ENHANCING THE INTERNAL ICT CAPACITY OF THE ROMANIAN SENATE

SUMMARY REPORT OF THE WORK DONE BY ITALIAN SENATE ICT EXPERTS FOR THE COMPONENT 4 OF THE PHARE TWINNING PROJECT WITH THE ROMANIAN SENATE

Abstract

A Consortium of three parliaments (the French Senate, the Italian Senate and the National Assembly of Hungary) has carried out in the last two years a twinning project, granted by European PHARE programme, whose mission was "to support the reform of the Romanian parliamentary system through enhancing the administrative capacity of the Senate of Romania". Component 4 of this project - aiming at increasing the capacity of ICT staff and services of the Romanian Senate - has been performed under the responsibility of the Italian Senate. In this context, Italian experts have been involved in assessment, training, and education activities. Further, as planned, the final outcome of the twinning project has been a medium and long term strategic plan for ICT, aiming at building an e-Parliament. The strategic plan, jointly drafted by ICT experts of the Romanian, Italian, and French Senates, has recently been approved by the Standing Bureau of the Romanian Senate.

The present document summarizes the work done by the Italian experts during Component 4 of the twinning project. In this respect, it outlines the performed activities, and offers an overview of them by annexing some training materials extracted from the larger set used during the project. This document also contains an excerpt of the proposed strategic plan.

Summary of the activities

The overall twinning project span 24 months. Component 4, the one focused on ICT capacity enhancing, started at the beginning of 2006 and ended in April 2007.

During this period, 6 officers of the ICT Service of Italian Senate contributed to the activities, for overall 70 days of work spent in Bucharest.

Here follows a list of the performed activities, accompanied by a short description:

- two assessment sessions. The first (May 2006) was addressed to capture - through several interviews - the general status of the current information system (organization, processes, applications and users), as well as user needs and expectations about future services and applications; the second session (June 2006) aimed at assessing the current ICT infrastructures and technological status. The produced detailed assessment reports (of the current situation, user needs, and infrastructure) were the basis for the following definition of training topics, sessions, as well as for the making of the necessary training materials;
- four training sessions (July, September, October and November 2006), dealing each with several distinct topics. Each training session was structured into two parts: in the first part, experts used to hold presentations, the second part was instead devoted to Q&A and to discussions and debates useful to deepen the more interesting issues among the presented topics. On the average, for each day spent in presentations, one day was spent in related discussions. Training sessions put the basis for the following study visit and working sessions, devoted to define and draft the strategic plan for ICT in the Romanian Senate. In order to illustrate training sessions, attached to this document there are some training materials used throughout the first parts of the sessions held by experts. Among the others, the following topics are dealt within annexes:
    - the information system of the Italian Senate (see annexes 1, 4, 5,6),
    - the internal parliamentary information management systems and the enterprise portal (see annexes 2, 3, 6),
    - development methodologies and software lifecycle management (see annexes 8, and 7),
    - IT systems management organization (see annexes 9, and 10),
    - user systems and services support (see annex 11);

- a study visit to the Italian Senate (December 2006) by eight Officers of the ICT Division and other structures in charge with ICT of the Romanian Senate. During the visit, Romanian Officers had the opportunity of looking at working systems (e.g. the electronic voting system of the Italian Assembly), other than meeting several other experts;
- two working sessions (February and April 2007) devoted to frame, define and draft the ICT strategy and the annexed action plan; these final activities were preceded by a draft proposal submitted to and approved by the Standing Bureau of the Romanian Senate.

With respect to this last point, it is important to note that an important key-factor of success of the project was the strong commitment expressed both at the political and administrative levels, that is, by the Romanian Senate President and Secretary General. This strong commitment permitted - for instance - to let Italian experts interview all the directors and chiefs of administration departments, as well as some relevant Senators with active roles in ICT planning and spending (for example, a Standing Bureau member and a Senator former ministry of the Technology Affairs) during the assessment phases.

Excerpt of the strategic plan

The following excerpt contains only the introduction, an index of the content, and the conclusions of the ICT strategy.

Introduction

The ICT current situation in the Romanian Senate is characterized by a quite general delay in technological infrastructure, application services, and, moreover, in the capacity of internal organization to catch the opportunities offered by IT of increasing effectiveness and efficiency in the administrative actions. Even the existing positive factors (as the mobile equipment distribution to the senators) are not put in a general and organic framework of services provided by the DP centre of the Romanian Senate and they remain therefore related to strictly personal practices. Even within offices of the administration, PCs are perceived as personal belongings and the use of the LAN (local area network) and workgroup services is severely limited, which also depends on a deeply rooted distrust in resource sharing.

There is therefore a big cultural gap that requires to be recovered with a strong effort in education and also in regulations of users' behaviors, aiming at guaranteeing the whole IT security (of workplaces, of network, of servers).

As a consequence, this ICT Strategy addresses the issue of people education, starting with IT personnel and then encompassing all other employees, not forgetting a special education plan for Senators, which have to be considered as the first beneficiaries of all the IT enforcement actions.

At a service level, Romanian Senators consider IT essentially in terms of devices that let them work *autonomously* both in Senate and in their constituencies: the move from a personal to a system and collaborative IT can be boosted by means of more reliable and secure instruments, as well as of new services, both general (e.g., electronic mail, Internet connection, press news agencies) and domain specific (parliamentary agendas, document management systems, external data banks). These services should be provided by the Data Processing centre of the Romanian Senate and the Senators should be usually connected to this centre.

The Strategy covers a period of time from 2007 to 2010, which appears to be the right horizon for such a program. The activities involved in 2007 and 2008 define the medium term Strategy. The activities forecast for 2009 (and, presumably, after) constitute the long term Strategy. An assessment of the Strategy should be carried out in 2009 in order to evaluate the results of the implementation of the Medium term Strategy and to define the needs for the implementation of the Long term Strategy.

The ICT strategy pillars

The ICT Strategy is based on four main components, each comprising some projects/activities, as summarized by the following index:

A) Organization

A.1 ICT staff recruitment

A.2 ICT division reorganization

A.2.1 Medium term organization

A.2.2 Long term organization

A.3 Application development methodology and framework

A.4 ICT User Conference

A.5 Regulations for users of ICT tools and services

B) Infrastructure

B.1 Structured cabling

B.2 Network

B.3 Central processing resources

B.4 Directory service implementation

B.5 Extranet SSL-VPN solution

B.6 Digital signature

C) Applications

C.1 Document management system

C.2 Personal information portal (for Senators)

C.3 Personal information portal (for employees)

C.4 Legislative applications and Web site

D) Education and training

D.1 ICT staff education

D.2 Senators and employees education

Conclusions

1. The ICT Strategy on the medium and long term has moved from the awareness, expressed by all the distinguished interviewed Senators and the representatives of the Administration of the Romanian Senate, that the current level of information technology is not adequate to cope with the European work environment. Therefore a strong effort must be done in terms of investments in many directions: human resources, organization, regulations, education and training. To let these efforts to be effective it is

necessary to put every action into a clear, well defined strategic plan the main elements of which have been framed in this report.

The Strategy covers two periods: 2007 and 2008 defined as the medium term, 2009 and 2010 (and, presumably, after) as the long term.

2. The current situation of the ICT department in the Romanian Senate doesn't allow for supporting any significant improvement in the capacity to develop new applications and services: only some maintenance activities can be carried out and some new projects in the network and storage fields, already started, can go on.

3. All other activities can start only after the enforcement of the ICT division by means of the recruitment in the medium term of at least 11 new persons, namely officers, experts and consultants. This recruitment has already started for 4 persons and should be completed for the 7 remaining positions by mid-2008. In 2009, an assessment phase will define the needs for additional resources in the long term.

ICT staff recruitment should follow the procedures and methods indicated by the 3.6 report about strategy on human resources in Senate.

4. The reorganization of ICT division has been also outlined, based on the better separation of functions among the offices and on the essential staff education, firstly about the methodology for software development and control.

5. Other two suggestions are worth mentioning here: the creation of an ICT User Conference as a body which comprises all the directors and at least one member of the Standing Bureau, and where decisions are taken about projects priority; and the definition of a clear statement about rights and duties of the ICT users, that is a set of regulations concerning security, privacy, data integrity, collaboration tools, etc.

Both these two suggestions aim at achieving the most effective use of technology, the first stressing the commitment by top management, the second actively supporting by means of clear regulations the correct use of the workplace.

As far as the projects and activities to be carried on are concerned, both technical infrastructure and new applications and services have been identified and analyzed in this Strategic Plan.

6. The Senate of Romania has to design and implement a new network, more efficient and secure, and has to improve the current central processing system (storage and user repository). The Senate can also benefit from the deployment of an electronic signature infrastructure, according to European regulation.

7. As for new applications and services to be provided, even if the administration needs have also been taken into account, the focus is on the support of parliamentary work of Senators and staff. Amendments management, a better application for tracking bill workflow, a system supporting the drafting of XML structured report of the debates in

Assembly Plenum, are all applications that can really establish a new way of working in Senate. A better web site can also enhance the Senate image. The proposed development of a Personal Portal for the Senators, together with the set up of the Extranet access, may be the "killer" application to boost the daily use of the ICT devices from inside the Senate and from outside.

8. As far as the website of the Senate is concerned there is an urgent need to put in place a clear policy assuring the high quality of the information provided by all structures of the Senate. To this end the website has to be managed by a civil servant in charge with communication and a civil servant from the ICT Division, while a civil servant from each and every division has to be responsible for the content of the relevant information and to feed the website on a permanent basis.

9. A final consideration must be reported here, concerning the policies to be put in place regarding the players in the ICT market. The purchase of goods and services has to be done transparently, according to the Romanian and European regulations about public contracts. Moreover the ICT department, in view of a rapid growth of new services and applications, should define and manage a careful outsourcing policy that ensures the coherence of IT systems and their long-term maintenance.

Annexes

1 - Slides from the seminar on "IT in the Italian Senate: an overview"

2 - Slides from the seminar on "The parliamentary information system in the Italian Senate"

3 Slides from the seminar on "Enterprise portals, case study: the Italian Senate “enterprise” portal"

4 - Note on the evolution of information technology in the Italian Senate

5 - Note on "Parliamentary information system: an historical overview"

6 - Note "General description of the application portfolio of the Italian Senate"

7 - Note on "Personal Information Services for Senators"

8 - Slides from the seminar on the "IT Department structure in Italian Senate"

9 - Note on " IT systems management: organization and procedures "

10 - Slides from the seminar on the " IT organisation in Systems Management and Network Offices "

11 - Slides from the seminar " User Systems and Services Support Office "

Annex 1

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Phare Twinning Programme

Activity 4.3
Training and working session on documents management system and web sites

IT in the Italian Senate: an overview

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The milestones

- **1976** CED foundation
- **1978** the first public competition to recruit 3 IT experts
- **1986** IT Department's birth
- **1996/97** the first version of web site
- **1999** mainframe's shut off
- **2002** strategic move toward J2EE and Linux
- **2004** the new web site
- **2004** 5 IT engineers and 13 programmers enter in the Administration

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Information Technology in the Italian Senate: some figures

- **Pc': 1700**
  - Laptops: 696
  - Printers: 1350
  - Office printers:140
- **Users domain: 2427**
  - Senators = 322
  - Ex-Senators = 200
  - Employees = 1106
  - Collaborators = 473
  - Consultants = 122
  - Others = 204
- **Servers: 120**
  - Physical servers: 18
  - Virtual servers: 83
  - Appliance: 9
- **Mail boxes: 3162**
  - Average number of daily send messages: 30.000
  - 7,5 Terabytes is the amount of available space of which 5,6 is used.
- **Network outlets: 3600**
  - Exchanged: 2400
  - Network equipment: 74
  - Kilometres of network optical fibre: 10

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Information Technology department

- **Employees of the IT department: 66**
  - 2 Directors and 7 executives
  - 28 Professionals (application and system programmers)
  - 22 Assistants (technical operators and secretaries)
  - 7 Attendants (reprography and warehouse sectors)
- **Outsourcing Services**
  - Help desk and technical assistance
  - Application software maintenance
  - Documents reprint service

Activity 4.3 - Training and working session on documents management system and web sites

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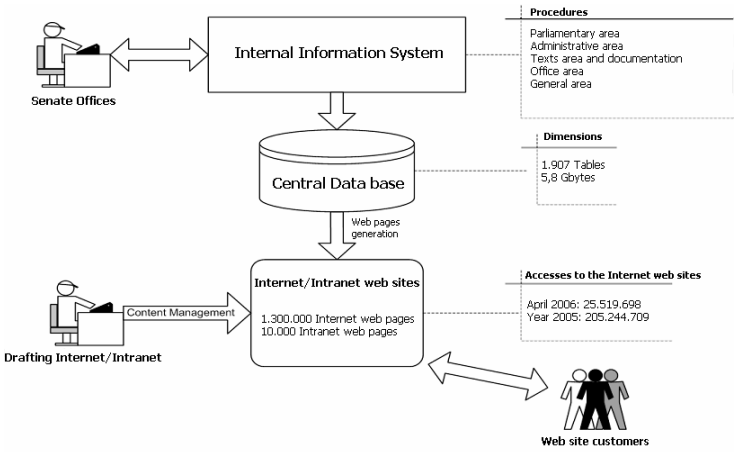
Information System



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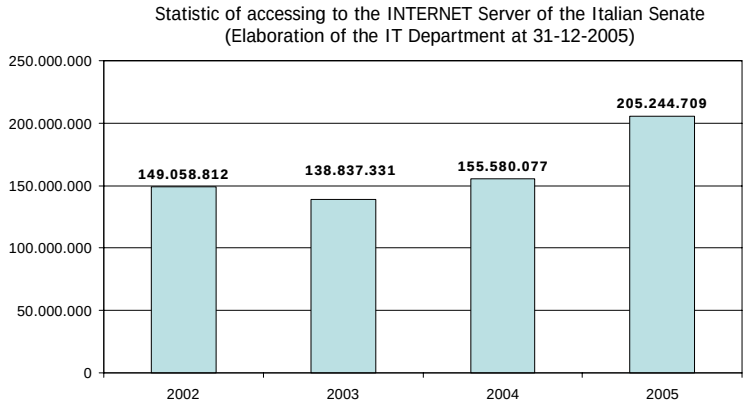
Accesses to the INTERNET site



