

HUR Hovedstadens
Udviklingsråd

HUR

- HUR is a government authority run by political leaders and financed by the Counties of Copenhagen, Frederiksborg and Roskilde and the Municipalities of Copenhagen and Frederiksberg.
- HUR Traffic is in charge of making sure that buses, local trains and ferries all run properly.
- HUR has outsourced all bus operations in the Copenhagen area to other bus companies.
- The organisation is responsible for 270 bus lines and 914 buses.
- Combined, these buses travelled 95 million kilometres in 2004 – more than 100,000 kilometres each.
- In 2005, 545,000 people boarded one of HUR's buses every single day. 99.65% of all planned trips were completed in 2005.

Solution: Service solution
Industry: Transport and logistics
Year: 2005
Language: Danish

Result

- Effective, easy counting of passengers.
- Easy quality checks on buses.
- Faster reporting of problems.
- Improved quality – fewer problem reports.
- Optimised bus operations.
- More efficient routines.
- More satisfied staff.

”Our traffic controllers now have a considerably easier workday, and are able to convey important messages quickly and effectively. This, in turn, raises the level of service we provide and improves quality for our passengers.”

Aksel Andersen, System Supporter, HUR.

The challenge

HUR has outsourced all bus operations in the Copenhagen area to a number of bus companies that now handle the bus routes. To ensure the quality of bus operations, HUR has set up a Traffic Service, which serves as HUR's eyes and ears on the ground. The Traffic Service is responsible for ensuring quality through continuous monitoring of the quality of the buses and their ability to complete their routes. When traffic is stopped up and the busses can't get through, the Traffic Service is responsible for helping to solve the problem.

The Traffic Service is used to reroute bus lines where roadwork is underway, dispatch extra buses and come up with proposals for new routes and schedules. Traffic Service employees have to follow up on the quality of the buses and bus stops. This can involve checking whether the buses are cleaned properly, whether the brakes squeal, and even whether passengers are carrying a valid ticket. At bus stops, the Traffic Service makes sure that maps and schedules are up to date, and ensures that passengers are informed and signs are posted when a stop is moved.

Application features

- Passenger counting.
- Registration of ticket info.
- Quality control.
- Surveys.

HUR traffic controllers also conduct customer surveys on a regular basis to ensure that passengers are satisfied with the quality of the buses operating in the Copenhagen area. Some 25,000 customers are interviewed each year to find out what they think about the bus journey they are taking – including the buses themselves, the temperature in the buses, noise levels, and the general level of service provided.

All this work keeps the Traffic Service busy with time-consuming tasks that all involve entering data and producing reports.

For a number of years, the Traffic Service used a mobile reporting system from DSB, the Danish State Railways, to perform this work. However, this system could only be used for counting passengers and providing ticket information. In other words, the solution could not help with quality control. If an agent discovered a quality issue on a route or bus (a delay or damaged seat, for example), the agent had to note the problem on a piece of paper and then call the local office to pass on the information. The local office would then write the information on a piece of paper and fax it to the main office, where another person would enter the information into a database. Reporting a quality problem was a cumbersome job with a high risk of error.

HUR Control

Customer case

HURControl

Automat: OK Fejl

Afgifter: **1** Fejlilet.: **5**

Fejlinfo: **0** Misforstå.: **0**

Antal pass: **32** Bemærkninger:

Mange havde ikke billet, da automaten var i stykker.

+5 +1 -1 -5

Gem

Start Bill Brist1 Brist2 Vedl. Stat

Main Sync

HURControl

Afgangstid: 12:32

Mangl. busadgang:

Afvigelse: Efter afgangstid mere end 3

Andet: - Vælg -

Bemærkning:

Chaufføren var mødt for sent på arbejde.

Gem

Start Bill Brist1 Brist2 Vedl. Stat

Main Sync

HURControl

Dato: 04-04-2006 15:43

Kontroltype: - Vælg -

Initialer 1: Vælg -

Initialer 2: Civil opkøb

Stopnr.: Mårettet billetkontrol

Busnummer: Mårettet kvalitetskontrol

Linie: 22

Zone: 3

Gem

Start Bill Brist1 Brist2 Vedl. Stat

Main Sync

Software and Services

- Microsoft Windows Mobile.
- Microsoft SQL Server 2005 Mobile Edition.
- Microsoft SQL Server 2000.
- Microsoft Windows Server.
- Web Services.



HandStep is the leading developer of mobile solutions which improve effectiveness and customer service. We replace manual, paper based working procedures with electronic and integrated processes. www.handstep.com

Requirements

HUR wished to replace its existing mobile solution with a new, more advanced application that would make life easier and more efficient for HUR traffic agents as they worked to count passengers, register ticket information and perform quality checks on the different buses.

In addition, HUR wanted a solution that could also be used to conduct customer surveys. The solution was to be easy to configure centrally to meet the individual needs for different surveys.

The solution

To meet these needs, HandStep developed a PDA solution that HUR traffic agents are using today.

In addition to convenient passenger counting and registration of ticket info, the solution now lets agents conduct quality checks on the buses, so that different types of problems can be reported immediately and repairs initiated at once.

Surveys can also be prepared and conducted quickly and easily via the PDA. Operations managers can create a survey questionnaire on a website – right at the office. The questionnaire can include free text, numbers, multiple choice questions, dates, times and more.

The traffic agents simply download the questionnaire they need onto their PDA and can conduct the survey on board the buses. The passengers' answers are then synchronised with an SQL database, which

enables highly detailed statistics to be generated. This enables the operators to study the surveys conducted right down to individual interviews.

All information entered into the PDA is synchronised with HUR's business systems, which means that the traffic agents can do their job even when mobile telephone coverage is poor. As soon as an agent's PDA is linked to the system again, the data is synchronised with the central business systems. Synchronisation of data between the PDAs and the business systems takes place via Web Services. The database in the PDAs is an SQL Server 2005 Mobile Edition. The backend database is a Microsoft SQL Server 2000.

The result

There is no doubt that the solution has helped HUR optimise and improve the efficiency of the Traffic Service's daily work.

Since all information, from passenger counts to ticket details and quality problems, is registered electronically and synched to HUR's business systems, the management now has a complete picture and understanding of bus operations and the quality being provided by suppliers.

Information is accessible more quickly and is stored in a homogeneous, accurate format, and this allows the organisation to react to problems faster. It has also helped to optimise bus operations and to improve the quality of reporting.

Want to know more?

You can read more about HUR at www.hur.dk.

"The HUR solution is a good example of how process optimisation, employee satisfaction and customer service can all be enhanced with a mobile solution. This benefits all concerned."

Anders Heick, CTO, HandStep.