

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

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OFFICE OF THE SECRETARY

MAILING ONLINE EXPERIMENT

Docket No. MC2000-2

RESPONSE OF UNITED STATES POSTAL SERVICE
WITNESS LIM TO INTERROGATORIES OF
THE OFFICE OF THE CONSUMER ADVOCATE
(OCA/USPS-T3-2-34)

The United States Postal Service hereby provides the responses of witness Lim to the following interrogatories of the Office of the Consumer Advocate:
OCA/USPS-T3-2-34, filed on December 29, 1999.


Each interrogatory is stated verbatim and is followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

Daniel J. Foucheaux, Jr.
Chief Counsel, Ratemaking


David H. Rubin

475 L'Enfant Plaza West, S.W.
Washington, D.C. 20260-1137
(202) 268-2986 Fax -5402
January 11, 2000

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE

OCA/USPS-T-3-2. Please refer to your testimony at page 10. You state "Based on current usage levels in San Mateo" Please explain what this "current usage" consists of and how it relates to MOL since the withdrawal of the previous MOL experiment request on May 5, 1999.

RESPONSE:

Since the withdrawal of the previous MOL experiment request, T3 lines were installed in San Mateo for non-MOL purposes. Please see the response to OCA/USPS-T3-5.

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OCA/USPS-T-3-3. Please refer to your testimony at page 10. Please specify the volume estimates that underlie your MOL T3 connection usage. Also state any assumptions made concerning the number of simultaneous users of MOL. Provide the source of volume figures and assumptions made.

RESPONSE:

The MOL system is estimated to need 12Mbps of the T3 bandwidth. This is based on conversations with the Senior Consultant at BEA Systems, the MOL subcontractor. The MOL system is built for an upper bound limit of 5000 simultaneous users. No specific volume of impressions or pieces underlies the T3 usage.

I have attached to this response a copy of the spreadsheet showing the Mailing Online contractor's calculation for the bandwidth requirement corresponding to the number of sessions per hour (synonymous with simultaneous users). Five thousand sessions lies between the second and third lines in the attachment, which after interpolation indicates 1.455 MB/s and 11.64Mb/s bandwidth requirement for 5000 simultaneous users.

It is important to note that the invoicing for the T3 lines by the service company is based on a 95th percentile usage level. Therefore, theoretically, even if all the 5000 users simultaneously requested services from the web server, the 12Mbps would provide 2.4Kbps access to each user, which is not an unreasonable download/upload rate. If this were a short spike in usage, outside the 95% percentile range for the month, then this increase would not even be charged to the Postal Service.

		To User				From User	
No.	Sessions Per Hour	Size Per Hour (MB)	Rate (MB/s)	Size Per Hour (MB)	Rate (MB/s)		
1,000	2,000	721	0.20	2,095	0.58		
3,000	6,000	2,164	0.60	6,284	1.75		
4,000	8,000	2,886	0.80	8,379	2.33		
5,000	10,000	3,607	1.00	10,474	2.91		
6,000	12,000	4,329	1.20	12,568	3.49		
8,000	16,000	5,771	1.60	16,758	4.65		
9,000	18,000	6,493	1.80	18,853	5.24		
10,000	20,000	7,214	2.00	20,947	5.82		
11,000	22,000	7,936	2.20	23,042	6.40		
12,000	24,000	8,657	2.40	25,137	6.98		
13,000	26,000	9,379	2.61	27,231	7.56		
14,000	28,000	10,100	2.81	29,326	8.15		
15,000	30,000	10,822	3.01	31,421	8.73		
16,000	32,000	11,543	3.21	33,516	9.31		
17,000	34,000	12,264	3.41	35,610	9.89		
18,000	36,000	12,986	3.61	37,705	10.47		
19,000	38,000	13,707	3.81	39,800	11.06		
20,000	40,000	14,429	4.01	41,895	11.64		

T1 Speed
T3 Speed

1.544 Mbs (bits)
0.154 MB/s (bytes)
44.736 Mbs (bits)
4.474 MB/s (bytes)

01/11/2000

Mailing OnLine

Network Traffic Model Variables

Document Upload Factor	1.5 Doc_Upload	Average Number of Doc Uploads per job
Mail List Upload Factor	1.5 ML_Upload	Average Number of Mail List Uploads per job
Mail List Size	256000 ML_Size	Average Mail List File Size (in bytes)
Average Session Length	30 Session_Length	Average Session Length for User in MOL
Average Document Size	476160 Doc_Size	Average Document Size
Avg Doc PDF Size	119040 PDF_Size	Average Document PDF File
Avg Bad Address PDF	5120 Bad_PDF	Average AMS Returned Bad Address PDF File
Avg Good Address PDF	25600 ML_PDF	Average Mail List PDF File
Average HTML per session	153600 HTML_Size	Average Size of HTML downloads per session

Internet Analysis Tab - Formulae for first row

Sessions per Hour To User	$A5 * (60 / \text{Session_Length})$
Size per Hour Rate From User	$(B5 * (\text{HTML_Size} + ((\text{PDF_Size} + \text{Bad_PDF} + \text{ML_PDF}) * \text{ML_Upload}))) / (1024 * 1024)$
Size per Hour Rate	$C5 / (60 * 60)$
Size per Hour Rate	$(B5 * ((\text{Doc_Size} * \text{Doc_Upload}) + (\text{ML_Size} * \text{ML_Upload}))) / (1024 * 1024)$
	$E5 / (60 * 60)$

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OCA/USPS-T-3-4. Do you expect the T3 connection usage to increase during the life of the experiment? If so, how much? If not, explain why.

RESPONSE:

A high estimate of usage for the T3 connection by 5000 simultaneous MOL users was used. It is estimated that the average T3 connection for MOL usage will increase during the experiment, but not beyond the estimated 12Mbps upper bound for the MOL system during the 3-year period of the experiment.

