

High Judicial and Prosecutorial Council of Bosnia and Herzegovina

Informatization of the judiciary in Bosnia and Herzegovina 2004 - 2011

A Justice System You Can Trust

Why the need for ICT in the Judiciary?

High quality and modern judicial services, capable of answering to all of society's needs, cannot be achieved without information and communication technology (ICT). Informatization of Bosnia and Herzegovina's (BiH) judiciary has been a long process, but today, the state of the art judicial information system in BiH is the most thorough and modern of any country in the region and brings with it immense benefits for the delivery of justice.

As late as 2004 judicial institutions functioned in a similar way as in the early 20th century. Before the introduction of ICT reform in the judicial system, courts and prosecutors' offices had just over 500 computers, with almost no licensed software. Developments in cases were logged manually and all information had to be retrieved from mountains of paper files.

The BiH court system was already labouring under the weight of numerous and complex cases arising from the fallout of conflict in the1990s. In an increasingly litigious environment based on the rule of law, such out-dated and inefficient practices threatened to exacerbate the backlog problem even further. A dramatic change in the working operations of courts was needed. ICT provided that change.

And so a demanding project of introducing cutting-edge tailor-made ICT solutions was launched by the High Judicial and Prosecutorial Council of BiH (HJPC).

New courtroom furnished with modern ICT equipment



Goals for Informatization of the Judiciary

There are two main goals that the process of informatization of the BiH judiciary has continually pursued:

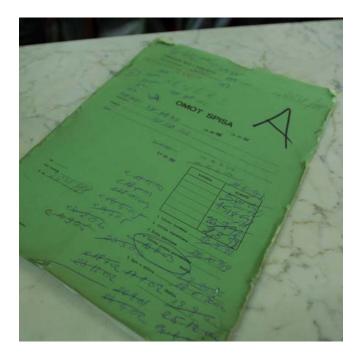
- delivery of quality services in an efficient and timely manner; and
- increase of transparency in work of BiH courts and prosecutors' offices.

All innovations, implementations and activities were carried out with a constant focus being on producing results for the end user.

In order to advance these overall goals, the following specific objectives were set:

- integration of judicial units with each other and with other justice agencies;
- · fast and efficient data exchange;
- cheaper judicial services;
- minimize the occurrence of basic judicial errors;
- standardization of data;
- alerts to notify judicial staff;
- electronic means to replace paper files;
- creation of a databank of information;
- effective provision of information and basic legal aids to citizens;
- flexibility of working hours;
- audio and video recording systems.





What has been achieved?

Over the past seven years, the BiH judiciary has been fully integrated into the modern information age. The main elements of the ICT Strategy that have been implemented are:

- Case Management System (CMS)
- a centralized operational environment at the HJPC;
- a national Wide Area Network (WAN) connecting 85 institutions;
- Local Area Networks in 85 institutions;
- distribution of more than 100 servers to 85 institutions;
- distribution of computers to almost 5,000 users;
- the Judicial Portal for easy access to information for the citizens;
- the Judicial Documentation Centre for easy access to legal information for judges, prosecutors and judicial associates;
- a HJPC ICT Department has been established at the HJPC headquarters in Sarajevo;
- ICT experts have now been employed at all courts and prosecutors' offices throughout the country.

All these novel developments have been accompanied by basic ICT training for more than 2,000 users and advanced training for more than 1,600 users.







After the informatization process

Message from the President

Bosnia and Herzegovina is often maligned as a place where progressive reforms develop slowly. The ICT revolution witnessed in the judicial sector is one potent example which belies this perception. In less than a decade the BiH judicial system has been transformed from operating entirely on an inefficient paper basis into one that utilises some of the most advanced and tailor made ICT solutions in Europe. All involved should be justifiably proud of these achievements and be confident in the future direction they point to.

It is worth remembering that before the investments in ICT began in 2004, there were a little over 500 unconnected computers in the whole of the judiciary. Now, all judges, prosecutors, and their staff have their own personal computers that are all linked up to the electronic Case Management System (CMS), the judicial email system, and the "one stop shop" for information on the judiciary that is the Judicial Portal. These innovations have served to speed up a whole range of activities related to the judicial system. As a focus was put on making the systems accessible to citizens, the transparency of the judicial process has also been greatly enhanced. The general public are now able to communicate more efficiently with judicial staff and instantly attain information on their cases and developments in the judiciary as a whole.

Not only did the project staff have to implement complex technical solutions, a key factor in the success of the projects was to overcome internal reluctance to embrace such radical changes of



Milorad Novković, President of the HJPC BiH

work practices that introduction of new technology requires. Even if many judges, prosecutors, and some support staff were sceptical at the beginning they soon realized that resistance was no longer acceptable and that it would simply not be possible to work efficiently in the modern environment without learning how to use the new electronic solutions. With thorough training, the benefits of computerisation were soon apparent to all and now many of the same sceptics are amongst the strongest proponents of the innovations.

The success of the ICT reform in the judiciary is largely owed to all judges, prosecutors and judicial staff who have worked on attaining new knowledge and skills necessary for the functioning of the judicial information system. I commend the dedication and the professionalism of the team that kept the Project on track at all times. Of course, this ambitious informatization process would not have been possible without the generous support from the donors, who recognized the importance of this reform and its benefit for all citizens of Bosnia and Herzegovina.

