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# **Bulletin Informatique**

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Commission Européenne / DG Personnel et Administration / Direction Informatique / Unité Conseil et Evaluation Technique

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## Le message du directeur

In the Commission, as in most large organisations, information technology has become an indispensable part of the working environment. It is no longer only employed to speed up repetitive clerical and accounting tasks, but now touches every aspect of our professional lives, and has grown from being a useful tool to being a part of the basic infrastructure of the organisation.

It is essential that this component of the organisation should be stable and reliable but still flexible enough to evolve with changing conditions, efficient and easy to use for both new and experienced users, and at all times provide a secure level of service appropriate to requirements.

There have been rapid changes and advances in information technology, but the organisational and managerial challenges remain as difficult and complex as ever.

The Commission has adopted an organisational structure which makes a clear distinction between the responsibilities of:

- a central informatics service, the Informatics Directorate
- and local organisations within the Directorates General and Services.

The Informatics Technical Committee (*Comité Technique de l'Informatique or CTI as we usually call it*) is the channel of communication between central and local informatics organisations and is the forum for technical decision-making.

The mandate of the Informatics Directorate is to ensure a coherent IT environment in terms of technology and resources, and to provide the requisite corporate services such as the Data Centre, the data transmission network, electronic mail, and other technical and logistical support services, including training and procurement. The Informatics Directorate also participates, in close collaboration with Directorates General, in the development of Corporate Information Systems.

The informatics services of the Directorates General are responsible for the design and implementation of their own information systems, the IT and office automation projects which support them, and for maintaining a high level of user satisfaction. This is done in compliance with common rules which ensure coherence and inter-communication between systems, and with the assistance of centrally provided support. Additionally, they are responsible for the annual definition and preparation of an Informatics Master Plan, the management and control of their equipment, and user support.

A required critical success factor for this organisation to work is the permanent and full collaboration and communication between the Informatics Directorate and the informatics services of Directorates General. It is due to this fact that this organisation has been working smoothly for the last ten years.

The following paragraphs give an overview of the recent organisational changes the European Commission has embarked on and describes how Information and Communication Technologies (ICT) are going to support these changes by means of the e-Commission initiative.

The challenges of globalisation and future enlargement require better governance at all levels, including the European Union. The Commission must rise to this challenge; a strong Europe needs a strong Commission and that is why, upon taking office, the PRODI Commission immediately embarked on preparing a program of Reform.

The college of commissioners, chaired by President PRODI, wants the Commission to have a public administration that excels so that it can continue to fulfil its tasks under the Treaties with maximum effectiveness. The citizen of the Union deserve no less, the staff of the Commission want to provide no less.

The founders of the Communities were the profound modernisers of their day. The current Commission and the staff share their ideals and sense of determination and want to honour their legacy by modernising the Institution they built to serve the citizens of Europe.

On this basis, the Commission launched at the beginning of 2000 an overall assessment of its activities and resources and has approved in March 2001, after an intensive consultation process, the White Paper "Reforming the Commission".

The document proposes a strategy with three related themes:

- Reform of the way political priorities are set and resources are allocated
- Important changes to human resources policy, placing a premium on performance, continuous training and quality of management
- An overhaul of financial management, empowering each department to establish an effective control system appropriate to its own needs.

In this context, it is clear that to be effective, the Commission also needs optimal structures and streamlined procedures to better exploit digital technologies.

The White Paper states that "better use must be made of the opportunities offered by modern information and communication technologies in order to create the **e-Commission** ...".

To put the e-Commission in context, a mention must be also made to the **e-Europe** initiative.

The Lisbon European Council in March 2000 recognised that the globalisation of markets brought about by the recent advances in information and communication technologies (ICT) has thrown up a series of challenges to the European economy. The European Council set the ambitious objective for Europe to be the most competitive economy in the world.

In response, the Commission adopted the e-Europe Action Plan that was endorsed by the Feira European Council in June 2000. This identified ten areas for action at European level.

One of these areas addresses the response that governments should make.

The e-Europe Action Plan recognises that changeover to electronic interaction also involves major changes to the internal workings of public administrations. In this context, the Commission confirmed the need to revise its procedures to better exploit digital technologies in the framework of the Reform.

As stated in the White Paper, better use must be made of the opportunities afforded by modern information technologies in order to create an e-Commission - " ... an administration which is ...exemplary in its advanced use of information technology, a model of a completely computerised administration, a paperless Commission".

The drive towards the e-Commission mirrors developments already taking place in many public services and private bodies throughout the world.

Most member states are setting up similar programmes for public administration. The e-Europe action plan set targets for them in this domain and has established the benchmark parameters to monitor progress.

The Commission is, in many ways, significantly different from most national administrations in terms of the services to be delivered, the size of the populations to be addressed and the need to frequently operate and communicate in all the eleven official Community languages. Wanting to fully participate in the e-Europe initiative, the benchmark parameters to monitor the progress of the e-Commission have had to be adapted consequently.

The e-Commission section of the Reform White Paper identified three principal strands where progress is required:

- Modernisation of the internal administration

Delivery of this strand requires achieving, among others, the following objectives

- improved knowledge management and sharing;
  - raising levels of staff productivity by the provision of powerful, user-friendly, integrated tools;
  - making available to management the requisite data for informed decision making;
  - implementing the security infrastructure (e.g. electronic signature/visa) needed to move from paper-based to electronic procedures;
  - improving document management, circulation, filing and archiving;
- More efficient communication with external partners

The following objectives have to be achieved

- Ensuring coherence between actions taken in collaboration with the external partners (e.g. via the Interchange of Data among Administrations (IDA) programme) and the actions launched in this area for internal purposes;

- Upgrading the server and telecommunications infrastructure and the information systems to support information exchange;
- Explore potential partnerships for the development of projects in the area of document exchange, web-based discussion groups, shared portals and electronic public procurement;
- 
- Better Public Service to Citizens and Business

Some objectives in this strand are:

- handling basic transactions on-line by the end of 2001;
- A complete review of the highly popular Europa web site, so that it provides "advanced multilingual internet presence so as to publish, interact and transact on-line to the highest standards set by leading world e-government administrations";
- The extension of the use of the internet to ensure consultation and feedback on major policy initiatives;
- On-line information submission of applications for participation in Community programmes;
- Putting in place on-line systems to allow electronic tendering;

In its meeting of June 12<sup>th</sup>, the Commission approved the memorandum "Towards the e-Commission: Implementation Strategy 2001-2005".

This memorandum presents the critical success factors to achieve the e-Commission and creates an organisation and management structure (the e-Commission Steering Committee) that will ensure the project is actively managed, driven forward, monitored and supplied with the required resources. It will report to Mr. N. KINNOCK, Vice-President for the Reform.

The memorandum also presents a roadmap describing the major activities and processes to be carried out and a five year work plan including all the corporate and vertical (policy oriented) ICT activities to be carried out in the framework of the e-Commission. It also presents a budget plan for 2001-2002 and a good estimation of budgetary resources needed for the period 2003-2005.

In conclusion, the e-Commission is primarily an organisational project, with a important ICT element. It requires coherent organisational and technical initiatives across the institution and it provides the overall framework and orientations for the application of ICT to achieve the objectives mentioned above over the next five years.

More than ever, the organisation described at the beginning of this paper has to work flawlessly in order to accomplish the very challenging and exciting task that has been given to the IT professionals of this Institution.

**Francisco García Morán**



## A multilingual tool for DG webmasters

Should it be *on-line* or *online*? *Web site* or *website* or *web-site*?

*Home page* or *homepage* or *home-page*?

*Leitseite, Einstiegsseite* oder *Übersichtsseite*?

The quality of the Commission's image as it is projected over the Internet depends to a considerable extent on the linguistic quality of the various documents on the Europa web site. And linguistic quality, in all eleven languages, depends not only on clarity and readability but also on correct usage, and consistency of spelling and style. Well aware of these important aspects, the Language Help Desk (Terminology and Language Support Unit, Translation Service) has been delighted to respond to the Europa webmaster's request for a multilingual glossary of terms and expressions commonly used on DG web pages. The project started some months ago with a list of general terms and expressions. We have now added country names, languages and metadata. And the project is an ongoing one. All of you are invited to send suggestions for additions which we will translate into all languages and include in the list. Thus it will gradually become a really purpose designed multilingual resource for DG webmasters. We hope you will become familiar with it and use it in preference to miscellaneous dictionaries and other less reliable resources.

Don't forget to click on the  button from time to time to check for possible changes and additions.

Your contact person is Satu PÖRSTI or Diana JANK.

So take a look and let us have your views:

<http://www.cc.cec/sdt/outils/webterms/index.htm>

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### Des nouvelles de la Famille 3

#### Office Automation and Documents Management

#### **Acrobat**

Le **PDF 1.3** a été confirmé comme format de référence à la CE par le biais d'une procédure écrite lancée en juillet.

La note informative qui a été envoyée aux IRM faisait aussi le point sur la situation pour la suite Adobe:

- **Acrobat Reader 5** est mis en production (le script d'installation DI se trouve sur Softline)
- la *suite (pour création/modification)* **Acrobat 4** a été définitivement retiré du marché et donc il ne sera plus mis en production à la CE. En tout cas pour les licences achetées de fin 1999 jusqu'à mi-2001, un script d'installation est disponible sur demande (voir Softline) et DI-STB donne du support 2-3me niveau
- finalement la suite **Acrobat 5** (qui introduit le format PDF 1.4) est en évaluation et la décision sur son introduction comme produit de référence sera prise lors du prochaine Prodcut meeting Famille 3. Après cette décision DI-STB pourra donner du support efficace sur cette suite.

Pour plus de détails contacter: C. D'ASCANIO ou V. DE GRISANTIS

#### **Autres nouveautés d' Adobe**

Vous souvenez vous d'un produit appelé Business Tools?

C'était un ensemble d'outils permettant aux utilisateurs de modifier aisément des documents en format PDF sans devoir payer une licence du produit complet. Ce produit était apparu avec la version 4 (fin 1999) et il a brusquement disparu avec l'arrivé sur le marché de la version 5. Cette vie éphémère a soulevé un grand nombre de questions chez les clients Adobe. Finalement Adobe vient de mettre en production *Approval*, un produit toujours orienté manipulation du format PDF, mais plus simple que Business Tools.

Ce type de produit est essentiel pour introduire l'utilisation du format PDF dans les chaînes de production-révision des documents (document flow). La *duré de vie* de son prédécesseur nous oblige à une certaine prudence de mise en chantier.

#### **... le virus arrive sur le PDF**

Et voilà, comme prévisible, même le monde PDF est contaminé. Un virus qui touche la suite Acrobat 5 vient d'être découvert et comme toujours nous nous en remettons à la rapide réponse de systèmes de défense antiviral (VirusScan en premier lieu).

Ce virus ne touche pas Acrobat Reader, et donc la simple visualisation d'un document PDF ne présente aucun risque ... pour le moment!

#### **IE5 et 6**

En parlant de virus on ne peut pas ignorer "NIMDA" qui a attaqué les serveurs IIS, il est arrivé jusqu'aux postes de travail à travers les navigateurs IE. La réponse a été rapide et grâce à des patches mis à disposition par Microsoft nous avons pu réduire les failles qui en étaient la cause.

Mais cela n'est qu'un épisode qui peut se reproduire à tout moment et surtout il a montré un aspect très délicat de la prévention. Microsoft avait déjà détecté la faille sur IE et avait donné la solution dans le package IE 5.5 SP 2 de septembre. Mais rien n'était disponible pour les autres versions de IE. En effet le patch pour les versions actuellement déployées à la CE (IE 5.01 et IE 5.5 SP1) a été délivré seulement *après* l'arrivé de NIMDA.

Nous venons de recevoir d'autres alertes pour lesquelles seulement des patches pour la toute dernière version de IE (mais aussi de Word, Excel et autres produits) sont disponibles.

Cette situation met en évidence que une prévention efficace, il faut déployer le plutôt possible les nouvelles versions de IE, même si cela demande un effort important (la taille du script DI pour IE 5.5 SP2 représente plus ou moins 40 MB).

Vous trouverez les scripts d'installation sur Softline ainsi que tous les patches jusqu'ici disponibles pour le navigateur et ses composants.

Pour plus d'info contacter:

C. D'ASCANIO ou T. TANNOUCHE-BENNANI

## Linkbot Developer Edition 6

En collaboration, la DI et la DG-PRESS ont négocié un accord avec la société WatchFire pour l'utilisation du produit Linkbot Developer Edition 6. Ce produit remplace (tout en donnant des fonctionnalités supplémentaires) la version 5 qui avait été retenue comme produit en Classe C fin 1999 (sur demande de la communauté de webmasters Europa) et qui avait été retiré du marché début 2001.

Linkbot DE 6 n'est disponible sur le marché que comme composant de la suite Linkbot Enterprise, et c'est pour cette raison que nous avons directement négocié avec la firme.

Ce produit est extrêmement efficace pour la maintenance des liens dans les sites web (détection liens cassés, mise à jour, reporting, etc) et il se couple bien avec tous les systèmes de Web Content Management.

Une note sur ce sujet vient d'être envoyée aux IRM pour les informations techniques, la gestion des licences et le support.

## Office .... Et le café

Non, non, il ne s'agit pas des dernières nouvelles sur la réponse Microsoft à la technologie Java, ni des premières révélations de DOC.NET. Il s'agit tout simplement du café que les participants à la présentation **Office Day** (organisé par DI-STB début septembre) n'ont pas eu lors de la séance (ni le matin ni l'après-midi)

Cette présentation a été faite pour donner un aperçu le plus ample possible de la nouvelle suite Office XP. Elle se voulait informative concernant les résultats des études menées par DI-STB sur l'impact d'une migration à la CE vers Office 2000 ou OfficeXP

L'objectif final a été de donner toutes les informations nécessaires pour que la communauté informatique de la CE puisse prendre une décision sur l'évolution de notre configuration Office l'année prochaine. Surtout en tenant compte de la migration de l'OS (projet ETP) et de la mise *hors service* définitive du support Microsoft pour Office 97.

Les analyses réalisées jusqu'ici démontrent les coûts, les avantages et les défis que les nouvelles

suites comportent. Les sujets les plus délicats sont la formation, la migration des add-on vers le nouveau VBA et surtout le passage de Access 97 à Access 2000/2002.

Toutes les présentations et les documents sont disponibles sur Softline:

<http://www.cc.ccc/softline/w/services/workshops/index.htm>

## QuickView Plus 6

Le contrat signé, Quick View Plus 6 peut être déployé sur tous les postes de la CE. Le support ainsi que le script d'installation sont disponibles.

Les aspects les plus intéressants de cette nouvelle version sont le support nouveaux formats (Office 2000, Kodak FlashPix, Corel-Draw 6-8, AutoCAD DFX, etc), support pour Visio et MS-Project, Quick Compress, meilleure intégration avec IE, Netscape, Outlook, Adobe Acrobat 4, et autres.

Nous suivrons l'évolution de ce produit, car déjà une nouvelle version, la 7, se préannonce. Il s'agit de la version ouverte à Windows XP, actuellement en Beta, et vous en aurez des nouvelles dès qu'elle sera officiellement disponible.

Pour plus de détails contacter J. PEKKI.

## Erratum au Bulletin de juillet 2001

Page 6, «Le PDF-Batch 3.0»: le PDF Batch ne permet pas de *modifier* les polices de caractères, mais de *contrôler* leur utilisation dans les fichiers PDF

Page 8 «Enterprise Web Content Management»: il faut ajouter l'OPOCE dans la liste des unités / directions qui collaborent à l'AO Enterprise-WCM

## Des nouvelles de la Famille 4 Information Systems Infrastructure

### BO Support

In order to reinforce the Business Objects support, DI-STB organises regular support meetings in videoconference every second Wednesday of a month. DGs are invited to participate and expose their problems.

In the same way, DI-STB has arranged to have a common pool of consultant days for the convenience of DGs needing a BO specialist for a short period of time. These consultant days can be ordered by any IRM by making an official request to Rafael RUIZ DE LA TORRE (DI-STB) explaining briefly the work to be done, the contact person, the number of requested days and a contact person. The worked days will be invoiced to the DG later.

For additional information on this subject, please contact P. BRAHY or H.BRAND

### **ColdFusion Support**

The DI has established contact with the company Macromedia, the new owner of the product ColdFusion, to obtain guarantees about the continuity and evolution of the product. Macromedia directives have assured the continuity and evolution of the product to a J2EE compatible platform. A ColdFusion product meeting will take place during the month of November and Macromedia will be invited to present the evolution of the product.

The migration to ColdFusion 5 has been evaluated. The first tests are very positive on Windows NT where no incidents have been detected while there are a few minor issues on Solaris affecting new functionality. A final decision on when a ColdFusion 5 will be available at the Data Centre is still to be made.

For information, please, contact M. BERGDAHL, or R. RUIZ DE LA TORRE.

### **WebLogic J2EE Application Server**

Following the recommendations of the REDIS II project, the DI has concluded a framework contract with the company BEA Systems for the acquisition of the WebLogic J2EE Application Server. A summary of the key conditions of the contract is available from the DI.

A word of warning should be given to projects willing to adopt the new technology. Because of the complexity and paradigm change, the adoption of the new technology should be considered as a risk factor. Projects should evaluate carefully the use of the new technology before deciding a complete migration to it.

For additional information about this project, please, contact Rafael RUIZ DE LA TORRE.

### **XML**

After the conclusion of the XML market survey, DI-STB has conducted a survey to determine which are the priorities for new actions on the XML field.

The results of the survey don't allow to establish clear conclusions on the priorities and importance of the tasks. Considering the nature of the different tasks, we can classify them in two groups, one under the direct responsibility of DI-STB composed of:

- ⇒ Evaluation of XML editors
- ⇒ Evaluation of XML parsers
- ⇒ Evaluation of XML repositories
- ⇒ SIG : Technical follow-up of XML core standards and technologies

And one that could be managed by the CIS group composed of:

- ⇒ Enterprise application integration: A2A and B2B
- ⇒ Specification of XML vocabularies

DI-STB will continue working in the areas mentioned above in collaboration with interested DGs and the CIS.

For additional information about this project or to obtain copies of the documents, please, contact Pascal BRAHY or Rafael RUIZ DE LA TORRE.

## Plates-formes

		Disponibilité		Charge total CPU (TINS)		
		juin-01	2 T 2001	jan 2000 - dec 2000	1 T 2001	2 T 2001
<b>SIEMENS</b>	<b>BS2000</b>	100,00%	99,76%	1.164	308	319
<b>MILES</b>	<b>UNIX</b>	99,73%	99,90%	23.498	8.942	9.627
<b>HP MILES</b>	<b>HP-UNIX</b>	99,83%	99,62%	N/A	202	348
<b>AMDAHL</b>	<b>MVS</b>	100,00%	100,00%	1.142	283	240
<b>SINCOM</b>	<b>HP-UNIX</b>	100,00%	99,92%	8.446	3.612	3.987
<b>PRODCRAY</b>		100,00%	100,00%	6.158	1.408	1.474
<b>DIVERS</b>	<b>NT</b>	N/A	N/A	N/A	N/A	N/A

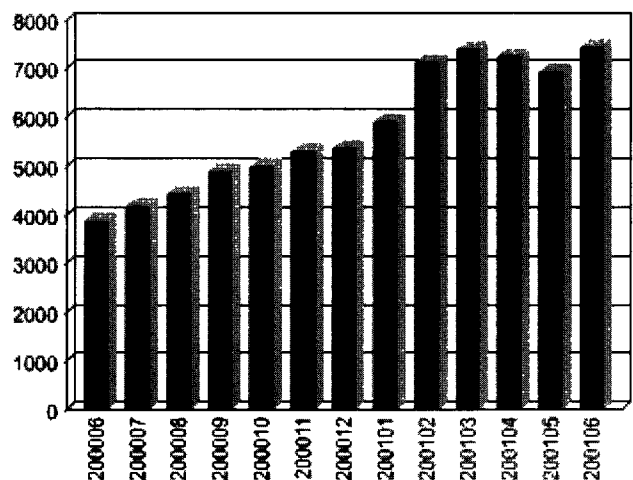
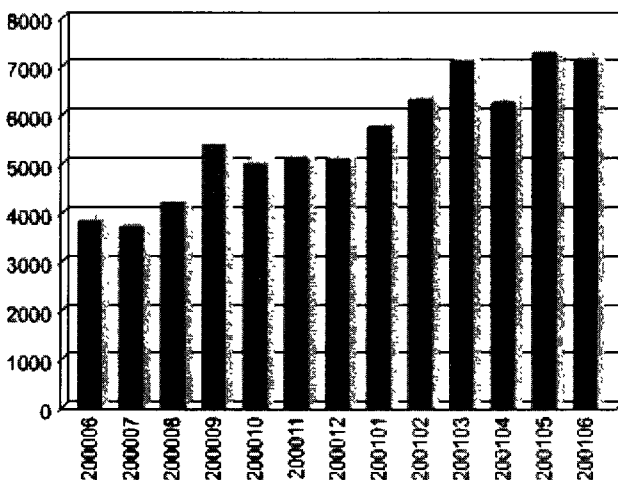
Ces chiffres ne couvrent pas pour le moment les serveurs NT. Un effort particulier est actuellement en cours pour en extraire également des données comptables.

## Charge totale sur les 12 derniers mois

61 serveurs dont 2 propriétaires, 35 UNIX, 24 NT

CPU in TINS

Total disk space in GB



Charge par DG, CPU (GINS) et disque (MB)  
ordre décroissant

DG	CPU 12 mois	CPU dernier mois	MB dernier mois
BUDG	17.864.488	1.762.431	2.001.588
DC	14.098.021	1.176.243	1.617.578
SDT	13.695.094	1.476.880	1.040.863
ADMIN	12.415.528	911.814	962.828
ESTAT	5.964.299	579.843	889.723
TAXUD	4.275.349	83.228	104.744
AIDCO	2.577.292	431.470	95.221
OPOCE	1.664.425	117.576	97.041
RELEX	1.317.620	249.828	40.457
SANCO	1.226.441	79.201	61.491
ECHO	977.168	60.869	18.981
EAC	946.986	23.371	17.108
SG	512.539	61.517	39.435
DEV	411.245	28.750	35.992
REGIO	398.549	14.343	38.643
MARKT	283.893	6.777	73.880
AGRI	267.533	10.338	31.186
PRESS	264.067	35.972	11.844
TREN	217.645	5.381	113.882
FISH	183.302	9.803	27.065
CJ	180.250	5.543	12.059
RTD	114.049	9.100	26.841
JAI	45.457	821	9.477
ELARG	40.861	3.119	19.994
ENV	21.036	1.140	6.088
ECFIN	17.859	1.181	22.979
OLAF	14.774	527	2.908
ENTR	12.343	1.252	28.636
IGS	9.078	0	985
EMPL	1.964	46	5.371
INFSO	1.183	104	1.644
CDC	219	49	1.900
JRC	0	0	2.548
	<b>80.020.556</b>	<b>7.148.515</b>	<b>7.460.980</b>

# Guide pour les producteurs d'information

Le nouveau Guide pour les Producteurs d'Information (IPG) sur EUROPA est maintenant disponible en format HTML. Accessible librement sur EUROPA en français et en anglais, il s'adresse aux coordinateurs, aux webmestres ainsi qu'aux prestataires de service qui créent des pages sur EUROPA. Il couvre les aspects d'ordre éditorial, technique et graphique.

[http://europa.eu.int/comm/ipg/index\\_fr.htm](http://europa.eu.int/comm/ipg/index_fr.htm) (version française)

[http://europa.eu.int/comm/ipg/index\\_en.htm](http://europa.eu.int/comm/ipg/index_en.htm) (english version)

Le guide a été rédigé sur base des fils conducteurs suivants:

- rédiger un document utile et compréhensible pour un public très varié (responsables politique, coordinateurs EUROPA, webmestres, contractants extérieurs...)
- justifier chaque règle
- claire distinction entre les différents niveaux d'obligation ("obligatoire", "recommandé", "facultatif")
- ne pas doubler l'information existante
- information pratique "prête à l'emploi"

Les dispositions de ce guide sont obligatoires afin de garantir un service cohérent et convivial aux utilisateurs. Ce document est évolutif et mis à jour régulièrement.

