

**The Republic of North Macedonia**  
**Government of the Republic of North Macedonia**  
**Ministry of Justice**

**STRATEGY**

**FOR INFORMATION COMMUNICATION TECHNOLOGY OF JUSTICE SECTOR**

**FOR 2019 - 2024**

**(REVISED STRATEGY)**

**SKOPJE**

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## Acronyms:

RNM Republic of North Macedonia

MoJ Ministry of Justice

JS Justice System

ICT Information Communication Technology

IS Information system

EU European Union

SCRNM Supreme Court of the Republic of North Macedonia

JCRNM Judicial Council of the Republic of North Macedonia

PPO Public Prosecutor's Office

PS Penitentiary System

PPORNM Public Prosecutor's Office of the Republic of North Macedonia

PI Penitentiary Institutions

ACCMIS Automated Court Case Management Information System

IT Information Technology

BCMS – Business continuity system management

IP Internet Protocol

VPN Virtual Private Network

WAN Wide Area Network

LAN Local Area Network

LDBIS Legal Database Information System

MPLS Multiprotocol Layer for Commutation

HDSL High Digital Subscribe Line

Kbps Kilobytes per second - Measure for flow capacity

Mbps Megabytes per second - Measure for flow capacity

CMS Public Prosecutor's Office Case Management System

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## 1. Introduction

During the last decade the increased development of information technology resulted in the fact that today it is integrated in nearly every facet of the Macedonian judicial system.

Computerisation of key stakeholders in judiciary, as expected, is constantly developing in recent years, mainly by introduction of case management system for courts and Public Prosecutor offices, system for accounting and budgeting, development of court's websites and equipment of some of the courts with audio recording hardware and software, system for audio-video recording of hearings in prosecution offices with enhanced jurisdiction ).

All these activities are conducted under the patronage of Ministry of Justice, the Supreme Court and the Judicial Council.

Key stake holders within judicial system are:

- Ministry of Justice of the Republic of North Macedonia
- Judicial Council of the Republic of North Macedonia
- Council of Public Prosecutors
- Supreme Court of Republic of North Macedonia and courts
- Public Prosecutor's Office
- Directorate for Enforcement of Sanctions
- Academy for Judges and Public Prosecutors
- Public notaries Chamber
- Bailiffs Chamber
- Bar Chamber

IT strategy is needed for ensuring the following:

- Insight and understanding of limitations under which institution act
- Keppeng the key resources within the institutions
- Effective implementation of IT procurement and avoiding technological fragmentation

- Design of IT applications in consistent way which will decrease technological diversity and will ensure interoperability
- Consolidation of IT functionalities with business requirements of all relevant stakeholders
- Appropriate level of security from attacks and disaster recovery

IT strategy must not be static since it goes through its life cycle and it needs to be changed and consolidated with business requirements and new technologies in order to increase efficiency of processes. Although, in the long term, the existence of strategic guidelines and standards alone, without the close cooperation and commitment of the management and users of IT system to common aims, does not guarantee sustainable development in this field.

Strategy for Information and Communication technology of Justice Sector for period of 2019- 2024 (further in document: Strategy) is a result of mutual effort of representatives of the Ministry of Justice, courts, Judicial Council, Public Prosecutor Office, Academy for the training of Judges and Public Prosecutor Office, Bar Chamber, Public Notaries Chamber, as well as representatives of bailiffs and mediators. This document represents vision and aspiration of the judicial system of the RNM in the field of IT, and concrete measures and activities will be addressed in the Action plan.

### **1.1. Vision**

The vision of the ICT Strategy is a centralized data system of the judicial system in the Republic of North Macedonia

### **1.2. Mission**

The introduction of a centralized data system will lead to increased efficiency, transparency and accountability of information systems in the judiciary.

By implementing of ICT solutions and systems in accordance with European and international standards, the aim will be to increase accessibility, timeliness and easy use of justice services for all users, to improve data quality, protection and security, and to cooperate with other justice systems, the institutions of the European Union, its Member States and international organizations.

### **1.3. The role of the information and communication technologies in the judiciary**

Information technology cannot replace the basic activity of the judiciary – adjudication; however, it offers several advantages:

- Improvement in access to justice, by improving business procedures and practices which will lead to minimizing delays
- Improvement in efficiency of judicial bodies and its employees, (by accelerating processes such as data entry, easier file tracking, automatic generation of frequent documents using templates, access to data which is needed in proceedings from external registers, easier access and analysis of data related to individual proceedings)
- Strengthening of transparency, public trust and confidence of citizens in judiciary (online access to all justice related information, offering web services such as information on state of court proceeding, court decisions, communication realized through e-filing of briefs and lawsuits)

The use of information and communication technologies can have many positive effects on the judiciary; however its effectiveness and applicability of ICT depends mostly on key stakeholders of judiciary.

