.
  - If you do not confirm, please explain.
- d. Please confirm that an increase in the 0.1 hour "estimate for on-going calls" would increase the estimated fixed costs to the Postal Service for Mailing Online service. If you do not confirm, please explain.
- e. Please identify where the figures in the line "Total On-going call hours" are used in Attachment 2: Detailed Cost Estimates of USPS-LR-1/MC98-1.

#### RESPONSE

a. I refer to the number of calls over any given period of time, excluding the

initial call for any given customer, as "on-going".

b. I assumed 0.1 hour for each "on-going" call based solely on professional

experience and not based on any information made available to me regarding

the Mailing Online operations test.

c. I assumed "3 calls average per year" based solely on professional experience and not based on any information made available to me regarding the Mailing Online operations test.

d. Confirmed.

e. Please refer to the Cost Component Sources/Derivations Worksheet included in my response to OCA interrogatories 1–4 for a description of how Attachment 1 figures correspond to component unit costs and number of units shown in Attachment 2.

OCA/USPS-T3-16. Please refer to USPS-LR-1/MC98-1, Attachment 1, page 11, concerning the Technical Help Desk Resource Years. In the line "Percentage of customer calls requiring technical help," it states that "Experience during the pilot indicates that this percentage is low, but 50% is assumed for capacity planning."

- a. Please provide the actual percentage of customer calls requiring technical help during the "pilot."
- b. Please provide the rationale for assuming only 50 percent of customer calls would require technical help.
- c. Please confirm that the "Percentage of customer calls requiring technical help" is used to estimate the fixed costs of the Mailing Online service. If you do not confirm, please explain.
- d. Please confirm that a percentage greater than 50 percent of customer calls requiring technical help would increase the estimated fixed costs to the Postal Service for Mailing Online service. If you do not confirm, please explain.

#### RESPONSE

a. The breakdown of customer calls during the operations test for the period

March 9, 1998 to August 13, 1998 is as follows:

| Call Type             | Item Affected        | Problem | Question | Request | Comment | Change/<br>Enhancem<br>ent | Total |
|-----------------------|----------------------|---------|----------|---------|---------|----------------------------|-------|
| Payment<br>Adjustment | Credit-PO<br>Mailing | 5       | 4        | 17      |         |                            | 26    |
| Software              | Access               | 2       |          |         |         | 1                          | 2     |
| Software              | Adobe                | 4       |          |         |         |                            | 4     |
| Software              | MS Excel             | 1       | 1        |         |         |                            | 2     |
| Software              | MS Word              | 1       | 5        |         |         |                            | 6     |
| Software              | Pagemaker            |         | 2        |         |         |                            | 2     |
| Software              | Quark Xpress         | 1       | 1        |         |         |                            | 2     |
| Software              | Tab Delimited        | 2       | 1        |         |         |                            | 3     |
| Software              | WordPerfect          |         | 1        |         |         |                            | 1     |
| Job Status            | Current              | 13      | 8        | 1       | 2       |                            | 24    |
| Job Status            | Other                | 3       | 4        |         |         | 1                          | 8     |
| Job Ticket            | Job Quote            | 6       | 4        |         | 1       |                            | 11    |
| Job Ticket            | Print Options        | 4       | 6        |         | 1       | 1                          | 12    |
| Job Ticket            | PDF View             | 14      | 1        |         |         |                            | 15    |
| Other                 | Other                | 14      | 9        | 3       | 8       | 5                          | 39    |
| Service<br>Failure    | Not to Order         | 9       |          | 1       | 2       |                            | 12    |

| Service<br>Failure | Late Delivery  | 5   |    |    | 1  | · .                                     | 6   |
|--------------------|----------------|-----|----|----|----|---|-----|
| Service<br>Failure | Orphaned Job   | 5   |    |    | 2  | 1                                       | 8   |
| Service<br>Failure | Print Quality  | 2   | 1  |    | 3  | · · · • - · · · · · · · · · · · · · · · | 6   |
| Upload             | Document       | 33  | 14 |    | 3  |   | 50  |
| Upload             | Mailing List   | 28  | 10 | 2  | 3  |   | 43  |
| Upload             | Upload Failure | 64  | 3  |    | 1  |   | 68  |
|                    | Totals         | 216 | 75 | 24 | 27 | 8                                       | 350 |

If "software", and "upload" call types are categorized as technical assistance then 183 or 52% of a total of 350 calls would fall into the technical assistance category.

In my professional opinion, less than 50% of calls should require technical assistance. I therefore felt it was reasonable to assume 50% for estimating purposes.

c. Confirmed.

d. Confirmed.

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1 COMMISSIONER LeBLANC: Thank you, Mr. Hollies. 2 Does any participant have additional written cross 3 examination for the witness at this time? Excuse me one second. Mr. Reporter, do you have 4 5 enough -- do you have both copies? Thank you. No other one. 6 7 At the prehearing conference, MASA, OCA and Pitney 8 Bowes indicated that they might cross examine this witness. 9 Does any other participant want to cross examine the witness 10 this morning? 11 Okay. I see that MASA is not here. We'll move on with OCA again. We'll stay with the same order. 12 13 Mr. Costich. 14 MR. COSTICH: Thank you, Mr. Presiding Officer. 15 CROSS EXAMINATION 16 BY MR. COSTICH: 17 Good morning, Mr. Stirewalt. Q 18 Α Good morning. My name is Rand Costich, and I'll be asking you 19 Q 20 questions on behalf of the OCA this morning. 21 Could you turn to your response to Interrogatory OCA/USPS-T3-13. 22 23 Α I have it. 24 In this response, you discuss the differences 0 between a mail merge job and a non-mail merge job; is that 25

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1 correct?

2 Α Yes. And a mail merge job involves imbedding 3 0 information that is specific to an addressee in each 4 5 document? That's correct. Α 6 And one possible use of that function would be to 7 Q send out invoices? 8 I'm not aware specifically of that application of 9 А it. 10 Does the imbedding of the specific information in 11 0 each document occur at San Mateo? 12 The processing that accomplishes the mail merge 13 А occurs at the processing site; that is the site where the 14 central computer is located and that is San Mateo currently. 15 If the Postal Service receives a Mailing Online Q 16 mail merge job that involves 4,120 addresses, the Postal 17 18 Service has to transmit 4,120 files to print sites; is that 19 correct? Α That's correct. 20 21 Q And if the Postal Service receives a non-mail merge job that involves 4,120 addresses, the Postal Service 22 has to transmit two files to the print sites? 23 Α If -- we would be talking about the source 24 document and the mailing list, that's correct. 25

And for a 4,120-piece mail merge mailing, the 1 0 Postal Service has to store 4,120 documents; is that 2 3 correct? 4 Α I'm not quite certain if there is a requirement to store it in that form, but that's possible. 5 For a non-mail merge job, does the Postal Service 6 0 7 only have to store two documents or two files? Yes. 8 Α 9 Now, you have assumed that the average mailing 0 will be 4,120 pieces; is that correct? 10 А Yes. 11 And you have assumed that there will be the same 12 Q proportion of mail merge and non-mail merge jobs? 13 Α That's correct. 14 So both kinds of jobs will average 4,120 pieces? 15 0 That's correct. 16 Α 17 Now, for a non-mail merge job, a single print 0 image file is created; is that right? 18 Α That's correct. 19 And that file is a postscript file? 20 0 Depending upon what point in the process, it could 21 Α 22 be either a PDF format or a postscript format. In your library reference, do you assume that it's 23 0 a postscript file? 24 Α In its final form, that's correct. 25