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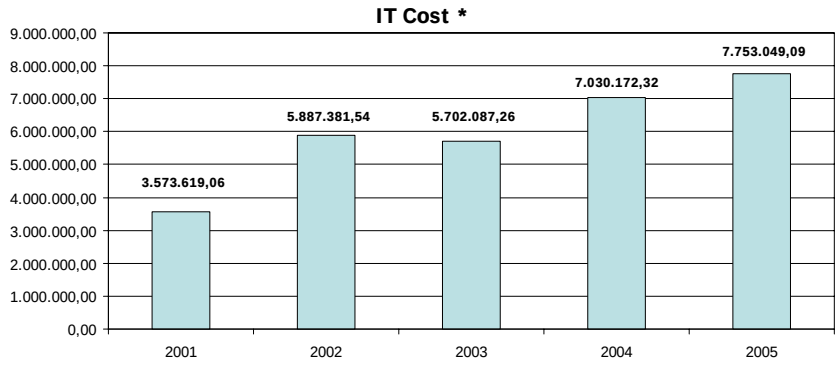
Cost of Information Technology (1)



*The cost of the digital reprography and digital documents transmission are not taken into account

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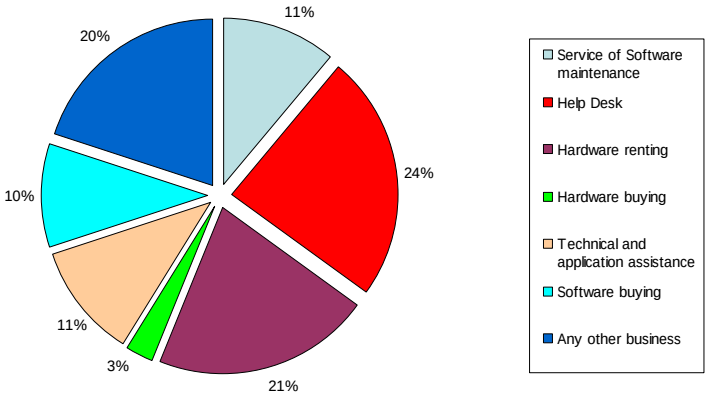
Cost of Information Technology (2)



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Infrastructural improvements 2003 – 2006

- Hardware updating of pc' and printers (2003 – 2004).
- Renovation, reinforcement and virtualization of servers.
- Hardware updating, data saving and storage (1st centre).
- Pressing interventions on the network and deployment of the new network.
- Reliability of the IT Infrastructure: the realization of the second data-centre for the back-up is in progress
- Increasing of Internet bandwidth
- New management system of electronic mail
- Renovation of electronic voting devices (hardware and software)

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Security improvements 2004 – 2006

- Optimization of the current network.
- Designing of the new network security.
- Systems to timely deploy the Microsoft security update.
- A specific antivirus for the e-mail (in conjunction with an antispamming).
- System to protect the INTERNET door
- Extranet access
- Studying of the security issues

Some Data

- **7.214** are the viruses found and removed from Internet during the last month.
- **8.600** more or less are the viruses found and removed from the electronic mail during the last month.

Activity 4.3 - Training and working session on documents management system and web sites

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New services for the final customer

- New web site of the Senate (released at 2004)
  - The accesses to the web site are improved by the 30% (2005 on 2004)
- Provision of the mobility services (from the experience of palmtop/GPRS to the new offers for the customers).
- More services and less instruments: economic bonus for a greater freedom to choose the electronic instruments, and Extranet access through the pin and token to easily and securely connect to the services.
- Personal information services.
- New release of Telpress (press news agencies).
- External electronic mail.
- Web TV.

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The new applications

- Adoption of a new platform for the software developing (J2EE java based)
- **Many new applications:**
  - Historical archive and library.
  - Document management1 system
  - Administrative area (in particular the accounting system and the building management).
  - Catering support systems
  - Reporting and amendments, “Find law references” functionality, Government accountability.
  - Legislative archive

Activity 4.3 - Training and working session on documents management system and web sites

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Outlook 2006 – 2008 (1)

- **Projects proposals**
  - Intranet portal (in progress).
  - Senate historical web-site.
  - Document management and electronic protocol; solution for the digital signature.
  - Information system and multimedia contents.
  - Access to the services through multiple channels (i.e. palmtop web-site, digital earth TV).
  - Integration fax-electronic mail.
  - Video conference.
  - Systems to support the administrative decision making.
  - Computerization of the supplies cycle management.

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Outlook 2006 – 2008 (2)

- **Infrastructural projects:**
  - New network.
  - Completion of the second back-up data centre.
  - Carrying out the new first centre and procedure of emergency.
  - Studying the VOIP.
- **Management Prospective**
  - New outsourcing contracts.
  - Evolving maintenance of the administrative, texts and parliamentary area.
  - More training for the final customer.
  - Support for the web-site and applications accessibility.
  - New solutions for pc's.
- **Security Prospective**
  - Identity management.
  - Log system analysis.
  - Intrusion systems, detection/prevention.

Activity 4.3 - Training and working session on documents management system and web sites

Annex 2

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Phare Twinning Programme

Activity 4.3
Training and working session on documents management system and web sites

The parliamentary information system in the Italian Senate

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Contents

- Managed information overview
  - navigating through the web site gives some clues about the managed information
- Process and office automation
  - how do we acquire and manage relevant information
    - Players and their needs: offices/structures and their duties
    - architectural overview – some relevant information
    - insights on a couple of tools, i.e.
      - (quasi) real-time stenographic reporting
      - amendment management in committees
    - overview of the linking phase: the BGT architecture
- Conclusions
  - Problems and limitations, ongoing work, possible improvements

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Managed information (a very quick web-overview)

- Main "perceivable" results, i.e., publishing on the web site of information about:

Assembly	**Committees**
calendar and agenda reports (stenographic, summary, annexes)	calendars and agendas reports ...
Senators	**Acts, e.g.,**
Registry data and charges Legislative initiative Activity of chairman on bills Interventions in Meeting and in Committees	Bills interpellations, motions ... amendments (in assembly and recently in committees) non legislative documents

  - **Search engine**
    - enabling generic (google-like) and several specialized searches

underlines are web links...

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The web site is just the top of the iceberg...

Publishing is the very final part of a complex process encompassing

- *content acquisition, achieved through*
  - *enterprise web content management system*
  - *custom applications for*
    - *data acquisition (and reuse by offices...)*
    - *text editing, markup, and acquisition (and reuse by offices...)*
- *static linking (referencing) between data, texts and markups*
- *content staticization and presentation over the web site*

WCM and DMS are not dealt with within this presentation: we'll focus mainly on acquisition, and linking phases.

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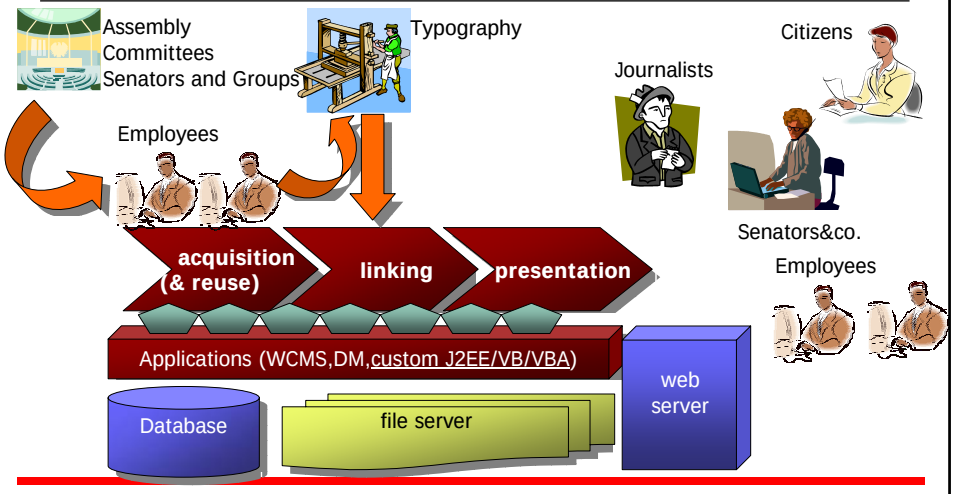
Main actors and architectural overview (simplified)



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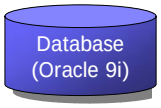
Some insights on the big picture



- No workflow engines
  - activities and functions are more likely to be captured than the whole process
  - 2/3 tier apps and transactions
- Data are collected in a single, integrated, and highly supervised schema
  - Tables: 1097 - 5,8 GByte
  - Areas: parliamentary, administrative, general, dm

- Typography (external company) services:
  - typesetting and printing (paper docs)
  - X(HT)ML markup of acts not directly input by offices (compensation)
  - production of official pdfs and DM pre-cataloguing

- Several USER applications (~15), obeying to some general rules
  - official sources: info is captured *where it is generated*
  - reuse: users have to benefit from using applications
    - not just data entry, but satisfying user requirements while capturing relevant information behind the scenes

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Information acquisition and management in the parliamentary IS of the Italian Senate

Applications:

- Parliamentary Registers
- Enhanced text editors and markup
- Overview of BGT

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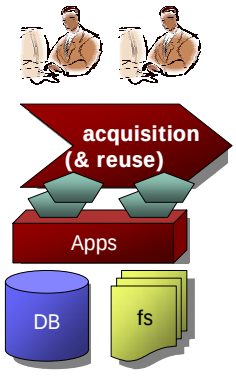
Parliamentary Registers: objective and scope



- One of the main need of Offices/Departments is to precisely track the course of acts, e.g.:
  - The Assembly needs to register events about bills and amendments such as:
    - presentation
    - assignment in committees
    - procedure of the committee
    - ...
- to achieve this objective, it is also necessary to acquire data about:
  - Senators
  - Deputies
  - Parliamentary Groups composition in both the Chambers
    - and info about political Parties
  - Committee composition
  - Government composition
  - ...
- This is achieved through specific applications named “Parliamentary Registries”
- These applications don’t acquire text, only data

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Parliamentary Registers at a glance

- **Composition Registry – Office for Parliamentary Information**
  - Senators , Deputies, Parties, composition of and Parliamentary Groups and of Committees, as well as charges of each member, President Bureau compositions, Ministries and staff.
  - Data are commonly organized by Legislature and are maintained by Offices
- **Bill Management Registry – Assembly**
  - Data and procedural events about bills: presentation, notifications in the Assembly (subscribers, title, arrival date), assignment to Committee, transmission to the Chamber, discussion (general discussion, evaluation, vote declarations, final voting)
  - Ontology Classification (TESEO) of each document
- **Bill Management Registry – Committees (14)**
  - Procedural events about bills: exam, chairman nomination, joint discussion, relations
- **Non-legislative document and procedure registries**
  - data about all the (several) tyoe of acts sent/drafted to/within the Senate that are not exactly framed within the legislative workflow, e.g., Government advices, decree schemas, charge proposals, petitions.
  - Stores data about the act (presenters, title,...), about related events (dates, assignments, relations...)
  - Ontology Classification (TESEO).
  - Questions, Interpellations, Motions are managed thorugh another application (workflow involving Senators)
- **Official Gazette Registry**
  - Data about publication on the OG of laws, decrees, other acts.

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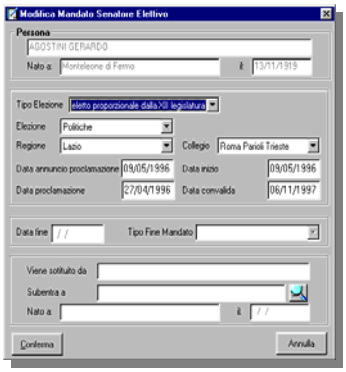
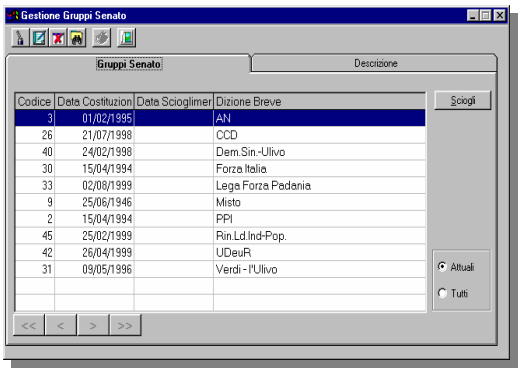
Composition registry: some screenshots



a Senator's Mandate



Parliamentary Groups

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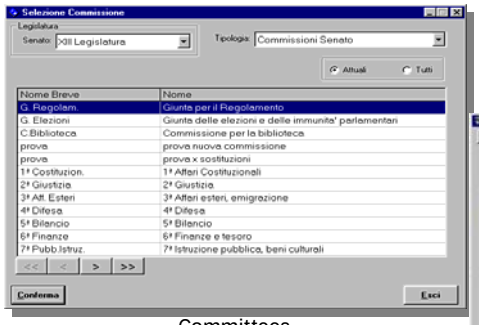
...Composition registry: some screenshots



Committees

Committees Composition and Charges

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Composition: some remarks

- Capture data not only about the Senate
- Importance of a single integrated schema
- This also enables identity management based on information stored in the DB
  - data are never overwritten or deleted
  - table “people” is shared by several heterogeneous classes of people
- The composition registry is the enabling core of all following processes
  - it enables to make it available to all users (of the web, of other application) the state of the main political institutions at a given point in time
  - by itself, the composition registry permits producing the so called “Libretto”, i.e., a special guide to political composition of Senate