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OCA/USPS-T-3-5. What is the source of the T3 connection fee set forth at line 190 of Workpaper A? Please state specifically your source(s) for the \$648,000 and \$1,296,000 figures. If your sources are written documents, then provide copies of such documents and cite the specific pages relied upon. If your source(s) are individuals, then state the following for each individual who contributed to the development of the connection fee estimates:

- a. company or organization that employs this individual,
- b. organizational unit or department within the company or organization,
- c. position of individual within the company or organization,
- d. all sources and assumptions utilized by the individual to reach the conclusions that were provided to you,
- e. the medium used by individuals to communicate information to you (state specifically whether the communication was oral or in writing).
- f. Also provide any written information transmitted to you by individuals listed above that was used to develop the connection fee estimates.
- g. Provide any notes that you made reflecting any oral communications made by such individuals to you.
- h. If no written materials currently exist, then specifically state, to the best of your recollection, each conversation you had with the individuals listed above.

RESPONSE:

The \$648,000 figure is the cost of each T3 line for 3 years (therefore it is \$18,000 per month per T3 line multiplied by 12 months per year multiplied by 3 years). The \$1,296,000 figure is the \$648,000 multiplied by the two T3 lines.

The main source for the \$18,000 per month cost per T3 line used in my estimate is the connection fee charged by the service providers to the Postal Service. In this case the service providers are MCI Worldcom and PacBell. The cost schedule for T3 service is available on the Internet under "Burstable T-3 Service" at <http://boardwatch.internet.com/isp/summer99/bb/uunetpg7.html>. A printout of this web page is provided with this response. I confirmed that this cost schedule was the same pricing for T3 service charged to the Postal Service.

Since the charge for a T3 line is graduated, as indicated by the T3 cost schedule, and both T3 lines have been installed and are in use for non-MOL purposes, I had to assess the "current usage" of those lines. I assessed the "current usage" by questioning

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the billing Postal Service's representative in the National Network Service Center in Raleigh. She provided an email indicating the monthly charges incurred for both T3 lines based on the invoices she received from the service providers. I have attached to this response a printout of the email that was sent to me.

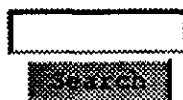
The email showed that the general monthly level cost of each T3 line is approximately \$18,000, that is, half of the approximately \$36,000 charged for both T3 lines during months 4/20/99 through 8/20/99. Looking at the T3 line cost schedule, the \$18,000 amount indicated that non-MOL usage of those T3 lines is within the range of 9.01 Mbps ~10.5Mbps, the charge for which is \$19,000. Applying the expected T3 line usage of 12Mbps, or 6 Mbps per T3 line, the cost for an additional 6Mbps per T3 was calculated for MOL by using the conservatively high range of 16.5Mbps ~ 18Mbps in the cost schedule. The charge in this range is \$37,000. The difference in monthly charges between the two bandwidths is \$37,000 minus \$19,000. Thus \$18,000 is the resulting cost for T3 line caused by Mailing Online.

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ISPs

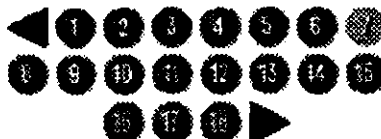


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MCI WorldCom -
UUNETISP Directory -
11th Edition, 1999

MCI WorldCom - UUNET (continued from front page)

BURSTABLE T-3

Availability: All U.S. backbone cities**Average Install Time:** 8-10 weeks, depending on telco availability**Recommended Equipment:** Cisco 7204 router with Silicon Switch Processor and a series of required software packages; LarseCom DS-3 CSU/DSU

Burstable T-3 Service

Monthly price based on 95th percentile usage level.

Availability: All U.S. backbone cities**Average Install Time:** 8-10 weeks,**Setup:** \$6,000

Bandwidth	Monthly
up to 6 Mbps	\$12,000
6.01 Mbps-7.5 Mbps	\$14,000
7.51 Mbps-9 Mbps	\$17,000
9.01 Mbps-10.5 Mbps	\$19,000
10.51 Mbps-12 Mbps	\$22,000
12.01 Mbps-13.5 Mbps	\$26,000
13.51 Mbps-15 Mbps	\$29,000
15.01 Mbps-16.5 Mbps	\$32,000
16.51 Mbps-18.01 Mbps	\$37,000
18.01 Mbps-19.5 Mbps	\$43,000
19.51 Mbps-21 Mbps	\$48,000
21.01 Mbps-45 Mbps	\$55,500

Recommended Equipment: Cisco 7204 router

SHADOW T-3

Shadow T-3 is a multi-homed, dual T-3 service, for which UUNET provides two T-3 connections to the customer. The Shadow T-3 connection serves as an emergency back-up for the primary T-3 connection. The recommended configuration terminates the Shadow T-3 at a second

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Be a Partner
Software Store
Computer Help
Register a Domain
Be Domain Registrar
e-solutions
Internet Jobs
A/V Network
Map Your Website
Rent E-mail Lists
Bookstore
Press Release dist.
Sell Ad Space
Internet Research
Venture Capital
Web Publishing
Build Your Intranet
Expert Advice
Get e-Biz Intell.
Content for Websites

UUNET hub, distinct from the hub where the customer has its main T-3 connection. All traffic is normally sent through the primary connection. If the primary connection fails or if there is a problem with the primary hub, the Shadow T-3 carries all traffic until the primary connection is restored. The Shadow T-3's automatic re-routing capability is designed to ensure the integrity of the customer's data.

Availability: All U.S. backbone cities

Average Install Time: 8-10 weeks

Setup: \$5,000

Monthly: \$3,000

Recommended Equipment: Cisco 7204 router



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Colorado Offices

13949 W Colfax Ave Suite 250, Golden, CO 80401

Voice: 303-235-9510; **Fax:** 303-235-9502

<http://www.internet.com>

ATTACHMENT To Response To OCA/USPS-7-3-5
PAGE 3 OF 4

9536A

**NATIONAL NETWORK SERVICE CENTER
4200 WAKE FOREST ROAD
RALEIGH NC 27668-9700
FAX NUMBER (919) 501-9724**



DATE: October 20, 1999

TO: Justin Heung - Price Waterhouse Coopers
TELEPHONE NUMBER: 703-741-1749
FAX NUMBER: 703-741-1616

FROM: Mary Jane Marchant
TELEPHONE NUMBER: 919-501-9047
FAX NUMBER: 919-501-9724

COVER PLUS 8 PAGES

FYI - Attached is an internal memo noting the DS-3 costs for Internet service for San Mateo CA and Raleigh NC. Also attached is the latest bill for each of the services.

