MINISTRY OF JUSTICE – REPUBLIC OF SERBIA

IT DEVELOPMENT GUIDELINES IN JUSTICE SECTOR

– FINAL –

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1 Introduction

In past ten years, IT Sector of Ministry of Justice, now IT Department, has invested great efforts in standardization and process automation in the judicial authorities, through the introduction and implementation of modern information systems. The process was complex and laborious, but the results were satisfactory. Today, with the adopted Action Plan for Chapter 23 for accession the European Union, it became apparent that ICT was a key factor in the success of other candidate countries, while neighboring countries can follow the example of those Member States of the European Union, whose ICT model is the most appropriate, not only in terms of simplicity and efficiency, but also with a budget that relies primarily on large and strategic donor projects, as well as their own national budgets.

As an example of highly developed ICT judicial system, we can get the Austrian judicial system, which contains a little less than 30 different information systems, whose main feature is a system called the Electronic legal communication. This communication system was shown in the early 1990s, but the option of full electronic communication was introduced at the end of the last century. This system has proven to be successful with significant savings in time, money and manpower and this (Austrian) justice system is due to that fact often cited as one of the leaders in the field of ICT in the judiciary. The established system and infrastructure bring with them the introduction of different software / hardware which, contribute to the quality of service. General public information shall be submitted in one place, where citizens can, in addition to access to the general organization of the judiciary, learn about the organization of the Department of Justice, be informed about their cases, applied case law, read news, or to subscribe to the newsletter.

The Austrian experience in the field of ICT jobs in the judiciary has served as a model for some countries of the West Balkans that are candidates for EU accession. Their experience shows that a centralized organization for managing all the needs in the field of ICT and related employees in the judiciary is a great solution. Austrian central ICT department of Justice is a great model of how the Department of ICT in the Serbian judiciary, should look like.

This document was created as a result of the activities set in the Action Plan for Chapter 23. Respecting the rules and standards of the profession, the document is based on the proposal of the ICT strategy of the Ministry of Justice and Public Administration for 2013-2018, but also takes into account any findings made so far documents, such as Functional review of Justice Sector (by World Bank) and analysis of the case management system (USAID).

Activities 1.2.1.2, 1.3.6.7 and 1.3.8.3. Action Plan for Chapter 23, are defined as follows:

Develop guidelines that define the directions of development (conceptual model) of ICT in the judiciary system of the Republic of Serbia on the basis of Functional review of the judiciary, as well as analysis of the current situation (activity 1.2.1.1, 1.3.6.6, and 1.3.8.2), which includes ICT infrastructure and costs of its maintenance, software and human resources (the same activity 1.3.6.9. and 1.3.8.3.).

1.1 Mission

Develop effective ICT support to the judiciary institutions, which enables efficient, transparent and smooth functioning of the justice sector, through guidelines that define the overall direction of development and application of ICT in the judiciary system.

1.2 Vision

On the principle "ICT as a service" 'focus deployment on the professionalization of ICT employees, maximizing quality while optimizing budget funds and donors using the following goals and methods:

1) Orientation on services with the aim of focusing on customer requirements,
2) The professionalism with the aim of continuous improvement and enhancement of human resources,
3) Unification of achieving equal levels of quality of service for all users,
4) Consolidation efficiency in providing services to customers.

2 Principles

Definition of principles are from vital importance for strategic development of ICT in Justice sector.

2.1 General Principles

2.1.1 Principle 1: Compliance of ICT and Business

ICT department makes decision with aim to create maximum value. This principle means "service above all else". Decisions based on the needs of the organization as a whole, long-term yields higher value than the decisions based on the needs of individual groups with specific interests. This principle, however, should not prevent anyone to perform tasks and activities.

The alignment of ICT with the processes in the Justice Sector requiring changes in the planning and management of information. Technology alone is not sufficient to promote such changes.

Implications:

- ICT Department should initiate response and availability indicators,
- Some areas may have to give up their specific preferences,
- Priorities for the development of information systems must be established at the level of the Justice Sector,
- If new needs occur, priorities must be adjusted proportionately.

2.1.2 Principle 2: Maximum Benefit with Reduced Costs and Risks

Strategic decisions for the selection of ICT systems must always seek to maximize the value closed at the lowest level of long-term risk and lowest cost. The decision should not be based solely on achieving lower costs. Every strategic decision must be assessed on the basis of cost, risk and value, and quality that brings. Lower costs often represent a higher risk and lower value added tax, or lower quality.

2.1.3 Principle 3: Business Continuity

Everyday activities in Justice Sector must be maintained, despite interruptions in the work of the ICT system. When the system operations become inseparable from the business process, users become addicted to them. Therefore, the reliability must be considered of such systems during their preparation and usage. Hardware failure, natural disasters, loss of data integrity should not interrupt daily activities. ICT system must also be designed to be able to use alternative mechanisms for delivering information.

Implications:

- The possibility of recovery, redundancy and maintenance of ICT systems must be taken into account from the beginning,
- Software applications must be assessed in terms of criticality and impact on a given mission to determine the required level of continuity and that the appropriate recovery plan should be implemented.

2.1.4 Principle 4: Compliance with the Standards and Policies

ICT Department must take into account that the activities on the development of ICT must be consistent with all applicable laws and ICT, standards and other legal regulations. This does not prevent the implementation of new processes or improving existing ones, leading to the change of standards and regulations.

2.1.5 Principle 5: The Best Practices Adoption of from the Market

ICT activities must always make these aligned with the best market practices in the Justice Sector. ICT Department must always seek to adopt best practices, and to follow the same strategy to improve efficiency through increased service quality. ICT Department must guide the planning of all projects and contracts on service level agreement (SLA), to progressively shorter deadlines and increasing quality.

Implications:

- The processes must be documented and measurable using established metrics,
- There must be a global risk assessment, focused on "zero dismissal", as well as records of incidents and events,
- ICT management should be focused on indicators and program perspective,
- Qualification and motivation of staff must constantly increase,
- Established and adopted ICT architecture must be effectively applied to projects.

2.1.6 Principle 6: ICT Department responsibility

ICT Department is responsible for possession and use of ICT processes and infrastructure that enables information systems meet the requirements that are defined by users in terms of functionality and service levels.

Implications:

- The business process must be introduced that will determine the priorities in terms of projects,
- Management of ICT Department must define processes that will achieve the expectations of the Justice Sector.

2.1.7 Principle 7: Protection of Intellectual Property

Intellectual Property in the ICT system must be protected. The need for such protection must be reflected, and more specifically in the ICT architecture, as well as in the processes of implementation and management of ICT systems.

Implications:

- Protection of intellectual property rights is an obligation for all, but the real protection is mainly in the domain of ICT Department. Even processes that are not in the domain of ICT system, it can be controlled via the process of ICT (e-mail, mandatory notification, etc.)
- It is necessary to define the safety policy, according to SRPS / ISO standards, which will be guided by all the actors (lead personnel) that can significantly improve the protection of intellectual property rights.

2.2 Data Management Principles

2.2.1 Principle 8: Data represent recourse

Data are a value resource to the Justice Sector and managed like any other resource.

The data are a valuable resource, they have a real and measurable value. Accurate, timely information is essential for accurate, timely decisions. Data form the basis for decision-making, so we have to manage the data carefully to ensure that you always know exactly where they are, that we can rely on their accuracy and that we can get them when and where we need them.