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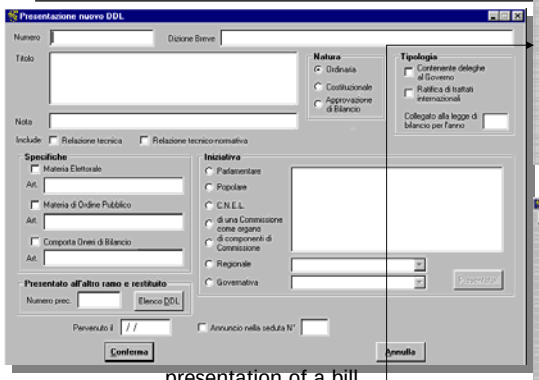
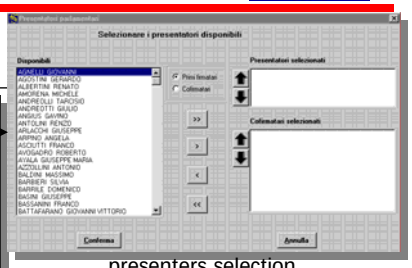
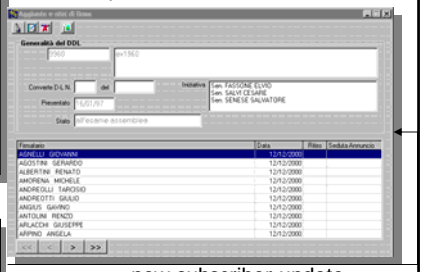
Assembly registry: some screenshots



presentation of a bill



presenters selection



new subscriber update

several data are those acquired through the composition registry

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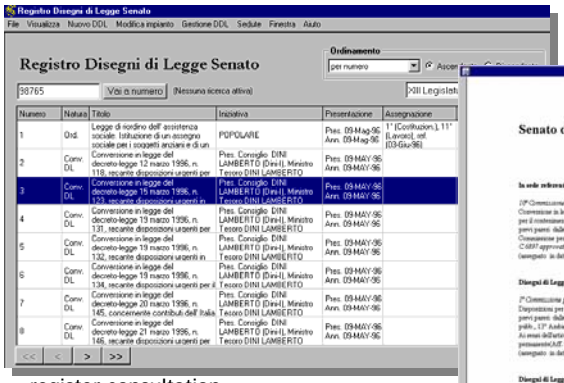
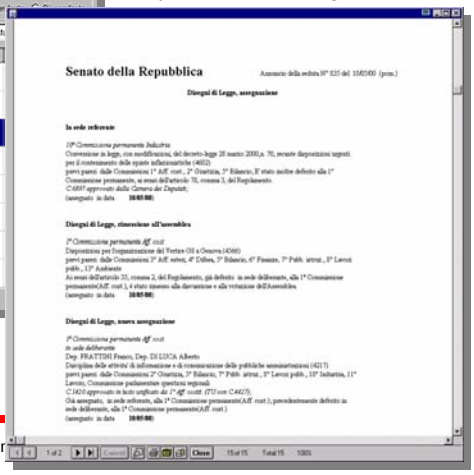
Assembly registry: some screenshots



register consultation

preview of an assignment



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Assembly: some remarks

- The legislative procedure is very complex
  - the workflow has several possible branches depending on the type of bill, the subscriber, the work done in the Committee etc.
  - the application is complex and costly to maintain
    - the investment is paid back by the results (e.g., the web site)
    - users are pull toward the application:
      - by the report facilities
        - » automatic printing of agendas, announces etc
      - by recognizing their work on the institutional web site
        - » that is also a tool to reduce the number of questions they've to answer to...

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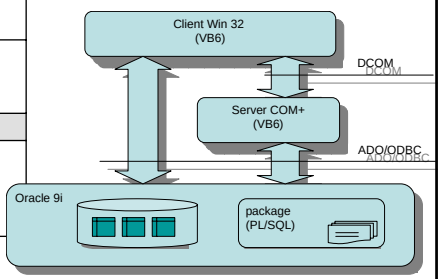
Parliamentary Registries: component architecture

	Type	Language	Platform
Presentation & Controil	Client Win32	Microsoft Visual Basic 6.0	Microsoft Windows 2000/XP
Business Logic	Server COM+	Microsoft Visual Basic 6.0	Windows 2000 Advanced Server
Dati	DBMS	Oracle 9i - SQL - con uso di package PL/SQL	Linux Redhat Enterprise Edition
Interfaces	Technologies		
Pres/BL	COM+ (DCOM, MTS)		
BL/Data	ADO, ODBC,		
Pres/Data	ADO, ODBC		



planned migration to J2EE

Activity 4.3 - Training and working session on documents management system and web sites

Senato della Repubblica

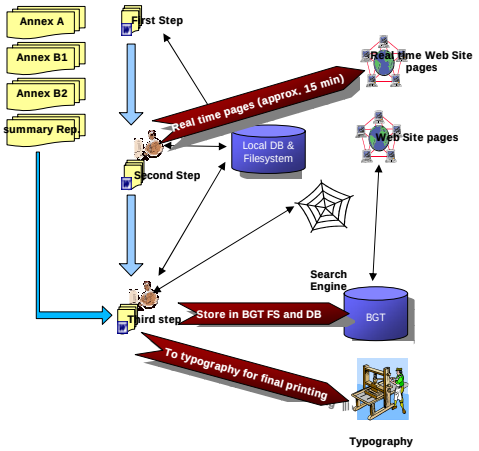
Text acquisition and management

- Texts of acts are centralized within a single repository based on file system
- Acquisition is achieved through different paths and applications
  - Internal paths
    - Offices working with applications supporting the drafting of acts
      - Summary and stenographic reports
      - Agenda
      - Government accountability acts
      - amendments
      - ...
  - External paths
    - The typography provides us with text including markup for publication
      - Bills
      - Bill reports
      - ...

Senato della Repubblica

Work Flow for Stenographic Reports

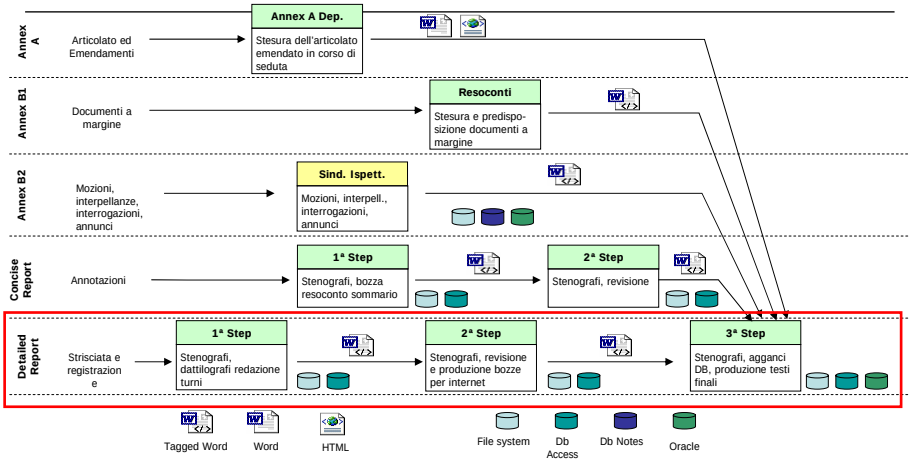
- 1st Step: 5 min. recording speech and events by Michela stenotype system, and transfering to word application for first phase tagging;
- 2nd Step: documents collaption, second phase tagging, revision, real time web pages;
- 3rd Step: final revision, insert attachments and session related documents;
- Finally these documents are passed to back office components:
  - create linking with enterprise DB
  - generate Web page for the web site



Activity 4.3 - Training and working session on documents management system and web sites

Senato della Repubblica

Work Flow for Assembly Report Environment



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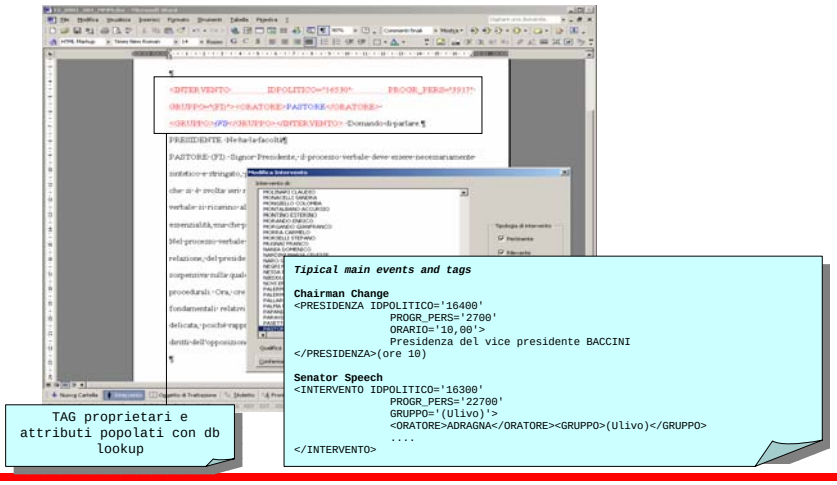
An example of Word VBA based application



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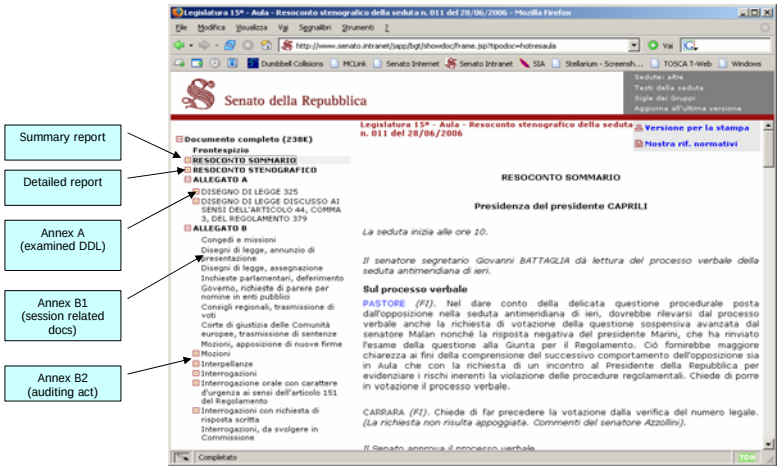
Italian Senate Official Web site result



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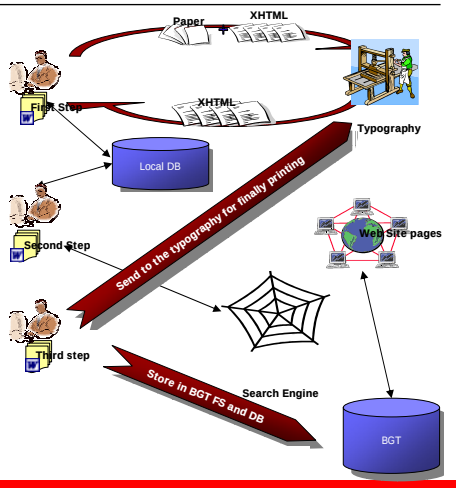
Amendments Work Flow within Committees

- A short Workflow overview in Committee environment:
  - Acquire data for internal work: manually or through typography for massive data entry;
  - Document are in MS Word XP with some presentation constraints as specific styles that users have to use;
  - Intermediate works populate a Committee's local DB for internal draft searches
  - Finally these documents are passed to back office components (as XHTML) that process the information and:
    - create linking with enterprise DB
    - generate Web page for the official Italian Senate web site



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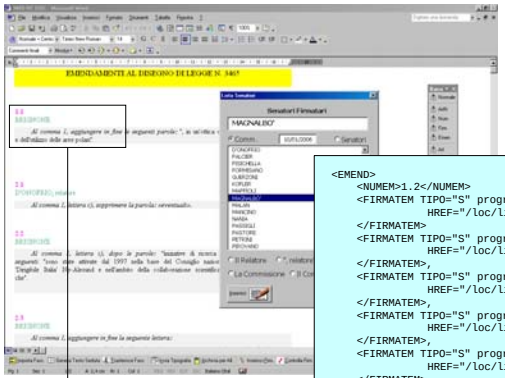
An example of Word VBA based application



Custom Style that are transformed in proprietary TAG

```
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    <NUMEM>1.2</NUMEM>
    <FIRMATEM TIPO="S" progr_pers="638"><A target="_blank"
                HREF="/loc/link.asp?leg=15&tipodoc=SANASEN&id=638">COLOMBO EMILIO</A>
    </FIRMATEM>
    <FIRMATEM TIPO="S" progr_pers="22752"><A target="_blank"
                HREF="/loc/link.asp?leg=15&tipodoc=SANASEN&id=22752">GRASSI</A>
    </FIRMATEM>,
    <FIRMATEM TIPO="S" progr_pers="17600"><A target="_blank"
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    </FIRMATEM>,
    <FIRMATEM TIPO="S" progr_pers="1425"><A target="_blank"
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    </FIRMATEM>,
    <FIRMATEM TIPO="S" progr_pers="1666"><A target="_blank"
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    </FIRMATEM>
    <TESTOEM><i>Al comma 1, capoverso, lettera f), aggiungere
                in fine le parole seguenti: </i>«e dei singoli procedimenti
                amministrativi»<i>.</i></p>  <p>
    </TESTOEM>
</EMEND>
```
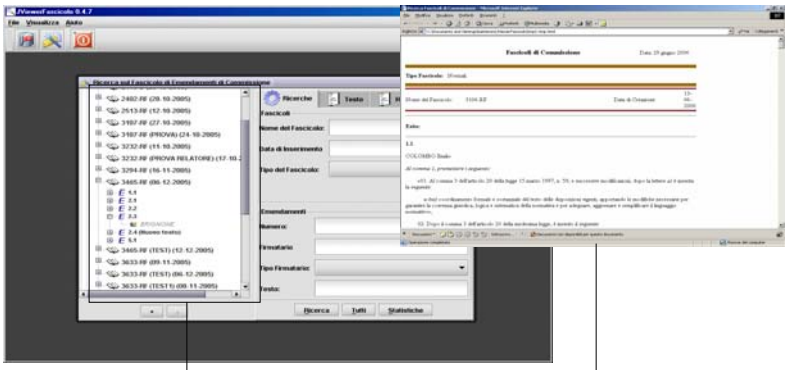


