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Poboljšanje sustava ovrhe u Republici Hrvatskoj

Improvement of the Enforcement system in the Republic of Croatia

Activity 2.2.2

Conducting screening of the IT systems (analysis of IT structure and business processes from IT aspect) regarding implementation of the enforcement system in stakeholders' institutions and relevant public administrative bodies and preparing report with recommendations on at least two models which could be applied to Croatian enforcement system.



Improvement of the Enforcement system in the Republic of Croatia
 Contract Number: 2010-01-23-010101
 Twinning Number: HR/10/IB/JH/04



THE EUROPEAN UNION’S 2010 PROGRAMME

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Consortium: Spanish Ministry of Justice/Hungarian Ministry of Justice
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GLOSSARY

For the purposes of this report, the following terms should be understood as follows:

Civil Law: The body of laws of a state or nation dealing with the rights of private citizens.

Court: a place where justice is administered or a judicial tribunal duly constituted for the hearing and determination of cases.

Judicial decisions/judicial resolutions: A verdict, judgment, conclusion reached or given by a court or tribunal.

Enforcement: To compel observance or obedience to something, in this case, judicial decisions/ judicial resolutions and arbitration award.

Auction: A sale open to the general public and conducted by an auctioneer, a person empowered to conduct such a sale, at which property is sold to the highest bidder.

Bid: An offer by a bidder, a prospective purchaser, to pay a designated amount for the property on sale.

Appraisal: A valuation of property or goods.

Edict: A proclamation having the force of law.

Warrant: An amount of money considered as having the force of a guarantee or as being positive assurance for an auction.

Court Solicitor: the public officer in a county, district, or other jurisdiction charged with carrying on the prosecution in criminal proceedings.

Court Attorney: an officer of the court authorized to appear before it as a representative of a party to a legal controversy.

Lawyer: a person whose profession is to represent clients in a court of law or to advise or act for clients in other legal matters.

Solicitor: Legal profession whose services consist of advising clients, representing them before the lower courts, and preparing cases for barristers to try in the higher courts.

Registrar: public law official, who remain at the forefront of the Register.

Notary public: public state official who should provide citizens the legal certainty in extra-judicial transactions.

Claims: A demand claimed in a formal or legal manner.

Jurisdiction: The geographic area over which judicial authority extends; legal authority; the authority to hear and determine causes of action.

Electronic Legal Office: It is not a specific unit with facilities and staff assigned. It is an electronic one-stop-shop (portal) for Judicial e-services.



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ABREVIATONS

FINA	Croatian State Agency responsible for the financial intermediation
STE	Short Term Experts
LFEP	Public Statistical Services
OIB	Croatian Personal Identification number
ICMS	Integrated Case Management System



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Precedents

This Project is based on three basic commitments of Croatia's agreement of accession to the European Union in 2008:

1. To reduce the number of unsettled cases in the courts.
2. To simplify the organization of courts and tribunals.
3. To guarantee the correct enforcement of judicial sentences.

Since in 1996 the "Enforcement Act" came into effect, and for the attainment of the mentioned aims, Croatia has made important legislative reforms. Among the above mentioned reforms, the most significant took place in 2012, when the possibility of the direct enforcement of the judicial decisions, judicial resolutions or arbitral resolutions was established by means of seizure of bank accounts through the Croatian State Agency responsible for the financial intermediation (FINA).

Some of the positive effects of these reforms were mentioned in the follow-up report on the proceedings of the accession of Croatia, dated March 26, 2013. Nevertheless greater efforts are still necessary in order to reduce the case backlogs in the courts, which is still higher than the European average.

The most recent reforms of the "Enforcement Act", named "Act of Amendments to the Enforcement Act", were carried out in December, 2013 and July, 2014, and came into force in September 1st, 2014.

The aims of this Project are to provide the necessary technical assistance to courts, public notaries and the FINA, in order to extend and to reinforce its jurisdiction, simplify the enforcement procedures and increase the citizens' knowledge of the system of enforcement.

The purpose of the 2.2.2 technical assistance is to conduct screening of the IT system used in the Republic of Croatia regarding enforcement system in stakeholders' institutions and relevant public administrative bodies.

Following this screening, a report with recommendations on at least two models that could be applied to improve the Croatian enforcement system will be delivered.

The assistance will be focused on technical aspects and will include the analysis of IT structure and business processes from IT point of view.

Two work groups formed by two technical experts from Spain and two technical experts from the BC will develop an in-deep analysis of the Croatian IT systems, with special emphasis to IT systems supporting enforcement and legal communication with stakeholders.

Final report of activity 2.2.1 will be taken into account.



1 Executive Summary

DEBRIEFING REPORT EXECUTIVE SUMMARY	
Experts	<p>Mr. José Luis Hernández Carrión <i>Associate Deputy General Director of New Technologies of Justice</i> <i>Member of Technical State Committee of Judicial Electronic Administration</i></p> <p>Mr. Jesús Barba Lobatón <i>Chief of Area of Technology Innovation and Platforms of the General Sub-direction of the New Technologies of Justice</i></p>
Mission	<p>Activity 2.2.2. Conducting screening of the IT systems (analysis of IT structure and business processes from IT aspect) regarding implementation of the enforcement system in stakeholders' institutions and relevant public administrative bodies and preparing report with recommendations on at least two models which could be applied to Croatian enforcement system.</p>
Dates	<p>February 2-13, 2015</p>
Places	<p>Zagreb</p>
Objectives	<ul style="list-style-type: none"> • To conduct screening of the IT systems regarding implementation of the enforcement system in institutions involved. The study should be focus on technical aspects, especially IT structure and business processes. • Make recommendations on at least two models which could be applied to Croatian enforcement system. Both models will aim at expedite the process of enforcement, guarantee transparency, access to information by interested parties with respect to citizens' rights on data protection and meet European standards.
Methodology	<p>Screening process</p> <ul style="list-style-type: none"> • Define screening objectives • Identify relevant stakeholders • Research tools • Execution of the screening process <p>Set of recommendations</p> <ul style="list-style-type: none"> • Define the current state-of-play based on the screening process. • Elaborate two sets of recommendations based on the Spanish experience.



DEBRIEFING REPORT EXECUTIVE SUMMARY

Outcomes	Final report with conclusions and recommendations
Conclusions	<p>The Republic of Croatia is taking the right actions to improve the current state of enforcement process. For the next steps, actions over some detected improvement areas should be considered, such as:</p> <ul style="list-style-type: none"> - Massive use of paper. - Reduced set of e-justice services. Currently it has been detected just a few e-justice services. The number of them should be increased achieve an effective e-Justice. - Lack of a judicial security and interoperability framework. No security breach has been detected, but a framework it is a powerful tool to align stakeholders and systems involved in the e-justice. - Increase significantly the use of the digital signature. - The enforcement process of a e-Justice system have to empower the citizens and professionals by providing electronic services that allows them to interact electronically with Justice Administration. <p>This justice modernization process must aim to change the current paradigm consisting of “in person” interaction with courts, paper and documents. This judicial paradigm should evolve to a new one based on electronic services available over the internet, boost the data versus the documents, and define and implement business process to identify to manage, control, measure and improve judicial activities (if it can't be measured, it cannot be improved). To address this change of paradigm, a set of recommendations structured in 4 action plans has been proposed in this document.</p> <p>For the evolution of the enforcement system the deploying of many components (of every kind: legal, organizational, technical, interoperability or security), is required. Many “BUY or DO decisions” have to be taken. For this point it is recommended to consider a third way: reutilization. During the screening process it has been detected that APIS (information systems and information technologies support agency) has many of the technological components, infrastructure and experience required. The Ministry of Justice could benefit from APIS services in order to provide a cost effective solutions, reduce the time to market of the applications and develop applications.</p>
Recommendations	<p>The recommendations have been structured in 4 actions plans detailed in the point “5 Recommended model – TO –BE” of this document:</p> <ul style="list-style-type: none"> • Electronic Services • Systems, Technical Platforms and Applications



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DEBRIEFING REPORT EXECUTIVE SUMMARY	
	<ul style="list-style-type: none">• Policies and IT Strategy• Stakeholders
Annexes	



2 Introduction

This document analysis and recommendations has followed the basic dimensions defined in the best practices identified previously in the twinning project document “Activity 2.2.1 - Spanish overview in relation to IT interoperability and interconnectivity needed for efficient enforcement system”. These dimensions are complemented with an additional one, Interoperability.



Illustration 1 – Best practices Dimensions

These dimensions could be vertical (only affect actions of a certain field) or horizontal (which may affect all the actions of the vertical dimensions):

VERTICAL DIMENSIONS

LEGAL DIMENSION. Laws and regulations are the base upon which all modernization efforts should rest. The actions in this dimension provide the required support to allow the correct implementation of the new measures. These actions have to define what it can be done and what basic rules should be followed. Without the adequate legal support even the best application has a 100% probability of failure.

ORGANIZATIONAL DIMENSION. Staff, organizational structures and processes are the core of any organization. To improve this aspect, many actions have to be taken to assure that the organization structure, business processes and staff are prepared for the new systems or way of work. A critical issue that should be addressed is: how to cope with the coexistence of 2 works systems at once. For example the coexistence of 2 work systems may appear with the differenced treatment of a process depending of the initiating date. If the process is filed before a certain date it would be processed in paper but if it is filed



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after a certain date in would be processed electronically. For this situation inform and train the court staff is a key action, and also define the organizational procedure to solve the situations that coexistence of procedures in paper and electronic format may cause.

TECHNICAL DIMENSION. The technical perspective provides the solution to the requirements defined by legal, security and organizational stakeholders plus many other stakeholders that may be taken into consideration during the solution analysis. This dimensions actions address technical issues as the datacentre infrastructure, how applications/systems technically interoperate, communications schemas, etc...

HORIZONTAL DIMENSIONS

SECURITY DIMENSION. Security is a global goal that must be considered in all the organizational process, and that includes the legal, organizational and technological actions. The best and most secure IT system would not be effective if, for example, the organizational process allows the use of generic users with a well-known password. Security action must be addressed in the legal dimension by establishing the level of security. The organization should adopt this security measures and incorporate them to the organizational process and the technology has to be implemented consequently to the IT system.

