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**EVALUATION OF CURRENT
MIS CAPABILITY**

MUNICIPALITY OF VIDIN

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Prepared by

Tassos Belessis
ICMA
Washington, DC

Emil Savov
MTK Konsult
Sofia, Bulgaria

under subcontract to

The Urban Institute



THE URBAN INSTITUTE
2100 M Street, NW
Washington, DC 20037
(202) 833-7200
www.urban.org

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EVALUATION OF CURRENT MIS CAPABILITY

MUNICIPALITY OF VIDIN

INTRODUCTION

The Municipality of Vidin is one of the ten pilot municipalities in USAID's Local Government Initiative (LGI). In this capacity, Vidin has received technical assistance and training in the areas of management information systems (MIS), municipal administration, and media relations. The municipal administration recognizes the need for instituting reforms at the local government level, and views the LGI as an effective mechanism for assistance in this area. Vidin also wishes to participate in the LGI grant program to acquire needed assistance for its computerization plans as part of its desire to improve municipal administration and financial management.

Vidin officials identified two priority areas for technical assistance: improving the handling and control of municipal expenditures, and automation of financial reporting by its cost centers. Furthermore, Vidin officials wish to focus on improving urban service delivery (IR 2.3.2) and have indicated that the most appropriate use for the grant funds would be the purchase of computer hardware and software to support the above-mentioned areas for technical assistance.

The assistance program for Vidin has been structured as follows:

- Program: Enhancing Financial Management
 - Project 1: Improvement of municipal expenditure administration
 - Project 2: Development of management information system for the Finance Department

The purpose of this report is to document the work performed by ICMA and MTKK consultants in the Municipality of Vidin with respect to the development of the municipality's MIS capacity.

OBJECTIVES OF THE PROGRAM

The following are the overall objectives to be accomplished by the LGI team for Project 2:

- Assess current status of computerization,
- Identify and prioritize hardware needs,
- Examine software currently available to perform financial management tasks,
- Develop specifications for software by functional area,
- Assist with the procurement of software and hardware,
- Identify initial function to be automated, and implement pilot project in municipal finance office and three functional units of municipality, linking them electronically,
- Train appropriate staff on the use of computers and software,

- Establish safeguards and institute security policies in the municipal information system, and
- Hold a workshop, in conjunction with Rouse and Razgrad initiatives, to facilitate the dissemination of MIS/automation information and findings to other LGI participants

ASSESSMENT OF MANAGEMENT INFORMATION SYSTEMS CAPABILITIES

The initial assessment of information systems and data-processing capabilities in the Municipality of Vidin provided the following findings

- The municipality has a history of computer systems use spanning several years
- For an organization of its size and resources, the level of computerization is poor
- Many municipal functions that require data processing use computers in some fashion
- Most of the application software is provided by other governing bodies
- The level of functionality of the various application software is very limited
- Computer hardware is outdated and does not meet functional requirements

The following sections contain a complete review of the information systems and technology capabilities in the Municipality of Vidin

Hardware, Operating Systems, and Communications

Inventory Review

The Municipality of Vidin has a total of twenty-two (22) PC computers installed and one Macintosh (Mac), including the servers for the Local Area Networks (LANs). Ten (10) of these computers are attached to Local Area Networks, the rest are stand-alone machines.

The municipal LAN runs on Novell Netware version 3.11, Linux, and OSC Open Server (not yet installed) operating systems with thin coaxial cabling. Most workstations run DOS version 6.xx operating system, with only a few workstations running on DOS-Windows 3.xx environment.

Intranet communication is not available through the internal e-mail. External data communication capabilities and Internet access are available through dial-up access with one modem and regular telephone lines, but are not yet installed for regular use. This facility will allow for file transfer and external electronic mail exchange.

Table 1
Municipality of Vidin—Computer Hardware

Hardware	Department	OS*	LAN	RAM (MB)	HDD (MB)	Monitor	FDD	Printer/Type
386	ESGRAON	DOS	Yes	4	80	Color	5 25	No
386	ESGRAON	DOS	Yes	4	80	Color	5 25	No
486SX	ESGRAON	DOS,Win	Yes	4	210	Mono	3 5	Hundai HDP 910
x86	ESGRAON	DOS	No	4	10	Color	5 25	No
386SX	ESGRAON	DOS,Win	Yes	4	110	Mono	3 5	No
386	Urban Development	DOS	Yes	4	80	Color	5 25	Hundai HDP 910
x86	Urban Development	DOS	No	4	10	Mono	5 25	No
386	Urban Development	DOS,Win	Yes	4	80	Color	5 25	Epson LQ100
386	Urban Development	DOS	No	4	80	Color	5 25	No
486DX/66	Urban Development	DOS,Win	Yes	4	210	Color	3 5	No
486SX	Accounting	DOS,Win	Yes	4	210	Mono	3 5	Hundai HDP 910
386	Accounting	DOS	Yes	4	80	Color	5 25	No
386	Accounting	DOS	Yes	4	80	Color	5 25	No
286	Archive	DOS	No	4	40	Mono	5 25	No
486DX	Human resource	DOS,Win	No	4	210	Color	3 5	Epson ProXL
486DX/66	IT Dept	DOS,Win	No	4	540	Mono	3 5	No
x86	Secretary	DOS	No	4	10	Mono	5 25	Hundai HDP 910
x86	Secretary	DOS	No	4	10	Mono	5 25	No
x86	Lawers	DOS	No	4	10	Mono	5 25	Epson LQ100
x86	Cashier	DOS	No	4	10	Mono	5 25	Epson LQ100
286	Not in use	DOS	No	2	40	Color	5 25	No

**

Notes

* OS - Operating System

** One more Macintosh for connection to BBS with modem and application software

In terms of functional distribution, the computer equipment in the municipality is highly concentrated in the administrative functions

Application Software

Overview

Many of the existing software applications have been provided by external central government organizations, such as the Ministry of Finance (SOMB for budget execution) and the Ministry of Regional Development and Construction (ESGRAON for Civil Registration). Other applications have been acquired by the municipality from local vendors, such as Soft Informatika (Delovodstvo for Documentation Tracking System).