#### **1.4. Key factors of success**

Success in implementation of ICT strategy depends on following key components:

- technical components: ensuring adequate infrastructure, choice of architecture and technologies used,
- institutional components: introduction of centralized governance of ICT in judiciary, by providing of appropriate human resources
- organizational components
- Reorganization and strengthening of human resources capacities in all institutions that will then be able to adequately support all processes in the judiciary
- financial resources: planning and ensuring adequate financial resources, as well as applying for donors funding
- business components: clearly defined business objectives, a plan for measuring and achieving these objectives and the setting-up of a system for the continuous monitoring of the success of the project on the basis of measurable indicators;
- regulatory components: compliance with regulations in force, proposals for adjustments and amendments to the regulations.

Comprehensive IT strategy and development of management resources is needed, otherwise, the justice system will be facing with several challenges:

- Information system as whole is threatened to become intertwined architecture with many isolated segments and poor mutual connectivity
- Non existing common vision of the IS, which leads to misunderstanding and conflicts between different systems and internal organisation units
- Interoperability and communication between applications and/or services still have a lot of space for improvement
- Data consistency is not ensured (ex. high quality business reporting is currently developed on basic level)
- Implementation of new applications and/or services is complicated and lengthy
- More professionals who would ensure support to application and infrastructural portfolio are needed
- Due to the complexity of systems, and the variety of technologies applied in different software solutions, expenses are complex, which can lead to increasing of total cost of IT in judiciary.

## **2. The justice system in the Republic of North Macedonia**

### **2.1. Organisation of the justice system in the RNM**

The justice system of the Republic of North Macedonia consists of the following stakeholders:

- Ministry of Justice of the Republic of North Macedonia;
- Judicial Council of the Republic of North Macedonia;
- Supreme Court of the Republic of North Macedonia
- courts ( High administrative Court, courts of appeals, Administrative court, basic courts);
- Public Prosecutors Council;
- Public Prosecutor's Office ( High Public Prosecutor's Office, Basic Public Prosecutor's offices, Basic Public Prosecutor's Office for prosecution of corruption and organized crime.);

- Academy of Judges and Public Prosecutors;
- Notary Chamber;
- Bailiffs Chamber
- Bar Chamber

## **The Ministry of Justice**

### **The Ministry of Justice performs tasks related to the:**

- judiciary, public prosecution, public attorney, criminal and misdemeanour liability,
- state administration;
- notary affairs,
- advocacy and other types of legal assistance,
- inheritance, ownership, real rights and obligation relations,
- international legal assistance,
- enforcement of the sanctions for criminal acts and misdemeanors,
- management of the penal - correctional and education- correctional institutions, amnesty and pardons,
- court expertise, expertise and super- expertise,
- the election system , keeping records of the voting right,
- criminal, misdemeanour, litigation, extrajudicial procedure , enforcement and administrative procedure, administrative supervision

Performing other tasks that do not fall under the competence of another state administration body; and perform other tasks defined by law.

Within the MoJ, Sector for ICT is established. This sector performs duties within the scope of work of the MoJ and the branch offices of the Ministry, pertaining to information and communication technologies.

## **THE PENITENTIARY SYSTEM**

The penitentiary system (composed of prison and probation system) in the Republic of North Macedonia, is set in a horizontal and vertical link, as a single and complete system of penitentiary institutions, as well as probation offices, for the area of the basic courts with extended competence. The process of enforcement of sanctions is within the competence of the Directorate for Enforcement of Sanctions.

The prison sentences are enforced in 11 penitentiary institutions (3 penal institutions and 8 prisons) and 2 correctional- educational institutions where the measure of sending to a correctional institution is There are no IT employees in DES and PI.

## **THE JUDICIAL COUNCIL OF THE REPUBLIC OF NORTH MACEDONIA**

The Judicial Council of the Republic of North Macedonia is autonomous and independent body of the judiciary that ensures and guarantees the autonomy and independence of the judicial authority. Its basic competence is the election and discharge of judges as well as monitoring and evaluating work of judges and courts. Two people for IT support are employed within JCRNM.

## **THE SUPREME COURT OF THE REPUBLIC OF NORTH MACEDONIA**

In accordance with the Constitution, judicial power is exercised by Supreme Court of the Republic of North Macedonia, High Administrative Court, courts of appeal, Administrative Court and the basic courts. According to the latest data, in courts of the Republic of North Macedonia, 546 judges and 2,362 civil servants are employed.

The Supreme Court of the Republic of North Macedonia is the highest court in the state which ensures unified implementation of laws by courts in their decisions.

In the Supreme Court of the Republic of North Macedonia, a Center for Informatics is established, where all hardware and software equipment in the field of ICT is located for smooth functioning of the Supreme Court of the RNM, while some of the equipment is intended for the courts of the Republic of Macedonia and the SSRM (ie the Supreme Court of the Republic of Macedonia hosts centralized databases and certain applications, and users of these applications are all courts of the RNM and the Judicial Council of the Republic of North Macedonia).

In addition, at the Center for Informatics, there are certain centralized databases, centralized functionalities, centralized exchange of data with external institutions etc., which are intended for smooth operation of all courts of the Republic of North Macedonia.