0 And the average file size would be about 100,000 1 2 bytes; is that correct? I would have to check my library reference for 3 Α that number. I don't recognize the number. 4 0 Well, I calculated that as 30,720 bytes per page 5 times 3.2 pages per document. Does that sound right? 6 7 It sounds correct, but I would have to take a look Α here to make sure. 8 Do you want to do that right now? 9 0 10 Α Yes, I do. [Pause.] 11 THE WITNESS: I would agree with that calculation, 12 13 yes. BY MR. COSTICH: 14 15 For a mail merge job of -- is it 4,020 or 4,120? 0 А It's 4,120, I believe. 16 17 4,120 pieces, you would have to have 4,120 print 0 image files created; is that correct? 18 Α I don't know if they're segregated into separate 19 20 files, but you would need 4,120 images, yes. And those would all be PDF files? 21 0 I believe in the original design of the Mailing 22 Α Online software, they are, in fact, postscript files. 23 In your library reference, are they PDF files? 24 0 I believe that they are postscript files in my 25 А

library reference. I would have to check. 1 COMMISSIONER LeBLANC: Mr. Stirewalt, if you don't 2 mind, could you -- as you turn sometimes, your voice is 3 fading out on us. 4 5 THE WITNESS: I'm sorry. COMMISSIONER LeBLANC: If you could just pull the 6 microphone a little closer. Thank you very much. 7 THE WITNESS: If we are speaking about the format 8 in which the files travel via telecommunication from the 9 processing site to the print site, we're talking about 10 postscript format. 11 BY MR. COSTICH: 12 13 Q Always? А I believe there's a distinction between mail merge 14 jobs and non-mail merge jobs with that. 15 16 0 In your library reference, you have used different file sizes depending on whether it's a mail merge job or a 17 18 non-mail merge job? That's correct. 19 А 20 0 And one of those file sizes is for PDF files; is that correct? 21 А I believe in my calculation I used postscript for 22 both, now that I'm looking at it carefully. 23 24 Q Do you have the attachment to your response to OCA Interrogatory T3-1? 25

| 1  | A Yes, I do.  |
|----|---|
| 2  | Q Could you look at page 3 of attachment 1.                 |
| 3  | A I have it.  |
| 4  | Q Near the middle, there is a line that says                |
| 5  | processing center data storage, PDF files. Do you see that? |
| 6  | A Page 3.   |
| 7  | Q Yes.  |
| 8  | A I'm just trying to make sure I'm on the same page         |
| 9  | here. Would the title of that page be Cost Component        |
| 10 | Sources Derivation Worksheet, or are we talking about the   |
| 11 | other attachment?   |
| 12 | Q It's the first attachment.                                |
| 13 | A All right.  |
| 14 | Q But just glancing up at what you're looking at,           |
| 15 | the format of your pages seems to be different from the     |
| 16 | format of the pages I have in the response.                 |
| 17 | A I found it, yes. Thank you.                               |
| 18 | Q Okay. Now, if everything is a postscript file,            |
| 19 | why is there this reference to PDF files?                   |
| 20 | A I don't have a complete and full understanding of         |
| 21 | all the processing steps that occur within the processor;   |
| 22 | that is, what the software performs upon the data. But I    |
| 23 | know that it does at between depending upon what point      |
| 24 | in the process we're at, the files could be in a PDF format |
| 25 | or a postscript format.                                     |
|    |   |

1 Q Okay. At this point in your library reference, 2 which is the same as this attachment, correct? 3 Α Yes. 4 You are making use of PDF files with a PDF file 0 size of 5,020 bytes; is that correct? 5 Well, I don't reference it here. I have costs, or 6 Α 7 are we on a different sheet again? 8 Again, this is attachment 1 to the response to Q OCA/USPS-T3-1. 9 10 Α All right. That's correct, PDF files. 11 And I may have misspoken just a moment ago. Q The 12 5,020 bytes is per page, correct? 13 А That's correct. 14 Q And again, there's an assumed average 3.2 pages 15 per document for these files? 16 Α That's correct. 17 0 So we're talking about something like 15,000, 18 16,000 bytes per files, bytes per document? 19 It's possible, although I did not apply the 3.2 to A 20 this figure here. 21 0 Can we agree that the total bytes in a mail merge 22 job are about 64 million? 23 Α Are you referencing something in the library 24 reference here or --25 Q No, again, 16,000 bytes per document times 4,120

1 documents per mailing gives you something in the 2 neighborhood of 64 million. 3 Α I would agree with that. 4 0 So if there are as many mail merge jobs as there 5 are non-mail merge jobs, aren't your telecommunications 6 capacity requirements dominated by the much larger 7 transmissions associated with the mail merge jobs? 8 Α That's correct. 9 And the bytes per second for a non-mail merge job 0 is several orders of magnitude smaller than for mail merge 10 11 iobs? 12 Α That's correct. 13 0 But this is only true if that 50-50 split holds up; correct? 14 15 Α That's correct. 16 0 And if the actual split were more like 15-85, 17 wouldn't that significantly reduce your telecommunications 18 capacity requirements? 19 А If the 85 you're referring to is non-mail merge 20 jobs and the 15 is mail merge jobs, that's correct. Do you have any data from the operations test on 21 0 the actual split between mail merge and non-mail merge jobs? 22 23 Α I do not. 24 0 If such data were available, would it be useful for redoing your analysis? 25

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- 1 A Yes, it would.

| 1  | A res, it would.  |
|----|---|
| 2  | Q And when it comes to data storage requirements, do        |
| 3  | the mail merge jobs dominate the non-mail merge jobs?       |
| 4  | A I don't believe I assumed that, based on the fact         |
| 5  | that we could retain the information the way it was         |
| 6  | processed in the Mailing Online software. We could keep the |
| 7  | original document, that is before the mail merge was        |
| 8  | completed.  |
| 9  | Q So you would be storing the single file and the           |
| 10 | merge data file, and that's it?                             |
| 11 | A I believe that's correct; yes.                            |
| 12 | Q And for non-mail merge jobs, would you be doing           |
| 13 | the same thing, just storing two files?                     |
| 14 | A That's correct.   |
| 15 | Q Could you look at page 3 of Attachment 1.                 |
| 16 | For the PDF files you show about 5.2 million bytes          |
| 17 | of online storage for 1999; is that correct?                |
| 18 | A That's correct.   |
| 19 | Q And PDF files are for mail merge jobs; right?             |
| 20 | A Both mail merge and non-mail merge jobs at the            |
| 21 | point that processing begins are both in PDF format.        |
| 22 | Q Okay. Could you just look over to page 4 for a            |
| 23 | second. Right at the top or almost at the top it says       |
| 24 | Postscript files for non-mail merge jobs. Do you see that?  |
| 25 | A Yes, I do.  |
|    |   |

Am I misunderstanding what you're saying, or is 1 0 2 this different from what you're saying? I understood you to 3 say that both jobs, mail merge and non-mail merge, were PDF, 4 but on this attachment I see non-mail merge jobs referred to as Postscript files. 5 6 Α That's correct. At one part of the process 7 they're both in PDF format, and at a later point in the process, they both are in Postscript format. 8 9 All right, on page 4 of Attachment 1 you show 0 about 65.5 billion bytes of online storage for Postscript 10 files; is that correct? 11 12 Α That's correct. So for the storage requirements, the non-mail 13 0 14 merge jobs dominate; is that correct? 15 I am comparing the 65.5 billion with the 5.2 16 million from page 3. Is that a correct comparison? 17 Α It would appear to me that the heading "Processing Center Data Storage Postscript for Non-Mail Merge Jobs" is 18 an incorrect heading. It should say "Mail Merge Jobs." 19 20 0 And the other heading should also be reversed? 21 А You mean the heading on page 3? 22 Yes. 0 23 Α It doesn't state there. Where it says PDF files. Isn't that -- I mean one 24 0 of these is mail merge jobs and one of these non-mail merge 25

1 jobs, right?