INTEROPERABILITY DIMENSION. The interoperability is defined by the IEEE as *“Ability of a system or a product to work with other systems or products without special effort on the part of the customer. Interoperability is made possible by the implementation of standards¹”*. To allow all participants of the judicial process to work together, it is necessary to define and follow interoperability standards. At this point, it is important to make clear that interoperability is a 100% percent technological matter. Although technology interoperability is important (communications protocols, software versions used, etc...) it is also necessary to address the semantic and organizational interoperability in order to assure that the organizational processes are able to “communicate” with other departments or even a different organization.

¹ Institute of Electrical and Electronics Engineers (IEEE) - http://www.ieee.org/education_careers/education/standards/standards_glossary.html



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3 Objectives

The purpose of this mission is “Conducting screening of the IT systems (analysis of IT structure and business processes from IT aspect) regarding implementation of the enforcement system in stakeholders’ institutions and relevant public administrative bodies and preparing report with recommendations on at least two models which could be applied to Croatian enforcement system”.

The expected output of this document consists of two main subjects:

- Analyses of the current state of play of the components which take part of the Croatian Enforcement system (AS-IS).
- 2 sets of recommendations that aim to improve the way enforcement are implemented (TO-BE), based in the Spanish Judicial Experience.



4 Current Situation – AS-IS

4.1 Screening Methodology

The purpose of this task is to conduct a screening of the IT system used in the Republic of Croatia regarding enforcement system in stakeholders' institutions and relevant public administrative bodies. This analysis has been accomplished by following steps:

Define screening objectives

As the screening should focus in the enforcement system, the following tasks have been defined to gather the information about the current state-of-play:

- Determine which key systems are involved in the enforcement system.
- Identify all relationships between the systems: web services, paper, email, etc...
- List the current ICT infrastructures used in the enforcement systems.
- Identify relevant stakeholder near future actions in ITC field.

Identify relevant stakeholders

From previous missions it has been identified the following key organizations that should be taken into consideration for the screening:

- Ministry of Justice. Provider of ITC support to the courts and leader of the justice modernization process.
- Financial Agency – FINA. Ministry of Justice service provider and it is currently developing the e-Auction portal. Also it provides a secure inter-administrative network HITRONet and it is a Certified Authority for issuing electronic signature for government bodies. .
- Information systems and information technologies support agency - APIS. Service provider of the Ministry of Finance and many other public administrations.
- Municipal Court of Zagreb. Due to the size of this court it is important to identify how the Ministry of justice has been developed the applications in use and what are the users' main requests.

In each organization, main stakeholders have been identified.

Organization	Department	Name	Charge
Ministry of Justice		Ms Tatjana Pinhak	Advisor to the Minister for IT
Ministry of Justice		Mr Silvije Šeremet	Senior IT Advisor
Ministry of Justice	IT	Mr Goran Janeš	Head of the IT department
Ministry of Justice	IT	Ms Tanja Magdić Ukalović	Development
Ministry of Justice	IT	Ms Kristina Pavlović	Customer Service
Court	Zagreb Municipal Court	Ms Nina Poznić	Head of Communication of the Office of the President of the Court
Court	Zagreb Municipal Court	Mr Neven Pavličić	Court IT Manager
APIS		Ms Danijela Marović	Managing Director



Ministry of Finance	FINA	Ms Tea Janjiš Šabić	Senior Specialist for legal support
Ministry Internal Affairs	None*		

*It was not possible to identify stakeholders from the Ministry of Internal Affairs for a deeper analysis of the car property registry services, as it has a significant role in the enforcement process. Mr. Igor Vidra, RTA counterpart, was involved in this process but, unfortunately, with no success.

Research tools

An interview has been the main tool used for the screening process. The main purpose of these interviews has been to obtain the information required to fulfil the objectives of the screening. In order to minimize the impact of the interviews in stakeholders' agenda they are requested to be hosted in their own facilities.

Unfortunately, due external reasons, it was not possible to interview FINA's key stakeholders. For this situation a questionnaire has been elaborated and sent by email:

Questionnaire for screening

Applications

1. PBZO

- 1.1. What is the use of this application - when performed from the courts?
- 1.2. Purpose of the application is the PBZO?
- 1.3. Who is responsible for it?
- 1.4. What are all its functions? We know so far that authentication is by username and password and it is used in order to obtain data on certain vehicles (which) and citizens (which). Any other feature?
- 1.5. Is it available through internet?

2. e-Katastar

- 2.1. What is the use of this application - when performed from the courts?
- 2.2. What is the purpose of the application?
- 2.3. Who is responsible for it?
- 2.4. What services provides?
- 2.5. Is it 100% electronic or it is necessary to perform some of its steps via paper?
- 2.6. What is its authentication?

3. Land Register

- 3.1. What is the use of this application - when performed from the courts?
- 3.2. What is the purpose of the application?
- 3.3. Who is responsible for it?
- 3.4. What services provides?
- 3.5. What is its authentication?
- 3.6. Is it 100% electronic or it is necessary to perform some of its steps via paper?

4. APIS

- 4.1. What is the use of this application - when performed from the courts?



- 4.2. What is the purpose of the application? Is it data exchange, exchange of documents or both?
Which authorities are connected?
- 4.3. Who is responsible for it?
- 4.4. What services provides the application?
- 4.5. What is its authentication?
- 4.6. Is it 100% electronic or it is necessary to perform some of its steps via paper?

Organizations

5. FINA

Connection with the Ministry of the Interior

- 5.1.1. Which application is used for obtaining data on the address of citizens from the Ministry of the Interior: APIS, PBZO, any other? In case of another application, please provide us with the details on that application.
- 5.1.2. How the rest of requests are managed with the Ministry of the Interior?
- 5.1.3. When the official address of a citizen (which has been electronically requested) is invalid and another one shall be requested (in writing and upon payment of 40 HRK): to whom the request shall be made? To the Ministry of the Interior, local authorities, etc...? Is there any central repository?

Ministry of Justice

- 5.1.4. They are at the preparation stage for the e-auction. What communications/protocols have been established so far?

Municipal courts

- 5.1.5. Communication is in written form, since the system that has been made available in the courts is not supported by the equipment of the courts. What is the name of that application?
- 5.1.6. What are the technical requirements of the application? And, what are the problems that they have been detected so far?
- 5.1.7. What services shall be provided by this application?

6. Ministry of Internal Affairs

Ministry of Justice

- 6.1.1. There is an agreement signed between two ministries: what is its scope?

Municipal courts

- 6.1.2. The presence of the police may be requested, but it must be made in writing.

7. Ministry of Justice

FINA, Ministry of the Interior and Bar Association

- 7.1.1. Everything is done by email. Any changes foreseen for the near future?
- 7.1.2. Legal validity of the emails?

Municipal Courts

- 7.1.3. In order to obtain statistics electronically the access shall be made through e-SPIS. It is indicated that communication with the president of the Municipal Court in Zagreb is done



electronically. How it is performed: by email, by application? The rest is done in written form.

8. Municipal Courts

8.1.1. They have a database with record on citizens, file cases, search engine of notaries, law database, etc. ... is this single database? If not, are they all integrated?

8.1.2. In the document 2.2.1 it is stated that there is no central system for judicial proceedings. What is the reality: centralized or distributed system?

8.1.3. There is an intranet in the courts in Zagreb, what services may provide? Are there any of these services in other courts?

8.1.4. SupraNova (replaces SUPRA) is an application in which the judgments are centralized. It is planned to join it to the procedural management system, but they shall be made anonymous.

Execution of the screening process

Once the key stakeholders have been identified, the following interviews have taken place:

Data and Time	02/02/2015 10:00	Location	Room 139 - Ministry of Justice Ulica grada Vukovara 49 Zagreb
Attendants	Ministry of Justice Ms. Tatjana Pinhak (Advisor to the Minister for IT) Mr. Silvije Šeremet (Senior IT Advisor) Twinning Project Ms. Marian Oyola Reviriego (Resident Twinning Advisor) Mr. Jose Luis Hernández Carrión (Short Term Expert) Mr. Jesús Barba Lobatón (Short Term Expert) Ms. Daniela Josipović Trusić (Language assistant)		
Summary	Organization of the Ministry of Justice Key projects Key Justice Stakeholders		

Data and Time	02/02/2015 13:00	Location	Room 701 - Ministry of Justice Ulica grada Vukovara 49 Zagreb
Attendants	Ministry of Justice Ms. Tanja Magdić Twinning Project		



	<p>Ms. Marian Oyola Reviriego (Resident Twinning Advisor)</p> <p>Mr. Jose Luis Hernández Carrión (Short Term Expert)</p> <p>Mr. Jesús Barba Lobatón (Short Term Expert)</p>
Summary	<p>IT Infrastructure: Datacentres, courts IT resources, etc.</p> <p>Electronic Judicial Case Management Systems used currently in Croatia</p> <p>Ministry of Justice IT department organization</p> <p>e-Auctions project</p>

Data and Time	03/02/2015 10:15	Location	Room 701 - Ministry of Justice Ulica grada Vukovara 49 Zagreb
Attendants	<p>Ministry of Justice</p> <p>Ms. Kristina Pavlović</p> <p>Twinning Project</p> <p>Ms. Marian Oyola Reviriego (Resident Twinning Advisor)</p> <p>Mr. Jose Luis Hernández Carrión (Short Term Expert)</p> <p>Mr. Jesús Barba Lobatón (Short Term Expert)</p>		
Summary	e-SPIS Overview		

Data and Time	06/02/2015 09:00	Location	Ms Poznić's office – Municipal Court of Zagreb Ulica grada Vukovara Zagreb
Attendants	<p>Municipal Court of Zagreb</p> <p>Ms. Nina Poznić Panov (Coordinator for E-Spis at the premises of Municipal Court Zagreb)</p> <p>Mr. Neven Pavličić, Head of the IT Department</p> <p>Twinning Project</p> <p>Ms. Marian Oyola Reviriego (Resident Twinning Advisor)</p> <p>Mr. Jose Luis Hernández Carrión (Short Term Expert)</p> <p>Mr. Jesús Barba Lobatón (Short Term Expert)</p> <p>Ms. Daniela Josipović Trusić (Language assistant)</p>		



Summary	Register office work process IT court infrastructure Court citizen oriented services overview
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Data and Time	10/02/2015 09:00	Location	Room 139 - Ministry of Justice Ulica grada Vukovara 49 Zagreb
Attendants	Ministry of Justice Mr. Goran Janeš (Head of IT Sector) Ms. Tanja Magdić Twinning Project Mr. Jose Luis Hernández Carrión (Short Term Expert) Mr. Jesús Barba Lobatón (Short Term Expert)		
Summary	Presentation of the findings made so far. Discussion about the future IT actions of the Ministry of Justice		

Data and Time	13/02/2015 12:00	Location	Room 101, APIS IT Paljetkova 18
Attendants	APIS Mr. Zdravko Dragičević (Managing director) Ms. Agneza Margetić Crnčec (Department manager) Ms. Davorka Adžija (Division manager) Twinning Project Ms. Marian Oyola Reviriego (Resident Twinning Advisor) Mr. Jose Luis Hernández Carrión (Short Term Expert) Mr. Jesús Barba Lobatón (Short Term Expert) Ms. Daniela Josipović Trusić (Language assistant) Ms. Iva Buljan (Component Leader II)		
Summary	Presentation of APIS and its functions. Projects: OIB, PBZO and e-Enforcement. Visit APIS facilities.		