Implications:

- To evaluate the data as a resource, it is necessary that there is a task of education through which will ensure that everyone understands the connection between the value of data, dissemination and accessibility of data,
- Data Managers must have the power and resources to manage data for which they are responsible,
- Part of the role of data manager which manages the data is to ensure their quality,
- Assessment of the quality of data must be introduced and actions must be taken to improve data quality.

2.2.2 Principle 9: Sharing the Data

Users have access to the data they need in carrying out their tasks; therefore, the data is shared among organizational units within the judicial authorities, but also between the judiciary and other state institutions, or at the very least and with citizens.

Timely access to accurate information is essential for improving the quality and efficiency of decision-making. It is cheaper to keep up to date, accurate data in a single information system and then spread them, rather than maintain duplicate data in multiple information systems. Justice Sector holds a wealth of data, but they are kept in hundreds of incompatible databases. Data collection speed, creation, transfer and assimilation of data depends on the organization's ability to effectively spread the "islands" of data throughout the organization.

Information exchanged in electronic form will become even more effective when it is possible to use existing data entities, to create a new entity without re-entering data.

Implications:

- To facilitate the expansion and joint use of data, common set of policies, procedures and standards must be developed which regulate the management of and access to data in the short and long term,
- In the short period of time, in order to protect the significant investment in outdated systems, it must be invested in ICT solutions which can be transferred data from the legacy systems into a common data environment (shared data).
- In the long period of time, when old systems are replaced, they must adopt and implement a common policy approach to the data to ensure that data in new information systems remain available to shared environment and that data in a shared environment can also be used in new information systems,
- AS for the short term and for the long term, common methods and tools for creating, storing and providing access to data must adopted that is shared by the whole of the Justice Sector.

2.2.3 Principle 10: Availability of Data

Data are available to the uses in carrying out their daily duties. A wide access to the data leads to increased efficiency and effectiveness in decision-making and allows timely response to requests for access to data and services. Using data should be viewed from the perspective of the Justice Sector whose interest is to allow access to a wide range of different users. This saves work time of employees, and furthers the consistency of the data.

Implications:

- Accessibility indicates how users easily obtain information,
- The manner in which you have access and view information must be sufficiently flexible to meet a wide range of users and their access methods,
- Access to data does not include the understanding of the data. Users must take into account the interpretation of data,

- The access to data does not have to, at the same time mean, that the user is granted the right to change or disclose the data. This will require an educational process and changes in organizational culture that currently supports the idea that some judicial authorities have "ownership" of the data.

2.2.4 Principle 11: Common Glossary of Terms and Definitions of Data

The data is consistently defined across the Justice Sector and definitions are understandable and accessible to all users.

The data that will be used in information systems need to have a common definition across the Justice Sector to allow joint use of data. The common glossary will facilitate communication and enable the effectiveness of the dialogue. In addition, you need a system to interface and exchange data among information systems.

Implications:

- An initial common glossary for business activities must established,
- Identified definitions will be uniformly used across the Justice Sector,
- Whenever there is a need for a new definition of data, work on the definition will be coordinated and harmonized with the glossary of data description. The coordination of this work will be in charge of the ICT Department of the Ministry of Justice.
- It is necessary to coordinate the many different initiatives in terms of standardization of data,
- They must be assigned responsibility for a functioning administration data.

2.2.5 Principle 12: Data Security

Data is protected from unauthorized use or disclosure. In addition to the traditional aspects of the classification on the basis of national security, the security of data includes, without limitation, the protection of information prior to making decisions that are sensitive, protected and confidential.

Open dissemination of information and the disclosure of information in accordance with the relevant legislation must be harmonized with the need to limit the availability of secret, confidential and sensitive information. Existing laws and regulations require the protection of national security and privacy, while still allowing free and open access. Preliminary information (information that is currently under consideration in the decision making process, whose publication is not allowed) must be protected in order to avoid unfounded speculation, misinterpretation and inappropriate use.

Implications:

- The data aggregation, classified and unclassified, requires the development of procedures for the audit and de-classification in order to ensure adequate control over them,
- Owners and/or functional users of data have to decide whether the data aggregation lead to an increase in the level of classification and data protection,
- To review and de-classification will take the appropriate policies and procedures. The policy that would restrict access to the data solely on the information that an individual has to know (Need to know policy) will require regular reviews of the whole corpus of information,
- It should reconsider the current practice of using separate systems that contain different data classification,
- Currently, the only way that these two types of data is combined is to unclassified data transfer into a classified system, where they have to stay.

2.3 Application Principles

2.3.1 Principle 13: Easy to use

Information systems are easy to use. The basic technology used is transparent to users so that they can concentrate on the job they have to do.

The more a user has to spend time to understand the technology, it is his work less productive. The ease of use is a positive incentive for the use of ICT systems. It encourages users to work in an integrated information environment rather than developing separate/isolated systems to perform their duties outside the integrated information environment of Justice Sector.

Implications:

- Web portals and websites must have a common look and feel, and to meet ergonomic requirements. It is therefore necessary to prepare a standard for common look and feel and to develop criteria for usability testing,
- Guidelines for the user interfaces should not be limited to the narrow assumptions in terms of location, language, training or physical abilities of the user. Factors such as linguistics, physical limitations of users (visual acuity, the ability to use a keyboard / mouse), as well as skills in the use of technology are of great influence in determining the ease of use of some applications,

2.3.2 Principle 14: Adaptability and Flexibility

ICT systems are designed to generate changes, which are reflected through changes in laws, social needs or other types of changes. Adaptability and flexibility reduces complexity and facilitate integration, which in turn promotes business activities. Excessive adjustment increases costs and reduces the ability to adapt.

Acceptance of this particular principle has several advantages:

- Provides the infrastructure to support the changes that frequently occur in business processes,
- Builds infrastructure to be more flexible to ICT changes and ICT market,
- It enables business process improvement,
- Promoting a simpler and faster system integration process, with fewer iterations audit,
- Allows systems to evolve in order to meet business needs and changes.

Implications:

- Systems require more time for implementation, as well as more systematic consideration, because the operation cannot go beyond the boundaries of the traditional system,
- Start-up costs are perhaps greater, but the integration process are much cheaper,
- Systems will last longer, that is, the return on investment is higher,
- Performance indicators of adaptability and flexibility must be determined,
- The minimum number of suppliers, products and ICT systems is necessary to allow for maximum flexibility in the implementation of changes,
- Overly complex configuration of components, unenforced fine tuning, the variety of hardware and software based on the transient, local, or other requirements must be avoided,
- Limiting resources must be taken into consideration.

2.3.3 Principle 15: Convergence to Enterprise Architecture

Convergence towards Enterprise Architecture is promoted at the right time and must be accompanied by a strategy of investment. Convergence occurs implementation of new applications and new technologies, and while existing systems are updated or switched off. Exceptions may be

supported in cases where there is agreement that the advantages of using certain technologies beyond those arising from the adoption of Enterprise Architecture.

Convergence towards Enterprise Architecture provides several advantages:

- Allows the Justice Sector to develop and adapt to changes in business and technology,
- Avoids convert obsolete system, because it is extremely expensive conversion,
- Over time, investment is preserved, and the benefits of Enterprise Architecture are all visible.

Implications:

- Disposal of convergence can reduce the benefits of Enterprise Architecture,
- After identifying the target technology needed is an explicit strategy of transition,
- Convergence is not allowed to wait indefinitely,
- Requires the existence of a case study for exceptions, the processes that are the exception and exit strategy,
- Convergence is required sponsor to replace outdated technologies.

