

## **Tranz Rail - A Logistics Provider to the Forest Industries**

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### **1.0 Introduction**

Logistics is becoming recognised as a source of competitive advantage. Transport and distribution can account for up to 30% of a product's cost on a FIS basis and are therefore a major source of productivity gains. Logistics is becoming customer focused with reduced response times for delivery and reduction in stocks through more efficient distribution systems.

Successful clients are dictating the sort of products they want rather than selling what the producer offers. More importantly, clients are specifying where, when and how they want their products delivered. As a result there are higher service expectations placed on the transport operations to meet promised delivery times.

This paper outlines the role Tranz Rail has to play as a logistics provider to meet today's market challenges.

### **2.0 Tranz Rail Profile**

After more than a century as a government department, New Zealand Railways Corporation was established as a statutory corporation with a commercial mandate when in October 1991 the government established New Zealand Rail as a limited liability company. In July 1993, the New Zealand Government announced the sale of New

Zealand Rail to the Tranz Rail consortium led by Wisconsin Central Transportation Corporation, Berkshire Partners and Fay Richwhite & Company Limited.

Tranz Rail through its own re-engineering process, was transformed from a government owned and operated organisation to a successful privately owned, commercially driven transport and logistics organisation.

It has now been successfully floated on the New Zealand and US equity markets. A recent World Bank survey nominated Tranz Rail as one of the most efficient railway companies in the world.

The company comprises five groups. Tranz Link markets and manages all aspects of freight logistics and generates approximately 70% of the company's revenue. Tranz Rail's Passenger Group markets eight long distance Rail services under the name Tranz Scenic, and an extensive urban commuter service in Wellington and Auckland called Tranz Metro. The Interisland Line operates three conventional Cook Strait ferries and the Lynx. Tranz Rails Operation Group provides all infrastructure and support services.

Today, Tranz Rail is a multi modal transport and distribution company offering an integrated network of rail,

road and sea services as well as distribution and logistics management.

## 2.1 Tranz Link

Tranz Link consists of seven business units: Logistics, Forestry, Distribution, Kombi Freight, Bulk Freight, Cargoflow, and Refrigerated.

Tranz Link Distribution is made up of 30 freight terminals grouped into 16 branches providing the most extensive national distribution network available.

The company's integrated network includes 100 rail freight and 16 ferry services per day and over 300 pickup/delivery and linehaul trucks managing both dry and temperature controlled products.

Tranz Link has developed into a technologically innovative logistics and distributing business, with a culture geared to satisfying customers needs. We are a logistics problem solver offering a range of transportation, storage and distribution services.

Fundamental to this change is a substantial investment in technology. Tranz Link's freight management system 'Ontrac' has been developed to provide our clients with a true 'track and trace' capability for actual freight items. The system operates through our nationwide network and information is captured by the system from point of pickup to the

point of delivery. This system is discussed in more detail below.

Tranz Link also utilises a software package designed for optimisation modeling. The computer program takes all available information and then models all parts of the chain from production line through to customers unloading at their designated delivery point. The model works on the following principles:

- Manage demand and production patterns to optimise system utilisation.
- Ensure that pursuing improvements in localised systems does not create problems in the wider system.
- Recognise that real world systems do not perform in an averaged manner - variations and breakdowns do occur.
- Pre-plan for a range of critical scenarios.

The software being used can help to determine where and how many resources should be applied at each step in the process. For example, the number of wagons to be built versus the number of forklifts employed in the dispatch area. Resources and management that smooth the flow of product are sought since it is the "jagged" variations that lead to congestion, blockage, waste and breakdowns and most importantly performance below customer expectations.

## 2.1 Tranz Link Logistics

Tranz Link Logistics provides planning services to meet customers total logistics

and transport needs including distribution, warehousing, transport management, information technology and shipping.

Logistics and supply chain management involves putting the right resource, whether products, information or people, in the right place at the right time. Today almost every company has seen and experienced a significant increase in customer service expectations with the subsequent competitive issues that then follow.

Recognising the increasing importance and pressure of this trend Tranz Link Logistics works in partnership with clients to provide solutions whether by way of advisory services dealing with specific logistics problems through to conducting physical distribution audits and supply chain reviews.

Tranz Link Logistics provides services encompassing some or all of the following areas of logistics and supply chain fundamentals:

- Transaction Processing
- Information Technology - EDI and Logistics Software
- Purchasing and Supply Control and Management
- Materials Management
- Materials Handling Equipment
- Production Control
- Packaging Advisory Service
- Transport and Freight Operations

- Order Processing
- Inventory Control and Management
- Warehousing Layout Design and Management
- Import/Export Advisory Service

Working in conjunction with our clients we seek to fully understand their businesses and the processes behind their supply chain and logistics systems. This enables us to find and suggest ways to eliminate bottlenecks within the supply chain and add value to the system as a whole. The results we seek to achieve are quality supply chain logistics, enhanced customer service satisfaction, and the development of a proactive relationship between our clients, their customers and their suppliers.

## **2.2 Tranz Link Forestry**

The underlining business focus of Tranz Link Forestry centers on the distribution of key forestry commodity lines namely pulp, paper, logs, sawn timber, panels and chips.

While Tranz Link has always been New Zealand's premier service provider to the pulp and paper industry, it is rapidly expanding its market share in the other major commodity lines. This growing presence across the wider activities of the forest industry is due to the greater flexibility of timetabling now offered - more trains running at greater frequencies, purpose designed wagons to facilitate specific loading requirements, and the significantly expanded package of services.

