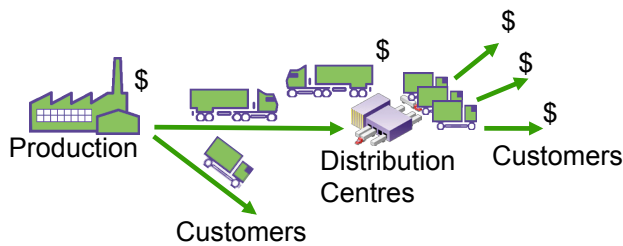




Maximising Profit

The Challenge

- Many industries deliver goods to customers without a clear picture of the variable transport costs attributable to each customer
- The transportation component can represent 25%-40% of the cost of goods sold
- Integrating an accurate measurement of Gross Profit After Distribution is an essential part of supply chain and distribution management
- NICTA's cost to serve tool improves each customer's profitability to maximise total Gross Profit After Distribution.



NICTA's Optimised Cost to Serve

Maximises overall profit by:

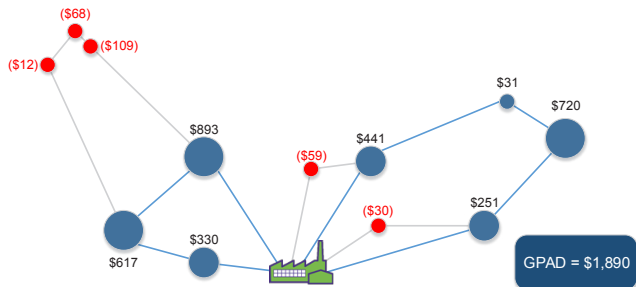
- Considering variations in: price, delivery frequency, time-windows, service duration and customer base selection
- Determining individual profitability by modeling the incremental variable distribution costs

Impact

- More efficient use of existing assets is key to saving cost and reducing emissions
- Fewer journeys lead to less congestion
- NICTA's optimisation algorithms extend the scope and accuracy of planning across the supply chain.

NICTA's Approach

- NICTA developed a new cost-to-serve analysis that accurately attributes profit to individual customers within complex distribution networks
- Cost To Serve uses advanced route optimisation algorithms to maximise gross profit after distribution:
 - Determines the most profitable direct delivery customer set
 - Identifies the optimal customer mix
 - Optimises fleet configuration
 - Models revenues, fixed- and variable- costs
 - Calculates street level routes
 - Adheres to all business constraints.



Winner NSW State iAward for Innovation, Research & Development - Industrial



Award for Excellence in Transport & Logistics

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Leading the Way

NICTA is Australia's Information and Communications Technology (ICT) Research Centre of Excellence, driving innovation through high quality research, research training, commercialisation and contract research.

NICTA has the largest concentration of ICT researchers in Australia. Our research focuses on use-inspired basic research that benefits industry, the community and the national interest.

Since NICTA's inception in 2002, NICTA has built strong research capability in:

- Software Systems
- Networks
- Machine Learning
- Computer Vision
- Optimisation.

Our Business Teams are the market focus of our research capabilities:

- Broadband and the Digital Economy
- Infrastructure, Transport and Logistics
- Security and Environment.

NICTA researchers work on Business Team projects supported by:

- An Engineering and Technology Development Team
- IP, Legal and other professional support.

Our work as a world-class research institute and Centre of Excellence in science and innovation brings together many of Australia's and the world's top ICT researchers. NICTA provides them with the facilities and support they require, making imagination to impact a reality.

NICTA's unique approach fosters and develops ICT research. We work closely with both industry and other research institutions to solve problems and make breakthroughs in ICT with real impact. NICTA's focus on use-inspired research means our projects have direct relevance to the challenges faced by business, government and individuals around the world. The result is breakthrough technologies that provide commercial opportunities and have a positive impact on Australia's export earnings.

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