

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

EVOLUTIONARY NETWORK DEVELOPMENT
SERVICE CHANGES, 2006

Docket No. N2006-1

RESPONSES OF UNITED STATES POSTAL SERVICE WITNESS SHAH
TO OCA INTERROGATORIES OCA/USPS-T1-4 THROUGH 8, 12 AND 14-16
(March 30, 2006)

The United States Postal Service hereby submits the responses of witness Pranab Shah to the following interrogatories of the Office of the Consumer Advocate: OCA/USPS-T1-4 through 8 (filed on March 8, 2006); OCA/USPS-T1-12 and 14 through 16 (filed on March 9, 2006).

Each interrogatory is stated verbatim and followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

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**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS SHAH
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OCA/USPS-T1-4. Please explain specifically and separately, how END was used in the process of deciding to consolidate each of ten facilities contained in USPS-LRN2006-1/5: Pasadena, CA P & DC; Olympia, WA P & DF; Waterbury, CT P & DF; Bridgeport, CT P & DC; Greensburg, PA Post Office; Monmouth, NJ P & DC; Northwest Boston, MA P & DC; Kinston, NC P & DF; Marysville, CA P & DF; Mojave, CA Post Office. Provide all of the documentation reflecting END was used in the Decision making process for each of the ten facilities listed above.

RESPONSE:

END modeling outputs were compared with the individual AMP proposals and each proposal was found to be consistent with our future network design. As a result, the AMP feasibility studies in USPS Library Reference N2006-1/5 were commenced.

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OCA/USPS-T1-5

The USPS Transformation Plan Progress Report, November 2004 at page 9, states:

Efforts to create a flexible logistics network to reduce costs, increase overall operational effectiveness, and improve consistency of service, formerly called Network Integration and Alignment, continues as an evolutionary process. This effort, now more accurately called Evolutionary Network Development, currently focuses on a proposed bulk mail center (BMC) retrofit transition effort.

- a. Does the Network Integration and Alignment (NIA) process continue to function? If so, please explain how it differs from the END strategy. Please confirm that the description of the NIA presented above shares the same objectives and policies you describe about the END strategy at page 1 of your testimony. If you do not confirm, then please explain fully any differences between END and NIA.
- b. If END is essentially a new incarnation of NIA, then what significance is there in describing the overall effort as an “Evolutionary Network Development” strategy as opposed to a “Network Integration and Alignment?”
- c. If NIA still exists, what activities are currently being performed under NIA?

RESPONSE:

- a-c. The NIA process has been re-named to END (Evolutionary Network Development), as the new name reflects the evolutionary network development process the Postal Service has adopted. Both processes use the same methods, data, and models for designing the Postal Services' future network strategies. Additionally the core objectives of both NIA and END remain the same.

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OCA/USPS-T1-6

At page 2 of your testimony, you refer to the mail distribution system as a “series of overlapping, single-product networks.” Please list each distinct single-product network to which you refer.

RESPONSE:

Please refer to the Figure 2 Key/Legend, which describe each of these product specific network linkages. If necessary, refer to an electronic version of the testimony which contains a color copy of the chart.

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OCA/USPS-T1-7

Please refer to your testimony at page 3, lines 1-2.

- a. What kind of facility is a “distribution center for Periodicals?”
- b. How many such Periodicals distribution centers are active across the United States?
- c. Please provide a listing of the locations of the Periodicals distribution centers.

RESPONSE:

(a-c) The referenced discussion in USPS-T-1 on page 3 at lines 1-2 is meant to illustrate the lack of standardization in mail processing and distribution operations for specific mail classes. A variety of multi-purpose facilities in the current network, such as P&DCs, BMCs, and annex facilities, are used as “distribution centers for Periodicals,” depending on the level of mail preparation and makeup. My testimony should not be interpreted as suggesting the existence of facilities uniquely designed for Periodicals processing.

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OCA/USPS-T1-8

At page 2 of your testimony, you mention 450 facilities that process and transport mail. Please break down that figure (450) into the number of:

- a. Processing and Distribution Centers (P & DCs)
- b. Logistics and Distribution Centers (L & DCs)
- c. Hub and Spoke Program facilities (HASPs)
- d. Airport Mail Centers (AMCs)
- e. Area Distribution Centers (ADCs)
- f. Automated Area Distribution Centers (AADCs)
- g. Bulk Mail Centers (BMCs)
- h. Other types of facilities (list each discrete type)
- i. Are remote encoding centers (RECs) included within the 450-facility figure?
- j. What is the number of RECs?
- k. Is the phrase "Sectional Center Facility (SCF)" still used by the Postal Service? If so, please explain how the SCF label fits in with the types of facilities you picture in Figure 1 on page 3 of your testimony.
- l. Throughout Library Reference LR-N2006-1/5, facilities are sometimes referred to as P & DCs and at other times as P & DFs. What is the difference between a P & DC and a P & DF?
- m. Please identify/describe the differences among P & DCs, P & DFs, L & DCs, ADCs, and AADCs.