## 10 règles d'or

1. La Commission ne peut diffuser des informations sur internet qu'à travers le site EUROPA sous l'adresse "europa.eu.int/comm"
2. La conception, la production et la gestion d'un site sur EUROPA doivent être planifiées
3. Le site doit être intégré dans la structure générale du site de la Commission
4. La présentation standard du site de la Commission doit être respectée
5. Seules les technologies informatiques en vigueur à la Commission sont à utiliser
6. Il faut privilégier le multilinguisme et veiller à la qualité rédactionnelle du site
7. Le site EUROPA doit être accessible par le plus grand nombre d'utilisateurs
8. Il faut développer l'interactivité des sites
9. L'avis juridique couvrant la clause de non-responsabilité et les droits d'auteur doit être inséré en haut de chaque page
10. Les sites et informations diffusés sur EUROPA doivent faire l'objet de contrôles de qualité réguliers

# La page *Qualité*

## Les services de l'unité CET – Secteur Qualité Les services proposés aux IRM

Dans le but de remplir sa mission qui est de “mettre en œuvre”, au sein des services de la Commission, le principe de gestion totale de la qualité (TQM) en matière informatique, l'unité CET-secteur qualité est maintenant en mesure d'ajouter à l'offre de services présentée dans la Page Qualité publiée dans le BI d'avril 2001, le service de CONSEIL.

Nous proposons notre collaboration, si nécessaire avec l'aide de consultants externes, aux organisations informatiques centrales et locales. En ce qui concerne les organisations informatiques locales, nous pouvons aider l'équipe IRM à:

- **Adapter ou construire un système de gestion de la qualité basé sur ISO 9000:2000.**  
“La démarche qui s'appuie sur un système de management de la qualité, amène les organismes à analyser les exigences des clients, à définir les processus qui contribuent à la réalisation d'un produit/service acceptable pour le client et à en maintenir la maîtrise. Les exigences relatives aux systèmes de management de la qualité sont spécifiées dans ISO 9001.”
- **Etablir des plans qualité pour assurer la qualité des services et des projets informatiques (sur base de la norme ISO 9000:2000).**  
Un plan qualité assure pour un processus (service, projet), la définition des:
  - responsabilités pour la mise en œuvre du processus;
  - ressources nécessaires: finances et infrastructure;
  - compétences et connaissances pour la mise en œuvre du processus;
  - activités (y inclus méthodes et outils) du processus;
  - mesures et analyses pour l'amélioration continue du processus;
  - documentation et enregistrements nécessaires au processus.
- **Elaborer des systèmes de mesure et d'analyse associés aux services et projets informatiques.**  
La norme ISO 9000:2000 propose la mesure des performances des processus de l'organisme: mesure et évaluation des résultats; capacité des processus; satisfaction des clients et des autres parties intéressées. “Les données issues de mesures sont importantes pour fonder la prise de décision sur les faits.”
- **Appliquer le modèle CAF (équivalent au modèle d'excellence d'EFQM pour les administrations publiques) pour autoévaluer la qualité totale.**  
Le Cadre d'Autoévaluation des Fonctions publiques (CAF) est proposé comme un outil aux administrations publiques de l'Union européenne pour les aider à comprendre et à améliorer les techniques de management dans l'administration publique. L'objectif premier est de fournir un cadre simple et facile à utiliser qui permette l'autoévaluation des organisations du secteur public. Le CAF peut être utilisé pour développer une culture de “recherche permanente de l'excellence”, par exemple en répétant l'exercice d'autoévaluation à intervalles réguliers pour permettre une prise de conscience des progrès accomplis.

**J. ALVES LAVADO et J. DONVIL  
DI / CET**



# “Managing Information Resources for e-Government”

Democracies are continually confronted with demands for ever greater dialogue between electors and elected. In recent years, the explosion of the World Wide Web has increased the possibilities and range of such dialogue. Coupled with this has been a need to bring ever more information and documentation on parliamentary and legislative work into the public arena and onto the Web.

In response to the dangers of “information overload”, many parliaments are examining how to manage their information and documents in such a way that improves transparency and access and permits greater understanding of the democratic process.

All parliamentary democracies share a desire to organise information and knowledge in a way that is accessible and understandable. In addition, there is a growing demand to share information *between* Parliaments.

The European Parliament has recently adopted, together with the Council representing the EU’s 15 Member States, a regulation concerning public access to information and documents. This regulation - although nothing new for those countries already familiar with high levels of transparency and access to information - is a major breakthrough.

Access to documents regarding the activities of the institutions enables citizens to hold the EU governing bodies accountable, stimulates greater efficiency and enhances democracy.

The politicians have laid down the political framework, and the administrations of the EU institutions need now to follow. Here comes the hard work...!

No-one could deny the value brought by greater accessibility to technology, and in particular the cultural revolution that the Internet and World Wide Web have brought. However, the greater and more widespread use of technology in all aspects of our work, developed often without any architectural blueprints, has led to a

veritable «urban sprawl» with competing and often incompatible IT systems failing to deliver up the information and knowledge that they contain.

The World Wide Web was built on the back of a handful of simple, open, accessible and freely available standards, which no one owns and that anyone can use. If we are to learn from the experience of the Web, it is that our information systems - systems that we are now so committed to making accessible to the ordinary citizen - must also be re-engineered around open and accessible standards.

In June 2001, the first of a series of seminars was held in Brussels under the general banner “Managing Information Resources for e-Government”. The objective of the series is to look at these standards issues, not just from a dry technological point of view, but as a means to achieving those worthy political goals. This “back office” work often goes unnoticed and uncredited, but without it, we would not be able to deliver on the political engagements: it is only by building robust “information architectures” on solid IT foundations, that we will achieve those aims.

This first seminar - although largely concentrated on metadata questions - highlighted the need to bring together a number of embryonic projects:

- the “ParIML” project, a standardisation initiative to provide a common XML-based vocabulary for marking up parliamentary and legislative texts. This initiative, largely financed by the European Commission’s programme to promote the interchange of data between administrations (IDA), is starting to get under way and can find its origins in the IT co-ordination work of the ECPRD;
- Dublin Core Metadata Initiative (DCMI) ‘Government’ working group, is considering extensions of the basic, but ubiquitous ‘Dublin Core’ metadata set (used for

maintaining basic reference information about any given information artefact or document), for use by public sector and government agencies;

- The UK Government's e-Government Interoperability and Metadata Frameworks, that are setting the pace in Government-driven IT standards that departments and public agencies are expected to follow, as a guarantee for IT interoperability;
- Redevelopment of the multilingual Thesaurus, *Eurovoc*, widely used as a powerful and controlled vocabulary for providing keywords and descriptors to information artefacts.

All of these projects have common threads:

- a desire for high interoperability between IT systems;
- in an environment of continued budgetary austerity, improving economies of scale by allowing greater co-operation between different institutions, administrations and parliaments on common projects using common standards;
- an orientation to open and "evolutionary" standards, that avoid 'vendor lock-in';
- responsive to demands for greater, and public, access to information

and common methodologies:

- co-operation on exchange of ideas and projects under way, prototypes, etc.
- development of a common approach to problem solving
- development and agreement on an open standard
- desire to see the standards "hosted" under a common theme

This common theme has now also been taken up by the European Commission's IDA programme, under the banner proposed by the organisers of the first seminar in Brussels: "Managing Information Resources for e-Government" or MIREG.

As part of its forthcoming activities, some financed and supported by IDA, others by the different agencies and projects already associated and others, will be looking at:

- Semantics: how do we use IT standards like XML to identify the semantic structure of documents and texts, in such a way that they can be handled, processed and identified more easily? This is the focus of the work of the ParIML project, aiming to develop a common vocabulary for parliamentary and legislative texts;
- Ontologies: how do standards like the ISO's "Topic Maps" help in building 'pictures' of the thematic relationships between different types of information and information/document sets?
- Thesauri: how, particularly in an international environment, can controlled vocabularies help researchers and the public find the 'right' subset of information and documents pertinent to specific theme or area of interest?
- Tools: nobody wants to become an IT specialist in order to create, manage and/or find information and documents, so how can user friendly tools be developed on the back of these IT standards and in a way that avoids 'vendor-dependence'?

**Peter PAPPAMIKAIL**  
**Directorate for Information Technologies**  
**PE**

# Project ETP

## (E-Commission's Technological Platform)

September 2001 status report

Following an evaluation study<sup>1</sup> <sup>2</sup> the CTI meeting on June 6<sup>th</sup> launched a Windows 2000/XP deployment project, under the acronym ETP<sup>3</sup>.

At the same meeting, the CTI indicated two high-priority objectives on which early progress should be achieved: rapid deployment in specific areas (the "quick wins") and reaching consensus on the Active Directory (AD) architecture to be deployed. For the latter goal, the CTI mandated the creation of an ad-hoc working group and set October CTI as deadline.

### 1. Project "Phase 1"

Following launch, the project entered its initial phase, whose objectives can be stated as follows:

- Set up design teams and draw a detailed operational plan for the whole range of design activities.
- Make a recommendation on the architecture for the Active Directory, meeting the consensus of local teams and common service providers.
- Achieve significant progress in delivering the "quick wins".

We plan to complete project phase 1 by October and start the detailed design soon after. The following sections summarise the progress achieved in relation to each of the objective.

### 2. Project management activities

**Detailed project plan.** The problem statement document indicated the overall timeline for the major phases of the project. The next stage is the preparation of a detailed plan encompassing all activities relating to detail design, proof of concepts and if possible, pilot activities. This plan will not cover the general rollout phase. Current status: the inventory of design tasks is in progress. Based on this, the detailed plan for the design activities will be compiled by early October.

**Project team.** A draft proposal for the project team structure has been released internally within STB.

**External consulting.** Microsoft Consulting Services (MCS) will be our main partner for the design activities. MCS will provide technical lead (Bart Boydens) and subject matter expertise as necessary. Laurent Salomon (MCS) will assure co-ordination within MCS for all activities relating to this project.

<sup>1</sup> "Evolution of our Windows NT infrastructure - A roadmap for the transition to Windows 2000" ref. DI-STB-2001-155

<sup>2</sup> "Windows 2000 – Evaluation Study" ref. DI-STB-2001-743

<sup>3</sup> "ETP Project – Problem Statement" ref. DI-STB-2001-772

STB also recruited two consultants (replacing existing vacancies) to reinforce the project team on client integration and network/security activities.

### 3. Active Directory Architecture definition

- The ADA (Active Directory Architecture) working group was constituted as decided by the CTI. Members were appointed by their IRMs. The mandate for the working group is to make a recommendation on the AD architecture to be deployed. At the kick-off meeting, the working group decided to follow a 3-step approach:
- *Inventory.* Make an inventory of the needs that must be met by the architecture, in the form of a Functional Requirements document.
- *Analysis.* Identify, with the assistance of consulting experts, the architecture (or architectures) that best meet the requirements.
- *Proposal.* Agree on a common proposal to be submitted to the CTI sub-committee.

The ADA working group met twice chaired by Michael Sonderskov. A second draft for the Functional Requirements is awaiting finalisation by written procedure. The analysis is already under way and the results will be discussed at the next ADA meeting on September 19.

W2K training courses for the members have been organised throughout the summer and more are scheduled. A public folder for the groups has been set up.

Finally, a test environment was set up at the Atelier STB-Luxembourg. It will be used by the working group to test simulated scenarios as part of the analysis.

### 4. Early deployments (“quick wins”)

**Reference Configuration 4.2.** The rapid deployment on portable PCs will be possible thank to RC 4.2. This configuration includes the same set of application software currently in use under NT4 (RC 4.1) and will be supported

on Windows 2000 Professional SP2 for the latest portable models. This configuration represents a stopgap solution, to be later replaced by the target configuration based on Windows XP and Office XP.

As usual, the RC will be distributed in the form of model-specific *recovery CDs* (containing the Ghost image of operating system, drivers and utilities) and a single application CD containing the individual install scripts and the script launcher NTP Setup. A beta release of RC 4.2 is now available.

**Recommendations on deployment of standalone servers.** Another “quick win” for the project is the rapid deployment of Windows 2000 Server for specific purposes. An ongoing study will produce a report containing recommendations on how best to integrate W2K servers within NT4 networks and how to avoid known problems. A draft version of the report is available.

**Terminal Server.** The use of Windows 2000 as terminal server is high on demand and a number of services are candidates to be offered in production by the data centre in the coming months. In collaboration with DG BUDG, work is ongoing to set up a terminal server hosting the new version of the SINCOM2 client; this service will be up and running before the end of September at the data centre and will be proposed for evaluation to remote end-users. The results of this experience will be the basis for a report describing recommendations and procedures to facilitate similar deployments.

### 5. Project reporting

Concerning project reporting, the following schedule is planned.

21 September - CD	Status report
4 October - CES	Status on AD Architecture proposal
10 October - Sous-comité CTI-ETP	Presentation of project results. AD Architecture proposal: presentation and discussion.
17 October - CTI	Decision on AD Architecture.

**G. BENALI  
DI / STB**

# .NET

## un aperçu de l'architecture...

".Net" est partout, tout le monde en parle ... en bien ou en mal, et chacun le définit différemment. ".Net" est certainement l'un des termes les plus fréquemment rencontrés dans la littérature actuelle sur la vision et l'avenir de Microsoft. C'est aussi l'un des moins bien compris.

".Net" est un mot qui recouvre à la fois une vision, une infrastructure et une gamme de produits et de services.

- La vision de ".Net" place les notions de "service sur Internet" et "d'utilisateur, consommateur de services" au cœur de la conception des systèmes d'information.
- L'infrastructure ".Net" est un ensemble de composants software. Ce sont les briques de base qui doivent permettre de transformer cette vision en réalité.
- Les services et les produits seront les "fruits" de cette mise en œuvre<sup>1</sup>.

J'ai eu la chance de pouvoir participer au TechEd 2001 à Barcelone et je me suis attachée à essayer de comprendre ".Net", et en particulier l'infrastructure ".Net". C'est cette compréhension<sup>2</sup> que je voudrais communiquer au travers de ce document. Je voudrais aussi insister sur le fait que toute cette architecture est encore en évolution et susceptible de modifications.

### 1. L'INFRASTRUCTURE .NET

#### 1.1. Les objectifs

En proposant ".Net" Microsoft désire bien évidemment répondre à Sun et offrir une alternative crédible à l'architecture J2EE. Mais, et peut-être plus encore, Microsoft souhaite pallier un certain nombre de faiblesses qui ont jusqu'à présent déformé sa plate-forme. Microsoft veut pouvoir garantir:

- Un environnement de développement tel que, quel que soit le langage de son choix, le développeur bénéficie d'un accès facile et standardisé aux fonctions et ressources du système, d'un véritable environnement orienté objet<sup>3</sup>, de la garantie

d'interopérabilité avec des composants développés dans d'autres langages<sup>4</sup> et de facilités de "debugging cross-langage"

- Un environnement d'exécution stable et fiable
- Un environnement de déploiement qui permette de gérer de façon souple et efficace l'évolution des applications et de leurs composants.

Je tenterai, au fil du rapport, de monter comment ".Net" répond à ces objectifs.

#### 1.2. Les trois pièces de base.

L'infrastructure ".Net" repose sur trois piliers: le "Common Type System", la librairie de classes ("Class Library") et le "Common Language Runtime", le CLR en abrégé.

<sup>1</sup> A vrai dire, la plupart des produits offerts par Microsoft aujourd'hui, à l'exception remarquable de la suite Office, reçoivent un "label" .Net, en général très peu mérité ... Les vrais services .Net ne sont encore que des annonces ou des pré-versions très immatures

<sup>2</sup> incomplète et imparfaite

<sup>3</sup> qui permet donc l'héritage (implementation inheritance)

<sup>4</sup> compatibles .Net évidemment

- Le "Common Type System" spécifie quels types de données peuvent être manipulées et quelle est leur représentation interne. Outre les types simples de base (entiers, réels, chaînes de caractères ...) et les structures classiques (vecteurs, listes, piles...) le "Common Type System" définit comment doivent être représentés et construits les classes, les interfaces, les "value types", des objets particuliers définis par le développeur et conçus pour être passés "par valeur" vers d'autres objets, et les "delegates", des sortes de "handles" vers l'adresse d'une fonction.
- La librairie de classes est une bibliothèque d'objets, organisée de manière hiérarchique. Ces objets offrent toutes les fonctions nécessaires à l'exploitation des ressources et des services du système d'exploitation. Ils garantissent un accès protégé à ces ressources au travers d'une interface bien définie et unique quel que soit le langage choisi pour réaliser un développement particulier. De plus, et c'est essentiel, la librairie de classe met en place une couche d'abstraction au-dessus de l'OS de telle sorte qu'à l'avenir celui-ci pourrait évoluer, dans son implémentation notamment, sans que les applications consommatrices de ses services en soient affectées.
- Le "Common Language Runtime" est l'environnement contrôlé dans lequel s'exécute le code compilé. IL est vraiment la pièce maîtresse de l'infrastructure ".Net" et mérite une section à lui seul ...

### 1.3. Comment ça marche ...

Avant tout il faut disposer, pour le langage de développement choisi, d'un compilateur conçu pour ".Net". Ce compilateur présente un certain nombre de particularités:

- Il expose les services du CLR et le contenu de la librairie de classes ".Net" de manière à les rendre utilisables dans le code
- Il traduit automatiquement les "types" spécifiques au langage en leurs équivalents dans le "Common Type System".
- Il ne génère pas de code binaire mais un

code intermédiaire, le MSIL (Microsoft Intermediate Language). Le MSIL est indépendant du CPU. Le résultat de la compilation d'un fichier source est un fichier, le PE ce qui signifie, selon les sources, "Physical Executable" ou "Portable Executable"<sup>5</sup>. Le fait que le résultat de la compilation n'est plus du code binaire, mais du MSIL a une conséquence extrêmement importante et très intéressante: il est désormais possible d'hériter d'un objet, au sens le plus strict, en passant au travers de la barrière des langages. Ainsi un objet développé en VB .Net peut hériter – et on parle ici d'héritage, simple, d'implémentation, pas seulement d'interface – d'un objet parent développé en C#!

- En plus du MSIL, le compilateur génère des méta-données, dans un format prédéfini. Ces méta-données sont stockées avec le code MSIL. Ces méta-données décrivent notamment l'identité du module, le numéro de version, la "culture" c'est-à-dire l'information de "localisation" (langue, formatage des nombres et dates ...), la "signature" qui "certifie" le module en question, les liens et références vers d'autres modules, les informations liées à la sécurité et enfin une description complète de tous les types, objets et interfaces que le module "expose".

Un module isolé ne peut pas être déployé tel quel. L'unité de base de déploiement est l'"assembly". Microsoft définit le concept d'"assembly" comme suit: *"A collection of functionality built, versioned, and deployed as a single implementation unit (one or multiple files).... In the runtime, the assembly establishes the name scope for resolving requests and the visibility boundaries are enforced."* Une "assembly" sera généralement composée de plusieurs fichiers dont un le "manifest" a un rôle particulier et essentiel. Le "manifest" contient, dans un format XML, toutes les méta-données indispensables au déploiement: composition de l'"assembly", version, et éventuellement signature, des éléments (modules) composants, informations sur la "visibilité" des objets et services etc. La "grammaire" du "manifest" est publiée au moyen d'un schéma XSD dont une version,

<sup>5</sup> cette dernière appellation est plus conforme à la vraie nature de ce fichier ...

provisoire, est disponible sur [http://msdn.microsoft.com/library/default.asp?url=/library/en-us/sbscs/hh/sbscs/sidebysideref\\_9p5t.asp](http://msdn.microsoft.com/library/default.asp?url=/library/en-us/sbscs/hh/sbscs/sidebysideref_9p5t.asp).

Dans le cas le plus simple et le plus courant tous les fichiers composant une "assembly" sont stockés dans une même directory et sont, en somme, "privés" à cette "assembly". Plus aucune information n'est enregistrée dans la registry. Ce mécanisme permet d'assurer la cohérence de chaque "assembly" et la coexistence pacifique, sur une même machine, de multiples versions du "même" module. Il est possible de rendre une "assembly" disponible pour une utilisation partagée. Pour cela elle doit être installée<sup>6</sup> dans un espace particulier, la GAC (Global Assembly Cache), et doit nécessairement être signée par un certificat.

Au moment de l'exécution, le MSIL est traduit en code binaire par un JIT (Just In Time Compiler). Pour éviter les problèmes de performance le code d'une "assembly" n'est pas compilé dans son entièreté au lancement de l'exécution: seuls les éléments nécessaires sont traités. Les autres éléments sont compilés au fur et à mesure des besoins.

L'exécution proprement dite se déroule dans le contexte et sous le contrôle du CLR. D'ailleurs, Microsoft parle de "managed code" lorsqu'il est question de code compatible ".Net" et de "unmanaged code" autrement.

#### 1.4. Le CLR

- Le Common Language Runtime est donc l'environnement contrôlé dans lequel s'exécute le code compatible ".Net". Le CLR offre aux applications qu'il contrôle un ensemble de services essentiels.
- Le CLR est capable d'exploiter les méta-données présentes dans les PE et dans les "manifests" pour retrouver et construire les objets demandés par les applications. Il est capable également de vérifier que ces objets sont disponibles pour l'application qui les utilise dans la version adéquate et de faire coexister harmonieusement en mémoire plusieurs

instances d'un même objet, dans des versions différentes ou non. Si l'objet requis par une application est un objet "remote"<sup>7</sup>, pour autant bien sûr qu'il s'agisse d'un objet "managed", le CLR est capable, à partir des méta-données, de construire dynamiquement un "proxy" pour cet objet et ceci est extrêmement intéressant.

- Le CLR "encapsule" chaque application dans un contexte d'exécution propre appelé "Application Domain" ou "AppDomain". L'AppDomain constitue une sorte de caisson d'isolation dans lequel l'application s'exécute de manière protégée: le CLR se charge de contrôler l'accès aux ressources du système et leur bonne utilisation, le respect des règles de sécurité etc. Le CLR assure aussi le rôle de gendarme: aucune application n'est autorisée à empiéter sur le domaine d'une autre. Cette approche a deux grands avantages: elle permet un fonctionnement plus sûr des applications (plus d'"access violation" ... vraiment?) et surtout elle libère le développeur du souci de gérer des notions de bas niveau habituellement liées au contexte tels les threads et les process. Ce que l'application "voit", les frontières qu'elle touche, ces sont les limites de son AppDomain.
- Le CLR offre un service de "Garbage Collection"
- Le CLR propose un modèle de traitement des exceptions harmonisé au travers de tous les langages et les outils pour le mettre en place. Il offre aussi des facilités de "debugging cross-language".
- Evidemment le monde d'avant ".Net" existe toujours... . En particulier le système d'exploitation, NT, Windows 2000 ou Whistler, peu importe, expose ses services sous forme d'objets COM+. Et ceci est vrai aussi en ce qui concerne les services essentiels habituellement assurés par un "Application Server"<sup>8</sup> tels "naming", "transaction", "event handling" etc. Et puis, il y a le code existant qui ne sera pas

<sup>6</sup> Il s'agit bien d'une forme d'installation, différente de la notion classique d'installation avec enregistrement des composants mais tout de même réalisée au moyen d'un utilitaire ad hoc. Je ne connais pas les détails.

<sup>7</sup> C'est-à-dire un objet qui "vit" dans le contexte d'une application "serveur" différente.

<sup>8</sup> Services que Microsoft, fidèle à soi-même, a, bien entendu, inclus dans l'OS.

"converti" immédiatement mais qu'il faut continuer à exploiter. Il se charge d'assurer l'interopérabilité entre le code "managed" et le code "unmanaged". Il est possible d'exploiter du code "unmanaged" à partir d'une application ".Net", comme il est possible d'utiliser un objet ".Net" à partir de code "unmanaged".

- Enfin le CLR implémente le modèle CAS, Code Access Security. Ce mécanisme repose sur l'attribution de permissions, non pas à un utilisateur ou à un groupe, mais à un composant software. C'est le code lui-même qui est "autorisé" à exploiter telle ou telle ressource, et non l'utilisateur qui l'exécute. Il s'agit d'un changement de philosophie radical par rapport au modèle de sécurité de Windows qui se base entièrement sur les notions d'utilisateur et d'ACL<sup>9</sup>. Et ce changement prend tout son sens dans un contexte où le modèle intranet/internet devient prépondérant et où, bien souvent, l'utilisateur est anonyme ou inconnu du "domaine interne".

### 1.5. Démystification ...

Vous l'avez sûrement lu au moins une fois ".Net is the end of DLL hell" Eh bien, voici venu le moment de révéler l'horrible vérité<sup>10</sup> ... *le CLR est une DLL!* Tout cet édifice merveilleux et plein de promesses que je vous ai décrit repose sur deux DLL qui créent pour vous cette illusion, ce monde idéal qu'est l'univers ".Net". Vous ne voulez pas le croire? Pourtant, Don Box nous l'a prouvé lors de "TechEd 2001" à Barlelone: il a généré, sous nos yeux, une instance de l'infrastructure ".Net", CLR, CTS et librairie de classes et tout, dans... Word 97 et l'a exploité dans une "macro". Adieu paillettes...

