CAPI system at Central Statistical Bureau of Latvia

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Objectives

The purpose of the CAPI system development is to increase the work quality and timeliness of the interviewer section in a sense that data collection can be made easier and faster for the interviewers. As the data is entered directly into a laptop no more data entry is necessary from paper forms, and the data validation procedures are carried out on – site, while interviewing the respondent. The gain of using mobile networks and GPRS is that interviewers are able to send the data virtually any time, for example after receiving the information from every respondent thus making the time from entering the information into the laptop to getting the data to the office very short and diminishing the problem of possible data loss due to some kind of a technical breakdown. Also, the management of interviewers work becomes easier and more straightforward while using CAPI technologies, because of possibility to control the process at any time.

At the beginning of 2004 a pilot project on data collection with 5 interviewers using laptops and Blaise was carried out; 100 respondents were questioned on Labour force survey. In 2005, on May, the development of CAPI system at CSB was started. One person was responsible for developing CAPI system, and two programmers were responsible for developing first questionnaire in Blaise. In December 2005 45 laptops were received, 45 interviewers were trained, and from the January 2006 the data in Labour force survey is being collected by using CAPI technologies. From middle of March 2006, EU – SILC survey data will be collected in this system also. CSB has plans to move all permanent surveys to CAPI environment by the end of 2007.

The system consists of four logical parts:
- Case management system on interviewers' laptops;
- Data transfer system via GPRS;
- Information management at the Office;
- SMS system.

Case management system

Case management system on interviewers laptops consists of two software types – for the data entry of questionnaires specialised data entry software Blaise is used; for the case management a tool developed by CSB programmers is used. When working with a laptop, an interviewer is working with the case management system with several possibilities:

- Receive the data on new surveys (respondent list and questionnaire itself)
- Send the data about surveyed respondents, and the data itself
- Work with received respondent list, surveying respondents

The core case management system is the place where an interviewer can see the respondent list for a survey chosen, with possibilities to set a meeting time for a specific respondent, or to open Blaise questionnaire, to which specific commands are passed to Blaise from case management system and start collecting data. Also, interviewers have possibilities to see the statistics on their work done (how many respondents have responded, how many non response, or how many not yet questioned). Different filtering functions are prepared to ease the work of an interviewer.

Whenever data sending and receiving is taking place, GPRS is used for that – on each of the laptops GRPS card is installed, which is used for connection to service provider. In case of receiving an update of the respondent list, or receiving completely new questionnaire with respondent list, interviewers just have to press one button, enter authorization information and wait for acknowledgement information from the system about successful data receival, or about the failure. Technically, a script is activating GPRS connection on a laptop, connecting to an FTP server at office of CSB, and downloading a password protected zip file, from which upon the recieval

data is extracted and putted in correct place. Some file consistency checks are done in order to be sure that the file is not corrupted.

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When the data is sent from the laptop to our office from point of view of an interviewers it is much the same as in case of receiving the information. Scripts are collecting the needed files to be transferred, zip them in a password protected archive and put on an FTP server at office of CSB.

Information management at the office includes several parts:
- A tool for respondent list separation in portions for each interviewer based on division by territories predefined.
- A tool for archiving of the respondent list part and the questionnaire, and putting that on an FTP server;
- Getting the information sent back by interviewers from FTP server, with possibilities for interviewers' section chiefs see the progress of work on surveying respondents.

Sms system

SMS is short message service. In our case this is like short messages on mobile phones, with this kind of service we can send some instructions and *.doc *.xls files and receive some questions or comments from interviewers. Interviewers can send messages to each other or to CSB responsible person. System is standalone application on interviewer's computers, which use GPRS for data transmission. System was developed to reduce cost on phone calls to interviewers to instruct them. Stand alone solution was choised because, if one of systems brake down we still will have possibility to repair it through another one.

Some other tools and hidden features were developed during system run. For example if interviewer forgot his or her login and password for case management system, we can help them, with special tool keycode is generated on laptop and should be sent to CSB office, at office system administrator will generate the second keycode with which interviewer can reset password to default.

CAPI System in CSB of LATVIA

CSB OFFICE

FTP SERVER

SYSTEM ADMINISTRATOR

BLAISE Questionnaire

Respondents List for:
- Case Management System (CMS)
- for Blaise

Additions to Respondents list

Changes within Respondents list

Any informational messages

FIELD

INTERNET

GPRS

INTERVIEWER

Respondents list from CMS (Status)

BLAISE Data

Any informational messages

2

Login
User:
Password:
Ok   Exit

Close

yes   correct   no

Survey list

exit

yes   correct   no

yes   correct   no

Close

Work chose

Data exchange   Respondent list

yes   correct   no

yes   correct   no

4

Data exchange

Get data   Send data   back

Authorization
connect
get
check
unzip

Export
Zip
Connect
Put

Msg
Ok or Error

Msg
Ok or Error

RS list

Sort
Filter

yes   correct   no

Time   START   Back

Data about respondent
Ok   Cancel

BLAISE

statuss