## **HIGH ADMINISTRATIVE COURT OF THE REPUBLIC OF NORTH MACEDONIA**

High administrative court is a second instance court. It is competent to decide on the appeals against the decisions of Administrative court.

## **APPELATE COURTS**

Currently there are 4 courts of appeals in : Skopje, Štip, Bitola and Gostivar. In the RNM there are 27 basic courts. They are established as courts with basic competence and

courts with extended competence. The Basic Court Skopje I is established as a solely criminal court, while the Basic Court Skopje II, is a solely civil court.

## **THE ADMINISTRATIVE COURT OF THE REPUBLIC OF NORTH MACEDONIA**

The Administrative Court of the Republic of Macedonia - decides in administrative disputes on the legality of the acts of bodies of the state administration, the Government, other state authorities, the municipalities and the City of Skopje, organisations established by law, and of legal and other entities in the performance of public competences, when deciding on the rights and obligations in individual administrative matters, as well as on the acts adopted in the minor offence procedure.

## **THE COUNCIL OF PUBLIC PROSECUTORS**

The Council of Public Prosecutors is an autonomous and independent body of the judiciary which ensures autonomy of public prosecutors, while exercising their competences and functions.

It has no IT support employees, and all support regarding this area is provided by PPORN. It is to be stated that the Council is a secondary beneficiary of the budget of the PPO of the RNM so, every investment in ICT at this point, would go through the PPORN.

## **THE PUBLIC PROSECUTION OFFICE OF THE REPUBLIC OF NORTH MACEDONIA**

The Public Prosecutor's Office is single and autonomous state body prosecuting the perpetrators of criminal and other legally defined punishable offences. The function of the PPO is carried out by the Public Prosecutor of the Republic of North Macedonia and the public prosecutors.

According to the existing law, 4 Higher Public Prosecutor's Offices are established, which act before appellate courts in: Bitola, Gostivar, Skopje and Štip. Basic Public Prosecutor's Office for prosecuting corruption and organized crime is established for all territory of RNM and is located in Skopje.

Regarding Basic public prosecutor's offices, there are 22 PPO's in the Republic of North Macedonia, which act before one or more basic courts. None of the Basic PPO's have person dedicated for IT support employed.

## **THE ACADEMY FOR JUDGES AND PUBLIC PROSECUTORS**

The Academy for Training of Judges and Prosecutors as a public institution carries out selection, organisation and implementation of initial training of the candidates for judges and prosecutors in the basic courts, that is, basic public prosecutor's offices and

a constant professional advancement of judges and public prosecutors and court and public prosecution clerks.

## **THE NOTARY IN THE REPUBLIC OF NORTH MACEDONIA**

The notary profession is an autonomous, professional, unbiased and independent service carrying out tasks of public authorities based on law.

## **ENFORCEMENT AGENTS (BAILIFFS)**

Bailiffs are persons with public authority defined by law who undertake actions in order to enforce decisions. The Law on Enforcement, which is in force, in Article 41. paragraph 2., which prescribes obligation for electronic connection of state administration bodies with bailiffs (bailiffs should, without compensation, have access to data from different registers).

## **THE BAR**

The Bar is an autonomous and independent public service which only provides and renders legal assistance to natural and legal persons in the exercise and protection of their rights and legally based interests in procedures before courts, state authorities and other legal entities.

## **THE MEDIATORS**

Mediators are natural persons who participate in the mediation procedure, accepted by the parties in the dispute in order to solve the dispute by signing an agreement based on their interests.

### **3. General analysis and assessment of the current condition**

#### **3.1. Current situation within the Ministry of Justice**

Pursuant to Article 99 of the Law on Courts ("Official Gazette of the Republic of Macedonia", no.58/06 of 11.05.2006), a single information centre is established within the Ministry of Justice with a database for all justice authorities and organs.

The Ministry of Justice provides for the setup, maintenance, and functioning of the information system on a single methodological and technological basis.

**The Information Centre** is organised as a Sector for ICT and performs tasks from the sphere of competence of the Ministry of Justice, which are related to the information

technology. The sector employs 9 people who are engaged in every aspect of information support to the MoJ and the Ministry's regional offices.

The tasks of the Sector are carried out through:

- Unit for development and applications support,
- Unit for technical support and
- Unit for management of documents and regulations

## **Infrastructure**

Regarding the Ministry's IT hardware, at the Ministry of Justice, there are the servers for active directory for maintenance of users profiles directories of the employees, email collaboration servers, where the mailboxes for the MoJ employees and branch offices are stored, the new web portal servers and the new LDBIS, along with the data storage system, the Probation System equipment (servers, communication equipment and uninterruptible power supplies). Outdated server equipment is also present, which is partially unusable.

Other IT equipment, consisting of workstations, printers and scanners is at an unsatisfactory level, the desktop environment is reduced to newer operating systems (Windows 7, 10)

There is also an Independent Local Area Network (LAN) in the MoJ buildings / MoJ's IT Center.