All available applications software are character-based and run on a DOS operating system. Personal productivity tools such as word processing, spreadsheets, and similar programs run mostly on DOS, and very few run on Windows environment.

These applications have been developed using a variety of languages and tools, including dBase, Clipper, and Btrieve. Table 2 on the next page shows a list of all the application software available in the municipality.

System Administration Procedures

Backup and Restore

The hardware infrastructure does not include any backup/restore devices, and there are no special backup/restore procedures in place. Backups are performed using floppy disks (3.5" diskettes) and occur at one level. This level of backup responsibility is in the hands of the users and occasionally in the hands of IT Managers. They are supposed to backup files that have experienced changes during the day. This procedure, however, is not enforced by the IS Manager.

Security and Controls

Security and control devices and procedures are limited. The network servers are located in different rooms that are also used as regular offices. The rooms have no special environmental controls and no fire control equipment is available. Controlled access is implemented at the software level. Users logon into the network with user IDs and personal passwords.

Server Housing

The municipality has a small computer room where the network server is located. The room is also used as the office of the Network and Information System manager. The room is very small (approximately 12 square meters) and also houses computer equipment that is under



Table 2
Municipality of Vidin—Application Software

Name	Main Functionality	Operating System	Network Ready	Developer	Source Code
<i>BDJ</i>	Budget preparation system	DOS 6 2	No	IT Center MOF	No
<i>OI</i>	Contracts for municipal properties rents	DOS 6 2	No	ITM - Rouse	No
<i>DIMOT</i>	Creating acts for municipal estates	DOS 6 2	No	CIPPS	No
Building Manager	System for evaluation of work for construction purposes—grouping data	DOS 3 30	No	EK+ (Local developer)	No
<i>Naemi /Rentals</i>	DBMS—contracts for Rentals of municipal lodgings	DOS 6 2	No	Local developer	No
GTI*	Check up of lodging ownership for single family	DOS 6 2	No	self developed	Yes
<i>Delovodstvo</i>	Documentation tracking system	DOS 6 2	Yes	Soft Informatika	No
<i>JVSS</i>	Processing information on people with housing-savings in HousingSavingsBank	DOS 6 2	No	SoftInformatika	No
Kadri*	Human resource system—orders, labor contracts and s o	DOS 6 2	Yes	IT Manger	Yes
ESGRAON	Civil registration system	DOS 6 2	Yes	CIPPS	No
TRZ	Payroll software system	DOS 6 2	No	IT Center MOF	No
Accounting	Accounting system	DOS 6 2	Yes	Local developer	No
SOMB	Budget execution	DOS 6 2	No	IT Center MOF	No
Norma	Software for county legal issues	DOS 6 2	Yes	Norma Ltd	No
UCAD	Cadaster software (currently running on rented Pentium computers)	DOS 6 2	No	Decart AVI	No

Notes

CIPPS Central Institute for Programming Products and Systems

Software application names in *italics* are out of use because of either lack of workstations or lack of will to be used

repair, maintenance, or configuration An external telephone line is also available in this room
When necessary, the room is made available for a data-entry operator

Other Issues

Hardware and software maintenance and support are provided mostly by the IS Manager
When necessary, the MIS Manager acts as the contact person for maintenance and support

provided by external entities, mostly the government agencies that provide the application software used in the municipality. The network servers are not protected against power outage by an Uninterrupted Power Supply (UPS) unit. Despite the fact that smoking is allowed in most offices, except at the offices of the Civil Registration Department, fire control equipment is not available.

Network Software/Systems

Network Software

- **Novell 3.11** There are two separate networks using this software—four workstations for the Urban Development Department and two workstations for the ESGRAON Department. The number of workstations for the Urban Development Department will need to be increased.
- **Linux** This network operating system is for the network in the Accounting Department. As this system has some disadvantages, the municipality is willing to replace it.
- **SCO Open Server Plus Wollongong's Path Way** This software was used by the municipality in 1994, but due to some problems with its installation, it is now out of use. The system has many advantages and the municipality is willing to use it in the near future.
- **Cabling system** The municipality's building is 16 floors, of which 8 are occupied by the municipal administration. The cabling system is built with thin coaxial cable and is on 7 out of the 8 floors.

COMPUTER CAPABILITIES OF MUNICIPAL STAFF

The Municipality of Vidin has (according to our survey) 109 employees, of which 20 have a computer available on their desk. Although the average number of years experience with computers of users is 2.5, most of them have not had any computer training, particularly those at the low end of the spectrum. Most of the training has been provided as "on-the-job-training".

As a result, the municipality's computer users have limited and very focused expertise in some specific software applications. For example, personnel at the Civil Registration Department are highly proficient in the use of the ESGRAON computer system, personnel at the Accounting Department are very familiar with the Accounting System, and so forth. The staff has been using application software that is very basic in terms of functionality and also very stable. Very few people have knowledge of applications out of the scope of their regular work. This is the case for example of word processors, spreadsheets and similar PC software and productivity tools. Some of these tools might even be available, but they are not widely used. One reason seems to be the limited hardware resources, particularly printers, but the lack of training is also evident.

The municipality has currently two information technology specialists. The MIS staff takes care of all hardware, software and related issues, including hardware installation, minor repairs, software support, and users training.