Plus sérieusement, avec ".Net", Microsoft a créé pour les applications un environnement de développement et d'exécution virtuel, virtuel non pas dans le sens où il n'existe pas, mais virtuel dans le sens où il s'agit d'une couche d'abstraction potentiellement indépendante du hardware et de l'OS sous-jacents. Et récemment il y a eu des annonces promettant

<sup>9</sup> Le modèle de sécurité classique ne disparaît pas bien sûr: les deux modèles coexistent.

<sup>10</sup> Vous l'avez sûrement lu au moins une fois ".Net is the end of DLL hell" ...

une implémentation de l'infrastructure ".Net" pour Linux<sup>11</sup>.

Je ne résiste pas à vous rapporter l'analogie utilisée par Don Box lors de son exposé, parce que je la trouve extrêmement évocatrice. L'environnement Windows c'est Matrix. Vous choisissez la petite pilule bleue et vous évoluez dans le monde ".Net" où la vie est belle et facile. Vous choisissez la petite pilule rouge et vous vous retrouvez dans le monde réel, le "user mode", où il y a des DLL en pagaille, la registry, les objets COM, les "access violations"... Et puis il y a encore un monde plus sombre, un monde proche de l'enfer de Dante, un monde que presque tous ont oublié, un monde sans couleur ... le monde de l'"assembler", des "interrupts" et des accès physiques. Et, qui sait, peut-être que d'ici quelque temps la plupart d'entre nous aura oublié aussi le monde "rouge" et vivra heureux dans le monde "bleu". Après tout c'est la perception qui compte.

## 2. LES "WEB SERVICES" ET LE ROLE DE XML

Tout ce qui précède est bien intéressant mais n'est disponible, pour le moment du moins, que dans un environnement "tout Microsoft". Pour communiquer avec le reste du monde, il y a les "Web Services".

### 2.1. Ce que c'est ...

Pour éclairer le concept, voici la définition que Microsoft en propose:

"A Web Service is a programmable entity that provides a particular element of functionality, such as application logic, and is accessible to any number of potentially disparate systems through the use of Internet standards, such as XML and HTTP."

Donc un "Web Service" est un composant software qui publie et fournit des services et s'appuie pour cela sur les (futurs) standards de l'Internet et dans le cas présent plus particulièrement sur trois d'entre eux: SOAP, WSDL et UDDI.

<sup>11</sup> Il s'agit d'un projet OSS, nommé Mono, et lancé sur l'initiative de la firme Ximian.



- SOAP (Simple Object Access Protocol) définit le protocole de communication. Un message SOAP est simplement un document XML, conforme à la spécification SOAP. Cette spécification décrit, et impose, la structure du message, la nature du contenu de chacune des parties, les conventions d'encodage à respecter pour représenter ce contenu de façon non ambiguë, la nature obligatoire ou non de certaines informations, etc. SOAP fait l'objet d'une standardisation par le W3C et en est à la version 1.2 (<http://www.w3.org/TR/2001/WD-soap12-20010709>). Il existe de nombreuses implémentations de SOAP, y compris dans le monde Java et Open Source, notamment pour Apache.
- WSDL (Web Services Description Language) permet la description des services offerts: quels services sont disponibles, sous quel nom, où, quels paramètres ils consomment, quels résultats ils renvoient,... WSDL est un dialecte XML. WSDL est actuellement à l'étude au W3C ("submission"): <http://www.w3.org/TR/wsdl>. WSDL devrait devenir un standard à brève échéance (6mois?).
- UDDI (Universal Description, Discovery, and Integration) est un projet, né du monde du commerce et de l'industrie, (<http://www.uddi.org>) dont l'objectif est de mettre sur pied un service de type "directory" pour la publication de "services", de toutes natures, mais liés plus particulièrement à l'e-commerce, et, entre autres, les "Web Services" qui nous occupent. UDDI se base sur les standards existants: XML, SOAP et WSDL. UDDI est encore très loin de la maturité.

## 2.2. Les bénéfices ...

La recommandation qui nous a été maintes fois répétée à TechEd est: dès que vous communiquez de serveur à serveur, que ces serveurs soient tous deux des serveurs Windows ou non, utilisez les "Web Services". Microsoft fournit des outils qui permettent de publier aisément les composants développés pour ".Net" sous la forme de "Web Services". "Whistler" vient avec la possibilité de publier les services COM+ intégrés à l'OS sous forme de "Web Services". Le "SOAP toolkit" offre des

outils pour développer des "Web Services" à partir des environnements traditionnels, comme Visual Basic 6 par exemple. Pourquoi? Les deux mots clefs sont *interopérabilité* et *indépendance*. Peu importe l'environnement et le langage de développement, peu importe la plate-forme de déploiement, peu importe les protocoles utilisés pour le transport, si tous deux respectent les standards de base des "Web Services", n'importe quel composant software pourra consommer les services offerts par n'importe quel autre composant software...on rêve!

## 2.3. ... et les difficultés

Hélas! On n'en est pas encore là aujourd'hui...mais peut-être demain si les obstacles que je vais évoquer peuvent être surmontés.

- L'immaturation des standards entraîne des différences dans les implémentations, qui à leur tour causent des dysfonctionnements<sup>12</sup>. Si tout évolue normalement cet obstacle disparaîtra de lui-même avec le temps.
- Le manque de performance. Cet inconvénient souvent évoqué est en fait rarement un problème: la puissance des machines actuelles et les capacités du réseau autorisent des performances tout à fait acceptables dans presque tous les cas. Sauf si on a affaire à des applications distribuées construites en dépit du bon sens, mais ça c'est une autre histoire.
- La tentation "embrace and extend". Pour bénéficier de l'interopérabilité et de l'indépendance promise par l'adoption de standards, les acteurs, tous les acteurs<sup>13</sup>, doivent s'interdire d'étendre les standards en question de manière propriétaire non divulguée. Si une extension paraît avantageuse ou indispensable pour satisfaire un besoin spécifique elle peut naturellement être mise en place,

<sup>12</sup> L'implémentation de SOAP/WSDL que Microsoft propose avec .Net est différente de celle qu'on trouve dans le SOAP toolkit par exemple, et parfois cela pose des problèmes alors même qu'on se trouve dans un contexte "tout Microsoft" ...

<sup>13</sup> Ca va être dur pour certains ...

publiquement, et proposée pour adoption. Sans quoi le standard n'est plus standard et tout le bénéfice en est perdu.

- La sécurité. C'est actuellement la pierre d'achoppement. Dans le monde Windows la sécurité est, jusqu'à présent en tous cas, basée sur des mécanismes propriétaires. En raccourci, pour être autorisé à utiliser les ressources gérées par un système Windows, un utilisateur doit presque toujours être authentifié dans un domaine NT ou Windows. Même l'adoption de Kerberos ne fournit pas d'alternative. En effet l'implémentation de Microsoft contient une extension<sup>14</sup> non publiée<sup>15</sup> et cette extension sert de véhicule aux ACL (Access Control Lists) propriétaires. Un système autre que Windows est incapable de produire cette extension au format correct. Et à quoi sert-il de savoir qu'un service existe et comment l'utiliser si en fin de compte on ne peut en obtenir l'accès ...

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<sup>14</sup> Tiens ... justement.

<sup>15</sup> Même si Microsoft a montré des signes d'ouverture récemment, mais toujours sous condition et contre paiement ...

### 3. EN CONCLUSION

Je voudrais dire deux choses.

A la lecture de ce qui précède, ceux qui connaissent l'architecture J2EE auront éprouvé un certain sentiment de "Déjà vu", inévitablement. Eh bien, pour citer Don Box, encore, "*Imitation is the sincerest form of flattery*". Mais les similitudes ne doivent pas masquer le fait que les techniques mises en œuvre et plus encore les objectifs poursuivis par Microsoft (voir 1.1) et Sun sont fondamentalement différents. Sun veut une plate-forme de développement, ouverte, basée sur un langage Java, qui puisse tourner sur n'importe quel hardware, sous n'importe quel OS. Sun prône l'interopérabilité et l'indépendance par la portabilité du code, même si bien sûr, la firme embrasse aussi les standards Internet, XML, SOAP et WSDL.

Les éléments les plus intéressants de cette architecture sont, à mon avis, l'utilisation poussée des méta-données, pour le remoting en particulier, la notion de Code Access security et surtout les "Web Services". Ils représentent un réel espoir pour tous ceux qui rêvent du meilleur des mondes à condition<sup>16</sup> ...

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DI / STB**

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<sup>16</sup> vous avez lu le paragraphe 3.3 ?

# Technical aspects of telework at the Commission

In July 1997, in adopting a set of policy recommendations on the labour market and the social dimension of the Information Society, the Commission undertook to conduct a study of teleworking in the Commission and to promote teleworking in Europe. One of the aims of the Reform of the Commission is that DG Admin should prepare a general framework for teleworking within the Commission and that the Commission would establish good practice which can act as an exemplar for public administrations that wish to promote teleworking. A pilot teleworking project was established in DGs EMPL and INFSO in January 1998, involving the participation of approximately 120 staff. One of the major challenges of the pilot projects was to provide effective technological platforms for the support of telework. Since the start of these projects, substantial progress has been made in setting-up remote access services supporting various profiles of users. This article aims at describing the current technical framework for teleworking at the Commission. It formulates some recommendations concerning the equipment that should be provided to teleworkers and addresses issues around their support and training. It also tries to give an outlook to future enhancements of the Commission's remote access infrastructure.

## 1. Types of teleworkers

Before entering into technical considerations, it is useful to specify the different types of teleworkers at the Commission and to identify their needs:

The **teleworker** divides its normal working time between the office and its residence where he/she uses the computer equipment (PCs or portable PC) and the telecommunication infrastructure (PSTN or ISDN line) placed at its disposal by the Commission. The participants of the pilot projects of telework (approximately 120 persons) as well as the interpreters of the joint Interpreting and Conference Service enter this profile (460 persons). These users need a powerful IT equipment offering them a similar working comfort and similar service they are used to having within the office. In addition to E-mail and Internet/intranet access, they also need to access documents on shared drives and network applications of their DG. They need as well to receive at home the telephone calls made to their Commission phone number. The simultaneous need for telephone (voice) calls and the need to connect their PC to the Commission's Intranet asks for two virtual connections between the home and the Commission.

The **mobile worker** accesses IT resources of the Commission while being on mission. Mobile workers use a portable PC of the Commission connected via a telephone line available on the spot (hotel, conference room, etc.). This profile includes persons often carrying out missions of several days. They need access to E-mail, to the Internet/intranet and also to documents on shared drives of their Directorate-General.

The **day extender** accesses IT resources of the Commission from home outside normal working hours. Day extenders use either Commission or their private equipment. In general, they wish to consult their mail and get information from the Intranet. Their number can be estimated at approximately 2000 persons.

## 2. Technical infrastructure

### 2.1. Portable PCs

The Commission has currently a number of approximately 2 200 portable PCs running the current reference configuration based on Windows NT. Among these portables, around 200 are equipped with a docking station (equipment making it possible to connect a portable PC to the network of the Commission as well as to peripherals - screen, keyboard, mouse).

Teleworkers and mobile workers receive from the IT team of their DG preconfigured portable PCs, which are ready to be used. According to their specific needs, complementary equipment (mice, screens, and printers) is placed at their disposal to improve work comfort. Teleworkers are usually equipped with a personal portable PC. For the mobile workers, many DG manage pools of portables, which are available on request.

The Informatics Directorate provides the local computer teams with the tools necessary to configure the portable PCs (operating system, security, additional software and corporate applications).

## 2.2. Connections

Teleworkers may access to the IT infrastructure of the Commission through:

- Direct telephone connections
- Internet.

### 2.2.1. Direct telephone connections

**Free telephone numbers** of the Commission's access servers are available for the Benelux countries, France and Germany. These numbers are intended for the users working from home (teleworkers, day extenders) and allow access via a traditional telephone line or digital ISDN at no cost for the user.

**Telephone numbers of British Telecom's (BT) points of presence** are available for the large majority of the countries of the world. These numbers make it possible to reach the Commission through the global telephone network of BT and are free of charge or paying according to the zonal tariff of the country in question. This infrastructure is mainly provided to officials on mission (mobile workers). ISDN networks are found in the industrialised countries, but in the majority of the cases a traditional telephone line will be available.

### 2.2.2. Access via Internet

Any PC equipped with access to **Internet** (home PCs, public PCs) and with a navigator software supporting strong encryption (128 bits) can establish such a type of connection. Through Internet, users may only consult

EuropaPlus as well as their electronic mail (by the interface Outlook Web Access).

## 2.3. Access services

In its current configuration, the infrastructure of secure access to the Commission supports two profiles of use:

The **full access service** gives the user access to the network resources of his Directorate-General (E-mail, Intranet/Internet and files on network drives). This service is provided to teleworkers and mobile workers and allows them to have a working environment, which is rather similar to the environment they are used to have in the office. For security reasons, it requires double authentication. The full access service is only available through telephone connection. Its performances strongly depend on the quality of the connection used: a digital ISDN line gives better results than a traditional telephone line. Connections pass via one of 5 remote access servers (3 BXL, 2 LUX) who are dimensioned to support 250 users each one (1250 user in total).

Through the **web access service** users have access to the Commission mail (using Outlook Web Access) and to EuropaPlus. This service is available via telephone connections and via Internet and is primarily focussed on the needs of the day extenders. In order to have secure access, the user must authenticate himself by his username/password and use a navigator that supports strong encryption (128 bits). The best performances can be obtained through ISDN or different connections for high-speed access to Internet (ADSL, access via teledistributors). As Outlook Web Access provides fewer functions than the standard Outlook interface, the web access service offers less comfort of use than the full access service.

## 3. Support

The users' support is ensured during office hours (in general from 9h00 to 18.00) by the local IT team of the DG. The user can obtain aid by calling the local helpdesk.

Outside office hours, users may call the central helpdesk, which is a call-dispatch available 24h/day. The call is recorded and then transmitted to the concerned service, which will intervene within the framework of its operating

mode and its contractual obligations. Currently, only some services (i.e. E-mail) offer 24h coverage. The possible provision of a central support outside normal working hours addressing the specific needs of teleworkers is currently under evaluation.

As teleworkers are in general equipped with portable computers, interventions on the hardware and the machine's configuration are performed within the Commission premises. Users have therefore to bring in their equipment. As a general rule, no on-site support is provided in the residence of the user.

It must also be stressed that the support of teleworkers needs specific skills that have to be acquired by the support personnel of the DG. These skills concern mainly the configuration of the PC for remote use and the troubleshooting of remote connections.

#### 4. Training

Teleworkers are usually trained by a member of the local IT staff. Training is often provided through individual coaching sessions. On top of that, users have access to the on-line training tools, in particular the so-called "Web-sheets" that give concise answers to "how to?" questions and that are available on EuropaPlus.

A further extension of telework should be accompanied by a more intensive usage of teletraining (i.e. web-based training tools, available on the Intranet of the Commission). The user should have remote access to training modules and other information and thus be able to do basic troubleshooting gaining this way a certain independence of the Commission's support services.

#### 5. Equipment

The following recommendations are given concerning the equipment that should be provided to the different types of teleworkers:

Basic equipment for **teleworkers** should include a powerful and ergonomic portable PC (equipped with CD-ROM, floppy drive and the necessary connection interfaces), a printer and two additional telephone lines allowing simultaneous voice and data connection (currently an ISDN line). The user should be

provided with full access service (security token) to the Commission IT and with a virtual fax allowing the reception of faxes within the users' mailbox. Teleworkers also need redirection facility from the office telephone to the telephone at home. As far as security is concerned, additional tools (hard-disk encryption, boot protection) are needed on the portable PC according to the level of sensitivity of the data. Optionally, teleworkers may be furnished with multifunctional equipment bundling printer, fax and scanner and with additional docking interfaces, which facilitate the connection to peripheral devices (screen, keyboard, printer, network etc.) Accessories like an additional mouse or keyboard might also improve user comfort. Teleworkers access the Commission IT environment at no fee using the toll-free numbers of the Commission's access servers.

**Mobile workers** should have at their disposal a portable PC corresponding to their needs (lightweight or all-purpose). They may use – according to their needs – the web access or the full access service to the Commission's IT. Adequate security tools (hard-disk encryption, boot protection) should be installed. Mobile printers and other accessories can be provided if appropriate. Via the global telephone network of BT, mobile users gain access to the Commission at no charge or – for some countries – at zonal tariff.

**Day extenders** should either be equipped like mobile workers or use their private or a public computer. These users should privilege the web access service, as this requires no or very little adaptation of the configuration of the machine. Day extenders have the choice between using the toll-free numbers of the Commission's access servers or access via Internet.

#### 6. PC Configuration

The portable PCs used by teleworkers and mobile workers are configured, administered and supported by the IT team of their Directorate-General. It is recommended not to give users administrative rights on the machine in order to prevent them from changing its configuration and from installing additional software. Experience shows that support costs may be reduced considerably, if only qualified personnel performs upgrades or routine administrative tasks on these machines.

Day extenders may in most cases use their private computer as the Commission's web access service is based on standard tools that are available on most of the home computer platforms. A connection to the Commission is to be set up the same way as the access to an Internet service provider. The set-up procedure needs only very limited technical skills.

## 7. Technical evolution

The technical environment, which is needed to support telework has strongly evolved during the last years. This evolution will continue and will allow putting at the disposal of teleworkers a more powerful and ergonomic working environment. New broadband connections (ADSL) will give teleworkers a working comfort, that is not far from the usability of the IT infrastructure within the office. These telecommunication technologies bring "always-on" connections and allow the reduction of costs through flat rates and the usage of existing telephone lines. Security issues that come along with these technologies have to be analysed with great care. The availability of new protocols (IPSec) should bring benefits in the security area and allow a more extensive usage of the Internet for connections to the Commission.

The access to the Commission via mobile telephony still suffers from the low bandwidth that is available on classical GSM networks. New standards like GPRS are currently being introduced. They will offer increased bandwidth and will make mobile connections sufficiently powerful to give a reasonable comfort of use. These new technologies mainly address the needs of mobile workers as they make them less dependent on classical telephone lines or Internet connections. Despite the disillusionment concerning the rapid availability of these technologies at reasonable quality and price, they are very promising in a medium term perspective.

On the equipment sector, an inter-institutional call for tenders is in preparation that will allow the acquisition of a new type of ultra-light portable PC representing half of the weight of a classical portable. These machines are requested by mobile workers, who privilege a light equipment over ergonomic aspects and performance.

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# E-Mailing Remotely

This article presents selected abstracts of a larger document published recently on Softline. The purpose of that document is to detail the different possibilities offered to a user to connect his mailbox from outside of the Commission offices (on mission or at home) and to explain the way to configure the different software elements needed. It also gives some general hints and advises to be able to maximise the quality and efficiency of the mailbox access. We chose to publish here mainly the information oriented to advanced end-users.

## 1. Technical context

Globally, you can reach your mailbox from the outside of the Commission using two different services:

- Web access service
- Full access service

### 1.1. Web access service

For this service, you need a browser supporting the 128bits encryption upon a Point to Point Protocol (PPP) Dial-Up Networking (DUN) connection or a fixed line connection with an Internet Service Provider (ISP).

The web access service is very easy to implement on the different platforms available on the market because it requires nearly no operation to be done on the PC. You just need a browser supporting 128bits encryption. You can establish your connection via an ISP, via toll-free telephone numbers available in Belgium, Luxembourg, France, Holland and Germany or via British Telecom Point of Presence (BT Pop).

This solution concerns mainly the “day extender” users working from home with their own PC. This category of users will access their mailboxes with Outlook Web Access (OWA). This solution is well suited to encounter the needs of occasionally connected users.

### 1.2. Full access service

Using Outlook2000 full client upon a Point to Point Tunnelling Protocol connection (PPTP) established on a PPP/DUN connection.

This “heavier” solution requires extra software and configuration to be installed on the PC. This solution is based on the Reference Configuration workstation edition (RC 4.1) on which an add-on kit is applied (Remote Access Kit - RAK 1.1) and *should be restricted on PC belonging to the Commission only.*

Users concerned are teleworkers or mobile workers and the access to mailboxes is made with Outlook2000 full client. This solution requires a technical choice to be made between permanent access and synchronisation mechanisms to access mailboxes. If a permanent access is more appealing and easy for the users, synchronisation is in some case the only effective solution to work remotely. Let's assume that globally permanent access applies more to teleworkers (workstation or laptop with ISDN line) and synchronised access to mobile workers (laptop with PSTN line or a mobile phone).

## 2. Communication elements

### 2.1. PPP/DUN connection

A Point to Point Protocol (PPP) connection is the base of your communication, it can be established upon PSTN or ISDN lines and even using a mobile telephone (assuming slower communication performances of course!). Upon this type of connection, you can already access you mailbox with OWA using a 128bits compatible browser.

Dial-Up Network (DUN) connection can be established via three different types of telephone numbers:

- Telephone connection to one of the *Commission Access Servers (AS)*. Available for the Benelux countries, France and Germany these toll-free numbers offers the faster access with a low financial impact for the Commission.
- Telephone connection to a *British Telecom point of presence (BT POP)*. When Commission AS are not available, BT POP can be reached nearly world-wide (sometimes also via toll-free numbers).
- Telephone connection to an *Internet Service provider (ISP)*. In this case, you use the number of an ISP to obtain your connection (fixed line connection over ADSL or CATV is also valid).

To obtain more information on how to install and configure a PPP/DUN connection under the Reference Configuration of the DI, please refer to the documentation of the Remote Access Kit (RAK) available on Softline.

## 2.2. PPTP/VPN connection

A Virtual Private Network (VPN) can be established upon the PPP/DUN connection described in the previous paragraph. The purpose of a VPN session is to give the user a full access service to the network resources of his DG (E-mail, Intranet/Internet, files and network applications). This service is provided to teleworkers or mobile workers and allows them to have a working environment, which is rather similar to the environment they are used to have in the office. With this type of connection, the user is able to reach his mailbox using the full Outlook2000 client.

For security reasons, the VPN cannot be established upon a connection via an Internet Service Provider (direct telephone connection only via AS or BT) and requires double authentication. The first one is done using a token (DigiPass calculator) and the second is based on the DG NT domain.

Complete information on how to install and configure a VPN connection under the Reference Configuration of DI is available on Softline in the documentation of the Remote Access Kit (RAK).

## 3. Outlook Web Access (OWA)

Outlook Web Access (OWA) is a web-based interface that allows a user to access his mailbox by using a browser (Internet Explorer or Netscape Navigator). This mailbox access method can be initiated from both outside or inside Commission offices. As Outlook Web Access provides fewer functions than the Outlook2000 interface, the web access service offers less possibilities of use than the full access service but is particularly suited for the use of the day extenders (light use for mailbox or calendar).

### 3.1. To access a mailbox when you are outside of Commission's offices

First, you establish a Dial-up Network connection (DUN). Then you call the URL <http://mail.cec.eu.int> from your browser and follow the instructions provided on the screen to authenticate yourself and gain access to your mailbox (OWA user documentation is available in the WebSheets).

Whatever connection type you use *your Internet browser communications need to be protected by 128-bit strong SSL encryption*. This should not be the case, you will have to install a newer version of your browser or simply upgrade it.

### 3.2. To access a mailbox when you are within Commission's offices

With a browser, call the URL <http://mail.cc.cec/exchange>. This type of access does **not** require strong 128-bit SSL encryption capabilities of the browser. Note that the URL to access OWA from outside also works inside of the Commission's offices but is slower than the internal link due to the use of secure HTTP...

OWA is a very flexible solution to access user's mailboxes because it can be used from any workstation (private PC at home, public PC in cyber-café...) whatever is the connection type (Internet provider, AS connection, BT connection or LAN-based Commission connection). But OWA design makes it rather difficult to use over low-bandwidth connections like the ones you can establish with a cellular phone.



## 4. Outlook2000 full client

Outlook2000 should be installed by using the DI script available on Softline. According to the type of communication access at your disposal, we can distinguish two different profiles:

- Permanent access profile
- Synchronisation profile

### 4.1. Permanent access profile

If the user has a LAN type connection or a telephone line that offers acceptable speed at reasonable cost, he can work with a permanent connection. This is the profile that will most probably be the easier for a user to work with. Indeed, this is the way he is accustomed to work within his office.

This profile is also the easier to configure because it already exists after Outlook2000 installation via the DI script.

Permanent access profile will mainly be used by teleworkers from their home when an ISDN line is at their disposal.

### 4.2. Synchronisation profile

Outlook2000 offers synchronisation mechanisms that allow users to work off-line, connecting to the network only occasionally when needed. Main benefits over permanent access are a better control of communication costs, better flexibility for the user's work and a reduction of network traffic. This profile may also be used on low-bandwidth connections like portable telephones.

Unfortunately Windows NT environment does not allow to synchronise the two connections needed to establish a VPN session (PPP and PPTP). So, Outlook2000 internal mechanisms cannot be used to initiate the communication on demand and the user will be forced to manage the operation himself with the risk to forget to close its session... By using Windows2000 on portable PCs (quick win in the framework of the ETP project) this limitation may be bypassed.

