

BIOGRAPHICAL INFORMATION

Anne Grete Frøseth
Lead, Customer Section
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Specific Responsibilities

Joined **Oslo Water and Sewerage Authority** for 6 years. Responsible for customer service, treating liability for damages and estimation of water and sewage fees.

Past experience

Joined Bergen City Court for 8 years. Management of the staff, responsible for case preparation.

Joined Ullern district for 3 years. Leader of administration section, responsible for implementation and use of a new document management system.

Joined Studia Data in Bergen for 5 years. Responsible for the Sales Department (Personal Computers and Software).

Educational Information

After grammar school, following courses are accomplished:

Administrative data processing, NKS - Distance Education

Business administration, The College of Business Administration and Economics, Bergen

Marketing, The College of Business Administration and Economics, Bergen

Management, The College of Business Administration and PA Consulting Group, Oslo

GIS IMPROVES PUBLIC SERVICE IN OSLO

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Abstract:

The elected counsellors of the city of Oslo, Norway, have stated very explicitly that all services provided by the city must be focused on the needs of its inhabitants. For their Water and Sewerage Works, this means that they need to know who their “customers” are, and what are their needs and wants. Then they must be able to react to feedback from the customers, and finally they must inform the customers about developments in the service. To solve these challenges, Oslo implemented the GIS application Powel Communicator in 2000. Powel Communicator integrates professional-, real estate- and geographical databases, and establishes its own database for service related information. The objective of the system is to improve the level of service related to a utility’s production (water, energy, roads etc), while at the same time improving the quality of public communication. The intention is that whoever receives a message shall be able to give satisfactory feedback, and that both the message and the feedback is stored for future reference and analysis. Through the use of GIS, the city is able to meet its ambitions as a service provider. Complaints are better treated, public information is improved and by pin-pointing trouble-spots on the map, maintenance planning has improved.

Introduction

Oslo is the capital city of Norway and has 520 000 inhabitants. Oslo Water and Sewerage Authority ("Oslo Water") is an Agency in The City of Oslo. Oslo Water has 410 employees, and operate 1600 km of waterpipes and 2000 km of sewer pipes.

Oslo Water and Sewerage Authority daily receives numerous enquiries (requests and complaints) from the public. Of these enquiries, there is one particular group that deserves special attention – *problems or questions regarding water and sewage services treatment.*

The enquiries regarding of the water and sewerage networks are typically characterised by:

- ~~☞~~ the problems are usually acute
- ~~☞~~ the problems can have serious consequences for the public
- ~~☞~~ the informant wants to know the cause of the problem, what Oslo Water will do and when normality is restored

Examples of these problems may be:

- ~~☞~~ no water in the tap
- ~~☞~~ coloured water
- ~~☞~~ smelly water
- ~~☞~~ leakage
- ~~☞~~ low pressure
- ~~☞~~ flooded basements
- ~~☞~~ loose/missing manhole covers
- ~~☞~~ holes in the road
- ~~☞~~ rats

When somebody is left without water, or they are suffering from a major leakage, the treatment of their call is very important. Callers are frequently upset; how they are received and what kind of reply they get means a lot to the individual. The situation is frequently of the kind they remember for a very long time, along with their perception of the help they did – or perhaps did not – receive. There are also particularly vulnerable clients like hospitals, dentists, laundries, breweries etc.

Service in the past

Before year 2000, Oslo Water relied on a “manual system” for following up on enquiries and/or service interrupts. The routines were laborious, a lot of people were involved and information was, naturally, passed in several directions. This information was normally exchanged verbally over the telephone. As situations got hectic it was very easy to forget to inform all relevant parts, or to update the information (base).

Thus the switchboard and customer service centre were often missing the information required to answer a caller, and much time was spent (wasted) looking for updated co-workers who were “in the know”. The quality of customer care and information handling was varied indeed, highly dependent on the personnel on duty and the situation that day.

A reliable flow of information was further complicated by the fact that the employees are working from several “sites” and in a number of different teams/units. The case was therefore more often than not that important information was left on a note on a desk “somewhere”, and not collected in binders or data -files – which would have made it much easier to find it.

When Oslo Water needed statistical information the only way was to make a manual count. But as the background information was incomplete, the resulting statistics were not reliable.

Until the 90s the job of Oslo Water was to deliver water and handle sewage. The wants and needs of the public/customers were not highly regarded, and it was not common to view the consumers as clients – even if they through taxes and other charges were financing the costs.

New needs and requirements

During the 90s the focus on quality and service grew even stronger, even in the public sector. The various administrations of Oslo Municipality have also made it very clear that

“all services provided by the city must be focused on the needs of its inhabitants”.