| 2  | A That's correct. The PDF should be non-mail merge                   |
|----|--|
| 3  | job. And the Postscript should be mail merge jobs, that is           |
|    |  |
| 4  | noted in the note in the source, in the calculation, the             |
| 5  | mail merge percent. It's an error in the heading.                    |
| 6  | Q Okay. So just as it was with the                                   |
| 7  | telecommunications capacity, the mail merge job storage              |
| 8  | requirements are dominating, is that correct?                        |
| 9  | A That's correct.  |
| 10 | Q And is that because you are saving a copy of every                 |
| 11 | single merged file?  |
| 12 | A Yes.   |
| 13 | Q So your earlier statement that you were only                       |
| 14 | saving two files was incorrect?                                      |
| 15 | A Yes, it was.   |
| 16 | Q Do you know what is actually being done now in                     |
| 17 | terms of storage?  |
| 18 | A No, I don't.   |
| 19 | Q Would that be useful information for redoing your                  |
| 20 | analysis?  |
| 21 | A I don't believe so. If you mean if I were if                       |
| 22 | you mean by that that I should look at the volume of                 |
| 23 | transactions that have come through <del>the</del> in the operations |
| 24 | to-date and try to extrapolate that for a nationwide                 |
| 25 | service, no, I don't believe that would be useful at all.            |
|    |  |

1 Q Well, not so much the volume, but are they storing 2 only two files in both situations, merge and non-merge? Or 3 in one situation are they storing every separate merged 4 file?

5 А What I do know with respect to the format is that this analysis that I performed, at the time I did, which was 6 7 within the first few weeks of the operations test, but the 8 opinion of our information systems professionals, was that the Postscript format had to be changed to a PDF format, 9 10 going forward with the mail merge jobs. And that was noted 11 in my attachment to -- and response to interrogatory OCA-T-3-1, and the attachment that is headed, "Cost 12 Component Sources Derivations Work Sheets, " page 2. 13 You go down to the lower third, under "Telecommunications." I 14 referred to a plan change to the Mailing Online design to 15 transmit files to print sites in a more condensed format, to 16 be specific, PDF format. 17

Well, I am still a little confused. For purposes 18 0 19 of your capacity analysis, what exactly are you assuming? I am assuming, for my purposes of my analysis at 20 Α the time I did so, the Mailing Online software configuration 21 22 and operation as it existed at the time. And at the time I made the analysis, the format in which the mail merge jobs 23 were transmitted to the print site was Postscript, and the 24 storage requirement matched that final form of the 25

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documents. I understand, and our information system group 1 2 has requested that that be changed to a PDF format. And if that change occurs, that will change the 3 0 numbers in your capacity analysis, correct? 4 5 А Yes, it will. 6 0 Significantly, correct? 7 А Yes, it will. Are you going to redo that? 8 0 I had no plan to do so. 9 А Well, won't the Commission and the parties be left 10 0 with a rather inaccurate estimate of the capacity 11 requirements if there is going to be this fundamental 12 13 change? А They would not have an accurate mathematical model 14 of the capacity on which to compare the cost analysis, that 15 16 is correct. In that one point. In your analysis of the capacity storage 17 0 requirements, you also assumed a 50-50 split between mail 18 merge and non-mail merge jobs? 19 20 Ά That's correct. And if the actual split were more like 15-85, that 21 Q would make a difference in your analysis? 22 If the percentage is changed in any way, it would А 23 24 have a significant bearing. But you are not aware of what that split is at the 25 Q

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1 moment?

2 А No. And I don't believe there is enough data in 3 the operations test to give me a good idea of that. So if one were to look in Library Reference 6 and 4 0 5 find a line that said proportion of mail merge jobs and proportion of non-mail merge jobs, and it said the split was 6 7 15-85, that wouldn't be useful information? I would have to look in that Library Reference in 8 А context to be able to answer specifically. 9 10 If you would accept my representation that if you 0 look at the last accounting period available, that the split 11 is 15-85. 12 13 А It would be an indicator. It would not necessarily be enough information, based on the total number 14 of jobs to draw a final conclusion on the matter. 15 Would you turn to your response to Interrogatory 16 0 OCA/USPS-T-3-10?17 18 Α I have it. In part (d) of that response you say that you have 19 0 20 not specified the actual number of access ports available 21 for Mailing Online; is that correct? Α That's correct. 22 23 0 Do you know how many access ports there actually 24 are? No, I don't. 25 А

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1 Q Would such information or data on that point be 2 useful for redoing your analysis?

A The resource we're referring to, the access ports, is shared among all the applications that require an access into the San Mateo Center via the Internet, and I do not know at this time how to determine how to allocate that for Mailing Online versus the other, so I would have to get through that first.

9 Q Do you know whether the actual number available 10 now is greater or less than the number that you calculated 11 as a peak requirement?

12 A I do not know that for a fact other than my 13 knowledge that in addition to Mailing Online there are other 14 Internet -- the Internet into San Mateo services other 15 applications successfully. That is, people are able to get 16 into San Mateo. So I would draw the conclusion that there 17 are enough access ports for people to do so.

Q Well, if the number that you've estimated for peak usage were higher than the number that's actually there, wouldn't that suggest that you're coming up with a cost that has no relationship to what's actually being incurred?

22 A I didn't draw a cost based on that element. I -23 Q There is no --

A Estimated a capacity. I did not use that to identify an additional cost element and cost that.

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1 Q So there's no cost included in your analysis for 2 access ports?

3 A That's correct.

Q So the Commission doesn't need to know how many access ports are actually being used by Mailing Online to come up with any cost estimates for Mailing Online?

A In my analysis I did not look at any information in the operations test at the point that I did so. There wasn't enough information. I strictly came up with a capacity estimate based on a set of assumptions that I had at the time.

12 Q So you don't know and we don't know how many 13 access ports are actually needed to operate Mailing Online 14 right now or at any time in the future; correct?

15 A I do not know with certainty what the requirements 16 are for Mailing Online for IT at all. I have created an 17 estimate based on some assumptions --

18

Q And you haven't --

A That I think is a reasonable representation of what might occur in the future for the time span that I've specified.

22 Q But you haven't compared that estimate with any 23 actual usage up to now?

- A No, I have not.
- 25 Q Could you refer to your response to Interrogatory

1 OCA/USPS-T-3-9.

| 1  | OCA/USPS-T-3-9.  |
|----|--|
| 2  | A I have it.   |
| 3  | Q Part (i) asked you how many access ports have been         |
| 4  | available during the operations test; correct?               |
| 5  | A That's correct.  |
| 6  | Q And what was your response?                                |
| 7  | A I do not have this information.                            |
| 8  | Q And you didn't consider it perhaps useful to ask           |
| 9  | for that information in order to respond to this             |
| 10 | interrogatory?   |
| 11 | A I was asked to create an estimate for IT costs for         |
| 12 | the Mailing Online service, and I did not consider that a    |
| 13 | significant component at the time. I did not consider what   |
| 14 | the Commission may or may not need. I strictly took the      |
| 15 | tasks that I had and worked within those parameters as I     |
| 16 | understood it at the time.                                   |
| 17 | Q Would you consider the actual number of access             |
| 18 | ports available or in use just totally irrelevant?           |
| 19 | A No.  |
| 20 | Q But you still don't have any information on that           |
| 21 | yet; is that correct?  |
| 22 | A The estimate that I came up with is 21 point               |
| 23 | something, I believe, and at the time I did the estimate, I  |
| 24 | did not consider that a significantly high number enough for |
| 25 | it to be actionable by the information systems people who    |
|    |  |

2

reviewed it to expand the capacity in San Mateo or even consider doing so. So I left it at that.

3 MR. COSTICH: Mr. Presiding Officer, would it be 4 possible to ask the witness or someone else for the Postal 5 Service to obtain an answer to this interrogatory, that is, 6 part (i) of OCA/USPS-T-3-9?