In summary, the interaction with the identified stakeholders is represented in the following table indicating what screening tool has been used:

Organization	Department	Name	Charge	Interviewed	Questionnaire
Ministry of Justice		Ms Tatjana Pinhak	Advisor to the Minister for IT	✓	
Ministry of Justice		Mr Silvije Šeremet	Senior IT Advisor	✓	
Ministry of Justice	IT	Mr Goran Janeš	Head of the IT department	✓	
Ministry of Justice	IT	Ms Tanja Magdić Ukalović	Development	✓	
Ministry of Justice	IT	Ms Kristina Pavlović	Customer Service	✓	
Court	Zagreb Municipal Court	Ms. Nina Poznić	Head of Communication of the Office of the President of the Court	✓	
Court	Zagreb Municipal Court Municipal Court	Mr Neven Pavličić	Court IT Manager	✓	
APIS		Ms Danijela Marović	Managing Director	✓	
APIS		Mr. Zdravko Dragičević	Managing Director	✓	
APIS		Ms. Agneza Margetić	Department Manager	✓	
FINA		Ms Tea Janjiš Šabić	Senior Specialist for legal support		✓
Ministry of Internal Affairs	-	-	-	-	-



4.2 State-of-play overview

The current Croatian Enforcement system has taken the right steps towards a real e-justice system, which allows a 100% electronic management; not only with regard to the enforcement but also all the justice related cases. However, several points have been detected that should be taken into consideration in order to address effective measures for solving or improving the current situation:

- **Massive use of paper.** Although the use of technology is broadly expanded in the Courts and the users have assumed that as just another working tool, it has been detected that the core of the system is paper. Electronic Judicial information system has as main purpose the control of case status and retrieve statistics. To exploit all the potential of the electronic management, the core of the system should switch from paper to electronic format. Also another significant change, which could provide important benefits, would be the boost of the data versus document. The usage of data would easily and effortlessly allow Ministry of Justice, other public administration or even third parties to provide added value to Justice Administration and citizens.
- **E-justice services organization.** The current services are published in several web pages and they are judicial case oriented. The case oriented usage does not provide to the internal or external user any kind of context but just the case status. To provide a better user experience it is recommended to move from this approach to the digital identity of the user, no matter if it is an internal or external user. By swapping to this approach many benefits could be obtained as an external user could log on in Electronic Judicial Office and list all the cases in which the user takes part.
- **Digital signature.** One of the main weaknesses of the Croatian Enforcement System is the lack of digital signature. An effective use of digital signature in the Judicial Administration could provide many positive returns such as reducing significantly the amount of paper used in a case life-cycle. Also it would allow the implementation of electronic Judicial Document and File.
- **Systems Integrations.** Although several systems integrations have been detected, these system-to-system integrations should be boosted. The use of system integrations would boost the productivity of the users, allow automation of some tasks, improve the quality of data, and it would facilitate the change management with end users as they do not have to introduce the same data over different systems.
- **Increase in e-justice services availability.** Currently, it is necessary to visit the courthouse to perform any action on a case in person or use the traditional mail channel. The Internet channel does not offer services to have a complete electronic interaction with the judicial administration. To avoid legal professionals or citizens to visit each court house to make an action on a case or receive a document it is necessary to define a set of service which replicates the services in-person in one-stop-shop²: the Electronic Judicial Office. From this office, both, legal professional and

² Electronic Judicial Office. It is not a specific unit with facilities and staff assigned. It is an electronic one-stop-shop (portal) for Judicial e-services.



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citizens would be able to initiate a case, pay the taxes, get information about the current state of a case, etc. The e-Citizen portal is a good starting point as the citizens are able to receive judicial communications, with not legal value, when something changes in the process their part of.

- **Interoperability.** To provide an adequate cooperation between IT systems and organizations it is necessary to define interoperability guidelines. During screening it has been detected the existence of the Croatian Interoperability Framework, but no specific judicial interoperability guides have been detected. The existence general of the interoperability framework is positive, but due to the nature of the judicial activity a specific framework should be defined and it should also cover security. Interoperability should not be understood only as a technical issue (for example the technical protocol that 2 systems are using in order to “talk” to each other); interoperability also covers semantic (for example, a common definition of what is a “CASE” for the Ministry of Justice and FINA) and organizational issues (allow establish equivalences between different organizations of roles, positions, etc.).



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4.3 Current state-of-play of the enforcement process

4.3.1 As-Is Paper based interfaces

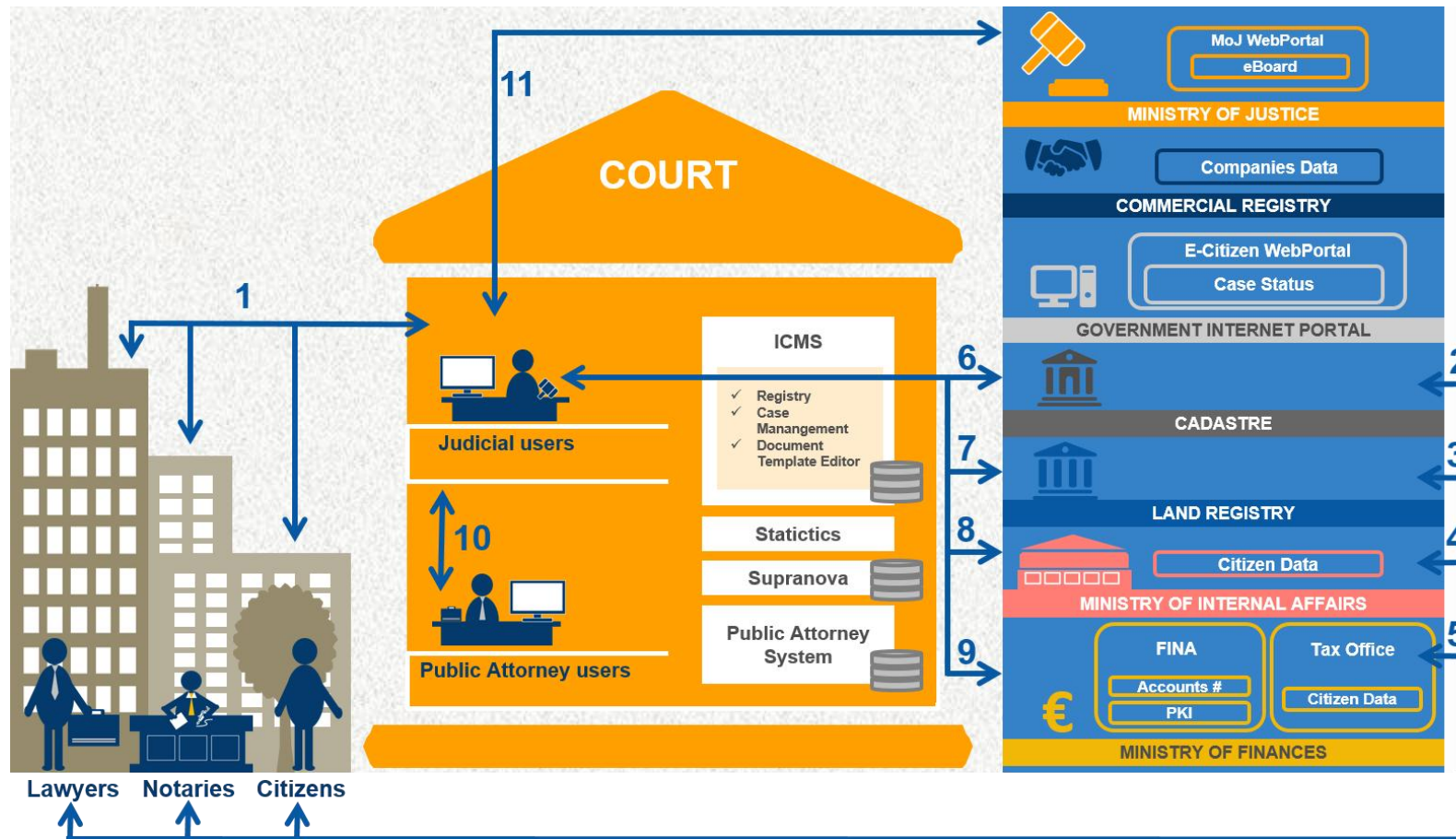


Illustration 2 – AS-IS: Paper-based interface



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NOTE: The diagram sets the Land and Commercial Registry out of the court. Although these two units are integrated in the courts, they have been represented independently due to their well-defined functional area of work.

1 Lawyers/Notaries/Citizens (external users) and Judicial Users

Communication between external user and judicial users is performed by a paper documents system. The external users have to go physically to the courts to present the case-related documents in paper format. As a receipt, they get another paper document from court.

In case courts need to send a document to any of the external users, the process is done in paper via mail or notification.

In some cases like in minors-related-cases, the information may be presented via email or fax. This type of presentation has no legal validity, and it is used just to warn the court about the case. This presentation type has to be complemented with paper document presentation at the court registry office.

2 Lawyers/Notaries/Citizens (external users) and Cadastre

Communication of external users with the cadastre has to be through paper. This system may offer some information via electronic means but with no judicial effectiveness.

3 Lawyers/Notaries/Citizens (external users) and Land Registry

Communication of external users with Land Registry has to be through paper. This system may offer some information via electronic means but with no judicial effectiveness.