To use these mechanisms it is advisable to implement a dedicated profile distinct from the one used to work directly inside the offices of the Commission. This creation procedure and the parameters needed to work with a synchronisation profile will be detailed in the original document published on Softline.

### 4.2.1. Time consuming options

Outlook offers the user the option to work connected rather than offline when starting a session. Normally, a connected session should only be initiated when working with good connection speed (LAN or ISDN). Nevertheless, in some circumstances with a good preparation of the mailbox contents and a good knowledge from the user of what he is doing, it is possible to work directly connected over low-bandwidth connections (PSTN or even GSM). Of course, this means the acceptance of some slowness in the way to work with Outlook...

Some Outlook options tend to be rather time-consuming and might be disturbing for a user accustomed to work with the full speed of a LAN. Though not really specific to synchronisation mechanisms, some of these options may easily be modified or turned off to avoid such type of disturbance... The problem is that most of these settings cannot be linked to a specific profile and will influence the all product behaviour whatever profile is used.

For instance, it is not advisable to have options like the *Preview Pane* or the *AutoPreview* turned on when you are working over a slow connection. These options may be easily turned off via the *View* menu.

The same remark applies to the *After moving or deleting an open item* parameter in the *Message handling* field of the *E-mail Options* window (*Tools>Options...>E-mail Options...*). It seems better to select the *return to the Inbox* value rather than another one...

The *AutoSave* mechanism may also be annoying when it activates itself while working with large attachments. This feature can be turned off by selecting *Tools>Options...>E-mail Options...>Advanced E-mail Options...* and deselect the *AutoSave unsent every:* field...

The *AutoArchive* mechanism should never be activated when you connect to your mailbox from the office and on mission on different computer (desktop and laptop for instance). This feature should only be used on one of these machines if you don't want to split information between different locations. *AutoArchive* may be turned off by selecting *Tools>Options...>Other>AutoArchive...* and by deselecting the *AutoArchive every:* field...

To optimize the consultation of the Calendar, Outlook uses a synchronised copy of the appointments. This file is synchronised whenever you activate your session. Over a slow connection it may be interesting to turn this feature off going in *Tools>Options>Preferences>Calendar Options...* and deselecting the *Always use local calendar* field...

The possibility to empty the *Deleted Items* folder when exiting the session should not be turned on when working online over low-bandwidth connections. This feature can be turned off by going in *Tools>Options...>Other* and deselecting the *Empty the Deleted Items folder upon exiting* field...

The automatic inclusion of texts, vcards, background features, fancy fonts and other useless objects *should be strictly avoided when working remotely*. The Assistant should also be deactivated...

#### **4.2.2. Organising a mailbox to work with synchronisation**

This section will give some hints about different techniques to organise a mailbox to be prepared to work remotely. Indeed, if a mailbox is relatively "clean" and organised in a way suited to the type of work a user is supposed to do during a mission, he can, in some circumstances, initiate a connected mode even over a low-bandwidth connection to synchronise some folders of his mailbox.

First, you have always to think in terms of low-bandwidth connections. If you are ready to work over a GSM established connection, you will be in heaven with an ISDN line! The way a mailbox is organised reveals to be very important when a user need to access the content of his inbox while waiting a plane somewhere in an airport.

Personally, I try to keep my folders as empty as possible, my *Inbox* especially. This is not very complicated with standard rules and some basic working habits. I don't pretend to give in this section *THE* right way to work but this could give some hints to the remote users to find their own way to manage their mailbox. I implement on my *Inbox* four different mechanisms:

- I implement a standard rule that moves automatically large messages to a *Large Messages* subfolder (this rule can be implemented using the specific synchronisation settings of Outlook - *Tools>Synchronize>Offline Folder Settings...>Download Options...*)
- I implement an automatic rule that moves all the mail I am just a *Copy* or a *Bcc* recipient to a *Copy* subfolder of my *Inbox* because I consider that these kind of messages are of less importance than the ones I am a *To* recipient
- I create a *Read* subfolder where, before leaving on mission, I move manually the messages I have already read but that I need to keep in mind for the future
- I create an *Important* subfolder where a rule implemented in the *Out of Office Assistant* will automatically redirect short messages send with specific parameters. The *Autoreply* text informs my correspondants what they need to do to send me this type of information. The *Important* subfolder will of course be synchronised as often as possible. This technique *could* also be improved by the sending of a SMS message to my cellular phone (when the service will be available under INSEM3) and even with a redirection of the concerned messages to an internal POP3 server I could access through a WAP interface or directly with a PDA... Unfortunately, these two features are not available yet in our E-mail system.

These four subfolders are all marked to be synchronised so that I take all the information needed in my OST file when I execute my pre-mission full synchronisation. Later, I will treat the contents of those subfolders but, unless disposing of a good connection, I will most probably not synchronise all of them anymore until I return in my office...

I know that the two important subfolders I have to check more carefully are my *Inbox* automatically "cleaned" via the *Copy* and *Large Messages* subfolders and the *Important* subfolders where I may receive short important messages from my correspondants when the *Out of Office Assistant* is activated.

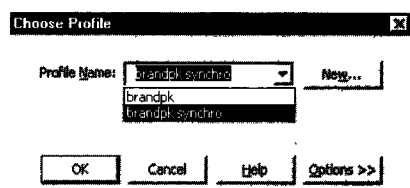
These very simple techniques of organisation are only a small illustration of what can be easily implemented to help a remote user to keep the *Inbox* as “clean” as possible and to be ready to face the problems of communication he will most probably encounter during his mission abroad.

#### 4.2.3. First Outlook synchronisation session

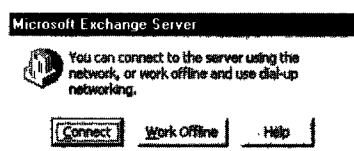
Now that the synchronisation profile is created, that the specific settings are modified accordingly and the mailbox is organised in a way suited to the user’s work (see previous sections), the user’s first Outlook session will be devoted to synchronise the Offline Storage file (OST) and to copy locally the address book.

These kinds of operation are typically what a user should do before departing on mission with a laptop:

- Start Outlook 2000 upon a LAN type connection
- In a multi-profile environment, Outlook prompts for the profile to be used. This step is not mandatory when you only have one profile



- Choose the synchronised profile and Outlook offers the possibility to get connected or to work offline



- Click the *Connect* button and Outlook asks the user have to authenticate himself to access his Exchange mailbox
- Select *Tools>Synchronize>All Folders* or press the *F9* function key. Outlook will synchronise all the pre-selected folders into the OST file

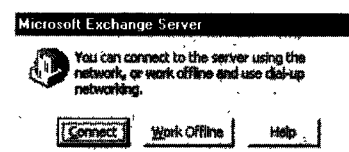
- Select *Tools>Synchronize>Download Address Book...* and click *OK* to download locally a copy of the address book files in the profile of the current user under “Local Settings\Application Data\Microsoft\Outlook” (approximately 15MB)

This synchronisation session is finished, the user can now *Exit and Log Off* and take the laptop with him on mission. From now on, until he is able to reconnect with a fast connection, he will have to work offline with eventually some small synchronisation operations done on specific folders (examine new mail, send replies, take new appointments...). *With low-bandwidth connections, a complete synchronisation procedure is to be avoided!*

#### 4.2.4. Working with synchronisation

Once the user made his first full synchronisation operation, he is ready to leave on mission. During the duration of his stay out of office, he will most probably not have the opportunity to repeat this kind of operation. But, if his mailbox is relatively “clean” and well organised, he can, in some circumstances, risk a connected mode even over a low-bandwidth connection to synchronise selectively some folders of his mailbox.

During his mission, when starting Outlook, the user will choose most of the time to work disconnected from his mailbox (*Work Offline* button):



Then, according to his needs and after having established a VPN connection, he will decide to synchronise one specific folder or a pre-defined set of several folders by selecting *Tools>Synchronize* from the Outlook menu:

He will then have to switch off manually his connection session and repeat these various operations...

If a remote user decides to work *connected* and for any reason loses the connection, Outlook will *not* continue to work automatically in the *Outbox* folder and, according the operations

that were busy at that moment, the user risks to be blocked in his session... This means that when the connection risk to be unstable, *it is always better to work offline*.

#### 4.2.5. Problems linked to synchronisation

Some problems may be encountered while working with a synchronised profile:

- From time to time, the user may find conflicting items marked with the ✕ symbol. This may happen when the same item is accessed from two different places or simply when the synchronisation algorithm is not able to manage correctly some informations. To resolve the conflict, the user just opens the concerned item and choose wich one he intends to keep...
- Another problem is directly linked to security while using offline folders. Unlike the Personal folder (PST) there is no possibility inside of Outlook to protect the access of an OST file by a password! When connecting offline, Outlook will not ask the credentials to gain access to the Exchange mailbox because there is no need to. After synchronisation the offline folder contains locally a replication of the content of the user's mailbox. So, if the access of the laptop is not protected by any password, somebody else is able to get access to the user's mailbox information...

#### 4.3. Remote mail

*Remote Mail* is another option offered by Outlook to manage mail remotely. Its purpose is to *manage Inbox folder items only*. Calendar, appointments, contacts or any other Outlook information are not taken into account. When Exchange Server is used, Microsoft rather recommends the use of offline folders because it offers the users a greater flexibility. Nevertheless *Remote Mail* may appear interesting in some cases when the user is only concerned by the contents of his *Inbox* and when he will have to work over low-bandwidth connections.

To work with *Remote Mail*, you first have to create a specific profile as showed in the previous sections. Then you add a PST file to your profile and you set up the delivery point in

this personal folder file. You also have to force this profile to work offline only...

Remote Mail features allow a user to download selectively messages from the *Inbox*. The user always works offline and decides when he wants to connect to his mailbox to activate a download procedure. Normally, this download is done in three different steps:

- The user makes a first connection to the server to download a list of message headers to his PST file and the connection is closed.
- Working offline, the user selects the messages he wants to download locally (copy or move) according to their headers and their size. He can also decide to delete several messages and prepare in the *Outbox* some mail to be sent.
- The user connects with Remote Mail again to download the marked messages. *Remote Mail* eventually deletes the messages marked for deletion, sends any new mail and disconnects.

Though it may appear interesting, *Remote Mail* presents some weaknesses and restrictions that you have to be aware before making such feature available to your users:

- NT does not allow taking advantage of the Dial-Up Network facilities included inside of Outlook because you always need to initiate a PPP and a VPN connection. So, the user has to manage his connection "manually".
- The two features (*Offline folders* and *Remote Mail*) can hardly be managed together within the same profile. There is an obvious risk of confusion and of increasing conflicting items So if you want to use *Offline folders* and *Remote Mail* on the same PC, it is better to create distinct profiles and to explain to your user the purpose of each of them.
- The user may be confused by the fact that he sees all the content of his mailbox inside the PST file while being restricted to work with items contained in the *Inbox* only.

- There is a potential risk to move the contents of all the *Inbox* to the PST file and thus to empty this folder on the level of the Exchange Server. Users should be recommended to download by copying items only...
- *Remote Mail* is not compatible with any organisation of the *Inbox* because restricted to work with the content of this folder only...
- Always take account of the size of the mail you intend to read, before opening it or its attachments.
- Do not activate time-consuming options like the preview pane, the Assistant...
- On low-bandwidth connections, always open your session offline and never perform a complete synchronisation of your folders. Work according to your needs, per folder or per pre-defined groups of folders.

### 5. Some advises for the remote user

In this paragraph, I will try to give advises I think to be useful for a remote user. This list is far from being exhaustive. Furthermore some of its elements will not be suitable for every scheme of use of Outlook 2000.

- The main principle when working remotely is always to think in terms of reducing the amount of data that will transit over the connection.
- Try to design an architecture for your mailbox adapted to the needs of your work. If possible, split your *Inbox* in several subfolders using rules to route the messages between them.
- Clean your mailbox before your departure on mission.
- Synchronise your Offline folders (OST) just before leaving on mission and, if necessary, take a "fresh" copy of the address book.
- When you think you will have to work over low-bandwidth connections, you can take advantage of the message of the *Out of Office Assistant* telling people that you can only read small messages without attachments and presenting well defined criteria (high-priority, text only...). Specific rules can also be implemented to add more sophistication to this...

### 6. Conclusions

This article has tried to present an overview of the different possibilities offered to the users to connect remotely to their mailboxes. We have seen that *according to the type of use, the type of equipment and the type of connection available, the solutions are different*. The following table presents, according the three main remote user's profiles, a relational view of the different parameters that have *generally* to be taken into consideration:

User Profile	Equipment	Access Method	Connection		
			Provider	Line	Protocol
Day Extender	Home PC	OWA	EC Access Server ISP	PSTN	PPP
Teleworker	EC Laptop EC Workstation	Outlook Permanent	EC Access Server	PSTN ISDN	PPP+VPN (Token)
Mobile Worker	EC Laptop	Outlook Synchronised Outlook Remote Mail	EC Access Server BT PoP	PSTN GSM	PPP+VPN (Token)
		OWA	EC Access Server BT PoP ISP	PSTN	PPP

We have seen the capabilities of each available product, but also their weaknesses. OWA is slow and poorly designed for access over low bandwidth connections but it is the most versatile and universal way available for our users to access a mailbox wherever they are. Outlook2000 is more sophisticated (though not so well designed for remote use) but implies the tuning of a lot of settings and a good organisation in the user's working habits. Outlook offers two different remote access methods:

- **Synchronisation** with the use of an offline folder which gives access to every item of the mailbox and the *Public Folders*
- **Remote mail** which only allows access to the content of the *Inbox* but minimises the time and the cost of the connection

The choice between those two access methods depends of the user's needs and of the type of connection available.

We can notice that *the complexity of any solution is directly linked to the degree of mobility of the user*. The mobile worker profile requires more sophistication on the level of the connections and of the access method. In a very near future, a more and more large panel of new types of equipment will also concern this same profile. We have to take that fact into account already now!

We come also to the conclusion that our architecture lacks an intermediate profile, situated between the web access service and the full access service allowing only mailbox access with the mail full client or some similar solution (terminal services capabilities for instance). This possibility is right now under investigation.

We also need to take into account the features that will be offered in a few months by the new workstations and laptops reference configuration platform.

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# DENISE Project

## - Preliminary Results and proposed Actions -

The DENISE (Document Enabled InfraStructure Evaluation) project is aimed at a market survey in the field of Document/Content Management and Workflow. The scope of the present document is to indicate some first results and to propose further actions (including planning).

### Steps taken

The first major outcome of DENISE was the "Market Segmentation and General Orientation" document, where some 46 products were described according to their functional and technical characteristics and categorised into Groupware, Document Management, Web Content Management, Workflow, Knowledge Management and Portal (applications). (Ref. 1, p. 81 ff.)

Based on this document the DENISE group decided to focus its activities on the Document/Content Management and Workflow segment and by 25.06.2001 26 companies were invited to reply to:

- The Vendor Information questionnaire (Ref. 2), and
- The Technical Evaluation questionnaire. (Ref. 3).

Both questionnaires were elaborated and agreed upon by the DENISE workgroup. It should be noted that questionnaire No. 1 (Document/Content Management) contains functional sections/extensions on:

- Integrated "Document Flow" workflow capabilities (Document-centric workflow), and
- Web-Content Management and Portal features

to ensure interfacing with other projects, i.e. WCM.

By 23.07.2001, 15 companies responded positively to our request and sent in 15 answers.

At present, the analysis of the answers is progressing and several draft report versions can already be consulted (Selection and Evaluation Report, Ref. 4, 5, 6).

A draft report version (0-7) was presented to the group on Wednesday, 19.09.2001. This version was not yet complete with 3 products still missing. A - from the product coverage point of view - complete version (0-9) was issued on 26.09.2001. Comments from the group will be incorporated into a final version.

All DENISE group members have also access to the "raw" information provided by the companies via an Insem3 Public Folder structure. This information is *confidential* and the group was informed in this sense.

It is also useful to scrutinise the products via a round of intensive (3 hour) product presentations for the DENISE group. In order to avoid problems, it is suggested that the choice of products is basically free, but a defined "mini-scenario" should guide presentations. The group was invited to make proposals.

### Discussion of the results

In general, the DENISE questionnaires allowed for gathering rather precise information on what concerns product functionality and technical architecture. Understanding of the market offering is good, but could be further improved by product presentations.

Problems however did arise from the fact that neither questions on the usage scenarios (configuration, scalability, pricing) nor on performance/throughput were sufficiently answered. This is partly due to the fact that *all* questions were NON mandatory so that precise answers could be easily avoided.

Equally important is certainly that the *quantitative needs* in terms of number of licences, infrastructure and organisational aspects, have to be better defined from our side (via a survey to the DGs).

### Results Workflow part:

- 15 suppliers with an independent, commercially available Workflow product/modules in the business-process sector were contacted. 8 companies did not send positive answers.
- From the remaining ones, Oracle demonstrated through a great number of references, that Oracle-WF has gained significant, credible customer acceptance, especially in so-called Oracle shops where developer resources are readily available (similar to the Commission). Relative openness and adherence to standards seems also be assured.
- Proposal: Choice of workflow tool to be made via EC internal evaluation/prototyping of products already present in the Commission. Studies in this sense are already initiating, for example the evaluation of Oracle-WF in the context of GREFFE 2000 (SG) or a study on BEA Weblogic/Process Integrator (example for J2EE).

### References:

All DENISE related (public) documentation can be found under:  
<http://www.cc.cec/softline/u/services/studies>

### Results Document/Content Management part:

The analysis showed it is not possible to identify ONE (and only one) modular solution of products that represents a *best technical/functional/financia'* fit to the EC's needs based on the available information. It would be erroneous and unrealistic to choose a solution regardless of costs.

A more detailed analysis via cost/benefit comparisons based on figures from a quantitative survey towards the DGs, seems therefore to be necessary. This survey has to give info about number of user licences, number of systems, usage scenarios, etc. It is believed that a CFT procedure is the most adequate framework to do so.

*Proposal:* Consider Call for Tenders in Enterprise Document/Content Management sector only, based on the work done in DENISE.

### Conclusion

Based on the results of DENISE, it is proposed to:

- Limit further analysis of process-centric business workflow tools on in-house products,
- Consider a future Call for Tenders in the sector of Enterprise Content Management (ECM).

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# Some W3C Recommendations

## XHTML

### **XHTML 1.0 W3C Recommendation 26 January 2000**

<http://www.w3.org/TR/xhtml1>

*XHTML 1.0 Strict* is a clean structural mark-up language, free of any tags associated with layout.

Used with W3C's Cascading Style Sheet language (CSS), it produces the desired font, color, and layout effects.

Many authors of Web pages for access by the general public might wish to use *XHTML 1.0 Transitional*.

The idea is to take advantage of XHTML features including style sheets, but nonetheless making small adjustments to the mark-up for the benefit of those with older browsers.

For example the transitional flavor allows the use of the BODY tag with 'bgcolor', text and link attributes.

### **XHTML 1.1 - Module-based XHTML - W3C Recommendation 31 May 2001**

<http://www.w3.org/TR/xhtml11>

With the introduction of the XHTML family of modules and document types, the W3C has helped move the Internet content-development community from the days of malformed, non-standard markup into the well formed, valid world of XML.

In XHTML 1.0, this move was moderated by a goal of providing for easy migration of existing, HTML 4 (or earlier) based content to XHTML and XML.

Going forward, XHTML family document types will be based upon this new, more structural functional collection.

In this specification, the W3C's HTML Working Group has defined an initial document type based solely upon modules. This document type is designed to be portable to a broad collection of client devices, and applicable to the majority of Internet content.

## Cascading Style Sheets

### **CSS2 W3C Recommendation in May 1998**

<http://www.w3.org/TR/REC-CSS2>

A style sheet allows authors to attach style (e.g., fonts, spacing, and aural cues) to structured documents (e.g., HTML documents and XML applications). By separating the presentation style of documents from the content of documents, a style sheet simplifies Web authoring and site maintenance. CSS2 is built on CSS1 and adds support for media-specific style sheets (e.g. printers and aural devices), downloadable fonts, element positioning and tables.

CSS3 is currently under development. You can follow its progress at <http://www.w3.org/Style/CSS/current-work> as new drafts are published.

# Extensible Markup Language (XML)

**(XML) 1.0 (Second Edition) W3C Recommendation 6 October 2000**

<http://www.w3.org/TR/REC-xml>

XML describes a class of data objects called XML documents.

An XML document is composed of declarations, elements, comments, character references, and processing instructions, all of which are indicated by explicit markup.

Physically, a document is composed of units called entities. An entity may refer to other entities resulting in their inclusion in the document. A document begins in a "root" or document entity.

The XML document type declaration contains or points to markup declarations, which provide a grammar for a class of documents.

This grammar can be expressed in a document type definition (DTD) or in the XML schema language.

XML in 10 points, <http://www.w3.org/XML/1999/XML-in-10-points>, explains XML briefly.

## XML Schema

**XML Schema W3C Recommendation, 2 May 2001**

<http://www.w3.org/XML/Schema#dev>

The XML Schema language is intended to supplement the basic DTD mechanism included in XML version 1.0 with a more rigorous framework for declaring the structure, contents and semantics of XML documents.

Schemas allow application writers to enforce specific datatype restrictions on their documents' contents.

It provides also support for the construction of user-defined complex datatypes, data ranges and masks.

In conjunction with standards like RDF, XML schemas are intended to help developers create machine-oriented services that can be accessed over the Internet.

The XML Activity Statement <http://www.w3.org/XML/Activity.html> explains the W3C's work on this topic.

## Extensible Stylesheet Language (XSL)

**XSL Version 1.0 W3C Proposed Recommendation 28 August 2001**

<http://www.w3.org/TR/xsl/>

XSL is a language for expressing stylesheets.

An XSL stylesheet processor accepts a document or data in XML and an XSL stylesheet and produces the presentation of that XML source content. The source content is styled, laid out, and

paginated on to a presentation medium, such as a window in a Web browser or a hand-held device, or a set of physical pages in a catalogue, report, pamphlet, or book.

There are two aspects of this presentation process: first, constructing a result tree from the XML source tree and secondly, interpreting the result tree to produce formatted results suitable for presentation on a display, on paper, in speech, or onto other media.

The first aspect is called tree transformation and the second is called formatting.

Tree transformation is defined in the XSLT Recommendation

- Version 1.0 W3C Recommendation 16 November 1999 <http://www.w3.org/TR/xslt>
- Version 1.1 W3C Working Draft 24 August 2001 - <http://www.w3.org/TR/xslt11/>

XSLT is also designed to be used independently of XSL. However, XSLT is not intended as a completely general-purpose XML transformation language.

The vocabulary of formatting objects supported by XSL - the set of fo: element types - represents the set of typographic abstractions available to the designer, e.g. regions on pages.

## XML Linking Language (XLink)

**Version 1.0 W3C Recommendation June 27th 2001**

<http://www.w3.org/TR/xlink/>

The XML Linking Language (XLink) allows elements to be inserted into XML documents in order to create and describe links between resources.

It uses XML syntax to create structures that can describe the simple unidirectional hyperlinks of today's HTML, as well as more sophisticated links:

- Asserting linking relationships among more than two resources
- Associating metadata with a link
- Expressing links that reside in a location separate from the linked resources

## XML Path Language (XPath)

**Version 1.0 W3C Recommendation 16 November 1999**

<http://www.w3.org/TR/xpath>

XPath 2.0 : see XQuery

XPath is used to identify particular parts of XML documents.

An XML document is a tree made up of nodes. Some nodes contain other nodes. One root node ultimately contains all other nodes.

XPath is a language for picking nodes and sets of nodes out of this tree.

# XML Pointer Language (XPointer)

**Version 1.0 W3C Candidate Recommendation 11 September 2001**

<http://www.w3c.org/TR/WD-xptr>

XPointer, which is based on the XML Path Language (XPath), supports addressing into the internal structures of XML documents.

It allows for examination of a hierarchical document structure and choice of its internal parts based on various properties, such as element types, attribute values, character content, and relative position.

## XML Query

**XQuery 1.0 and XPath 2.0 Data Model**

W3C Working Draft 7 June 2001

<http://www.w3.org/TR/query-datamodel/>

**XQuery 1.0 and XPath 2.0 Functions and Operators Version 1.0**

W3C Working Draft 27 August 2001

<http://www.w3.org/TR/xquery-operators>

The mission of the XML Query working group is to provide flexible query facilities to extract data from real and virtual documents on the Web, therefore finally providing the needed interaction between the web world and the database world.

Ultimately, collections of XML files will be accessed like databases.

XML is an extremely versatile markup language, capable of labelling the information content of diverse data sources including structured and semi-structured documents, relational databases, and object repositories.

