Packeteer® Customer Case Study

DARYL FLOOD
DALLAS, TEXAS

DARYL FLOOD
Warehouse & Movers, Inc.

Packeteer's network monitoring, bandwidth control, and compression system ensures that Allied Van Lines agent's WAN supports customers' corporate relocation projects

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Daryl Flood is a corporate relocation firm with one thing on its mind — moving the employees of large companies as quickly as possible. At first glance, its business seems simple enough. Move furniture, boxes, and potted plants for people who work for companies like Southwest Airlines and IBM. But relocation involves much more than that. Daryl Flood's business hinges greatly on the performance of business applications running over its corporate network. These applications support projects end-to-end, managing orders, scheduling, customer service, and accounting. If they fail to perform efficiently or reliably, Daryl Flood and its customers face serious business consequences.

Never was this harsh reality more evident than when Daryl Flood implemented MoveManager, its most mission-critical application. The Web-based application manages every aspect of a client's relocation, from the coordination of services to logistics to billing. But as soon as it was deployed, the application performed unpredictably. The efficiency behind Daryl Flood's business operations was jeopardized immediately.

"The moving business is very competitive," said Mike Nelson, Daryl Flood's IT manager. "We have very slim margins. Our coordinators are on the phone all day, and that application has to be available. If the network goes down, I know in about 30 seconds because someone calls me. If a customer is calling you asking 'where's my truck', they want to know right away. Information like that has to be at our fingertips. Our coordinators live and die by our network."

THE PROBLEM: Poor Performance Causes Slow-Moving Operations

Daryl Flood has been in business 20 years. For much of that time, the Dallas-based company has relied on a legacy host-terminal system that ran on SCO UNIX. As the network became more critical in supporting business operations, Nelson realized that the "archaic" system's days were numbered. The company needed to upgrade to a shared system, one that could support relocation projects end-to-end anywhere throughout its organization – from its headquarters to its two branch sites in Houston and Chicago.

The company implemented a frame-relay system with a 256K link to Houston and a 128K link to Chicago. Nelson admits that the link sizes were insufficient, but they represented

Executive Overview

INDUSTRY

- Corporate Relocation/Transportation

CHALLENGE

- Ensure efficient, reliable performance for MoveManager
- Gain visibility into WAN traffic, bandwidth utilization
- Support logistics, accounting, customer service, and more
- Avoid costly link upgrades
- Maximize business application performance with existing bandwidth

SOLUTION

- Deploy Packeteer's PacketShaper Xpress™ to monitor, control, and accelerate application performance over the WAN and Internet

BENEFITS

- Provides constant visibility into network traffic
- Provisions sufficient bandwidth to MoveManager and other important business applications -- regardless of changing traffic loads
- Extends existing resources by prioritizing bandwidth allocation
- Prevents bandwidth upgrades at Internet links

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temporary fixes until the network infrastructure was in place. Once established, Nelson planned to circle back and address the performance and speed issues.

He never got that opportunity. MoveManager, which was deployed during the upgrade, overwhelmed the WAN links. When this happened, Daryl Flood's coordinators were unable to access logistical information efficiently, if at all. Order information was inaccessible. Accounting and billing were impacted. Customer service was undermined. The customer relations that had established Daryl Flood as a legitimate player in the corporate relocation business for two decades were suddenly at the mercy of a network that could go down within two seconds.

"We have calls coming in from all over the country, people moving from place to place," Nelson said. "MoveManager allows us to enter orders, track them, communicate with other agents, and it's all tied to a back-end accounting package. It was apparent right off that Web pages just weren't coming up fast enough. We looked at our frame stats, and the traffic was just pegging the circuits. I went down to our Houston office and sat there trying to pull up orders, and I could see for myself. Our users were very unhappy. There was just too much traffic coming across the network."

THE CHALLENGE: Eliminating Bursty Traffic's Unpredictable Impact on the Network

Historically, Daryl Flood would've reacted like any other organization by upgrading bandwidth. But the company was forced to reconsider for two reasons: application traffic dynamics and ROI. Because many applications are capable of consuming disproportionate amounts of a link regardless of how much bandwidth is added, their "bursty" nature inhibits an organization from planning capacity accurately. This burstiness stems from their inherent nature to perform as efficiently as possible, even if it's detrimental to other important applications.

MoveManager is a prime example. The application is so bursty that it shot itself in its own foot — at the least likely time. Deployed in January 2003, typically a slow business period for Daryl Flood, MoveManager still saturated the company's links and struggled to perform. With the peak season approaching within months, from April to October, the company knew that MoveManager's performance problems would worsen.

For this reason, Daryl Flood realized that upgrading bandwidth without managing MoveManager's bursty tendencies would provide no assurance that the link investment would pay off. Without this assurance, how could Nelson present a plausible case for upgrading the company's three links, a project that would add an additional $1,000 per month in telecommunications expenses for just three sites?

"We didn't need upgraded links that lacked ROI potential," Nelson said. "As bandwidth needs go up, as users do more on the Web, as emails with attachments increase, it was becoming clear to us that we needed some way of managing all of the traffic. I want to be able to give MoveManager priority on the network. I don't care if it takes two minutes rather than 30 seconds to check email, it's not that time-sensitive of a business function. But MoveManager has to have the performance behind it. I wanted to reserve bandwidth for MoveManager and ensure it performed properly. We needed a solution that was self-sufficient, that we could plug in, get some answers, and let it run."