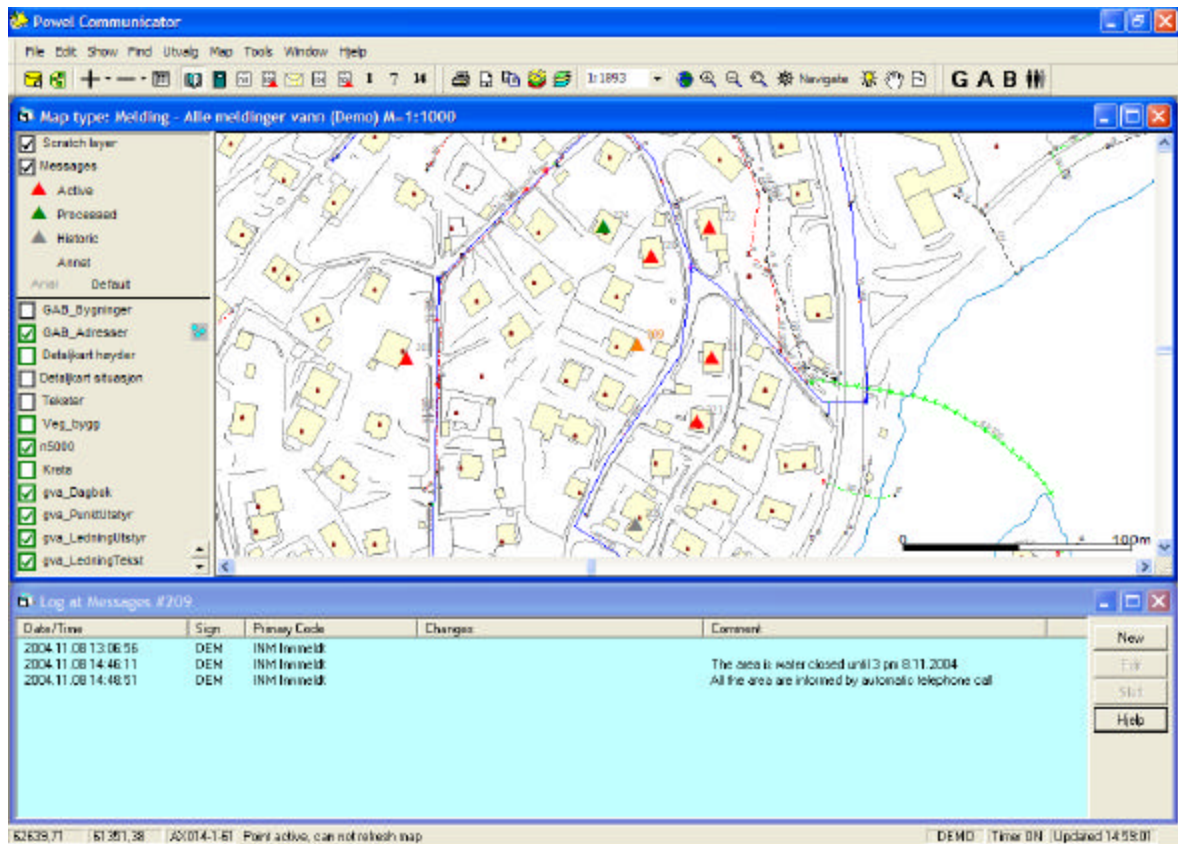
To meet the public’s need for speedy and accurate information, Oslo Water needed a tool to:

- ~~///~~ collect information about events in one place
- ~~///~~ enable flow of information between departments and professions
- ~~///~~ link information to a geographical reference
- ~~///~~ give an easy view of the status of each enquiry
- ~~///~~ identify the problem
- ~~///~~ assign the enquiry to a particular department/section
- ~~///~~ make the information of planned works more efficient and rational
- ~~///~~ read relevant data from other sources (professional data or case information etc)
- ~~///~~ integrate/allow the use of e-mail

In other words, Oslo Water needed a way to ensure that customers got the best information available, regardless of who answered their call.

In our efforts to improve efficiency, Oslo Water also needed the possibility to reduce the information to a system. This is important to identify problem areas, like the number of leakages within a given area, and to follow up how each enquiry is handled. Many leakages within a given area can give us a hint of fx the condition of the pipes.

Figure 1 – All enquiries:



