2.3.2 Access to video relay services through the Pocket Interpreter (3G) and Internet (IP)

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Background

The National Post and Telecom Agency (Post- och telestyrelsen, PTS) is the authority that monitors the electronic communications and postal sectors in Sweden. PTS has according to governmental regulations and decisions, an assignment to, through procurement, ensure that the special needs of people with disabilities are satisfied. The Government grants an allowance for this purpose every year to PTS.

PTS procures a number of electronic communications and postal services. Furthermore PTS continuously initiates projects with the aim to test new technologies and new functionality that could support different groups of disabled people.

The technological development and rapid growth of fixed and mobile broadband networks creates new possibilities for people with disabilities. There are two significant trends that PTS has recognized. The first is that more and more services are based on the IP protocol. The second is an increasing demand for services to be mobile. A recent survey in Sweden shows that practically everyone in Sweden has a mobile telephone, senior citizens is the only group where accessibility to mobile telephones is less than 90 %.

The relay service for video telephony has been available in Sweden since 1997. It is primarily used for relaying telephone calls between a deaf person using sign language and a talking person. During the first years, the service was only offered to sign language users via the ISDN network. Since the ISDN network is not widely spread and communication is quite expensive, the number of users was limited. ISDN is no longer a promoted service in Sweden and the number of subscriptions will decline. Today video calls via IP based video and 3G telephones are more used. There is therefore a need to develop the relay service for video telephony to meet the new communication need and trends. Since 2003 PTS has initiated two different development projects, the IP access project and the pocket interpreter.

The IP access project

PTS started the IP access project in 2003. The overall aim of the project was to develop the relay service for video telephony and build a new IP platform that could handle calls to and from different types of video telephones. The IP access project was concluded in August 2006.

Before the incoming calls to the service were handled in different studios at the interpreter centre depending on the video telephone. If the user called from an ISDN telephone the interpreter would go to the ISDN studio and if the user called from an IP based video telephone the interpreter would go instead to the IP studio. This was not an ideal situation and certainly not a scalable solution.

In February 2006 the new IP platform was put into use. Today all incoming calls are handled on the same platform, with the same service quality measures. The studios connected to the service are no longer dedicated to a certain type of video telephone. Another aim of the project was to allow access to the service through a web client. A user with a computer, web camera and a broadband connection can download software for video telephony. This means that the user becomes less dependant on the specific video telephone.

With the new IP platform, a call centre solution has been initiated. Collaborating interpreter centres or companies can now connect their studios to the service and supply interpreter services. The incoming calls are distributed through an automatic call distribution (ACD) mechanism. This gives the relay service flexibility and ability to grow. The dependency on certain interpreter centres and geography is also minimized.

Figure 2.19 describes how the service looks like today with more accessibility for the user (left hand side) and a more flexible and scalable solution with collaborating suppliers of interpreter services (right hand side).