4 Lawyers/Notaries/Citizens (external users) and Ministry of Internal Affairs (Citizen Data)

Communication of external users with the Ministry of Internal Affairs has to be through paper. This system may offer some information via electronic means but with no judicial effectiveness.

5 Lawyers/Notaries/Citizens (external users) and Ministry of Finances (Citizen Data)

Communication of external users with the Ministry of Finances has to be through paper. This system may offer some information via electronic means but with no judicial effectiveness.

6 Judicial Users and Cadastre

In this case the communication between Judicial Users and Cadastre has to be done by paper documents exchange.

7 Judicial Users and Land Registry

In this case the communication between Judicial Users and the land registry has to be done by paper documents exchange.

8 Judicial Users and Ministry of Internal Affairs (Citizen Data)

Communication between Judicial Users and Ministry of Internal Affairs has to be done by paper documents exchange.



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9 Judicial Users and Ministry of Finance (Citizen Data)

In this case the communication between Judicial Users and Ministry of finance has to be done by paper documents exchange.

10 Judicial Users and Public Attorney Users

As there is no interoperability policy established between the judicial users and the public attorneys, the communication between these two judicial stakeholders has to be done by paper.

11 Judicial Users and Ministry of Justice

In order to publish judicial resolution on the board for the pertinent judicial effects, the judicial users have to print the document and place it physically on the court bulletin board.



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4.3.2 As-Is Graphic Users Interfaces

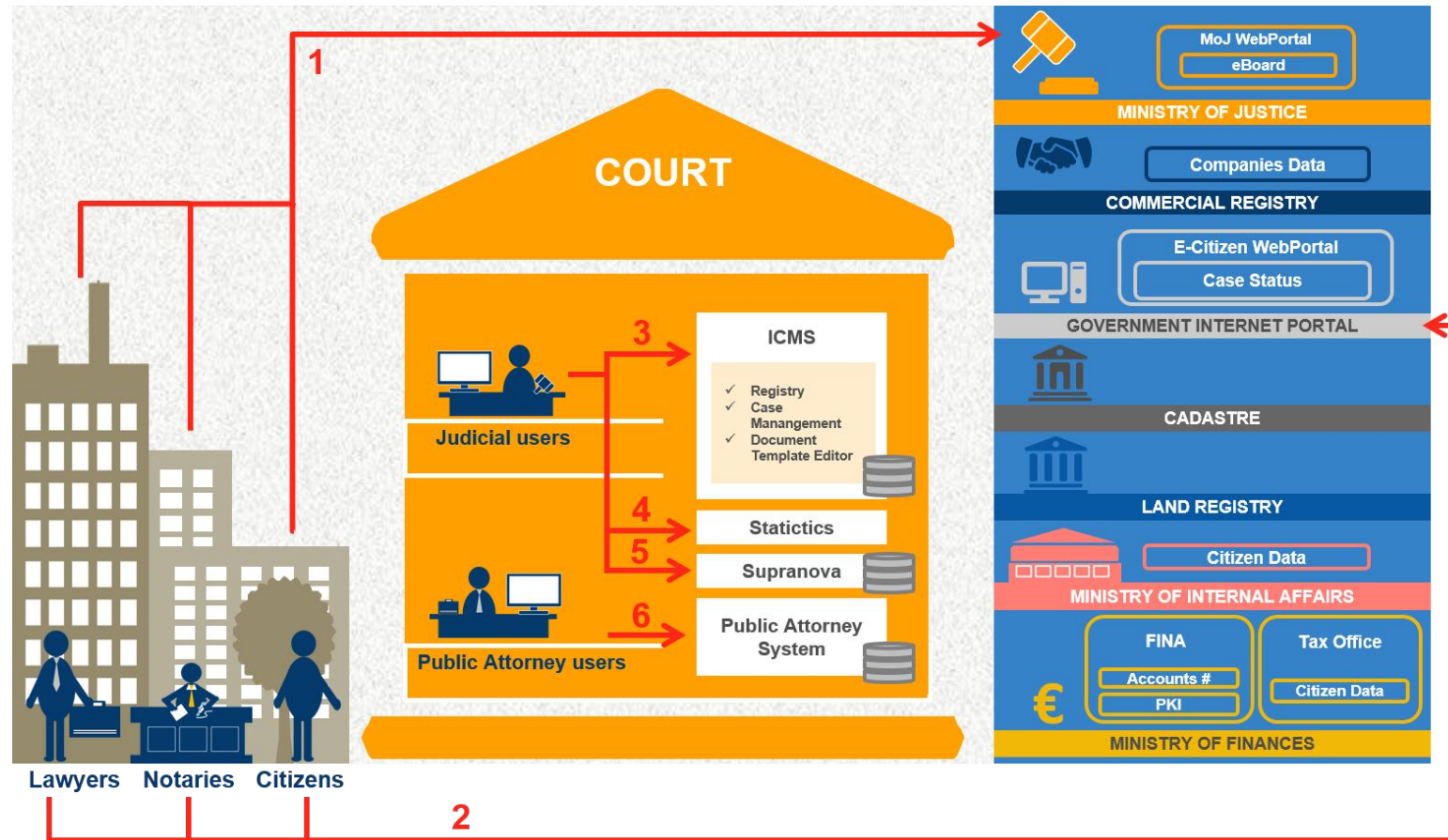


Illustration 3 – AS-IS: Graphic user interfaces



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1 Lawyers/Notaries/Citizens (external users) and Ministry of Justice

External users are able to consult, over the internet and for a certain period of time, the resolutions that have been posted in the electronic board of the Ministry of Justice. The access is open, so no authentication data is required to access to the judicial documents.

2 Lawyers/Notaries/Citizens (external users) and Government Portal

In the government portal it is possible to access the “state of a case” (e-Predmet) to check current state and when the most significant milestones of the procedure have been achieved. The access to this service is available over the internet and no authentication data is required.

To retrieve information from a case it is only necessary to have the number of the procedure and the court, however no personal data of the parties are displayed.

3 Judicial Users and Integrated Case Management System

Judicial users have access to the integrated case management system through a desktop application. Authentication is mandatory to access the system. The authentication is performed by username and password, and once the user has access to the system a role could be selected in a list of roles available (depending of the user privileges).

Once the user has access to the system, its role determines what actions he/she is allowed to perform or not. The main functionalities of the system are to record the party data, obtain information from third parties, record relevant information of case life cycle, obtain reports, manage documents generation, etc...

4 Judicial Users and Statistics

Selected judicial users can access the statistics through the IBM COGNOS tool. The data are obtained from the ICMS system and they are processed in order to obtain relevant Key Performance Indicators for the Ministry of Justice.

5 Judicial Users and Supranova

Judicial users have access to court decisions through SupraNova. This system is replacing the former one “Supra”. The court decisions are loaded into the system, following a process to make them anonymous, by removing any existing personal data.

6 Public Attorneys Users and Public Attorney System

Public Attorneys have their own ICMS, which is no e-SPIS.



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4.3.3 As-Is System Integrations

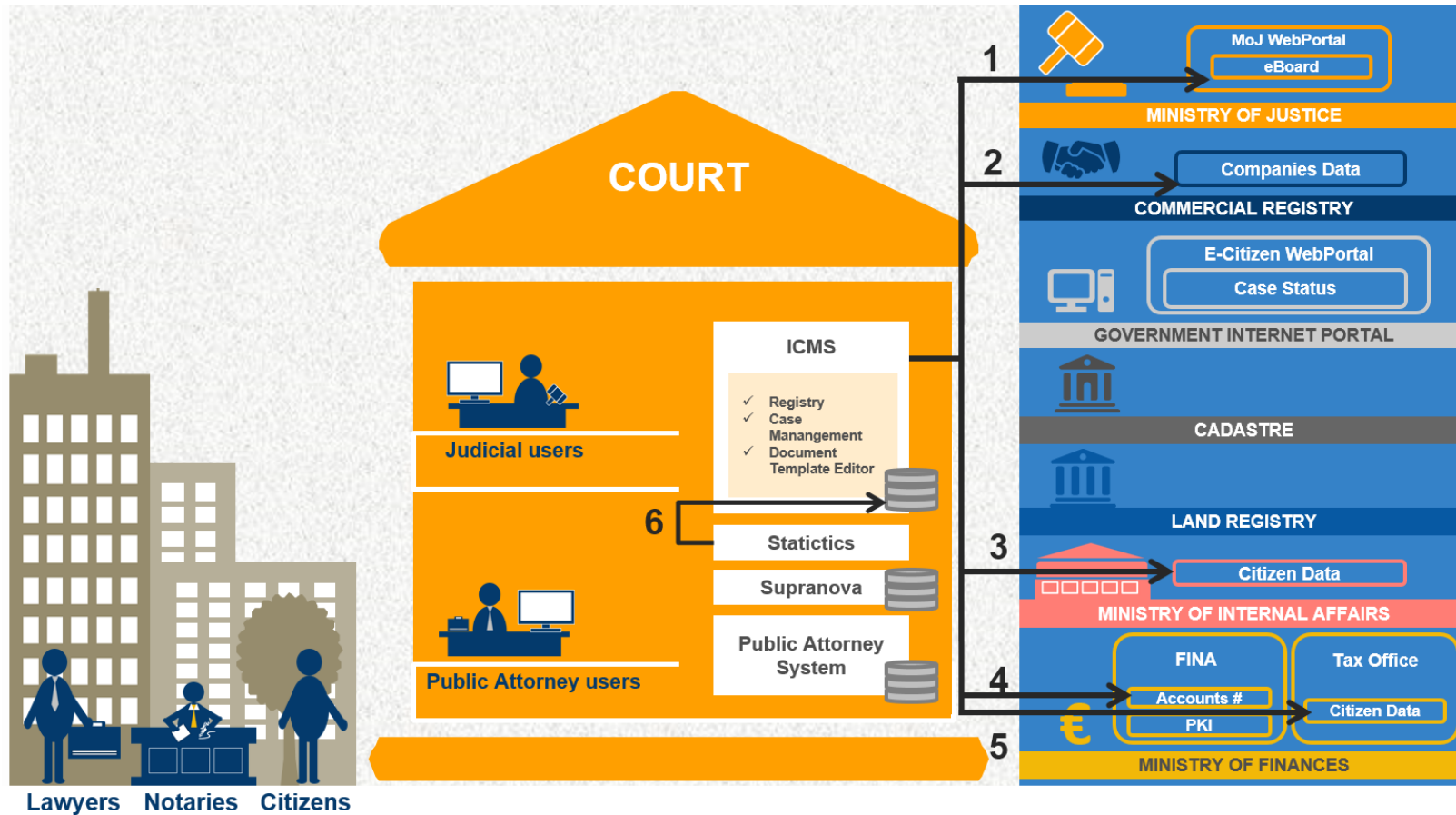


Illustration 4 – AS-IS: System Integrations



1 Integrated Case Management System and Ministry of Justice - eBoard

Currently the integrated case management system, e-SPIS, is integrated with the judicial electronic board service. This service is hosted in the Ministry of Justice web page and provides electronic access to the documents that each judicial stakeholder publishes. The documents are published either in PDF or in an editable format (docx) and they don't have any security measure that grants the authenticity or integrity of the document. The eBoard system also allows direct access to e-Predmet (Judicial case status check service).