2.3.4   Principle 16: Related Interfaces for Integration

The interfaces are loosely connected, self-enrolled/self-explanatory, and have little impact on the financial aspects of the case change. Loosely connected interfaces are desirable, because when the independent software applications tightly connected, interfaces are less generic and more susceptible to causing unwanted, secondary effects after the changes.

Implications:

- A loose interface means that services are designed without thinking about a particular user of service, that service is completely separated from service user,
- Service is responsible for managing exceptions.

2.3.5   Principle 17: Support of Functional Areas

Rules of operation and functionality of ICT systems are compatible with the mission of particular system. There is a fully functional support area in which ICT system is. The purpose of this principle is to avoid functional overlap between the different systems. Functional overlap can lead to loss of data integrity and increase maintenance costs related to the folded business rules.

Implications:

- The systems must be located in the appropriate functional areas, with explicitly defined responsible person in charge of the functional area,
- Any request for new functionality must be submitted to the relevant working group,
- Information systems that are already in use with functional overlap should be timely completely or partially replaced. Functional overlap these applications may not be propagated.

2.4   Technological Principles

2.4.1   Principle 18: Change Basis on Requests

Changes in terms of ICT systems and technology weather is only based on business needs. This principle will create an environment in which changes will be made of the information environment to the needs of the business rather than the business changes due to changes in ICT systems.

This is important to ensure that objective information support - business transactions - be the basis for any proposed changes. Of course, every technological change can create an opportunity to

improve business processes, and thus to changing business needs. The purpose of this principle is to stay focused on the business, not on technology needs.

Implications:

- Changes in the implementation will follow only after comprehensive testing of proposed changes using the architecture,
- There will be funded technical improvement or development of the systems, if there is no documented business need,
- In accordance with this principle, change of management processes will be developed and implemented.

2.4.2 Principle 19: Control of Technical Diversity

Technological diversity is controlled to a greater extent, reduce the costs of expertise and connections between multiple processing environments.

There are real, significant costs of maintaining the infrastructure that serves as a support alternative technologies for environments where data is processed. In addition, there are the costs of servicing and maintaining connections between different processor systems.

By limiting the number of components that require support its maintenance will be simplified and costs reduced. Common technology used across the Justice Sector brings significant economic benefits.

Implications:

- Policies, standards and procedures that apply to the procurement of technology must be directly related to this principle,
- The choice of technology will be limited to the technological means available under the Technology Plan. It should develop and establish procedures for the extension of the eligible technology set to satisfy the growing demand,
- In this way, the frames of technological base do not freeze within Justice Sector,
- The technological growth is supported and the technological setting is changed if compatibility with existing infrastructure and improved operational efficiency is proven.

2.4.3 Principle 20: Interoperability

Software and hardware must comply with defined standards that support interoperability of data, ICT solutions and technology.

Standards help to ensure consistency of ICT solutions, thereby improving the ability to manage these systems, increasing user satisfaction and protecting existing investments in ICT equipment and thus indirectly reduce costs. Standards related to interoperability helps to provide support for various vendors for their products and facilitate the integration of the supply chain.

Implications:

- Adherence to standards of interoperability and industry standards is mandatory,
- It must be established process of setting standards and their periodic revision,
- The existing ICT systems must be identified and documented.

3 Strategic Guidelines

This section defines the strategic guidelines to be pursued within a given strategic time horizon of the end of 2018. Based on the defined guidelines, it is possible to plan strategic actions that will lead to the fulfillment of strategic guidelines in the desired manner.

In definition of the strategic guidelines, following areas of operation were used, which are considered to be authoritative and refer to:

- Services objectives,
- Operational objectives,
- Learning and development objectives,
- Financial objectives.

Above all goals are the expectations of stakeholders. From strategic guidelines standpoint, stakeholders are as follows:

- Citizens and business entities involved in judicial proceedings,
- The staff of judicial authorities using ICT tools for their tasks,
- Legal persons who participate in the proceedings (e.g. lawyers and judicial professions),
- The Government of the Republic of Serbia and other state institutions that participate in judicial proceedings,
- European Union.

Several guidelines are formulated for each of the four perspectives. Guidelines have been described as the desired state for them is not determined by precise criteria, since set up of group criteria together with precise methods of its calculation and desired value is very time consuming and would require to formulate measurable objectives in the Strategy for Judicial Reform.

4 Existing ICT system

Existing eco-system of Justice sector (Figure 1**Error! Reference source not found.**), in ICT sense, consists of:

1) Users,
2) Data,
3) Assets,
4) Information systems.
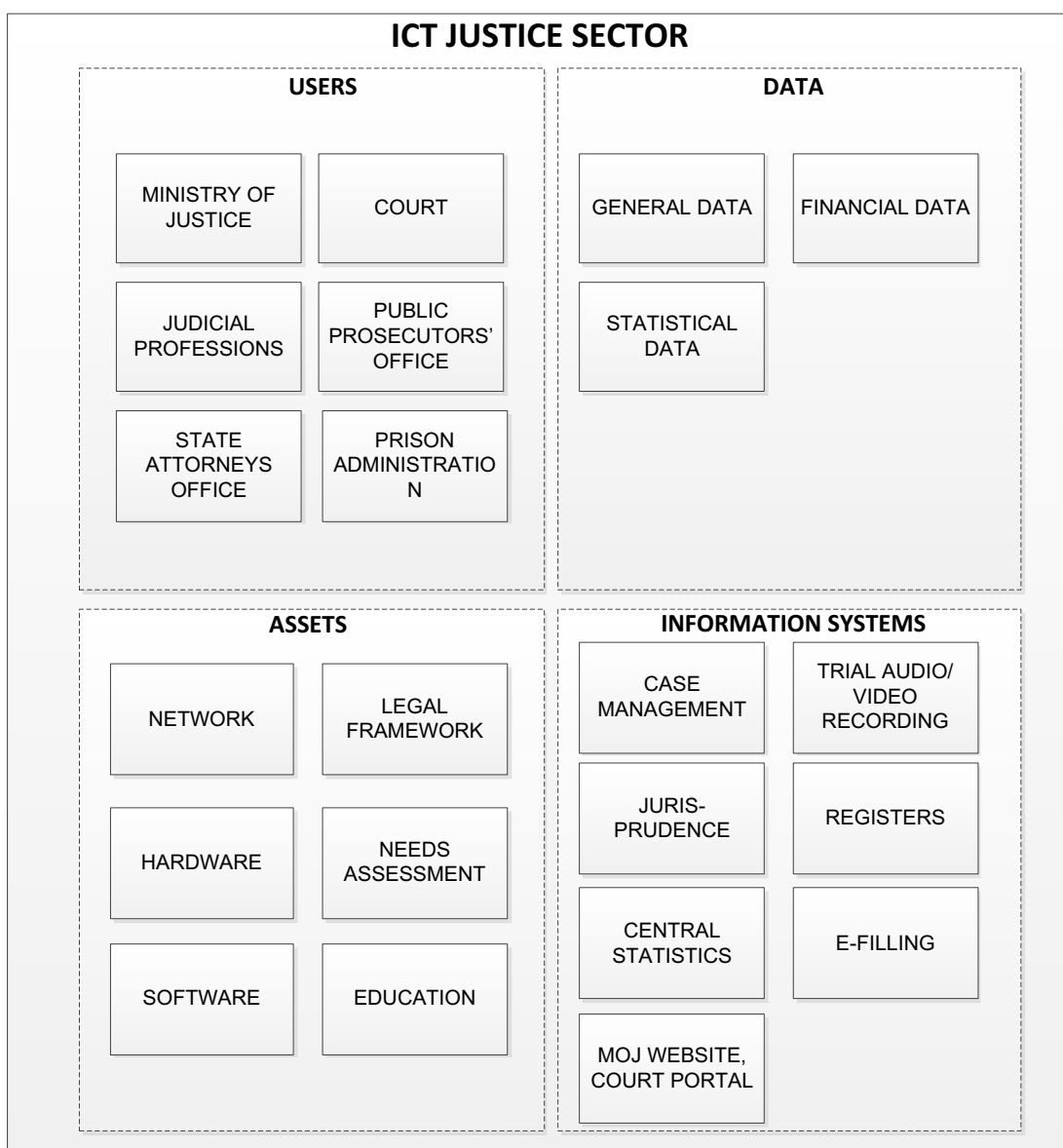
Figure 1 – ICT JUSTICE SECTOR

Case management systems that are currently in use, are not using unified channels for electronic communication, but the process of unification began. Although the courts have centralized portal, all the possibilities are not fully developed in connection with the transaction, but portal serves as an entry point for various court portals, which are often designed on different structure, layout and functionality, through the so-called standard for a "common look and feel".