ICT: an investment for the future

As the sole international member of the HJPC, I have a particular interest in seeing the pursuit of the European standards throughout the judiciary. I am glad to report that the utilisation of ICT is one of the areas in which BIH now fully adheres to the highest European standards. In fact, BiH now has acquired much expertise in the use of ICT in the judicial context and can be used as a model for replication in other transitional countries. Already experiences in BiH are being used to inform ICT implementation projects in Montenegro, Serbia and Kosovo.

This ambitious IT revolution would not have been possible had it not been for the foresight and generosity of international donors. USAID and ICITAP were the first to commit funds to the proposed reforms in 2004. Since then, the EU, Norway, Spain, the Netherlands, and Sweden have all contributed generously which has allowed for not only implementation of ICT solutions but also the hiring of ICT staff to ensure that there is adequate training, maintenance, and continued development. The visible success of the projects funded by these international donors encouraged the local governments to provide funds for ICT staff both at the HJPC and in courts and prosecutors' offices across the country. This is an extremely positive development as it shows increased local ownership of the process and bodes well for its future sustainability.

Despite the many successes to date, the job is far from complete. While the ICT infrastructure has largely been put in place, it is now essential to



Sven Marius Urke, International Member of the HJPC BiH – Project Coordinator

capitalise on the considerable investment thus far by ensuring that the accurate and up to date data available from the system is used to inform management policies that cause real and quantifiable improvement in efficiency. It must be remembered that computerisation is not a goal in itself but a means to an end, that end being a more efficient delivery of justice to the citizens of BiH. With this crucial goal in mind, it is essential that the momentum of beneficial change must not be lost in the coming years. Thus, as well as further refining the CMS and enhancing the institutional capacities in the judiciary to utilize the data as a basis for policy decisions, new ICT innovations should be pursued such as the establishment of e-signatures for the judiciary, an information system on prisoners, a HR management system, and a module for the exchange of data among law enforcement bodies.

Progress breeds progress in any field and the adoption of ICT in the BiH judiciary is a great example of this. I congratulate all involved in producing such rapid achievements and look forward to continued cooperation and progress in the future.

First steps

Due to the particularly fragmented nature of the legal jurisdictions in BiH, a centralised ICT system was needed to ensure that the delivery of justice would be cohesive and efficient for all citizens of BiH.

The Independent Judicial Commission (IJC) initiated development of an ICT Strategy for the judiciary in BiH in 2003. This strategy, which was funded by the Norwegian Government, was finalized in April 2004 and handed over to the HJPC of BiH that was established in June the same year.

The Law on the HJPC gave the HJPC wide authorities to initiate, coordinate, and supervise the introduction and use of new technologies in the judiciary. This paved the way for the commencement of the implementation of the ICT Strategy.

The work of the Project benefited from the support and guidance of the Working Group for Strategic Planning and Development of CMS for Courts. This Group met regularly and steered the Project in a positive direction.

Initially, we focused on setting up the basic preconditions for the introduction of ICT in the BiH judiciary, in particular the installation of local area networks (LAN) in each court and prosecutors' office, a wide area network (WAN) linking all judicial institutions with the HJPC and each other, and procurement and installation of servers, computers and printers in all judicial institutions.



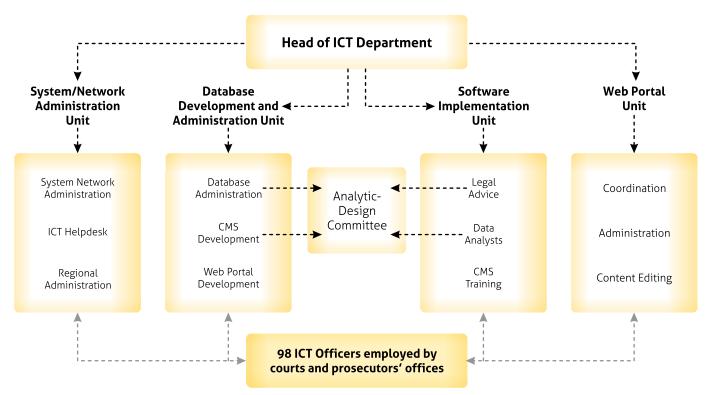
Sulejman Velić, Head of HJPC ICT Department

It was also imperative that an increase in ICT usage needed to be accompanied with adequate data security improvements. It this regard, application of the ISO safety standards in the information system of the judiciary has begun.

The success of the Project was assured through selfless engagement and effective team work of all members of our ICT Team. To ensure sustainability, Project staff were continually transferred into a consolidated HJPC ICT Department. This Department worked in four organizational units:

- System and Network Administration Unit
- Database Development and Administration Unit
- CMS Deployment Unit
- Web Portal Unit

On more than one occasion, the amount and complexity of work that needed to be done seemed excessively daunting. Nevertheless, problems and obstacles were resolved thanks to the resourcefulness, enthusiasm, and teamwork of the Project staff. Today, the judiciary in BiH benefits greatly from the information system that is used in its daily work, which would not function as smoothly as it does without the efforts of all HJPC ICT, legal, and other specialists who were involved in its design and development. In this regard, we owe special mention to our colleagues Edis Brkić and Mirsad Kamber who have immensely contributed to bringing the vision of this project to life.