Any questions please call me on Friday - will be away from the office tomorrow.

Mary Jane

Attachment To Response To OCA/USPS-7-3-5

Page 4 of 4.

(1)

Author: MARY J. MARCHANT at RANCO09L

Date: 10/6/99 3:58 PM

Normal

Receipt Requested

TO: CHARLES P BERKANT at RANCO03L, MARVIN G GATZMER

BCC: MARY J. MARCHANT

Subject: Re(2): Circuit Costs

..... Message Contents

UPDATE:

I have just determined that there is another DS-3 into San Mateo provided by PACrell - Circuit No.: 83HFQA042133-001 - billed under Account Nos: SOINV 7863 and 2342710733.

The breakdown is as follows:

Account Number	Invoice Date	Certified Date	Certified Amount	Comments
SOINV7863	6/20/99	NA	\$28,027.00	2342710733 2/07/99
	54,846.66			
2342710733	3/07/99		\$5,192.85	
2342710733	4/07/99		\$30,342.85	
2342710733	5/07/99		\$29,942.85	
2342710733	6/07/99		\$29,942.85	
2342710733	7/07/99		\$29,942.85	
2342710733	8/07/99		\$29,379.86	
2342710733	9/01/99		\$14,019.32	

Total Amount paid = \$207,667.09

This amount is in addition to the figures provided in my earlier email. If you are determining the entire cost of INTERNET service you would need to add those figures.

Mary Jane

Reply Separator

Subject: Re: Circuit Costs

Author: MARY J. MARCHANT at RANCO09L

Date: 9/24/99 8:57 AM

MCI Worldcom Circuit No.: WZ809449 is the Internet circuit into San Mateo PDC 4 2700 Campus Drive.

MCI Worldcom Circuit No.: WZ809408 is the Internet circuit into NISSC, Raleigh NC.

Both circuits are currently being billed under one account - 00025511. Although there was one payment under account number 02896676. The breakdown is as follows:

Account Number	Invoice Date	Certified Date	Certified Amount	Comments
00025511	11/20/98	01/07/99	\$39,647.88	Initial Payment
00025511	12/20/98	01/07/99	\$18,581.21	
00025511	01/20/99	01/27/99	\$18,581.23	
00025511	02/20/99	03/06/99	\$18,581.23	
00025511	03/20/99	07/07/99	\$64,995.35	Internet Install fee
00025511	04/20/99	07/07/99	\$36,206.40	
00025511	05/20/99	07/07/99	\$36,206.40	
00025511	06/20/99	07/07/99	\$36,206.40	
00025511	07/20/99	07/29/99	\$36,345.52	
00025511	08/20/99	08/30/99	\$36,345.52	
02896676	04/10/99	05/03/99	\$29,098.58	

Total Amount Paid on both accounts = \$370,795.74

I provided the circuit and account numbers because I have had calls from several different offices and there's always confusion about circuit numbers, exact locations or account numbers. For future

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OCA/USPS-T-3-6. Please refer to USPS-T-3, Workpaper A, lines 1-117.

- a. How did you determine the type of hardware and equipment that would be necessary to implement the MOL experiment? Please state specifically your source(s) for the hardware and equipment items listed. If your sources are written documents, then provide copies of such documents and cite the specific pages relied upon. If your source(s) are individuals, then state the following for each individual who contributed to the development of hardware and equipment estimates:
- i. company or organization that employs this individual,
 - ii. organizational unit or department within the company or organization,
 - iii. position of individual within the company or organization,
 - iv. all sources and assumptions utilized by the individual to reach the conclusions that were provided to you,
 - v. the medium used by individuals to communicate information to you (state specifically whether the communication was oral or in writing).
 - vi. Also provide any written information transmitted to you by individuals listed above that was used to develop the hardware and equipment estimates.
 - vii. Provide any notes that you made reflecting any oral communications made by such individuals to you.
 - viii. If no written materials currently exist, then specifically state, to the best of your recollection, each conversation you had with the individuals listed above.
- b. How did you determine the quantities of hardware and equipment that would be necessary to implement the MOL experiment? Please state specifically your source(s) for the quantities of hardware and equipment items listed. If your sources are written documents, then provide copies of such documents and cite the specific pages relied upon. If your source(s) are individuals, then state the following for each individual who contributed to the development of estimates of hardware and equipment quantities:
- i. company or organization that employs this individual,
 - ii. organizational unit or department within the company or organization,
 - iii. position of individual within the company or organization,
 - iv. all sources and assumptions utilized by the individual to reach the conclusions that were provided to you,
 - v. the medium used by individuals to communicate information to you (state specifically whether the communication was oral or in writing).
 - vi. Also provide any written information transmitted to you by individuals listed above that was used to develop estimates of hardware and equipment quantities.
 - vii. Provide any notes that you made reflecting any oral communications made by such individuals to you.
 - viii. If no written materials currently exist, then specifically state, to the best of your recollection, each conversation you had with the individuals listed above.

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RESPONSE:

The list of items of the type and quantity of hardware, software and telecom/networking in Workpaper A was provided by the developer's MOL Program Manager, a Director at Marconi Electronics (which has recently been acquired and renamed BAE Systems). Lines 1-192 of Workpaper A represent the total expenditure for hardware, software, telecommunication and networking for the core MOL system during the entire period of the experiment.

The bill of materials list is the product of extensive meetings and interactions by various entities within the Postal Service and the contractors. I attended some of these meetings and also met separately with the Director, the Senior Consultant and the Director of Engineering at BAE Systems responsible for developing Mailing Online to question, discuss and validate these and other conclusions regarding Mailing Online. For the purpose of my testimony, their bill of materials was provided to me. A listing of the items that I used from this bill of materials has been filed as USPS-LR-2/MC2000-2.

