

Case Studies

Lifting performance of the Hunter Valley Coal Chain

Management needed a fact-based analysis for solving complex logistics

The Hunter Valley Coal Chain is a 100 million tonnes a year operation with over twenty coal load points across the region supplying the sea-borne export coal trade to Asia. It is a complex, closely coupled set of processes where system bottlenecks and unplanned changes have wide-reaching repercussions.

In 2000, the Managing Director of Strategis Partners was asked to lead a team of operations analysts to provide an independent and objective assessment of the constraints in the Hunter Valley Coal Chain (from mine to shiploading); and to identify short term and long term solutions to maximise throughput in the Chain.

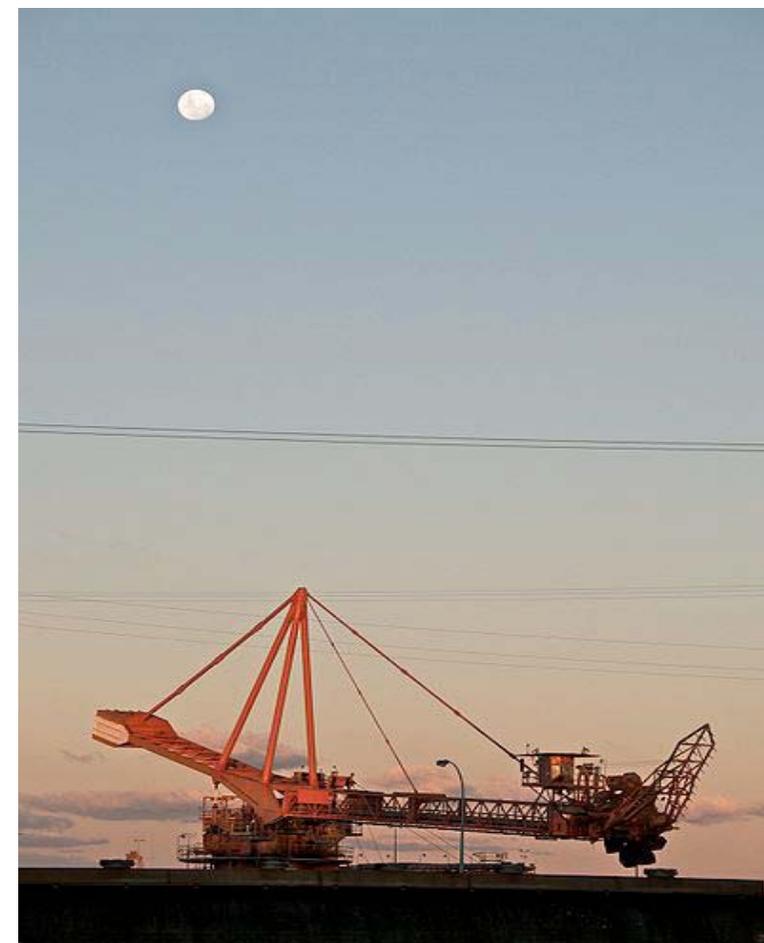
Maximising throughput in a multi-mine Coal Chain faced a range of challenges. And lifting the return on investment of all operators in the Coal Chain requires an integrated and collaborative approach.

Fact-based analysis of the logistics operations uncovered an interrelated set of problems: There was mismatch of actual and scheduled pattern of train arrivals into the port. Queue times

of trains waiting to unload at the port dump stations were excessive. Dump rates were variable and significantly below dump station capacity. Rail track speed restrictions were a significant source of delay. And to increase throughput tonnage, cargo assembly times needed to be reduced.

The recommended solution was an integrated Coal Chain teaming approach involving better end-to-end coordination: improved information and communications up and down the supply chain, system-wide planning and scheduling, and integrated rail track and port infrastructure maintenance.

Full implementation of the Action Plan delivered major benefits for all stakeholders. From 2000 to 2010 coal output increased from 68 to 100 million tonnes per year. For Coal customers this means increased confidence in the Hunter Valley as a reliable source of quality coal. For coal exporters this means reduced demurrage and increase returns on assets. For rail freight companies, this means higher volumes and higher returns; and for the port operator, satisfied customers.



Coal loader - Port Waratah, Newcastle, NSW. Source: posted to Flickr as Moon & Machine.
Author: Nomad Tales, 6 June 2009.