Organizational Chart for the integrated ICT Department - ICT/CMS Project

Years of progress

	2003	2004	2005	2006	2007	2008	2009	2010	
Strategy for implementation of ICT in BiH judiciary prepared by the Independent Judicial Commission (IJC)									
Establishment and operation of the HJPC ICT project team									V. J. Sec.
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Local Area Networks' installation									No internet
Establishment of a national Wide Area Network and Local Area Networks in 85 institutions									sud 💽 🖕
E-mail system		N 94 N 94							ievu 😈 🕅
Establishment of judicial centers for data processing									
The Registry of Fines (RoF) database established			24						
Tailor made Case Management System (CMS) for courts and prosecutors' offices developed and installed				2					Norosti
The Judicial Portal for easy access to information for the citizens established		à	S/d	2					1010000
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Attaining highest European standards

Like most systems in the modern era, the functioning of courts and prosecutors' offices across Europe has the potential to be positively transformed by ICT. European standards increasingly urge countries to invest in ICT so as to make the delivery of justice more efficient and transparent.

"The use of ICT is considered one of the key elements to significantly improve the administration of justice. The rapid development of technology opens up new opportunities that were unthinkable only a few years ago". – The European Commission for the Efficiency of Justice Study No.7 "The use of electronic case management systems and information communication technologies should be promoted by both authorities and judges, and their generalised use in courts should be similarly encouraged." – Council of Europe Recommendation CM/ Rec(2010)12

BiH is striving to adhere to these such European standards as it continues its progress toward European integration. The judiciary, the adherence of which to European standards being a decisive factor for EU accession, is proud to lead by example in this regard.

Regional Cooperation

Not only is Bosnia and Herzegovina content to pursue European standards, it has now set a high level of informatization for other judiciaries in the region to emulate, and the HJPC is intent on playing its part in helping them to do so.

For example, in March 2011, a Memorandum of Understanding was signed between the HJPC and the Montenegrin Ministry of Justice for cooperation on the project "Strengthening judiciary in Montenegro". On this occasion, the HJPC handed over the complete RoF software, along with providing know-how and training of staff and pledged to continue activities aimed at supporting Montenegrin colleagues in enhancing the efficiency of their judicial system through the use of ICT. HJPC ICT experts have also participated in the making of the Strategy for Development and Application of ICT in the judiciary of Montenegro.

The HJPC has also worked closely with its Turkish counterparts who shared their experience and know-how from their pioneering process of computerization of their judiciary.

The view from the bench

Introduction of ICT to the judiciary has had many advantages – both for judicial staff and the citizens. The productivity of our work has greatly increased – ranging from registration of cases to production of various reports. Thanks to informatization, the court became an integrated system, tying everyone's work together, as opposed to the uncoordinated operations that were common practice before.

We are no longer using pencils, erasers, and paper files: all actions related to cases are committed through a computer. The time necessary for admission and processing of documents has visibly decreased. Previously, we could process only 40 to 50 submitted documents per day, and now we are able register and process several hundred of those per day.

Last year, we introduced scanning of incoming case documents, as a pilot court, experiencing significant improvement in the accessibility of case documents, both for judges and parties to proceedings. Judges can now see all submitted case documents on their computer screens the moment they are submitted and added to the case file.

Before the introduction of ICT, people would have to call the registration clerk by phone, arrange a review and then come and review the case, which would require a couple of people to leave whatever they were doing and deal with party's request for case information. Today, court case information is just a few mouse clicks away enabling par-



Zijad Grbić, President of Basic Court in Derventa

ties to access case information at any time from any computer connected to the internet. All this makes communication between the court and end-users far less time-consuming and more transparent. Parties and lawyers do not need to come to the court unless they have a trail.

The quality of our work has significantly increased, thanks to the availability of a vast number of court decisions which allows us to see how other judges have decided in similar situations.

Before informatization, our court was 'suffocating' in piles of unregistered documents. In the process of introduction of ICT, the way tasks are performed has significantly speeded up. Informatization helped us to make our court up-to-date with all document submissions and now we are purposefully striving towards the point at which we will be able to process all cases within the deadlines stipulated by the law, which is the ultimate goal of all judicial institutions worldwide.

A prosecutor's perspective

By the time the CMS was introduced to prosecutors' offices, we could greatly benefit from the lessons learnt during the initial years of CMS deployment for judges and judicial staff. The electronic system that now connects prosecutors' offices with courts helps us to work faster and more productively.

Before the introduction of the prosecutorial CMS, prosecutors had to wait for several days to receive a judge's confirmation of detention, and had to keep track of detentions' expiration dates scribbled in their notebooks. Now, all detention cases are visible at prosecutors' CMS home page the moment they are confirmed by the court. Similarly, all prosecutors have the personalized schedule of court hearings they need to attend which is updated in real time, as soon as the court determines or changes a hearing.

Replacing a wide range of registry books with the CMS has saved a vast amount of the valuable storage space in prosecutors' offices, allowing systematic filing, numeration, and orderly storing of prosecutorial case files. The CMS has significantly improved communication with parties, since information that is now delivered to them in a matter of minutes, previously took hours of reading and manual searching of several registry books.

Prosecutors' CMS has contributed to the enhancement of internal communication in prosecutors' offices through the system of alerts which notify employees that they need to perform a certain task to further the proceedings. Prosecuto-



Rajko Čolović, Chief Prosecutor of District Prosecutor's Office in Istočno Sarajevo

rial work is now performed in a unified manner in every prosecutors' office through the CMS, which was unthinkable prior to its introduction.

A particular improvement to our work practices has come from the establishment of one integrated suspects' database so that a simple search can reveal whether or not a person was a suspect or indicted for any previously committed felonies.