Senato della Repubblica

An example of Java Swing application to search in draft Data in local DB



Powerful search in the Committee Local DB

Searches are useful for printing report over the data stored in the local DB

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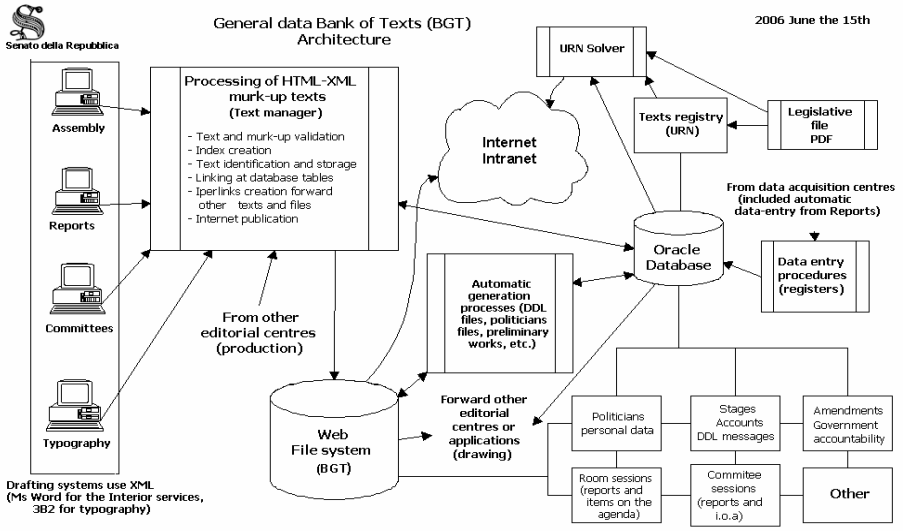
Senato della Repubblica

Italian Senate Official Web site result

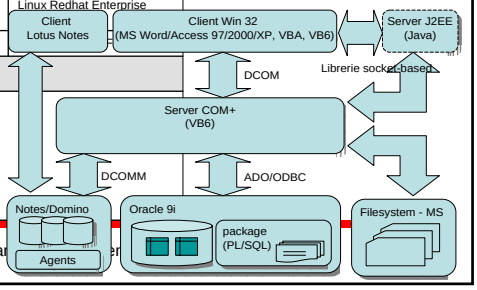
Senato della Repubblica



Activity 4.3 - Training and working session on documents management system and web sites

Enhanced editors and BGT: component architecture

	Type	Language	Platform
Presentation& control	Client Win32	Microsoft Visual Basic 6.0, Visual Basic for Applications (VBA)	MS Word/Access 97/2000/XP su MS Windows 2000/XP
	Client Lotus Notes	-	MS Windows 98/2000/XP
Business Logic	Server COM+	Microsoft Visual Basic 6.0	Windows 2000 Advanced Server
Data	Server Notes/Domino	Sviluppo in Notes Designer con Agenti in Java, LotusScript, Formula	Windows 2000 Advanced Server
	DBMS	SQL - PL/SQL	Oracle 9i (package) su Linux Redhat Enterprise
Files	Filesystem	-	
Interfaces	Technologies		
Pres/BL	COM+ (DCOM, MTS)		
BL/data	ADO, ODBC DCOM		
External Services	Librerie proprietarie "socket-based"		



Concluding remarks

- Problems and limitations
- ongoing work
- possible improvements

Annex 3

Senato della Repubblica

Phare Twinning Programme

Activity 4.3

Training and working session on documents management system and web sites

"Enterprise" Portal

Case Study: the Italian Senate "Enterprise" portal

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Portal System

- Through the portal system the user can reach all the services that support his working:
  - Mail system
  - File sharing
  - Search of documents and bills
  - ...
- The information displayed are tailored upon the user profile
  - Senators
  - Collaborators
  - Personnel

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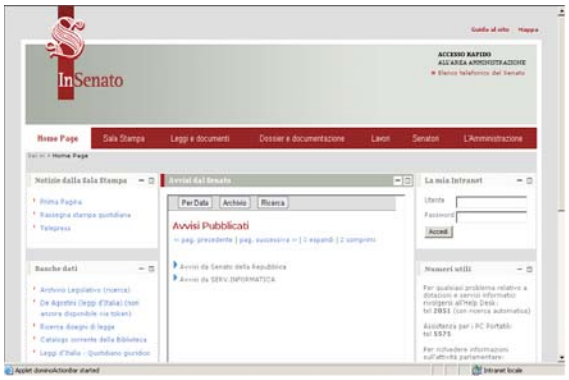
Home Page: user *Guest*

- The first access to the portal is not customized, so the displayed information are the same for every user.
- The navigation menu on top is similar to the Intranet Home page, but the contents are restructured.
- The page is organized by sections; each of them collects the information of the same area.
- The announcement section displays the general notes that should be delivered to every user. It is a useful instrument instead of the e-mail.



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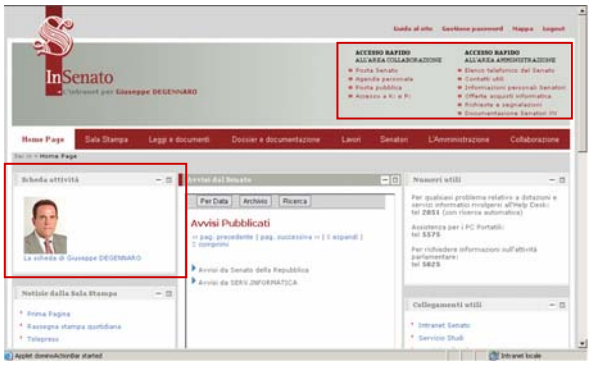
Home Page: Profiled access (1)

- Once the system logs the user in, it tailors the contents upon the user profile.
- A new section is created according to the legislative activities where the senator is involved with.
- New links are displayed forward the services related to the collaboration and administration area



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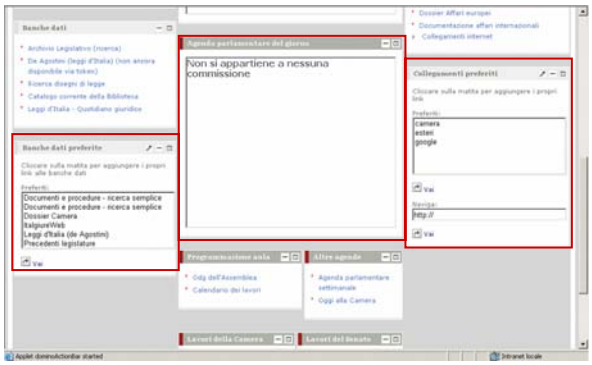
Home Page: Profiled access (2)

- The user can save own links to the legislative data bases and to the Internet web pages.
- The system displays the parliamentary agenda of the senator according to his parliamentary committee.



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Collaboration Area – Externalized Services

- Some services are externalized to support the user working activity during his away on business. The user can access through the portal to:
  - Senate mail, it is the working mail
  - Personal Agenda
  - Public mail, it is the senator mail towards the citizens
  - File Sharing
    - There are two archives where the user can store his files:
      - P, it is a public archive where all users have the access grant
      - K, it is an archive where only the users belonging to the same group have the access grant.
- Advantages
  - Even if the user is away he can still keep in touch with the colleagues using the same instruments he usually adopts to work.

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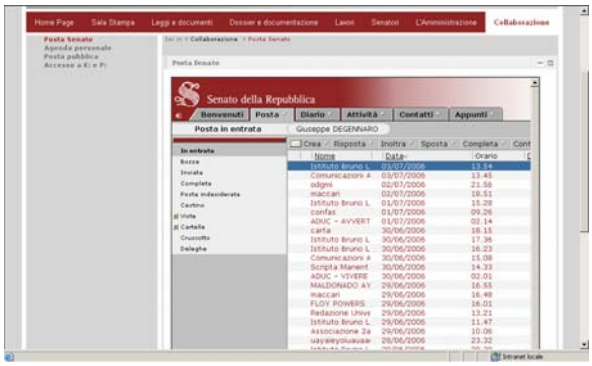
Collaboration Area – Senate Mail

- The portal integrates the mail client using a similar interface of the stand alone mail client.
- The user accesses without prompting the mail password.
  - The portal support the Single Sign On technology.



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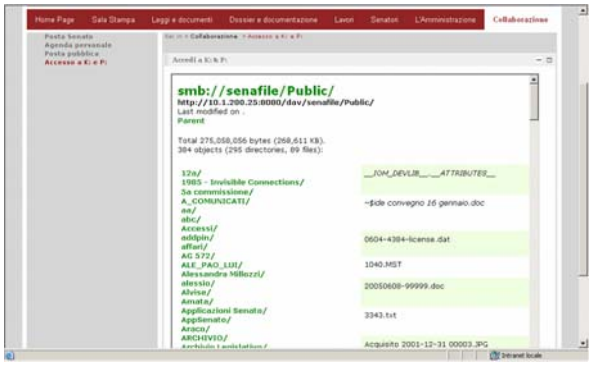
Collaboration Area – File Sharing

- The user accesses to the file system of the Senate intranet through the portal.
- The Single Sign On solution is implemented for this service too.



Activity 4.3 - Training and working session on documents management system and web sites

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Single Sign On

- Single sign-on (SSO) is a specialized form of software authentication that enables a user to authenticate once and gain access to the resources of multiple software systems [Wikipedia].
- The “Passwords Purse” is the “home-made” temporary implementation of this technology adopted by the Senate. It is under consideration a new solution to better fulfil the single authentication issue.
- The Password Purse integrates the authentication of several Senate software systems
  - JBoss Administrative Portal
  - Active Directory
  - Public Mail

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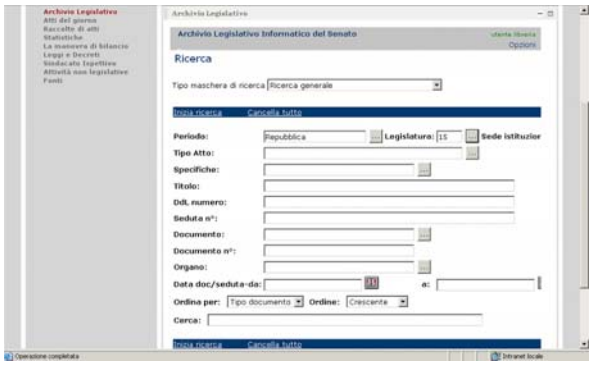
Legislative Archive

- The search of a legislative file is integrated in the portal
- The search engine has different parameters to refine the research according to the user needs
- The form of the research is tailored respecting the document typology that the user wants to find out.



Activity 4.3 - Training and working session on documents management system and web sites

In progress – New Functionalities

- The portal system will provide some new functionalities to help the user to exchange information with his colleagues:
  - **Collaboration area**: the user can save here the documents he wants to share with his colleagues.
  - **Sametime**: it is a messenger with video conference and Voice Over Ip functionalities.
  - **Application catalogue**: It is a list of links to the applications divided by category. Trough it the user can access to the applications which he daily works with.

Annex 4

Note on the evolution of information technology in the Italian Senate

The introduction of information technology in the Italian Senate dates back to 1970, when the Personnel Department installed a Burrough machine to calculate staff salaries. The idea of using an application to manage law-making procedures was first conceived in 1972. A small IBM 125 mainframe was installed and run by consultants and various other staff. As this approach was not successful, in 1976 President Fanfani decided to do without all external consultants and established the first, experimental data processing centre (CED – Centro elaborazione dati). He also held a public competition to recruit three IT experts. In 1980 two more competitions were held to recruit programmers and technicians.

In the early 1980s a small structure with permament staff was in place; it worked around a mainframe which kept growing in size, although it remained in the average range. Successful applications were ITER LEGIS, which eventually became a permanent feature and is still our pride, and basic administrative procedures, such as the payment of parliamentary allowances and staff salaries, the management of expenses, and electoral procedures. At that time IT was just for experts: staff and Senators were in no way involved in its use.

In the early 1990s the world of computer technology started to change. Personal computers and local area networks became an increasingly common feature, and users realized they had powerful tools on their desks. However, only some staff categories – parliamentary reporters, research staff, accountants and, obviously, IT specialists – were actually able to use them effectively.

Over time local networks became more widespread and the role of the mainframe became progressively less important. On 31 December 1999 the mainframe was shut off and replaced by a set of Windows-based servers. This was the result of an almost complete overhaul of the applications' portfolio, a huge effort which kept the IT department and an outside partner company busy for about three years.

By the late 1990s the number of servers had increased excessively. A consolidation phase followed which led to the present situation (seven physical and 80 to 90 virtual machines).

In the 1990s the users' attitude towards computers finally changed: services like e-mail and Internet are by now perceived as essential services. A blackout due to a virus attack which occurred in November 2004 and lasted for over one day was experienced as a shocking event by Senators, parliamentary groups and the entire administration. Since then considerable investments have been made to ensure security and a reliable service, from the strengthening of antivirus and antispam filters to the establishment of a second backup centre to ensure full "business continuity".

This long modernisation process aimed at incorporating IT technologies into daily work of the Senate has always been paralleled by a patient and demanding effort to seek a compromise between the requirement for security and reliability of tools and the need of users, especially members of Parliament, to enjoy total freedom, without checks and limits. Today, the need to ensure security and unfailing service are prevailing over unfettered freedom of behaviour. A Security Committee has recently been established, to ensure privacy protection and IT security. This committee will surely provide momentum to devise and implement relevant policies.

Annex 5

Parliamentary information system: an historical overview

The technological evolution of IT systems (local networks, graphic interfaces, advanced file management, the Internet) made it possible in the 90's to dramatically improve the IT systems accessible to Parliament members and citizens.

Apart from any other consideration, however important, concerning the user interface, it is important to focus on the most innovative elements of the new approach under consideration.