When I was collecting data for my testimony, the design of the MOL system had been finalized. Indeed, most of the items listed in the corresponding bill of materials had already been procured. In fact, the equipment listed under the Development and Testing environment had been installed and was in use. I reviewed the identified hardware and software and found it to constitute a complete and robust architecture about which I was confident I could provide reliable testimony to the commission. Also I found the developers to be technically competent and capable of providing solid judgement and solutions. I was able to use actual data and costs rather than rely on

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theoretical models to identify the hardware and software costs. Therefore, I am very confident of the accuracy of these costs.

I have outlined how I obtained and verified Mailing Online information. As can be seen, I had no reason to follow the quite different path for collecting and verifying information embodied in the interrogatory. To the limited extent I could provide additional data and information such as notes reflecting oral communications, I would need to reassemble all events during the many months of meetings and discussions for the current and prior Mailing Online testimonies. This would require several months of unproductive work. In addition providing "all sources and assumptions utilized by the individual to reach the conclusions" would require a similar amount of time, and all sources or assumptions would not readily be available.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
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OCA/USPS-T-3-7. Does the list of hardware and equipment in lines 1-117 of Workpaper A constitute an estimate of all hardware and equipment expenditures that will be necessary over the course of the entire 3-year experiment? If not, then state the period of time for which these items will be acquired.

RESPONSE:

Yes, as explained in the response to OCA/USPS-T3-6.

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OCA/USPS-T-3-8. Explain how the Postal Service's plan "to have its full network of 25 print sites in place near the middle of the second year of the experiment" (Request at 3) has resulted in estimates of specific quantities of hardware and equipment to be listed in Workpaper A. By way of illustration, if the Postal Service were to have planned approximately half the number of print sites—say 12 print sites in total for the duration of the experiment—which hardware and equipment estimates would have changed, and by how much? Please be specific.

RESPONSE:

The items in Workpaper A constitute the core MOL system and would not be affected by any plans for print site implementation. Workpaper D shows the total cost of equipment related to print sites for the period of the experiment based on the MOL Print Site Rollout shown in Table 12 of witness Poellnitz' testimony, USPS T-2.

If the number of print sites were to be halved to 12 rather than 25 sites, then the unit quantities of the Hardware, Software, and T1 installation (Workpaper D, Items 2 through 24 & 38) for the production environment would be changed from 25 to 12 units and the T1 service (Item 39) would decrease. The decrease in the T1 service would depend on the year and month of implementation of the 12 Print Sites, since the service is based on monthly usage. For example, if a T1 line was installed in December rather than in April of the same year, then it would cost less due to a difference of eight months.

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OCA/USPS-T-3-9. For purposes of developing the hardware and equipment estimates presented in lines 1-117 of Workpaper A, what assumption was made concerning the number of simultaneous MOL users?

- a. State the number of simultaneous users assumed.
- b. Explain how this assumption affects the type and quantity of hardware and equipment that must be acquired.
- c. For purposes of illustration, how would specific hardware and equipment acquisitions be affected if the number stated in response to part a. of this interrogatory were to double? How would specific hardware and equipment acquisitions be affected if the number stated in response to part a. of this interrogatory were to be halved?

RESPONSE:

The MOL system capacity is based on the assumption of 5000 simultaneous users. I have personally not done specific analysis of the effect of doubling or halving the number of users because the Mailing Online system has already been finalized and procured based on this assumption of 5000 simultaneous users. However to provide a rough and general idea, if the number of simultaneous users of the system were to double, the number of CPUs for the Cubix boxes, web servers and MOL controller would increase. Additional software would be required for additional Cubix CPUs and if additional Web Servers are required, then additional web server Netscape software would be also required. Switches and routers may need to be added and additional storage capacity would be necessary. Halving would have similar effects in the opposite direction.

See also my response to OCA/USPS-T3-10.

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OCA/USPS-T-3-10. Do the anticipated hardware and equipment needs set forth in lines 1-117 of Workpaper A reflect the yearly and total volume estimates for impressions and pieces (i.e., as indicated by the volume of envelopes), that are set forth in Exh. USPS-5A? If not, then what volume assumptions underlie the hardware/equipment estimates? If so, explain the relationship between the volume estimates and the type and quantity of equipment set forth in the workpaper.

- a. By way of illustration, how would the hardware and equipment estimates change if total volume were doubled?
- b. By way of illustration, how would the hardware and equipment estimates change if total volume were halved?
- c. By way of illustration, how would the hardware and equipment estimates change if yearly volumes remained constant, instead of increasing steadily over the 3-year period?

RESPONSE:

The system and software have been designed based on 5000 simultaneous users. The number of simultaneous users determines the capacity of the MOL system. Based on these, certain projections for storage and transmission capacities could be made. The relationship between volume estimates for impressions and pieces and number of simultaneous users has not been clearly established. Without more information about this relationship, I cannot estimate the impact on hardware and equipment should the volumes of impressions or pieces change.

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OCA/USPS-T-3-11. Does the Postal Service currently own any of the equipment listed in lines 1-117 of Workpaper A as a result of offering MOL during the operations test or the market test?

- a. If so, how are the expenditures for currently-owned equipment accounted for in Workpaper A?
- b. If expenditures for currently-owned equipment are not included in the Workpaper A cost estimates, then has witness Plunkett accounted for them in his analysis? (This may be redirected to witness Plunkett for a response). Give a specific explanation, including citations, to the place(s) in Postal Service testimony or workpapers where expenditures for already-owned equipment are accounted for.

RESPONSE:

No. All equipment for the experiment is for a scaled national rollout and does not include any from the operations or market tests. Parts (a) and (b) are not applicable since there are no such expenditures to account for. See also witness Plunkett's response to interrogatory OCA/USPS-T5-6.

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OCA/USPS-T-3-12. Please refer to USPS-T-3, Workpaper A, lines 119-174.