Further integration of information will be performed through establishing the connection with police agencies, which will revolutionize the relations among prosecutors and the enforcement authorities. This will significantly accelerate and contribute to crime-solving throughout the country, as all information on potential perpetrators would be available at a single location. "CMS has already brought many benefits to the courts where the system has been introduced, as a basis for improved management and organisation of work as well as in terms of increased transparency. Furthermore, the system has the potential to provide local and central level decision-makers with a vast amount of statistical information". -Swedish International Development Authority (SIDA) 2009 evaluation report on the project "Information and Communication Technology and Case Management System for Courts and Prosecutors' Offices in BiH"

"The assessment was made on the basis of data that shows undeniably, in percentage terms, that the judiciary has taken the greatest step forward in terms of the use of ICT and realised projects from within the Strategy. According to the survey data a total of 93.21% of employees in the courts of Bosnia and Herzegovina work on computers." - UNDP 2009 eReadiness Report for BiH.

"The State level HJPC supervised the establishment of a country-wide court information technology system. A time management system for prosecutors and a case management system now exist for in all courts and all prosecutors' offices. This facilitates distribution, management and monitoring of cases. The HJPC also supervised additional development of the judicial documentation centre. Users now have online access to over 3,600 court decisions and many legal opinions" - European Commission's 2010 Progress Report for BiH.

What others say about the Informatization Process

The ICT Projects overseen by the HJPC have met with widespread approval from international observers.

According to the statistically detailed 2010 report of the European Commission for the Efficiency of Justice (CEPEJ), BiH was ranked best of all countries in the region in terms of application of ICT in the work of judges and their associates. Moreover, the level of application of information technologies in daily work processes in courts and prosecutors' offices is similar as in most Western European countries, including the UK, France, Spain, Norway, Italy, Switzerland.

Getting the Infrastructure in place

The task of our System and Network Administration Unit is to implement and monitor the infrastructure, at the same time working on further developments and improvements.

The Judicial information system currently has over 5,300 desktop computers, nearly 300 servers and more than 2,300 printers. All computers are equipped with licensed Microsoft Windows XP operating system and Microsoft Office 2003 office application pack. Computer software configurations have been standardized in order to provide easier and cost efficient management and higher security. In order to successfully complete these activities, we had to engage a significant number of system and network administrators, regional administrators and help desk assistants. The entire work was closely coordinated with ICT personnel in each institution.

All the computers and servers in the judicial information system form a single Identity Management System/Active Directory domain. Deployment of the Active Directory has contributed to a more efficient and scalable model of administering and managing key ICT infrastructure elements.

We used procured equipment and software to build ICT infrastructure needed for successful implementation of the CMS and other software applications. This is a continuous process which is now in the phase of renewing outdated hardware and upgrading software.



Esmin Berhamović, Deputy Head of HJPC ICT Department for Network and System Administration

In order to ensure maximum benefit from installed infrastructure, all the technology is fully monitored and maintained. Our ICT personnel have put in maximum efforts to share their knowledge with users of various levels in computer literacy. Infrastructure establishment has been conducted in parallel with establishment of support system and all employees quickly adapted to continuous changes.

Development of the CMS software often required long working hours, sometimes until late in the night, in order to have the necessary work infrastructure ready. I want to especially commend the expertise and dedication of the team that managed to solve very complex issues in extremely timely manner.

Establishing Local and Wide Area Networks

At the beginning of the introduction of ICT in the judiciary of Bosnia and Herzegovina, only 10 courts had local area networks and there was no wide area network inter-connecting courts and prosecutors' offices.

In 2005, the European Commission, through the CARDS programme, financed installation of local area networks in all courts and prosecutors' offices that did not have it. The Local Area Networks have been designed and installed on the basis of the internationally recognized standards for the structured cabling.

All Local Area Networks are connected and form a single Wide Area Network (WAN) for the whole

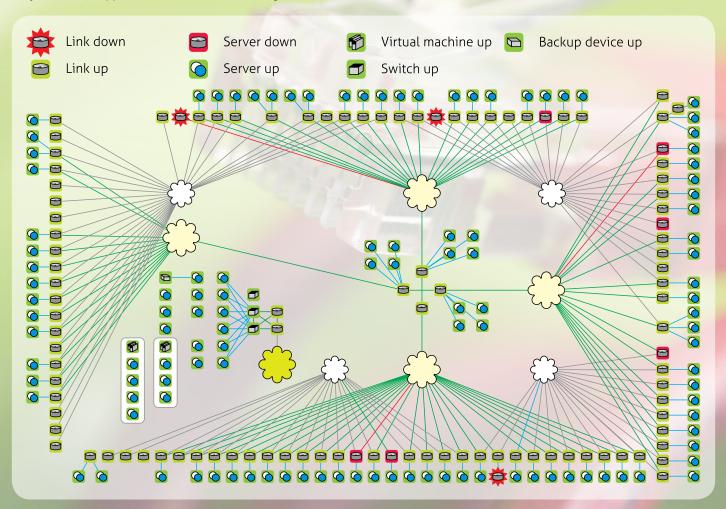
judiciary in BiH. The WAN connects all courts and prosecutors' offices with each other and with the HJPC. It is based on national high speed, radiorelay SDH telecommunication system financed by the EU, which was established in 2007. This telecommunication network is administered by the Agency for Identification Documents, Registers and Data Exchange of BiH (IDDEEA).

Each court and prosecutor's office has a backup internet connection to the data centre at the HJPC, which is used in the case of the failure of the primary SDH telecommunication link.



Scheme of connections among courts and prosecutors offices' information systems in Bosnia and Herzegovina

Infrastructure support: centralized network management



Secure data centres

Deployment of the WAN has enabled the establishment of a centralized server and data bank infrastructure at the HJPC with key common applications used by courts and prosecutors' offices throughout BiH – the Primary Data Centre.