Old data banks (designed and established about thirty years ago) were based on the manual acquisition of data (*a posteriori*) from parliamentary records on paper (like parliamentary reports or bill printouts), whereas the reorganisation carried out in the 90's had two essential objectives:

- data acquisition as close as possible to the original source, i.e. from the offices taking part in the performance of parliamentary procedures, without any intermediation.
- a full integration between reference data and the texts of parliamentary records;

Data acquisition at source

As regards the first objective, an innovative approach was adopted whereby the data necessary to establish data banks have been acquired from the so-called "company workflows". This method has two main advantages:

- information is collected immediately, without the 24-48 hours waiting time needed at present to collect it from a published bulletin and process it;

- information is reliable because it is directly managed by its - so to say - owners, with no further intermediation.

Finally, comprehensive automation procedures have a positive impact on the overall training of personnel.

This approach to the parliamentary information system was made possible by hardware/software environment, which provides a computerised platform to workflows and working groups. Over the 90's the Senate had worked on the creation of a local network infrastructure, which presently connects offices, parliamentary groups and Senators themselves and offers external connection to Internet, press agencies and other information sources. As mentioned before, the Typography of Senate, which plays a significant role in the production of documents, was also connected with this network.

The workgroup environment adopted in the Senate is Lotus Notes, which seems to fulfil the abovementioned requirements and is successful with the users. It would be virtually impossible to have the people involved in the complex parliamentary work load data according to the traditional data processing procedures for information archives: such a task would be rejected or regarded as unimportant, as no positive impact on one's job would be expected.
If, on the other hand, office automation is based on document management, which is the real content of office work, a positive impact can be expected and file archives can be quickly fed in the system. Automatic connection procedures will load the relevant data into information banks for external users.

Among office activities, the production of records is particularly important with respect to this approach. A great deal of information will continue to be taken from the records of plenary and committee sittings, but even so information will be collected at the very moment it is created by means of advanced editing techniques.

The tools employed in this regard are Microsoft Office and Lotus Notes for office automation - and relational DBMS (presently Oracle) for the consolidation of data in view of a more general use. The transfer of archives into the Senate web site has been obtained, as is already the case, by means of completely automatic procedures.

Apart from some difficulties relating to delays in the adjustment of infrastructure (in order to adopt the above procedures and use the relevant instruments it was necessary to count on reliable and efficient networks, adequate workstations and powerful servers), the greatest difficulties have concerned the organisational aspect, as is usual.
Office automation, even if conducted with concrete working procedures, requires care in order to avoid overlaps or inconsistencies in the general flow of information.
The issue of responsibility with regard to the certification of data should also be considered. However delicate, these problems have been overcome thanks to the aim at publishing on Internet site as soon as possible.

XML structuring and publishing of parliamentary texts

As regards the second objective, a particular attention has been devoted to the production of parliamentary texts and to the reports of Assembly discussions. The starting idea was to entrust the acquisition of information to the people who create it instead of the data entry from printed paper bulletins, as was traditionally done. This aims at eliminating useless routine works, and granting the maximum updating speed.

The first step was to define a XML structure for parliamentary documents of interest, starting from the most important ones, i.e. the bills in their different phases (from the presentation text to the text dismissed from the Commission, until the so called "message" transmitted to the Chamber of Deputies, or until the promulgation by the President of the Republic). Upon this tagging system (that has been subsequently extended to all the texts and documents of big importance for parliamentary works), we have activated two parallel non-mutually exclusive channels to supply the new GBT (General Bank of Texts): a channel coming from the typography that provides the Senate with some text in electronic format enriched with the defined XML tags; another channel, coming from various offices of the Senate, which, by means of specially designed applications, produces the same electronic XML format. For example, the bills are produced by the typography but the Assembly reports are directly created by stenographers.

Once the texts are ready for the debate, the second step was to create a working environment for the reporters, i.e. a Word/VBA environment that automatically creates XML tags. Clearly, this environment is connected with relational DB of the information system in order to keep data about bills and about senators and government members, necessary to create all the links in the database and to create hypertextual links on the Internet site.

The project started about six years ago, with the publication (at the beginning only on the Intranet and then on the Internet) of an online report, that is a report made during the sitting. About every five minutes, that is according to the stenographic working turns, the report increases with a new file of five minutes and, clearly, refreshes from the beginning.

Beside the stenographic report, a brief summary report is written and published on line; the report has been completed with the annexes containing the texts under debate together with communications and announcements.

Annex 6

General description of the application portfolio of the Italian Senate

1. ADMINISTRATIVE AREA

a) ADMINISTRATIVE AREA – ECONOMIC

Description: It falls in this area the applications to manage not only the payments for people who at different level are related to the Administration of the Senate (Senators, ex-senators, workers with temporary contracts, employees, retired persons, consultants), but also the communications with the social security institutions and the rejoining of providence periods. It falls in this area the applications to manage the cycle of the accounting, the warehouse, of the inventory, the provident fund of the Senators, the redemption of the Parliamentary mandates, the management of benefits for the Senators, the libraries orders, cars permissions to access the restricted traffic area near the Senate, the supplementary health insurance for the employee and the Senators

Users: The applications of this area are used by employees of the Administration of the Senate. The number of users for each application varies from a minimum of five to a maximum of a hundred.

Technological requirements: The applications of this area fall in the technological environments classified in the annex as: AT1, AT5.

b) ADMINISTRATIVE AREA – TAX

Description: It falls in this area the applications to manage the taxations.

Users: The applications of this area are used by the employee of the Administration of the Senate. The number of the users for each application varies from a minimum of five to a maximum of ten.

Technological requirements: The applications of this area fall in the technological environments classified in the annex as: AT1, AT4, AT5.

c) ADMINISTRATIVE AREA – LEGAL

Description: It falls in this area the applications to manage not only the status information of people who at different level are related to the Administration of the Senate (Senators, ex-senators, the minister's departmental staff, contract workers, employee, retired persons, consultants, strangers), but also to manage the previous working activities, the appointment and transfer, the arrangement and the role, the business trips and training.

Standard users: The applications of this area are used by the employees of the Administration of the Senate. The number of the users for each application varies from a minimum of five to a maximum of ten.

Technological requirements: The applications of this area fall in the technological environments classified in the annex as: AT1, AT4, AT5.

2. PARLIAMENTARY AREA

Description: It falls in this area the applications that allow to save, update, publish on the web-sites and printouts the information related to the Chambers composition and the Parliamentary activity (in terms of acts and their procedures). In particular, the information handled sweep from the composition of the two Chambers in terms of the Senators, the Deputies, the parliamentary Groups and the data related to the political elections, to the completely tracing of the parliamentary procedure of the official legislative acts (i.e. bills, etc.) and the non legislative acts (i.e. the acts of government accountability, etc.). In this area the documents (texts) are not directly elaborated, but they are produced by the following area. Nevertheless, the huge part of the html web pages of the Institutional web site of the Administration (www.senato.it) is produced in this area, and they are related to the information of the Parliamentary activities.

Users: The applications of this area are used by the employees of the Administration of the Senate. The number of the users for each application varies from a minimum of five to a maximum of thirty. The html pages of the web site are not only accessed by internal users but also millions of times per month by external users.

Technological requirements: The applications of this area fall in the technological environments classified in the annex as: AT1, AT4.

3. TEXT AND DOCUMENT AREA

Description: It falls in this area the applications that allow to save, update, publish on the web-sites and printouts the verbatim information, or the documents produced within the parliamentary activity developed with the Senate of the Republic, and the applications that allow to publish on the institutional web site (www.senato.it). These applications join these information and documents with the parliamentary information managed by the applications described in the parliamentary area. The applications belonged to this area also manage with their attachments the bills, the acts of supervisory audit, the amendments, the files of amendments, the reports of the sitting Hall and the Parliamentary committee. The management follows a paradigm that directly involve the information source, or the Administration Services in charging of the texts elaboration, that collaborate to update a centralized documental base, from which are extracted some sub-products as the printed drafts (to send to the typography followed by the return of the electronic versions of some printed contents), and contents for the web publishing (in real time mode as well as happen for the reports of the Hall published during the sitting). As the same as the last area, it has to be noticed that beyond the external access, the html pages of the institutional web site (containing the public version of the documents managed through this area) are looked them up millions of times per month.

Users: The applications of this area are used by the employee of the Administration of the Senate. The number of the users for each application varies from a minimum of five to a maximum of forty.

Technological requirements: The applications of this area fall in the technological environments classified in the annex as: AT2, AT3, AT4, AT5.

4. Office Area

Description: It falls in this area the applications with a "departmental" nature (Service Office, Parliamentary Groups, Committees, etc.) that are little or not integrated with the information system, and prevalently used by internal users. The information in use is usually stored into a local data base (Notes DB) excepted for some cases when there is the interaction with the corporate data base (Oracle DB). In spite of a huge number of operating applications (300-400), they are not complex.

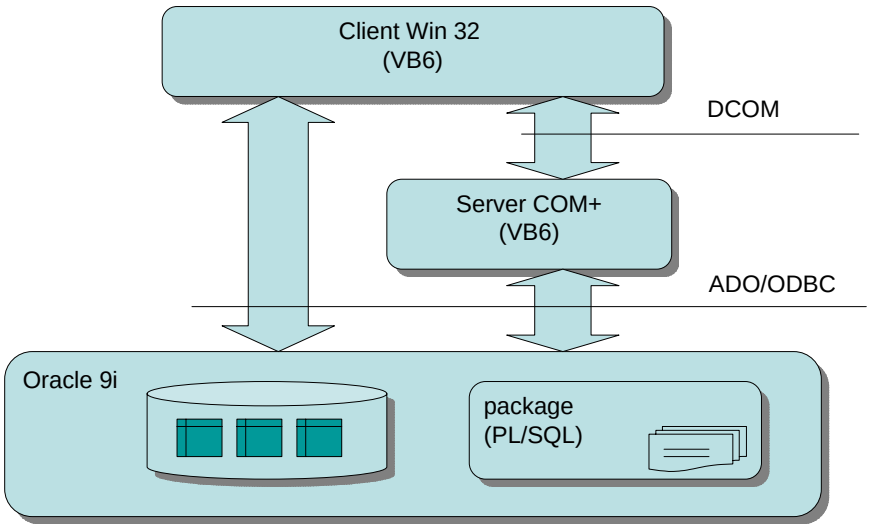
Users: The applications of this area are hugely used by all the Intranet users of the Senate. The number of the users for each application varies from a minimum of few units to a maximum of all users (approximately 2000) for some widespread applications as the report of failure or the pass management, etc.

Technological requirements: The applications of this area fall in the technological environments classified in the annex as: AT4.

Annex – Technological architectures

The main architectures adopted for the applications described in the above areas follow hereafter. It is important to describe for each application or groups of them the main languages and technologies used in addition to the execution platforms. To this end, every architecture is described by a table that depicts the most important features.

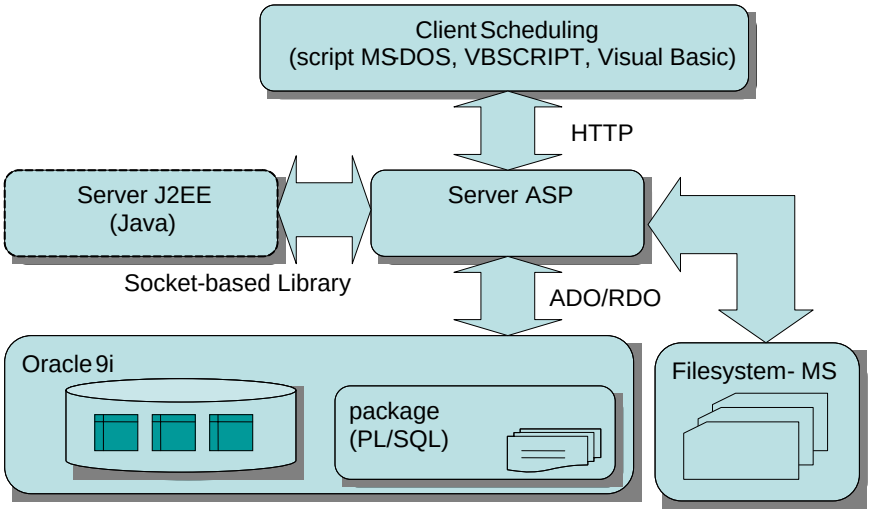
Technological Architecture 1 (AT1)



Architecture AT1	**Parliamentary and Administrative Area**		
	Typology	**Languages**	**Platform**
Presentation&Control	Client Win32	Microsoft Visual Basic 6.0	Microsoft Windows 2000/XP
Logic	Server COM+ COBOL Executable	Microsoft Visual Basic 6.0 COBOL, ProCOBOL	Windows 2000 Advanced Server
Data	DBMS	Oracle 9i - SQL - con uso di package PL/SQL	Linux Redhat Enterprise Edition
Interfaces	**Technologies**	**Notes**	
Presentation/Logic	COM+ (DCOM, MTS)	-	
Logic/Data	ADO, ODBC,	-	

	Microfocus Cobol runtime	
Presentation/Data	ADO, ODBC	For some access directly from the clients to the DBMS

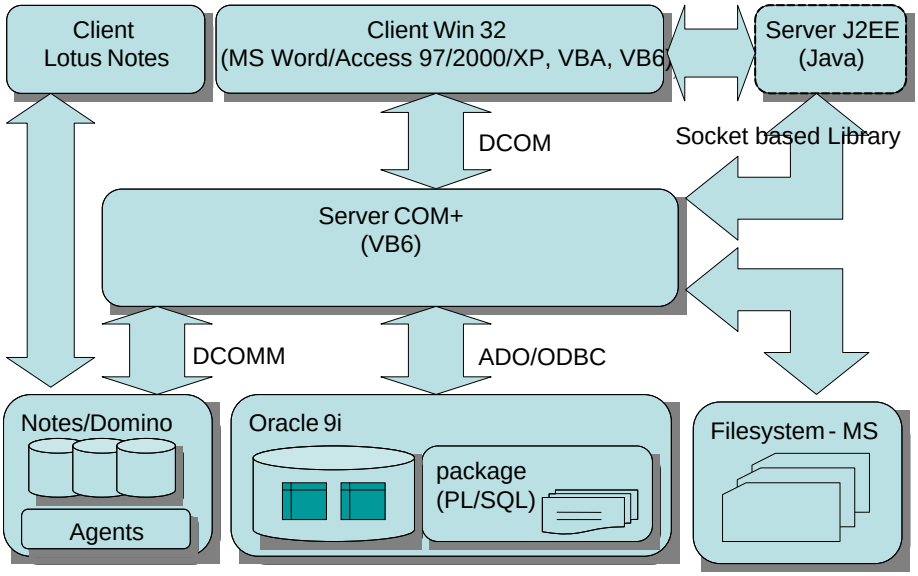
Technological Architecture 2 (AT2)



Architecture AT2	**Parliamentary Area**		
	Typology	**Languages**	**Platform**
Presentation&Control	Scheduling Client Win32	Microsoft Visual Basic 6.0, VBSCRIPT, Shell MS-DOS	Microsoft Windows NT Server Enterprise Edition
Logic	Server asp	Microsoft asp	Windows 2000 Server, IIS 5.0
Data	DBMS	SQL - PL/SQL	Oracle 9i (con package) over Linux Redhat Enterprise Edition
File	Filesystem	-	NTFS network sharing
Interface	**Technology**	**Notes**	
Control/Logic	HTTP (url and query string)	-	
Logic/Data	ADO, ODBC,	-	

	RDO	
External Services	Proprietary library "socket-based"	Used by the ASP server to access the services to identify and find the documents and links.