- a. How did you determine the type of software that would be necessary to implement the MOL experiment? Please state specifically your source(s) for the software listed. If your sources are written documents, then provide copies of such documents and cite the specific pages relied upon. If your source(s) are individuals, then state the following for each individual who contributed to the development of software estimates:
- i. company or organization that employs this individual,
 - ii. organizational unit or department within the company or organization,
 - iii. position of individual within the company or organization,
 - iv. all sources and assumptions utilized by the individual to reach the conclusions that were provided to you,
 - v. the medium used by individuals to communicate information to you (state specifically whether the communication was oral or in writing).
 - vi. Also provide any written information transmitted to you by individuals listed above that was used to develop software estimates.
 - vii. Provide any notes that you made reflecting any oral communications made by such individuals to you.
 - viii. If no written materials currently exist, then specifically state, to the best of your recollection, each conversation you had with the individuals listed above.
- b. How did you determine the quantities of software that would be necessary to implement the MOL experiment? Please state specifically your source(s) for the quantities of software listed. If your sources are written documents, then provide copies of such documents and cite the specific pages relied upon. If your source(s) are individuals, then state the following for each individual who contributed to the development of estimates of software quantities:
- i. company or organization that employs this individual,
 - ii. organizational unit or department within the company or organization,
 - iii. position of individual within the company or organization,
 - iv. all sources and assumptions utilized by the individual to reach the conclusions that were provided to you,
 - v. the medium used by individuals to communicate information to you (state specifically whether the communication was oral or in writing).
 - vi. Also provide any written information transmitted to you by individuals listed above that was used to develop estimates of software quantities.
 - vii. Provide any notes that you made reflecting any oral communications made by such individuals to you.
 - viii. If no written materials currently exist, then specifically state, to the best of your recollection, each conversation you had with the individuals listed above.

RESPONSE:

See the response to OCA/USPS-T3-6.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T-3-13. Does the list of software in lines 119-174 of Workpaper A constitute an estimate of software expenditures that will be necessary over the course of the entire 3-year experiment? If not, then state the period of time for which the software will be acquired.

RESPONSE:

Yes. See the response to OCA/USPS-T3-6.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T-3-14. Explain how the Postal Service's plan "to have its full network of 25 print sites in place near the middle of the second year of the experiment" (Request at 3) has resulted in estimates of specific quantities of software to be listed in Workpaper A. By way of illustration, if the Postal Service were to have planned approximately half the number of print sites—say 12 print sites in total for the duration of the experiment—which software estimates would have changed, and by how much? Please be specific.

RESPONSE:

See the response to OCA/USPS-T3-8.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T-3-15. For purposes of developing the software estimates presented in lines 119-174 of Workpaper A, what assumption was made concerning the number of simultaneous MOL users?

- a. State the number of simultaneous users assumed.
- b. Explain how this assumption affects the type and quantity of software that must be acquired.
- c. For purposes of illustration, how would specific software acquisitions be affected if the number stated in response to part a. of this interrogatory were to double? How would specific software acquisitions be affected if the number stated in response to part a. of this interrogatory were to be halved?

RESPONSE:

See the response to OCA/USPS-T3-9.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T-3-16. Do the anticipated software needs set forth in lines 119-174 of Workpaper A reflect the yearly and total volume estimates for impressions and pieces (i.e., as indicated by the volume of envelopes), that are set forth in Exh. USPS-5A? If not, then what volume assumptions underlie the software estimates? If so, explain the relationship between the volume estimates and the type and quantity of software set forth in the workpaper.

- a. By way of illustration, how would the software estimates change if total volume were doubled?
- b. By way of illustration, how would the software estimates change if total volume were halved?
- c. By way of illustration, how would the software estimates change if yearly volumes remained constant, instead of increasing steadily over the 3-year period?

RESPONSE:

See the response to OCA/USPS-T3-10.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T-3-17. For the software listed at lines 121-174, state for each software item whether it is "off-the-shelf" or customized. If the software is customized, then state which company (or individual) designed the software and how the cost was estimated.

RESPONSE:

All software at lines 121-174 of Workpaper A is "off-the-shelf" software that will be configured to work with the MOL application. The labor hours for the software configuration are included in the labor cost of MOL Application Development in lines 194 and 195.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T-3-18. Please refer to USPS-T-3, Workpaper A, lines 176-188.

- a. How did you determine the type of telecom/networking item that would be necessary to implement the MOL experiment? Please state specifically your source(s) for the telecom/networking items listed. If your sources are written documents, then provide copies of such documents and cite the specific pages relied upon. If your source(s) are individuals, then state the following for each individual who contributed to the development of telecom/networking estimates:
- i. company or organization that employs this individual,
 - ii. organizational unit or department within the company or organization,
 - iii. position of individual within the company or organization,
 - iv. all sources and assumptions utilized by the individual to reach the conclusions that were provided to you,
 - v. the medium used by individuals to communicate information to you (state specifically whether the communication was oral or in writing).
 - vi. Also provide any written information transmitted to you by individuals listed above that was used to develop telecom/networking estimates.
 - vii. Provide any notes that you made reflecting any oral communications made by such individuals to you.
 - viii. If no written materials currently exist, then specifically state, to the best of your recollection, each conversation you had with the individuals listed above.
- b. How did you determine the quantities of telecom/networking items that would be necessary to implement the MOL experiment? Please state specifically your source(s) for the quantities of telecom/networking items listed. If your sources are written documents, then provide copies of such documents and cite the specific pages relied upon. If your source(s) are individuals, then state the following for each individual who contributed to the development of estimates of quantities of telecom/networking items:
- i. company or organization that employs this individual,
 - ii. organizational unit or department within the company or organization,
 - iii. position of individual within the company or organization,
 - iv. all sources and assumptions utilized by the individual to reach the conclusions that were provided to you,
 - v. the medium used by individuals to communicate information to you (state specifically whether the communication was oral or in writing).
 - vi. Also provide any written information transmitted to you by individuals listed above that was used to develop estimates of quantities of telecom/networking items.
 - vii. Provide any notes that you made reflecting any oral communications made by such individuals to you.
 - viii. If no written materials currently exist, then specifically state, to the best of your recollection, each conversation you had with the individuals listed above.

