How Ventura Bus Lines Stays Ahead of the Competition

1,600 employees

900 buses

131 routes

831,000 km travelled per week

32 million passengers a year

Industry
Bus

Challenge
An increasingly competitive market

Solution
Trapeze Planning & Scheduling solution and Trapeze Enterprise Resource Planning (ERP) solution

Results

✓ Operational savings

✓ Dead running reduced

✓ Improved driver retention

✓ A single source of truth for the entire company

Ventura Bus Lines' creative use of technology helped the business to not only save costs and quickly respond to tenders, but also to find new revenue sources and improve staff satisfaction.

Background

Ventura is the largest bus operator in Victoria, Australia. It operates extensive fixed route and charter services across Melbourne, including 131 public transport routes, school charters, rail or tram replacement services and group tour transportation. It was founded over 90 years ago by the Cornwall family and is the largest family-owned bus company in Australia.

Ventura has used Trapeze Group's Planning & Scheduling solution since 1993 and the Trapeze Enterprise Resource Planning (ERP) software since 2010. Today, it is Public Transport Victoria's most reliable bus service provider in the state and the preferred supplier of numerous Melbourne private and state schools, Metro Trains and Yarra Trams.

Challenges

Intense Competition

The bus industry has changed a lot since Ventura was founded with one bus in 1924. Increased societal expectations that governments use taxpayer dollars in an efficient and transparent way have led to intense competition in tendering for government contracts to operate public transport routes; burdensome amounts of red tape, regulations and data recording requirements; and shorter deadlines for providing options, information and reports to authorities.

"It's a very competitive market out there now," said Steve O'Callaghan, Ventura's General Manager Network Planning. "Governments are wanting to see better use of assets and less inefficiency – they really want to see optimisation and they want you to show them how you can do things better."

Bus operators are now under immense pressure to provide the most competitive solution in the marketplace, while at the same time ensuring that the services they promise are actually deliverable and profitable for their businesses to run – and doing all of this quickly.

"We work to tight deadlines here – the government makes an announcement and suddenly we have to do three months' worth of work in a month," said Steve.

Inaccessible Information

However, with data being kept in different systems, formats and locations (or in some cases not being recorded at all) and the many parameters that had to be factored into Planning & Scheduling such as award rates, union agreements and government regulations, tender responses were arduous and time-consuming for many staff members across the business.

This lack of access to information also crippled departments and stifled innovation within the company because projecting costs or creating what-if scenarios if changes were made presented an enormous challenge. It was difficult to build business cases to justify a change in processes or the implementation of new systems.

Tighter government regulation also meant that bus operators were required to record and store

a vast amount of information for compliance and auditing purposes. Furthermore, all of this information had to be easily accessible in case of fines, infringement notices or incidents involving passengers.

Growing Pains

Ventura also bought over other bus operators to accelerate its growth and size. While this gave the company a competitive advantage, it aggravated challenges the company was already facing from its organic growth: scalability and disparate systems. There was confusion, inefficiency, double handling and siloes of information.

"There were paper records and departments were doing things in different systems – there was no integration between them all and you would have to close one program and open another to do your work," said Omar Najmeddine, the General Manager Rail / Business Systems.

"Even within one department – finance – they had different systems for accounts and for invoicing. In other departments, we were relying on manual data entry and cutting and pasting into Excel.

"We did have programs that we could record data in but we couldn't do it all in one place. We had to do it individually and enter the data multiple times in different systems. It took a lot of staff to do data entry and analyse the data as well, because when you're using more than one piece of software you tend to forget things: you enter it in one place but you don't do it in the other. There was a lot of costly human error resulting in poor quality information."

The purchase of Grenda's Bus Services exacerbated the issue, with Grenda depots and workshops running on different software to Ventura facilities. This hampered communication between departments, negatively affecting productivity and efficiency.

"We knew we needed to be on one piece of software," concluded Omar. "We just got to the point where the business was too big to run this way."

Ventura's Managing Director, Andrew Cornwall, is a third-generation leader in the bus industry and he foresaw that the company needed to change in order to keep its place at the top of the market. The business needed to get more done while using fewer resources and reduce inefficiencies in every area possible.

"We needed to run leaner, become more efficient and find new ways of increasing revenue and adding value to our clients," Andrew said. "We needed to get creative about how we were going to keep growing the business and stay ahead of the competition."

Solutions

Schedule and Workforce Optimisation

The first step to achieving Ventura's goals of becoming more efficient was to optimise the business. The bulk of this was in network planning, where Ventura hoped to save costs by reducing dead running, optimising driver shifts and reducing fuel

and maintenance costs by straightening out routes.