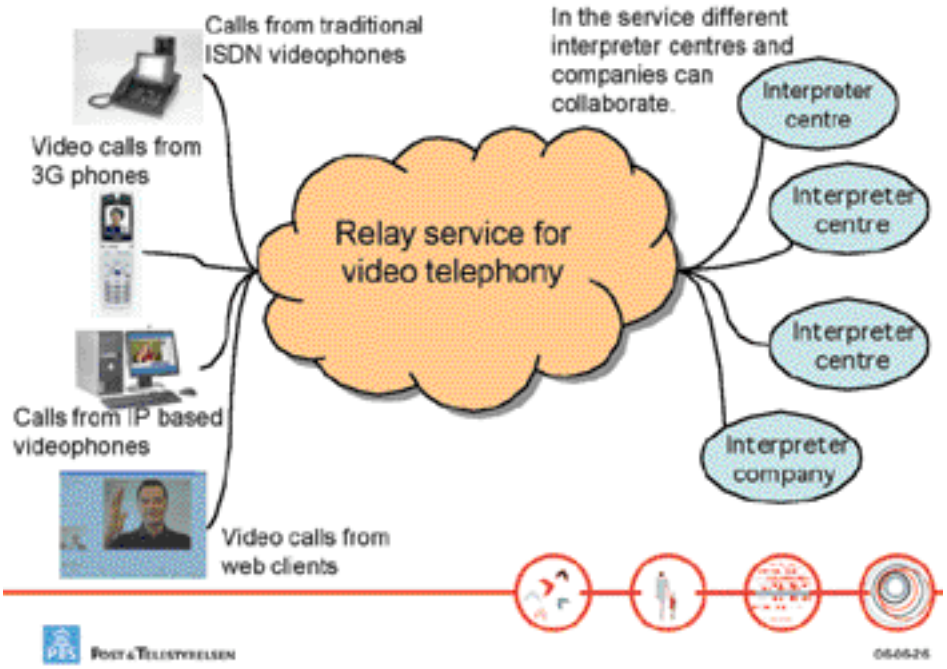

Figure 2.19 Overview of the Relay service for video telephony in Sweden.

The pocket interpreter

In 2004 PTS initiated a trial project called Mobile video communication for people who are deaf. One of the services tested in the trial was distance interpretation and relay of mobile video calls. This mobile application of interpretation services has, among users, been referred to as "the pocket interpreter". The use of 3G is rather extensive among people who are deaf. According to Sveriges Dövas Riksförbund (the Swedish National Association for the deaf) an estimated 4 000 to 6 000 people who are deaf use a 3G telephone, which would represent approximately half of the number of people who are born deaf in Sweden. The conclusion of this trial project was that there is a great demand for this service and there are many potential users of the service.

In order to meet this demand PTS started the development project, the Pocket interpreter, in April 2005. The main objective of the project was to develop methodology and technology for distance interpreting and mediation of mobile video calls (3G) to the new IP platform.

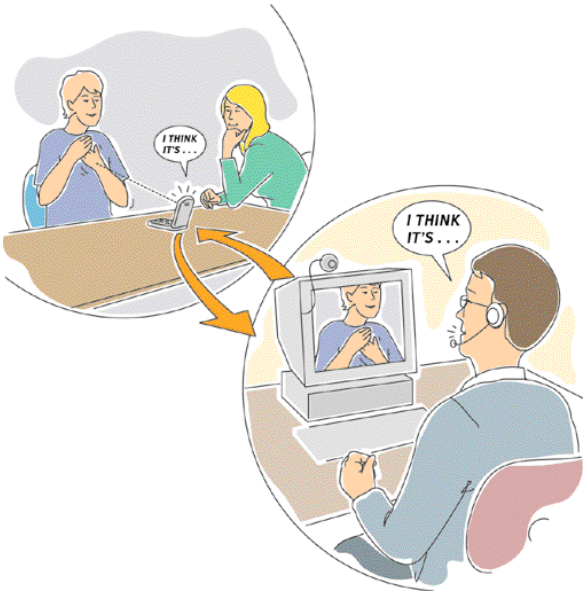

Figure 2.20 The pocket interpreter, distance interpretation via a 3G telephone.

One of the major efforts in the project was to improve the interpreter situation. When the project started the interpreter used the same equipment as in the trial Mobile video communication for people who are deaf. This was an ordinary 3G telephone and the interpreter sat in a specific 3G studio at the interpreter centre. Since February 2006, when the new IP platform was put into operation, mobile video calls were handled in the same platform and in the same manner as any other call to the service. The specific solution and studio is not used anymore.

Figure 2.21 The interpreter studio – from a modified 3G telephone to a multifunctional IP platform.

The number of 3G users in the project was initially limited to 100. In May 2006 new functionality was implemented in the platform so that incoming 3G calls could be distributed through the ACD. This means that more studios can handle incoming 3G calls and that the number of 3G users can increase.

There has been a lot of interest shown in the project and the Pocket interpreter has been demonstrated frequently, for example at the World Summit on Information Society (WSIS) in Tunis in November 2005. The project has also competed in the Stockholm Challenge Award.

The project was concluded in August 2006, but the Pocket interpreter, the mobile access to the relay service for video telephony, lives on.

Conclusion

The development project was finished by the end of August 2006. As a result of these projects, users can now call the video relay service using their 3G telephone, IP based video telephone or web client as well as their traditional ISDN video telephone. The future of the video relay service is that both the service and the user will be less dependant on the specific video telephone. The service will become much more flexible. The number of video calls from mobile telephones and computers connected to Internet is expected to grow rapidly and will create demand on the service resources. The new service platform allows interpreter companies to collaborate as sub contractors which means that more interpreters can handle incoming calls, regardless of geographic location. The future will probably see more of these joint ventures to create national services.