Judicial users are able to publish directly from e-SPIS to the eBoard (e-bulletin board). The electronic publication has only an informative value, as the judicial users before had to print out the document and place it physically in the court board. As regards the enforcement proceedings, every document which is not successfully delivered to the parties shall be placed on e-bulletin board. According to this, in the enforcement proceedings the court bulletin board is entirely replaced by the e-bulletin board.

2 Integrated Case Management System and Commercial Registry

The commercial courts can access, through e-SPIS, the Commercial Registry to retrieve information about companies from their cases. The exchanged information is mostly data about the company and no document exchange has been detected.

The integration between ICMS and Commercial Registry works both ways, as it allows also sending information the Commercial Registry. This information consists only in data about the company; it does not include judicial documents.

3 Integrated Case Management System and Ministry of Internal Affairs – Citizen Data

Judicial users are able to retrieve personal information from citizens and companies through the ICMS. A judicial user can retrieve data such as: name, surname, gender, known addresses, etc. This information can be included in a judicial file, which is a good practice as it boosts the quality of the data and improves the judicial user productivity.

4 Integrated Case Management System and – FINA (OIB number)

Judicial users are able to retrieve personal data through the ICMS. This functionality is complemented with functionality to retrieve OIB information from the parties via the integration between the ICMS and a service provided by FINA. The more interconnection between systems for financial information exchange, the better will be the enforcement process in terms of effectiveness and efficiency.

5 Integrated Case Management System and Tax Office – Citizen Data

Judicial users are able to search companies and citizen details using the OIB (Personal identification number is a permanent identification number for every Croatian citizen and legal entity residing in the Republic of Croatia) through the ICMS integrated with Tax Office service. This service complements the one offered by the Ministry of Internal Affairs.



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The main differences between both services are the search capabilities:

- Tax Office service: offers the search by OIB functionality. This type of search is available through e-Spis application.
- Ministry of Internal Affairs service: This service allows the search for criteria different from the OIB, such as name, surname, etc... this service is available to all court staff.

6 Statistics and Integrated Case Management System

The current statistics system, COGNOS, is currently integrated with the ICMS and it allows generation of reports of the current state of files managed with the ICMS. The reports generated with this system allow exploration of the information and creation of the key performance Indicators.



5 Recommended Model – TO-BE

Based on the findings described in the previous section “Current Situation – AS – IS”, and taking into account the Information and Communication Plans of the IT Department of the Ministry of Justice and next steps which are planned regarding interoperability area, a recommended model to achieve has been defined.

The logical architectural diagram, as shown below, has been designed under the premises of minimizing the changes on the existing technical architecture to use the existing infrastructure and services as much as possible. All the actions recommended have been grouped in four action plans, all of them with activities in each of five dimensions already mentioned.

- Electronic Services
- Systems, Technical Platforms and Applications
- Policies and IT Strategy
- Stakeholders

5.1 Electronic Services

A new Electronic Judicial Office should be built, focused in final users: citizens and professionals. The Electronic Judicial Office is a specific e-Justice portal that would make the enforcement system more accessible to those final users. Services, which should be available online, are at least the following:

- **eFiling:** electronic service available to all end users (citizens and professionals) that makes possible sending of writs, reports and documents to courts in electronic format, including electronic signature. This service must combine both information requirements: structured data and documents. Structured data could feed ICMS attaching all those documents that have been sent by the end user.
- **eDelivery:** this system requires to set up mailboxes for citizens and professionals, all of them identified by OIB number in order to identify unequivocally each user. No doubt that PKI, used for issuing digital certificates for users, must include OIB number inside the OID intended for that purpose.
- **eFile access:** usually parties require access to documents of the judicial process in which they are part of. To solve this business case, an eFile access electronic service must be available in the Electronic Judicial Office in order to grant access to those documents.
- **Secure Code Verification:** Many times when electronic documents are issued by a court, they have to use secure code systems for document verification in the development of automated actions. This code would also link itself to the organ or body and, where appropriate, to the person signing the document. This system would allow the verification of the integrity of a paper version of an electronic document by accessing the corresponding electronic judicial office and provide the Secure Code. The system of secure verification code should ensure, in any case:
 - The uniqueness of the code generated for each document.
 - His association with the generated document and the signer.
 - The possibility of verifying the document for the time that is specified in the resolution authorizing the application of this procedure.



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- **Judicial Case Status (How is my case going?):** As far as it has been found out, the service exists, and it is allocated in the Government Webpage. It is highly recommended to move it to the Electronic Judicial Office to set the electronic services related to judicial information all together. In addition, having this service allocated in the Electronic Judicial Office, will allow them to be interconnected with other available services (eFiling, eNotification, eFile...) once the user is identified and authenticated.

5.2 Systems, Technical Platforms and Applications

In order to support electronic litigation capabilities and improve the ICT Infrastructure, taking advantage of the existing legacy system in accordance with new applications, it is highly recommended to incorporate new Systems, Platforms and Applications to the current ICT ecosystem.

- **Electronic Judicial Document (EJD) and Electronic Judicial File (EJF) courts' applications based.** EJDs and EJFs are much more than documents in electronic format (docx, pdf...). A real Electronic Judicial Document or File must be compliant with many requirements, which will be detailed in next sections. In addition, they must be always digitally signed, with a qualified digital certificate.
- **Digital Signature:** the Electronic Signature capabilities adoption is a strategic decision for the future, because a certain level of maturity is required to the legal framework, also PKI infrastructure, and specific regulation for both citizens and civil servants. As a result of compliance with the requirements for making an advanced digital signature, the main benefits obtained would be:
 - **Authentication** (or authenticity) is the accreditation, by electronic means, the identity of a person, entity or agency. The use of digital certificates can establish a secure connection that uniquely identifies the person.
 - **Confidentiality:** understood in the field of computer security, like the protection of data and information exchanged between a sender and one or more recipients against third parties.
 - **Integrity:** the possession of a document against alteration or modification. The electronic document cannot be changed without the further intervention of its licensors, so that electronic signatures should detect any change.
 - **Non-repudiation:** It is used to ensure that neither party can deny the authorship of a transaction or a particular document. So when a message is sent, the receiver can verify that actually the alleged sender was one who sent the message, the same way, the sender can verify that, in fact, the intended recipient was the one who received the message.
 - **Time Stamping:** allows secure, by a trusted third party that a particular document was signed at a time without controversy on the hour. Time stamping means sign, by an external service and depending on a reliable time source, a hash of the document. It is useful in the registration process and to determine that, at any given time, a certificate was valid even if at a later date it has been revoked.
- **Identity Management:** technical platform aimed to manage individual principles, their authentication, authorization, and privileges within or across system and enterprise applications with the goal of increasing the security and productivity while the cost, downtime and repetitive tasks are decreasing. Judicial users should be identified in this system in order to grant access to court systems and, hopefully, with Single Sign On capabilities across all applications. In addition,



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this kind of platforms are able to log everything what user are doing each moment, so it is possible to increase the security in the whole environment and to obtains audit reports when needed to trace access and operations.

- **Document Management:** incorporated to the IT Infrastructure is able to manage the Corporation's document library. Document management is defined as the set of technical standards and practices used to manage the flow of all types of documents in an organization, allow recovery of information from them, determine the time the documents should be stored, remove the ones that are no longer needed and secure the indefinite preservation of valuable documents, applying principles of streamlining and economy. Document Management Systems (DMS) computerize the records management of electronic documents of the organization by managing the location, classification, access and security. They also provide interfaces to automate interoperability between different systems, so that the storage of documents becomes a task transparent to the user but keeps all existing document management criteria. Document management covers a range of needs inherent to the management of electronic documents that are either similar to those on paper, or arise from the peculiarities of the systems. Document management systems have evolved to meet these needs in a holistic manner.
- **Business Process Management:** BPM platform is a tool designed to service projects, which involves technological processes, by providing a logical architecture that meets the needs common to all these projects so that common features are developed only once and are used by all projects concerned. The direct consequence of this approach is increased productivity in the development of automated processes and the cost reduction of projects that implement these processes. An important consequence of this functional centralization is at minimizing the duplication of technology and abstraction of the complexity of integration. Some benefits from the use of BPM tools are:
 - The BPM can achieve the reduction of processing times by providing visibility into performance metrics and enabling processes to identify bottlenecks that must be overcome to optimize the business process.
 - The BPM can achieve increased productivity of staff involved in the processes by implementing a single point of access to the tasks to be performed, providing a people-oriented rather than applications oriented model.
 - BPM provides its user management and organization flexibility in allocating resources, and tools for measuring the activity of processes that, together, enable the rationalization and optimization of resources.
- **Digitizing and Cataloguing System:** Once a judicial organization turns into the electronic files methodology, paper management must change. Of course it is not possible to avoid paper completely from courts because in the current scenario it is not possible to force citizens to use electronic services, but this is not the case of professionals. These situations, rights and duties, for both bodies, must be regulated in a specific law related to Electronic Judicial Administration. Therefore we have to be open minded to the possibility of receiving paper in courts' registries. Those papers should be digitalized in order to avoid the hybrid file (paper and electronic based) with mechanisms and tools appropriate to guarantee that digitized documents have the "authentic copy" characteristic (another aspect to be regulated by the already mentioned required law).
- **Master Data Repository:** Many times, one of the main interoperability problems is the use of different sets of values in each judicial application. This issue increased significantly the interoperability levels between applications. A workaround for this problem is the generation of ad-



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hoc “transformation layers”, but this is just a workaround, to solve a specific situation. To provide a final solution, master data Repository is required which contains all the applications shared set of data, and all the applications use this repository instead of using their own.