In terms of equipment and communication equipment, the branch offices are at a low level, with outdated and unusable equipment, without any connection to the Ministry of Justice / IT Center.

## **SOFTWARE**

**Applications used in the IT Centre of the MP are as follows:**

- LDBIS – Legal database of laws and regulations
- Web-portal of the Ministry
- Registry of court experts
- Registry of court translators
- Registry of advocates
- Web-portal of the Agency for Management of Seized Property

- Probation system of the Directorate for Enforcement of Sanctions and other

In the premises of the **Directorate for Enforcement of Sanctions (DES)** the hardware equipment in the building of the Ministry is also out dated, partially unusable and with very poor resources, whereas the hardware equipment for the Probation system, located in the premises of the IT Centre, is rather new and according to the current standards.

In terms of the other equipment in the penitentiary institutions, starting with the local area networks, servers and working stations, they are in a very bad condition. In other words, they are out dated, defective, with poor resources. There is no standardised and uniform manner of keeping records in the prison facilities, and there is no electronic communication whatsoever (exchange of statistical data) with the DES, which is located within the Ministry of Justice.

### **3.1.2. Current condition in the courts and in the Judicial Council of the Republic of North Macedonia**

#### **The Supreme Court of the Republic of North Macedonia**

Pursuant to Article 99 of the Law on the Courts, at the Supreme Court of the RNM, an IT center with a database on the Judicial Information System has been established. The IT Center employs 4 people who perform the following activities for smooth operation of all courts in the Republic of North Macedonia:

- Hosting, administrating, monitoring, and backing up the centralised databases in which all courts in the RNM enter and update data: central nomenclature databases, e-delivery database of court documents, criminal records database, database of published court decisions on the web portals of the courts,
- Centralised backup of the ACCMIS databases of all courts in the RNM,
- Centralised management of the devices for protection, centralised management of the network devices in all courts in the RNM,
- Centralised service for exchange of data for the bankruptcy trustees with the Central Registry of the RNM intended for the courts in the RNM in charge of bankruptcy proceedings,
- Centralised hosting of the court web portal and the webpages of all courts in the RNM,
- Establishing a procedure for reporting problems,
- Planning and participating in development of ICT projects intended for all courts in the RNM,

- Submitting a plan to the Judicial Budget Council for the necessary funds for: maintaining the ICT equipment, replacement of the out-dated equipment (20% each year), with a new one
  - preparation of technical specifications, implementation of centralized public procurements for maintenance of the implemented ICT projects intended for all courts of the Republic of North Macedonia and participation in their realization
  - participation in the work of the "Working Body for Standardization of Procedures in the Courts" chaired by the President of the Supreme Court of the RNM, etc.
- The courts have services for information technology, as separate organisational units (with 1-2 IT people employed). It should be noted that although there are sufficient staff to support information processes, lack of coordination and professional training has led to under-utilization of IT personnel .

## **INFRASTRUCTURE**

Regarding the hardware and system infrastructure, 17 servers purchased in the period from 2007 to 2014 were installed in the Center for Informatics of the SCRM, which are still in use.

In 2015, servers, storage systems, Firewall devices, centralized backup / restore systems, UPS devices, switches, virtualization platforms, Microsoft operating systems licenses, etc. were purchased and installed.

Within the project, Disaster Recovery (DR) location was established in the new building of the Basic Court Skopje1 Skopje, through 10 GB redundant network infrastructure.

Active and passive network equipment is quite outdated, while the other equipment (computers, printers, scanners), has been updated in 2018.

## **COURTS**

In general, current situation in courts regarding hardware technology is out dated and defective; there is a lack of Personal Computers and existing ones are with poor capacities, and are not able to support software solutions used in courts, which results in ill functioning of all supported processes.

Critical situation is also noted regarding servers (poor capacities, no servers for data storage, nor for ACCMIS database and FEMIDA audio recording system – recordings are kept on local PC`s and are transferred to CD`s).

Interoperability equipment from the IPA project has been delivered to the Basic Court Skopje 1 and Skopje 2, and to the Basic Court Skopje 1 and at the Administrative Court, interoperability equipment from the government project has been delivered. Due to lack of conditions by the courts, interoperability in these courts has never come to life.

## **Software**

### **ACCMIS (Automated Court Case Management Information System) (2009)**

The three-layer architecture (Database Server, Application Server, Client part) developed with the software tool DELPHI, works on a Microsoft Win Server 2008 R2 platform, Microsoft SQL Server 2008 and is installed in each court in the RM. The application keeps a complete record of the judicial proceedings from the receipt of writs, automatic distribution of cases to judges, to the archiving of each case. The basic data for the cases of each court and all documents generated during the judicial proceedings are entered into the local ACCMIS databases located in each court in the RNM. For the needs of ACCMIS, in the IT Centre in the Supreme Court of the RNM, a central database is hosted with nomenclature data for advocates, notaries, bailiffs, mediators, bankruptcy trustees, courts, countries, municipalities, nationalities, education, etc., which is replicated in the local ACCMIS databases in the courts.

