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Bundesamt für Justiz  
Office fédéral de la justice  
Ufficio federale di giustizia  
Federal Office of Justice



*Ministero della Giustizia*

## **Interoperability in the civil justice chain**

*Macolin, April 4th 2002*

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### *Agenda*

- A few words on our “geography”;
- main applications;
- system-2-system data exchanges: the model;
- on-going concerns and lessons learned;
- useful links.

## *A few words on Courts' locations*

Location of Courts not exactly like (national) geography:

- Courts:
  - 29 districts (Court of Appeals),
  - 166 sub-districts (main Court e.g. Rome, may/may not have “municipal” Courts e.g. Ostia),
  - 849 offices of the Justice of the Peace (settlements, small claims, some criminal offenses);
- Geography:
  - 21 regions (e.g. Piedmont),
  - over a 100 provinces,
  - over 8,000 municipalities.

## *Civil justice: main applications*

Besides the “usual” civil justice applications (litigation, Justice of the peace, bankruptcy, labour, family, statistics etc.) the main interoperability projects are:

- Polis;
- Telematic Trial (not quite what the name implies ...);
- Auctions;
- Labour (in the public sector).

## *Polis*

- Purpose: create, classify, “publish” and search passed sentences.
- Actors:
  - Courts create, classify and publish,
  - other Courts and lawyers search;
- State of the art:
  - used in a number of Courts,
  - to be generalized and deployed.
- Evolutions:
  - web access to litigations’ dossiers for Lawyers.

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## *Telematic Trial (1/3)*

- Purpose: send/receive documents and notifications;
- Actors:
  - Bar association maintains electronic members list;
  - Lawyer creates and sends digitally signed documents,
  - Court verifies Lawyer not disbarred, archives documents, sends receipts and notifications (e.g. trial dates);
- State of the art:
  - central infrastructure is being tested,
  - local infrastructure is being defined,
  - Bar associations are setting up their infrastructure and testing their applications.

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## *Telematic Trial (2/3)*

- Evolutions:
  - Lawyers will have web access to trials' dossiers, will be able to request and receive copies of documents.
- Technologies:
  - digital signatures;
  - “certified” mail (2-way non-repudiation, receipts);
  - time-stamping (Ministry's date and time);
  - XML and DTDs for all documents and messages published by the Ministry, some already available;
  - SMTP (asynchronous) and SOAP (synchronous) protocols.

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## *Telematic Trial (3/3)*

### Sequence:

- the Lawyer connects to his Provider, prepares and signs documents;
- the Provider queries the Bar as to his/her status, composes the message (with query results) and sends it to the Ministry (central infrastructure);
- the Ministry sends a receipt and dispatches the message to the (appropriate) Court;
- the Court (local infrastructure) unbundles the message;
- the Court (people & software) verifies signature, status, documents' contents, archives and sends a receipt.

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## *Auctions*

- Purpose: create, publish and advertise the goods.
- Actors:
  - Courts and lawyers involved in bankruptcy proceedings,
  - creditors and would-be buyers.
- State of the art:
  - database under construction (standardization an issue).
- Evolutions:
  - online auctions are being studied, in co-operation with the Ministry of economy and finances and the Italian Bank Association (main partners).

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## *Labour (in the public sector)*

- Purpose: make it similar to the litigation system (re-engineer existing system), let sentences be searchable via “Polis”.
- Actors:
  - Lawyers,
  - Courts,
  - State agency for negotiation of public dependents’ contracts (ARAN).
- State of the art: under construction.
- Evolutions: not applicable.

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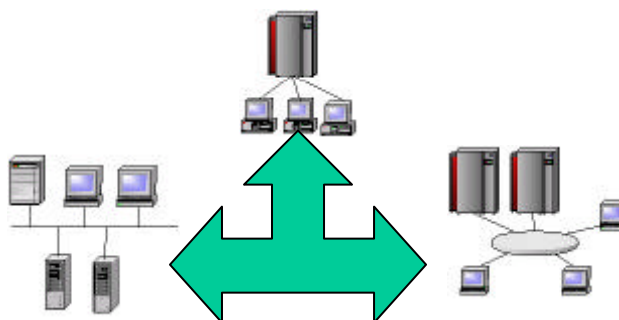
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## System-2-system data exchanges (quite transparent to end-users)

## *System-2-system: the problems*

Different organizations:

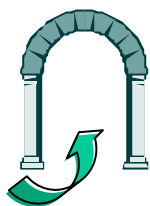
- quite likely use various platforms and technologies;
- most certainly have every right to continue doing so.



## System-2-system: the model (1/2)

To keep matters under control, the idea is

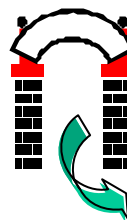
**1 way in, 1 way out**



**Server port**

(inbound requests)

**Apply here for our services**



**Client port**

(outbound requests)

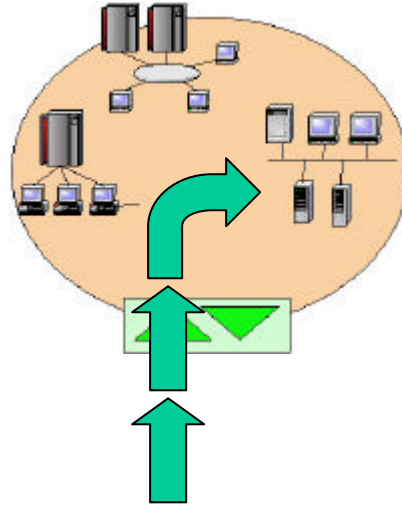
**This way to others' services**

## System-2-system: the model (2/2)

- The model has been conceived by the Italian *Authority for ICT in the Public Administration* for system-2-system communications using the Unified network (RUPA);
- the model has been confirmed by the Presidency of the Council of Ministers and the Ministry for technological innovation:
  - it has been extended for use in the National network, i.e. the interconnection of RUPA and regional networks and municipal networks and community networks (e.g. public notaries), using the services of ISPs and ASPs within a framework of common rules (e.g. minimum required security).