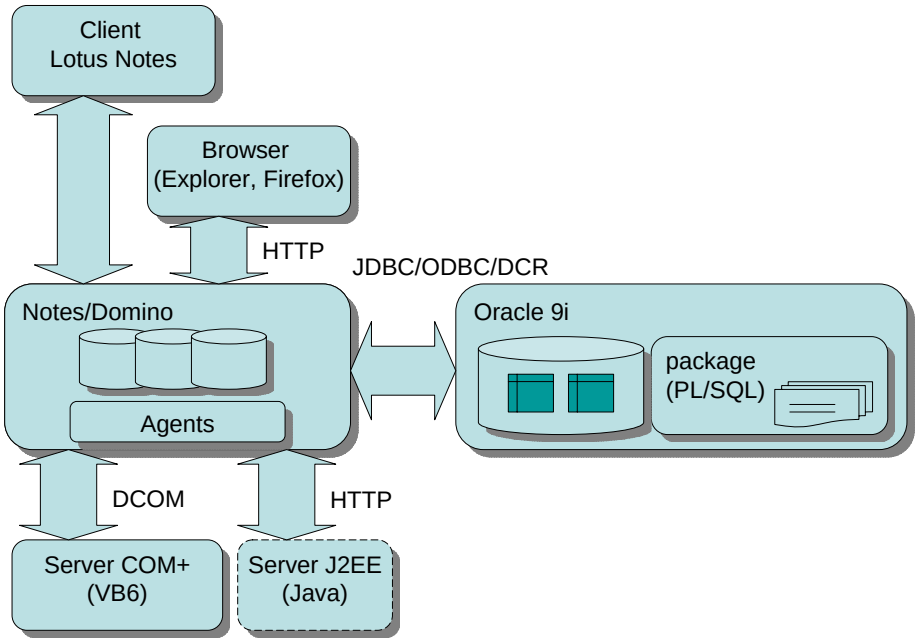
Technological Architecture 3 (AT3)



Architecture AT3	Areas: Texts, Documental and Administrative		
	Typology	**Languages**	**Platform**
Presentation&Control	Client Win32	Microsoft Visual Basic 6.0, Visual Basic for Applications (VBA)	MS Word/Access 97/2000/XP over MS Windows 2000/XP
	Client Lotus Notes	-	MS Windows 98/2000/XP
Logic	Server COM+	Microsoft Visual Basic 6.0	Windows 2000 Advanced Server
Data	Server Notes/Domino	Developed by Notes Designer with Java Agents, LotusScript, Formula	Windows 2000 Advanced Server
	DBMS	SQL - PL/SQL	Oracle 9i (con package) over Linux Redhat Enterprise Edition
File	Filesystem	-	NTFS network sharing

Interfaces	Technologies	Notes
Presentation/Logic	COM+ (DCOM, MTS)	To interface the win32 clients and the COM+ server The Notes clients access the Notes DB in a native modality with proprietary protocol.
Logic/Data	ADO, ODBC DCOM	Between server COM+ and DBMS Oracle Between Server Notes and Server COM+
External Services	Proprietary library "socket-based"	Used by the COM+ server to access the services to identify and find the documents and links.

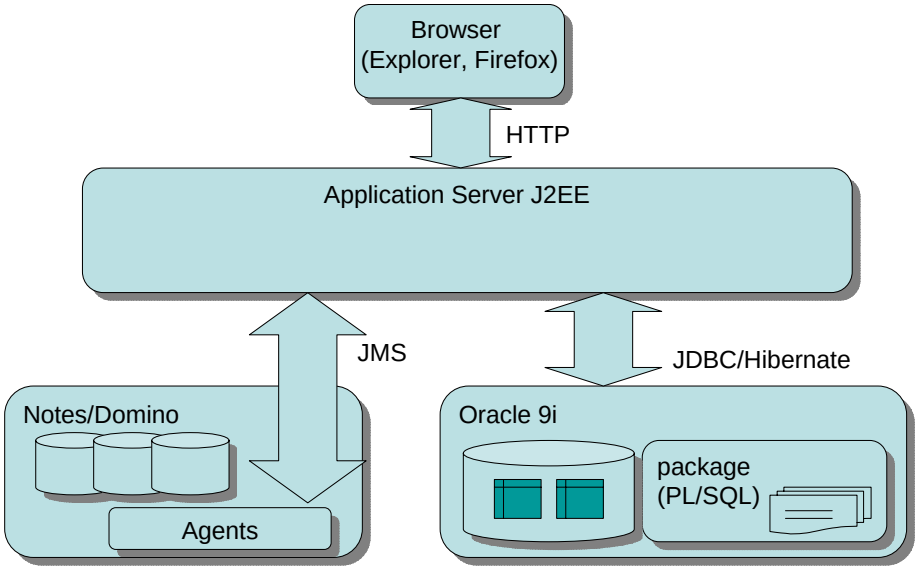
Technological Architecture 4 (AT4)



Architecture AT4	Areas: Parliamentary, Texts and Documental, Office		
	Typology	**Languages**	**Platform**
Presentation&Control	Client Browser (MS Explorer e Mozilla Firefox su)	HTML + Javascript	MS Windows 2000/XP
	Client Lotus Notes	-	MS Windows 2000/XP
Logic	Server Notes/Domino	Developed by Notes Designer with Java Agents, LotusScript, Formula	Windows 2000 Advanced Server
Data	DBMS	SQL - PL/SQL	Oracle 9i (con package) over Linux Redhat Enterprise Edition

Interfaces	Technology	Notes
Presentation/Logic	HTTP/HTML	To the accesses from the browser to the Lotus Domino server The Notes clients access the Notes DB in a native modality with proprietary protocol.
Logic/Data	JDBC, ODBC, DCR DCOM	Among Notes agents and DBMS Oracle Between Server Notes and Server COM+
External Services	HTTP	Use to invoke running services over J2EE application server

Technological Architecture 5 (AT5)



Architecture AT5	**Areas: Administrative, Texts and Documental**		
	Typology	**Languages**	**Platform**
Presentation&Control	Client Browser (MS Explorer e Mozilla Firefox)	HTML + Javascript	MS Windows 2000/XP
Logic	Application Server	Java (J2EE + Struts, Hibernate, FOP, XML*)	IBM Websphere and JBOSS/Tomcat over Linux Redhat Enterprise
Data	Server Notes/Domino	Developed by Notes Designer with Java Agents, LotusScript, Formula	Windows 2000 Advanced Server
	DBMS	SQL - PL/SQL	Oracle 9i (con package) over Linux Redhat Enterprise Edition

Interfaces	**Technology**	**Notes**
Presentation/Logic	HTTP	-
Logic/Data	JDBC, Hibernate	Between Application Server and DBMS Oracle

	HTTP/JMS	Between Server Notes and Application Server

Annex 7

NOTE ON

3° Working Session. Personal Information Services for Senators.

In this session we will focus on how lessons learned in the previous two sessions can benefit and make easier the publishing of valuable services on the portal. We will discuss about security issues related to the publishing of personal information, and the integration with data and services provided by other applications.

We are going to describe our experience regarding the development of an unique access point to personal information for the Senators. According to the content of the previous session, we have developed our back office applications following some patterns and standards, in addition to the use of a well-known framework (J2EE). Doing this we have enabled our information system to expose services with various contents in order to carry out a first stage of our Service Oriented Architecture (SOA).

Consider the n(n-1) integration problem. All organizations face integration problems of some sort; perhaps because of a corporate merger, a new business alliance, or just the need to interconnect existing systems. If n application systems must be directly interconnected, it will produce n(n-1) connections, or interfaces. Consequently, if another application system A n+1 must be integrated, it will require that 2n new interfaces be generated, documented, tested, and maintained. While in the diagram above, the set of five applications require 20 direct interfaces, the addition of a sixth application will require ten new interfaces! Worse yet, the code in each of the existing applications must be modified to include the new interfaces, thus generating substantial testing costs. Immediately, you look for the optimum solution that produces the minimum number of interfaces (n) for n applications, with only one new interface for each additional system added, but find that it can't be done by direct connection.

The advent of Web services has produced a fundamental change, because the success of many Web services projects has shown that the technology does in fact exist, whereby you can implement a true service-oriented architecture. From a business perspective, it's no longer a technology problem, it is a matter of developing an application architecture and framework within which business problems can be defined, and solutions can be implemented in a coherent, repeatable way.
First, though, it must be understood that Web services does not equal service-oriented architecture. Web services is a collection of technologies, including XML, SOAP, WSDL, and UDDI, which let you build programming solutions for specific messaging and application integration problem. So what actually does constitute a service-oriented architecture? SOA is just that, an architecture. It is more than any particular set of technologies, such as Web services; it transcends them, and, in a perfect world, is totally independent of them. Within a business environment, a pure architectural definition of a SOA might be something like an application architecture within which all functions are defined as independent services with well-defined invokable interfaces which can be called in defined sequences to form business processes.

We implemented a very basic architecture based on SOA principles: our services are invokable as ejb and/or as procedure pl/sql. The main point here is that we develop applications keeping in mind

which functions they comprise could be generalized and developed as a "service" invokable by other applications. The ones developed in J2EE environment will request services via RMI by a call to the particular ejb, instead the ones developed with different technologies (cobol, vb, .net) could request services by calling the particular PL/SQL package.

The portal for Senators personal information is designed as a Web application accessible from Intranet or Internet by HTTPS protocol. The security for Internet access is enforced using a one time password mechanism (with VASCO token) as well.
The portal architecture is modular, where each module can be added easily and fast. A module consists of some presentation logic components that connect to business services (owned by their back-office application) available in the enterprise application server and view the data information in the web page.
The used business services and the shown relative information are very eterogenous.

A first service is that about electronic voting. You know that Italian Senators can vote by electronic voting system identifying themselves through a chip-card which is also an official identification card. The electronic voting system is a legacy application that stores the votes on a database.
We developed a Data Mart to store aggregated informations about electronic voting presence for each Senator. This Data Mart is feeded by an nightly aggregation job which elaborates the voting data.
The electronic voting service, plugged in the Portal, performs some queries on the aggregated data, allowing the Senator to view his electronic voting presences on the Portal.
There is possible to get a complete PDF report containing the own electronic voting presences as well.

Another functionality regards the wages. A business service reads in the economic data tables and provides some information about all the payed wages for a Senator in a specified time period.

A similar functionality is that about additional health insurance. In this case the Senator can view a list of own additional health insurance requests and for each of these he can visualize some usefull information such as the state of the request, the payment date, the request date and other documentation.

A further functionality is relative to the restaurant meals. A business service, provided by Restaurant application, gives all the information about restaurant meals eaten by a Senator.
In the portal the Senator can view his meals searching for date (specifying from/to). In addition can click on a single meal and read all the relative details together with list of dishes and the amount of the check.

Another functionality regards the books purchases at Senate Bookshop. Through this business service the Senator can view his book orders in Senate Bookshop. He can search for opened, in working and closed orders and he can be informed when his order is completed as well.

The last functionality is that about flights tickets used by Senators. This information is provided by a business service of the flight tickets management application. Through this functionality the Senator can search his flights by date and view the list of flights in the web page or in a report as well.
The flight tickets management is fullfilled by a particular Web application that is interesting to see.
It is an example of an interoperability with an external entity, because it implements an acquisition process of the flights. Each carrier sends tickets used by Senators; the process parses these data,

fixes automatically some errors (using for example regular expression syntax), stores the tickets in the database, etc.
There is then a back-office part of the application with which a human operator can fix some errors, display all the information about tickets used and sold, print thelist of invoiced tickets, etc.

Keeping in mind some concepts introduced in the previous session, we go further deeper on some aspects of the functionalities used in the portal.

At first we can note that the portal is developed using Jakarta Struts and so is based on MVC pattern, allowing to make indipendent presentation, controller and model logic. In this way the architecture is modular and extensible.

Looking at the user interface, you can see that the web page is divided in some sectors: an header where is shown the name of the Senator, a left menu where there are the avilable functionalities and finally a right zone dedicated to each service consultation. This structure is developed using tiles feature of Struts.