7 COMMISSIONER LEBLANC: Do you want the number that 8 will vary during the operational test period, or do you want 9 the actual total answer? Because it is my understanding 10 that you were talking about that part, but which --

11 MR. COSTICH: Part (i) just asks for the number of 12 access ports actually available during the operations test.

13 THE WITNESS: I want to make sure I understand the 14 question. Are you seeking historical information? That is, 15 at any given point of time in the operation test how many 16 access ports were available?

MR. COSTICH: That's what the question says; yes.
COMMISSIONER LeBLANC: Mr. Stirewalt, is that a
problem? Based on your answer it would seem to be
accessible.

21 THE WITNESS: I don't know if it's accessible or 22 not, to be frank.

23 COMMISSIONER LeBLANC: Well, let's -- Mr. Rubin, 24 let's make an effort to talk to the powers that be over 25 there and let's try to get a response to that that is

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1 responsive to the actual needs here. Hopefully we can get 2 that -- let's say Monday.

3 MR. RUBIN: Well, we can try. I think there may 4 be some problems with determining whether an access port is 5 for Mailing Online or --

6 THE WITNESS: I am not aware of any collection of 7 information for access ports against Mailing Online in which 8 to create a response for this. If what we're asking for is 9 historical information, that is, Mailing Online usage, 10 number of customers at a given point in time against access 11 ports available, I don't think we keep that information. 12 MR. COSTICH: No, the question only asks for

13 access ports available, whether they're actually used by 14 Mailing Online.

15 COMMISSIONER LEBLANC: Mr. Costich, let me try --16 it would be the total at this point, as I understand it, the 17 total access points; is that correct?

18 MR. COSTICH: Yes.

19 THE WITNESS: For the period of time of the 20 operation --

21 COMMISSIONER LeBLANC: For the actual time that it 22 was in use?

23 MR. COSTICH: During the operations test, which is24 still running, I believe.

25 THE WITNESS: Yes, we can get that response to

1 you. 2 COMMISSIONER LeBLANC: Okay. Is that clear --3 THE WITNESS: I just wanted to make sure I understood that. 4 5 COMMISSIONER LeBLANC: Is that clear to you then as to what he's asking? 6 7 Mr. Costich, are you sure that that's clear in 8 your mind then? 9 MR. COSTICH: Yes, I understand what the witness 10 is saying, that the number he estimated was a small number, 11 and he did think it was worth comparing with reality. And 12 he may very well be correct. I just want to check it. COMMISSIONER LeBLANC: I understand. 13 Mr. Rubin, 14 that would seem very doable, no later than Monday? 15 MR. RUBIN: Yes, that's fine. 16 COMMISSIONER LeBLANC: Thank you. 17 Thank you, Mr. Costich. Keep going, please. 18 BY MR. COSTICH: 19 Q Mr. Stirewalt, could you refer to your response to 20 Interrogatory OCA/USPS-T-3-8? 21 Α I have it. 22 0 In your response to part (a), the fourth sentence 23 Information on a daily peak usage period was not made says: available to me at the time I formulated my estimates. 24 Is 25 that correct?

| 1  | А          | Yes, it is.  |
|----|------------|--|
| 2  | Q          | Do you have any information on that now?           |
| 3  | A          | With respect to a peak period?                     |
| 4  | Q          | Yes.   |
| 5  | А          | No, not that I would recognize.                    |
| 6  | Q          | Do you know whether any such information is being  |
| 7  | collected  | at this time?                                      |
| 8  | А          | I'm not aware specifically of that.                |
| 9  | Q          | Would such information be useful for redoing your  |
| 10 | analysis?  |  |
| 11 | А          | Yes, it would.                                     |
| 12 | Q          | In your response to part (d), you say that average |
| 13 | session d  | uration and peak usage hours are based on          |
| 14 | assumption | ns, right?   |
| 15 | A          | That's correct.                                    |
| 16 | Q          | Do you have any information now on actual session  |
| 17 | durations  | ?  |
| 18 | A          | I do not myself have that information.             |
| 19 | Q          | Do you know whether such data is being collected   |
| 20 | now?       |  |
| 21 | А          | I do not know whether that information             |
| 22 | specifica  | lly is being gathered as part of the operations    |
| 23 | test.      |  |
| 24 | Q          | Would that kind of information be useful for       |
| 25 | redoing y  | our analysis?                                      |
|    |            |  |
|    |            |  |

.....

1 Α If the number of sessions is significant, yes. 2 That is, a large number of sessions. 3 0 Could you refer to your response to Interrogatory 4 OCA/USPS-T3-7? Part (e) asked whether you sought any information on average frequency of use of Mailing Online; 5 is that correct? 6 7 Α Yes. 8 And you responded that such data were not in any 0 9 published material available to you at the time of your analysis; is that right? 10 А 11 Yes. Why did you qualify your response by reference to 12 0 published data? 13 I believe I had in mind in formulating the 14 Α 15 response that at the time I formulated my estimates, I was 16 basing some of the volume -- well, the volume estimates on 17 information I received from National Analysts, and in that 18 information, I saw no reference to that. 19 0 You didn't have any other non-published information? 20 21 Ά No. Do you have any information now on average 22 0 23 frequency of use by customers? I am not certain, but I believe that usage is 24 Α being tracked during the operations test to the point that 25

frequency might be determined. But I'm not sure whether 1 that can be done. If it's being tracked by customer, then 2 3 it could be done. And would that kind of information be useful for 0 4 redoing your analysis? 5 6 А Only if we're dealing with a large number of customers over a significant period of time. 7 8 MR. COSTICH: I have no further questions, Mr. Presiding Officer. 9 COMMISSIONER LeBLANC: Thank you, Mr. Costich. 10 11 Mr. Volner? MR. VOLNER: Thank you, Commissioner. 12 CROSS EXAMINATION 13 BY MR. VOLNER: 14 Mr. Stirewalt, my name is Ian Volner, and I will 15 0 be examining you today on behalf of Pitney Bowes. 1.6 Maybe we can pick up a little bit where we just 17 left off. Could you turn to page 6 of Attachment 1. 18 COMMISSIONER LeBLANC: Mr. Volner, clarification 19 20 now, that's T3-1? MR. VOLNER: T3 -- it is T3. That we're clear 21 22 about. COMMISSIONER LeBLANC: Okay. 23 24 MR. VOLNER: It is attachment -- it's actually the library reference, library reference 1. 25

| 2  |            | BY MR. VOLNER:                                    |
|----|------------|---|
| 3  | Q          | Page 6, at the very top                           |
| 4  | A          | You're ahead of me.                               |
| 5  | Q          | I'm sorry.  |
| 6  | A          | Attachment 1, page 6?                             |
| 7  | Q          | Right. It says access customers, and then total   |
| 8  | number of  | users, first heading.                             |
| 9  | A          | Customers accessing Mailing Online? Is that what  |
| 10 | you're ta  | lking about?                                      |
| 11 | Q          | Yes. First column. And the source is indicated    |
| 12 | to be Sec  | tion E of Library Reference 2. And just so that   |
| 13 | we're clea | ar about this, that is the Rothschild survey?     |
| 14 | А          | That's correct.                                   |
| 15 | Q          | Okay. Well, then, let me ask you a variation of   |
| 16 | the quest  | ion that Mr. Costich just asked in another set of |
| 17 | context.   | If those number of users were to change either up |
| 18 | or down s  | ignificantly, would that alter significantly your |
| 19 | cost esti  | mates?  |
| 20 | А          | It would alter some of the components, but not    |
| 21 | all.       |   |
| 22 | Q          | And the ones that it would alter are those which  |
| 23 | you deem   | volume or sensitive to volumes, volume variable,  |
| 24 | if you wi  | 11?   |
| 25 | А          | No. If I were provided different volumes, I would |
|    |            |   |

COMMISSIONER LeBLANC: Thank you.