The primary data centre consists of:

- application and database servers for CMS and other software applications used in the judiciary of BiH;
- enterprise storage as the central repository of the data stored in the CMS and other business-critical databases;
- web servers of the judicial web portal;
- e-mail servers
- file servers;
- identity Management and Infrastructure services servers (Active Directory, DNS);
- antivirus/Windows update servers;
- system/network management and monitoring servers; and

• core routing and switching equipment for the judicial WAN backbone

After reviewing information system security standard (ISO 27001) in respect of the obligatory distance between primary and secondary data centre (minimum 50 km), the HJPC reached an agreement with Basic Court in Banja Luka to locate the secondary data centre (disaster recovery site) at their premises.

Apart from primary and secondary data centres, two regional data centres were established at the premises of the Cantonal courts in Tuzla and Mostar in 2007. At these centres, e-mail, file and antivirus/Windows update servers are installed.

All critical system configurations and data are being regularly backed up using sophisticated backup hardware and specialized software in accordance with established backup procedures.



Increasing access to e-mail and internet

E-mail is instant and virtually cost free. The judiciary has taken full advantage of it as all employees in judicial institutions now use a single e-mail system which was established in 2007 which enables exchange of e-mail messages between users from all courts and prosecutors in BiH. Furthermore, a standardized e-mail address (firstname. lastname@pravosudje.ba) for all users has made judicial e-mail addresses more recognizable and user friendly to external users.

All users in the justice system can also access their e-mail from any computer connected to the internet from anywhere in the world.

The HJPC ICT Department has started to implement a model of centralized access to the internet via HJPC access points. On completion, all users in the judiciary will be able to access the internet from their workstations. In this way, users will have access to the jurisprudence of the neighbouring and EU countries, online professional literature, web pages of other state authorities, international organizations, and international professional associations, as well as many other sources of information relevant for their work.

At the moment, access to the internet over and above the mentioned access point is available to almost 2,300 users in 40 judicial institutions. Access to the internet for the rest of the users will be completed upon establishment of the second internet access point at the data centre in Banja Luka.



CMS: the core of the judicial information system

The Case Management System (CMS) is the core of the judicial information system which allowed complete automation of work processes throughout the judiciary. Prior to the introduction of the CMS in the judiciary, management of cases was carried out manually using old registry books and hand-written orders. The small number of computers in courts and prosecutors' offices merely served as typewriters. There was no reporting system, and even simple reporting on the exact number of opened cases in some courts was a difficult task. With the introduction of CMS, things have significantly improved.

The system we introduced automated the whole work process, from case entering to its archiving. The CMS also enables electronic transfer of data from prosecutors' offices to the courts, thus eliminating the need to enter the same information twice and reducing the possibility of errors occurred during data input.

This service enables parties to the proceedings to instantly obtain information on the case number and the judge that has been assigned to their case, a process which in the manually operated system would take a week or two. Removal of the human factor from the process of assigning cases to the judge also guarantees impartiality in this part of the process, since the system assigns the cases to judges on the basis of their legal specialization, taking into account the workload of judges, rather than subjective factors.



Fikret Šabić, Deputy Head of HJPC ICT Department for Database Administration and Development

We have a long list of senior database administrators, database administrators, web portal developer, legal advisors, analysts, CMS implementation advisors and CMS trainers who greatly contributed to the development and functioning of the CMS. Since the moment when the HJPC has taken over the CMS, the Administration and Database Development Unit has developed a number of new functionalities through the expert approach of development engineers. Team work and the multi-discipline approach of programmers and legal experts have been a mark of the development process. This team on daily basis monitor and manage judiciary databases and applications, solve the most demanding issues that users face, and plan and develop improved functionalities.

I want to emphasize the role of our colleagues from the HJPC legal department who gave us professional guidance during the CMS development. Legal practitioners also participated in the CMS implementation thorough their efforts to educate users on how to employ the new work procedures in the electronic environment and to provide answers to all legal questions that arose.

CMS ensures easy access to information to all users

Accurately kept electronic records provide for a prompt insight into the status of cases and any actions taken in them. All cases are electronically registered and all key activities of the judge and support staff are registered in the system. Also, the system provides judges and the support staff with directions as to what activities should next be undertaken and within which deadlines they need to be completed.

The most important benefits for judges and judicial staff of the court version of the CMS are:

- registration of deliveries and receptions for each document in the case;
- cases can be merged and split electronically;
- automatic document exchange between courts and prosecutor offices;
- delivered documents can be registered on a bar code;
- custody, sanctions, and penalties can be registered;
- the enforcement of custodies, sanctions and penalties can be tracked;
- accurate reports on court statistics can be instantly generated.



As well as the above, the most important benefits specifically for users of the prosecutor version of the CMS are:

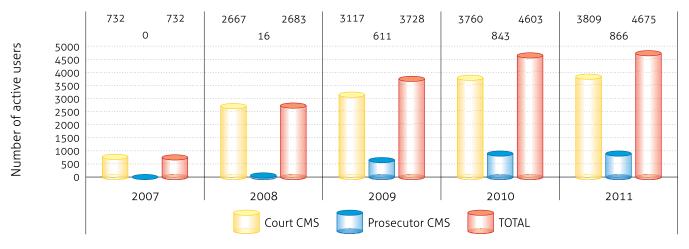
- module for document registration and case initiation;
- different types of tasks can be electronically assigned to different types of staff in a prosecutor's office;
- hearings can be registered electronically;
- automatic notification between connected cases in court and prosecutor's office;
- automatic document exchange between courts and prosecutors' offices;

The CMS is constantly being monitored, analyzed, and improved.

