

The System for Self-Service Access to the Swedish Vehicle Registry

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Operations at the Swedish Vehicle Registry underwent radical change a few years ago, when the number of offices was reduced from 24 to one only. In connection with this reorganisation, the number of people employed in customer services was cut in half. This was accomplished while simultaneously improving service to customers. How could this be possible? How could the same level of service be maintained with only one office and with such a drastic cut in staff?

The following text describes how we have succeeded with this challenge, in part through investing in self-service systems targeting both the business sector and the general public.

A little background about Sweden

By European standards, Sweden is a very sparsely populated country. Most of its almost 9 million inhabitants are concentrated in the southern parts. About 4 million cars are driven on Swedish roads, meaning 9 cars per square kilometre as compared to Germany's equivalent 122 or Belgium's 158.

Swedish public administration has traditionally been characterised by its basic principle of "transparency". This so-called "right of public access to official records" has been a fundamental cornerstone in Swedish public administration. It is founded on the need and demand on the part of people in society to observe the action taken by public authorities in order to foresee any possible negligence or abuse of power.

The right of public access implies that public authorities shall work openly, under the watchful eye of the media and individuals in society. In conformance with this principle, all information in the Swedish Vehicle Register is to be readily obtainable by members of the general public. The Register has therefore been designed in accordance with these requirements. This means that the general public along with the police, insurance companies, car dealers, car wreckers, tax authorities, the Swedish Motor Vehicle Inspection Co., parking enterprises, etc. all have unrestricted access to the information in the Swedish Vehicle Register.

Vehicles have been registered in Sweden since the beginning of the twentieth century. Each of the 24 counties in the country had its own Vehicle Registry, with joint regulations for the country as a whole.

At the beginning of the seventies, *one* joint computerised national Vehicle Registry was established. Regional offices still existed and these were linked to the main central Registry terminal.

Each of the regional offices was responsible for dealing with members of the general public via mail, visits and telephone calls, and basically dealt with vehicle registration matters that concerned the population in their own area. These offices disappeared in connection with the radical changes implemented in 1996, as mentioned in the introductory paragraph.

The Swedish Vehicle Register contains information about vehicles, the names of owners, vehicle insurance details and the results of the annual vehicle inspection. Further, the Vehicle Registry has been assigned responsibility for collecting and keeping records of vehicle tax accounts, meaning that the Register contains such information also.

Self-Services

From a historical perspective, the regional offices were responsible, more or less exclusively, for collecting and registering information in the Vehicle Register. When a vehicle owner had sold his/her vehicle, s/he was required to fill in a form and send it to the regional office, where the information was interpreted and registered. The Register contained a fair amount of inaccuracies and its up-to-dateness depended on the postal service as well as the staff workload at any particular point in time.

In the mid-eighties, a self-service system was introduced for companies, i.e., the commercial users of the Vehicle Register. Nowadays, through being connected to the Vehicle Register via a computer terminal, companies can register data themselves as well as seek information stored in the Register. If this is a matter of a large volume of information, entire files can be transferred electronically.

Car dealers and insurance companies were the first to use this service, and together account for several million registrations a year. With the passing of time, others followed suit; e.g., the Swedish Motor Vehicle Inspection Co., car wreckers, car rental companies and vehicle workshops. At present, this service handles more cases than our own customer services department. The benefits enjoyed by individual companies with direct access to the Vehicle Register are shorter waiting times, more flexible contacts with us, and customer service around the clock.

In order for a company to be granted access to this registration service, extensive demands are placed on competence, proper qualifications, etc. Misuse is highly uncommon. Having direct access to this service is a competitive asset for a company, enabling it to better fulfil customer needs than what is possible for a non-affiliated company.

In order to solve the problem concerning the fact that it is unconstitutional for private companies to exercise the role of a public authority (as such registration actually entails), the information is registered electronically in a "mailbox". The content in this "mailbox" is then emptied by the Authority for automatic updating of the Vehicle Register. It was necessary to change the law for this purpose.

1995 saw the introduction of an automated self-service system via push-button telephone. The primary purpose was to improve service to the general public, but also to relieve our customer

services department from having to deal with enquiries of a more straightforward nature. This service has its own telephone number and is entirely independent from the call centre.

From the outset, it has been possible to receive a telefax print-out of the vehicle information requested. This service was later supplemented with additional functions, including being able to perform interactive transactions. The security problem surrounding these interactive services was solved through having to state the code found on the vehicle's certificate of registration.

The self-service system is very cost-effective since the customers themselves perform the work involved in registering data. The fact that the registration is recorded through an interactive process prevents incorrect or incomprehensible entries, since the customer is corrected and guided so that s/he ends up in the right place.

The response of the general public to the self-service system has been enormous. All in all, the demand has tripled from 1996 to 1999. Despite the success of the self-service system, many still contact the call centre with less complicated questions concerning vehicles. One natural explanation is that many still do not have private access to a telefax machine. Another is that they are not aware of the self-service system.

In 1998 a service was introduced whereby the customer could obtain information by talking to a computer that understood spoken Swedish. This service is integrated into the call centre and is open 24 hours a day. When phoning customer services, the caller can choose either to talk to the computer or be put through to an operator. The intention is to divert less complicated enquiries to the automatic service and thus improve the level of service at the call centre.

If the computer has interpreted the vehicle registration number correctly, it can retrieve data about the vehicle. An electronic voice will then provide such details as the name of the owner, whether the vehicle has been reported stolen, if a ban has been imposed on its use in traffic, its annual vehicle tax, etc. The computer can be told to repeat the information if the caller has not understood something. It is also possible to request a transcript of the information, which is forwarded by telefax to the number indicated. This fax is received within a couple of minutes.

Our overall experience with the self-service system has been very good. The involvement of both the business sector and the general public has entailed considerable savings. Moreover, the quality of the Vehicle Register has been substantially increased. *Up-to-dateness* has been improved since information is registered directly in the Vehicle Register. Dependence on external factors such as postal services and the prevalent work load has disappeared. *Reliability* has improved since there no longer are any intermediaries between the person recording the information and the Register. The police, a major user of the Vehicle Register, can rely much more on the information provided. *Accessibility* has been improved since the system is open around the clock.

Image processing

An additional technical application of strategic importance for facilitating rationalisation was image processing, introduced in 1993. A great number of the notifications sent to the Vehicle

Registry are written on official forms, which are highly suitable for handling in an image processing system.

This system has been used to develop routines for handling documents. While a document is actually being scanned, the system simultaneously interprets the content and updates the Register. A registered change of owner is thus done completely automatically.

Both typed and hand-written texts can be interpreted by the system. The information registered is stored digitally, which means that it is easily accessible via any computer connected to the Vehicle Register.

The goal was for the system to replace most of the manual registrations, which amount to more than one million per year. Up until now, the system has worked extremely well, and it is able to interpret about 90% of the character content. In contrast to former days, almost all registration now occurs on the very day of notification at our Authority.

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