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1 do so, but the number of customers alone would not do that. 2 0 The number of customers alone would not alter the 3 -- depending upon the usage by customers. Α Well, vou --4 Is that what you're saying? 5 0 6 Α The number -- if I were provided a different 7 number of customers, that would not alter my volume estimates for the number of pieces or number of pages. I 8 mean, we have to get specific about which part would be 9 10 impacted. The entire analysis would not be impacted by that, no. 11 12 0 Well, then what parts of the analysis do you 13 consider would be impacted? The part on this page right here, the access into 14 А the San Mateo center. 15 16 0 Now, the access into the San Mateo center revolves around the question of access points, doesn't it? 17 18 А Yes, it does. 19 0 Okay. Do you intend to look at the volumes of --20 well, do you intend to look first at the number of customers 21 during the market test to see whether you need to redo your analysis? 22 23 Α During the market test, yes. 24 Yes. So that you do plan to redo this analysis at 0 least in part for the experimental phase based on the market 25

1 test results?

2 А Well, let me be specific. I did not plan personally to perform an analysis, nor is this analysis 3 4 vehicle the one that is necessarily going to be used for determining the capacity for the actual service. 5 This was an analysis that was done very early on to serve the purpose 6 7 of some early business decisions for information systems to 8 prepare for the following steps.

9 Q Well, do you know whether the Postal Service plans 10 to present a cost analysis of this type; that is to say 11 dealing with internal costs, system costs, or what you've 12 referred to as IT costs?

- 13 A
  - Present to whom?

Q In connection with -- to the Commission in
connection with the experimental phase of this case.

16 A I'm not aware of that being performed a second17 time.

18 Q Would you turn to page 3 of the same library 19 reference.

20 A Yes.

Q And the first -- just so that I don't utterly confused, the top heading is, "Basic Mailing Online Service and 25 Percent Contribution Margin." Have these figures been marked up by 25 percent?

25 A No.

Okay. Now, the next thing that had me confused, 1 0 2 and since I only have a few questions about it, let's make sure I don't get things worse than they already are. 3 You 4 have a column headed "Fixed" and then we have cost estimates 5 in the out years. Does that fixed cost carry forward, is 6 that fixed in the Postal sense of the term, institutional, 7 it is not going to vary from year to year? Or what is the purpose of that column? 8

A For me personally, they refer to startup costs
that are costs that are required to get the service going.
Q I see. So that really is startup costs in the way
you were thinking on it.

13 A Insofar as they are not incremental over time. 14 Q Okay. Now, at the time that you prepared this 15 table, you were relying on an estimate of startup costs. By 16 the time the market test launches, I assume that you will 17 have actual numbers of what the startup costs were?

18 A We would know how much we spent for information19 systems, yes.

20 Q Do you know how much was spent?

21 A No, I don't.

Q Okay. Do you think that is a number that might be useful to know in assessing this proposal?

A Yes, it would.

25 MR. VOLNER: I hate to do this, but I am going to

Is there some way, Commissioner, that we can ask 1 have to. 2 the Postal Service to supply that number? 3 THE WITNESS: I want to make sure I understand the 4 question. COMMISSIONER LeBLANC: Mr. Stirewalt. Would you 5 6 repeat the question? And, Mr. Volner, let's make sure we 7 are on the same sheet of music here. 8 MR. VOLNER: The question is, as of today -- or as the most recent point that the actual information was 9 collected, can the Postal Service supply us, in the format 10 laid out in this exhibit, the actual numbers under the fixed 11 12 column? That's all I want. COMMISSIONER LeBLANC: Mr. Stirewalt, did I 13 14 understand you to say that that would be helpful for the market test and that you could get that information? 15 16 THE WITNESS: I can't assess how helpful it will 17 be for the marketing test, but I can provide that 18 information, yes. 19 COMMISSIONER LeBLANC: Is it a lengthy process? 20 What is involved with it? 21 THE WITNESS: I would have to track down a lot of 22 details and gather them together. Yes, it would require a 23 substantial amount of work to do so. 24 MR. VOLNER: Let me make life a little bit easier 25 here. This is not something that I urgently need. I would

like it before we get to briefing.

COMMISSIONER LeBLANC: Then, Mr. Rubin, let's --2 or Mr. Hollies. З

MR. HOLLIES: Yes. If I could address this for a 4 moment. This issue was covered in our response to the OCA's 5 suggestions for further data to be collected during the 6 7 market test. And we indicated that this was a good idea, 8 that collecting and reporting the costs incurred for the 9 market test would be quite useful and would help inform the Commission. However, that was in the context of data 10 11 collection during the market test for consideration of the experiment. 12

As you may recall, the market test involves some 13 14 technology that is not currently in use. It is planned to 15 begin -- it is planned for commencement of use in October and those costs are being incurred now. Some have been, 16 17 some have not yet been.

18 But they are all relevant and we do propose to 19 provide them. I don't think that it will make -- it will 20 help the Commission much at this stage to get a report that, oh, these are some of the costs that have been incurred. 21 Ι think it would be much more useful for the Commission to act 22 on the total body of costs that were incurred to get the 23 24 market test up and running. Those costs, as I say, will be 25 reported.

COMMISSIONER LeBLANC: At what time?

1

2 MR. HOLLIES: As part of the data collection plan 3 during the market test. I don't think that they will all be 4 available on the schedule that Mr. Volner has suggested.

5 MR. VOLNER: Commissioner, that is precisely my 6 problem. The data to be reported during the market test 7 doesn't help me resolve questions that I have about how the 8 market test should be dealt with by the Commission, the 9 market test itself.

If there were fixed costs incurred, as, quite 10 understandably, there were, prior to the commencement of the 11 12 market test, I would hope that the Postal Service is collecting that information. I would accept that the answer 13 -- I would accept an answer that says this is what it is as 14 of today, we have not finished the full collection process. 15 I would accept an answer that they are not collecting the 16 17 information. But this data was prepared some time ago based 18 on estimates, the witness states, and I think we are entitled to know whether it is 1.1 million or 9.7 million, 19 20 or some other number. Because it affects significantly all 21 of the other issues in this proceeding, for the market test. 22 MR. HOLLIES: Mr. Volner's approach would suggest 23 that we are to recover all of our fixed costs during the 24 market test, and that is not correct. Moreover, the 25 magnitudes of these costs are virtually trivial.

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Now, he has done an estimate, and we clearly have some questions about whether he has made the correct assumptions or not. But the bottom line is that we have accounted for his costs in our proposed fee schedule to the grand tune of a tenth of a cent in four fee categories, or fee cells, excuse me.

MR. VOLNER: Depending upon volumes, these costs 7 8 may be trivial. If volumes are not what were projected because of other changes that have occurred, these dollars 9 10 could be very significant. And what we are talking about here is -- Mr. Hollies is absolutely correct. It is not and 11 12 should not be the Postal Service's position to try to 13 recover the startup costs, and I want to distinguish between fixed and startup because there are other issues around 14 here, but they should not be expected to recover the startup 15 16 costs throughout the market -- in the entirety in the market 17 test, it is a very short period of time.

They indeed may want to take the position that they don't expect to recover the startup costs during the two-year experimental phase. All I want to know is what the startup costs were as of a date closer to the launch of the market test that existed at the time that these estimates were created.

24 COMMISSIONER LeBLANC: Mr. Stirewalt, is it my 25 understanding you can provide this information that Mr.

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Volner is asking for, is that correct?