Local procedures related to ICT are based on business policy that does not neither create entirely, nor are controlled centrally, but are produced locally.

Local application environment (operating system) for end users is heterogeneous, even the exchange of documents sometimes cumbersome due to the different document formats (e.g. MS Word 2003, 2007, vs. Open Office).

Although there are some activities, which all use the software (e.g. accounting), numerous applications are made locally, the same or very similar functions (such as jurisprudence, registry books, etc.)

Reports on the work and documentation of the impact of various institutions ("Information Booklet") do not have a single structure, not content.

4.1   Information systems in Justice Sector

Justice Sector in the Republic of Serbia uses a number of different information systems, covering different service in the Sector and these services provide functionality.

4.1.1   AVP (Automated Management of the Cases)

All basic and higher courts with associated legal units, except Higher Court in Sremska Mitrovica, use a decentralized system for case management, popular called AVP. It originated back in 2006, the AVP is an information system for case management on the basis of Adobe ColdFusion technology. This type of architecture is now out of date, and the system does not constitute a document management system, as it does not possess any of the elements of this technology.

The characteristics in terms of opportunities for interconnection AVP are at a low level and accuracy of the collected data is not satisfactory.

All commercial courts used AVP since 2008. This system meets the most of the functionality needed by the commercial courts, but the same kind of problem arises in terms of technology and architecture of the solution.

4.1.2   SIPRES

Misdemeanor courts are currently in the final stages of implementation of the information system on the Windows technology. The project started in mid-2012, in order to automate these kinds of courts, namely that all 45 misdemeanor courts have automated, central information system. The project is funded by USAID through a single reform of misdemeanor courts.

4.1.3   SAPS (Standardized Application of the Justice Sector of Serbia)

SAPS is an effort of the Ministry of Justice, in cooperation and the donation of the European Delegation in Serbia, make a central content management system (Centralized Case Management System), the unification of all the processes, which would facilitate the collection of accurate information about the efficiency, as for the courts or for individual judges, and provide public access to information relating to court proceedings and statistics.

SAPS is currently in use in the Supreme Court of Cassation and the Administrative Court in Belgrade, all Appellate Courts (Belgrade, Nis, Novi Sad and Kragujevac) and the High Court in Sremska Mitrovica.

SAPS is an information system that is run and managed centrally for all types of courts and is designed as a modular software, which has taken all the functionality of an existing AVP system, but also added functions that were not implemented in the AVP system. The base platform makes content management (Enterprise Content Management) to provide full support to the process of digitizing documents and activities performed through the paperwork within the courts.

4.1.4 SAPO (Standardized Application for Prosecutors' Office)

Public Prosecutor's Office today not using ICT system completely. The 13 prosecutorial implemented a central information system, through a pilot project that is donated by the European Delegation in Serbia. In a similar way as the SAPS, SAPO system is designed as modular, based on the platform for content management (Enterprise Content Management) and provides full support to the process of digitizing documents and activities performed through the paperwork within the prosecutor's offices. The existing platform ensures easy compatibility and functional integration of the SAPS system, but also with other systems within the Justice Sector.

4.1.5 SAPA (Standardized Application of Prison Administration)

SAPA system represents a central information system of Prison Administration. With use of all the functionality associated with the operations of the Prison Administration, the guards and the prison, SAPA system offers the ability to digitize documents, and therefore ranks among the content management system, as well as the SAPS and SAPO.

4.1.6 LURIS

Information systems LURIS uses Department for International Legal Aid of Ministries of Justice in matter of requests for mutual legal assistance or letters rogatory. LURIS is based on the platform for content management (Enterprise Content Management), where a very similar way to digitize documents and data with the possibility of easy integration with other systems within the of Justice Sector.

4.1.7 Miscellaneous

In addition to the above mentioned information systems, within the Justice Sector, there is a range of ICT systems that meet the specific functionality of some services, but they are less monolithic and are used primarily independently.

Among these ICT systems include:

- Case register in the High misdemeanor court - electronic records of the case,
- Archive of the Higher Misdemeanor Court - electronic record of the case,
- Register of training at the Judicial Academy - Register student and tutor for basic training, training in semesters, working time mentor, lecturer register, register of certificates issued,
- Budget application in the High Judicial Council and in the Ministry of Justice,
- The application of human resources in several courts,
- Incoming mail book in several courts,
- Archive in several courts,
- Register of complaints in several courts,
- Register request in several courts,
- Electronic records laws, regulations, case law, forms, in several courts.
- Centralized portal courts of Serbia (www.portal.sud.rs).

5   The Vision of Future ICT System

This document chapter deals with the vision of the ICT system from the viewpoint of architecture, organization and management.

5.1   The Vision of the Architecture

In the future period, Ministry of Justice needs to establish a sustainable and reliable ICT infrastructure, by providing high availability of all information systems in the Justice Sector, no matter where they are.

Vision of Future infrastructure is **centralized**. Characteristics of a centralized infrastructure are:

1) Data centers and network nodes in Belgrade, Novi Sad, Kragujevac and Nis, which apply mechanisms of high availability and reserve components (failover), both for hardware, software and network services,
2) Regional Area Network (WAN), which provides sufficient bandwidth and reliability to support centralized, service-oriented software architecture,
3) Enterprise Service Bus or similar indirect software (Middleware) that allows interoperability and exchange of information between internal (within the Justice Sector) and external systems.

The Ministry of Justice has already taken important steps in this direction, with the establishment of the data center in Belgrade and with its strategic orientation towards centralized, service-oriented architecture and the procurement of the latest central case management systems for the judicial authorities.

Nevertheless, Ministry of Justice needs additional funds from donations, because the national budget envisages investing only in ICT infrastructure to the optimum level, while all other investments in the ICT system must be part correctly planned donor funding.

5.1.1   Data centers in Belgrade, Novi Sad, Kragujevac and Nis

The Ministry of Justice is determined to develop modeled and optimized business processes that will effectively support the business processes of the Justice Sector. In order to provide greater flexibility and easier implementation of organizational changes and changes of the legal framework, all systems should be based on service-oriented architecture (SOA).

The current implementation of the central case management system, such as SAPA, SAPO, SAPS and SIPRES, represents excellent starting point for the expansion of SOA approaches and this trend should continue with the further development of the central case management system.

