

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-T1-1 THROUGH 3
(March 24, 2006)

The United States Postal Service hereby submits the responses of witness Shah to the following interrogatories of the Office of the Consumer Advocate filed on March 3, 2006: OCA/USPS-T1-1 through 3.

The interrogatories are stated verbatim and followed by the responses.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

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**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS SHAH
TO INTERROGATORY OF OFFICE OF CONSUMER ADVOCATE**

OCA/USPS-T1-1. Your testimony discusses the Evolutionary Network Development (END) models as identifying potential facility and network realignment opportunities, at page 9, line 12, through page 10, line 20.

- a. Please explain the structure of the END model, including inputs, outputs, and functions/computations which it models.
- b. Given that the END model is a maximization/minimization model, what objective function is being maximized/minimized, in terms of variables and functional form.
- c. Please explain how the spreadsheets of AMP Handbook PO-408, used for applying an AMP review process, interface with the END program.

RESPONSE:

- (a) See the response to APWU/USPS-T1-2.
- (b) Maximize utilization of available capacity, minimize cost.
- (c) See USPS-T-2 at 7-11. The PO-408 is a tool for conducting a detailed analysis of the operational changes and related cost impacts implied by a specific proposal to consolidate certain operations. The END model is used to test alternative local consolidation scenarios as part of a future network. These local END model outputs, in conjunction with additional facility-specific factors, are used in deciding upon a specific local consolidation proposal. That proposal is then subjected to the detailed PO-408 feasibility review process. The PO-408 Worksheets reflect the analysis of detailed facility-specific information beyond that utilized in the END model.

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OCA/USPS-T1-2. Please turn to your testimony, page 6 lines 19 to 23. You discuss excess capacity.

- a. How would one determine the level of excess capacity, excess transportation, or redundancy of operations?
- b. Has the Postal Service analyzed the level of excess capacity in the network, and what are the cost implications of the excess capacity?

RESPONSE:

- (a) One would analyze the utilization of the total available machine and transportation capacity that exist as a result of our current class-based networks in order to determine the existence of potential excess capacity. For example, in one metro area, a First-Class Mail parcel may be processed in a local P&DC, a Priority Mail parcel in a local Logistics & Distribution Center, and a Standard Mail parcel in a Bulk Mail Center. Assuming that the shape of the parcels and their automatability is relatively the same, redundancies can exist where less than fully utilized class-based operations and transportation are established.
- (b) The Postal Service uses the AMP process as a means of evaluating the cost of excess capacity at the local level.

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OCA/USPS-T1-3. Please turn to your testimony, page 9, lines 14 through page 1, line 11. Please explain further the differences between the optimization and simulation approaches.

- [a] Are the approaches substitutes for each other or, alternatively, are they used concurrently or sequentially?
- [b] Assuming that the answer to (a) is sequentially, please provide details on how the results from the optimization approach are a substitute, input, alternative, or factor for consideration in the simulation modeling effort.
- [c] Please show the similarities and differences of output from the two approaches.
- [d] Please explain where the two approaches are consistent and/or inconsistent with a benefit-cost approach.

RESPONSE:

- (a) Sequentially.
- (b) The optimization model outputs suggest the facility roles and ZIP Code assignments for a given distribution concept. These roles and assignments are then used as inputs into the simulation to further test the feasibility of the network design with more site specific information.
- (c) The objective function of the optimization model is to maximize utilization of available capacity, thus minimizing cost. The simulation simply tests the feasibility of the network design. It does not make decisions based on cost.
- (d) As described in response (c) the objective function of capacity utilization and cost minimization used in optimization model is used as an input to the simulation model. The simulation model further tests the feasibility of this proposed optimal solution. Hence, these seemingly different approaches in actuality tend to complement each other in the form of a complete network solution.