2 THE WITNESS: That is the information systems costs expended to date to prepare Mailing Online within the 3 categories of my initial analysis. Yes, I can do that. 4 COMMISSIONER LeBLANC: And, Mr. Volner, is that 5 6 exactly what you are asking for? 7 MR. VOLNER: That is exactly what I asking. COMMISSIONER LeBLANC: Then, Mr. Hollies, given 8 9 that it, in my opinion, is relevant to the subject matter of 10 the testimony that we have before us here, -- Mr. Volner, on or before September 3rd, when briefs are due, how does that 11 grab you? 12 13 MR. VOLNER: Well, the way we have got -- briefs may be delayed because we don't have it. 14 COMMISSIONER LeBLANC: I understand. I understand 15 16 that. But I am looking right now --MR. VOLNER: On or before whenever the date 17 finally selected for briefs. 18 COMMISSIONER LeBLANC: Well, then, let's shoot for 19 right now then, given a date of September the 3rd then. 20 21 MR. VOLNER: Okay. Thank you. 22 COMMISSIONER LeBLANC: So, Mr. Hollies, based on the fact that Mr. Stirewalt and Mr. Volner have an 23 24 understanding of what is needed, and it is, in my opinion, relevant to the subject matter before us here, let's have 25

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that in writing by September 3rd.

2 MR. HOLLIES: We will do our utmost. 3 COMMISSIONER LeBLANC: Thank you. Mr. Volner, you

4 may continue.

MR. VOLNER: Thank you.

BY MR. VOLNER:

Q Now, I want to shift direction a little bit because I am not going to try to ask you to update this entire table, but there are some things that I now want to know about what sort of information is to be collected during the market test itself. One of the columns that is near and dear to my heart is headed "Telecommunications." Could you turn to OCA-T-3-6(d)?

14 A I'm sorry. Could you repeat that?

15 Q OCA-T-3 -- your answer to their interrogatory, 16 T-3-6(d), I believe it is.

17

I have got it.

18 Q You said, in response to that interrogatory that 19 the telecommunications charges were based upon the Postal 20 Service's current contract price.

21 A That's correct.

Α

Q Now, I need to ask a whole bunch of things to understand. The principle telecommunications charge, I take it, is the T-1 lines that will run from San Mateo to the printers?

7

A That's correct.

2 Q Do you have any understanding at the moment of 3 whether -- or, first, do we agree that these are to be 4 dedicated T-1s?

5 A Yes.

6 Q And data only, presumably?

A Yes.

8 Q Do we have at the present time any understanding 9 of how these T-1s are going to be configured,

10 technologically -- technically configured when you have 11 multiple test sites? And -- well, let me -- do you have now 12 -- is there a plan for how these are going to be configured? 13 Are there going to be separate lines running from each --14 separately to each printer?

A I have no specific knowledge of the plan.
Q Okay. Do you know whether the cost of these
Ines, however they are going to be configured, is going to
continue to be covered by the existing Postal Service
contract?

A To the best of my knowledge, they will. Q Do you know whether -- well, you stated in response to an interrogatory from the OCA that the contract was not distance sensitive. Do you know whether it is -that the price for the service is not distance sensitive. Do you know whether it is usage sensitive?

| 1  | A I don't know whether it is or it isn't.                    |
|----|--|
| 2  | Q Is this the sort of information that you were              |
| 3  | going to look at or that you anticipate the Postal Service   |
| 4  | is going to look at during the course of the market test?    |
| 5  | A The cost that I obtained was for my network                |
| 6  | services group, who maintains the contract. Given the        |
| 7  | parameters I had in my analysis I presented to them a        |
| 8  | capacity and they gave me a price based on the contract, and |
| 9  | that's what I have there.                                    |
| 10 | Q I see.   |
| 11 | A So I presume that whatever configuration, whatever         |
| 12 | we've contracted for would remain in place throughout. I     |
| 13 | have no reason to believe otherwise.                         |
| 14 | Q They gave you these numbers?                               |
| 15 | A That's correct.  |
| 16 | Q Including the out years?                                   |
| 17 | A That's correct.  |
| 18 | Q Did you ask them why telecommunications charges            |
| 19 | decline in 2003 in 2002 and then again in 2003?              |
| 20 | MR. RUBIN: Objection. I fail to see the                      |
| 21 | relevance of this line of questions to the market test.      |
| 22 | COMMISSIONER LEBLANC: Mr. Volner, do you care to             |
| 23 | respond before I make a ruling?                              |
| 24 | MR. VOLNER: I'm going to withdraw the question.              |
| 25 | I will deal with this in the experimental phase.             |
|    |  |

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COMMISSIONER LeBLANC: Thank you. 1 2 MR. VOLNER: The only point that I'm trying to understand is precisely where this telecommunications charge 3 information came from, and the witness has answered that. 4 BY MR. VOLNER: 5 Now there was conversation yesterday -- I believe 6 0 you were here during the hearings yesterday, weren't you? 7 8 Α Yes, I was. About the file servers at the printers' sites. 9 0 Are those costs included in your estimation of print sites? 10 Is that what that refers to? 11 Ά I do have costs for a server at each print site 12 included. Yes, I do. 13 And did you make those estimates yourself, or did 14 0 you get that information from elsewhere in the Postal 15 Service? 16 А I got that information myself. 17 Okay. Does that include any estimates of labor 18 0 costs for repairs that the Postal Service has to go to the 19 print site because of a problem with the file server and the 20 hot backup not working or whatever, or working? 21 22 Α I did include an element for support in my estimates; yes. 23 How did you derive -- develop that estimate? 24 0 25 Α Without any experience base, because at the time

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798

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we did the estimates there was no operations tests ongoing for a period of time in which to draw any conclusion, we just used some professional judgment amongst myself and some of my peers.

5 Q Is that the sort of information that the Postal 6 Service or that you would find useful to redo this report, 7 were you to do so for -- during the market test?

8 A It would depend on where that information came 9 from. If it came from the operations test, I would say it 10 would not be useful at all.

11 Q If it came from the market test, would it be 12 useful?

13 A It might be.

17

14 Q Is it the sort of information -- do you have any 15 understanding of whether the Postal Service intends to 16 collect that information and provide it?

A I'm not aware of that at this time.

Q There's another element to these remote Postal Service-owned file servers that I'm kind of interested in. Does the Postal Service own the software that's going to be installed in those units? I mean, is this Postal

22 Service-developed software?

A Well, we are going to provide whatever is residing
on those servers. The Postal Service will do so.

25 Q Your IT people are going to install the software

1 and maintain it, provide upgrades as necessary? Or is there
2 going to be a contract?

A I believe the computers will be preconfigured and then shipped to the sites, if you want to be specific.

5 Q Well, that's still not helping me in this sense. 6 Who is going to preconfigure them? Is it Postal Service 7 personnel, or is it going to be personnel of a contractor? 8 A It could be either one.

9 Q Does your print-site cost include that cost, or is 10 that being treated as a startup cost? For the purposes only 11 of the market test.

12 A I have included support which includes all of the 13 care and feeding for that computer, both I believe in the 14 fixed and the incremental costs over time --

15

O But -- I'm sorry.

16 A No, go ahead.

17 Q But of course during the market test we'll have a 18 little more accurate data, won't we?

19 A Perhaps.

20 Q As to what it actually cost to set up that first 21 one, at least.

22 A Better than we have now; yes.

Q Right. And if you were to be asked to redo this report, you would find that data useful? The actual market test data.