The centralized architecture based on Service-oriented architecture offers, if properly implemented, the many advantages that are key to the business:

1) Consolidation and easier maintenance of the hardware and network equipment,
2) Easier management and allocation applications,
3) Better expansion possibilities and easier to improve the capacity,
4) Easier virtualization - fewer physical servers and electricity is needed for the same level of services in relation to cases with distributed architecture (e.g. servers in each court)
5) Increase of security - physical security, network security and applications/databases in a centralized environment is far better than in geographically distributed architecture,
6) Collecting of information from several systems, while preserving their individual autonomy and self-governance,
7) Easier data exchange between internal and external information systems.

The performance and reliability of the software applications that are critical to the operation of the Justice Sector depend not only on the work of application server and database server, but from the end point of network bandwidth range, the reliability of electric power and cooling devices are used.

All these challenges must be addressed through fault tolerance and mechanisms for high availability that apply to hardware, software, power supply and network. When these mechanisms are properly implemented and balance, centralized architecture provides an extremely high level of availability (i.e. 99.99% or 99.999% uptime) for all systems and services.

The issue of energy consumption: "Server Farm" and network equipment that supports them consume large amounts of electricity (through direct spending power and cooling requirements for additional rooms). At the same time, these servers rarely work their whole capacity (and only during normal business hours) so that one of the key parameters for the procurement should be performance per watt unit (per Watt), not only free performance. The Ministry of Justice has at its disposal three basic ways to reduce power consumption and energy consumption in data centers, as follows:

- Virtualization Technology – increasing the performance per unit watt (per Watt) through the consolidation of a number of logical servers in one physical hardware,
- Stressing the "green" performance of energy-saving when procuring server (e.g. the ability to complete servers are switched on and off, either physically be virtually during off-peak periods, and that when the service does not cease completely)
- The purchase of servers and other server, or other equipment for its specification have declared lower power consumption.

5.1.2 Regional Network Area (WAN)

Availability, security and performance of information systems based on the web that were based on a service-oriented architecture is fundamentally dependent on the availability, reliability, security and range of WAN bandwidth per end-user locations. This gives enormous importance to regional computer networks that must be strengthened and improved far beyond their current state with the simultaneous application of relevant standards SRPS/ISO 2700X which is prescribed information security.

Although an existing WAN and LAN infrastructure well developed in many places, it is necessary to overcome the current shortcomings, such as:

- Inclusion of Misdemeanor courts in the Justice Sector infrastructure and security of key LAN infrastructure,
- Inclusion of Republic Public Prosecutor's Offices in computer network and security key LAN infrastructure in a significant part of the buildings prosecutors' offices, especially in the case of buildings that are not shared with the courts,
- Provision of fiber-optic cables for locations that are currently using wireless and ADSL connections,
- Using backup (failover) components and redundant connectivity capacity in key areas,
- Application Testing / ISO standards that govern information security.

Featured logical topology of regional network areas should comply to centralized, star topology with separate data centers and locations of network nodes for each of the following subjects:

- Courts' WAN – divided into virtual networks (VPN) for different types of courts (the central hub location: Supreme Court of Cassation, Nemanjina 9, Belgrade),
- Public Prosecutors' WAN (central hub location: Palace of Justice, Savska 17, Beograd),

- Prison Administration WAN (the central hub location: Central Prison, Bačvanska, Belgrade),
- Judicial Academy WAN (location of the central hubs: Judicial Academy, Karađorđeva 48, Beograd),
- WAN of Ministry of Justice and Public Administration (central hub location: Ministry of Justice, Nemanjina 22-26, Belgrade).

The Ministry of Justice is formally part of the Government of Serbia and for this reason the Directorate of Joint Affairs of Republic Bodies continue to be responsible for the provision and maintenance of LAN/WAN services, electronic mail, and DNS, but the Justice Sector must retain an independent LAN/WAN network administration for reasons of long-term public-public or public-private partnerships and thereby directly affect the efficiency, effectiveness and security within the Justice Sector.

5.1.3 Enterprise Service Bus of the Judicial Authorities (ESB)

In addition to numerous information systems used in the Justice Sector, there has been an increasing need for information exchange for a long time. This particular exchange of information is carried out both internally, within the judicial authorities, but also with other state bodies and agencies such as the Ministry of Interior, Tax Administration, Treasury, Agency for e-government, the Business Registers Agency, etc.
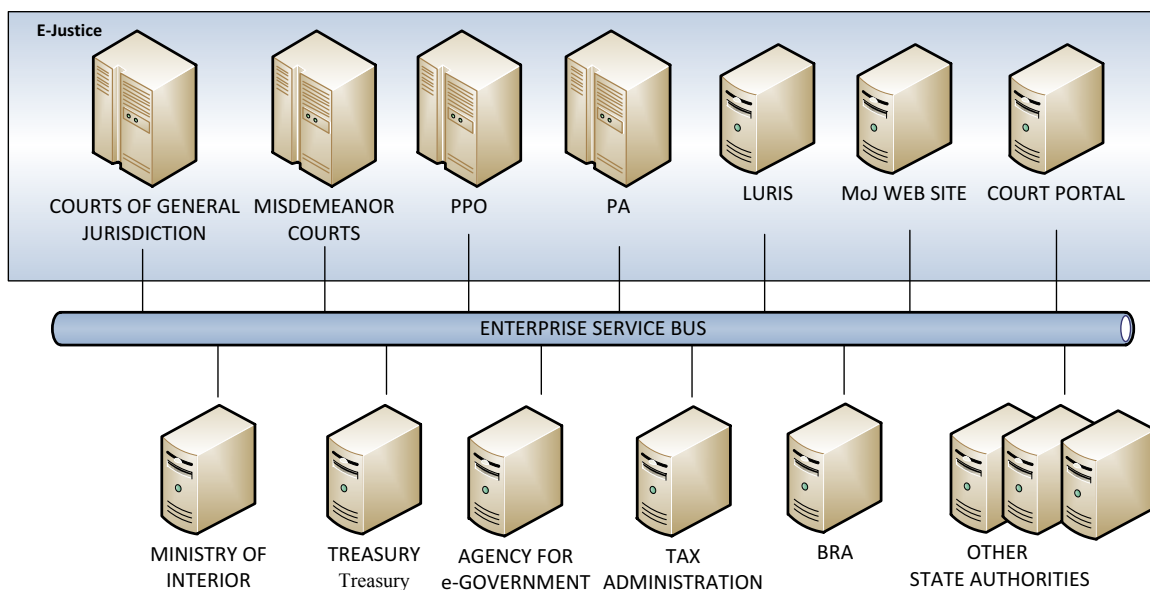

Figure 2 – Enterprise Service Bus

As the number of the required two-way links between the individual systems that communicate can be high, it is neither economically to use, nor to maintain separate communication channels and protocols for data exchange between all information systems.

In addition to the economy, differences in technology, platforms, data formats and exchange mechanisms between different access control systems, it is necessary to apply modern software solutions and platforms as a service bus, to support service-oriented architecture (SOA) and smooth the joint use of data between different systems and different platforms that comply with the relevant SRPS/ISO standards for information security, both within the judiciary authorities, as well as communication with external information systems.

Enterprise Service Bus (ESB) should enable each individual system in the same way to communicates with the service bus of institutions, while indirect ESB software performs currently

translating individual communication mechanisms and data formats that are required for certain endpoints. This means that each system supplier must implement only the functionality that a "talk" to the ESB using the unique plan of sending messages, while indirect software freely and asynchronously translates that plan, and on that way system can received it and understood it.

