



Data Platform **CASE STUDY**

Coal chain coordinator completes seamless Oracle to SQL Server migration for mission critical systems

About HVCCC

Hunter Valley Coal Chain Coordinator (HVCCC) is an independent, member-funded logistics organisation coordinating the live run of the Hunter Valley Coal Chain to maximise efficiency and value for users.

As the largest export operation in the world, the Hunter Valley Coal Chain is the vehicle for the annual movement and loading of more than 1400 coal vessels and in excess of 160 million tonnes of coal. HVCCC's centralised planning, coordination, scheduling, monitoring and capacity alignment service precipitates a streamlined flow of coal through the system at high velocity.



HVCCC

www.hvccc.com.au

Hunter Valley Coal Chain Coordinator (HVCCC) manages the end-to-end planning, scheduling and live coordination of the supply chain used to export coal from the Hunter Valley region. HVCCC needed to upgrade their mission critical systems and found the right partner in WARDY IT Solutions to make the change from Oracle to Microsoft SQL Server.

Objective: Transition mission critical systems with zero interruptions

The Hunter Valley region is home to approximately thirty mines, owned and operated by eleven different coal companies and exports in excess of 160mtpa of coal per annum, making it the largest coal export port in the world. HVCCC's role is to plan, schedule and coordinate the transport of coal from pit to port. This includes the development of plans and schedules used by train operators, rail network control, coal terminals and Newcastle Port.

HVCCC relies on two critical systems for this mammoth coordination task: The Integrated Planning System (IPS) and Live Run System (LRS). Both of which are essential to the operation of the Hunter Valley Coal Chain. The Hunter Valley Coal Chain operates 24 hours a day, 365 days of the year. HVCCC's CIO, Chris Seysener, knew they needed a rock-solid partner to ensure a seamless system upgrade.

"Our systems help solve complex problems of planning and coordination every day," said Chris Seysener, HVCCC CIO. "The Hunter Valley Coal Chain relies on HVCCC as a central planning body with our systems enabling people to gather, process and share information across our numerous stakeholders."

"These key applications were running on Oracle and were ten years old. We needed to upgrade and future-proof our database environment. The key was finding a partner who could ensure a seamless transition with zero interruptions."

– Chris Seysener, CIO, HVCCC

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Chris Seysner
CIO
HVCCC

Planning and expertise deliver a seamless transition

In searching for the right solution and the right partner, the HVCCC team went through a full Request for Proposal (RFP) process with a number of market players, including the incumbent Oracle provider.

“It was clear to us that WARDY IT Solutions were experts in the data platform space and we had every confidence that SQL Server could meet the demands of our business,” said Chris Seysener.

The single most important criteria for the transition was that the system had to land all at once and work effectively from the minute it started. Chris Seysener was particularly impressed with the level of technical resources and support from WARDY IT Solutions.

“We underestimated the volume of change required for our Integrated Planning System,” said Chris. “We had significant technical debt that we had to unpick and fix. The support WARDY IT Solutions provided was instrumental in helping us manage that process.”

“The actual go-live was excellent and exceeded our expectations. There were no high priority problems reported. Beyond the team which worked on the project, the ongoing Virtual DBA support has been outstanding. They have proactively identified and addressed issues quickly.”

– Chris Seysener, CIO, HVCCC

Business Services team count the multiple benefits of transition

A transition that had the potential to take an inordinate amount of time and have multiple glitches, even disasters, along the way, happened quickly and with great stability.

While a good result would have been for the organisation not to notice the platform upgrade, the fact is, they did notice – but for all the right reasons – illustrates the scale of what has been achieved by the project team. This includes:

- **A significant, seamlessly implemented upgrade program:** In the transition, 20% of the codebase for both applications was changed. This was a significant undertaking, and the HVCCC team was aware of the potential impact if even a single line of code was incorrectly amended. “This figure illustrates the level of complexity and the scale of the project. The fact that we were able to transition seamlessly is a significant achievement,” said Chris Seysener.
- **Database code complexity vastly reduced:** The project team was able to reduce the database complexity by approximately 20%. This has meant that the applications are easier to support and HVCCC’s users benefit from a range of performance enhancements, including less waiting and better response times.
- **Faster and better performing system:** The feedback from the extended HVCCC team speaks to the breadth and depth of performance improvements including: “6.5 hours less computer processing per day and 51 minutes less IPS/LRS command execution run time per day (time when people were literally standing around waiting for a response) and 13 hours 20 minutes less load on the database per day.”

About WARDY IT Solutions

- 65 employees
- Information Technology
- Australia & USA
- www.wardyit.com

WARDY IT Solutions are Australia's leading SQL Server and Business Intelligence specialists. The company creates solutions that enable businesses to maximise returns on their investment in knowledge management. Through the extensive use of Business Intelligence, WARDY IT Solutions help their clients to realise the best possible dividend from their data assets.

WARDY IT Solutions have received numerous industry accolades, most notably the prestigious Microsoft Global Data Platform Partner of the Year in 2013. The organisation is recognised internationally for their innovative solutions, training skills and unwavering commitment to education and furthering the interests of the broader Microsoft SQL Server community. WARDY IT Solutions deliver:

- Project Delivery based on time and resources
- Consultation and Gap analysis
- SQL Server database design and programming
- Support services
- Managed Services and Business Intelligence Solutions
- Business Intelligence Consulting, including strategy, review, design and implementation of Business Intelligence Solutions

- **More secure environment:** As part of the upgrade, HVCCC now has a new Disaster Recovery environment for IPS/LRS, minimising impact on the coal chain in the event of a disruption. "Our previous recovery point objective of two hours is now less than a minute," explained Chris Seysener.
- **Ongoing peace of mind through pro-active support:** HVCCC's entire database environment is now supported by WARDY IT Solutions' Virtual DBA service. "Since transitioning to the Virtual DBA service, we have seen a big difference, both in the quality of the support and the level of transparency," said Chris Seysener.

"The feedback from the business speaks for itself. In addition to having the latest technology to support our complex work, this also helps us in recruiting good technical talent which further helps to future-proof operations." – Chris Seysener, CIO, HVCCC.

Words of advice from HVCCC

"Pick the right partner," said Chris Seysener are his immediate words of advice about a transition project such as this. Choosing the right team is key, as is being somewhat flexible – focussing on quality of outcomes rather than a rigid timeline.

Looking forward into a well-supported future

This has been a great achievement for HVCCC and their Business Services team, transforming the performance, stability, and security of their mission critical systems.