A query language that uses the structure of XML intelligently can express queries across all these kinds of data, whether physically stored in XML, or viewed as XML via middleware.

## Resource Description Framework (RDF)

**Resource Description Framework (RDF) Model and Syntax Specification**

W3C Recommendation 22 February 1999

<http://www.w3.org/TR/REC-rdf-syntax>

**Resource Description Framework (RDF) Schema Specification 1.0**

W3C Candidate Recommendation 27 March 2000

<http://www.w3.org/TR/rdf-schema>

Resource Description Framework (RDF) is a foundation for processing metadata.

It provides a facility for applications which exchange machine-understandable information on the Web.

RDF can be used in a variety of application areas; for example: in resource discovery to provide better search engine capabilities, in cataloguing for describing the content and content

relationships available at a particular Web site, page, or digital library, by intelligent software agents to facilitate knowledge sharing and exchange, in content rating, in describing collections of pages that represent a single logical "document".

RDF uses XML to exchange descriptions of Web resources but the resources being described can be of any type, including XML and non-XML resources.

The role of RDF Schema:

For describing bibliographic resources, for example, descriptive attributes including "author", "title", and "subject" are common.

For digital certification, attributes such as "checksum" and "authorization" are often required.

The declaration of these properties (attributes) and their corresponding semantics are defined in the context of RDF as a RDF schema.

A schema outlines not only the properties of the resource (e.g., title, author, subject, size, color, etc.) but may also define the kinds of resources being described (books, Web pages, people, companies, etc.).

For news and current events on RDF look at <http://www.w3c.org/2001/sw/RDFCore/>

## Example

In order to illustrate some W3C recommendations, this article was written in XML.

The source file can be found at <http://www.cc.cec/forum-europa/w3c.xml>

This is a valid document.

The document type definition can be found at <http://www.cc.cec/forum-europa/w3c.dtd>

The SAXON (<http://saxon.sourceforge.net>) XSLT processor was used to read the XML source and produce two HTML versions

- <http://www.cc.cec/forum-europa/w3c.htm>
- [http://www.cc.cec/forum-europa/w3c\\_bis.htm](http://www.cc.cec/forum-europa/w3c_bis.htm)

according to the instructions given in the stylesheets

- <http://www.cc.cec/forum-europa/w3c.xsl>
- [http://www.cc.cec/forum-europa/w3c\\_bis.xsl](http://www.cc.cec/forum-europa/w3c_bis.xsl) in which the production of a content table has been added.

Content, transformation and presentation are separate. The data and its structure are tagged independently of the presentation. The decision of how to format the page is delayed until the content has been processed.

The XSLT style sheet is applied first to w3c.xml, the XML document. The result is an HTML document, which is passed to the browser. It is only when the browser loads the HTML document that the CSS comes into use.

With Internet Explorer 6 an external processor like SAXON is not required: the XML document is transformed within the browser according to the stylesheet instruction

```
<?xml-stylesheet type="text/xsl" href="w3c.xsl" ?> .
```

The Metadata of w3c.xml stand in w3c.dcxml. The Dublin Core Metadata Element Set is encoded in XML using RDF.

After checking w3c.htm for conformance to W3C Recommendations at the W3C HTML Validation Service <http://validator.w3.org>, we received:

"No errors found! Congratulations, this document validates as XHTML 1.0 Strict!".

This is an incentive for further investigations on this subject.

**Gerald MESSIAEN  
DG DEV**

# ColdFusion with Java Server Pages and servlets

## Report summary

Up to now, there has been only one recommended tool for the generation of dynamic web pages within the European Commission: ColdFusion. ColdFusion is using the ColdFusion Markup Language (CFML) to create pages on the fly using information provided by the user and retrieved from a database.

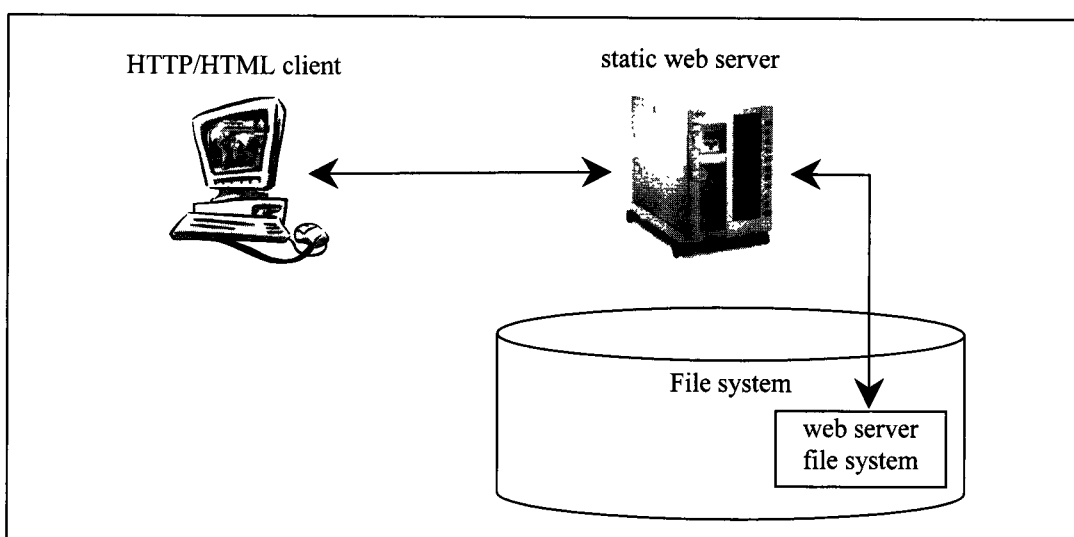
With the decision of REDIS II to adopt the J2EE specification, additional possibilities of producing dynamic web pages are available to the developer. The J2EE specifications define two ways of generating dynamic pages, Java Server Pages (HTML pages containing pieces of Java code) and servlets (Java routines that produce HTML).

A study has been made to compare strengths and weaknesses of ColdFusion Markup Language (CFML) and Java Server Pages (JSP). CFML is the development language used within the Macromedia/Macromedia ColdFusion platform. JSP is available in JSP compliant platforms, which are generally Java 2 Enterprise Edition Platforms that also support Java Server Pages.

This article is a summary of the full report "Comparing ColdFusion with Java Server Pages and servlets" that can be found on Softline.

### 1. Server-side dynamic web pages generation.

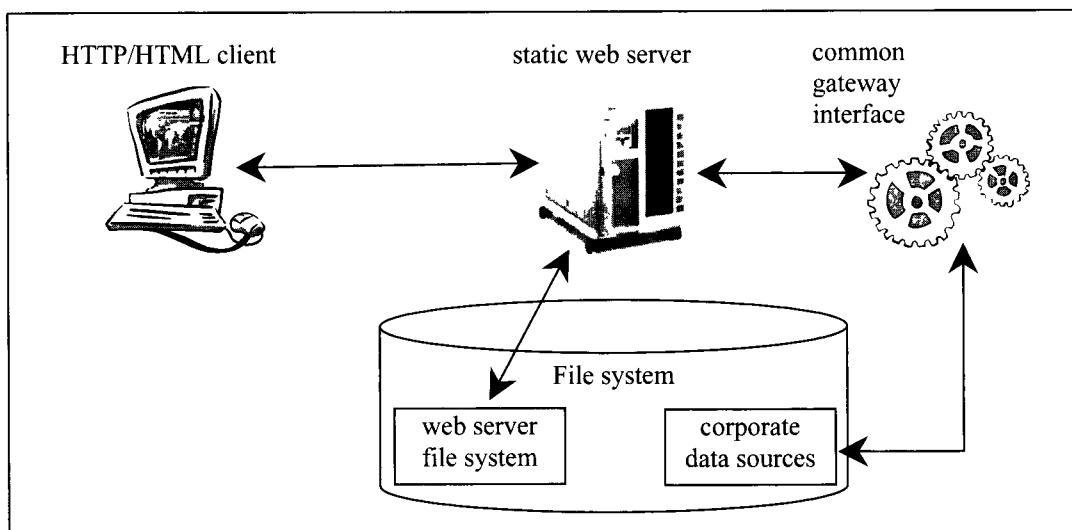
In the beginning of the Internet era static HTML pages was the standard. These pages normally consisted of documents that were approved and didn't need to be modified. In that sense, a static web server is just a remote file access mechanism enabling to consult documents having a midterm or long-term lifetime.



Some problems remained though regarding publishing of HTML documents that reflected the state of internal corporate information at an exact point in time.

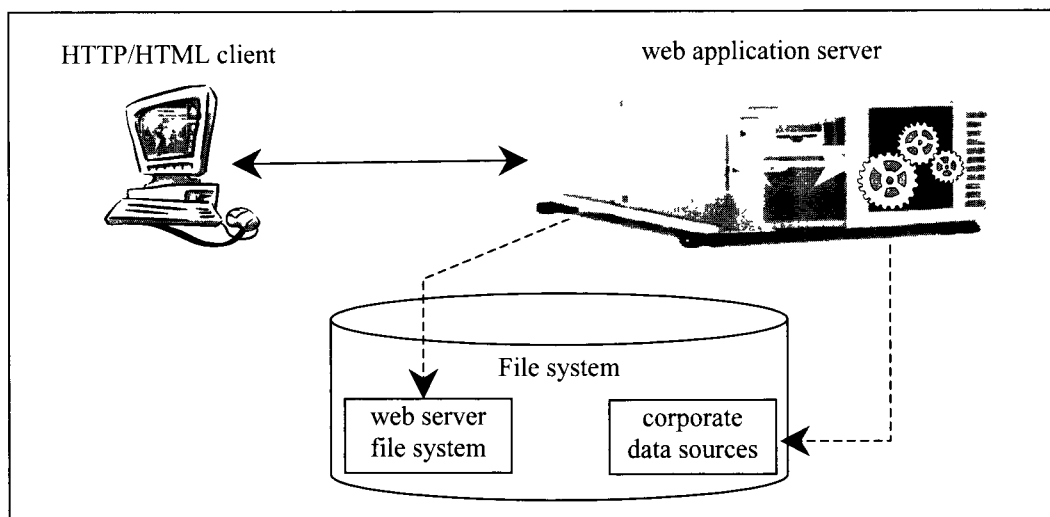
The idea was to provide an HTML page that contains special markers indicating that a process needs to be executed in order to provide the desired dynamic output. Most of the time, this requires executing a program on the server side, accessing a relational database.

In the first implementations of such a mechanism, programs were loaded and executed through CGI, the Common Gateway Interface. Programs were then mostly developed in the C or PERL programming languages.



However, this solution had a main drawback: every execution of a program required by the web server to produce a dynamically generated page was executed outside of the web server. As a consequence, a new process had to be created, executed and removed from the operating system every time in order to have the appropriated results. This mechanism is highly resource consuming.

The solution was to integrate an execution environment within the web server itself, leading to the creation of web application servers. In such servers, execution process can be created as threads within the web server itself. Examples of this kind of technology are Microsoft Active Server Pages, Server-Side Includes (SSI), Personal Home Pages (PHP), Macromedia ColdFusion and JSP/servlets.



Macromedia ColdFusion integrates with many different web servers and runs along side them to provide an execution environment for CFML pages. It creates a sub process in the web server that interprets ColdFusion pages. All CFML pages that are requested by a web browser to the web server are dynamically created by the ColdFusion web server extension.



Sun Java Server Pages are the equivalent of Macromedia ColdFusion pages. The difference between these two technologies is the way special markers are defined and used.

Servlets correspond to a different technology. Slightly simplified JSP are HTML pages including Java language routines between special tags whereas servlets are Java classes writing HTML to a file. Servlets are therefore much more programming centric and closer to the HTTP protocol. They provide greater flexibility than any tag approach; be it Macromedia ColdFusion or JSP.

## **2. Results**

The general conclusion is that the two languages do not offer the same level of abstraction. Development of new pages is easier with CFML as the language can be considered as a set of macros. They are enabling the developer to perform the most common operations in a straightforward way. Also important is very good integration between the ColdFusion development environment and the deployment environment. Therefore, ColdFusion is easy to use and should be used as long as the provided tags are at a level of functionality that responds to the needs of the applications to develop.

If the functionality of ColdFusion tags is not sufficient, then another technology has to be used. JSP is a good candidate as it is widely supported, by many different vendors. However, the basic of development with JSP is not at the same abstract level as with ColdFusion: Java programming knowledge is a must. JSP do not embed tags but real pieces of code. However, it is possible to develop JSP tag libraries containing commonly used generic code. Also to be considered, development environments available with JSP servers are not at the same level of integration than ColdFusion is. Finally, JSP servers are most often part of more general Java 2 Enterprise Edition platforms that also offer component services, a wide range of security services and tight XML support.

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# ColdFusion and JAVA

## Test Results

The primary aim of this study was to establish how ColdFusion is behaving when using JAVA components. The secondary aim was to verify how and if ColdFusion and enterprise JAVA beans (EJB) can be used together.

### 1. Test Lab

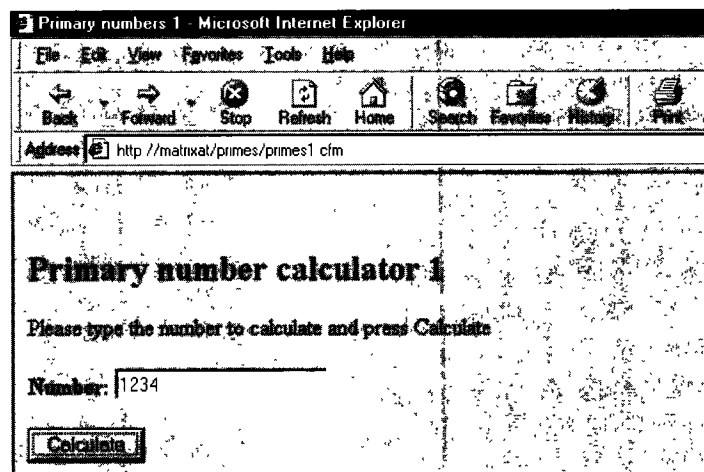
The version of ColdFusion used for the tests was ColdFusion Enterprise Edition 4.5.2 running on a Siemens 4-way server with 1.5 GB RAM with Windows NT4 SP6a installed. The performance tests were done using LoadRunner version 6.5 running on a separate server. For the EJB tests we used BEA's WebLogic version 6.0 running on a separate server.

### 2. ColdFusion and JAVA Test

#### 2.1. Scenario

A simple test application (Primes) was created. The application was based on ColdFusion and a small JAVA program calculating prime numbers. The JAVA classes were located and run from within the ColdFusion server. The program is a typical example of a badly mannered program whereby it uses all the resources it can get hold of.

We used the LoadRunner test program to test the impact and behaviour of the CF server when running multiple instances of this application. The tests were run multiple times with different numbers of invocations of Primes and using different number of thread settings for ColdFusion Server. This was done to establish how ColdFusion handles JAVA.



To be able to use JAVA together with ColdFusion the ColdFusion server needs to be configured. This is done by installation of JAVA components on the server and configuring ColdFusion to use the jvm.dll. Also the java classes to be called are put on the CF server.

When using JAVA no new process (i.e. java.exe) is started on the server; everything is handled within the ColdFusion process. The ColdFusion server handles threads, memory resources etc.

## 2.2. Results

The results of the tests:

No of clients	No of CPUs used 100%	No of threads initially	Total execution time
1	1	1 used, 7 free	10 s
4	4	4 used, 4 free	10 s
8	4	8 used, 0 free	20 s
12	4	8 used, 0 free, 4 waiting	30 s
16	4	8 used, 0 free, 8 waiting	40 s
20	4	8 used, 0 free, 12 waiting	50 s

The results clearly show that each Primes invocation is taking up all resources it can get hold of (i.e. 100% CPU utilization). 4 primes invocations running simultaneously on a 4-processor server will cause 100% processor utilization. If all threads are in use the next application (even if it's non-JAVA) has to wait until one thread is free. ColdFusion is using a JVM which is run within the ColdFusion session. If the JVM crashes or locks the ColdFusion server will crash and lock too. To be able to run the ColdFusion server again it has to be stopped and restarted.

## 2.3. Conclusions

ColdFusion does not control the JAVA CPU usage. There is a risk for instability if the JAVA program is using all available resources or if it crashes. STB have contacted Macromedia and they have confirmed that this is the case. Even if this is not within the scope of this study, according to Macromedia, ColdFusion 5 has the same problems.

General recommendation is do not create ColdFusion applications that are calling and/or utilising JAVA components. Since ColdFusion is using a JVM that is running within the ColdFusion session, and there is no way to control the behaviour of the JVM, the usage of JAVA object calls from within ColdFusion is to be considered dangerous.

If there are absolutely no other solutions than using JAVA, you should be aware of the multi-threading issues.

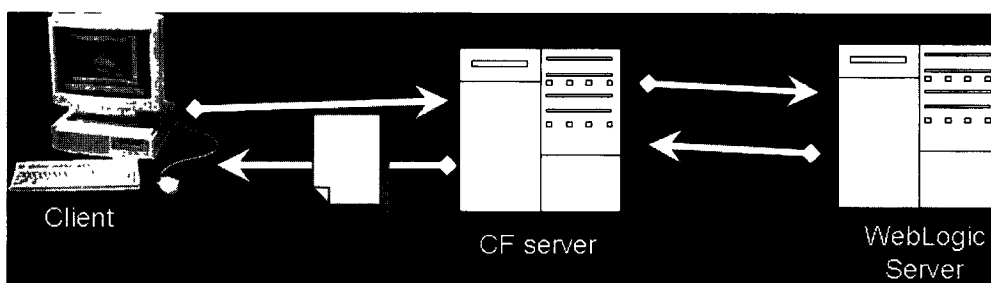
## 3. ColdFusion and EJB Test

### 3.1 Scenario

A simple test application (PrimesEJB) was created. This JAVA program is based on the Primes application used in the JAVA testing but modified so that it is accessing business logic using Enterprise JAVA Beans (EJB). The EJBs are stored and run on a separate BEA WebLogic server.

The procedure is as follows:

- The client requests a ColdFusion page that is using JAVA components
- The ColdFusion server calls the WebLogic server
- The WebLogic server runs the EJB and returns the result to the ColdFusion server
- The ColdFusion server creates and returns the page to the client



### **3.2. Results**

The aim was to repeat the same type of tests as we had done when testing ColdFusion and JAVA. We found that ColdFusion and EJBs only work in a single user scenario. When two or more simultaneous users are trying to access the same EJBs ColdFusion locks and shows an error message. When trying to invoke multiple simultaneous requests the ColdFusion server crashes and has to be restarted.

This is not a problem with the EJBs since they work perfectly when accessing them using a pure JAVA client. This problem has been reported to Macromedia but no solution has been found by them.

### **3.3. Conclusions**

It's not possible to have two or more simultaneous users accessing the same Enterprise JAVA Beans (EJBs) running on an external server. The invocation of multiple simultaneous requests results in a ColdFusion server crash. Until Macromedia has resolved this issue it's not possible to have ColdFusion calling external EJBs in a multi-user environment.

**Mattias BERGDAHL**  
**DI / STB**

# DIRECTION INFORMATIQUE

Directeur	F. GARCIA MORAN
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01 Conseil et Evaluation Technique	J.-P. WEIDERT
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- Chef de secteur "Conseil"	T. GROEMER
- Chef de secteur "Evaluation"	J. LEONARD
02 Services et Relations Clients	K. DE VRIENDT
03 Support technique et Bureautique	J. MARIN NAVARRO
Chef adjoint d'unité	J.-P. LAMBOT
04 Support des systèmes d'information	J.-F. BLEROT (f.f.)
Chef adjoint d'unité	J.-F. BLEROT
- Chef de secteur "Systèmes Administratifs Institutionnels"	A. TOSETTI (f.f.)
05 Télécommunications et Réseaux	M. JORTAY (f.f.)
Chef adjoint d'unité	M. JORTAY
06 Data Centre	D. DEASY
Chef adjoint d'unité	A. BODART

<i>DG</i>	<i>IRM Information Ressources Manager</i>	<i>Position de l'informatique dans l'organigramme</i>	<i>SA System Administration</i>	<i>SU Support Utilisateurs</i>	<i>DV Développement</i>	<i>ISO Informatics Security Officer</i>
<b>SG</b>	F. KODECK	Unité directement rattachée au Secrétaire général	P. RUYS	P. RUYS	C. DUJARDIN / M. ABECASIS	C. DUJARDIN
<b>SJ</b>	E. MÜLLER	Dans Unité horizontale	L. ACKERMANS	B. VANOPDENBOSCH	F. WOUTERS	J. GRUNWALD
<b>PRESS</b>	D. MAC CANN	Dans unité	L. GEORGES	L. GEORGES	D. MAC CANN	
<b>ECFIN Bxl ECFIN - SOF</b>	P. HIRN F. HOLLMANN	Unité rattachée au Directeur général adjoint Rattachée au Directeur SOF	R. DRUINE / A. FUSO P. KERRACHER / W. KERSCHENBAUER	C. SMYTH F. HOLLMANN	P. HIRN F. HOLLMANN	P. HIRN M. JONCKERS
<b>ENTR</b>	W. BEURMS		J. DEGREVES			S. NONNEMAN
<b>COMP</b>	J. PUIG SAQUES	Unité rattachée au Directeur général	M. LENART	D. RILLO MILLAN	J.-L. OLIVIER	
<b>EMPL</b>	Ph. DEWAELE		O. DUFOUR	K. VAN IN	E. DERRUINE	H. DROULEZ
<b>AGRI</b>	G. VLAHOPOULOS	Unité dans direction horizontale	P. BAGUET	P. BAGUET	G. POENSGEN / M. SALVI	G. VLAHOPOULOS
<b>TREN</b>	A. MAMBOURG	Dans Unité horizontale	P. SIMONS	W. SELDERS	T. REMY	A. MAMBOURG
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<b>TREN - OCS</b>	H. KSCHWENDT		T. LIMBACH	N. DAVIES	H.-G. WAGNER	H.-G. WAGNER
<b>ENV</b>	T. CUNNINGHAM	Unité dans Direction horizontale	E. VANDERLINDEN	P. FOULART	E. PHILIPPAERTS	T. CUNNINGHAM
<b>RTD</b>	D. GOULD	Unité rattachée directement au Directeur	C. SACK	C. SACK	M. BURES	A. DE BACKER
<b>JRC</b>	R. ROSS	Unité rattachée au Directeur général	S. MOTA / P. SOLER	S. MOTA	P. SOLER	R. SOUSA
<b>INFSO</b>	B. DE BRUIJN	Unité rattachée au Conseiller principal	H. DE SADELEER V. GARCIA-BLANES	H. DE SADELEER	A. HANSRAJ	H. DE SADELEER A. DUNNING
<b>FISH</b>	A. SILVA	Unité rattachée au Directeur général	K. DE PAUW	C. VANHOVE	F. DOM	L. BOERAERVE
<b>MARKT</b>	S. VAZQUEZ SOUTO	Service dans unité	P. VAN DE STEEN	G. KNIPPENBERG	F. OTERO ARCEO	S. VASQUEZ SOUTO
<b>REGIO</b>	M. BOTMAN	Unité dans Direction horizontale		A. VERBIST		
<b>TAXUD</b>	I. DASCALU	Unité dans Direction horizontale	A. RAW	A. PENING	G. ROSSIGNOL G. DE JAEGHER	A. PENING
<b>EAC</b>	S. SMITH	Unité dans Direction horizontale	T. GIJSELINCK	S. SMITH	R. JANSEN	R. JANSEN
<b>SANCO Bxl SANCO Lux.</b>	F. CENTURIONE		F. VAN-OOST S. DEHENNAULT	M. RUIZ J.-F. WIOLAND	J. HARTIKKA J. LEBEAU	M. SACRE J. LEBEAU
<b>JAI</b>	L. WAGNER	Dans unité rattachée au Directeur général	L. ANDRIAENSEN P. D'ANELLO	G. GIAMBARRESI	F. VAN WYNSBERGHE	L. WAGNER
<b>RELEX</b>	M. KEYMOLEN	Unité dans Direction horizontale		R. AGUDO VIVAS	F. VILA APARICIO	
<b>TRADE</b>	P. RUYS	Unité rattachée au Directeur général	V. GIULIANA	T. BOUCHEZ	J.-L. COBBAERT	