"The manual process for network planning was to use a graph or paper and manually write vehicle blocks," said Steve. "It was very time-consuming and it could take up to three months to do it properly for a network of 40 – 50 buses. You would only be able to develop one solution and you'd have to run with that solution because there wouldn't be enough time to do a second one to see if you could optimise further."

A planning and scheduling tool was sorely needed to overcome the limitations of manual calculations. The Trapeze solution was selected for its superior optimisation capabilities and ability to incorporate a large number of complex parameters and conditions into its calculations, such as industry award rates, union agreements, enterprise bargaining agreements, government health and safety regulations and company policies.

"With the Trapeze Planning & Scheduling solution, the rules and regulations are written into the system," explained Steve. This has completely eliminated human error in many areas of the planning process. For example, if a user tries to make a roster that violates these pre-set conditions, the system gives an automatic alert and simply does not allow the creation of that roster.

> *Once I learnt how to use Trapeze's Planning & Scheduling software to optimise what was a manually-introduced network, I felt like a champion because all of a sudden I'd reduced the market by nine buses.* **"**
>
> Steve O'Callaghan, General Manager Network Planning

The use of technology to perform optimisation tasks means that Steve's team can create numerous accurate projections to find the most competitive way to carry out a service. Where it used to take months to manually produce one solution, the Network Planning department can now test and create what-if scenarios in the system and receive results within hours.

"You could never do something like that manually, it's hard mathematically to bring everything together," said Steve. "The algorithms in the system allow you to cut to the chase extremely quickly and start optimising whatever it is you want to optimise: buses, drivers, kilometres."

Using the Trapeze Planning & Scheduling solution has given Ventura confidence that their schedules are being put together as efficiently as possible with no errors or missed conditions.

The reporting capabilities also gave Ventura more visibility on how the business was tracking and where deficiencies were. The Network Planning department was able to analyse whether there was too much dead running or idle time and take steps to rectify the situation. Ventura was able to slash dead running and continues to reduce this, providing what Steve describes as a huge return on investment in fuel savings and reduced cost of vehicle maintenance.

Omar has also found that the Trapeze Enterprise Resource

Planning (ERP) system helped Ventura's Charter department optimise its operations. "We use the Charter calendar to allocate drivers. It gives you a snapshot of where all your buses and drivers are and you can do the jigsaw puzzle and move people around for the most efficient configuration."

Today, Ventura has achieved optimum scheduling efficiency. Steve confirmed, "We've got our efficiency down to a point where it's really as efficient as it can be. The only way we could be more efficient would be if the government changed things, like straightening out the route network."

Internal Process Optimisation

After using multiple systems, formats for record-keeping and data collection methods that were slowing down staff and introducing costly inefficiencies across the business, Ventura wanted a single system that the whole company could use.

"The business was looking for a consolidated software for record-keeping to ensure that everything was recorded in a way where we could easily access the data," said Omar.

The Trapeze ERP system, specifically built for bus companies, was chosen because it enabled integration across all departments, like Operations, Charter, Workshop, Fleet, Payroll and Finance. As a bonus, it also integrated with the Trapeze Planning & Scheduling system, giving Ventura a single source of the truth.

"Trapeze's ERP lets you do everything in the one system," said Omar. "For example, in the Charter module you can create a quote, turn it into a booking, create an invoice after the service has run and send the invoice to the customer. You've got everything you need in one place."

Numerous tasks for transferring data were wiped out. Rosters are now created in the Trapeze Planning & Scheduling solution and then electronically transferred to the Trapeze ERP system with no manual intervention. Drivers can view dispatch on an electronic display and sign on for their shifts using a self-service screen. Processes are streamlined, productivity is increased and duplicate systems were retired.

> " I would always recommend Trapeze's ERP system because it's a good system. I believe it is the right product for transport operators. "
>
> Omar Najmeddine, General Manager Rail / Business Systems

Using a single system to run the business also opened up new ways to save costs such as remote bus allocation and reducing depot opening hours.

"Because the Trapeze ERP system lets us view driver sign-on and allocate buses from a central location, we are able to create efficiency which is really advantageous in growing business like ours," said Omar.

Another process that has been significantly simplified is the infringement notice handling process. Before the ERP system was installed, staff at Ventura's head office would have to alert the relevant depot, depot staff would have to research records of vehicles and driver shifts, and then communicate that back to head office staff who would nominate the driver liable for the infringement notice. This process could take hours to complete.

Today, a single employee at Ventura's head office can perform this task in five minutes by logging into the ERP system's Dispatch module and then comparing driver shift times with the

time on the infringement notice.