Regardless of the current preferable product, selected enterprise service bus must provide the following subsets of functionality and performance:

- Information security through compliance with the relevant information SRPS/ISO standards,
- Transparency of the physical location of the system to send and receive,
- Connectivity between any points (any-to-any)
- Access control policies independently of the local policies that are applied in systems of endpoints,
- Joint interpreting data in a name formats, as well as the message,
- Asynchronous communication with making order (queuing) messages/information,
- Sustainable cost of licensing and maintenance,
- Moderate complexity so that he can also make installation and re-configuration.

5.2 The Vision of the Organization

Existing ICT organization is fragmented, and although the Ministry comprises of the unit for e-justice, it does not fulfill the role of modern ICT organizations due to the small number of employees.

> "E-Justice is a concept that refers on how to operate the justice system in which all information and services, as a rule, and in accordance with the legal provisions, are available to all stakeholders according to their level of authorization and to the virtual path in an electronic format, having in mind an exception of some services and information that can be exempted from this rule and backed up with good justification. "

New ICT Department is the key in preparing the conditions for the introduction of such principles and modes of e-Justice at the level of the entire Justice Sector.

To achieve the recommended goals of the ICT strategy of the judiciary - and thus contributed to the comprehensive reform of the judiciary, it needs strongly centralized leadership for the implementation of environment components of e-Justice. Furthermore, new technologies (especially centralized information systems, widely applied network capacities, digitalization of documents, the challenges of security of information and knowledge-sharing applications) require a strong Department that could determine the rules, internal standards, execution plans for the development and provide a unique and high level of services for the entire Justice Sector and its end users.

Centralized ICT unit must have adequate competence with respect to the local ICT operations in individual institutions. Its position within the Justice Sector should be strengthened, as the staff, as well as educationally.

ICT Department is centrally organized and the organizational unit that will deal with:

- Strategy and monitoring,
- The implementation and development,

- Support and coordination.

5.2.1 Strategies and Monitoring

This functional segment at the highest level is responsible for monitoring progress in the implementation of the current strategy and action plan for Chapter 23, as well as to determine the future strategy for the ICT Justice Sector. Segment of strategy and monitoring has appropriate mechanisms to take into account the needs of the institutions on a higher level, which consider the Ministry of Justice with its sectors, the High Judicial Council, Supreme Court of Cassation, the State Prosecutors Council, Public Prosecutor's Office, Prison Administration and the Directorate for Seized Property Management.

5.2.2 Execution and development

This functional segment is engaged in the implementation of strategic actions, management of ongoing projects and the development of ICT procedures, practices and infrastructure within the Justice Sector.

Segment of strategy and monitor consists of the following functional parts:

- Project Managers,
- Business Analysis,
- Design architecture,
- Risk analysis and designing the security segment,
- Design and management services.

5.2.3 Support and Coordination

Functional segment would essentially be a contact center (Customer Service – service desk) combined with first level technical support to local institutions. When local institutions cannot solve the issue, raise it to the level of customer service. Duties consist of everyday practical problems of employees in the Justice Sector relating to the work with ICT systems and equipment, to work on the knowledge base of e-Justice and quickly find answers to their technical questions.

Segment of support and coordination should consist of the following parts:

- Customer service,
- ICT support to second level.

Customer service provides all required services to employees in the Justice Sector. ICT support staff solves everyday issues and problems.

6　Description of guidelines (Conceptual model)

6.1　The Establishment of a Centralized ICT Professional Organization Aiming on Services for the Entire Justice Sector

ICT Department of the Ministry of Justice is directly responsible for the implementation of ICT projects within the entire Justice Sector. The main task of department is to manage (creation, implementation, maintenance and development) and the provision of ICT services. Although some courts and institutions have their own ICT projects, they must be synchronized with the plan of the ICT Department.

Austrian experience in the field of ICT jobs in the judiciary shows that a centralized organization for managing all the needs in the field of ICT and related employees in the judiciary is a great solution. Austrian central ICT department of Justice is called Federal computer center, and this is a good model for the ICT Sector in the Serbian judiciary.

The concept of this model is based on the fact that all the information systems of courts, prosecutors, prisons and the Ministry of Justice co-operate via different types of interface, through interoperable platform in the Federal computer center, which is responsible for communications with other federal departments and agencies, and, finally, with all citizens.

Since Serbia is on the path to EU membership, it is clear that the justice system must be compatible with the justice system of the European Union. Harmonization of the judicial system also includes the harmonization of information systems that support processes in the Justice Sector.

6.1.1　Defined goals

1) The staff at the ICT Department is motivated and educated, so that they ensure their retention and increases or improved competence,
2) Customer requirements are addressed and implemented within specified time limits,
3) Standardized and optimized operational ICT procedures,
4) The existence of a standardized IT environment,
5) Unique methods of project management and the organizational unit in charge of projects at the level of the ICT Department,
6) Central Registry of Information Systems Justice Sector,
7) Knowledge and practices are shared, easy to find, uniformly interpreted and applied continuously.

6.2　Ensuring Sustainability through Lifecycle Management Services

Lifecycle management services is the most important factor for creating and providing sustainability of ICT system within justice Sector. Therefore, the ICT Department of the Ministry of Justice should define long-term strategy on lifecycle management, as well as medium-term and short-term action plan. Through a strategy the goals and directions of the high level will be determined, while the action plan defining the practical and operational aspects of implementation, impact and sustainability of both new and existing information systems.

Estimation of the total cost of ownership (TCO) is an important part of any strategic planning and supporting arguments and decisions. It, in Justice Sector, gives a closer idea of how much the new ICT system costs in terms of services, supply and human resources. And this applies not only to the planning, development and implementation, but also to maintenance in the future. Start of development of any kind of new system or the introduction of changes in the existing system without professional feasibility study is rarely seen in the practice of EU countries. TCO allows

planning of the budget in the Justice Sector related to human resources, maintenance of information systems.

6.2.1 Defined Goals

1) Availability of a central register of all the information systems in the Justice Sector,
2) The requests towards ICT are registered and monitored by a uniform information system,
3) Legal experts and judicial administration have knowledge on the effective use of ICT,
4) The budget is in line with operating costs,
5) Customer requirements are solved and meet as scheduled,
6) TCO is calculated when making decisions on investment.

6.3 Measuring the Impact of ICT

Most of methodologies and frameworks for ICT operations and management covering aspects of performance. Widespread application of framework for ICT operations to large extent, relies on "SLAs" both between the ICT department and end users, as well as between the ICT departments and suppliers, as a third party. Technical measures for ICT performance is generated from the operations support applications such as HelpDesk systems, network monitoring, while some measures are generated from the system for managing the project portfolio and systems for human resources.

6.3.1 Defined Goals

1) Availability of methodologies for inspection/quality control,
2) Parallel projects do not be funded (!),
3) During the implementation of the information system, the parallel development of the same functionality is forbidden.

6.4 Introduce Service Help Desk to Provide Support

The introduction of the Department for technical support services (Service Desk) at the ICT Department is essential and is one of the positive experience of countries with highly developed ICT standards.

In this way, a specialized team of people is engaged in first-line support of all information systems and, where necessary, engaged the resources of the supplier, if it is not possible to solve the problem. All calls and requests are recorded through a unique information system, which later serves as a knowledge base.

6.4.1 Defined Goals

1) Availability of central registry of all information systems in the Justice Sector,
2) The requests towards ICT are registered and monitored by a uniform information system,
3) Legal experts and judicial administration have knowledge on the effective use of ICT,
4) Customer requirements are solved and meet as scheduled.

6.5 Ensure Sustainability via Proper Financial (Budget) Management

Budgeting and raise funds for ICT cannot be strictly separated from the activities of the general program budgeting and fund-raising in the Justice Sector.