### **E-delivery system for court documents (2012)**

Hosted by IT Centre in the Supreme Court of the RNM, system for e-delivery of court documents uses public certificates for identification of the registered users and it is in the first stage of implementation. It includes delivery of court documents (subpoena, judgements, decisions, various acts, etc.) from the courts to the registered users.

Each court delivers the documents via ACCMIS applications to the e-mailboxes of the users that are hosted in the IT Centre of the Supreme Court of the RNM. Once the users identify themselves with a digital certificate and log in with user name and password can see the received documents. The delivery of court documents is considered to be successfully completed in line with the deadlines prescribed by law. In 2015, all hardware-software components of the system located in the IT Centre in the Supreme Court of the RNM, were backed up on a spare location in the Basic Court Skopje 1 in order to ensure a stable, highly available, reliable and secure e-delivery system for court documents.

### **Case Law of the Supreme Court of the Republic of North Macedonia (2013)**

The case law of the Supreme Court of the Republic of North Macedonia represents more important decisions of the Supreme Court of the Republic of North Macedonia from the penal area, the civil area and the field of trial within a reasonable time, as well as the basic views and principal legal opinions adopted by the General Session of the Supreme Court of RNM.

The web application works on IBM Lotus Domino platform for publishing more important decisions of the four appellate courts, including the judgments of the ECtHR against the Republic of North Macedonia.

#### **Unique electronic database for criminal records (2014)**

Hosted by IT Centre in the Supreme Court of the RM a unique electronic database for all persons convicted for crimes committed on the territory of the Republic of North Macedonia, as well as for the persons convicted for crimes by foreign courts is established.

#### **Exchange of data for the bankruptcy trustees with the Central Registry of the Republic of North Macedonia (2015)**

Hosted by IT Centre in the Supreme Court of the RNM, interconnectivity with the Central Registry of the RNM for electronic exchange and update of data on the bankruptcy trustees is established.

For that purpose, a service that on a daily basis takes over the data on the appointment and dismissal of bankruptcy trustees from the local ACCMIS databases in the courts that are competent for bankruptcy procedures was launched.

#### **Court portal and web pages of the courts in the Republic of North Macedonia (2015)**

In the IT Center of the Supreme Court of the Republic of North Macedonia, a new web portal [www.sud.mk](http://www.sud.mk) (a specially designed web site with information from various sources in a single way) is hosted for all courts in the country and the Judicial Council of the Republic of North Macedonia.

It allows automatic upload of finished and anonymised court decisions via ACCMIS and publishing them on the webpage of each court individually, enabling many search opportunities according to different parameters and keywords.

#### **Exchange of data between courts and prosecution offices in the Republic of North Macedonia (2018)**

At the IT Center of the Supreme Court of the Republic of North Macedonia an interconnection link is established with the PPO of the Republic of North Macedonia, for electronic data exchange.

A service is launched that downloads data on daily basis: ( request for protection of legality, request for opinion / suggestions, invitations, decisions and other writs) from local ACCMIS court databases.

### **Exchange of data between the courts and the Official Gazette of the Republic of North Macedonia (2019)**

In the Informatics Center of the Supreme Court of the Republic of North Macedonia an interconnection is established with the Official Gazette of the Republic of North Macedonia for the purpose of electronic data exchange.

A service is launched that downloads data daily on court announcements for bankruptcy filings, political party registration, etc. from local ACCMIS court databases.

### **JUDICIAL COUNCIL OF THE REPUBLIC OF NORTH MACEDONIA (JCRNM)**

#### **Infrastructure**

Regarding hardware, the condition with the servers is critical, since they were purchased more than 5 years ago. Regarding working stations, JCRNM is in better condition than other institutions (most of the computers were purchased in 2015.)

#### **Software**

Regarding software solutions, in JCRNM several applications are used. Most of them are connected to management and control of work of the courts and of judges:

#### **Register of judges**

Updated electronic files for judges, reports on monitoring the work of judges and courts, evaluation module, and module for candidate lists for judges and presidents of courts.

#### **Court control**

Enables possibility of checking the work of judges and presidents of courts in several manners, as well as controls related to the automatic distribution of cases;

#### **Court statistics**

Enables possibility to create different types of statistical reports, but due to insufficient training for the JCRNM employees, the capacities of this application are minimally used;

#### **JCMIS (adapted version of the ACCMIS for the needs of the Judicial Council of the RNM)**

Module of ACCMIS used for the work upon complaints, currently out of use because the competence for acting upon complainits was taken away);

## **ABMS (Automated Budget Management System)**

Application for material-financial operation, personal records, personal income, records of the fixed assets and budget operation of all courts in the Republic of North Macedonia are recorded via the software application ABMS which was installed on one or several workstations in each court. The central database is hosted in the Judicial Council of the RNM, and the courts fill and update it with the necessary data.