5.3 Policies and IT Strategy

Legal dimension:

 **Electronic Judicial Administration Legislation** is a must in order to establish an appropriate framework for e-Justice. A set of laws must provide legal support to the Judicial Electronic actions and IT Systems. Some of the most important aspects that should be regulated are the following:

- Rights and obligations for citizens, professionals and administrative bodies.
- New civil servants duties.
- Electronic Judicial Office.
- Digital Signature: Used in electronic justice administration.
- Electronic Judicial File and Document regulation and definition.
- Electronic copies management.
- Electronic archive for files and documents (both, paper and electronic based).
- Electronic Judicial Registry.
- Deadlines for electronic-based communications.
- Electronic delivery, procedure writings and acts of referral.
- Electronic board for official announcements and communications.
- Electronic Case Management.
- Interoperability with other organisms and administrations.
- Legal base for technical regulation.

 **Electronic Signature Legislation:** Electronic Signature legislation must be adapted to the European Union Regulation. Last regulation in this field is the EU Regulation 910/2014 on electronic identification and trust services. This regulation is a milestone to provide a predictable regulatory environment to enable secure and seamless electronic interactions between businesses, citizens and public authorities. In this regard, the regulation:

- Ensures that people and businesses can use their own national electronic identification schemes (eIDs) to access public services in other EU countries where eIDs are available.
- Creates a European internal market for Trusted Services by ensuring that they will work across borders and have the same legal status as traditional paper based processes. Only by providing certainty on the legal validity of all these services, businesses and citizens will use the digital interactions as their natural way of interaction.




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Organizational dimension:

 **Judicial Business Flows:** court staff must adapt their working procedures to the absence of paper. Therefore, new work flows must be defined, divulged and implemented in courts together with an appropriate change of management process. It has to be taken into account that with the new model users do not have to move mountains of paper between different floors or buildings. Instead of that, they have to move data, manage access permissions and assign tasks. It is very necessary to change from a “document” culture to a “data and process” culture.

Identity Policy:

- **Restricted access:** IT Experts, under a common policy of MoJ, should permit and grant restricted access to whoever needed, only when it is really needed, and always for short periods. In addition, these accesses must be audited by a third party to assure that IT experts cannot, in any case, give access to somebody in a malicious way.
- A **traceability and alerts** system must be installed in order to detect intrusions as soon as possible, non-authorized access, non-permitted changes in data, etc. There are many options to do it, but it should be taken into account in a global IT Strategy.
- As during the enforcement process personal data are used, it is recommended a detailed and deep study over **Data Protection Directive**. It is advised to carry out a full and detailed study about Data Protection in the European Union. EU has issued the European Directive 95/46/EC of the European Parliament and of the Council marks the trajectory in terms of data protection.
- **Usage of Digital Cryptographic Safe-Deposit Box for Digital Documents.** As it has been mentioned before, as Courts are paper based, all-important documents are printed out and hand signed. Once the Organization is ready to approach the elimination of paper and to work only with digital documents, a safe repository must be available in order to store those documents digitally signed. A Document Management System with special security capabilities could be a good choice but, once again, it should be taken into account in a Global IT Strategy.

Technical dimension:

 **Documents Lifecycle:** Similar to the paper based situation, the electronic documents lifecycle must be controlled in order to keep documents always under the umbrella of several dimensions, which are coincident with the dimensions described in the Interoperability and Security Judicial Framework:

- **Authenticity:** to enable to assure that a document is authentic.
- **Confidentiality:** to assure that a confidential document is not accessed by a non-authorized person or system.
- **Integrity:** non-authorized modifications are not allowed.
- **Availability:** information and documents must be always available for users and systems. Otherwise, documents or data are not useful.




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- **Traceability:** in order to know what has happened at every moment with each single document. Who had accessed? When? etc.
- **Conservation:** data and documents must be preserved over the time. Therefore it is really important to bear in mind two different aspects:
 - Store devices, to assure long time storage.
 - Digital resealing, to assure that electronic signatures do not expire over the time.

 **ICT Strategy:** Information and Communication Technology Strategy must be clear to be able to sort and schedule all the technical actions required in short, medium and long term. All technical actions must be decided and scheduled at least four years forecasted in order to foresee many aspects, like procurement process, which usually take very long time. Also, the acquisition of new technologies or platforms must be known as far in advance as possible.

Interoperability and Security dimensions:

 **Judicial Interoperability and Security Framework (JISF):** the judicial interoperability and security framework is aimed mainly to ensure the access, integrity, availability, authenticity, privacy, traceability and preservation of the information in electronic form used by the Judicial System in the due course of its activities. Both interoperability and security will be taken up comprehensively from conception of services, systems and applications throughout their life cycle: planning, design procurement, construction, deployment, exploitation, publication, preservation and access or interconnection therewith.

This framework must establish the minimum requirements that all judicial institutions must guarantee in relation to information systems which they are responsible. These requirements should be developed through technical guidance.

The bases of this framework must be articulated according to the following dimensions:

- **Organizational-institutional.** Its objective will be to guarantee coordination and alignment of administrative procedures involved in the Justice Administration.
- **Semantic-Legal.** Its main purpose is to lay the common bases of intercommunication between judicial institutions.
- **Technical.** Allow common technical instruments to transfer data and transparent invocation of services to the underlying networks and existing IT systems.
- **Temporal.** Faces the problem of permanence over time of a stable framework consensus to allow evolution and adaptation to the new needs of the various institutions.

To achieve a low-level detailed Judicial Interoperability and Security Framework, several strategic documents must be drafted:

- **Judicial Interoperability and Security Foundations:** The scope of interoperability includes safety recommendations, maintenance, standardization, data exchange protocols, formats and applications which should be taken into account by various institutions and competent authorities on justice matters, for technological decisions in order to ensure interoperability. The area of security, for these



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purposes, host security policy on the use of electronic means and the establishment of the basic principles and minimum requirements to ensure suitable protection of information when it is applicable by law initially invoked.

- **Interoperability and Security Technical Guides:** An approach to the definition from a semantic and technical point of view of all those key aspects in order to assure interoperability. Those are:
 - Electronic Judicial Document Interoperability and Security Technical Guide.
 - Electronic Judicial File Interoperability and Security Technical Guide.
 - Digitalized documents Interoperability and Security Technical Guide.
 - Authentic Copy and Conversion Interoperability and Security Technical Guide.
 - Digital Signature Interoperability and Security Technical Guide.
 - Others
- **Guidelines and Implementing Technical Standards:** Specific use cases of implementation between different systems. Each one must consider about exchange of all possible types of information. Just some illustrative examples:
 - Interoperability between ICMS and Attorneys System.
 - Interoperability between ICMS and Tax Office.
 - Interoperability between ICMS and Land Registry.
 - Etc.
- **Security Technical Guide:** shall be understood as the implementation of an integral process, including all technical, human, material and organizational elements related to security. The implemented comprehensive security process should be updated and improved continuously. To this end, the criteria and methods recognized in national and international practice concerning management of information technology shall apply. Decisions regarding electronic security court the following elements should be considered:
 - The comprehensive security from the point of view of an integral process consisting of organizational, regulatory, human and technical elements related to the system.
 - Risk management as a process of ensuring security of information.
 - The prevention, detection, response, and recovery correction as processes support the information security.
 - The security levels, defined as layers of security that allow more appropriate incident management.
 - The periodic reassessment of existing security measures to adapt their effectiveness evolving risks, technology and protection systems.



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- The differentiated function within the organization, establishing an organizational structure where the figures responsible for the information security officer and head of the service are identified.

These are dimensions of electronic security court:

- Authenticity.
- Confidentiality.
- Integrity.
- Availability.
- Traceability.
- Conservation.

5.4 Stakeholders

There are some key stakeholders who must be included or empowered in the relationships current state of art in order to complete the interoperability model. In some deeper research far more new stakeholders could be found, but at this level, two of them cannot be left out:

- **European Union:** Interoperability is a key point necessary for all countries of the European Union to be able to connect with transboundary electronic services. Maybe the more significant are:
 - **eCodex (E-Justice Communication Via Online Data Exchange):** Judicial and police information exchange project among EU countries, to guarantee the technological interoperability and security in the European area of Justice.
 - It makes easier for citizens and professionals to access legal information and legal proceedings in other Member States.
 - Improves interoperability among legal authorities systems in EU.
 - Promotes the implementation of common standards and solutions to make easier the treatment of cross-border cases.
 - **ECRIS (European Criminal Records Information System):** to achieve an efficient exchange of information on criminal convictions between EU countries. ECRIS is based on a decentralised IT architecture: criminal records data is stored solely in national databases and exchanged electronically between the central authorities of EU countries upon request. The EU country of nationality of a person is the central repository of all convictions handed down to that person. The country's authorities must store and update all the information received and retransmit them when requested. As a result, each EU country upon request is in a position to provide, from another EU country, exhaustive, up-to-date information on its nationals' criminal records, regardless of where those convictions were handed down.
- **Empower external users (citizens and professionals):** to allow them to have electronic relationship with the Justice Administration. Dropping out a paper based relationship model, in benefit of an electronic services ecosystem, is the big step to evolve to a Electronic Judicial Administration, which should be in the 21 century. But final users must be empowered to be able to use it, and some actions must be borne in mind:



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- ✎ **Technological means:** Government must work hard in the direction, which reach a real expansion of the technological means for citizens: internet access, computer access...
- ✎ **Digital Signature:** A real Electronic Administration is an administration, which can be used through electronic services by citizens and professionals. Therefore it cannot be forgotten that technological tools and platforms must be available, like for example digital signature, as one of the most important means.
 - **Communication Plan:** It is really necessary to address the citizens' culture to a change based on a model where Digital Certificate and Signature, Digital Identity, Electronic Services... are concepts introduced like usual in their lives. Citizens and professional must know as much as possible about this concepts and how they can use them.

Next illustrations show the To-Be logical diagram (Model B) that shows the new interoperability proposal. As shown, those are based on the major possible reduction of the paper based relationships, for the benefit of electronic services and system integrations. In addition, as it is represented in the diagram, all applications must offer electronic services to be consumed by others, in order to achieve a global interoperability ecosystem.