<b>DG</b>	<b>IRM</b> <i>Information Ressources Manager</i>	<i>Position de l'informatique dans l'organigramme</i>	<b>SA</b> <i>System Administration</i>	<b>SU</b> <i>Support Utilisateurs</i>	<b>DV</b> <i>Développement</i>	<b>ISO</b> <i>Informatics Security Officer</i>
<b>DEV</b>	B. LAVOREL	Dans unité rattachée à un Directeur	P. ENGELHARDT	B. LAVOREL	C. DEFAAZ	P. ENGELHARDT
<b>ELARG</b>	J. LOCQUET	Dans unité rattachée au Directeur général	J. CORIJN	J. CORIJN		J. CORIJN
<b>AIDCO</b>	J. HAĀK	Unité rattachée au Directeur	I. JOWETT	C. LEHKY	R. BORSELLI	J. HAĀK
<b>ECHO</b>	E. SOETEWY	Dans unité horizontale	A. MEKROM J. TEMMERMAN	A. MEKROM J. TEMMERMAN	S. ZARKALI/ M. FAIRCLOUGH	E. SOETEWY (f.f)
<b>ESTAT</b>	D. DEFAYS	Unité dans Direction horizontale	N. ZILLIOX / D. BONAERT	N. ZILLIOX / E. OLSEN	G. PONGAS	P. CONSTANT
<b>ADMIN</b>	H. VANTILBORGH					
<b>BUDG</b>	J.-P. BUISSERET	Unité rattachée au Directeur général	C. HEYMANS / F. DE MEES	G. VANDERMEULEN	H. PUTSEYS	A. VAN GEEL
<b>FC</b>	J. REMUÑAN	Dans unité rattachée au Directeur général	D. VAN ROMPAEY	A. DI VITA	H. KARMAN	A. CABALLERO
<b>IAS</b>	T. ZIOLKOWSKI					
<b>OLAF</b>	K. LARSSON	Unité dans direction opérationelle	I. MARCIAS SANCHEZ	I. MARCIAS SANCHEZ	F. NOËL / K. DRYLLERAKIS	I. WALTON-GEORGE
<b>SCIC</b>	A. D'HOEKERS		G. VAN DEN EEDE	R. ALABRESE	H. LAAKSONEN	C. ELIAS
<b>SDT-Bxl</b> <b>SDT-Lux</b>	J.L. COBBAERT	Unité rattachée au Directeur général	A. STYLINANIDIS	H. CAPLEN M. BIRCHEN	B. LOGNONE J.-M. LEICK	C. BASTIEN
<b>OPOCE</b>	DÖLL F.	Unité rattachée au Directeur général	F. DEBART	C. SCHMIT	P. SCHMITZ	Manita LOGAN

## AUTRES RESPONSABLES POUR L'INFORMATIQUE DANS LES D.G.

	<b>Responsable</b>
<b>ADMIN / SPS</b>	L. VOORHAM / G. BREMAUD
<b>ADMIN 01</b>	P. JIMENEZ
<b>ADMIN / D05 Infrastructure et support Bxl</b>	G. CUCE
<b>ADMIN / D05 Infrastructure et support Lux</b>	J. CRELOT
<b>IDA</b>	M. FINNETI
<b>PRESS</b>	L. LIESENS
<b>SANCO / FVO (Dublin)</b>	F. Mc GOVERN
<b>ISPRA JRC</b>	S. MOTA

## AUTRES RESPONSABLES POUR L'INFORMATIQUE DANS LES AGENCES

Agence	Ville	Responsable	E-mail
Office de l'Harmonisation dans le Marché intérieur	ALICANTE	F. GARCIA-VALERO	Francisco.Garcia@OAMI.eu.int
Fondation européenne pour l'amélioration des conditions de vie et de travail	DUBLIN	T. SHEEHAN	cts@eurofound.ie
Centre européen pour le développement de la formation professionnelle	THESSALONIKI	L. TOSSOUNIDIS	lt@cedefop.GR
Agence européenne pour l'environnement	COPENHAGUE	H. SAARENMAA	Hannu.Saarenmaa@eea.eu.int
Agence européenne pour l'évaluation des médicaments	LONDRES	M. ZOURIDAKIS	michael.zouridakis@emea.eudra.org
Fondation européenne pour la formation	TURIN	I. CUMMING	ian.cumming@etf.eu.int
Observatoire européen des drogues et toxicomanies	LISBONNE	M. CARVALHOSA	Manuel.Cavalhosa@emcdda.org
Centre de traduction des organes de l'Union Européenne	LUXEMBOURG	B. HAWES	Bernard.Hawes@cdt.eu.int
Agence européenne pour la sécurité et la santé au travail	BILBAO	R. FRESNENA	fresnena@osha.eu.int
Office communautaire des variétés végétales	ANGERS	J.L. CURNIER P. LECOQ	curnier@cpvo.eu.int lecoq@cpvo.eu.int



<b>Budget Informatique 2001 sur Titre A-5 &amp; Postes A-4300 et A-4302</b>
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(en euros)

DG	TOTAL
SG <sup>(1)(2)</sup>	4,592,090
SJ	407,270
PRESS	567,967
ECFIN	1,390,040
ENTR	1,518,661
COMP	1,004,930
EMPL	551,140
AGRI	1,691,201
TREN	1,134,013
TREN-AAE	63,360
ENV	762,008
RTD	140,000
INFSO	362,370
FISH	333,414
MARKT <sup>(1)</sup>	458,056
REGIO	302,050
TAXUD	692,800
EAC	1,006,480
SANCO	1,167,467
JAI	346,533
RELEX <sup>(2)</sup>	1,518,295
TRADE	928,600
DEV	616,020
ELARG	486,441
AIDCO	1,474,994
ECHO	512,046
ESTAT	2,853,370
ADMIN <sup>(2)</sup>	6,729,620
BUDG	3,321,150
FC + IAS	841,898
SDT	2,343,494
Dépenses communes	22,970,000
Dépenses non facturables	200,000
<b>TOTAL DG</b>	<b>63,287,778</b>
Services Centraux	22,978,762
Bureau de sécurité	491,585
<b>TOTAL Services Centraux</b>	<b>23,470,347</b>
Autres Institutions, CCR	152,478
Infrastructure fin d'année	591,397
<b>GRAND TOTAL A-5, A-4300 et A-4302</b>	<b>87,502,000</b>

(1) Transfert de l'allocation pour IRMS de MARKT vers SG 2,095,000

(2) dont en attente des documents justificatifs (IRMS, TEMPEST, SYSPER2) 3,332,900

<b>Ressources humaines selon les Schémas Directeurs 2000-2001</b>							
<b>Centre de ressource</b>	<b>Management Informatique</b>	<b>Entretien des Systèmes d'Information</b>	<b>Développement des Systèmes d'Information</b>	<b>Assistance aux utilisateurs</b>	<b>Entretien de l'infrastructure opérationnelle</b>	<b>Développement de l'infrastructure opérationnelle</b>	<b>Total</b>
<b>SG</b>	4.50	2.25	3.00	3.25	4.25		17.25
<b>SJ</b>	2.00	0.30	0.70	1.60	1.00	0.70	6.30
<b>PRESS</b>	1.00		1.00	2.00			4.00
<b>ECFIN</b>	2.00	2.00	2.50	1.50	1.50	0.50	10.00
<b>ECFIN-SOF</b>	2.50	1.50	1.50	1.50	2.00	1.00	10.00
<b>ENTR</b>	7.00	3.00	3.00	6.00	4.00	4.00	27.00
<b>COMP</b>	1.00		5.00	4.00		3.00	13.00
<b>EMPL</b>	2.00	1.00	1.00	4.00	2.00		10.00
<b>AGRI</b>	4.00	4.50	5.50	5.50	2.50	3.00	25.00
<b>TREN</b>	3.00	1.00	2.00	4.00	4.00		14.00
<b>TREN-OCS</b>	1.00	1.00		2.00	2.00		6.00
<b>TREN-AAE</b>	0.25	0.10	0.20	0.20	0.40		1.15
<b>ENV</b>	2.00	1.00	4.00	6.00	2.00		15.00
<b>INFSO</b>	6.50	6.00	1.50	5.50	6.00	6.50	32.00
<b>FISH</b>	4.75	1.75	2.75	2.05	1.50	0.20	13.00
<b>MARKT</b>	2.00	0.50	0.50	5.00	3.00		11.00
<b>REGIO</b>	7.00	1.50	3.50	4.00	1.00		17.00
<b>TAXUD</b>	15.50	3.00	11.00	1.00	2.00	1.00	33.50
<b>EAC</b>	3.00	2.00	3.00	5.00	2.00	2.00	17.00
<b>SANCO</b>	5.00	2.00	1.00	4.00	3.00		15.00
<b>JAI</b>	1.00			2.00	1.50	0.50	5.00
<b>RELEX</b>	1.50	1.50	1.50	3.16	0.66	0.68	9.00
<b>TRADE</b>	2.00	1.00	2.00	3.00	1.00	1.00	10.00
<b>DEV</b>	3.00	1.00	2.00	1.00	1.00	1.00	9.00
<b>ELARG</b>	1.00	0.25	0.25	0.25	0.25		2.00
<b>SCR</b>	4.00	4.30	3.70	1.00	4.00		17.00
<b>ECHO</b>	1.00	1.00	1.00	0.50	0.50	1.00	5.00
<b>ESTAT</b>	6.00	7.00	6.00	11.00	7.00	3.00	40.00
<b>ADMIN</b>	7.00	20.00	7.00	13.00	6.50	6.50	60.00
<b>BUDG</b>	4.00	6.00	5.00	7.00	3.00	1.00	26.00
<b>AUDIT</b>	1.71	1.20	1.40	2.90	1.40	0.20	8.81
<b>SDT</b>	7.00	5.00	5.00	26.00	8.00	3.00	54.00
<b>TOTAL</b>	115.21	82.65	87.50	138.91	78.96	39.78	543.01

## Projets d'Infrastructure

(situation au 22/06/2001)

Nom	Projets			Planification		
	Objet	Chef de projet	Programme/ Responsable	Phase active (2)	Fin de la phase active	Mise en service (3)
<b>INSEM2</b>	INTERINSTITUTIONAL ELECTRONIC MAIL-2	G TEKOLSTE	DI	PO	6/01	
<b>INSEM3</b>	INTERINSTITUTIONAL ELECTRONIC MAIL-3 OPTIMAIL (Best e-mail usage) SECEM (Secure e-mail)	G TEKOLSTE G TEKOLSTE G TEKOLSTE	DI DI DI	OP CO CO	12/2001 12/2001	1/2001
<b>EUROPA</b>	DIFFUSION DE L'INFORMATION	P DE CONINCK	DI	OP		1996
<b>EUROPA 2</b>	ARCHITECTURE DE DIFFUSION WEB CONTENT MANAGEMENT	P DE CONINCK	DI	CO FS	10/2001 2002	
<b>ADONIS</b>	ADMINISTRATION DES DOCUMENTS ADONIS V5 0 9 ADONIS-Web V1 2	R RINKENS	DI	OP		06/2001
<b>LEGISWRITE</b>	PREPARATION DES DOCUMENTS LEGISLATIFS Version 4 5 Codification/Refonte	R RINKENS	DI	OP		1999
<b>SIC</b>	Gestion des Personnes, Congés, Missions Version 6 6 1 e-HRMS	J CARRASCOSA		OP DEV		05/2001 06/2001
<b>SYSLOG - Formation</b>	Gestion de la Formation	A TOSETTI		OP		
<b>SICMOB</b>	GESTION DES BIENS MOBILIERS V/1,11A	A TOSETTI	DI	OP		1997
<b>ELS</b>	GESTION DES BIENS ET HELPDESK V/2,12 T V/2,12T2 INVENTAIRE FINANCIER (ELS V220)			OP OP OP		1997 1997 1998
<b>DIR</b>	DIRECTORIES Annuaire interinstitutionnel (X500) Annuaire Commission (LDAP) Single sign-on Meta-directory	C FRASER	DI / IDA	OP CO PA PA		1997 2000/2001 2001/2002 2001/2002
<b>SNET</b>	CARRIER NETWORK (SNET Optical infrastructure) INTERNET REMOTE ACCESS	M JORTAY M JORTAY	DI DI	RI CO	03/2002 06/2002	2002 2002

**Légendes:**

- (1) les modifications par rapport à la version précédente sont indiquées par un \*  
 (2) PA préanalyse, FS/EF étude de faisabilité, DEF définition, CO construction, RI running-in, OP opérationnel  
 (3) en cas de PA et de FS, la date de mise en service est donnée à titre indicatif ("E")

# PROGRAMMES DE FORMATION INFORMATIQUE

Le catalogue et le calendrier des actions de formation sont accessibles sur:

EUROPA*plus*                      <http://www.cc.cec/di/slf/forum/forum.htm>

EUROPATeam                      <http://www.europateam.cc.cec>

Quoi de Neuf?

Attention, une nouvelle adresse dans le bottin de Route400 a été attribuée au Forum. Vous nous trouverez désormais sous:

ADMIN-BXL FORUM INFORMATIQUE

ADMIN-LUX FORUM INFORMATIQUE

D'autre part, une nouvelle application (SYSLOG WEB FORMATION) est mise en production limitée pour les DG pilotes. Cette application permet au personnel de ces DG de remplir en ligne les demandes de participation aux formations informatiques et de consulter les contenus et la programmation des cours informatiques de la DG et du Forum, ainsi que les demandes qui ont été introduites antérieurement. Les procédures administratives actuelles demeurent cependant d'application, en attendant la mise en place d'un système de signature électronique. L'application sera mise en production généralisée vers la fin de cette année. Pour l'instant, elle n'est disponible que pour les DG ENTR, TRANS, INFISO, SANCO, SCR et SDT et est accessible en cliquant sur ce lien ou sur l'icône au bas de la barre de menu, à gauche.

Le user name et le password qui vous seront demandés sont identiques à ceux qui sont exigés pour accéder à INTERNET.

J.-L. BROUSMICHE

## PLANIFICATION DES MARCHES

Rapporteur: Mme. GILLIERON

Situation au 24 avril 2001

**La planification des marchés couvre uniquement les contrats communs les plus importants, les contrats spécifiques étant pris en charge par les DGs elles-mêmes (voir note D(97))**  
**Les contrats terminés y figurent jusqu'à leur date de terminaison + 1 année**

### Notice explicative

#### 1. Services techniques d'ADMIN DI - abréviations

- 1 - CET Conseil et Evaluation Technique
- 2 - SRC Services et Relations Clients
- 3 - STB Support Technique et Bureautique
- 4 - SSI Support des Systèmes d'Information
- 5 - TR Télécommunications et Réseaux
- 6 - DC Data Centre

#### 2. Mentions sous "Action":

- Décision en mm.aaaa (en moyenne 8 mois avant la fin du contrat si appel d'offres - 4 mois si négociation)
- Appel d'offres
- Négociation

#### 1. Services techniques d'ADMIN D/2 - abréviations

SCL Support Contractuel et Logistique

Description	Contrat actuel			Contrat futur - DI	
	Contractant	Echéances (prolongation par avenant)	Remarques	Contrat futur - prochaines actions (4 mois)	Contact DI
<b>1 PRODUITS</b>					
<b>1.1 HARDWARE AND OPERATING SYSTEMS</b>					
PC PORTABLES	DI/00854 SYSTEMAT	12/2/01	- Intennstitutionnel (source EP) - Contrats signés suite à un appel d'offres - Lot 1 Portables traditionnels		
	DI/01012 ECONOCOM	19/04/2001 19/04/2002	- Intennstitutionnel (source EP) - Lot 2 Portables avec docking station	Prolongé jusqu'au 19/04/2002	
EQUIPEMENT MOBILE			- AO ouvert - Intennstitutionnel - Division en plusieurs lots	- A commencer ASAP, Contrat à prévoir pour 11/2001 - Contrat Canal - 4 parts - Ultra light, light palm, service	STB (Lambot)
PC DESKTOP	DI/00765 GETRONICS	13/08/2001 13/08/2002	- Intennstitutionnel - Contrat signé suite à un appel d'offres - acquisitions limitées jusqu'au 13/08/99	A prolonger jusqu'au 13/08/2002 pour maintenance et services	STB (Lambot)
PC DESKTOP	DI/01382 SIEMENS	13/12/2001 13/12/2002 13/12/2004 13/12/2005 13/12/2006	- Contrat signé suite à un appel d'offres - acquisitions limitées jusqu'au 13/12/2002 - maintenance jusqu'au 13/12/2004 avec prolongation possible jusqu'au 13/12/2006	Décision en 9/2001 concernant prolongation	STB (Lambot)
SERVEURS NT (DGs)	DI/00764 COMPAQ (ex DIGITAL)	10/08/2001 10/08/2002	- Intennstitutionnel - Contrats signés suite à un appel d'offres - acquisitions limitées jusqu'au 10/08/99	A prolonger jusqu'au 10/08/2002 pour upgrades, maintenance et services	STB (Lambot)
SERVEURS NT (DGs)	DI/01282 SIEMENS S A	18/11/2001 18/11/2002 18/11/2003	- Intennstitutionnel - Contrats signés suite à un appel d'offres - acquisitions peut être prolonger avec des term de 3 mois jusqu'au 18/11/2002 - maintenance peut être prolonger avec des term de 3 mois jusqu'au 18/11/2007	A prolonger l'acquisitions avec 1 an jusqu'au 18/11/2002	STB (Lambot)
SERVEURS UNIX (DGs)	DI/00266 BULL	12/31/03	- Contrats signés suite à un appel d'offres - Acquisitions limitées jusqu'au 31/12/1998, sauf	remplaces par contrats DI/01362 et DI/01363 [suite au AO DI/9905 conjoint pour les DGs et le DC (Sincom2)] Prolongations approuvées par CCAM pour maintenance jusqu'au 31/12/2003, <b>sauf pour ICL.</b>	STB (Lambot)
	DI/00389 COMPAQ (ex DIGITAL)	12/31/03	SUN (Firewalls, Terlate DG II jusque fin 12/99)		
	DI/00009 ICL	12/31/00			
	DI/00069 NCR	12/31/03			
	DI/00436 GETRONICS	12/31/03			
	DI/00012 SIEMENS BUSINESS SERVICES	12/31/03			
	DI/00678 SUN	12/31/03			
SERVEURS UNIX - Mid-range (DGs)	DI/01362 SUN	18/01/2002 18/01/2003 18/01/2004	- Intennstitutionnel (ESC, CdR, 1Agence) - Contrat signé suite à AO DI/9905 Serveurs UNIX [AO conjoint pour les DGs et le DC (Sincom2)] - acquisitions limitées jusqu'au 18/01/2004 et maintenance etc, avec 3 extensions d'un an, limité jusqu'au 18/01/2007	Décision en 10/2001 concernant prolongation	STB (Lambot) DC (Ellis)
SERVEURS UNIX - High-end (DGs + DC)	DI/01363 HEWLETT PACKARD Belgium	15/12/2001 15/12/2002 15/12/2003	- Intennstitutionnel (ESC, CdR, 1Agence) - Contrat signé suite à AO DI/9905 Serveurs UNIX [AO conjoint pour les DGs et le DC (Sincom2)] - acquisitions limitées jusqu'au 15/12/2003, et maintenance etc, avec 3 extensions d'un an, limité jusqu'au 15/12/2006	Décision en 10/2001 concernant prolongation	STB (Marin) DC (Deasy/Ellis)
SERVEURS UNIX (Data Centre)	DI/01034 SIEMENS NIXDORF	04/11/2002 04/11/2003	Contrat signé suite à un appel d'offres	Décision en 9/2002 concernant prolongation	DC (Deasy)
	DI/00698 AMDAHL	9/23/01	Lot 2 Statistiques Lot 4 Bases Données Lot 5B Backup, archives	Décision à prendre	
	DI/00701 BULL	10/21/00	Lot 3 Applications documentaires	Contrat fini le 21/10/2000 C S jusqu'au sept 2001	
SYSTEMES PROPRIETAIRES (Data Centre)	DI/00013 SIEMENS NIXDORF	4/26/00	SYSPER, PAIE, applications locales	Contrat fini le 26/04/2000 C S jusqu'au 2002, contrat à renegocier, asap	DC (Ellis)
	DI/01242 AMDAHL	25/11/2001 25/11/2002	EUROFARM, CARE, GARFIELD, SYSTRAN, TIC-TOC	Décision en 9/2001 concernant prolongation	DC (Deasy)
ROBOT BACKUP (Data Centre)	DI/00612 STORAGETEK	26/11/2002 26/05/2003	Contrat signé suite à un AO suivi d'une procedure negociée	Décision en 9/2001 concernant prolongation	DC (Nosbusch)
ROBOT BACKUP (Data Centre)	DI/xxxx STORAGETEK	3 + 2*	Contrat à signer suite à AO DI/0008 RBU	Signature en route	DC (Nosbusch)
IMPRIMANTES	DI/00434 SIEMENS NIXDORF	31/01/2002 pour acquisition et 31/01/2005 pour maintenance	Contrats signés suite à un appel d'offres Lot 1 Imprimantes individuelles N&B Lot 2 Imprimantes individuelles couleur Lot 5 Imprimantes portables	AO PRINT 0103 en préparation - interinstitutionnelle - contrat prévu pour 02/2002	STB (Tortonesi/Lambot)