For planning for further years possibly. 1 Α Now there is software in these remotely located 2 0 Postal Service-owned computers. Are you going to license 3 that from a software provider, or are you going to create 4 5 your own proprietary software? Α I can't answer that question. 6 Did you consider that question in developing 7 0 print-site costs, that there might be a license fee? 8 Α Without being aware of any software that requires 9 10 licensing with the knowledge that I had, I had no reason to assume there would be such a fee. 11 Okay. I have two more topics to take up. 0 12 There was extended discussion yesterday about 13 marketing costs, and in response to MASA-T-3-1, you stated 14 that you did not include marketing costs in your analysis. 15 Is that correct? 16 That's correct. 17 Ά 18 Q Okay. Now my question is why. Did you consider marketing costs not to be a function of IT? 19 That's correct. 20 А 21 Q Okay. Excellent. One last -- well, let me follow up on that for one 22 The decision as to how to treat marketing costs you 23 second. feel then is not yours, was not within the scope of what you 24 were asked to do. 25

I looked at my analysis within the scope of Α 1 2 information systems, not in any other context. 3 0 Okay. Now there was a conversation yesterday between Mr. Plunkett and me about certain transportation 4 costs in his testimony in his calculation of the 5 6 contribution, and if my memory serves, he said that he'd gotten those numbers from you. Is that correct? 7 8 Α I don't have any transportation costs. 9 0 Okay. MR. VOLNER: Commissioner, I have no further 10 11 questions. COMMISSIONER LeBLANC: Is there any followup? 12 Mr. Costich? 13 Any questions from the bench? Commissioner 14 Goldway? 15 COMMISSIONER GOLDWAY: I just wanted to get some 16 clarification on what your perception was of the content of 17 what you list as customer's initial call and followup call. 18 You refer to initial calls and give them a certain 19 amount of time. 20 THE WITNESS: That's correct. 21 22 COMMISSIONER GOLDWAY: And then say follow-up calls are going to be half or one-third of those times. 23 24 THE WITNESS: Yes. COMMISSIONER GOLDWAY: I think it was 1.5 and .5, 25

1 but I could be wrong. Could you tell me what you envision 2 to be the content of those calls?

THE WITNESS: Given that there is a Post Office 3 4 online help desk which would be responsive to any contact 5 from the customer, whether it's for report of a problem or an information need, there may require some follow-up if it 6 has some specific impact or if a customer is being impacted 7 by any part of the information system's infrastructure, and 8 9 a call from the Post Office help desk to -- it happens to be San Mateo Information Systems help desk -- to describe a 10 symptom of a problem, if it's judged by the help desk person 11 to be of a nature that requires some remediation within our 12 information system's infrastructure or some technical 13 14 information, that might provide some insight for them to deal with customers, those type of calls. 15

16 COMMISSIONER GOLDWAY: And why do you think the 17 first call is longer than the subsequent calls or the 18 subsequent calls are shorter than the first call?

19 THE WITNESS: I just surmise that based on what I 20 had heard during the first few weeks of the operations test, 21 that the initial call from the customer involved a complex 22 issue. Not knowing what those issues were, I figured it 23 would be wise to extrapolate out that that might be a 24 complex issue if it were technical in nature and have to be 25 communicated again to a technical person.

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803

1 COMMISSIONER GOLDWAY: Are you aware of whether, 2 under the current operations test or in the market tests, 3 you will be able to track those calls, both in terms of time 4 and content?

5 THE WITNESS: I'm not sure about the times. I 6 know that we have problem tickets. I don't know if every 7 word that is -- you know, every part of the conversation 8 between two people is transcribed there, but it's at least a 9 summary of the nature --

10 COMMISSIONER GOLDWAY: Because the time is the 11 labor cost, isn't it?

THE WITNESS: That's correct.

COMMISSIONER GOLDWAY: Okay. And then on -- let's
see if I get these numbers right here. In OCA response
T3-4, I believe, you have a series of attachments, the Cost
Component Sources Derivation Worksheets.

17 THE WITNESS: Yes.

12

25

18 COMMISSIONER GOLDWAY: And on page 1 of those, you 19 say there is no empirical data to support an accurate 20 estimate for training on Mailing Online.

THE WITNESS: At the time I did my estimate, there was  $\frac{\sqrt{0}}{2}$  was  $\frac{\sqrt{0}}{2}$  training program for Mailing Online.

23 COMMISSIONER GOLDWAY: Is there now a training24 program?

THE WITNESS: I know that help desk personnel in

San Mateo have been trained in Mailing Online. I do not 1 know if there is any formal curricula -- curriculum for 2 3 Mailing Online software. I'm not aware of that. COMMISSIONER GOLDWAY: Is there any tracking of 4 the costs of that training going on now or --5 THE WITNESS: I do not know. 6 7 COMMISSIONER GOLDWAY: -- through the market test? 8 THE WITNESS: I do not know. COMMISSIONER GOLDWAY: Is there a company that is 9 providing the training or is it being done in-house? 10 11 THE WITNESS: I'm not sure exactly. You're asking me about what happened during the operations test and I do 12 13 not have specific information about what transpired during 14 the operations test. COMMISSIONER GOLDWAY: Do you know whether during 15 16 -- in anticipation of the market test, have they -- is there an outside company that will be providing training? 17 THE WITNESS: I don't have any specific knowledge 18 19 of that. 20 COMMISSIONER GOLDWAY: And just so I understand 21 these things -- I'm still -- is there a difference in the actual location or the people who work on what's called the 22 help desk versus the processing desk? They are both located 23 in San Mateo; is that right? The help desk and the 24 25 processing desk?

1 THE WITNESS: I don't recognize the term 2 processing desk in my testimony. I may have used it, but --3 COMMISSIONER GOLDWAY: Processing center. 4 THE WITNESS: Yes. We're talking about people who would be co-located at the processing site, yes. 5 They are 6 one in the same. 7 COMMISSIONER GOLDWAY: So would it be the same 8 people who would do both functions, respond to questions on 9 help and work at the processing center, or are they different people? 10 THE WITNESS: Well, I just want to make sure I 11 12 understand. I have --13 COMMISSIONER GOLDWAY: There's a processing center 14 and there is a help desk. 15 THE WITNESS: That's right. Those are two --16 COMMISSIONER GOLDWAY: Where are they located? 17 THE WITNESS: -- sets of individuals. They would be located presumably at the same site as they are today. 18 19 COMMISSIONER GOLDWAY: But they're different 20 individuals. 21 THE WITNESS: They are different individuals. 22 COMMISSIONER GOLDWAY: Thank you. 23 On answers to OCA-T-14, response to A, you say on 24 the second sentence: The only information I have from the 25 operational test that has any bearing on technical help desk

resources here is anecdotal. New customers require one-half 1 hour with a help desk agent the first time they contact the 2 help desk to review the functionality of Mailing Online. 3 THE WITNESS: Yes. I tried to articulate that in 4 5 as many words a few minutes ago. 6 COMMISSIONER GOLDWAY: Okay. THE WITNESS: Yes. 7 COMMISSIONER GOLDWAY: But the anecdotal evidence 8 is that subsequent calls are shorter. 9 THE WITNESS: I did not have that information, no. 10 COMMISSIONER GOLDWAY: Because your worksheets, I 11 12 believe, show shorter calls for subsequent calls. 13 THE WITNESS: That was my understanding, yes. I can't --14 COMMISSIONER GOLDWAY: But we don't have any real 15 information about that, or at the time, you didn't. 16 THE WITNESS: At the time, I did not. 17 18 COMMISSIONER GOLDWAY: I think that's all. Thank 19 you. 20 COMMISSIONER LeBLANC: Did any questions from the bench cause the need for further follow-up? 21 Mr. Hollies, would you like some time to prepare 22 your witness for redirect? 23 LIES: 24 Yes. May we have 15 minutes to talk 25 with the witness?