This streamlining of processes allowed Ventura to save on operating costs following the implementation of the ERP system.

New Source of Revenue

The Network Planning department's newfound power to create what-if scenarios and optimise routes opened up a new way to generate revenue for Ventura. With the help of the Trapeze Planning & Scheduling solution, Steve was able to build business cases proposing new routes or changes to services to the Victorian government.

> " We can now be proactive in identifying service gaps and looking for places where we can improve the network, and submitting that back to government. It's something that we wouldn't have been able to do manually "
>
> Steve O'Callaghan, General Manager Network Planning

"I do my own demographic research to work out the demand for a new service. Once I've determined that there is demand, I use the Planning & Scheduling solution to work out the best cost we can run the service for: is it better off as a standalone or will it reduce the cost if we integrate it with our other services? How many drivers and vehicles do we need to run the service?

"We do exhaustive what-if scenarios that give us accurate projections on what savings we will make if we straighten out a route and find ways to make routes more customer-friendly by playing around with the frequencies and the span of hours to meet the mark.

"We test many different solutions and scenarios in the lead-up to build a really robust business case for government. It's something that we wouldn't have been able to do manually."

Improved Data Quality and Accessibility

The Trapeze ERP system allowed the company to employ the COUNT (Collect Once Use Numerous Times) principle, which reduced data entry errors and improved the quality of data by ensuring it is recorded in a consistent way.

"The data is much more dependable because everyone lives in the Trapeze ERP system now," said Omar. "We can now pull out reports and be really sure that the information is accurate.

"Collecting all that data has helped us understand and optimise the business as we grow and go forward."

Omar also finds that having all the information in one place speeds up his ability to write charter tender responses.

"I can go straight into the Charter module and see how much we

priced the tender two to three years ago so that when I build the new tender, I know I'm within the ballpark.

"If I need to get vehicle information, I can get a bus's registration, number of seats, condition, age and how many kilometres it's done by going into the Fleet module.

"For anything I need to know, I just log into the Trapeze ERP system."

Driver Retention

The ease of including additional parameters when creating schedules and rosters also brought the unlooked-for benefit of increasing Ventura's driver retention. With the Trapeze Planning & Scheduling solution, Steve's team is able to create more sustainable rosters that take the drivers' lifestyles into account.

"A lot of training goes into our drivers, so you want to maintain them," said Steve. "We believe that the human element is important in creating better rosters and Trapeze's Roster module offers you the flexibility of doing that quickly.

"We try to keep the rosters as driver-friendly as possible – we try to keep sign-on times in a rostered week within a couple of hours of the previous day to look after their body clocks and give them consecutive days off.

"We also have more women driving buses now so there's a demand for casual positions or for shifts that end at midday so they can pick their kids up. With the Trapeze Planning & Scheduling solution, we can easily design driver shifts for efficiency and to meet these additional criteria as well."

As a result, Ventura's driver turnover is trending downwards and is below the industry average.

Employee Empowerment

The Trapeze Planning & Scheduling solution also allows Steve and his team to service internal requests for projections and what-if scenarios quickly, allowing other departments in Ventura to easily and accurately assess their options for innovation and creating efficiencies.

"If people want a cost or ask me 'what if we do this' or 'what if we do that', we can go and put it in our system and come back to them in a day with a fairly accurate estimate for what it would cost to do these what-if scenarios," said Steve.

Omar agrees that technology has directly benefited and enabled employees. With all of the company's data hosted in the Trapeze ERP system, it is now easy for Ventura staff to take a proactive approach to customer service and retention.

"We now have all this data at our fingertips," said Omar. "In the Charter module, we can look at our customers and see if they have been increasing or decreasing their use of our vehicles. If they have not used us for a while, we can analyse why and try to win them back."

Future Proof

Over the years since its implementation in 1993, Steve has tested the Trapeze Planning & Scheduling solution against other competitors and found that it still has the best workforce optimisation tool and the ability to handle the complex parameters and conditions faced by bus operations to this day.

"I'm always very supportive of Trapeze's Planning & Scheduling solution. I don't think there's anything much better out there," said Steve. "It's a brilliant system and I'd certainly recommend it to anyone in the bus or tram industry."

> " *If there was a better system on the market, that's what we'd be using. But we're with Trapeze.* "
>
> Steve O'Callaghan, General Manager Network Planning

Success

- Dead running reduced, resulting in fuel and maintenance savings.
- Tenders can be responded to faster and with more confidence in costings and projections.
- Driver turnover reduced to below bus industry averages.
- Department managers now enabled for innovation and continuous improvement.
- An accessible, single source of information for the entire company.