In the Justice Sector, as well as in the entire state administration, a new approach to budgeting is applied, where the budgeting process is linked to performance measures and established shortcomings, "budgeting by objectives" or investment budget is strongly associated with development programs, and their components and multi-year budget planning with forecasts for next year.

ICT budgeting process has its own abilities that should be considered:

- Analysis of costs/benefits in the preparation of the initial project requirements,
- Consideration of non-traditional ICT costs, such as staff costs, yields from improved productivity, cost of facilities and utilities,
- Costs of technological diversity versus homogeneous technological environment,
- Possibility of external engagement (outsourcing).

In this way, the investments are clearly associated with the strategic directions and the project initiatives have a healthy business argument with an analysis of the benefits, investment costs and long-term operating costs.

In the current situation, the ICT Department will use all donor organizations for large investment projects that are higher than the national budget of the Justice Sector, while the national budget will be used to improve the network and basic software infrastructure, replacement of workstations across the entire sector, maintaining virus scanner within the entire sector, training of ICT personnel and some minor operational improvements, and minor development projects under the jurisdiction of the Justice Sector.

6.5.1 Defined Goals

1) Improved financial planning and cost control,
2) TCO is included in investment decisions,
3) Timely project implementation in accordance with the strategic guidelines.

6.6 Ensure High Quality User Experience

Some of the trends and practices to be applied in the future in the entire Justice Sector are as follows:

- ICT workstation modern technology to end users in the Justice Sector, who have at their disposal the same modern computer tools, as well as employees in the private sector,
- Access to applications regardless of location – is planned to be available access to applications regardless of where one's office is located, i.e. all applications should be available on all workstations in the Justice Sector, with condition that the user has the appropriate permissions.

6.6.1 Defined Goals

1) Standardized and optimized ICT operational procedures,
2) The central management of a substantial share of ICT equipment without the need for physical presence and interaction, through the identity management software (Domain or MS Active Directory),
3) The use of standardized systems to support functions (human resources, budget, finance, inventory, etc.).

6.7 Ensure High Availability and Reliability

Ensuring a high level of availability and reliability is achieved by placing redundant systems and components of the information system which achieves:

- Disk reflection and data backup,
- Network infrastructure resistant to errors,
- Parts of the ICT infrastructure is virtualized.

ICT Department of the Ministry of Justice has successfully completed setting up the center for disaster recovery, and will continue the implementation of redundant components of ICT systems

in the upcoming period through the activation of 4 regional data center, which will be the backbone of future ICT systems Justice Sector.

Some of the trends that will be followed in the upcoming period are defined through:

- High degree of availability of critical business applications,
- Security of information systems - Objective of ICT security is to ensure the availability of ICT solutions (including data) to ensure the authenticity, integrity and confidentiality of data and to prevent damage to information systems by unauthorized persons. ICT security, as defined under the SRPS/ISO2700X standard covers all systems threatened by risk and in need of protection. This includes, inter alia, buildings, hardware and software, networks, communications systems, operational instructions and other documentation software solutions, users of ICT systems and support systems such as the technical support services unit.

6.7.1 Defined Goals

1) The high degree of availability of judicial ICT systems,
2) Standardized and optimized ICT operational procedures,
3) The centralized management of a substantial part of ICT equipment without the need for physical presence and interaction,
4) The requests towards ICT is registered and monitored by the uniform ICT application,
5) The use of standardized systems to support functions (human resources, budget, finance, inventory, etc.).

6.8 Enhance Information Security

Information security in general, and especially in terms of ICT is enhanced factor in ICT operations and ICT strategy, since one of the main objectives of ensuring transparency, reliability and security of the judicial process.

ICT security is well defined segment of the overall ICT standardization with the SRPS/ISO27000 series of standards (based on the official British Standard 7799) for the management of IT security.

SRPS/ISO27000 is complete standard for all aspects of security procedures and management. Therefore, this is probably the most widely used standard that is currently used or planned to be used in the European judicial organizations.

The introduction of information security systems in accordance with SRPS/ISO27000 series of standards included in the objectives of several government programs related to the growing role of e-government applications. Even when you are not looking for full implementation and certification of ISO 27000, the strategy includes some key elements of this standard:

- There is a common view that general ICT security policy is needed for Justice Sector,
- Training related to ICT security of IT staff and end users is considered a critical factor,
- Some key technical elements (such as digital signatures, restriction of physical access to IT equipment, etc.) are generally set as a goal.

At the level of the European Union as a whole, there is no standard required, but general practice involves attaching great importance to this issue and relying on international standards.

6.8.1 Defined Goals

1) Improved access security to information and data – identity management and data protection,
2) Availability of registry of software licenses to ensure compliance and use planning.

6.9 Increase Knowledge and Proficiency

Training in the Justice Sector should be centralized through a single legal body/institution, such as the Judicial Academy, which is responsible for education and training throughout the Justice Sector.

Types of activities centralized training institutions:

- Engagement, education and training of staff in the Justice Sector: initial and continuing training,
- The organization of examinations and certification,
- Training of trainers,
- Analyzing and identifying training needs and designing programs and methods of training in the Justice Sector,
- Training in ICT skills,
- Courses of distance learning,
- Publishing activities: publication and distribution of training materials, virtual library on the Web site,
- Organizing international seminars and conferences,
- Logistical support to maintenance the programs relating to the judiciary throughout the country,
- Implementation of the activities of the documentation center in the field of European Union laws on the judiciary.

Training generally involves lectures, and seminars, round tables, and can be used by other types of training.

6.9.1 Defined Goals

- Staff related to ICT possesses necessary knowledge in the field of ICT,
- Decision-makers are aware of the role and importance of ICT,
- Legal experts and judicial administration have knowledge on the effective use of ICT,
- Well-defined and organized training process (plan-organize in-coordinate-estimate the effect) is more efficient due to the use of ICT tools,
- Tools for electronic training (e-learning) are used to support mass training,
- End-users, as well as personnel with extensive knowledge of the procedures involved in the development of ICT,
- Individual knowledge and practices are available to all, easy to find, interpret unambiguously and continuously are applied.

6.10 Ensure Widely Available Web Based Service for All Users

Central portal of the Justice Sector (http://pravosudje.gov.rs), as the focal point, is the ultimate goal, while individual judicial authorities have their own web portals. In this way, standardization of design and function is achieved, so that they do not differ from the judicial body to body.

Various courts' information systems, as well as other information systems within the Justice Sector have the highest level of web services that require constant communication with the parties and the services of public interest.

General public information shall be submitted in one place, where citizens can, in addition to insight into the general organization of the court, to get acquainted with the organization of the Ministry, read the news or to subscribe to the newsletter. Through a central portal can be placed all the web services that have been created. The main features are the link with the system for case management of each court, so it can get a glimpse of the trial schedule, through specialized

platforms. Portal has great capacity to adapt content to each user, and also to liaise with other important segments of state authority.

In the widest sense of providing a web service (especially to the public) in accordance with standard ISO 26000: 2011, "Guidance on social responsibility". This standard covers different areas of human rights, labor practices to the development and involvement of local communities. This particular standard is a guideline that cannot be used for certification or audit, but contains recommendations on these aspects. From the ICT perspective "Development of technologies and approaches" and "Inclusion and Community Development" are the most relevant. Web accessibility is described in detail in "The guidelines for the accessibility of web content," described on http://www.w3.org/TR/WCAG20/.

6.10.1 Defined Goals

- Availability of adequate information to participants in certain court proceedings,
- E-services to the public in connection with court proceedings,
- Availability of general information of the legal system, judicial practice and performance measurement for the needs of the public.

