VY
Case Study

Overview

2,400 Drivers and Staff (2019)

250 Trainsets (2019)

22 Routes (2019)

73 Million passengers per year (2019)

Industry
Rail

Challenge
Vy wanted to ensure all systems worked in harmony, supporting the production of effective plans that flow through to the day of operation.

Product
Planning and Scheduling.

Solution
Vy has integrated all of its technology solutions to ensure data flows seamlessly across all areas, reducing effort, eliminating data entry mistakes, ensuring efficiency of operations

Results

✓ Rapid analysis of data

✓ Early identification of under performing surveyors

✓ Delivering a result in 4 months rather than the previously planned 9 months.

Background

Vygruppen – branded Vy – is a government-owned railway company operating most passenger train services in Norway. It operates in both the Oslo region of Norway, as well as a subsidiary operation in Sweden.

The Challenge

With multiple technology solutions across different areas, Vy wanted to ensure all systems worked in harmony, supporting the production of effective plans that flow through to the day of operation.

Vy's Special Advisor and formerly IT Manager of Operations, Peter Hausken says: "Without a good plan, you just move all the problems to the day of operation."

In addressing this area, the goal was to more effectively be able to manage disruptions, enabling better informed decisions and ensuring accuracy of information to passengers.

The Solution

Vy has integrated all of its technology solutions to ensure data flows seamlessly across all areas, reducing effort, eliminating data entry mistakes, ensuring efficiency of operations. Vy collaborated closely with its technology partner, Trapeze, to ensure that all aspects work in harmony.

We asked Peter Hausken to explain how the solution impacts on different areas of operation…

On Effective Planning

"We work really hard to make good plans. By including elements we ensure that what ends up in the driver's plan reflects reality. Everything hangs together: we have a timetable and then planners create rolling stock plan and crew plans to meet it."

On Data Quality, Integration and Interfaces

"Our goal is to only ever enter data once – you shouldn't ever retype. Data quality is so important. We use elements that can be changed as things progress. In this way we ensure everything is dependent on the same data, but not the same systems. It enables us to adapt quickly and easily – which is how we were able to easily extend operations into Sweden."

On Consistency and Visibility

"In the office we see exactly the same data as everyone else. The data underpins graphical maps, passenger information, services; all elements joined together via a common interface. This visibility enables us to harness the power in the data. The team managing rolling stock and personnel have a visual view in Gantt diagram: using live data they can see where plans will fail, then switch to the train graph view to see the situation on a specific line."

On Efficiency and Maximising Capacity

"The tools we have enable us to handle complicated situations as efficiently as possible. Oslo tunnel is one of busiest in world: we are able to run 24 trains an hour in each direction – that's about as many as it is possible to do within safety and reliability margins."

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On Managing Disruption

"We use technology to develop plans for how to manage disruption. We prepare that if one line is completely closed then we take a particular course of action; for a different line we have prepared another reaction."

"All actions are aligned with the infrastructure, so once implemented everything happens really fast. We don't have to make decisions about what to do, or what to tell passengers: we implement the change and communicate the new plan: how to run, the new schedule, new rosters and so on. It is possible to manage operations even during disruption: you need skilled operators using good tools."

"Within two minutes we aim to get the information out; within 20 minutes we tell them when replacement buses are coming; and within 30 minutes the first buses should arrive."

On Data Analysis

"By analysing Automatic Passenger Counting (APC) data we were able to increase overall efficiency by reducing station dwell times. We identified that the timetable was too tight in some locations, while other stretches were 98% inside every time. We used the data to adjust timetables to meet the reality of what is run, increasing the potential for efficiency, and ensuring the information is accurate, ensuring greater punctuality from the passenger's perspective."

On the Power of Data

"Every time we made improvements we were able accommodate more traffic; we built capacity for more trains."

"Over the past ten years we have rolled out 130 new trains, increasing ridership by more than 30 per cent. We wouldn't have been able to do so without access to planning tools and data."

On Working with Trapeze

"We have had an excellent relationship for many, many years. The team are service minded to our needs. It is more like colleagues than a vendor/customer relationship: they have their mind on getting the railway running. They understand rail and offer good advice on how to proceed. It's been very, very good."

The Result

• Managed roll-out of 130 new trains in 10 years.

• 30% ridership increase.

• Successful expansion into Sweden.

TRAPEZE GROUP

Trapeze Group works with public transport agencies and their communities to develop and deliver smarter, more effective public transport solutions. For more than 25 years we have been Here for the Journey, evolving with our customers around the world to helping them move people from point A to Z, and everywhere in between.

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