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STATISTICAL COMMISSION AND
ECONOMIC COMMISSION FOR EUROPEDistr.
GENERALCONFERENCE OF EUROPEAN
STATISTICIANSCES/SEM.43/31
15 February 2000

ENGLISH ONLY

Seminar on integrated statistical information
systems and related matters (ISIS 2000)
(Riga, Latvia, 29-31 May 2000)

Topic IV: Improving data dissemination strategies

**LINK TO THE EUROSTAT COMEXT DATABASE USING THE ISDN CONNECTION
(PILOT PROJECT)**

Contributed paper

Submitted by the Statistical Office of the Republic of Slovenia¹

I. INTRODUCTION

1. The Department for Foreign Trade of the Statistical Office of the Republic of Slovenia (SORS) frequently needs data about foreign trade in Europe and beyond. Eurostat has the COMEXT database which can serve as a base for various queries on this subject. Slovenia has been selected as a pilot country for testing the Integrated Services Digital Network (ISDN) connection to the COMEXT database. The paper contains a short description of the technical solution of the COMEXT link using ISDN connection used at the SORS.

II. THE COMEXT DATABASE

2. COMEXT is the statistical database for external trade and trade among the Member States of the European Union. The statistics on external trade only cover transactions on merchandise, which are sorted according to different nomenclatures (NC, CTCl, NACE-CLIO/D, NST/R).

3. For each type of merchandise listed in one or the other of these classifications, the external trade statistics show:

- the direction of trade flow (import, export and the balance);
- the reference period;
- the reporting country;
- the statistical procedure;
- the partner country;
- the kind of data: a statistical value given in thousands of euros or hundreds of national currency units; quantities are given in tonnes; for some products, quantities may be given in other units (articles, pairs, hectolitres, etc.).

1 Prepared by Miran Miklic.

4. The database covers yearly statistics from 1958 to 1987 and monthly statistics from 1988 to the present.

III. SECURITY ISSUES

5. According to the nature of the data, some **security measures** are needed to ensure that only authorised persons can use the database.

- Security cards and a special card reader are needed. A new solution is with the security calculator, but at the time of writing this paper we have the calculator as hardware, but it is not used due to organisational issues at Eurostat.
- Chap protocol is used on the router.
- Usual USERID/Password for the connection to the database.
- Virtual Network Computing (VNC from AT&T) is used at the communication server. It is, in essence, a remote display system, which allows you to view a computing 'desktop' environment not only on the machine where it is running, but also from anywhere in the organisation.

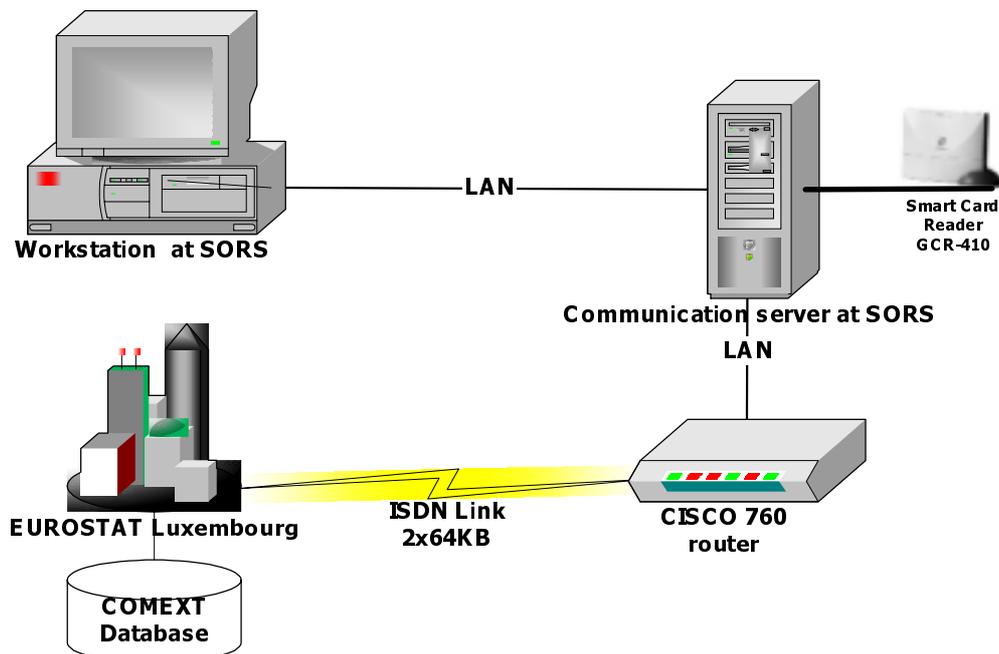
IV. TECHNICAL DESCRIPTION OF THE SOLUTION

6. The user starts up the COMEXT application by using the mouse and icon. While loading, information from the security card is passed to the COMEXT server and if it is correct, the user receives authorisation. The user must then enter the usual USERID/password and if it is correct, he/she can start using the COMEXT program to access the COMEXT database, which is designed as a user-friendly spreadsheet program connected to the database.

7. However, for the user many things are hidden. Firstly, the connection must be established. This is done automatically by router by the traffic addressed to the given TCP address. The router has to exchange information with the router at Eurostat. If the chap password is in order, the connection is established after which the security information from the security card is sent to the server at Eurostat and checked. If all information is correct so far, the user is asked to login with the USERID/password. After a successful login, the user can start using the COMEXT database.

8. In the figure below, we can see the technical solution currently used for the COMEXT link.

Drawing 1: Communication equipment used for the COMEXT Link



9. The application currently runs on the communication server which serves as an interface between the two networks (SORS/EUROSTAT) and not on a PC. The server has two network cards and also a security card is attached to the server. One network card is attached to the SORS network, and the second to the Cisco 760 ISDN router, connected through the dialup lines to EUROSTAT. Traffic between the network card is not allowed. As the COMEXT application is actually running on this server, connection to EUROSTAT is possible, however the user at SORS can see only the screen data through the remote display system VNC. For that reason, the security card must be attached to the communication server and not a user PC. Because the VNC between the user's PC and the communication server is with the LAN, delays are very short. The main reason for using that approach is the distance between the existing ISDN line and the user's office. We can also observe that the traffic between networks is actually impossible. The user can download the data to the local disk of the communication server. From there the data can be saved somewhere else at the LAN or on the local PC. However, only one user can use the system concurrently, but VNC allows others who are authorised, to see the remote screen data.

10. After three minutes of inactivity the line shuts down automatically, usually when the user stops using the COMEXT application. However, if the user is inactive for that amount of time the connection is also cut.

V. CONCLUSIONS

11. For now, the pilot project was successful. At first, the timeout was too short and the line would cut too often due to the inactivity problem. However, the three minute timeout is considered sufficient for the average user. The focus is now on the education of users and filling the COMEXT database with the external trade data for Slovenia.

12. The short-term future plan is to change the security card with the security calculator. The long-term plan is to establish the Virtual Private Network (VPN) with EUROSTAT, which can use existing connections to the Internet, thereby allowing many users to use the system independently.