About security issue, we used HTTPS (SSL) for channel encryption. We recall that HTTPS is just HTTP over SSL, where SSL (Secure Sockets Layer) uses asymmetric cryptography (PKI) to negotiate a session key. The HTTPS activation is easily made in the web.xml file of the web application. Here we specified a LDAP role as well (this is the role that must be owned by the user that can access to the application).
Such simple settings allow us to enforce authentication (the user have to insert username and password in order to authenticate himself through JAAS on LDAP repository) and authorization (the web container ensures that only the user with the specified LDAP role can access to the application). In addition for who accesses from Internet there is also another level of authentication provided by the One time password with Vasco token.

The menu on the left is a common service used in Web applications developed in Italian Senate. It shows all the accessible functionalities of an application for the user that logged in.
Indeed, through LDAP roles, we restrict the application functionalities for the user and this menu service is capable to show only the relative commands.
It is based on an XML document (that each application must provide) where menu commands are described together with the required LDAP roles. The menu is painted by a servlet (each application references it in the own web pages) that receives the XML document, fills it with user LDAP roles and applies a XSLT to produce the menu HTML code.

A particular functionality used in the portal is the generation of some reports containing the personal data information of the Senator (flight tickets, electroning voting presences, etc.). It is interesting to see closer this feature.
Because in most applications there is the need to create at runtime some reports in several formats collecting data from the database, we designed a common Report creator Service.
The service works in synchronous way: it receives a request about a specified report (together with all the input parameters in order to find data), then it extracts the data in XML format from the database, and finally it applies one or more XSL transformation in order to create the report.
Most of reports are created using FOP (Formatting Objects Processor), a print formatter driven by XSL formatting objects (XSL-FO) capable to render the resulting pages to a specified output (PDF, TXT, etc.). Anyway, using other libraries, we are capable to produce RTF, XML, Excel reports as well.
The reports are created in memory and returned to the requester by HTTP or RMI.

Each type of report must be configured specifying the name, the PLSQL function capable to get XML data from the database, the input parameters and XSL file to transform XML data into XSL formatting objects. All this configuration data is stored on the database and read when a request is received.
In addition there is a web application that simplifies the operations necessary to configure the reports and provides a report testing functionality as well.

Finally as last case study, we see closer the acquisition process of the flight tickets.
In this case, we have to interface with an external entity, the carrier of the flights. Every month, the carrier puts the flight data into a text file where the information is stored using fixed positions pattern. Then it attaches the file to an email that is sent to a special mail address of Italian Senate.
At the arrival of the email, the mail server (Lotus Notes) wakes up an agent that handles this request. In particular, because the acquisition process could take long time, the agent simply notifies to the web application the arrival of a new email together with its message identifier and, if it receives an acknoledge response, marks the email as read.
On the application side, that notification is handled by a servlet, that, acting as front-end, receives the request, sends a JMS message (Java Messaging Service) containing the message identifier into a JMS queue and returns an acknowledge response.
At this point the process becomes asynchronous. A MDB (Message Driven Bean) is waked up by the EJB container because a JMS message is available on the queue. The MDB reads the JMS message extracting the message identifier, connects by POP3 to the mail server, gets the right email and opens the text file.
Then an iterative cycle reads the lines of the file. Each row is parsed extracting the flight information, then some checks and possible automatic fixes are made, and finally the ticket is written in the database.
At the end of the elaboration, the MDB sends a report email in order to notify the results of the acquisition process.

Annex 8

Senato della Repubblica

Phare Twinning Programme

"Enhancing the administrative capacity of the Senate of Romania"

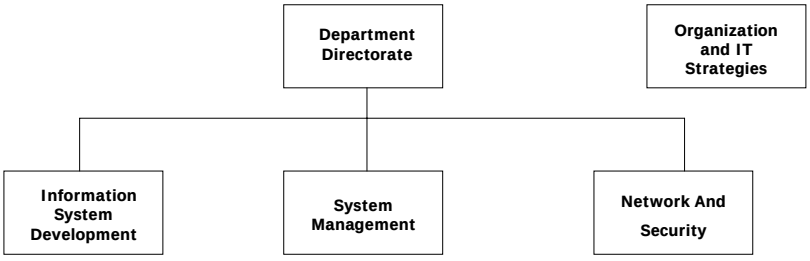
4.4

Training on parliamentary and administrative data integration into a personal portal system

IT Department structure in Italian Senate

Senato della Repubblica

IT Department Structure



Senato della Repubblica

Organization and IT strategies Office

- 1 director
- 2 secretaries
- 1 intern

Senato della Repubblica

Department Directorate (1 Director, 3 documentalists, 6 secretaries)

- Director (1)
- General Secretariat (4)
- Technical secretariat (2)
- Documentalists (3)

Senato della Repubblica

IT development office (3 executives, 18 programmers)

- Parliamentary applications (8)
- Administrative applications (6)
- Office applications (2)
- Websites development (10)
- **Outsourcing for legacy applications maintenance** (4 programmers working in Senate)

Senato della Repubblica

System management office (2 executives, 5 programmers, 13 operators, 7 attendants)

- Data center management (1 executives, 5 programmers, 11 operators)
- User systems management (1 executives, 2 operators, 3 attendants)
- Document copy center (4 attendants)
- Outsourcing for:
  helpdesk (9 operators)
  system operations (6 technicians)
  on-site assistance (4 technicians)
  mobile equipment assistance (3 technicians)

Activity 4.4 - Training on parliamentary and administrative data integration into a personal portal system

Senato della Repubblica

Data center management

- Central Server
- Machine accounts (desktop, notebook, warehouse, etc.)
- User accounts
- Shared resources
- Workstation system management (antivirus, antispam, SMS, WSUS, NSM alarms)
- Electronic mail system/groupware (Notes/Domino, mail gateway Ironport, public mail)
- Storage (SAN, NAS, backup, etc.)
- DBMS
- Application support
- Websites support
- infrastructural services (DNS, Telpress, batch schedule, print spooling, ctive directory domain)
- Electronic voting system in Assembly Hall

Senato della Repubblica

User system management

- Assistance on-site for desktops
- Assistance on-shop for mobile equipments
- Warehouse and inventory management

Senato della Repubblica

Network & security office (2 executives, 2 programmers, 3 operators)

- Network desing and management
- Security management (coordination of cross-department activities)

Senato della Repubblica

IT development office: some critical issues

- Relationships with the outsourcers
  - Key-in-hand
  - Body rental
- Growth of professional skills
  - Specialization
  - Wider competence
- Relationships with the user
  - User->executive->analyst programmer->technical operator
  - User->executive and/or analyst programmer->technical operator
- Relationships with the System Management Office
  - Delivery
  - Maintenance

Activity 4.4 - Training on parliamentary and administrative data integration into a personal portal system

Annex 9

IT systems management: organization and procedures

In this document we aim to define the three main areas related to IT systems management, that in the near future would be defined as offices within IT department:
User support services office
Systems management office
Network and security

1. User support services office

- Mobile devices
- Work stations
- IT equipment inventory management

1.1 Mobile devices

This area deals with laptop's and palm's, especially of the upper market level. People involved are 1 internal and 3 external technicians.
The main activities carried out by these people are:

- HW devices installation, configuration and maintenance
- Backup and recovery
- Transfer/ synchronisation of agendas and directories
- Software installation and configuration
- SIM cards installation and configuration
- Internet access configuration
- Viruses check
- Driver and other software update
- Advise about IT offerings (Senate's conventions)
- Problem routing to external assistance companies

To perform these activities, the people involved have to observe the IT market, check and test the new products, verifying the compliance with our technical architecture, and acquire the knowledge need to carry out the assistance to the users.

1.2 Work stations

This area deals with assistance to desktop Pc's and any other equipment (hardware/software) related to it. The people involved are 1 internal technician, responsible for general supervision, and 12 technicians from outsourcer which perform:

- First level help desk
- Technical assistance on -ite and in-office
- Pc's and printers maintenance (direct and indirect)
- Second and third level assistance
- Equipment delivery to end users

The activities carried out in this area are many and sometimes very complex. Different work processes have been defined and implemented by means of proper software solutions.

1.3 Warehousing

This area deals with general management of goods, from arrival to storage, from assignment to delivery. Internal people cares of the receipt of goods from suppliers, their movement among the warehouses (we have three warehouses: a general one located in a suburban site, a smaller one located in the Senate's area and a room near the DP centre for day-by-day activity) and the periodical inventory.
Outsourcer's people deal with storage and movement to/from end users and their activity is strictly related to that of the technicians devoted to on-site assistance.

1.4 Administration control

This area (where one secretary is involved) deals with:
- Invoices control
- Stock-in-trade management
- Purchase orders and goods receipt management

1.5 Technical secretariat

It's the point, together with help desk, where all the requests by the users arrive. This activity, performed by one secretary, deals with correctness check of the request, if it's necessary asking the directorate, and its routing to the operational teams (usually by input into a workflow).

2 Systems management office

This office comprises 5 different main areas:

Core systems management
Users management
IT security
Copy centre
Electronic voting system

2.1 Core systems management

This is the main area in the whole office, involving the majority of people (both system programmers and technicians). We can list 10 sub-areas as follows.

2.1.1 Active Directory domain administration

This area deals with clients and servers existing in the Senate's Intranet and defined in the Microsoft Windows domain. Each user, in order to get access the Intranet services, must be registered in the Active Directory system (AD), receiving an account and a password. Thanks to this couple

account/password the user logins to the local network. In the same way also the workstations and the servers must be registered in the AD receiving their machine account. The management of machine accounts is preparatory for the activities of security updates and software distribution.

- User account management
    - user management in terms of password creation, change, enabling and disabling, reset and elimination
    - user groups management, in terms of creation, elimination, change in order to regulate the accesses to shared resources
    - creation and maintenance of the user logon procedures (logon scripts and group policy) in order to define the available shared resources, permissions and restrictions for the users

- Machine account management

    - machine management in terms of account creation, change, enabling and disabling, reset and elimination
    - groups and organizational units in which the machines are assembled in order to apply the management policies
    - creation and maintenance of the procedures by which the machines can access the domain (e.g. group policy)
- Authorization management (ACL) for shared resources as department printers and scanners, disk shares defined on the file server (K, P, etc) and their assignment to the organizational units (services, offices, etc)
- Management of the infrastructure (e.g. Cytrix) to support public workstations, both in Senate and for outside events (conventions, exhibitions)
- Management of servers supporting press news distribution (Telpress system)

2.1.2 Windows workstations management

This area has a strong impact on the activities of the user support service office. It deals with the implementation and maintenance of the software platforms for the management of the client systems.

- Configuration and maintenance of servers devoted to remote management of client workstations (Microsoft SMS, WSUS,antivirus)
- Creation and update of the *master* (image of operating system, drivers, application software installed) in order to optimize and secure the user workstations
- Management of the distribution of the vulnerability patches, following the Microsoft security bulletin and in according with the Security Area
- Antivirus update, automatic or by-hand, for the clients or implementation of ad-hoc policies in emergency situations
- Implementation and maintenance of the client software/hardware inventory (SMS by Microsoft and Service desk by CA)

2.1.3 Electronic mail management

This sub-area deals with all the systems involved in mail services, hosted either in the internal servers or in special appliances. Its main activities are:

- Implementation of mail systems, building solutions for performance optimization, high reliability and availability
- Management of mail boxes life cycle, from creation (including user definition on Domino Ldap and its assignment to a specific mail group) to elimination
- Management of public mail boxes for Senators (currently outsourced to an external provider)
- Management of security systems for electronic mail (Ironport appliances), including antivirus and antispam protection

2.1.4 Lotus Domino application support

- Implementation and management of application servers Domino on Windows and data Linux platforms, seeking solutions for performance optimisation, high reliability and availability.
- Support for the applications developed in Domino environment, including those web-based (Internet site and Intranet Portal)
- Management of user Ldap registry, including application groups and permissions

2.1.5 Data storage systems management

This sub-area deals with implementation and ,management of storage systems (SAN, NAS, Disk Library, Tape library, backup/restore, etc.). The main activities are:

- Storage infrastructure management with attention to optimisation of performance, availability and reliability
- Implementation and use of backup systems on disks and tapes to ensure a good data preservation
- Management of file sharing infrastructure in order to provide the shared resources, such as K an P, managing also the quotas assigned to each user or user group
- Implementation and management for data replication between the first and the second DP centre (disaster recovery architecture)

2.1.6 Management of virtual servers environment

This sub-area deals with virtualisation on VmWare platform. In this context it plans computing resources allocation and implements the virtual servers, maintains VmWare platform and provides support to other technical areas in order to gain solutions to problems of interaction between VmWare and hosted operating systems.
It also deals with the implementation of high reliability systems within virtual architecture, including disaster recovery solutions.

2.1.7 DB server management

DBMS plays a crucial role in the Senate's Information system because it collects all data, both administrative and parliamentary. The main activities are:

- Server operating systems management

- Implementation of tools in order to gain redundancy and reliability
- Optimisation of Oracle data base server
- Support provision for internal developers, outsourcers, users.

2.1.8 Support for application release (SupApp area)

This sub-area deals mainly with Application servers administration and new applications release toward production environment. In particular:

- Manages Application servers on Linux and Windows platforms
- Organises and maintains software repository by means a configuration control tool
- Manages software versioning and coordinates the distribution of software applications on the user workstations
- Helps in trouble shooting of client-server application problems
- Administers the document management systems (DocFusion for Legislativ Archive, Aleph for Library Department, Gea for Historical Archive)

2.1.9 Internet site management

This sub-area deals with Internet services provisioning, in particular it manages:

- DNS server
- Web servers (IIS, Apache) for contents publishing
- Perimetral systems for optimisation and security in Internet services usage (proxy, antivirus, antispyware, etc)
- Content management systems (Ste Manager)
- Document system for the Press Review articles

2.1.10 Portal and Extranet services

The main activities in this sub-area are:

- Maintenance of all the systems included in the Portal architecture and needed for Extranet access (token) :IDS, Websphere, TAM, Webseal, Wea, Wecm, Juniper appliance, etc.
- Management of user repository for Portal and Extranet services
- Support for application developers in order to increase the functionalities of Portal.