## Server port

- Brokers between another organizations' requests and "internal" applications and data;
- it's the only way in for system-2-system communications (i.e. not e-mail, web site access, etc.).

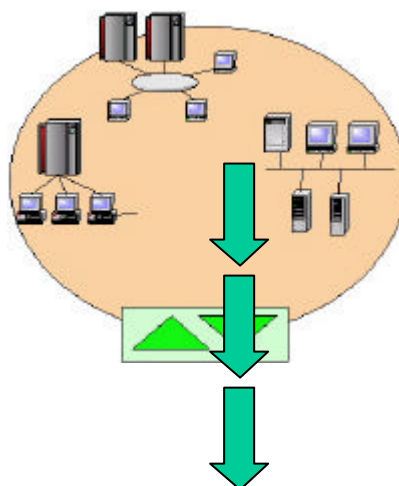


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## Client port

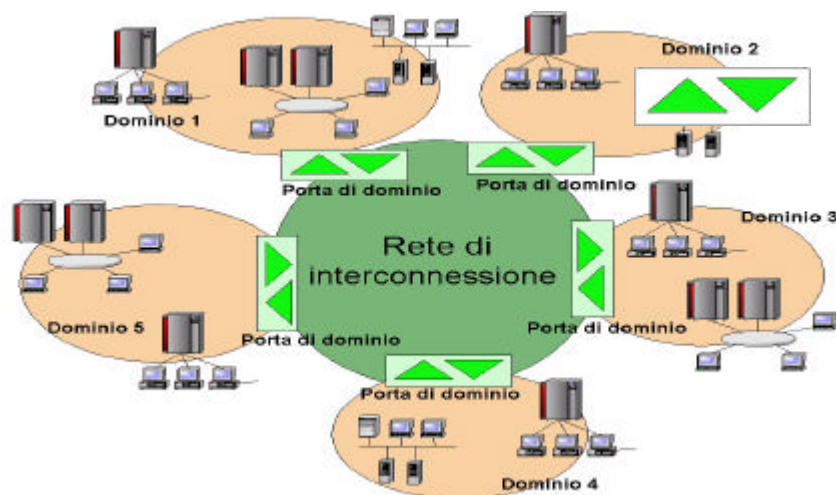
- Brokers between an "internal" application and another organizations' Server port;
- it's the only way out for system-2-system communications (again, not e-mail, web site access, etc.).



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## System-2-system: the model



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## System-2-system: our (first) broker (1/2)

- The Ministry has implemented its first broker, a functional prototype named **SICAP** (information system for the co-operation of applications);
- in synchronous transactions the Client port invokes the Server port;
- in asynchronous transactions there are 2 main components (1 “central” and 1 “local”):
  - Event Manager (invoked by the applications in the sender office);
  - Dispatcher (delivers to the application(s) in the destination office).

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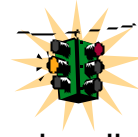
## *System-2-system: our (first) broker (2/2)*

- The project started in 1998, SICAP has been developed in CORBA and communicates using IIOP/TCP.
- The problems we have had to overcome:
  - not many tools, few off-the-shelf **connectors** (and didn't interoperate as well as purported);
  - steep learning curve, expensive development;
  - legacy application **wrappers** much more complex than had seemed likely.
- What next ? we are evaluating how to:
  - add formats, e.g. XML (this should be fairly easy);
  - add protocols, e.g. SOAP (using converters ?);
  - interface application servers.

## *System-2-system: the brokers we want*

- Data formats:
  - XML (have);
  - S/MIME (are implementing);
  - DTDs (are implementing).
- Infrastructure:
  - CORBA (have);
  - DCOM (will interface);
  - J2EE Enterprise Java Beans (will use);
  - .NET (have).
- Protocols:
  - IIOP (have);
  - SMTP, SOAP, UDDI (are implementing).

## Concerns



- Person-2-system and system-2-person is hardly transparent to end-users, must assure a uniform approach for all projects:
  - security,
  - interfaces and usability for people and/or systems,
  - infrastructure,
  - etc.
- Need to work on existing legislation.
- Will other actors' Providers be up to par ?

## Lessons learned



- The choice of cutting-edge technology is very risky;
- it's (much) more easy to create an infrastructure for interoperability than it is to update existing applications;
- there is more to be said on organizational agreements with other involved parties than one might think (e.g. who wants to manage user-ids ?!);
- need to create multi-level help desks;
- need to create strong partnerships;
- must not take too long to implement projects or partners interest may wane.

## *Useful links*



- Ministry of Justice <http://www.giustizia.it>
- Ministry for innovation and technologies <http://www.mininnovazione.it>
- Italian Authority for ICT in the Public Administration <http://www.aipa.it>
- Centro tecnico <http://www.ct.rupa.it>
- Norme in rete <http://www.norminrete.it>



***Thank you for your attention***