### **3.3. Current condition in the Council of Public Prosecutor's and Public Prosecutor's Offices in the Republic of North Macedonia**

The Public Prosecution Office of the RNM currently has one person for IT support employed. The Higher PPOs do not have in their systematization a separate unit for IT support; the staff is employed within existing organisational units. There is no IT staff in any basic prosecution office. The RNM Public Prosecutor's Office provides IT support to the remaining prosecution offices and to the Council of the Public Prosecutors as the Council of Public Prosecutors does not have any IT staff, nor is this position provided by the new systematization.

#### **Infrastructure**

The current condition of PPO hardware in the desktop environment is satisfactory, except in the Council of the Public Prosecutors, where the hardware used by the administration is obsolete, and which is more than 10 years old. The whole (active and passive) network is set up in 2014, the technology (operating systems) are relatively new. Storage capacities are at a satisfactory level. The Public Prosecutor's Office of the RNM does not have a data backup system regarding the centralized Case Management System.

#### **Software**

The Public Prosecution Office of the Republic of North Macedonia with all higher and basic prosecution offices implemented the Case Management System in the public prosecution offices. The system allows keeping files electronically, so for each case there is an electronic folder that contains all relevant documents for the case. The electronic folder of the case is created by registering the case by the registers who enter all the necessary information.

This system allows to search the unique database for natural persons and legal entities that are relevant for the case.

Interconnection with the courts is also possible through developed web-based document exchange services, which is in initial phase.

## **FEMIDA**

FEMIDA is a specialized technical system for audio and video recording of interrogations in the basic PPOs with extended jurisdiction (12 prosecution offices) and The Basic PPO for Prosecuting Organized Crime and Corruption. The FEMIDA system consists of hardware and software components (there are 19 locations where recording is enabled, at 5 locations in BPPO Skopje and three locations in the BPPO for POCC, and the remaining 11 in the other PO's.)

### **B-Office – software for material and financial operations**

This application supports internal material and financial processes through several modules. Operations supported by this solution are, among others: calculation and payment of salaries, fees and allowances to the salaries of public prosecutors, public prosecutor administration and other employees in the PPOs who don't have a status of public prosecutor administration as well as record of financial commitments and payments.

### **3.5. The current condition in the Academy for Judges and Public Prosecutors**

IT support consists of two persons ensuring the needs and demands of IT systems within the Academy are met.

#### **Infrastructure**

Current condition of hardware is on satisfactory level; there are 3 servers with virtual machines containing the applications and database. Also, there is a backup server for data backup on daily basis .

### **3.5. Current situation in the Notary Chamber of the Republic of North Macedonia**

In accordance with the provisions of Articles 117 and 182 of the Law on the Notary Public (Official Gazette of the Republic of Macedonia No. 72/2016 and 142/2016), a Central Electronic Notary Archive is also envisaged, in accordance with the Law on Notary and the Rulebook on the type, content, form , and the manner of keeping the acts, registries, books and registries of the notary public, the auxiliary books, the manner of receiving and storing notary public documents and securities and their issuance and retrieval, the manner of keeping and renewing notary public records and documents, the manner of archiving and organizing of archiving, as well as taking of

other formal actions, a web applications is envisaged running on the electronic register / records of wills and electronic register / records on authorizations by the Notary Chamber of the RNM.

#### **Software:**

##### **• Central electronic notary archive**

It is a software solution for automatic downloading the daily copies of the notary office and Notary Chamber servers, in accordance with the laws and bylaws and keeping them in a central place. The data of each notary office are isolated from the other notary offices.

**Web applications** for keeping electronic records of:

- electronic register/ records of wills
- electronic records/register of powers of attorney

The development of a **new webpage of the Notary Chamber** is in its final stage.

##### **• Notarius 3**

Notary registries and stamps are incorporated into this software.

### **3.6. Current condition in the Enforcement Agents Bar (Bailiffs)**

There is no centralized system for data storage.

All computer equipment is at a low level with no suitable conditions for its maintenance.

Sharing folders on workstations and on server has been done. The passive network is in poor condition with limited bandwidth of 100 Mbps.

#### **Software**

The Web Site of the Chamber of Enforcement Agents (<http://kirm.mk>)

### **3.7. Current condition in the Bar Chamber**

The Bar Chamber is outsourcing the IT support and the same company is responsible for the development and maintenance of the software applications Register and Advocato, as well as the maintenance and support to the network infrastructure, server and workstations. The hardware and network are at fairly low level.