The key philosophy underpinning all this activity is adding value. Adding a service or adding a process does not in itself add value. Understanding what creates value for a client and delivering on that in the most cost effective way is what adds value.

To this end, Tranz Link Forestry is currently involved in a number of greenfields reviews in partnership with key clients to maximise the value of logistic services offered.

We believe the basis of a successful relationship with a customer is partnership. Understanding a customer's transport needs and resolving transport difficulties lead to improved profitability and growth.

Tranz link is committed to forming partnerships with its customers and taking on board their logistical problems. We have a wide range of experience in establishing working teams between the customer and ourselves and by contracting in other specialist help when required.

### **3.0 Information Technology**

Success in logistics is based on the concept of understanding customers' service requirements sufficiently to be able to develop and manage the distribution of product on behalf of a client in the most effective way. Tranz Link believes the catalyst for making this happen is technology.

Coordinating product movements along the entire supply chain presents a significant opportunity to help producers meet rising customer service requirements while significantly reducing transportation costs. Increasing customer service expectations affecting distribution include tighter delivery windows, delivery location requirements tied to specific destinations and advance shipment notices.

The combination of electronic connections between Tranz Link and its customers, and the commissioning of the Ontrac freight management system, means that a paperless distribution system can now be provided to Tranz Links customers. The benefit from this is automating manual processes, making for faster and simpler business transactions. EDI

### **3.1 Electronic Data Interchange**

Electronic commerce is fundamental to future business efficiency and is a major tool to remove redundant or non-value adding processes. Rapid, accurate computer and communication technology provides greater control of logistics and distribution. This encourages new business practices which eliminate waste and inefficiency. Critical information is the single most important factor in reducing capital and operating costs, and increasing efficiency.

The rapid exchange of accurate trading documents - purchase orders, shipment

notices, inventory data, production forecasts - yield significant efficiency gains. Trading partners are increasingly looking at the supply chain to identify non value adding steps and minimising or eliminating these processes. Supply chain costs will reduce ultimately as a result of reducing cycle times.

Tranz Link has adopted the EDIFACT standard for EDI messages, developing waybill, invoice and freight status messages. EDIFACT is the universal language for administration, commerce and trade. This means that many parties can understand the message, sharing the information to encourage the development of electronic trading communities. Messages can be exchange directly from customers' systems or from a PC application called Despatcher.

Despatcher is a Windows-based application that prepares and transmits consignment details, receives and reconciles invoices, prepares bar-coded freight address labels and sends by facsimile an advance shipping advice to receivers.

### **3.2 Freight Tracking**

Participants in the supply chain want to know the whereabouts of their freight. The ability to track freight gives them the confidence that the transport operator is managing the freight process and that delivery promises will be met. There is now greater scrutiny by the market on transport operator's performance.

Freight tracking is not new to Tranz Link. Since 1990, the rail network has been managed by Amicus, an integrated marketing and operations system. Amicus uses radio frequency technology to track the fleet of locomotives, wagons and containers, which are fitted with transponders activated as they pass Automatic Vehicle Identification (AVI) sites located around the country. Freight location is automatically updated into Amicus.

However, with the company's business now being multimodal, not just rail-based, Tranz Link required a tracking solution that met all of the requirements of the business and customers. Ontrac has not replaced Amicus, but works with it.

Ontrac uses barcode technology to track individual freight items. Ontrac uses the international supply chain management EAN128 barcode standard for freight tracking. The philosophy is to encode at source all information potentially required by the participants in the supply chain. Users can then extract the information they want. The EAN128 barcode can also contain weight, cubic quantity, delivery address, purchase order number, and the serial shipping container code.

The consignment details can be encoded into the EAN128, removing the need for physical consignment notes. One of the keys to this system is the use of the purchase order number, either the

consignor's or preferably the original purchase order number from the consignee to the manufacturer or distributor. This way only one number is common to the transaction for all parties in the supply chain.

With producers and distributors moving to EAN128 for better supply chain management, Tranz Link can use the customer's own barcode labels.

Tranz Rail also has a Web site on the Internet and uses this for providing real time freight tracking data to customers captured by our Ontrac and Amicus freight management systems.

#### **4.0 Contract Warehousing**

Third party contracting, or out-sourcing the supply chain is a significant trend in recent years as companies focus their resources on their core business function. This is often driven by the need for new capital or renewing an existing lease promoting a review of available alternatives. Like ECR (Efficient Consumer Response) and other demand pull strategies, out-sourcing has been slow to catch on in NZ. Only 4% of goods in NZ are distributed by third party contractors compared to 65% in North America and 70% in European Community. The growth of contract warehousing in NZ is largely in the areas of import distribution, ancillary stocks such as stationary and promotional materials, vertical integration by couriers and multi-national companies where out-sourcing is employed overseas.

Coupled with the trend in out-sourcing is the use of information technology to operate warehouses. The use of radio frequency links, bar-coding, merchandised pick faces and paperless picking systems can improve efficiency. Information is also more accurate and timely for making informed decisions on stock levels and acknowledging purchase orders.

Tranz Link provides warehousing services for newsprint and other forestry products throughout its network. The trend in outsourcing is expected to continue as companies focus on their core business.

#### **6.0 Conclusion**

Tranz Link is a technologically innovative logistics and distributing business, with a culture geared to satisfying our customer needs. The Group has evolved into a logistics problem solver offering a range of transportation, storage and distribution services.