RESPONSE:

See the response to OCA/USPS-T3-6.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T-3-19. Please refer to line 194 of Workpaper A. Please explain in detail the work performed under the description "MOL Cost for Development (to Date)." State specifically your source(s) for the \$3,258,290 cost figure. If your sources are written documents, then provide copies of such documents and cite the specific pages relied upon. If your source(s) are individuals, then state the following for each individual who contributed to the development of the cost figure:

- a. company or organization that employs this individual,
- b. organizational unit or department within the company or organization,
- c. position of individual within the company or organization,
- d. all sources and assumptions utilized by the individual to reach the conclusions that were provided to you,
- e. the medium used by individuals to communicate information to you (state specifically whether the communication was oral or in writing).
- f. Also provide any written information transmitted to you by individuals listed above that was used to develop the cost figure.
- g. Provide any notes that you made reflecting any oral communications made by such individuals to you.
- h. If no written materials currently exist, then specifically state, to the best of your recollection, each conversation you had with the individuals listed above.

RESPONSE:

The \$3,258,290 figure is based on the invoices collected for the AP reports filed AP2 through 13 under "MOL Development and Coding for V3". It indicates the subcontractor labor hours for development cost for MOL through September 1999. I included these numbers so that I could use actual numbers and provide an accurate reflection of costs. I made two adjustments to the AP report "MOL Development and Coding for V3" category to calculate the specific MOL cost under USPS.com (please see the attached worksheet that provides a more detailed description).

First, I removed costs for designing web pages since these efforts were to develop templates for MOL that matched with the look and feel of the PostOffice Online web pages. Since these templates are not used for MOL under USPS.com, the cost was not included.

Second, I likewise removed cost for the PostOffice Online subcontractors who dedicated time to MOL issues since this was work done for the MOL model under

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE**

PostOffice Online, rather than the experimental system. This work by the PostOffice Online subcontractors was not used for MOL under USPS.com, and in keeping with the testimony of witness Takis, was excluded from my testimony.

The remaining cost for MOL Development from September 1999 through implementation of MOL is provided in line 195 "MOL Application Development". Please see the response to OCA/USPS-T3-20. Together, these two items constitute the total labor and expenses by the MOL subcontractor (BEA Systems) to develop and implement the version 3 of Mailing Online. Examples of such work include:

- Defining system requirements.
- Developing system design and system review
- System Development and Testing
- System Implementation
- System Testing

I participated in some of these activities giving me a high confidence in the quality of the figure presented in my testimony. See also my response to OCA/USPS-T3-6 for the discussion of how my approach does not lend itself to answering the specific subparts of this interrogatory.

Worksheet A

MOL Cost For Development (To Date)

	ap2	ap3	ap4	ap5	ap6	ap7	ap8	ap9	ap10	ap11	ap12	ap13	Total
1 Current Specific (AP Reports)	\$ 277,804	\$ 177,266	\$ 166,613	\$ 170,840	\$ 222,948	\$ 581,254	\$ 490,176	\$ 241,681	\$ 181,148	\$ 270,868	\$ 290,262	\$ 607,809	\$ 3,678,669
2 Removal of Brand Dialogue							\$ (17,984)	\$ (31,069)	\$ (33,120)	\$ (25,685)	\$ (6,186)		\$ (114,044)
3 Marconi Only (Digital Removed)	\$ 75,048	\$ 39,094	\$ 39,094	\$ 170,840	\$ 222,948	\$ 457,191	\$ 472,193	\$ 210,612	\$ 148,028	\$ 245,183	\$ 284,076	\$ 607,809	
	\$ 45,225	\$ 117,585	\$ 70,214										
	\$ 53,150												
4 Final MOL Specific Remaining	\$ 173,423	\$ 156,680	\$ 109,308	\$ 170,840	\$ 222,948	\$ 457,191	\$ 472,193	\$ 210,612	\$ 148,028	\$ 245,183	\$ 284,076	\$ 607,809	\$ 3,258,290
Adjustment Reason	Removal Digital	Removal Digital	No Change	No Change	No Change	Removal Digital	Removal BD	Removal BD	Removal BD	Removal BD	Removal BD	No Change	

*Notes

Costs reported in AP reports differ from those presented in USPS-T3 Testimony due to the following reasons:

1. AP reports rely on the accrual method where as the testimony uses both actuals and projected costs.
2. The AP reports were not required to apply any cost theories to determine MOL's portion of shared costs. The testimony applied various costing methodologies to allocate MOL's portion of shared costs for Help Desk and T3 service costs.
3. The AP reports are based on Version 3.0 development activities (Brand Dialogue & Digital) which occurred during the Market Test and under the POL system. Given that POL is being replaced by USPS.com, some of these activities no longer have a bearing on Version 3.0 under USPS.com. The costs associated with these activities were therefore considered sunk and excluded from testimony.
4. Certain costs appearing in the AP reports are categorized differently in testimony.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T-3-20. Please refer to line 195 of Workpaper A. Please explain in detail the work performed under the description "MOL Application Development." State specifically your source(s) for the \$970,202 cost figure. If your sources are written documents, then provide copies of such documents and cite the specific pages relied upon. If your source(s) are individuals, then state the following for each individual who contributed to the development of the cost figure:

- a. company or organization that employs this individual,
- b. organizational unit or department within the company or organization,
- c. position of individual within the company or organization,
- d. all sources and assumptions utilized by the individual to reach the conclusions that were provided to you,
- e. the medium used by individuals to communicate information to you (state specifically whether the communication was oral or in writing).
- f. Also provide any written information transmitted to you by individuals listed above that was used to develop the cost figure.
- g. Provide any notes that you made reflecting any oral communications made by such individuals to you.
- h. If no written materials currently exist, then specifically state, to the best of your recollection, each conversation you had with the individuals listed above.

RESPONSE:

The MOL Application Development cost combined with line item 196, MOL Cost for Development (To Date) of \$3,258,290, constitute the total cost for subcontractor labor to develop the MOL system. See also the response to OCA/USPS-T3-19.

Please note that the MOL Application Development figure in my testimony (\$970,202) is being revised to \$2,239,171 due to a shift of \$1,268,969 to MOL Application Development from MOL Enhancements (line 196). Accordingly, MOL Enhancements will be reduced in the same amount from \$9,395,581 to \$8,126,612. The \$2,239,171 for implementing MOL into the production environment had been incorrectly categorized.