Description	Contrat actuel			Contrat futur - DI	
	Contractant	Echéances (prolongation par avenant)	Remarques	Contrat futur - prochaines actions (4 mois)	Contact DI
	DI/00427 GETRONICS	31/01/2002 pour acquisition et 31/01/2005 pour maintenance	Lot 3 Imprimantes réseau N&B		
SCANNERS	DI/00694 HEWLETT PACKARD	1/14/01	Choix de HP suite à l'appel d'offres GED (solutions complètes hw + sw)	Procédure négocié asap pour renouvellement contrat. et AO SCAN 0104 pour contrat prévu pour 02/2002	STB (Tortonese/Lambot)
TELECOPIEURS (FAX)	DI/01383 CANON	31/12/2000 partie fax 30/06/2001	- Contrat signé suite à un procédure négocié - le contrat est la suite du contrat <b>DI/00488</b> - Signature des CS pour location des fax limitées jusqu'au 31/12/2000	AO FAX 0102 en préparation - interinstitutionnelle - contrat prévu pour 10/2001	SCL (Allgayer)
PHOTOCOPIEURS Distribués	DI/00703 MINOLTA	30/06/2001 02/02/2002	Contrats signés suite à un appel d'offres lot 1 B/W Table top (1er rang cascade) lot 2 Colour low production (1er rang cascade) lot 3 B/W Medium large (2ème rang cascade) lot 4 B/W High production 2ème rang cascade)	A Prolonger jusqu'au 02/02/2002 AO COPY 0101 en préparation - interinstitutionnelle - contrat prévu pour 10/2001	SCL (Allgayer)
	DI/00705 LANIER (ex AGFA)	30/06/2001 03/02/2002	lot 2 B/W Small (1er rang cascade) lot 3 B/W Medium small (1er rang cascade) lot 5 B/W Large (2ème rang cascade) lot 9 Colour low production (2ème rang cascade)		
	DI/00706 CANON BENELUX	30/06/2001 03/02/2002	lot 4 B/W Medium large (1er rang cascade) lot 5 B/W Large (1er rang cascade) lot 6 B/W High production (1er rang cascade) lot 10 Colour high production (1er rang cascade) lot 2 B/W Small (2ème rang cascade) lot 3 B/W Medium small (2ème rang cascade)		
PRINSCHOPS, DGs et ADMIN	DI/00707 OCE	30/06/2001 02/02/2002	lot 7 Mid-range printshop (1er rang cascade) lot 12 Multifunction (1er rang cascade)		Atelier (Price)
	DI/00709 XEROX	30/06/2001 02/02/2002	lot 8 Large printshops (1er rang cascade) lot 10 Colour high production (2ème rang cascade) lot 12 Multifunctional (2ème rang cascade)		Atelier (Price)
(Atelier production)				AO HICOP 0105 en préparation - contrat prévu pour 03/2002	Atelier (Price)
DICTAPHONES	DI/01000 UHER INFORMATIK (ex ASSMANN)	6/23/01	Uniquement maintenance	[voir si nécessité de lancer un AO pour les nouvelles acquisitions]	SCL (Allgayer)
MICROFICHES (lecteurs/reproducteurs)	DI/00730 AARDUE-REGMA	29/04/2001 29/04/2002	Contrat signé suite à un AO	Prolonge jusqu'au 29/04/2002 AO a préparer 10/2001	
SMARTCARDS (hw + sw)	DI/00679 UTIMACO	5/21/01	Contrats signés suite à un appel d'offres Lot 1 Smartcards, sécurité et sw Lot 2 Lecteurs/reproducteurs + sw Lot 3 L'braires/outils de développement	Decision d'action a prendre <b>ASAP</b>	STB (Lambot)
	DI/00680 BULL	5/21/99	Lot 4 Termiaux utilisant les smartcards Le contrat n'a pas été prolongé	Contrat fini le 21/05/2000, <b>décision nouveau AO à prendre en 2001</b>	
	DI/00681 CAP GEMINI (ex CAP VOLMAC)	5/21/01	Lot 5 Equipements de personnalisation (screencheck)	Contrat fini le 21/05/2000, <b>décision nouveau AO à prendre en 2001</b>	
<b>1.2 NETWORK AND TELECOMMUNICATION PRODUCTS</b>					
EQUIPEMENTS TELECOM canal distribution)	DI/00771 COMLIN	07/08/2001 07/08/2002	Contrats signés suite à un appel d'offres Lot 1 Ethernet (1er rang cascade) Lot 2 ATM switching (1er rang cascade)	A prolonger jusqu'au 07/08/2002, Nouveau AO en preparation	TR (Krommes)
	DI/00789 TELEPHONIE/ALCATEL	11/05/2001 11/05/2002 11/05/2003	Lot 1 Ethernet (2ème rang cascade) Lot 2 ATM switching (2ème rang cascade)	Decision d'action a prendre <b>ASAP</b>	TR (Krommes)
INSEM 3 (New E-Mail)	DI/01059 SIEMENS NIXDORF et INTRASOFT (CONNECTIV@)	13/04/2002 13/04/2003 13/04/2004	Contrat signé suite à un appel d'offres	Decision en 05/2001 concernant prolongation	DC (Deasy)
				AO Equipement téléphonique a préparer	TR (Cardon)
STATIONS GESTION/ MONITEURS RESEAUX	DI/00487 HEWLETT PACKARD représ par Agilent DI/01425/00	23/01/2001	Contrat signé suite à une procédure négociée	Contrats fins Pas de prolongation	TR (Krommes)
FIREWALL (Sw securite)	DI/00678 SUN	12/31/03	- Contrat signé suite à un appel d'offres - Acquisitions limitées au 31/12/1999, (voir remarque sous "Servers UNIX") - Acquisition possible via COMLIN	Prolonge pour maintenance avec procédure CCAM [une analyse du marché concernant un logiciel complémentaire est en cours]	TR (Krommes)
<b>1.3 OFFICE AUTOMATION AND DOCUMENT MANAGEMENT</b>					
SOFTWARE MICROSOFT (PC/serveurs)	DI/01118 et DI/01122 MICROSOFT IRELAND OPERATIONS Ltd	19/08/2002 19/08/2003	Contrats signés suite à une procédure négociée - Interinstitutionnelle - DI/01118 "Microsoft Enterprise SELECT Agreement" - DI/01122 "Microsoft Select MASTER Agreement" - (DI/01116 Distribution via canal SIEMENS S A - voir sous "support logistic")	Décision en 06/2002 concernant prolongation	STB (Mann)
	DI/01119 MICROSOFT BELGIUM	08/08/2002 08/08/2003	- Contrat de services - Contrat signé suite à une procédure négociée	Decision en 06/2002 concernant prolongation	
SOFTWARE NETSCAPE (intranet/Internet)	DI/01042 NETSCAPE	12/31/01	- Contrats signés suite à une procédure négociée - Licence du sw via NETSCAPE - Distribution via COMSOL	Neant [sera sans objet des la mise en place du nouveau système de courrier électronique]	DC (De Coninck)
	DI/01043 COMSOL	12/31/01			
<b>1.4 INFORMATION SYSTEM INFRASTRUCTURE</b>					
ORACLE	DI/01445 ORACLE	4/29/04	- Contrat signé suite à une procédure négociée - Suite du contrat DI/00417 - Interinstitutionnel et complexe	Neant	STB (Ruiz de la Torre)
ADABAS (produits pour DBMS)	DI/00174 SOFTWARE-AG	12/31/01	- Contrat signé suite à une procédure négociée	Decision en 06/2001	DC (Ellis)
SEARCH SERVER	DI/01486 FULCRUM	3/30/03	- Contrat signé suite à une procédure négociée - Suite du contrat DI/00629 - Interinstitutionnel	Neant	STB (Ruiz de la Torre)
DORIS (sw migration CELEX)	DI/001056 EVER	12/28/03	Contrat signé suite à une procédure négociée	Neant	DC (De Coninck)
DORIS (Data base management)	DI/01970 OFFIS	02/04/2004 02/04/2005 02/04/2006	- Contrat à signer suite à l'appel d'offres DI/0010 - Utilisation au Data Centre	Neant	DC (De Coninck)
DORODOC (edms)	DI/00339 DOROTECH	6/14/02	Contrat signé suite à un appel d'offres	Decision en 06/2001	STB (Mann)
POWERBUILDER	DI/01568 (en remplacement de DI/00615) SYBASE	3/24/03	- Interinstitutionnel - Contrat signé suite à une procédure négociée	Neant	STB (Ruiz de la Torre)
SAS	DI/01069 SAS INSTITUTE	4/30/02	Contrat signé suite à une procédure négociée	Neant	STB (Ruiz de la Torre)
FAME (Time series support in statistical domain)	DI/01610 (en remplacement de DI/00428) FAME INFORMATION SERVICE	31/12/2003 31/12/2004 31/12/2005	- Contrat signé suite à une procédure négociée - Renegocié en 2000 pour nouveau contrat	Neant	STB (Ruiz de la Torre)
ACUMEN (On-line analytical processing software)	DI/00433 KENAN	12/31/01	- Contrat signé suite à un appel d'offres - Renegocié m-98 - Utilisation au Data Centre et à l'OPCE	Decision ASAP	STB (Ruiz de la Torre)
TROLL (Sw pour la modelisation numerique)	DI/00109 INTEX	12/31/01	- Contrat signé suite à une procédure négociée - Licences du sw TROLL - Utilisation dans les DGs	Decision ASAP	STB (Ruiz de la Torre)

Description	Contrat actuel			Contrat futur - DI	
	Contractant	Echéances (prolongation par évènement)	Remarques	Contrat futur - prochaines actions (4 mois)	Contact DI
	DI/00646 HENDYPLAN	12/31/01	Services associés au sw TROLL		
Operating system + SW + associated services pour AMDAHL au Data Centre	DI/00836 IBM	31/12/2001 31/12/2002	Contrat/CS signé suite à une procédure négociée	Decision prolongation en 10/2001	DC (Deasy)
SW utilisés sur AMDAHL au Data Centre ( AutoActon)	DI/00432 COMPUTER ASSOCIATES	12/31/01	- Contrat signé suite à une procédure négociée - Division contrat suite à la décision du "DoJ" (U S A ) - Contrat DI/01527 avec Allen Systems	Decision prolongation en 6/2001	DC (Deasy)
SW utilisés sur AMDAHL au Data Centre ( AutoMedie, Autosys/zeke)	DI/01527 ALLEN SYSTEMS	12/31/01	- Contrat signé suite au decision Court de justice - Reprise des produit du contrat DI/00432 avec Computer Associates	Decision prolongation en 6/2001	DC (Deasy)
SW utilise sur AMDAHL au Data Centre (BETA)	DI/00749 BETA SYSTEMS	31/12/2001 31/12/2002	Contrat signé suite à une procédure négociée	Decision prolongation en 10/2001	DC (Deasy)
SW utilise sur AMDAHL au Data Centre (OMMEGAMON)	DI/00153 CANDLE BENELUX	30/11/2001 30/11/2002	Contrat signé suite a une procedure negociée	Décision prolongation en 9/2001	DC (Deasy)
BUSINESS OBJECTS (outil de requête SQL pour utilisateurs finaux) ASSYST (Gestion des incidents Help Desk)	DI/01015 BUSINESS OBJECT  DI/01384 AXIOS	2/24/02  12/31/01	Contrat signé suite a une procedure negociée  - Contrat signé suite a une procédure negociée - continuation du contrat DI/00457	Neant  A entamer procedure negociée en attendant nouvelle AO	STB (Ruiz de la Torre)  SCR (De Vriendt)
MULTILIS	DI/00341 DATA RESEARCH (ex MULTILIS)	indéterminée	Contrat signé suite à un appel d'offres en 92	Fin contract a preciser AO à preparer	SRC (De Vriendt)
ARCVIEW (Système d'information géographique pour desktop DGIS)	DI/01021 EUROSENSE/ESRI	22/12/2001 22/12/2002	Contrat signé suite à un appel d'offres	Pas de prolongation prévue pour 2002	STB (Ruiz de la Torre)
ARCINFO (Système d'information géographique pour stations UNIX)	DI/00369 EUROSENSE/ESRI	12/31/01	Contrat signé suite a un appel d'offres	AO à preparer	STB (Ruiz de la Torre)
<b>2. SOUS-TRAITANCE COMMUNE</b>					
DEVT ET MAINTENANCE SYSTEMES D'INFORMAT	DI/00773 AMBRASOFT	21/09/2001 21/09/2002	Contrats signes suite à un appel d'offres Lot 3 Dév/maint syst inf (4eme rang cascade)	Prolongations des contrats prévues jusqu'au 21/09/2001(sauf BULL) AO DI/0005-ESP. date clôture pour offres 23/04/2001, signature contrat prévu 07/2001	CET (Wedert, Leonard)
	DI/00774 BULL	21/09/2001 21/09/2002	Lot 5 Maint syst inf proprnè (4eme rang cascade)		
	DI/00775 CSC	21/09/2001 21/09/2002	Lot 3 Dev/maint syst inf (3ème rang cascade)		
	DI/00776 LOGICA	21/09/2001 21/09/2002	Lot 5 Maint syst inf proprnè (1er rang cascade)		
	DI/00777 ATOS (ex MARBEN)	21/09/2001 21/09/2002	Lot 1 - Etudes (1er rang cascade) Lot 3 Dév/maint syst inf (1er rang cascade) Lot 6 Services syst inf (2eme rang cascade)		
	DI/00778 WANG (ex OLSY)	21/09/2001 21/09/2002	Lot 4 Dev/maint syst diffusion (2eme rang cascade)		
	DI/00779 SEMA GROUP	21/09/2001 21/09/2002	Lot 6 Services syst Inf (1er rang cascade) Lot 1 Etudes (2ème rang cascade) Lot 4 Dev/maint syst diffusion (3ème rang cascade)		
	DI/00780 SIEMENS NIXDORF	21/09/2001 21/09/2002	Lot 5 Maint syst inf proprnè (3ème rang cascade)		
	DI/00781 SOPRA	21/09/2001 21/09/2002	Lot 2 Dév/maint petits syst inf (2eme rang cascade)		
	DI/00782 SYLIS	21/09/2001 21/09/2002	Lot 5 Maint syst inf proprnè (2ème rang cascade)		
	DI/00783 TRASYS	21/09/2001 21/09/2002	Lot 2 Dev/maint petits syst inf (1er rang cascade) Lot 4 Dev/maint syst diffusion (1er rang cascade) Lot 3 Dév/maint syst Inf (2eme rang cascade)		
LSA/DBA (Admin Serveurs et gestion syst. Information)	DI/00767 SIEMENS NIXDORF	03/08/2001 03/08/2002	Contrat signé suite a un appel d'offres	A prolonger jusqu'au 03/08/2002 (preparation AO 0107 IT-Support)	SRC (De Vriendt)
SUPPORT PC	DI/00768 SERCO (ex TECNODATA ITALIA)	1/3/03	Contrat signé suite a un appel d'offres	Prolonge de 29 mois a partir du 04/08/2000 jusqu'au 03/01/2003 (preparation AO 0107 IT-Support)	SRC (De Vriendt)
FORMATION INFORMATIQUE (end users)	DI/00769 KSI (futur SYNAPS)	22/07/2001 22/07/2002	- Contrats signés suite a un appel d'offres - Echéances a verifier - KSI 1er rang cascade	A prolonger jusqu'au 22/07/2002	SRC (De Vriendt)
FORMATION MS ou similaire (techniciens)				AO DI/0013 T-STD date clôture pour offres 09/04/2001, contrat prévu pour juillet 2001	STB (Gritsch)
IT SUPPORT				AO DI/0107 IT-support en preparation, contrat prévu pour juillet 2002	SRC (De Vriendt)
<b>3 SERVICE MIS À DISPOSITION PAR LES SERVICES TECHNIQUES</b>					
<b>3.1 ASSURANCE DE LA QUALITE</b>					
ADVISORY STRAT CONSULTANCY,	DI/00446 GARTNER GROUP	30/06/2000	Contrat signé suite à une procédure négociée,	Contrat termine le 30/06/2000 AO DI/0012 RACIST en preparation	CET (Hilbert)
	DI/01038 CSC COMPUTER SC	29/10/2001 29/10/2002 29/10/2003	Lot 6 Consultance gestion qualité	Neant	CET (Aves Lavado)
<b>3.2 TELECOMMUNICATION - Infrastructure</b>					
CALL DISPATCH	DI/00761 GETRONICS (ex-WANG, ex OLSY)	12/08/2001 12/08/2002	Contrats signés suite à un appel d'offres Lot 1 Call Dispatch pour les DGs (Bxles et Lux)	A prolonger jusqu'au 12/08/2002 (preparation AO 0107 IT-Support)	SRC (De Vriendt)
	DI/00763 BUREAU VAN DIJK	5/3/03	Lot 2 Call Dipatch Help Desk Central Bxl	Prolongé de 30 mois à partir du 04/11/2000 jusqu'au 05/05/2003 (preparation AO 0107 IT-Support)	SRC (De Vriendt)
Postes operateurs au standard téléphonique	DI/01071 (ancien 97/04/IX C 1) SIEMENS ATEA	31/12/2001 31/12/2002		A prolonger jusqu'au 31/12/2002	SRC (De Vriendt)
Vidéoconférence - maintenance	DI/01074 (ancien 97/10/IX D 1) TELINDUS	29/09/2001 29/09/2002		A prolonger jusqu'au 29/09/2002	SRC (De Vriendt)
Vidéoconférence rénovation équipement maintenance Lots 1 et 7	DI/01075 (ancien 97/10/IX D 1) TELINDUS	26/11/2001 26/11/2002 26/11/2003		A prolonger jusqu'au 26/11/2002	SRC (De Vriendt)
Vidéoconférence rénovation équipement maintenance Lots 2 et 3	DI/01078 (ancien 97/10/IX D 1) BELGACOM	17/12/2001 17/12/2002 17/12/2003		A prolonger jusqu'au 17/12/2002	SRC (De Vriendt)
Gestion des salles de téléconférence	DI/01076 (ancien 96/07/IX C 1) SIEMENS ATEA	2/28/02		Nouvelle AO en preparation contrat prévu pour fin 2001	SRC (De Vriendt)
EQUIPEMENTS AUDIOVISUELS				AO DI/0009 (exDI/ 9809) en preparation pour audiovisuel equipment (contrat prévu pour fin 2001)	SRC (De Vriendt, Broumsische)
Vidéoconférence rénovation	DI/01073 (ancien 97/10/IX D 1) TRANPLANET VIDEOCOM	11/30/01		Nouvelle AO DI/0110 en preparation, contrat prévu pour fin 2001	SRC (De Vriendt)

Description	Contrat actuel			Contrat futur - DI	
	Contractant	Echéances (prolongation par avenant)	Remarques	Contrat futur - prochaines actions (4 mois)	Contact DI
<b>3.3 COMMUNICATION - Autres</b>					
Contracts press et informations	plusieurs	vane	Contrats signés suite aux procédures négociées		SRC (De Vriendt Swartenbroux)
<b>3.3 SUPPORT BUREAUTIQUE</b>					
SUPPORT/DEVELOPT INFRASTRUCTURE	DI/01039 ARIANE II	04/11/2001 04/11/2002 04/11/2003	Contrats signés suite à un appel d'offres Lot 5 non attribué (support ingeniere sw) Lot 1 Support 2ème niveau et intégration serveurs PC	Decision prolongation en 8/2001	STB (Marin)
	DI/01036 DOKUMENTA	25/11/2001 25/11/2002 25/11/2003	Lot 2 Devel /support 2ème niveau office autom sw	Decision prolongation en 8/2001	
	DI/01040 SEMA GROUP	17/11/2001 17/11/2002 17/11/2003	Lot 3 Dével /support 2ème niveau systèmes distr sw	Décision prolongation en 8/2001	
<b>3.4 SYSTEMES ADMINISTRATIFS</b>					
SIC (Developpt maintenance et support)	DI/01029 SOPRA	09/09/2001 09/09/2002 09/09/2003	Contrats signés suite à un appel d'offres Lot 1 Maint dével et support infrastructure generale	Decision prolongation en 6/2001	SSI (Blerot)
	DI/01030 ARIANE II	09/09/2001 09/09/2002 09/09/2003	Lot 2 Maint et devel systèmes gestion Personnel Lot 3 Maint et devel systèmes gestion Finances	Decision prolongation en 6/2001	
	DI/01031 OFFIS	09/09/2001 09/09/2002 09/09/2003	Lot 4 Maint et devel systèmes gestion Logistique Lot 5 Maint et devel systemes gestion Documentaire Lot 7 Support systemes gestion Logistique	Decision prolongation en 6/2001	
	DI/01027 BUREAU VAN DIJK	09/09/2001 09/09/2002 09/09/2003	Lot 6 Support systèmes gestion Personnel/Finances	Décision prolongation en 6/2001	
	DI/01032 SEMA GROUP	09/09/2001 09/09/2002 09/09/2003	Lot 8 Support systemes gestion Documentaire	Décision prolongation en 6/2001	
<b>3.5 TRANSMISSION DE DONNEES</b>					
WAN (Wide Area Network)	DI/01051 BT Worldwide	03/02/2002 03/02/2003 03/02/2004 03/02/2005 03/02/2006 03/02/2007	Contrats signés suite à un appel d'offres Lot 1 IP network services Lot 2 Remote access services	Révision 04/2001	TR (Krommes)
	DI/01052 INNETH/JUNET BELGIUM	12/04/2002 12/04/2003 12/04/2004 12/04/2005 12/04/2006 12/04/2007	Lot 3 Liaison entre le réseau des institutions et Internet	Revision 04/2001	TR (Krommes)
				Nouveau AO a preparer (VPN technique)	TR (Jortay)
SECURITE RESEAUX (Systemes de securite)	DI00489 SEMA GROUP (ex TELIS)	12/22/00	Contrat signe suite a un appel d'offres	Pas a prolonger, fin du contrat 22/12/2000	TR (Krommes)
SURE (Support reseaux)	DI/00691 INTRASOFT	10/6/01	- Contrat signe suite a un appel d'offres - concerne DG IX et DI	A reprendre dans AO DI/0003 CISS	TR (Krommes)
Communication infrastructure and Services CISS (ancienOSS)		Signature contrat prévu pour 07/2001	- Stratégie, avis favorable CCAM n° 97/2000 - Avis de pré-info	- AO CISS date clôture pour offres 06/03/2001 - contrat prévu pour 07/2002	TR (Krommes)
SNET Gestion integree reseau	DI/01067 BELGACOM	17/02/2002 17/02/2003 17/02/2004 17/02/2005	Contrat signe suite à un appel d'offres	A prolonger jusqu'au 17/02/2003	TR (Krommes)
TELEPHONIE MOBILE (Lot 1)	DI/01547 MOBISTAR	04/07/2002 04/07/2003 04/07/2004 04/07/2005	- Interinstitutionnel - Contrat signé suite à un appel d'offres DI/9903	AO a preparer debutant 09/2001 (remarque de la CCAM pas à prolonger le contrat!)	TR (Krommes)
TELEPHONIE MOBILE (Lot 4 - Pagers)	DI/01567 EUROPARCOM	07/12/2002 07/12/2003 07/12/2004 07/12/2005	- Interinstitutionnel - Contrat signe suite a un appel d'offres DI/9903	Néant	TR (Krommes)
TELEPHONIE MOBILE (Lot 5 - Calling cards)	DI/01567 EUROPARCOM	07/12/2002 07/12/2003 07/12/2004 07/12/2005	- Interinstitutionnel - Contrat signe suite a un appel d'offres DI/9903	Néant	TR (Krommes)
TELEPHONIE VOCALE (Lot 2 - Outgoing nat calls in Belgium)	DI/01670 GLOBAL ONE	23/11/2003 23/11/2004 23/11/2005 23/11/2006/7/8	- Interinstitutionnel - Contrat signe suite a un appel d'offres DI/9901	Néant	TR (Krommes/Cardon)
TELEPHONIE VOCALE (Lot 3 - Outgoing internat calls Brussels)	DI/01671 BELGACOM	04/12/2003 04/12/2004 04/12/2005 04/12/2006/7/8	- Interinstitutionnel - Contrat signe suite a un appel d'offres DI/9901	Néant	TR (Krommes/Cardon)
TELEPHONIE VOCALE (Lot 4 - Outgoing nat calls in Luxembourg)	DI/01671 EPT	04/12/2003 04/12/2004 04/12/2005 04/12/2006/7/8	- Interinstitutionnel - Contrat signe suite à un appel d'offres DI/9901	Néant	TR (Krommes/Cardon)
TELEPHONIE VOCALE (Lot 5 - Outgoing internat calls Luxembourg)	DI/01690 EPT	23/11/2003 23/11/2004 23/11/2005 23/11/2006/7/8	- Interinstitutionnel - Contrat signé suite à un appel d'offres DI/9901	Néant	TR (Krommes/Cardon)
TELEPHONIE VOCALE (Lot 6 - Outgoing nat calls in France)	DI/01691 GLOBAL ONE	23/11/2003 23/11/2004 23/11/2005 23/11/2006/7/8	- Interinstitutionnel - Contrat signe suite a un appel d'offres DI/9901	Néant	TR (Krommes/Cardon)
CARRIER NETWORK SERVICE	DI/01850 BELGACOM		Contrat en signature suite a un appel d'offre DI/0006 (ex-DI/9911)	Néant	TR (Krommes)
PABX Private Access Branch Exchange (Telephone infrastructure)	DI/00416bis SIEMENS	05/07/2001	Service repris par la DI depuis le 01/01/1999	prolongation + AO NITS (New internal telephone services)	TR (Krommes)
Computer telephony Integration strategies	EUTELIS CONSULT 1077	10/09/2000	ancien contrat 96/35/IX C 1 Contrat signe suite à un appel d'offres	Pas de continuation	TR (Krommes)
Câblage a Luxembourg	DI/1089 COMPAQ	14/12/2001 14/12/2002	ancien contrat 97/06/IX C 1 Contrat signe suite à un appel d'offres	A prolonger jusqu'au 14/12/2002 (à titre conservatoire en attendant nouvel AO d'ADMIN/C)	TR (Krommes)
<b>3.6 DATA CENTRE</b>					
MICROMATION	DI/00729 KODAK	06/08/2001 06/08/2002	Contrats signés suite a un appel d'offres	A prolonger	DC (Deasy)
	DI/01890 STOCOMEST	15/01/2003	Contrat signé suite a une procédure négociée , (à la suite du contrat DI/00721 Mr-DATA MANAGT)	Néant	
QUALITY MANAGEMENT SOFTWARE	DI/00786 BMC SOFTWARE	19/10/2001 19/10/2002	Contrat signé suite à un appel d'offres	A prolonger	DC (Deasy)
SERVICES STD Services informatiques	DI/00766 EUROPEAN DYNAMICS	8/21/00	Contrat signé suite a un appel d'offres Lot 1 Support pour l'accès au Courrier électronique de la Commission Lot 2 attribué à un autre fournisseur et repris sous 3 1	Contrat terminé le 21/08/2000	DC (Deasy)



Description	Contrat actuel			Contrat futur - DI	
	Contactant	Déchéance / prolongation (par appel d'offres)	Remarques	Contrat futur - prochain action (à suivre)	Contact DI
AUTOSECURE	DI/00432 COMPUTER ASSOCIATES	12/31/99	Contrat signé suite à une procédure négociée Logiciel de sécurité	Pas de prolongation pour ce produit	DC (Deasy)
SW CC	pour mémoire	pour mémoire	Logiciels tournant exclusivement sur les ordinateurs du Data Centre (ex. IBM)	Pour mémoire (à réviser avec les contrats d'ordinateurs)	DC (Deasy)
SUPPORT TECHNIQUE (2)	DI/00780 SIEMENS NIXDORF	8/22/00	Contrats signés suite à un appel d'offres Lot 1 Support de systèmes UNIX	Contrat terminé. 2 CS encore jusqu'au 31/05/2001	DC (Deasy)
	DI/00759 INFOTHESES	9/21/00	Lot 2 Gestion des droits d'accès aux bases de données de la Commission	Contrat terminé le 21/09/2000	SRC (De Vriendt)
	DI/00758 OFFIS	8/28/00	Lot 3 Gestion des Bases de données MISTRAL	Contrat terminé le 28/08/2000	DC (Deasy)
	DI/00772 EUROPEAN DYNAMICS	10/8/00	Lot 4 Gestion des serveurs WWW	AO DI/9918 WSM en cours. contrat prévu pour fin mars 2001	DC (Deasy)
	DI/0xxx INTRASOFT		Contrat suite à l'AO DI/9918 WSM	Signature en route	
	DI/01970 OFFIS	02/04/2004 02/04/2005 02/04/2006	Contrat signature en cours suite à un appel d'offres AO DI/0010 DBM	Néant	DC (Deasy)
	DI/00812 BULL	10/22/00	Lot 5 Support du système d'exploitation GCOS8	Contrat terminé le 22/10/2000	DC (Deasy)
PRINTSHOP (Data Centre)	DI/00648 OCE	4/15/01	- Contrat signé suite à un appel d'offres - Contrat initial avec SIEMENS NIXDORF	Prolongé jusqu'au 15/04/2001 (Avis CCAM n° 512/2000 après procédure négociée)	DC (Deasy)
PRINTSHOP (Data Centre)	DI/01770 XEROX	00/00/2003 00/00/2004 00/00/2005	- Contrat à signer suite à AO 0001	Néant	DC (Deasy)
<b>3.73 SUPPORT LOGISTIQUE</b>					
LOGICIELS PC/SERVEURS (Canal distribution)	DI/01116 + DI/01117 SIEMENS S A	11/08/2002 11/08/2003 11/08/2004	- Interinstitutionnel - Contrat signé suite à un appel d'offres - DI/01116 = SW for MS products - DI/01117 = SW for other than MS products	Décision de prolongation en 07/2002	SCL (Peltgen/Gillieron)
GESTION DES STOCKS (Déménagements/gestion)	DI/01017 INTRASOFT	17/06/2001 17/06/2002 17/06/2003	Contrat signé suite à un appel d'offres	A prolonger jusqu'au 17/06/2002	SCL (Peltgen)
REVUES INFORMATIQUES (Abonnements)	DI/01058 EBSCO	31/01/2002 31/01/2003 31/01/2004	Contrat signé suite à un appel d'offres	Décision de prolongation en 09/2001	SCR(De Vriendt, Brousmiche)
LIVRES INFORMATIQUES (Achats)	DI/01079 DAWSON FRANCE	01/06/2002 01/06/2003 01/06/2004	Contrat signé suite à un appel d'offres	Néant	Ri (Bertrand/ Brousmiche)
EVACUATION PC	DI/0040 OXFAM	31/12/2003 31/12/2004 31/12/2005		AO DG ADMIN	SCL (Peltgen)

# Les **classes** de produits et les **statuts** de produits

Le product management a pour objet la gestion complète du cycle de vie des produits informatiques (identifiés par le nom et le numéro de version): la sélection, la mise en œuvre et le retrait.