"Although PacketShaper was helping me prioritize traffic, there was still too much traffic going through those links. We needed to do something more, and we decided to take advantage of Packeteer's compression option."

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THE SOLUTION: Packeteer® And Its Application Traffic Management System

Daryl Flood needed to shape traffic over its links and extend existing bandwidth to conserve costs. And it wanted one all-encompassing solution that featured easy deployment and self-sufficiency. After researching available options, the company deployed an application traffic management system from Packeteer®. The system gives Daryl Flood an all-in-one solution for delivering business traffic efficiently and reliably over the WAN. To do this, especially in the midst of congestion-prone WAN links, the system applies a methodical approach involving Layer 7 traffic discovery, performance analysis, reporting, policy control, compression, and traffic acceleration.

Nelson began by addressing the company's most bandwidth-constrained sites — Houston and Chicago. He deployed Packeteer's PacketShaper®, an appliance providing Layer 7 visibility and policy management, directly behind the WAN-link routers at both sites. From these vantage points, the company could monitor and control traffic bi-directionally, ensuring that MoveManager and other business applications performed reliably. Nelson utilized PacketShaper's application-layer traffic discovery features and discovered some surprises in the process. Several users were accessing WindowsMedia and spyware applications, both of which consumed precious bandwidth and disrupted MoveManager's performance. With 128K and 256K links connecting the two branches, Daryl Flood could hardly afford to fritter away its bandwidth to non-business applications.

Once link utilization issues were identified, Nelson used PacketShaper to apply control policies that fixed the performance problems. These policies prioritized the allocation of bandwidth to applications based on their relative importance. Bandwidth that had been consumed by WinMedia and spyware were immediately allocated to MoveManager. Nelson established a dedicated bandwidth partition that provided the mission-critical application with enough access to the link to perform efficiently and reliably. The partition also controlled MoveManager's bursty tendencies, ensuring that it would not consume an entire link and disrupt other business applications. Meanwhile, email and less-urgent business applications were given smaller but appropriate shares. Within minutes, Nelson had acquired a clear understanding of the network's ever-changing traffic patterns and prioritized bandwidth accordingly for the company's most important applications and congestion-prone sites.

But the traffic loads were still heavy. Prioritizing traffic was merely the initial step in leveraging the Packeteer system's full range of traffic management options.

"Although shaping had taken the edge off, there was still saturation at our links during peak usage," Nelson said. "MoveManager would work fine during lulls, but when everyone got onto the network, it would bog down. MoveManager's peaks would bump up suddenly. Although PacketShaper was helping me prioritize traffic, there was still too much traffic going through those links. We needed to do something more, and we decided to take advantage of Packeteer's compression option."

Daryl Flood turned its attention to the company's data center in Dallas. It deployed PacketShaper Xpress™, a software upgrade from PacketShaper that applies compression-based acceleration to reduce traffic loads and create virtual bandwidth from existing resources. This addition of compression produces faster, more efficient information delivery, accelerating traffic across a tightly monitored and controlled WAN. With PacketShaper Xpress, MoveManager no longer overwhelms Daryl Flood's WAN links and performs more effectively than ever before. The company supports its corporate relocation projects reliably while avoiding investments in bandwidth upgrades.

"We need application-layer visibility and control, with compression, to ensure that the 'virtual' bandwidth we are creating is allocated to the proper applications," Nelson said. "Other compression products we used, which lacked this level of visibility and control, were insufficient. Purchasing PacketShaper Xpress was one way to guarantee that we would get a return out of our investment. Without Packeteer, we would've been paying at least another $1,000 a month for the three links combined. It was a tool to help us be more efficient in planning our network capacity and supporting our customers in the process."

After completing the implementation in Dallas, Daryl Flood extended the benefits of PacketShaper Xpress to its branch sites. This ensures that monitoring, control, and acceleration are applied on a system-wide scale. Implementing Xpress at the branch sites was quick and easy, Nelson said. Because PacketShaper units were already manning the remote site WAN links, Daryl Flood simply upgraded the original PacketShaper units to Xpress via a software key upgrade.

"As soon as we turned on PacketShaper Xpress, within 15 minutes I was receiving emails from users saying this was the fastest they had ever seen MoveManager perform," Nelson said. "That's when I breathed a big sigh of relief, because our busy season was approaching. PacketShaper Xpress is a system that helps us be more efficient in planning our network capacity. When the number of moves goes up, the number of people using the system goes up. This had to work, and it did."

THE RESULTS: ROI, Cost Avoidance, and a Network That's Under Control

Packeteer's traffic management system ensures that Daryl Flood's network supports every aspect of a corporate relocation project. It ensures that critical network and application rollouts succeed. Application performance is aligned with business priorities as a result. MoveManager performs reliably. Non-business applications are controlled. Bandwidth is utilized for business needs. And customers are happy.

Every day Daryl Flood generates more and more of a return on its Packeteer system. This is influenced greatly by the company's ability to extend its existing network resources. By monitoring, controlling, and accelerating WAN traffic, Daryl Flood will be able to contain costs consistently. Nelson said the company now avoids paying for additional bandwidth and postpones costly upgrades for servers and routers.

"The focus of implementing the Packeteer system was to drive down internal business costs," Nelson said. "With PacketShaper Xpress, we've avoided having to pay for upgraded links and newer, faster routers or network appliances for a year to two years. It certainly beats paying telco providers an extra $1,000 a month for just three sites. By having a way to manage the costs, we now have a solution that makes us more efficient with a definitive return. The Packeteer system took a measure of risk out of the equation."

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