Number of users and registered cases significantly increased

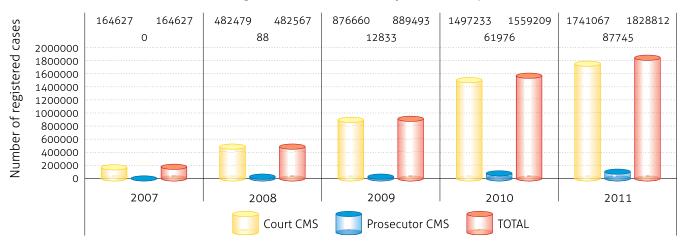
By 2011, the system has been used by more than 4,500 users from 73 courts and 19 prosecutors'

offices in BiH, with nearly all existing cases registered in the system.



Number of active users of CMS in courts and prosecutors' offices

Number of registered cases in CMS by courts and prosecutors' offices



The Registry of Fines - a passive yet effective enforcement system

Enforcement of fines for minor offences, such as traffic violations, had been a problem for many years in BiH. Most people did not pay their fines and due to the very high number of fines and the low value of most fines it was inefficient to enforce payment through the court system. The result was that an overwhelmingly high number of minor offence cases clogged up the court system.

The introduction of ICT opened new possibilities for efficient enforcement of fines for minor offences and the HJPC – with the assistance of international donors – seized this opportunity and in 2005 initiated the development of a database

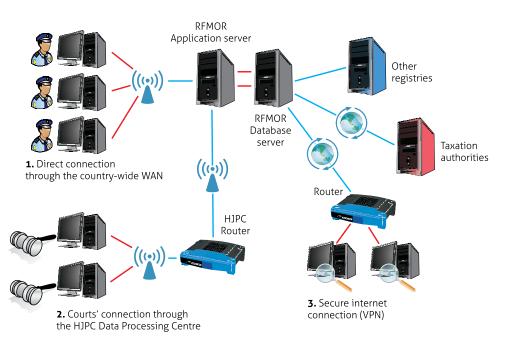
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for registration of all fines for minor offences. The result is an advanced and centralized database - The Registry of Fines (RoF) - where institutions competent for issuing fines (typically the police and inspections) can register fines for minor offences committed by citizens or legal persons and if these fines are not paid on time they will not be able to access certain services that are provided by public institutions; such as renewal of driving license and/or re-registration of a car.

The RoF is called a "passive enforcement system" due to the automatic way it operates. With this system in place it is generally not necessary for the authorities to actively pursue persons that are supposed to pay a minor offence fine as the negative consequences of not paying encourages the debtor to pay voluntarily.

The RoF scheme requires a database system accessible to the Entity and Cantonal Police, Entity, Cantonal and Municipal Inspections, Entity Tax Administrations, courts and a number of other regulatory institutions that issue smaller numbers of Minor Offence Orders.

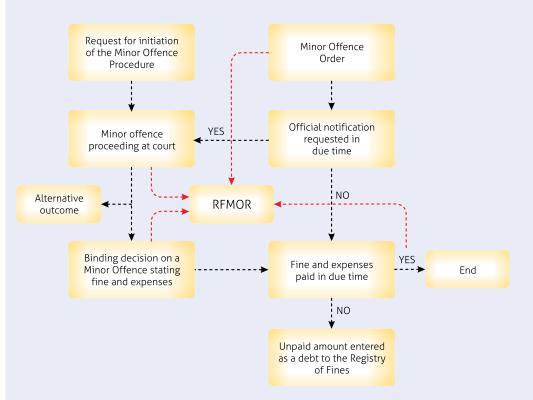
Registry of Fines and Minor Offence Register (RFMOR) Web Application



RoF Benefits: greatly increased enforcement of fines

The RoF is an excellent example of how introduction of new technology can dramatically improve the situation under which courts are working. Previously few cared if they were fined for a minor offence as there was no efficient system in force that would made them pay the fines. Thus the issuing of minor offence fines had little preventative effect on unwanted behaviour. The fact that people can no longer easily avoid having to pay their fines will most likely, over the time, have a positive effect on people's behaviour. Furthermore, the reform has contributed to significant funds coming into the public purse and thus made money available for the provision of other services to the citizens.

In June 2011, the RoF contained data about nearly 3.5 million decisions, out of which about 350,000 were decisions issued by courts. The total value of the registered issued fines reached close to 450 million KM, the total value of registered paid fines was almost 220 million KM, a dramatic increase on previous amounts. The registered fines have been entered into the database from more than 500 different data entry points belonging to courts and other authorized institutions.



Judicial Web Portal: the judiciary opens its doors to everyone

In 2007 the HJPC ICT Project initiated the development of a Judicial Web Portal for the BiH judiciary. Today, this is a central access point for all those that are seeking information from and about the judiciary.

As part of this concept, each judicial institution establishes their individual web pages that can be accessed via the common Judicial Web Portal or through their web address on the "pravosudje. ba" domain. In the period from 2008 until 2011 the number of developed web-sites has rapidly grown - from 7 to 74.

Members of the Web Portal Unit are actively following up how the courts are managing their web-pages with the aim of securing the constant addition of new and relevant information for site visitors. In this regard, a series of training events for web editors and administrators with the focus on Web administration and Effective web publishing were organized in 2009, 2010 and 2011.

To make the Portal user friendly courts and prosecutors' offices are running web pages based on HJPC's common feel and look standards under the single "pravosudje.ba" domain.