6.11 Ensure Centralized ICT Architecture and interconnected

ICT architecture based on centralized information systems that are connected through the SOA concept of interoperability across platform is the ultimate goal of the Justice Sector in the future. Trend towards a common ICT architecture and the introduction of flexible, connected components that could easily connect with one another, with the development of a group of standards for data exchange is the future that needs to be addressed.

With the proposed concept of different judicial authorities provide better business/ICT alignment and ICT infrastructure independent of suppliers:

- Using ICT as a driver for modernization within the Justice Sector – information systems can simplify, improve and accelerate business processes (sequences of operation) in all judicial authorities. These objectives require the implementation of changes in terms of the work process and in terms of ICT solutions.
- Planning and decision making, as well as the development of information systems, are focused on the organizational architecture of the judicial information system, consisting of process architecture, architecture solutions and process management. The organizational architecture of the judicial system is service-oriented (SOA).
- Decisions on the choice between commercial software solutions and open solutions should be made for individual concrete cases after conducting the analysis, the total cost of ownership, review, taking into account all economic aspects.

6.11.1 Defined Goals

1) Availability of appropriate, valid and timely information to persons they have received authorization, which facilitates decision-making,
2) Possession of the ICT environment that supports automated collection of information and reporting,
3) Availability of standards for information exchange (between judicial institutions and the general, between state institutions),
4) Availability of a central register of all information systems of Justice Sector,
5) The inclusion of end users and staff with in-depth knowledge of business processes applied in the development of information technology,
6) Institutional procedures that are coordinated whenever applicable/changing a new information system,

7) Increased participation of the manual procedures of exchange of information, both within the Justice Sector, as well as with other governmental agencies,
8) During the implementation of information systems, eliminating the parallel introduction of the same functionality.

6.12 Ensure Independent Communication Architecture

A stable architecture for communication is a precondition for further improving the efficiency of e-justice infrastructure and thus contributes significantly to the overall progress of judicial services. Models vary, but are confined to the use of the national network or a dedicated network of Justice Sector. The choice between different options typically depend on decisions related to capital expenditures and operating costs, as well as security aspects. Independence is guaranteed with both models, so there is no need to Justice Sector opts for one of the following models, a final selection can be defined by the ratio of price and quality offered in the future, as well as the request for specific services, such as audio and video download and trial testimony.

6.12.1 Defined Goals
- High level of availability to all of information systems within the Justice Sector,
- Work environment of end user support daily tasks,
- ICT services for end users who have a high level and are reliable,
- The budget is in line with operating costs.

6.13 Ensure Vendor-independent Interoperability and Information Exchange Architecture

Currently, information exchange between different institutions within the Justice Sector is based on paper exchange of the documents. This kind of practice has become a major obstacle to the efficient and uninterrupted operation.

Case management systems that are currently in use are based on service-oriented architecture, and a certain interface, so it can easily be interconnected.

Organizationally, interoperability occurs at three levels:

1) Interoperability within the judicial authorities themselves,
2) Interoperability within the Justice Sector,
3) Interoperability between the Justice Sector and other state authorities.

The European Union pays great attention to interoperability, as stated in the document "Towards a European Strategy for e-Justice (COM (2008) 329 final document)," keeping in mind that "*the Commission will support the efforts of the country to ensure that the choice of technology is such that enable interoperability in Europe.* "

Ultimate goal, in short-term matter, is to introduce interoperability platform within the Justice Sector and start connecting the judicial authorities. In this way, the medium-short term, one can expect a unique service that will be available not only to customers within the judiciary, but also the citizens.

6.13.1 Defined Goals
1) The availability of adequate and reliable information at the right time, so as to enable decision-making,
2) The availability of adequate information to participants in the processes of justice,
3) Availability of standards for information exchange (between institutions within the Justice Sector and with the exchanges at the level of state bodies).

6.13.2 Have a Good Balance of Internal and External Services Having Efficiency in Mind

ICT Department of the Ministry of Justice is directly responsible for the implementation of ICT projects within the entire Justice Sector. The main task of the ICT Department is management (creation, implementation, maintenance and development) in the provision of ICT services.

> Although some courts and other judicial authorities succeed to provides significant funds funds through donor funding for ICT projects, they have to be in sync with the future strategic objectives, guidelines and operational planning of ICT projects at the Ministry of Justice.

Some of the ICT activities that require unusual human resources from the point of view of basic judicial functions, they can be grouped in the form of services and to be implemented with an external supply through external service providers/body (external suppliers). This applies mainly to carry out activities related to maintenance services. Some activities in other phases of the life cycle of ICT services, such as implementation services and/or improvement of the services can also be realized by external supply.

Current situation in the Justice Sector, following significant ICT services are fully or partially implemented outside supply:

- Provision of WAN networks,
- Development and maintenance of LAN,
- Provision of e-mail service,
- Development and implementation of the application system,
- Support for software application systems,
- Maintenance of hardware equipment for end users (servers, workstations, printers).

6.13.3 Reasons for Engaging Third Parties

When implementing a new information system, institutions are often in a situation where they lack the ICT expertise. The reason mainly lies in the very nature of information technologies that are rapidly changing and competitive in a weaker position in the field of employment and training of ICT staff in the Justice Sector.

Rather than build their own in-house expert capacity, the Ministry of Justice concludes a contract to provide special ICT services from private suppliers who can provide identical services at a much lower unit prices, and pay only for the current services. Suppliers are much more flexible in responding to changes in requirements for specific groups of ICT skills.

Involvement of third parties is a management tool and should be accessed in this way. In approving the contract of engagement of third parties, whether it is first assembled or to be renewed, the first step is to determine the primary reasons for the involvement of third parties.

> Although in many cases the involvement of third parties generate savings, cost reduction is often not the main reason for the involvement of third parties. Justice Sector needs to engage a third party to obtain services that are not available internally or to improve the quality of existing services, not to reduce costs.

6.13.4 Defined Goals

1) A high level of availability of information systems in the Justice Sector,
2) Services that rely on external suppliers and public-private / public-public partnerships are financially well prepared,
3) Availability of the circle of external experts with a good knowledge of the judicial information system and the wider Justice Sector,
4) The budget is in line with operating costs.

6.14 Institutionalization of ICT Governance System, through Public-Private or Public-Public Partnerships

Institutionalization of ICT management system is one of the main activities in the field of ICT envisaged by the Action Plan for Chapter 23.

The institutionalization of the management of ICT through public-private or public-public partnerships is done through the establishment of the **Sectoral Council for ICT**, which consists of representatives of: High Judicial Council (HJC), Supreme Cassation Court (SCC), State Public Prosecution (SPP), State Prosecutorial Council (SPC) , Judicial Academy (JA), Prison Administration (PA), Chamber of Enforcement Agents (CEA), Public Notary Chamber (PNC), Directorate for confiscated property, Department of Justice of Ministry of Justice, Division for material and financial Affairs of the Ministry of Justice and the ICT Department of the Ministry of Justice.

The Sector Council has the following competencies:

- Creating policies for public-public or public-private partner concerning the judiciary and the internal unit within the Ministry of Justice,
- Participation in the preparation of laws, regulations, standards and measures in the field of ICT in the judicial authorities,
- Control function for monitoring and directing activities towards the development of e-Justice,
- Proposing new electronic services in the judiciary,
- Monitoring the process of preparation, drafting and implementation of regulations, standards, plans, programs, projects, and hardware and software solutions in the judicial authorities,
- The exercise of control over the affairs of a public or private partners.