I have attached with this response the fax provided to me summarizing the cost estimates by the MOL subcontractors. See also my response to OCA/USPS-T3-6.

Marconi MOL FY2000

Date: September 20, 1999

NetPost-MOL Development

MOLv3 Development	\$970,202
MOL Enhancement Development	\$2,523,614
MOL Implementation	\$1,268,969
Total Development	\$4,762,785

NetPost-MOL Support

MOL V2 Support	\$42,743
MOL Support	\$566,580
Total Support	\$609,323
Total	\$5,372,108

MARCONI

11400 Commerce Park Drive
Reston, VA 20191-1536
(703) 758-7000
FAX (703) 758-7370

Memo

To: Jane Langdon / USPS
Acting Manager, Internet Business Group

From: Scott Spitzer / Marconi
General Manager

Date: August 3, 1999

Subject: MOL Pilot DAR – Cost estimates developed by Marconi for support

Marconi is pleased to submit the following estimates for support for Mailing OnLine. This memo and its attachments have been provided to support assumptions related to the MOL Pilot DAR. Please call me at (703) 758-7083 if you have any questions. We look forward to working with you on this important Internet project.

Marconi Labor

It is estimated that Marconi labor support costs for the next five years will be:

MOL Support

FY2000 September 1999-September 2000

MOL V2 support	September- 1999-October 1999	\$60,858
MOL v3 implementation	September 1999-February 2000	\$751,653
MOL V3 support	February 2000-July 2000	\$621,621
MOL v3.1 implementation	June 2000-July 2000	\$337,620
MOL v3.1 support	August 2000-September 2000	\$195,823
		\$1,967,575

FY2001 September 2000-September 2001

MOL v3.1 support	September 2000-April 2001	\$913,840
MOL v4 implementation	March 2001-April 2001	\$375,134
MOL v4 support	May 2001-September 2001	\$620,106
		\$1,909,080

FY2002 September 2001-September 2002

MOL development	September 2001-September 2002	\$616,102
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FY2003 September 2002-September 2003

MOL development	September 2002-September 2003	\$616,102
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FY2004 September 2003-September 2004

MOL development	September 2003-September 2004	\$616,102
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All information included in this memo and the attachments is confidential and is to be used in the DAR evaluation only

MARCONI

11400 Commerce Park Drive
Reston, VA 20191-1536
(703) 758-7083
FAX (703) 758-7370

Memo

To: Jane Langdon / USPS
Acting Manager, Internet Business Group

From: Scott Spitzer / Marconi
General Manager

Date: August 3, 1999

Subject: MOL Pilot DAR – Cost estimates developed by Marconi for Software Development

Marconi is pleased to submit the following estimates for software development for Mailing OnLine. This memo and its attachments have been provided to support assumptions related to the MOL Pilot DAR. Please call me at (703) 758-7083 if you have any questions. We look forward to working with you on this important Internet project.

Marconi Labor

It is estimated that Marconi labor costs for development for the next five years will be:

FY2000 September 1999-September 2000		
MOL v3.1 development	October 1999-may 2000	\$2,437,760
MOL v4 development	june 2000-september 2000	\$1,044,754
		\$3,482,514
FY2001 September 2000-September 2001		
MOL v4 development	September 2000-February 2001	\$1,553,621
MOL v4.1 development	June 2001-September 2001	\$1,571,443
		\$3,125,064
FY2002 September 2001-September 2002		
MOL development	September 2001-September 2002	\$1,327,800
FY2003 September 2002-September 2003		
MOL development	September 2002-September 2003	\$1,126,538
FY2004 September 2003-September 2004		
MOL development	September 2003-September 2004	\$878,079

Signature _____

All information included in this memo and the attachments is confidential and is to be used in the DAR evaluation only

Travel and Other Direct Costs

It is estimated that Marconi travel for the next five years will be:

Year 1	Year 2	Year 3	Year 4	Year 5
\$275,000	\$175,000	\$175,000	\$175,000	\$175,000

It is estimated that Marconi Other Direct Costs for the next five years will be:

Year 1	Year	Year 3	Year 4	Year 5
\$50,000	\$50,000	\$50,000	\$50,000	\$50,000

Signature _____

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T-3-21. Please refer to line 196 of Workpaper A. Please explain in detail the work performed under the description "MOL Enhancements." State specifically your source(s) for the \$9,395,581 cost figure. If your sources are written documents, then provide copies of such documents and cite the specific pages relied upon. If your source(s) are individuals, then state the following for each individual who contributed to the development of the cost figure:

- a. company or organization that employs this individual,
- b. organizational unit or department within the company or organization,
- c. position of individual within the company or organization,
- d. all sources and assumptions utilized by the individual to reach the conclusions that were provided to you,
- e. the medium used by individuals to communicate information to you (state specifically whether the communication was oral or in writing).
- f. Also provide any written information transmitted to you by individuals listed above that was used to develop the cost figure.
- g. Provide any notes that you made reflecting any oral communications made by such individuals to you.
- h. If no written materials currently exist, then specifically state, to the best of your recollection, each conversation you had with the individuals listed above.

RESPONSE:

"MOL Enhancements" corresponds to all costs for enhancements to the MOL application during the period of the experiment after the initial planned version 3.0 of MOL has been implemented for the experiment. Additional software enhancements such as software updates are also included in this estimate. The program manager at BEA provided the figures. These are reasonable and conservatively high estimates based on my understanding of the planned system enhancements, some of which are mentioned in my testimony, page 6, under Planned Enhancements. See also my response to OCA/USPS-T3-6.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T-3-22. Please refer to line 197 of Workpaper A. Please explain in detail the work performed under the description "MOL Integration with USPS.com." State specifically your source(s) for the \$250,000 cost figure. If your sources are written documents, then provide copies of such documents and cite the specific pages relied upon. If your source(s) are individuals, then state the following for each individual who contributed to the development of the cost figure:

- a. company or organization that employs this individual,
- b. organizational unit or department within the company or organization,
- c. position of individual within the company or organization,
- d. all sources and assumptions utilized by the individual to reach the conclusions that were provided to you,
- e. the medium used by individuals to communicate information to you (state specifically whether the communication was oral or in writing).
- f. Also provide any written information transmitted to you by individuals listed above that was used to develop the cost figure.
- g. Provide any notes that you made reflecting any oral communications made by such individuals to you.
- h. If no written materials currently exist, then specifically state, to the best of your recollection, each conversation you had with the individuals listed above.