In order to ensure an adequate provision of information and services for the judiciary and the public, development of new modules and upgrading of existing functionalities have closely followed the process of the Judicial Portal's growth.

	Oct 2010	Nov 2010	Dec 2010	Jan 2011	Feb 2011	March 2011	Apr 2011	May 2011	June 2011
Overall number of hits	9,932	11,220	34,504	47,926	53,113	53,932	46,594	47,718	51,341
Number of Main Portal hits	n/a *	n/a *	19,159	26,545	29,494	29,473	25,356	26,968	28,891
Public court and PO web sites	64	72	73	73	73	74	74	74	74
Average no. of hits to each court and PO web sites (monthly)	155	156	207	292	322	329	285	277	302

Statistical information regarding the average rate of visits to judicial web sites *Main Portal was deployed early December 2010

Development of Judicial Web Portal services

Bearing in mind the potential problem of irregular or infrequent updating of content onto the judicial web sites, additional measures were taken to enable automatic updating of information on court web sites. The portal now offers the public and practitioners the following services:

- automated court hearings' schedule
- web address book for judicial institutions, expert witnesses and court interpreters
- court case statistics' module representing the CMS statistical data
- online surveys for simple and effective feedback collection
- online review of cases registered in the CMS system
- multimedia galleries enabling standardized displaying of visual and audio materials

- system for nomination of news which facilitates publication of various information from judicial institutions at the Main Portal
- the Judicial Forum a virtual space for exchange of opinions for law professionals and other interested individuals

All these innovative services are offered on a flexible home page layout with the choice of multilanguages.

Development of the Main Judicial Portal was based on analysis of requests from courts, assessment and design performed by members of Web Portal and Database Administration Units, respecting all technical and security constraints, and the principle of providing the most effective web solutions for the judiciary in BiH and users of its services.



The Judicial Forum: an additional communication channel

Following the establishment of the initial courts' and prosecutors' offices' web sites, an online forum was created and made available at the address: http://forum.pravosudje.ba in June 2008. The forum was created as a place for legal professionals to exchange opinions related to legal and other matters, as well as an open space for the public to communicate with the judiciary. All judges, prosecutors and judicial associates, as well as web administrators are registered as forum members.

Some of the thematic sub-forums are used only for matters of internal concern, such as:

- exchange of information and experiences between legal practitioners;
- communication between web administrators and web editors in judicial institutions;
- "how to" guides on various topics (data entry, data processing, analysis, writing) etc.

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Furthermore, the forum also gives the opportunity to the general public for expressing different opinions, seeking advice and discussing various topics related to the judiciary, without any censorship. The forum is also used as a tool for collecting feedback on information published on judicial institutions' web sites.

The wide range of topics discussed on this forum has clearly added to the transparency of the previously inaccessible affairs within the judicial system. Moreover, the increased flow of information to the public about developments in the judicial system helps to hold the officials within the system to account.

Judicial Documentation Centre Information System

The lack of a centralized collection of judicial information has been an ongoing problem in BiH for years, resulting in non-harmonized judicial practices throughout the country. The vast majority of European countries have already established online access to the databases of the most important or even all court decisions. The advantages of centralizing this facility within the HJPC became quite obvious.

As a result, the online Judicial Documentation Centre (JCD) was established, providing judicial officials and others with an interest in the rule of law with fast and simple online access – via the website www.pravosudje.ba/csd – to a wide range of legal information which would help them in carrying out their daily work. The database contains decisions of the BiH Court, the Constitutional Court of BiH, Entity Supreme Courts, and the Appellate Court of Brcko District. Additionally, it includes all rulings passed by the lower courts in relation to the decisions of higher judicial instances, legal opinions on specific verdicts, etc.

All JDC activities have lead to a steady increase of the total number of the database users. According to the website and database traffic analysis, approximately 46 percent of judges, prosecutors and associates visited the database of court decisions on at least one occasion; around 30 percent of them used the database several times, while some 10 percent have been accessing it regularly on monthly basis, thus promoting consistency in the application of the law.



Parties' Access to Court Electronic Records

A major benefit for court users came in 2009 with the development of web service that would allow legal practitioners and citizens to review information on cases registered in the CMS. This was supported by training provided to court staff working on issuing of Web Access Case Codes to interested parties.

The service allows court users to obtain online access to one or more court cases by personal request made at the court registry where only verification of a citizen's identity based on a personal identification document shown to a court registry clerk is required. After identity verification, registry clerks issue a Court Case Number (CCN) and Web Access Case Code (WACC). By using the supplied CCN and WACC codes, users are able to access information on their court case, and also create a Web Account. Creating of a Web Account enables users to access information on several court cases simply with a chosen username and password.

Since the pilot deployment of the service, the ICT Department continuously provides support for end-users via the e-mail address predmeti@pravosudje.ba. This e-mail address is printed on each receipt issued to end-users by court registries, and it is used only as a help desk channel for users of the web service. Establishment of this communication channel allows for direct submission of ideas for further development of the service and its interface.

> Process of acquiring and issuing multiple WACC Codes, creating a single user account and online accessing information on multiple court cases simultaneously



Request + ID Card (or Lawyer registration)

Issuing multiple WACCs

Step 1: Acessing one of Court Cases with corresponding CCN and WACC via internet

> Step 4: Instant access to multiple cases through user account



Court Registry

Real-time information on multiple cases Documents created by the Court

Step 2: Creating a user account (username and password) Step 3: Confirming user account via e-mail



Almost 4,000 users avail of the web access service in the first year

The number of issued Web Access Codes for court cases as of July 2011 was over 13,000. WACCs were issued to nearly 4,000 different parties reg-

istered in the CMS. The graph indicates how well the system has been accepted and how its usage is growing continually.