First diagram shows the Graphic User Interface relationships for the model, based basically in electronic services offered to the end users, citizens and professionals. They should be able to do any necessary step involved in the enforcement process by electronic means. Notwithstanding those necessary procedures "in person", like for example hearings, must be kept.

In the second diagram it is possible to have a look to a new model of system integrations in order to improve the data exchange between different systems and applications. All of them should offer services needs by others, and all together orchestrated by an enterprise service bus to guarantee the availability, security, traceability and integrity of the exposed services. Definitely, a comprehensive services catalogue must be built, with appropriate service level agreement for each to establish basic and common rules for the proposed ecosystem.



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5.5 To-Be: Graphic User Interfaces in the enforcement process

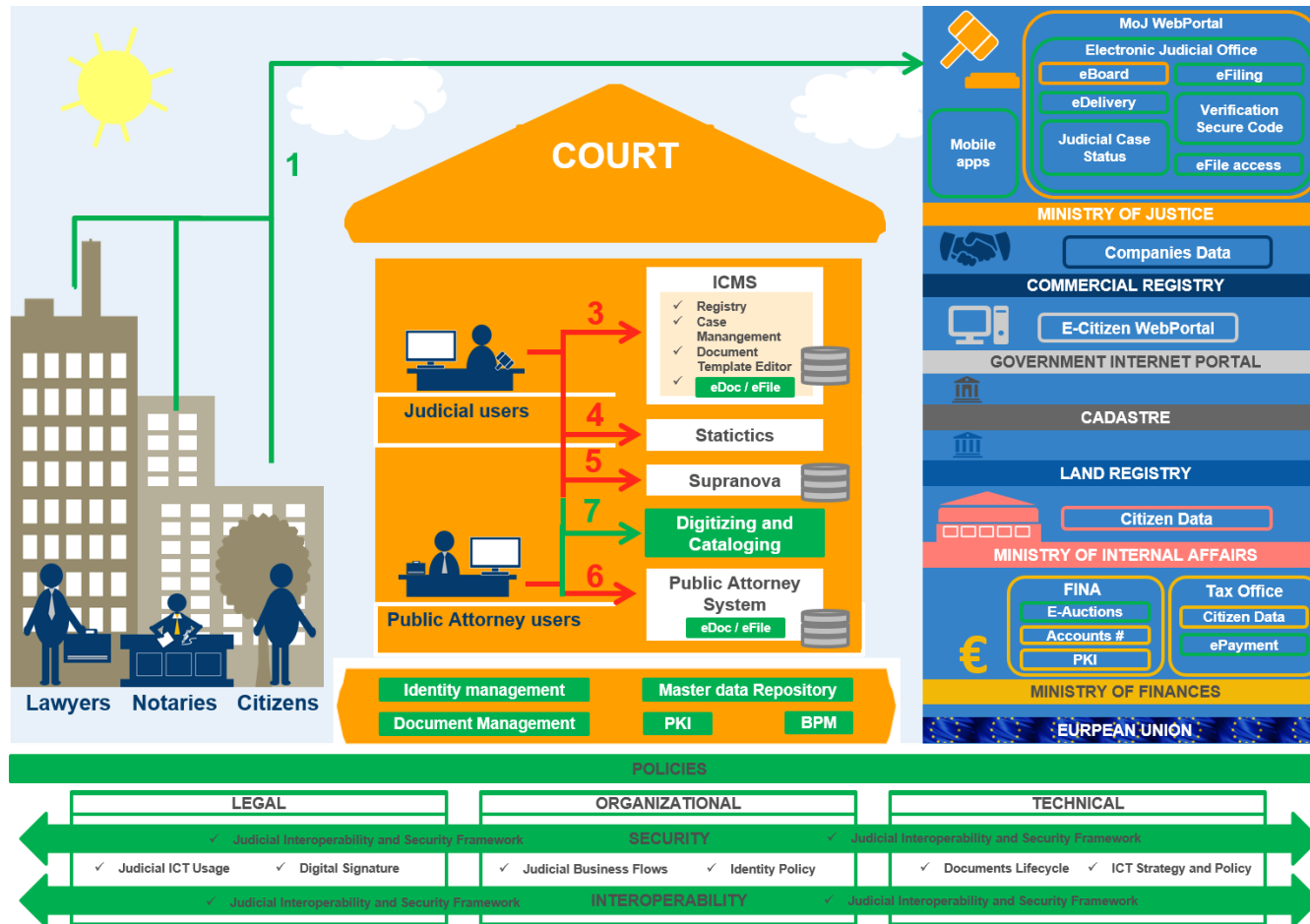


Illustration 5 – TO-BE: Graphic User Interfaces



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1 Lawyers/Notaries/Citizens (external users) and Ministry of Justice

Within this new relationships model, citizens, notaries and lawyers have a complete electronic access to all those services necessary to improve the civil enforcement process. Every kind of communication between courts and final users must solve a specific use case:

- **eDelivery and eFiling** electronic services, to exchange electronic documents.
- **eFile access**: in order to access that section of each judicial file which is allowed to be accessed to the parties involved in the procedure.
- **Judicial case status**: to be able to know the status of judicial cases in which users are involved.
- **Verification Secure Code**: to verify through visual compare that a printed document is valid and authentic.

These are the most important electronic services that must be available in the Electronic Judicial Office, notwithstanding other additional services could be available to complement the offer of electronic services. In addition, we cannot forget other electronic services that should proliferate in other organisms like Ministry of Internal Affairs, Ministry of Finance, etc. and which maybe are not the responsibilities of the Ministry of Justice. Some examples are eAuctions and ePayment, electronic services that FINA is working on, and should be available as soon as possible since those are key services to improve the civil enforcement process.



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5.6 To-Be: System Integrations in the enforcement process

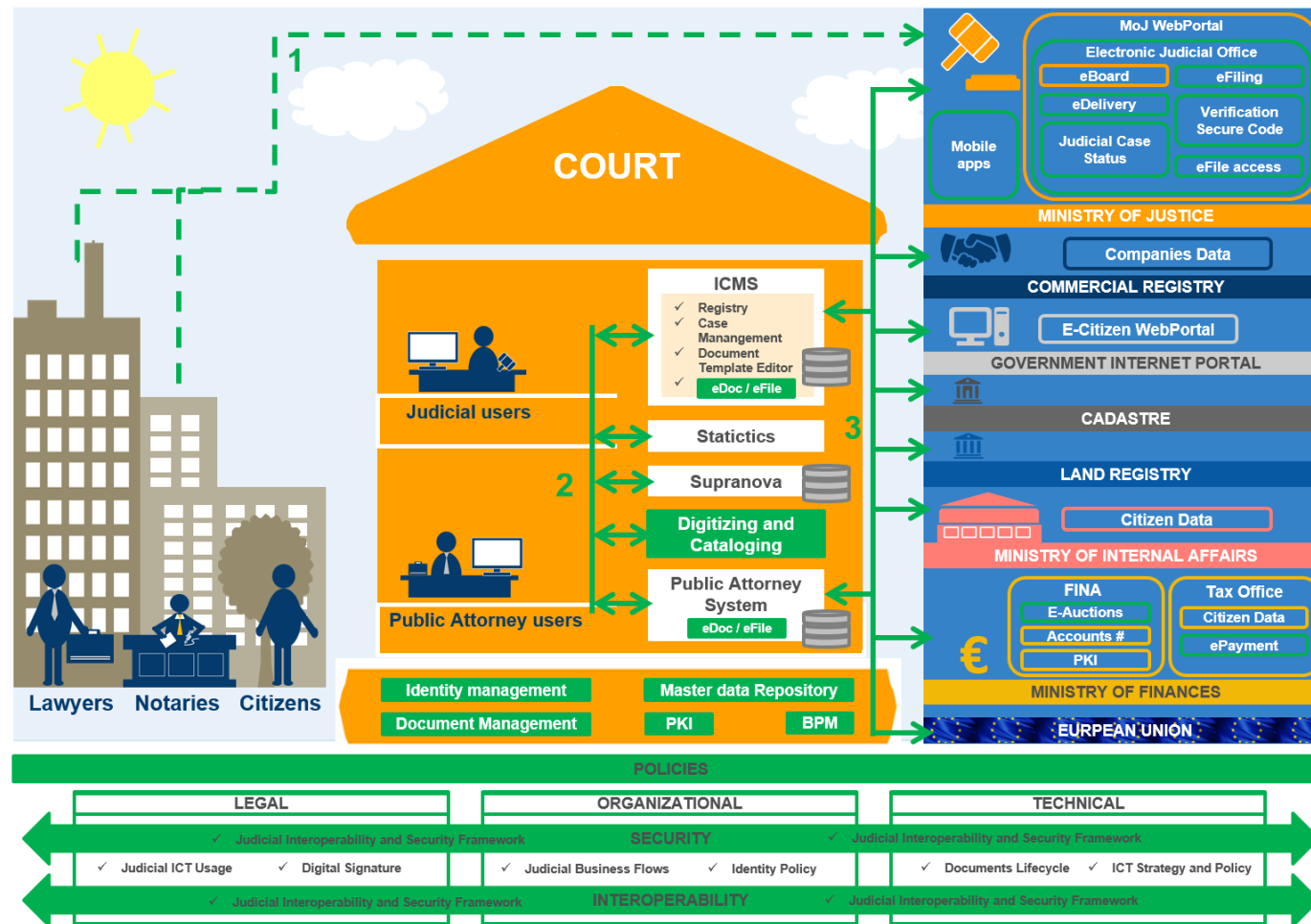


Illustration 6 TO-BE: Systems Integrations



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1 Possibility of external applications

It is really common that in some cases, professional groups develop their own applications which need sometimes, to be interconnected with public electronic services in order to make the daily work easier, more efficient and more effective.

If a new definition of Electronic Judicial Office is done with a complete offer of electronic services, it should be contemplated to offer automatic integrations for third party applications.

2 Justice Service Bus

In a new design of IT solutions to improve effectiveness and efficiency of the civil enforcement in Croatia, it should be thought to integrate all the internal applications to be able to share information between different applications in electronic way. For example, in the full-electronic situation, Public Attorney System is going to need exchange data and information with ICMS, or the new Digitalizing and Cataloguing System with previous two, etc., it is strongly recommended to keep mutually disconnected applications in the same organization even more when the future trend is to reach the electronic judicial file, in benefit of current paper based.