RESPONSE:

The item "MOL Integration with USPS.com" refers to the collaborative work necessary to ensure that the USPS.com system works with the MOL system for registration and payment. It is based on a high estimate costs for activities such as sharing information, joint testing and implementation of MOL with the USPS.com system. This information was obtained through face-to-face meetings between myself, witness Garvey, and the subcontractor organization, Andersen Consulting. I had further conversations with the Andersen Consulting program manager for USPS.com to discuss the activities and variables for these costs. Due to the unsettled nature of when and what other applications may be within the USPS.com environment besides MOL, we adopted a conservatively high estimate of the labor hours necessary for MOL Integration with USPS.com. See also my response to OCA/USPS-T3-6.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T-3-23. Please refer to the data report for A/P1, FY 2000, Table 3. MOL Development and Coding costs for V2 and V3 are set forth in this table in the amount of \$2,920,485.90. Please explain exactly where and how these costs have been taken into account in your workpapers.

RESPONSE:

Please note that the cost for Development and Coding in A/P1, FY 2000, Table 3 total \$312,793 and not \$2,920,485.90 (the OCA/s figure also includes hardware and software costs). A similar incorrect reference is made in the question in OCA/USPS-T3-24.

The costs for V2 Development and Coding as well as other costs for V2 have not been included in my testimony since they do not pertain to development of the MOL V3 to be used for the experiment. Please see my response to OCA/USPS-T3-19.

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE

OCA/USPS-T-3-24. Please refer to the data report for A/P2, FY 2000, Table 3. MOL Development and Coding costs for V2 and V3 are set forth in this table in the amount of \$479,023.84. Please explain exactly where and how these costs have been taken into account in your workpapers.

RESPONSE:

See the response to OCA/USPS-T3-23.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T-3-25. Please refer to the data report for A/P13, FY 99, Table 3. MOL Development and Coding costs for V2 and V3 are set forth in this table in the amount of \$607,808.95. Please explain exactly where and how these costs have been taken into account in your workpapers.

RESPONSE:

See the response to OCA/USPS-T3-19.

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE

OCA/USPS-T-3-26. Please refer to the data report for A/P10, FY 99, Table 3. MOL Development and Coding costs for V2 and V3 are set forth in this table in the amount of \$242,343.42. Please explain exactly where and how these costs have been taken into account in your workpapers.

RESPONSE:

See the response to OCA/USPS-T3-19.

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE

OCA/USPS-T-3-27. Please refer to the data report for A/P11, FY 99, Table 3. MOL Development and Coding costs for V2 and V3 are set forth in this table in the amount of \$270,868. Please explain exactly where and how these costs have been taken into account in your workpapers.

RESPONSE:

See the response to OCA/USPS-T3-19

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE

OCA/USPS-T-3-28. Please refer to the data report for A/P12, FY 99, Table 3. MOL Development and Coding costs for V2 and V3 are set forth in this table in the amount of \$355,892.63. Please explain exactly where and how these costs have been taken into account in your workpapers.

RESPONSE:

See the response to OCA/USPS-T3-19.

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE

OCA/USPS-T-3-29. Please refer to the data report for A/P8, FY 99, Table 3. MOL-Specific Development and Coding costs for V2 and V3 are set forth in this table in the amount of \$490,176.34. Please explain exactly where and how these costs have been taken into account in your workpapers.

RESPONSE:

See the response to OCA/USPS-T3-19.

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE

OCA/USPS-T-3-30. Please refer to the data report for A/P8, FY 99, Table 3. Shared Development and Coding costs for V2 and V3 are set forth in this table in the amount of \$414,228.80. Please explain exactly where and how these costs have been taken into account in your workpapers.

RESPONSE:

See the response to OCA/USPS-T3-19.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T-3-31. Please refer to the data report for A/P9, FY 99, Table 3. MOL-Specific Development and Coding costs for V3 are set forth in this table in the amount of \$241,680.80. Please explain exactly where and how these costs have been taken into account in your workpapers.

RESPONSE:

See the response to OCA/USPS-T3-19.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T-3-32. Please refer to the data report for A/P9, FY 99, Table 3. Shared Development and Coding costs for V3 are set forth in this table in the amount of \$30,874.40. Please explain exactly where and how these costs have been taken into account in your workpapers.

RESPONSE:

See the response to OCA/USPS-T3-19.

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE

OCA/USPS-T-3-33. Please refer to the data report for A/P7, FY 99, Table 3. MOL-Specific Development and Coding costs for V2 and V3 and for Certification and Accreditation and are set forth in this table in the amount of \$609,989.83. Please explain exactly where and how these costs have been taken into account in your workpapers.

RESPONSE:

The Certification and Accreditation costs are for V2 and therefore were not accounted for in my testimony. Additionally, see the response to OCA/USPS-T3-19.

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS LIM
TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE**

OCA/USPS-T-3-34. Please refer to the data report for A/P7, FY 99, Table 3. Shared Development and Coding costs for V3 are set forth in this table in the amount of \$921,860.22. Please explain exactly where and how these costs have been taken into account in your workpapers

RESPONSE:

Shared Development and Coding costs for V3 reported in A/P7 are for enhancements made to PostOffice Online and development of web pages for MOL under PostOffice Online. Since these are not relevant to MOL under USPS.com, they are not reported in my testimony.

DECLARATION

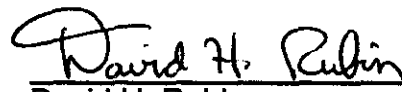
I, Chong Bum Lim, declare under penalty of perjury that the foregoing answers are true and correct, to the best of my knowledge, information, and belief.



Dated: JANUARY 11, 2000

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon all participants of record in this proceeding in accordance with section 12 of the Rules of Practice.



David H. Rubin

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January 11, 2000