Average number of successful user log-ins represents significant growth in the number of users using the service on a daily basis



Use of ICT and the CMS in streamlining work processes

The introduction of ICT including the CMS in the BiH judiciary focused on promoting efficiency and automation of existing business operations in order to provide better service delivery.

Today, the CMS has developed into a country-wide information system used by all courts and prosecutors' offices. On the most practical level, the CMS helps to greatly improve work procedures within the courts and prosecutors' offices. Essentially, the CMS ensures that the right information and the right document is available when and where it should be, clearing the path for prudent and prompt action, as dictated by the work flow directions which the system provides. This improves the efficiency of all employees of the court and prosecutors' offices when compared to the more haphazard pre-CMS procedures. The Judicial Documentation Centre is another prime example of an ICT initiative which promotes both efficiency and effectiveness. Its establishment sped up access to legal information facilitating a more uniformed application of the law.

The use of the ICT/CMS will be of particular benefit in the ongoing effort to reduce the considerable backlog of cases that has built up over the years. It enables monitoring of the backlog by recording the overall number of unresolved cases as well as aging structure of those cases.

Essentially, without the ICT support, it would be virtually impossible to measure millions of daily changes related to court cases and analyse the effects of implemented backlog reduction policies.



ICT Promoting Transparency and Accountability

Transparency and accountability, along with the rule of law are some of the core and intertwined, characteristics of good governance which can be achieved through the implementation of e-Governance projects.

The CMS has become one of the most important tools for promoting transparency, and thereby accountability. On a simple level, it keeps judiciary employees up-to-date with developments related to specific cases. In particular, the results of judges' work are available to court presidents, and summary reports on courts' work are available to the HJPC. This facilitates internal transparency and lays the ground for under-performing court officials to be held accountable.

Furthermore, the CMS makes timely and accurate information available to the parties to proceedings and which provides an obvious increase in transparency.

The Judicial Web Portal is another example of a initiative which increased the transparency of judicial institutions for the public at large. Web based service for "Online Access to Court Case Information" represents a major advancement in opening courts' affairs to citizens by making information on court cases accessible to the parties in those proceedings in a clear and accessible manner. This service represents reaching a new level of transparency in operations of courts, where individuals can access most recent information on their court cases at any given time, from any computer with internet access.

Finally, in order to make web-based services and information more accessible to all citizens, including those who do not have sufficient resources for accessing information published on the web on their own, 50 info booths were acquired and installed in public areas of courthouses throughout the country.



Next steps

Since 2004, the BiH judiciary has undergone an ICT 'revolution', managed by the HJPC, that has profoundly improved the way it operates, and we are not done yet. Future activities in the E-Judiciary should respond to the needs of BiH citizens, business community and legal practitioners with regard to access to information, enabling them to easily exercise their rights and perform their duties. Also, the functionalities of the judicial information system should be expanded in order to secure safer exchange of information among judicial electronic registers and electronic registers of other state institutions, particularly those of law enforcement agencies. This can be achieved through further development of new information system modules, particularly the CMS and web portal, as well as through the establishment of two-way electronic communication between courts and users of their services.

There are several planned enhancements for the CMS:

- development and implementation of the scanning modules and email delivery for the parties to the proceedings;
- development and implementation of the electronic data exchange modules between the CMS and police records;
- development and implementation of the CMS functionalities "Predictability of timelines";
- establishment of Court Police module in the CMS.

Future activities will also include support to the courts in ensuring technical conditions for more effective trials, including equipping courtrooms with audio and video equipment that will enable implementation of laws on protection of witnesses under threat and vulnerable witnesses, introducing video conferencing for the court hearings, and equipping prosecutors' offices with additional audio and video equipment to be used in the investigation process.



Greater efficiency for the future

The gradual introduction of electronic signatures in the information system of the BiH judiciary is one of the most significant changes planned for the future.

e-signatures will speed up operations in courts and prosecutors' office operations by facilitating:

- the submitting of court filings in electronic form;
- delivery of court decisions through electronic means;
- electronic signing of all written documents that are a component part of the internal operations of courts and prosecutors offices;
- secure authentication of information system users via the means for the development of e-signatures (smart cards, etc.).

Another imminent novel development will be the establishment of a Human Resources Management Information System for the judiciary. Both the HJPC and the courts and prosecutors' offices process, on a daily basis, significant amounts of personal information related to judges, prosecutors and support staff. The purpose of introducing a common and uniform HR Management Information System for the judiciary is to standardize the collection of all relevant personal data and facilitate easy access to those that need the information as a basis for rendering decisions, thus cutting down on administrative costs.

Equally important will be development of a module for exchanging data between law enforcement



bodies. An Agreement on cooperation on data exchange between police and prosecutors' registers was signed between all relevant ministries and law enforcement agencies foreseeing the establishment of a central access point for the secure exchange of data. This access point will be established as a web service at the State Agency for the Co-ordination of the Police that will communicate with all relevant electronic registers.

The HJPC has been at the fore in pursuing eGovernment and will continue to strive for innovative ways to use ICT to raise the level of judicial efficiency and to make judicial affairs more accessible for the public.



Visoko sudsko i tužilačko vijeće Bosne i Hercegovine Visoko sudbeno i tužiteljsko vijeće Bosne i Hercegovine Високи судски и тужилачки савјет Босне и Херцеговине High Judicial and Prosecutorial Council of Bosnia and Herzegovina



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