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**EUROPEAN COMMISSION  
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EUROPEAN COMMUNITIES (EUROSTAT)**

**ORGANISATION FOR ECONOMIC  
COOPERATION AND DEVELOPMENT (OECD)  
STATISTICS DIRECTORATE**

**Joint ECE/Eurostat/OECD Meeting on the Management of Statistical Information Systems (MSIS)**  
(Bratislava, Slovakia, 18-20 April 2005)

Topic (ii): Development strategies for statistical information systems

**IT STRATEGY FROM 2003 TO 2006 AT THE NATIONAL INSTITUTE OF STATISTICS,  
ROMANIA**

**Supporting Paper**

Submitted by the National Institute of Statistics, Romania<sup>1</sup>

**Summary**

**I. BACKGROUND INFORMATION**

1. In Romania, the official statistics is organized and coordinated by the National Institute of Statistics (NIS), a specialized body of the central public administration within the Government and financed by the State budget. The mission of the National Institute of Statistics is to collect, process, analyse, and disseminate the official statistics required to substantiate and evaluate the social and economic strategies, to inform the public, to elaborate scientific research, to transmit statistical data to international bodies and to other internal and external users.
2. One of the major tasks of the NIS is to continue the integration of the Romanian statistical system in the European statistical system, to adopt the "acquis communautaire" in all statistical fields, with a special stress on the quality of the statistical data and on their transparency, on observing the terms for the dissemination of statistical information.
3. One of the topics that is covered is IT Infrastructure. Changes to the IT organization and centrally managed IT department have been proposed. The results should consist in an optimal use of resources and in avoiding duplication of efforts within the decentralized entities of the NIS.
4. The whole IT infrastructure (servers, workstations, network, e-mail, Internet access) of the NIS should be compatible with the one used within Eurostat, with a view to promptly meeting the increasing amount of data requirements from all the statistical fields.

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## II. CURRENT SITUATION

5. An overview of the current situation focuses on the following:

- The current organization and structure;
- The main activities and services [and main user groups] provided;
- The main IT infrastructure currently deployed;
- An assessment of current strengths and weaknesses of IT within NIS.

6. The major findings can be summarized as follows:

- ✓ Duplication of IT effort;
- ✓ The IT function is dispersed throughout the NIS. This means that there is no unity of management;
- ✓ Some of the equipment is outdated by as much as three generations. This includes servers, workstations and other hardware, as well as operating systems;
- ✓ At present the NIS does not have a centralized anti-virus solution to check internet traffic and secure itself from virus attacks via internet;
- ✓ No standard corporate desktop exists throughout the NIS. This leads to major challenges with the upgrading of business applications and deployment of new software.

## III. OBJECTIVES

7. The strategic objectives can be defined as follows:

- To create a sound IT department within the National Institute of Statistics that can contribute to meeting the goals of the Institute;
- To strengthen the capacity of the NIS to absorb technological information by improving the control of a unified, consolidated IT department with regard to IT infrastructure, purchased software packages and development;
- To build a future IT infrastructure, complying with the two objectives mentioned above.

8. The objectives in the short and medium term must be seen in the light of the strategic objectives, and are a first step towards the target IT system:

- Investment in a network: the network is the central element, enabling infrastructure to provide a better communication within the NIS and with the outside world. It will enable a better management of the infrastructure, more flexible communications between the different entities and a better dissemination of the information;
- The WAN links all decentralized entities of the NIS with the headquarters. It is presently provided by a 33 kbps VPN over the Internet. This bandwidth is very small and only enables the communication of limited volumes of data through e-mail. The new system will have to provide at least a 128 kbps channel between the headquarters and each decentralised location. Further studies will have to check whether more bandwidth will be necessary for more important locations, like some regional centres;
- The present LAN of the NIS Headquarters is based on 2 FDDI rings as the backbone, with 10 Mbps Ethernet access. The FDDI technology is now obsolete, and it is nearly impossible to buy additional equipment. Furthermore, the capacity of the backbone is now insufficient and cannot be upgraded. The network has to be replaced by a new fully Ethernet-based network with more capacity and better upgrading possibilities;
- Internet access infrastructure:
  - Internet Connection  
The present connection to the Internet is a 128 kbps channel. It has to be upgraded to a 256 kbps bandwidth connection, to provide enough capacity for the whole Institute, including the decentralized offices. This Internet access needs to be established exclusively in the headquarters, and it has to be strictly controlled to avoid security problems, like hacking or viruses. The decentralized offices will gain access to that facility through the WAN of the

Institute and any direct access from the decentralized offices to the Internet should be strictly banned.

➤ Firewalls

The single point of access should be protected by a firewall infrastructure (with DMZ). Skilled personnel should tightly control the firewall infrastructure. There are currently 3 firewalls within the NIS inventory. They should be assessed (hardware capacity, currency of the software etc.) and corrective actions should be taken if necessary.

➤ Proxy and Cache

This part of the access infrastructure keeps the most frequently used pages on a local server, thereby reducing the use of the communication channel.

• Anti-virus

- Nowadays, most viruses are propagated through the Internet (e-mail, infected web pages etc). The NIS has to establish an anti-virus system, to check the Internet traffic, and to check the contents of the servers and workstations.

#### **IV. OPTIONS FOR FURTHER DEVELOPMENT**

9. The target IT department of the National Institute of Statistics, regrouping the dispersed resources, needs considerable technical assistance to make the transition from a mostly techno-centric entity, focused on providing support to the different departments, to a business-centric organization, focused on reaching the strategic objectives of the NIS.

10. Within the framework of such a technical assistance contract, the following services should be provided:

- Management guidance for the IT department, so as to allow a smooth reorganization of the recentralized IT department;
- Development of a sound Systems Management Infrastructure, aiming to re-gain management and control;
- IT training for the IT staff to enable them to deal with their new higher-level responsibilities.

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