2.2 User Registry management area

This area deals with the reception of requests referred to the life cycle of user description. In particular:

- Examines correctness and completeness of the requests for user profile creation or update, rejecting or modifying it if it’s necessary

- Enables the workflow (by-hand or automatically) of the operations of creation, delete or update applied to all the directory registries involved (Active directory, Ldap, Tam, etc.)
- Implements and maintains the identity management systems (e.g. TDI)

2.3 IT security area

Within the general framework designed by IT Security Committee, this area deals with the implementation of specific security policies, servers and clients status auditing, requirements definitions for servers and clients implementation. It also helps in emergency situations (virus attacks, data corruption, etc.)

2.4 Copy centre

It deals with digital reproduction of documents and coordinates the outsourced copy service. It manages the departmental photocopiers distributed along the floors in the Senate buildings.

2.5 Electronic voting system

This area monitors the state of maintenance of all the devices involved in electronic voting system in the Assembly Hall. It cares for a weekly operational test of the system.

3. Network and security office

This office deals mainly with the Lan network management. The people involved is 2 executives, 2 system programmers and 3 technicians. The main activities can be divided into 6 areas.

3.1 Network core

This area comprises all the activities for new networking solution design and build, including the links to external networks or involving Carriers. It carries out also monitoring and control activity over the general working of the internal network and of external links and performs traffic analysis in order to identify any trouble or security threat and violations to rules and procedures.

3.2 Peripheral devices

This area deals with the management of peripheral interconnection devices distributed in the building floors and cares especially the configuration change depending on the user movement across the buildings.

3.3 Network security and protection systems

This area deals with implementation and maintenance of security policies over the network, in connection to the IT security group of Core system management office. To this goal, the area manages and controls the outside protection systems, implements security policies, uses systems for

intrusion prevention and detection. This area is responsible, too, for implementation and management of secure access solutions to Senate's Extranet services.

3.4 Passive infrastructure

This area coordinates and controls the operations related to structured cabling systems and manages, together with Senate's Technical Departments, cabling inventory and documentation. It cooperates with Technical Department in the designing of new solutions for structured cabling systems.

3.5 Press agencies reception

This area deals with satellite reception systems (antennas and decoders) for press agencies in cooperation with Technical Department.

3.6 Security

All the people in office deal with security issues, in particular referring to definition and implementation of security policies on the network equipment and in general coordinating the efforts of the other groups in IT Department in security area.

Annex 10

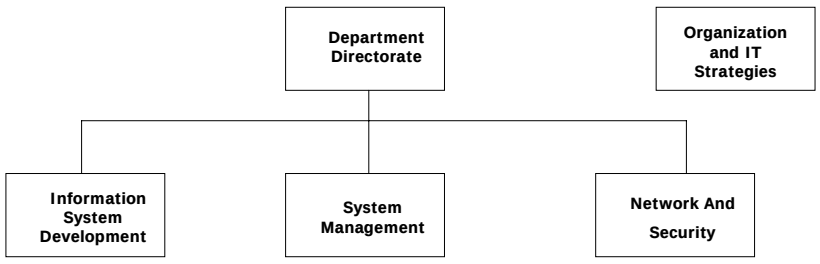
Senato della Repubblica

Phare Twinning Programme

IT organisation in Systems Management and Network Offices

Senato della Repubblica

IT Department Structure



Activity 4.5 – Training on ICT infrastructure and security

- System management Office wuold be split in two new offices:
  - » User support services office
  - » System management office

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IT Department Offices involved in this presentation

- User support services office
- Systems management office
- Network and security office

Activity 4.5 – Training on ICT infrastructure and security

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User support services office

- Mobile devices
- Work Stations
- IT equipment inventory management
- Warehousing
- Administration control
- Technical secretariat

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Mobile Devices

- HW devices installation, configuration and maintenance
- Backup and recovery
- Transfer/ synchronisation of agendas and directories
- Software installation and configuration
- SIM cards installation and configuration
- Internet access configuration
- Viruses check
- Driver and other software update
- Advise about IT offerings (Senate's conventions)
- Problem routing to external assistance companies

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Work stations

- First level help desk
- Technical assistance on -ite and in-office
- Pc's and printers maintenance (direct and indirect)
- Second and third level assistance
- Equipment delivery to end users

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Warehousing

- General management of goods, from arrival to storage, from assignment to delivery.
- Internal people cares of the receipt of goods from suppliers, their movement among the warehouses and the periodical inventory.
- Outsourcer's people deal with storage and movement to/from end users and their activity is strictly related to that of the technicians devoted to on-site assistance.

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Administration control

- Invoices control
- Stock-in-trade management
- Purchase orders and goods receipt management

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Technical secretariat

- It's the point, together with help desk, where all the requests by the users arrive.
- This activity, performed by one secretary, deals with correctness check of the request, if it's necessary asking the directorate, and its routing to the operational teams (usually by input into a workflow).

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System management office

- Core systems management
- Users management
- IT security
- Copy centre
- Electronic voting system

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Core systems management

- Active Directory domain administration
- Windows workstations management
- Electronic mail management
- Lotus Domino application support
- Data storage systems management
- Management of virtual servers environment
- DB server management
- Support for application release (SupApp area)
- Internet site management
- Portal and Extranet services

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Activity 4.5 – Training on ICT infrastructure and security

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Active Directory domain administration

- User account management
- Machine account management
- Authorization management (ACL) for shared resources
- Management of the infrastructure to support public workstations
- Management of servers supporting press news distribution (Telpress system)

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User account management

- User management in terms of password creation, change, enabling and disabling, reset and elimination.
- User groups management, in terms of creation, elimination, change in order to regulate the accesses to shared resources.
- Creation and maintenance of the user logon procedures in order to define the available shared resources, permissions and restrictions for the users.

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Machine account management

- Machine management in terms of account creation, change, enabling and disabling, reset and elimination.
- Groups and organizational units in which the machines are assembled in order to apply the management policies.
- Creation and maintenance of the procedures by which the machines can access the domain (e.g. group policy) .

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Windows workstations management

- Configuration and maintenance of servers devoted to remote management of client workstations (Microsoft SMS, WSUS,antivirus).
- Creation and update of the *master* (image of operating system, drivers, application software installed) in order to optimize and secure the user workstations.
- Management of the distribution of the vulnerability patches, following the Microsoft security bulletin and in according with the Security Area.
- Antivirus update, automatic or by-hand, for the clients or implementation of ad-hoc policies in emergency situations.
- Implementation and maintenance of the client software/hardware inventory (SMS by Microsoft and Service desk by CA).

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Electronic mail management

- Implementation of mail systems, building solutions for performance optimization, high reliability and availability.
- Management of mail boxes life cycle, from creation (including user definition on Domino Ldap and its assignment to a specific mail group) to elimination.
- Management of public mail boxes for Senators (currently outsourced to an external provider).
- Management of security systems for electronic mail (Ironport appliances), including antivirus and antispam protection.

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Lotus Domino application support

- Implementation and management of application servers Domino on Windows and data Linux platforms, seeking solutions for performance optimisation, high reliability and availability.
- Support for the applications developed in Domino environment, including those web-based (Internet site and Intranet Portal).
- Management of user Ldap registry, including application groups and permissions.

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Data storage systems management

- Storage infrastructure management with attention to optimisation of performance, availability and reliability.
- Implementation and use of backup systems on disks and tapes to ensure a good data preservation.
- Management of file sharing infrastructure in order to provide the shared resources, such as K an P, managing also the quotas assigned to each user or user group.
- Implementation and management for data replication between the first and the second DP centre (disaster recovery architecture).

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Management of virtual servers environment

- Virtualisation on VmWare platform.
- In this context it plans computing resources allocation and implements the virtual servers, maintains VmWare platform and provides support to other technical areas in order to gain solutions to problems of interaction between VmWare and hosted operating systems.
- Implementation of high reliability systems within virtual architecture, including disaster recovery solutions.

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DB server management

- Server operating systems management.
- Implementation of tools in order to gain redundancy and reliability.
- Optimisation of Oracle data base server.
- Support provision for internal developers, outsourcers, users.

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Support for application release (SupApp area)

- Manages Application servers on Linux and Windows platforms.
- Organises and maintains software repository by means a configuration control tool.
- Manages software versioning and coordinates the distribution of software applications on the user workstations.
- Helps in trouble shooting of client-server application problems.
- Administers the document management systems (DocFusion for Legislativ Archive, Aleph for Library Department, Gea for Historical Archive).

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Internet site management

- DNS server.
- Web servers (IIS, Apache) for contents publishing.
- Perimetral systems for optimisation and security in Internet services usage (proxy, antivirus, antispyware, etc).
- Content management systems (Ste Manager).
- Document system for the Press Review articles.

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Portal and Extranet services

- Maintenance of all the systems included in the Portal architecture and needed for Extranet access (token) :IDS, Websphere, TAM, Webseal, Wea, Wecm, Juniper appliance, etc.
- Management of user repository for Portal and Extranet services.
- Support for application developers in order to increase the functionalities of Portal.

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User registry management area

This area deals with the reception of requests referred to the life cycle of user description.
In particular:

- Examines correctness and completeness of the requests for user profile creation or update, rejecting or modifying it if it's necessary.
- Enables the workflow (by-hand or automatically) of the operations of creation, delete or update applied to all the directory registries involved (Active directory, Ldap, Tam, etc.).
- Implements and maintains the identity management systems (e.g. TDI).

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IT security area

- This area deals with the implementation of specific security policies, servers and clients status auditing, requirements definitions for servers and clients implementation.
- It also helps in emergency situations (virus attacks, data corruption, etc.)

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Copy centre

- Digital reproduction of documents and coordination of the outsourced copy service.
- Management of the departmental photocopiers distributed along the floors in the Senate buildings.

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Electronic voting system

- This area monitors the state of maintenance of all the devices involved in electronic voting system in the Assembly Hall. It cares for a weekly operational test of the system.

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Activity 4.5 – Training on ICT infrastructure and security

Senato della Repubblica

Network and security office

- Network core
- Peripheral devices
- Network security and protection systems
- Passive infrastructure
- Press agencies reception
- Security

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Senato della Repubblica

Network core

- This area comprises all the activities for new networking solution design and build, including the links to external networks or involving Carriers.
- It carries out also monitoring and control activity over the general working of the internal network and of external links and performs traffic analysis in order to identify any trouble or security threat and violations to rules and procedures.

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Peripheral devices

- This area deals with the management of peripheral interconnection devices distributed in the building floors and cares especially the configuration change depending on the user movement across the buildings.

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Network security and protection systems

- This area deals with implementation and maintenance of security policies over the network, in connection to the IT security group of Core system management office.
- The area manages and controls the outside protection systems, implements security policies, uses systems for intrusion prevention and detection.
- This area is responsible, too, for implementation and management of secure access solutions to Senate's Extranet services.

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Passive infrastructure

- This area coordinates and controls the operations related to structured cabling systems and manages, together with Senate's Technical Departments, cabling inventory and documentation.
- It cooperates with Technical Department in the designing of new solutions for structured cabling systems.

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Press agencies reception

- This area deals with satellite reception systems (antennas and decoders) for press agencies in cooperation with Technical Department.

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security

- General coordination of the activities carried out by different groups withon IT Department referring to security issues

- Security policies definition and implementation on the network equipment

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Annex 11

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Phare Twinning Programme

User Systems and Services Support Office

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Main components

- on-call assistance (Help Desk)
- On-site assistance
- On-shop assistance
- Asset management and warehousing

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On-call assistance (Help desk)

- Information
- Help on “how to do”
- Request for problem solution

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Help Desk guidelines

- Max time for each session with the user
- Taking control over the user workstation
- courtesy

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On-site assistance

- New pc installation
- Pc substitution
- Pc transfer (the user moves to another office)
- Pc transfer (the user moves to another room)
- Pc removal
- Auxiliary devices installation/removal
- Software installation (system and application sw)
- Assistance activity for hw/sw maintenance

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On-shop assistance

- Mobile devices management

  - HW devices installation, configuration and maintenance
  - Backup and recovery
  - Transfer/ synchronisation of agendas and directories
  - Software installation and configuration
  - SIM cards installation and configuration
  - Internet access configuration
  - Viruses check
  - Driver and other software update
  - Advise about IT offerings (Senate's conventions)
  - Problem routing to external assistance companies

- The change of policy (from direct provisioning to cash “bonus”)

Activity 4.6 – Training on User Support Services

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Asset inventory and warehousing

- Pc's
- Laptops
- Pda
- Printers
- Scanners
- Memory cards
- Connectivity cards
- Token OTP
- ……..

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Organisational issues

- Outsourcing policy
- Management by process

Activity 4.6 – Training on User Support Services

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Outsourcing policy in Italian User support Office

- Internal resources

- 1 executive
- 2 operators
- 2attendant
- 1 secretary

- Outsourcer resources (only for User systems and services support office)

- Help desk 8
- On-site 9
- On-shop 3
- Warehousing 1

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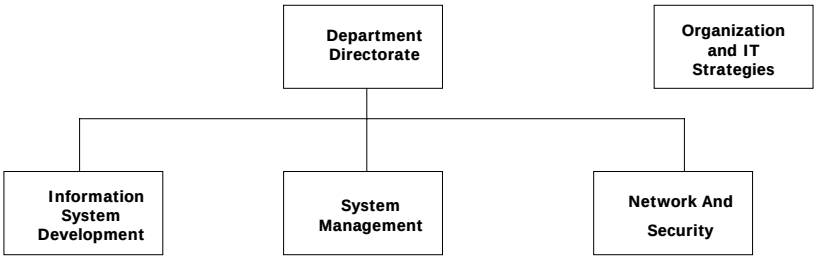
IT Department Structure



Activity 4.6 – Training on User Support Services

System management Office wuold be split in two new offices:

User support services office

System management office

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IT Department Offices involved in this presentation

User support services office

Systems management office

Network and security office

User support services office

Mobile devices

Work Stations

IT equipment inventory management

Warehousing

Administration control

Technical secretariat

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