Action

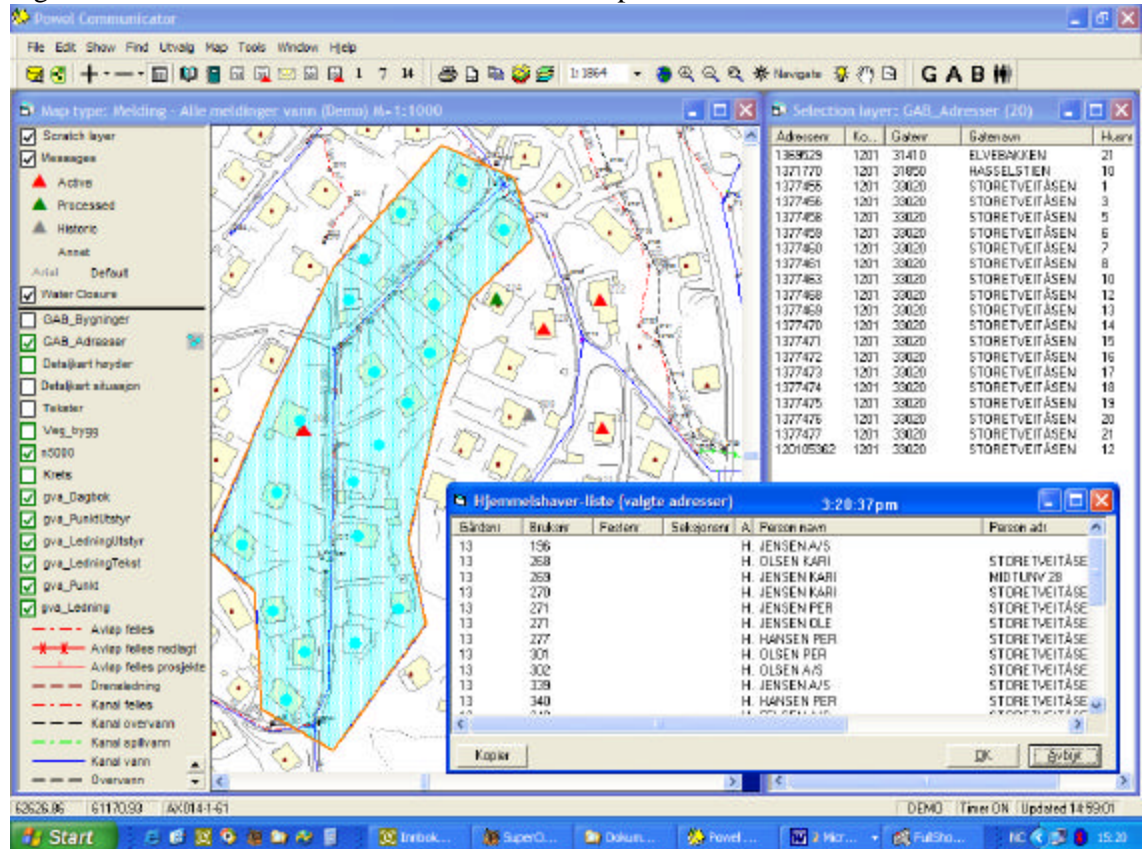
To meet the demands of the public and the requirements of the department, a GIS system was developed where employees could register planned and current work and enquiries from the public. The system, Powel Communicator, was completed and commissioned in 2000.

Powel Communicator integrates professional, real estate- and geographical databases, and establishes its own database for service related information. The objective of the system is to improve the level of service related to a utility's production (water, energy, roads etc), while at the same time improving the quality of public communication. The intention is that whoever receives a message shall be able to give satisfactory feedback, and that both the message and the feedback is stored for future reference and analysis.

Just by looking at the map, personnel can easily browse and spot problem areas. When other enquiries and/or reported work in the area are shown, operators have a very good basis for finding the cause of a problem. In many cases, this allows them to reply to the caller in a way that make further follow-up unnecessary.

In the beginning the system was used by central user-groups like the customer service centre and the emergency duty team and quickly led to an improvement in customer service. As more and more groups started using the system, the level of customer service was significantly improved.

Figure 2 – Water shutoff and selection of affected parts:



Experiences and results

✍ The only negative experience we made was that we tried to implement the system too quickly, without sufficient involvement from the users. There was thus some hostility towards the system in the early days. However, as users learnt to use the system and discovered for themselves how useful and efficient it was, it became needless to push more for correct use. Quite on the contrary, the users keep discovering new possibilities for use of the system.

So; the outcome was very satisfactory, although about two years late!

✍ Keeping routines updated is very important, regarding to what shall be registered and by whom.

✍ The system is also used for statistical information, and is a valuable tool for benchmarking.

✍ The simple fact that a user can *type an address and immediately get an updated view of incidents and works in the surroundings* is a very valuable improvement for the service work of Oslo Water.

The map interface makes it easy for an employee to browse and take a closer

look at a particular area, and find out more about registered occurrences. Even if there is no obvious cause for the problem, the employee immediately can see if something is going on in the surroundings that cause the problem. Or, if it is a new problem, it has to be registered at once. It will then be automatically assigned to the responsible department/section for following up.

Summary

Before year 2000, Oslo Water relied on a “manual system” for following up on enquiries and/or service interrupts. The quality of customer care and information handling was varied, highly dependent on the personnel on duty and the situation that day.

During the 90s the focus on quality and service grew stronger, even in the public sector.

To meet the demands of the public and the requirements of the department, a GIS system was developed where employees could register planned and current work and enquiries from the public. The system, Power Communicator, was completed and commissioned in 2000.

One important lesson was that we tried to implement the system too quickly, without sufficient involvement from the users.

The process of implementation was more demanding than first expected, but the outcome was very satisfactory - although two years after time.