An internal enterprise service bus should be present in the final design in order to offer full-communication services to all applications. Of course, current systems may be adapted to this new philosophy and paradigm of integration.

3 Public Administrations Service Bus

As explained in the previous section, the way to proceed regarding external integrations should follow the same methodology. It should be configured an inter-organisms enterprise service bus, to make possible to consume and offer electronic services useful for the connected organisms.

However, in this scenario one of the most important things is to standardize the data exchanges with well-defined protocols and schemas. To do this, it is necessary to define the Judicial Interoperability and Security Framework as seen above, because it is the key to being able to sort the exchanges of data and information between different stakeholders.



6 Possible Scopes

Below two models are described, each of them incorporate the recommendations listed in the TO-BE proposal.

		Scope A	Scope B
Electronic Services	eFiling	✓	✓
	eDelivery	✓	✓
	eFile access		✓
	Secure Code Verification	✓	✓
	eAuctions		✓
	Judicial Case Status	✓	✓
Systems, Technical Platforms and Applications	Electronic Judicial File and Document		✓
	Digital Signature	✓	✓
	Identity Management		✓
	Business Process Management		✓
	Digitizing and Cataloguing System		✓
	Document Management	✓	✓
	Master Data Repository	✓	✓
Policies and IT Strategy	Electronic Judicial Administration Legislation	✓	✓
	Electronic Signature Legislation	✓	✓
	Judicial Interoperability and Security Framework	✓	✓
	Judicial Business Flows		✓
	Identity Policy		✓
	Documents Lifecycle	✓	✓
	ICT Strategy	✓	✓
Stakeholders	New key stakeholders		✓
	Empower external users	✓	✓

Each of these models is focused on improving the areas detected during the screening process.

Massive use of paper	E-justice services organization	Digital signature	Systems Integrations	Increase e-justice services availability	Interoperability
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6.1 Scope A

Massive use of paper. This model has been designed under the assumptions of the use of the electronic signature. The use of electronic signature would boost the electronic management of the judicial case documents. Also it has a significant impact in productivity and drastically reduces the use of paper. In this



model the paper document is replaced by the electronic document as the heart of the system as both type of documents have the same legal value.

Services as e-Filing or e-Delivery allow avoiding the use of the paper from the beginning of cycle. For example: a lawyer prepares a document in PC, once the document is ready it can be digitally signed and submitted to the court through the e-Filing service. In this case there are important savings: travel time, increased efficiency, costs (paper, ink, the costs of preservation of 'paper documents'), etc.

E-Justice Services Organization. All the e-Justice services are grouped in the electronic judicial office (web portal), a one-stop shop for external users for the relation with the Justice Administration. In this electronic judicial office external users would be able to access all the services available, perform a set of operations over their cases, etc.

Digital Signature. The use of digital signature by Justice Administration and external users would report many benefits as it provides the same legal value as a signed paper document. Also the secure code verification allows a digitally signed document to be printed and its validity to be confirmed through the Secure Code Verification located in the Electronic Judicial Office.

The use of the digital signature requires legislative, document life-cycle management (digital signatures require actions over time to guarantee their validity).

System Integrations. The integration of the services (e-Filing, e-delivery, etc...) with the Judicial Systems will provide a huge increase in the productivity of the judicial users. Also, as these services may be offered through a web service interface, external users could be integrated with their own applications.

Increase e-Justice Services Availability. The electronic services would allow establishing stronger and wider relationship between the Justice Administration and the external users.

Interoperability. As new services and integrations arose, the interoperability is more required in order to align all the organizations, process and systems so they can work together effectively.

	Massive use of paper	E-justice services organization	Digital signature	Systems Integrations	Increase e-justice services availability	Interoperability
e-Filing	✓	✓		✓	✓	✓
e-Delivery	✓	✓		✓	✓	✓
Secure Code Verification	✓	✓	✓		✓	
Judicial Case Status	✓	✓		✓	✓	
Digital Signature	✓		✓	✓		✓
Document Management			✓	✓		✓



	Massive use of paper	E-justice services organization	Digital signature	Systems Integrations	Increase e-justice services availability	Interoperability
Master Data Repository				✓		✓
Electronic Judicial Administration Law	✓				✓	✓
Electronic Signature Legislation			✓			✓
Documents life cycle			✓			
ITC Strategy				✓	✓	✓
Empower External Users		✓	✓		✓	

6.2 Scope B

The benefits of this scope are complementary with the scope A. New components have been added to the model to provide the required mechanism to implement 100% electronic managed judicial enforcement.

Massive use of paper. The effective implementation of the Judicial Electronic document and file provide an electronic support for the court documentation requirements. Also, an important element of this scope is the Digitizing and Cataloguing System as it intercepts all the paper at the court registry and transforms it into an electronic document.

The use of the digital signature plus the use of judicial electronic documents and the right law support would allow destroying large amount of paper which are stored in the court archives, saving money and resources that could be used to finance IT projects.

E-Justice Services Organization. The use of e-File Access represents a new phase, not only for the Justice Administration, but also for professionals and citizens, as they are able to access their files on-line and download them instead of visiting the corresponding court and making the paper copy of the required file. This service empowers the external users as it closes the documents circle: users are able to work electronically starting a procedure, registering new documents and downloading parties/judicial documents included in the file.

Also services as e-Auction services would boost the participation of citizens in judicial process. In addition the use of electronic means allow combining the law compliance with an efficient, transparent and paperless system.



Also an identity management and policy allow the generation of the e-identity for external users and for the justice administration staff, which provide benefits such as an automatic access to applications and role assignment depending of the organizational position, or delete/block all the user account in each system when the user leaves the organization.

Digital Signature. With the digital signature a very high percentage of paper disappears from court. That situation makes necessary the implementation of a resilient and powerful Content Management System to store and make such amount of documents. Also in the content management system different types of documents (not just pdfs) such as: mp3, avi, jpeg, etc., could be stored.

System Integrations. To take advantage of all the benefits of these new services could provide it would be necessary to work on systems integrations, so the users could work mostly with one window instead of change from one to another. For the systems integrations it is necessary to establish the ground rules, and those rules should be the Judicial Interoperability and Security Framework. This framework should specify the organizational, semantic and technical interoperability guides, which must guide the integration of the new e-services with applications, communications between systems, the modelling of the business flows and the implementation in the Business Process Management System, etc.

Increase e-Justice Services Availability. E-File Access will fulfil the set of services required to complete the basic electronic relationship between the justice administration and the external users.

Interoperability. The focus in measure as the Judicial Interoperability and Security Framework facilitates the implementation of systems such Master Data Repository (Semantic), Judicial Electronic File and document (organizational) or Technical (Judicial Business Flow implemented in a BPM). Interoperability becomes more and more relevant as the external user gets digitally empowered, so it is necessary to define “the way they are going to talk”.

	Massive use of paper	E-justice services organization	Digital signature	Systems Integrations	Increase e-justice services availability	Interoperability
e-Filing	✓	✓		✓	✓	✓
e-Delivery	✓	✓		✓	✓	✓
e-Auction		✓			✓	
eFile Access		✓		✓	✓	✓
Secure Code Verification	✓	✓	✓		✓	
Judicial Case Status	✓	✓		✓	✓	



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	Massive use of paper	E-justice services organization	Digital signature	Systems Integrations	Increase e-justice services availability	Interoperability
Electronic Judicial File and Document	✓			✓		✓
Digital Signature	✓		✓	✓		✓
Identity Management		✓		✓		✓
Business Process Management				✓		✓
Digitizing and Cataloguing System	✓					
Document Management			✓	✓		✓
Master Data Repository				✓		✓
Electronic Judicial Administration Law	✓				✓	✓
Electronic Signature Legislation			✓			✓
Judicial Interoperability and Security Framework				✓		✓
Judicial Business Flows				✓		✓
Identity Policy		✓				✓
Documents Lifecycle			✓			



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	Massive use of paper	E-justice services organization	Digital signature	Systems Integrations	Increase e-justice services availability	Interoperability
ITC Strategy				✓	✓	✓
New Key Stakeholders				✓		
Empower External Users		✓	✓		✓	



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7 Conclusions

The Republic of Croatia is taking the right actions to improve the current state of enforcement process. For the next steps, actions over some detected improvement areas should be considered, such as:

- Massive use of paper.
- Reduced set of e-justice services. Currently it has been detected just a few e-justice services. The number of them should be increased achieve an effective e-Justice.
- Lack of a judicial security and interoperability framework. No security breach has been detected, but a framework it is a powerful tool to align stakeholders and systems involved in the e-justice.
- Increase significantly the use of the digital signature.
- The enforcement process of a e-Justice system have to empower the citizens and professionals by providing electronic services that allows them to interact electronically with Justice Administration.

This justice modernization process must aim to change the current paradigm consisting of “in person” interaction with courts, paper and documents. This judicial paradigm should evolve to a new one based on electronic services available over the internet, boost the data versus the documents, and define and implement business process to identify to manage, control, measure and improve judicial activities (if it can't be measured, it cannot be improved). To address this change of paradigm, a set of recommendations structured in 4 action plans has been proposed in this document.

For the evolution of the enforcement system the deploying of many components (of every kind: legal, organizational, technical, interoperability or security), is required. Many “BUY or DO decisions” have to be taken. For this point it is recommended to consider a third way: reutilization. During the screening process it has been detected that APIS (information systems and information technologies support agency) has many of the technological components, infrastructure and experience required. The Ministry of Justice could benefit from APIS services in order to provide a cost effective solutions, reduce the time to market of the applications and develop applications.



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8 Annexes

8.1 Appendix I – IT figures of Spanish Ministry

As it has been requested by the Croatian Ministry of Justice, it is listed the main figures regarding the use of IT in Spain:

- Number of offices: 356.
- Courts: 209.
- Number of internal users: 18.000.
- Number of external users: 20.000 (expected 170.000 in 2016).
- Ministry of Justice IT staff (civil servants + external providers): 700.
- Number of applications: 151.
- Number of computers (PCs + Laptop) managed: 19.000.
- Number of printers: 8.000.
- Number of scanners: 3.500.
- Datacentre operational space: .716 m².
- Number of servers (physical and virtual): 2600 servers.
- Storage capacity: 1600 Tb.
- Digital signatures: 150 million/year.
- Electronic Judicial notifications: over 50 million/year.