RESPONSE:

- a. 269
- b. 11
- c. 14
- d. 79
- e. This is not separate facility type; these are network roles assigned to Processing and Distribution Centers (P&DC).
- f. This is not separate facility type; these are network roles assigned to Processing and Distribution Centers (P&DC).
- g. 21

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Response to OCA/USPS-T1-8 (continued)

- h. 65 supporting annexes
- i. No
- j. 12
- k. Yes. SCF is an alternative designation given to certain P&DCs.
- l. The core function of the Processing & Distribution Centers and Processing & Distribution Facilities are the same. Both facilities serve as primary processing centers, transfer points, and transportation hubs for all classes of mail originating and destinating within a pre-defined local service area. The differences are facility-specific and pertain to equipment types used at each plant.
- m. For definitions, please see footnote 2, page 3 of USPS-T-1 and the *Glossary of Postal Terms*, which was submitted to the PRC as USPS Library Reference N2006-1/1.

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OCA/USPS-T1-12

Please explain how the facilities and network identified in Figure 2 of your testimony, page 5, relate to your testimony on page 2, lines 13 through page 3, line 5.

- a. Please identify overlapping, single product networks and how they would be consolidated or eliminated.
- b. Please identify excess capacity in Figure 2, as could be inferred from the discussion in lines 16 through 19 of page 2 of your testimony.
- c. In simplifying the network, how many studies, simulations, or analyses would be necessary? Also provide specific details as to types of studies, possible content, and techniques.
- d. Please explain how the network could be expected to be structured after performance and implementation of studies discussed in (c).
- e. What would be the expected cost reduction from the implementation of the recommendations of an END or other study or studies performed on the network in Figure 2?

RESPONSE:

The mail processing and transportation infrastructure illustrated in Figure 2 is an example of how the mail distribution system has developed over the past several decades in a portion of the country. Some facilities have single-product responsibilities, some facilities have specialized network responsibilities.

- a) Figure 2 is an illustration of current network redundancies created by overlapping single-product networks. It is color-coded to show the overlapping class-based inter-facility mailflows and transportation networks. The END model may be used to help develop a different network configuration for analysis under the AMP process, which could assign different roles to existing processing and transportation facilities, in order to eliminate redundancies. The result could be more sharing of

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Response to OCA/USPS-T1-12 (continued)

transportation by different mail classes and a greater emphasis on shape-based processing

- b) Please refer to the response to subpart (a). It might be determined, for example, that the originating operations among a cluster of facilities, such as those depicted in the illustration, could be performed at fewer locations, utilizing less equipment and fewer workhours. As a result, operations could be relocated and equipment and/or personnel could be moved from one facility to another.
- c) The scope of network modeling and simulation is dependent on a number of specific factors such as complexity of the problem to be solved, availability of data, and objective functions. The END effort has used state of the art operations research, tools, and techniques, both in the form of Optimization and Simulation modeling. When all is said and done, the END model could be used to generate many thousands of simulations as various scenarios are considered for hundreds of AMP feasibility studies. I am aware that each AMP study goes through several levels of internal review before a final decision is made and that, after implementation, there are several rounds of post-implementation review.
- d) One could expect to see somewhere in the neighborhood of 70 Regional Distribution Centers, each connected to its own cluster of some or most of the other facility types identified in Figure 3.

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Response to OCA/USPS-T1-12 (continued)

- e) Cost savings from changes to the network are quantified as part of individual AMP study. It cannot currently be estimated what savings estimates will emerge from each of the numerous upcoming studies. Estimates can be expected to vary from AMP study to AMP study, based upon local variables.

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OCA/USPS-T1-14

Please turn to your testimony on page 8, lines 1 through 5. Please describe in detail the nature of the interactive process involving Headquarters and affected Area Offices.

RESPONSE:

The interaction between HQ and Area Offices as regards to the END process is iterative in nature. The first step involves the END models producing an optimal national network solution without being subject to site-specific local operational constraints. These model-generated outputs are then reviewed with Area Office and District/local subject matter experts. Their feedback on site-specific operational, logistical and customer issues is used to run site specific simulations. These simulations test the feasibility of the proposed network solution and are used in gaining consensus both at Area and Headquarter Offices.

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OCA/USPS-T1-15. Please turn to your testimony on page 9, lines 4-8, where you discuss service. Please explain factors which could cause service standards to increase or decrease.

RESPONSE:

Factors include, but are not limited to, changes among processing plants in the responsibility for specific 3- digit ZIP Codes service areas. Changes in the location of destinating mail processing functions could cause increases or decreases. Surface drive time is a factor in determining whether certain First-Class Mail could end up with either a 2-day or a 3-day service standard. For instance, assume that First-Class Mail destined for Plant A from certain 3-digit ZIP Code origin areas has a 3-day standard. The consolidation of Plant A's operations into adjoining Plant B, which is 60 miles closer and within the reasonable reach of surface transportation from these points of origin, could reduce drive times so that the service standard could be reduced to 2 days. On the other hand, if the service standard was originally 2-day and the consolidation resulted in former Plant A's destinating mail being driven to Plant B, which is 60 miles farther away from origin, beyond the reasonable reach of surface transportation, and sufficiently reliable air transportation were deemed not to be available, the service standard could shift from 2 days to 3 days.

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OCA/USPS-T1-16. Please turn to your testimony at 11, lines 20-22. Please explain how the Surface Transfer Centers (STCs) will provide consolidation opportunities beyond those which are currently available.

RESPONSE:

The STCs will act as consolidation points for those mail processing facilities with insufficient volume to generate fully-utilized surface transportation assets.