



Background

When Minnesota Life was deciding to install a mail delivery system that would connect its new award-winning building with its existing structure in downtown St. Paul, it considered only the most innovative products. They chose **Teledynamics** multidimensional track network.

The new 401 Building connects via a skyway with the original 400 Building creating a two-city-block campus for over 2500 employees. The campus, corporate headquarters for Minnesota Life Insurance Company, one of the largest financial services groups in the United States, is comprised of an L-shaped, bi-level structure, 9 and 13 stories, and a 21-story building - for a combined square footage over one million. The \$102 million building, won the 1999 "City Business" award for new office development and has a variety of features that offer maximum flexibility in office design, including **Teledynamics' Telecar** monorail distribution system that seamlessly delivers

mail point-to-point throughout the new downtown campus.

Challenge

The challenge was to treat the two buildings as one harmonious unit, not only architecturally, but also functionally - joining different work centers, non-contiguous floors and separate buildings and, more importantly, people and departments.

When the 400 Building was originally built, divisions were small and each employee picked up his own mail. The original internal delivery system was labor-intensive, entailing hourly desk-to-desk services. Now, with many more departments and larger staffs, the need to connect everyone quickly and efficiently was imperative.

Management required a system that would have tracking ability, standardized delivery times, identify each building, floor and in-box clearly and accurately, allow for growth, and be affordable. The system had to be easy to understand and simple enough for staff to use without extensive training, since the mailroom, which acts as a gateway to other departments, had a high turnover rate. Since everything in the new building, from telecommunications to lighting to security, was state-of-the-art, the mail delivery process had to be cutting edge.

Solution

First Phase - Consultation [Design and Consulting]

Minnesota Life's Facilities Management staff researched thoroughly before awarding the contract: attending trade shows, viewing products, meeting with representatives, and securing references. They investigated the latest mail distribution products available for vertical distribution within the towers and horizontally between the two buildings. The team ultimately decided on **Teledynamics** for a 26-station system using 72 self-powered Telecar vehicles.

Teledynamics showed Minnesota Life how they could design and install a seamless system that would connect both buildings via the tunnel walkway. Originally, the mail center was on the fifth floor, far from the loading docks on the ground level, everything had to be hand-carried up to the mail center. The new mail center is located in the 401 building next to the enclosed loading dock making it easier to receive deliveries. Kiosks, complete with copier, fax machine, standard forms and other mailing necessities were placed on each floor. Mail is delivered to these centralized kiosks and sorted into individual slots.

Second Phase - Implementation

The monorail system runs between the two buildings through a newly built underground tunnel and into each tower through an elevator shaft. Cars are loaded in the mail center and then sent to the specific floors for mail distribution. The cars quietly travel 120 feet per minute - horizontally, vertically, and even upside down. There are approximately 900-1200 transactions per day, each with a payload capacity of 30 pounds.

An average of 10,000 pieces of mail are routed daily, all mail is sorted by floor and building and delivered every two hours.

Misrouted mail is identified and rerouted within 24 hours.

Incoming mail fills two to three mail hampers a day and is supplemented by an average of 250 overnight letters. All incoming mail is processed by 2 pm.

Outgoing mail fills three to five hampers a day, supplemented by 175 expedited pieces. (This does not include large mass mailings, which are typically outsourced to a vendor.) Outgoing mail is processed with machines that include charge-back systems so that each department is held accountable for postage. Every 90 minutes, messengers deliver mail to one of three centralized kiosks on each floor. Mail is routed back to the mail center via the system, providing seamless turnaround of important documents.

Third Phase - Continuation [Realization/Maintenance]

Bar coding provides up-to-the-minute tracking of each car along the route via optical scanners. The vehicles operate simultaneously, yet independently, each with an on-board microcomputer for administrative control. In the mail center, a large graphic, color-coded display provides system status at a glance and offer real-time tracking information, including vehicle location, station and switch status, and traffic flow.

Results Selling senior management on a \$1 million system to transport mail more efficiently was initially a difficult task. The major selling points were that the Telecar system provided point-to-point service, allowing individuals to directly route mail bypassing the mail center and a net reduction in staff. The creation of kiosks and the computerized monitoring system reduced one messenger for every four floors. Staff size was reduced from 16 messengers serving two buildings to 9 messengers serving the entire campus, while maintaining 90-minute service to 34 floors. The net result is a cost-effective, streamlined workflow system of internal delivery.

Computerized tracking was also an important factor in the decision. In an age of compliance and confidentiality, it is critical to have a system that provides a secure traceable way of routing mail internally.

The Telecar system has performed at nearly 100% uptime since beginning operation. Because of Minnesota Life's confidence in **Teledynamics**, they recently added seven new stations. "The **Telecar** monorail system has increased the quality of internal mail service while reducing operating costs by one-quarter". Minnesota Life's return on investment for the \$1.2 million conveyor system will be under five years.

[Print](#) | [Close](#)