#### **Software**

- Lawyer Registry - software for internal records of lawyers, law offices and associations
- Advokato ([www.advokato.mk](http://www.advokato.mk)) - a web-based solution for lawyers and law associations.
- Official website of the Bar Chamber ([www.mba.org.mk](http://www.mba.org.mk))

### 3.8. Main conclusions and findings of current condition

Main issues and findings, grouped in main fields of ICT strategy, which should be addressed in this document, are shown in the following table and described further as development priorities:

Strategy field	Conclusions	What to do
<b>ICT governance, organization and processes</b>	Fragmented responsibility for ICT from structural and organisational point of view. No ownership system has been established at the strategic, operational and maintenance levels	Establishing of centralized body for ICT governance, which will have responsibility of setting future direction and priorities when it comes to ICT in the judiciary
<b>Institutional Continuity and Disaster Recovery</b>	Lack of a second location for systems in case of disaster (in case of force majeure, fire, earthquake, etc.)	A comprehensive system of institutional continuity management should be introduced
<b>Formal security procedures and policies</b>	Lack of unified security policy (fragmented across segments)	A comprehensive security policy (identity management and confidential and undeniable communication between the system and its users) should be introduced.
<b>Field of architecture</b>	<b>Conclusions</b>	<b>What to do</b>
<b>IT applications</b>	Fragmented architecture, too many individual applications without proper integration, leading to duplication of data and problems with retrieving	Identify and upgrade the mainstream applications of the judiciary at the modern level. Integration between systems to ensure data entry savings based on the principle: "enter once, use

	the same data	multiple times"
<b>Data management</b>	Business reporting is organized through applications without a single centralized data storage	Strengthen reporting capacity and management by developing and introducing a data storage model that will ensure integration of all data sources. Accordingly, to introduce a business intelligence tool that will enable standardized reporting with a high level of data quality
<b>Hardware, systems and platforms for data storage</b>	Insufficient, outdated, without proper support	Procurement, installation and configuration of standardized equipment in all involved institutions
<b>Network and communication</b>	Networking and communication are at a satisfactory level in some institutions, while in others, there is an urgent need for upgrading.	Analysis, consolidation and upgrading of the LAN / WAN network which should enable stability and high availability of systems coupled with a satisfactory level of capacity and speed of network connections

#### **4. ICT development priorities according to the main findings**

##### **4.1. CONTINUOUS PRIORITIES**

###### **4.1.1. IMPLEMENTING OF ICT STRATEGY 2019 - 2024**

The ICT strategy in the judiciary must be continuously monitored in order to effectively implement the foreseen activities. That competence will be in the hands of the ICT Council, which will be able to oversee the revision of the Strategy and Action Plan, according to identified needs.

###### **4.1.2. REORGANIZATION AND OPTIMIZATION OF ICT SECTORS IN THE JUDICIAL BODIES**

The reorganization and optimization of the ICT sectors in the judiciary should ensure efficient fulfillment of the sector's obligations and tasks, which is a prerequisite for the smooth functioning of the ICT in the judiciary. To this end, new IT personnel must be hired, upgrades must be made to existing staff, and a continuous training of IT staff in all institutions of the judiciary must be made.

## **4.2. SHORT-TERM PRIORITIES**

### **4.2.1 COUNCIL FOR COORDINATION OF INFORMATION-COMMUNICATION TECHNOLOGY IN THE JUDICIAL BODIES (ICT COUNCIL)**

The main problem that the Republic of North Macedonia is facing with in terms of ICT in the judiciary, is that IT activities in the judiciary are uncoordinated because ownership at strategic level is not established. Formal coordination / management is the key to IT alignment.

In view of the reorganization of ICT in the judiciary, it is proposed to establish **an ICT Coordination Council in the judiciary (ICT Council)**.

**The main task** of the ICT Council in the judiciary will be to planning and realization of the needs of the judicial institutions. The functioning of the ICT Council shall be defined by the adoption of a by-law on the manner and composition of the ICT Council, in accordance with the Law on Courts. Members of the ICT Council for judiciary of the Republic of North Macedonia will be nominated by all relevant judicial institutions.

The ICT Council for the judiciary will have the following tasks:

- Continuous monitoring of the implementation of the ICT Strategy in the judiciary and the Action Plan; Proposing a revision of the ICT Strategy in the Judiciary and the Action Plan;
- Defining and implementing ICT policies in the judiciary;
- Ensuring compliance with other government ICT development policies;
- Regularly monitor the progress of projects and evaluate their effects;
- Establishing internal communication to improve the day-to-day activities of the ICT staff in the judiciary;
- Continuous education and training for upgrading ICT staff knowledge.

**4.2.2. HARDWARE EQUIPMENT** (workstations, servers, printers, scanners, audio and video equipment, etc.), active and passive network

Given the fact that in all justice institutions, equipment (hardware and network infrastructure) is outdated, it is necessary to replace existing outdated hardware equipment. It is necessary to adopt a plan for continuous and sustainable upgrade in the future, ie a phased approach that will replace 20-25% of equipment each year according to standards and norms for this type of replacement.

#### **4.2.3. INFORMATION SYSTEMS**

Centralization and integration of information systems is needed, which means integrating existing systems and building new ones, if necessary, to cover the judicial process.

An integrated system of management of penitentiary institutions (IPMS) is planned to meet the needs of the Administration for Execution of Sanctions (MIS) and the corresponding penitentiary institutions. Implementation of a new integrated information management system for the Council of Public Prosecutors.