COMMISSIONER LeBLANC: Excuse me? 1 RUBIN 2 Could we have 15 minutes to talk with the witness? 3 COMMISSIONER LeBLANC: Certainly. Let's just have 4 a -- we'll have a 20-minute break, and then we'll come back 5 at five after the hour according to the clock on the wall, 6 7 as I always say since there are none the same around here. We're off the record, Mr. Reporter. 8 [Recess.] 9 COMMISSIONER LeBLANC: Mr. Reporter, we will go 10 11 back on the record. Thank you all for understanding. It 12 was a personal phone call, something -- a family matter. 13 Okay. Mr. Hollies, Mr. Rubin. MR. RUBIN: 14 Thank you. REDIRECT EXAMINATION 15 BY MR. RUBIN: 16 Mr. Stirewalt, during your cross-examination, you 17 0 18 responded to several questions concerning the usefulness of data or information from the operations test phase of 19 Mailing Online. Do you believe that the operations test is 20 representative of either the market test or the experimental 21 phases of Mailing Online? 22 No, I do not. What I know of the operations test, 23 Δ that is, my involvement in the initial stages, includes the 24 25 fact that the equipment that we used for the information

systems infrastructure, the computers, was borrowed rather 1 2 than computers that we felt would be best for Mailing 3 Online. We used software which was probably of less than optimal functionality, that is. We put together in total a 4 set of things quickly to do an operations test with the 5 6 intention of finding how it works. The network 7 configuration was something that evolved, or started to evolve over the time I was involved. 8

9 So I don't think a lot of the major elements will
10 look anything -- from the operations test, should look
11 anything like what we see going forward.

12 Q Were there differences in the network setup for13 that operations test?

A The network setup for the operations test was, I guess, ad hoc. That is, rather than examining the network configuration we have in the Postal Service and determining where best to lay out the computers, they were just put in place quickly to enable the operation. Further analysis that would be required to do it correctly was a function of learning after the operations test.

Q If you were to redo your analysis using information from the operations test, might the results be misleading as to what costs would be like during the market test?

25

A I don't believe they may be misleading, they would

be misleading. Because what we did during the operations 1 2 test is so different in nature with what we would want to do 3 and intend to do going forward with the marketing test and 4 the nationwide service that I believe they would be 5 misleading, for some of the specifics I stated before, the network configuration, the computers we borrowed, rather 6 than the ones we would to have bought, if we wanted to have 7 an optimal service. Every single piece of it would be 8 different. 9

10 Just to qualify the word "useful," it would be useful for us, for an information system professional in the 11 Postal Service to take a look at whatever information is 12 13 being gleaned from the operations test, as matter of curiosity and experience, but it really wouldn't have been 14 worthwhile for that to  $\mathbf{v}$  collected if it weren't already. 15 There is not enough volume, that I understand, going through 16 17 the operations test or enough stable experience to really -to extrapolate from. 18

19 Q How would you describe the assumptions in your 20 cost analysis with respect to whether they would tend to 21 either understate or overstate actual costs?

A I believe that they overstate the capacity and, therefore, the costs. The Help Desk, for example, I think is greatly overestimated. I made one assumption based on a conversation I heard in the beginning of the operations test

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810

about a half-hour phone call from a customer to a Help Desk
specialist. I have no reason to believe, nor, in my
professional opinion, would it ever occur that that same
amount of time would be spent in the follow-up phone calls.
So I believe that the Help Desk resource cost is really
overstated. That's a good example of that.

I believe that the assumption about the mail merge jobs and the non-mail merge jobs, my intent was to be not unreasonably conservative, but just conservative to the point where I think we had the capacity covered and the costs, and planning, based on the analysis results, going forward.

Q And if you were to redo your analysis based on any useful information you could identify since the time you did your original analysis, do you have any expectation that your cost results would go up by a large amount?

No, I don't. And even if it did, I am not sure 17 A that that would be significant in the big picture. 18 In fact, again, I think, if I were to provide the level of details 19 that I have provided here, it would be misleading again, 20 because so much has changed in its details, I am sure, 21 between the operations test and what we are doing going 22 23 forward.

Q So when you say a large amount, what order of magnitude are you talking about?

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811

How much it could go up, or? 1 Α 2 0 Yes. How much you would not -- I mean you would 3 not expect it to double or go up five times. I would not expect it to go up five times as much, 4 Α Or four times as much, no. No, I would not. 5 no. MR. RUBIN: Thank you. I have no more questions. 6 7 COMMISSIONER LeBLANC: Did the redirect generate 8 any recross? It did indeed. 9 MR. VOLNER: COMMISSIONER LeBLANC: Mr. Volner. 10 11 RECROSS-EXAMINATION 12 BY MR. VOLNER: Mr. Stirewalt, if I understood this exchange with 13 0 your counsel correctly, your position is that data collected 14 15 along the lines, bearing on costs, the Help Desk, 16 telecommunications charges, capacity charges, data collected during the operations test would be misleading. Is that 17 what you said? 18 19 А Yes, I did. 20 0 All right. You also said that your costs are 21 overstated because you were being conservative. Are we then to take it that your costs or cost estimates are also 22 misleading? 23 24 Α No, I believe I made a reasonable set of 25 assumptions, trying to err on the side of being

2 no.
3 Q I realize that you are neither an economist nor a
4 statistician. Do you think that actual data is superior to
5 assumptions?
6 A Only if there is a sufficient amount of actual
7 data, and only if -- all other things being equal. And I

conservative, and I don't believe that is being misleading,

8 don't believe that either of those two criteria are met with 9 the operations test.

10 Q All right. Now, then let me ask the further 11 question, do you think that there will be a sufficient 12 amount of data in the market test to validate or invalidate 13 the assumptions?

14

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A I can't say that with certainty.

15 Q So that what we are going to end up with at the 16 end of this exercise is your assumptions will carry forward 17 into the experiment?

18 A I think we are talking about an estimate versus 19 the actual planning and costing for this, and I am not sure 20 that that is a correct statement.

Q Well, then, let me phrase it slightly differently.
A I don't think we're going to --

Q Will we have at the end of the market test the actual planning and costs for the -- up through the end of the market test?

1AWe will have made expenditures toward those items2during that time, or at least some of them. I'm not sure3we'll have done all of them, either.4QIf it were -- the task were assigned to you, would

6AIf it existed at the time in its entirety.7MR. VOLNER: I have no further questions.8COMMISSIONER LeBLANC: Mr. Costich?

5

you reexamine your testimony in light of that data?

9 MR. COSTICH: No, Mr. Volner has covered it.
10 Thank you, Mr. Presiding Officer.

11 COMMISSIONER LeBLANC: Well, in that case, thank 12 you very much, Mr. Stirewalt. The Commission appreciates 13 your appearance here today and your contributions to our 14 record, and I look forward to hearing from you in the next 15 phase of this case.

In Presiding Officer's Ruling No. 3, I announced that any participant wishing to present testimony opposing the market test was to be prepared to announce his intention at the conclusion of today's hearing. At this point we only have one person, Mr. Volner, who has come forth. Does anybody else wish to make a statement at this point?

22 Mr. Volner, you said your approach would be very 23 narrow.

MR. VOLNER: It would be limited to one aspect of this case, but I think it's a rather important aspect.

1 COMMISSIONER LeBLANC: Thank you very much. Now at this point, I'll wait to hear your 2 pleadings, but participants wishing to supplement the record 3 by designating additional answers to market-test-related 4 testimony should file those designations on or before 5 6 September 7, 1998, and please restrict any additional designations to discovery responses relevant to the market 7 8 test -- again, the market test.

9 If there is nothing further now, this hearing is 10 adjourned.

11 MR. VOLNER: I have one guestion in light of a colloguy that occurred earlier. Do I understand that the 12 13 schedule that you issued still holds, that is to say we are 14 to submit our rebuttal testimony by September 4, and a 15 hearing if the Postal Service requests it will be on 16 September 10? 17 COMMISSIONER LeBLANC: That is correct. 18 MR. VOLNER: Okay. Thank you. 19 COMMISSIONER LeBLANC: Any other further? 20 This hearing is adjourned. Thank you very much. 21 [Whereupon, at 11:17 a.m., the hearing was

22 concluded.]

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24 25