- Centralized penitentiary system - integrating all PIs and CEIs, Offices within the Probation Service and MIS to exchange data between themselves and other judicial institutions.
- System for the Council of Public Prosecutors - introduction of a new integrated information management system.
- Procurement and implementation of a web solution for e-mail for the needs of the judiciary (ISSRM)

### **4.3. MEDIUM-TERM PRIORITIES (2020-2022)**

#### **4.3.1. INFORMATION SYSTEMS**

Adequate further development of information systems in the judiciary requires their centralization and proper use. It is necessary to avoid the variety of software solutions.

One of the main problems is the obsolescence and diversity of systems that do not meet current needs that need to be further revised to existing processes and procedures, which means they need to be replaced with new and improved versions that should be centralized, integrated and modern systems:

- **Integrated automated court information system**
- **E-Archive** - development and implementation of a software solution for electronic archiving and digitization of existing archives

- **Data storage solution** with business intelligence tools for accessing, viewing, processing and analyzing data from various sources
- **CMS - Case Management System** - Analysis and upgrading of the Case Management System (Case Management System)
- **JDBIS** - Integrated Judicial Practice System and Database in the RNM - Installation and configuration, migration (where not possible, implementation of various application integration mechanisms), training and production. All judicial and academic institutions, as well as the NGOs and the public sector.
- **CENTRALIZED WEB PORTAL** - will provide electronic services to citizens, chambers of attorneys, notaries, mediators and enforcement agents, as well as international institutions.

#### **4.3.2 FORMAL POLICIES AND PROCEDURES FOR INSTITUTIONAL CONTINUITY**

Institutional continuity is a framework for identifying and dealing with potential risks, both internal and external, in an institution.

The purpose of institutional continuity is to enable the organization to respond effectively to threats such as natural disasters or data loss and to protect the business interests of the organization.

A comprehensive business continuity management system should be introduced. It should enable:

- extension of key business processes to an alternative location,
- continuity of the key functions of the alternative site for production, using instant access while the information application is restarted,
- rebuilding of critical technology components as well as information applications at alternative locations,
- defining a set of activities that will be performed during known and predefined events (an example of such an occurrence is fire),
- handling events that have a far-reaching impact on the organization.

#### **4.3.3. FORMAL SECURITY POLICIES AND PROCEDURES**

An important aspect that should be incorporated in any judicial institution is security. Due to the sensitivity of the work environment in the judicial institutions, referring to

the sensitivity of the systems, data and their users, the level of security should be at its highest .

With regard to the security of judicial institutions, it is necessary to define appropriate policies and procedures that will be developed in accordance with security standards.

Procedures and policies should cover all aspects in the field of security, ranging from physical security, system security, their communication and end-user security.

A key factor in security is raising awareness for security in general, by providing continuous trainings in all judicial institutions.

#### **4.4. LONG-TERM PRIORITIES (2019-2024)**

##### **4.4.1. INTEROPERABILITY**

The introduction of the interoperability platform as a long-term priority in the judicial institutions enables connectivity of all institutions, faster data exchange, data exchange security, data availability, more efficient work of the institutions themselves and more efficient and faster service to the end users.

With the development and / or upgrading of the IS (information system) in the judiciary, one of the main things that should be incorporated in the new IS architecture is interoperability (information systems architecture should support all identified interoperability and communication patterns between applications).

In this regard, the following aspects should be addressed:

- regulatory framework for interoperability in the judiciary,
- the organizations involved should formalize the terms of cooperation in interoperability agreements,
- at the organizational level, interoperability agreements can be in the form of service level agreements that provide for the obligations of each party involved,
- on a semantic level, interoperability agreements in the form of reference taxonomies, schemes, codes, data dictionaries, sectoral libraries, etc.,
- on a technical level, interoperability agreements together with interface specifications, communication protocols, message specifications, data format, security specifications,
- compliance with already developed and adopted standards, as well as interoperability procedures,

- purchased, installed and configured equipment,
- organized training, installation and implementation,
- defined, developed and delivered web services to the institutions through the interoperability system.

## **5. FINANCING SOURCES**

### **1) FINANCING OF PRIORITIES FROM DOMESTIC SOURCES**

The necessary funds for the development of ICT in the judicial institutions in the Republic of North Macedonia, ie for the implementation of the ICT Strategy in the judiciary, will be provided by the competent institutions for their implementation within their budgets for each fiscal year.

### **2) FINANCING OF PRIORITIES FROM FOREIGN DONATIONS**

#### **Financing sources:**

- IPA funds
- CADSES REGIONAL PROGRAM
- CORDIS REGIONAL PROGRAM
- EU TAIEX PROGRAM
- DIPLOMATIC-CONSULAR MISSIONS IN THE REPUBLIC OF NORTH MACEDONIA
- USAID
- WORLD BANK
- UNDP
- OSCE
- EAR

THE CONCRETE MEASURES AND ACTIVITIES ARE ENVISAGED IN THE ACTION PLAN (ANNEX 1 TO THE STRATEGY) ".