La sélection d'un produit se fait en tenant compte des besoins collectifs des utilisateurs, de l'intégration technique avec l'architecture informatique et la base installée, et dans le respect des procédures d'acquisitions tout en veillant à un rapport coût opportunité optimum.

La mise en œuvre d'un produit couvre la commande, l'installation, la formation et le support.

Le retrait couvre le déclassement du produit et une stratégie de migration des applications qui l'utilisent.

Les produits informatiques sont répartis en trois familles:

«**Hardware and Operating System**» pour l'infrastructure de base, et «**Office automation and document management**» et «**Information systems infrastructure**» pour l'infrastructure de gestion de l'information. Au-dessus de ces familles de produits se construisent les systèmes de gestion de l'information dans le cadre du project management.

Le contenu de ces trois familles de produits est publié régulièrement. A chaque produit correspond un statut et une classe.

Les statuts suivants correspondent aux différentes étapes de la vie d'un produit:

**EV** s'applique aux produits en évaluation (tests, phases pilote) avec un support ad hoc éventuel, et à éviter de mettre en œuvre dans des environnements opérationnels. Les tests sont pilotés ou autorisés par un product manager et un rapport doit être produit.

**OP** s'applique aux produits opérationnels; le support est déterminé par la classe du produit.

**PO** s'applique aux produits en fin de cycle de vie technologique «phased out» dont le retrait est proche. Le support de ces produits est maintenu comme des produits OP, mais avec une tendance à la baisse et il est déconseillé d'investir dans leur utilisation.

**AD** s'applique aux produits à déclasser dans le cadre des procédures de déclassement applicables.

Les classes suivantes sont appliquées aux produits de statut OP et PO:

La classe **A** désigne les protocoles, interfaces et formats dont la mise en œuvre est obligatoire pour des raisons d'architecture.

La classe **B** désigne les produits d'intérêt général couvrant les besoins communs aux directions générales. La liste des produits offre un éventail raisonnable de produits permettant d'offrir le support central demandé et de couvrir les besoins. Pour des raisons d'efficacité du support, l'objectif est de sélectionner un seul produit de classe B (OP) par type de besoin.

La classe **C** désigne les produits correspondant à des besoins spécifiques dont il a été justifié qu'ils sont non couverts par les produits de classes A et B. Ces produits ne bénéficient pas d'un support garanti. Toutefois, si leur utilisation se généralise, le passage en classe B doit être étudié.

## Hardware and Operating Systems

Product family managers :  
P. Hirn DG ECFIN/ J.P. Lambot DI/3-STB  
2 juillet 2001

### LOCAL OPERATING SYSTEMS

Product name	Classe	Statut	Comments
Windows 95	B	PO	PC Portables
Windows NT Workstation 4.0	B	OP	PC Desktop + Portables
Windows NT Server 4.0	B	OP	Serveurs bureautiques
Windows NT Server 4.0	B	OP	Serveurs applicatifs / bases de données
Windows 2000 Professional	-	EV	PC Desktop + Portables
Windows 2000 Server & Advanced Server	-	EV	Serveurs bureautiques / applicatifs / bases de données
UNIX divers (*)	B	PO	Serveurs bureautiques
UNIX divers (*)	B	OP	Serveurs applicatifs / bases de données

(\*) : conformes au standard de jure ISO (POSIX 1003) complété par les spécifications UNIX 95<sup>TM</sup> de l'Open Group

### WORKSTATIONS and CLIENT OPERATING SYSTEMS

Product name	Operating systems	Classe	Statut	Comments
OLIVETTI M4-166	WINDOWS NT	B	AD/	Desktop
SNI Scenic Pro M5/166	WINDOWS NT	B	AD	Desktop
OLIVETTI M2-233 MT,	WINDOWS NT	B	AD/OP(1)	Desktop
OLIVETTI M6000 MT, M7000 MT	WINDOWS NT	B	OP	Desktop
SIEMENS Scenic 865	WINDOWS NT	B	OP	Desktop
SIEMENS Scenic XL	WINDOWS NT	B	OP	Desktop
SIEMENS Scenic L815ep, PM	WINDOWS NT	B	OP(*)	Desktop
OLIVETTI Echos 133S	WINDOWS 95	B	AD	Portable
SNI Scenic Mobile 700	WINDOWS 95	B	AD/OP(1)	Portable+Docking Station
TOSHIBA Satellite Pro 4xx CDT	WINDOWS NT	B	OP	Portable
TOSHIBA Tecra 8000 DMT	WINDOWS NT	B	OP	Portable
Toshiba Satellite Pro 4280, 4320, 4340	WINDOWS NT	B	OP	Portable
Toshiba Satellite Pro , 4600	WINDOWS NT	B	OP(*)	Portable
COMPAQ ARMADA 7770	WINDOWS NT	B	OP	Portable+Docking Station
COMPAQ ARMADA 7400	WINDOWS NT	B	OP	Portable+Docking Station
COMPAQ M700	WINDOWS NT	B	OP(*)	Portable+Docking station

(\*) Equipements pour les nouvelles acquisitions

(1) Seuls les PC desktop et portables de ce type acquis en 1997 ou avant sont classés AD (susceptibles de radiation de l'inventaire – sous réserve de bonne fin de la procédure de déclassement)

## Hardware and Operating Systems

Product family managers :  
P. Hirn DG ECFIN/ J.P. Lambot DI/3-STB  
2 juillet 2001

### LOCAL SERVERS

Product name	CPU Model	Operating systems	Classe	Statut	Comments
BULL Escala Mxxx, Dxxx, Rxxx	PowerPC	AIX 4 1	B	AD/OP(1)	
DIGITAL Prioris HX xxxxMP/Prioris ZX	Intel Pentium / PentiumPro	Windows NT/SCO OS 5	B	AD/OP(1)	
DIGITAL Server 7100	Intel PentiumPro	Windows NT/SCO OS 5	B	OP	
DIGITAL AlphaServer1xxx/4xxx/8xxx	DEC AXP	Digital Unix	B	AD/OP(1)	
HP NetServer 6/xxx and 5/xxx	Intel PentiumPro	Windows NT	B	AD(1)	Projets GED
HP9000 Dxxx/Kxxx Enterprise Server	PA – 7200, PA-8000	HP-UX	B	AD(1)	Projets GED
HP9000 (N4000 – CLASS)	PA – 8500	HP-UX	C	OP(*)	
ICL SuperServer Hxxxs/Kxxxs	Sparc	NX V7 Mplus	B	AD(1)	
NCR Entry Level Servers Sxx	Intel Pentium	UNIX SRV4	B	AD(1)	
NCR WorldMark 4xxx	Intel Pentium	UNIX SRV4	B	AD(1)	
OLIVETTI SNX Systema 460RS	Intel Pentium	SCO ODT3/ SCO OS 5	B	AD(1)	
OLIVETTI NetStrada 7000	Intel PentiumPro	Windows NT/SCO OS 5	B	AD(1)	
SNI Primergy xxx	Intel Pentium	SCO OS 5	B	AD(1)	
SNI Primergy 870-40	Intel Pentium III Xeon	Windows NT	B	OP	
SNI Primergy K400/N800	Intel Pentium III Xeon	Windows NT	B	OP(*)	
SNI RM 400-Cxx	Mips R4400 MC	Reliant UNIX 5.43	B	AD/OP(1)	
SNI RM 1000	Mips R4400	Reliant UNIX 5.43	B	AD/OP(1)	
SNI RM 300/600-Exx	Mips R10000	Reliant UNIX 5.43	B	AD/OP(1)	
SUN Enterprise 1/2 (UltraServer 1/2)	UltraSparc	SOLARIS 2.x	B	AD/OP(1)	
SUN Enterprise 3000/3500/4000/5000	UltraSparc	SOLARIS 2.x	B	AD/OP(1)	
SUN Enterprise 220R/250/420R/450	UltraSparc II	SOLARIS 2.x/7/8	B	OP(*)	

### CENTRAL SERVERS and OPERATING SYSTEMS

Product name	CPU Model	Operating Systems	Classe	Statut	Comments
AMDAHL GS-732	IBM System 390	OS/390 2.6	B	PO	DI-DC
	-				
BULL ESCALA R404	PowerPC	AIX 4.3	B	PO	DI-DC
BULL ESCALA EPC/S400	PowerPC	AIX 4.3	B	PO	DI-DC
DIGITAL Prioris ZX 6200	PentiumPro	Windows NT	B	OP	DI-DC
DIGITAL Server 7100MP	PentiumPro	Windows NT	B	OP	DI-DC
HP Superdome	PA-8600	HP-UX 11.i	B	OP	DI-DC
HP 9000 (N4000)	PA-8600	HP-UX 11 i	B	OP(*)	DI-DC
SIEMENS S-120	-	BS2000 - v10/ /OSD2/OSD3/OSD4	B	PO	DI-DC
SNI Primergy 870-40	Intel Pentium III Xeon	Windows NT	B	OP(*)	DI-DC
SNI RM 300	Mips R10000	Reliant UNIX 5.45	B	OP	DI-DC
SNI RM 600-E60/E70	Mips R10000	Reliant UNIX 5.45	B	OP	DI-DC
SNI RM 600-E80	Mips R12000	Reliant UNIX 5.45	B	OP	DI-DC
SUN 3000	SuperSparc	Solaris 2.6/Solaris 8	B	OP	DI-DC
SUN Enterprise 6000	UltraSparc	Solaris 2.6/Solaris 8	B	OP	DI-DC
SUN Enterprise 10000	UltraSparc	Solaris 2.6/Solaris 8	B	OP	DI-DC
SUN Enterprise 220-250/420-450	UltraSparc II	Solaris 8	B	OP(*)	DI-DC

(\*) Equipements pour les nouvelles acquisitions

(1) Seuls les serveurs acquis en 1997 ou avant sont classés AD (susceptibles de radiation de l'inventaire – sous réserve de bonne fin de la procédure de déclassement )

## Hardware and Operating Systems

Product family managers :  
P. Hirn DG ECFIN/ J.P. Lambot DI/3-STB  
2 juillet 2001

### PRINTERS

Product name	Operating systems	Classe	Statut	Comments
<b>Interface, protocol, standard</b>				
Adobe Postscript	-	A	OP	
HP-PCL 3, 4, 5 et 6	-	A	OP	
<b>Portable printers</b>				
HP DeskJet 310, 320	WINDOWS NT	B	AD	Portable; N&B; HP-PCL3
HP DeskJet 340, 340CBI	WINDOWS NT	B	AD/OP(1)	Portable; N&B; HP-PCL3
HP DeskJet 350C, 350CBI	WINDOWS NT	B	OP(*)	Portable; N&B; HP-PCL3
<b>Personal and small workgroup printers</b>				
HP DeskJet 510, 520, 540, 550, 600	WINDOWS NT	B	AD	Personal; N&B; HP-PCL3
HP DeskJet 1200	WINDOWS NT	B	AD	Personal; N&B; HP-PCL3
HP LaserJet IIIP	WINDOWS NT	B	AD	Personal; N&B; HP-PCL5
HP LaserJet 4L	WINDOWS NT	B	AD	Personal; N&B; HP-PCL5
HP LaserJet 5L, 5P	WINDOWS NT	B	AD/OP(1)	Personal; N&B; HP-PCL5
HP LaserJet 6L, 6P	WINDOWS NT	B	AD/OP(1)	Personal; N&B; HP-PCL5
HP LaserJet 1100	WINDOWS NT	B	OP	Personal; N&B; HP-PCL5
HP LaserJet 1200/1200N	WINDOWS NT	B	OP(*)	Personal; N&B; HP-PCL6 et Postscript
HP LaserJet 2100/2100TN/2100M	WINDOWS NT	B	OP	Small workgroup; N&B; HP-PCL6 ou Postscript
HP LaserJet 2200D/2200DT/2200DTN/2200DN	WINDOWS NT	B	OP(*)	Small workgroup; N&B; HP-PCL6 et Postscript
<b>Shared Black&amp;White printers</b>				
HP LaserJet IIISi	WINDOWS NT/UNIX	B	AD	Shared; N&B; HP-PCL3
HP LaserJet 4, 4M, 4P Plus, 4M Plus	WINDOWS NT/UNIX	B	AD	Shared; N&B; HP-PCL 5 ou Postscript
HP LaserJet 4Si/SiMX/V/MV	WINDOWS NT/UNIX	B	AD	Shared; N&B; HP-PCL 5 ou Postscript
HP LaserJet 5, 5N, 5M	WINDOWS NT/UNIX	B	AD/OP(1)	Shared; N&B ; HP-PCL 6 ou Postscript
HP LaserJet 5Si/SiMX	WINDOWS NT/UNIX	B	AD/OP(1)	Shared; N&B; HP-PCL 5 ou Postscript
HP LaserJet 4000/4000T/4000N/4000TN	WINDOWS NT/UNIX	B	OP	Shared; N&B, HP-PCL6 et Postscript
HP LaserJet 4050/4050T/4050N/4050TN	WINDOWS NT/UNIX	B	OP	Shared; N&B, HP-PCL6 et Postscript
HP LaserJet 4100/4100T/4100TN/4100DTN	WINDOWS NT/UNIX	B	OP(*)	Shared; N&B; HP-PCL 6 et Postscript
HP LaserJet 5000/5000N/5000GN	WINDOWS NT/UNIX	B	OP(*)	Shared; N&B, HP-PCL6 (A3) et Postscript
HP LaserJet 8000/8000N/8000DN	WINDOWS NT/UNIX	B	OP	Shared; N&B, HP-PCL6 (A3) et Postscript
HP LaserJet 8100/8100N/8100DN	WINDOWS NT/UNIX	B	OP	Shared; N&B, HP-PCL6 (A3) et Postscript
HP LaserJet 8150/8150n/8150dn	WINDOWS NT/UNIX	B	OP(*)	Shared; N&B, HP-PCL6 (A3) et Postscript

## Hardware and Operating Systems

Product family managers :  
P. Hirn DG ECFIN/ J.P. Lambot DI/3-STB  
2 juillet 2001

### PRINTERS (continued)

Product name	Operating systems	Classe	Statut	Comments
<b>Personal color printers</b>				
HP DeskJet 550C, 560C, 660C	WINDOWS NT	B	AD	Personal, color; HP-PCL3 (low-end)
HP DeskJet, 690C, 695C, 710C	WINDOWS NT	B	OP	Personal; color; HP-PCL3 (low-end)
HP DeskJet 840C, 850C, 870Cxi	WINDOWS NT	B	AD/OP(1)	Personal; color; HP-PCL3 (high-end)
HP DeskJet 890Cxi, 895Cxi, 970 Cxi	WINDOWS NT	B	OP	Personal; color; HP-PCL3 (high-end)
HP DeskJet 990 Cxi	WINDOWS NT	B	OP(*)	Personal; color; HP-PCL3 (high-end)
HP DeskJet 1100C, 1120C	WINDOWS NT	B	OP	Personal; color; HP-PCL3 (A3)
HP DeskJet 1220Cxi, 1220c/ps	WINDOWS NT	B	OP(*)	Personal; color; HP-PCL3 (A3) ou Postscript
<b>Shared color printers</b>				
HP DeskJet 1200C, 1600C	WINDOWS NT/UNIX	B	AD/OP(1)	Shared; color; HP-PCL3
HP DeskJet 2000C/2000CN	WINDOWS NT/UNIX	B	OP	Shared; color; HP-PCL3
HP Business Inkjet 2200xi	WINDOWS NT/UNIX	B	OP(*)	Shared, color; HP-PCL3
HP Business Inkjet 2250/2250tn	WINDOWS NT/UNIX	B	OP(*)	Shared; color; HP-PCL5 et Postscript
HP DeskJet 2500C/2500CM	WINDOWS NT/UNIX	B	OP(*)	Shared; color; HP-PCL5 et Postscript (A3)
<b>Other printers</b>				
MT 660/690	UNIX	B	OP	Imprimante à chaîne
OCE 66xx	UNIX	B	OP	HP-PCL3 ou Postscript
SNI 9014	WINDOWS NT	B	OP	Multicopy forms printing
TI (XL) PS 17/PS 35	UNIX	B	OP	Postscript
OLIVETTI DM 624	WINDOWS NT	C	OP	Multicopy forms printing

(\*) Equipements pour les nouvelles acquisitions

(1) Seules les imprimantes acquises en 1996 ou avant sont classées AD (susceptibles de radiation de l'inventaire -- sous réserve de bonne fin de la procédure de déclassement )

## Hardware and Operating Systems

Product family managers :  
P. Hirn DG ECFIN/ J.P. Lambot DI/3-STB  
2 juillet 2001

### SCANNERS

Product name	Operating systems	Classe	Statut	Comments
HP SCANJET IIP, IIIP	WINDOWS NT	B	OP	
HP SCANJET IIC, IICx, IIIC	WINDOWS NT	B	OP	
HP SCANJET 5P	WINDOWS NT	B	OP	
HP SCANJET 5100C, 6100C, 6200C, 6250C	WINDOWS NT	B	OP	
HP SCANJET 6300C/ 6350C/6390C	WINDOWS NT	B	OP(*)	
Fujitsu M309x/M409x series	WINDOWS NT/Unix	B	OP(*)	Projets GED, ADONIS

### BAR CODE READER AND PRINTER

Product name	Operating systems	Classe	Statut	Comments
PSC 5310 HP (PSC)	Handheld laser scanner	B	OP(*)	Projet ELS
Trakker 9440 (Intermec)	Handheld terminal	B	PO	Projet ELS
Janus 2010 (Intermec)	Handheld terminal	B	OP(*)	Projet ELS
Easycoder 3400 (Intermec)	Bar code printer	B	OP(*)	Projet ELS

### OFFICE EQUIPMENTS (fax, photocopier, ...)

Product name	Type	Classe	Statut	Comments
CANON L500, L600, L800	FAX	B	OP	
CITIZEN 440 DP	Office calculator	B	OP	
NASCO 2400	Office calculator	B	OP	
MINOLTA EP1050/EP 1083	Photocopier	B	OP	0- 5 Kcop/month 15 A4/m
AGFA X310	Photocopier	B	OP	5-20 Kcop/month 35 A4/m
CANON NP6050	Photocopier	B	OP	20-35 Kcop/month 50 A4/m
CANON NP6062	Photocopier	B	OP	35-55 Kcop/month 62 A4/m
CANON NP6085	Photocopier	B	OP	55-100 Kcop/month 85 A4/m
CANON CLC 700	Photocopier colour	B	PO	4-8 Kcop/month; 5 A4/m
CANON CLC 1000	Photocopier colour	B	OP	5-50 Kcop/month; 31 A4/m
MINOLTA CF 900	Photocopier colour	B	OP	< 5Kcop/month 6 A4/m
OCE 2600	Photocopier	B	OP	100-500 Kcop/month 100 A4/m
OCE 3165	Photocopier multi-fonction	B	OP	> 40 Kcop/month, 65 A4/m
RANK XEROX 5690	Photocopier	B	OP	> 500 Kcop/month 135 A4/m
RANK XEROX Docutech	Photocopier	B	OP	>500 Kcop/month 135 A4/m
Assmann M800, M205, MC8	REP. Cassette	B	OP	
DICTAPHONE 270	REP. Cassette	B	OP	
TRIUMPH-ADLER TA 400/TA 410	Typewriter	B	OP	

(\*) Equipements pour les nouvelles acquisitions

## Hardware and Operating Systems

Product family managers :  
P. Hirn DG ECFIN/ J.P. Lambot DI/3-STB  
2 juillet 2001

### LAN INTEGRATION PRODUCTS

Product name	Operating systems	Classe	Statut	Comments
NETBIOS	-	A	OP	
OLE 2.0	-	A	OP	
SMB	-	A	OP	
TCP/IP	-	A	OP	
WINSOCKETS	-	A	OP	
NFS	UNIX, BS2000, MVS/ESA, VM/ESA	B	OP	
HUMMINGBIRD NFS Maestro	WINDOWS NT Workstation	B	PO	
Diskshare Intergraph	WINDOWS NT Server	B	PO	
Advanced Server for Unix (Bull, NCR, SNI, SCO)	UNIX	C	PO	
VisionFS (SCO)	UNIX	B	PO	

### EMULATORS

Product name	Operating systems	Classe	Statut	Comments
3270	-	A	OP	
9750	-	A	OP	
Telnet	-	A	OP	
VT 220	-	A	OP	
X 11.5 or higher	-	A	OP	
X WINDOWS	-	A	OP	
eXceed/W	WINDOWS NT	B	OP	
LOG - WS (9750 emulator)	WINDOWS NT	B	OP	
RUMBA 3270	WINDOWS NT	B	OP	
TerWinal	WINDOWS NT	B	OP	

### SYSTEM MANAGEMENT PRODUCTS

Product name	Operating systems	Classe	Statut	Comments
SNMP	-	A	OP	
NetCon (Computer Associates)	WINDOWS NT	B	PO	
Aim IT (Computer Associates)	WINDOWS NT	B	OP	
Networker (Legato)	UNIX, WINDOWS NT Server	B	OP	
Alexandria (Sterling Software / Computer Associates)	PYRAMID UNIX DCOSx, SCO	C	OP	
Diskeeper (Executive Software)	WINDOWS NT Server	B	OP	
Quota manager (NTP Software)	WINDOWS NT Server	B	PO	
Quota Advisor (Wquinn Associates)	WINDOWS NT Server	B	OP	
O&O Defrag (O&O Software GmbH)	WINDOWS NT Workstation	B	OP	
Remote Desktop (Network Associates)	WINDOWS NT Workstation / Server	B	OP	
GHOST (Symantec)	WINDOWS NT Workstation / Server	B	OP	
Operation Manager suite & Administration products (NetIQ)	WINDOWS NT	B	OP	
Hyena (Adkins Resources)	WINDOWS NT	C	OP	
SMS (Microsoft)	WINDOWS NT Server	C	OP	Data Centre (CSD) et DG BUDG
Patrol (BMC Software)	Unix	C	OP	Data Centre (Monitoring and Alarm Management)
MSCS (Microsoft cluster)	WINDOWS NT Server	B	OP	
Unix cluster software (divers)	Unix	C	OP	
Double Take (Sterling Software/Computer Associates)	WINDOWS NT Server		EV	



## Hardware and Operating Systems

Product family managers :  
P. Hirn DG ECFIN/ J.P. Lambot DI/3-STB  
2 juillet 2001

### SECURITY

Product name	Operating systems	Classe	Statut	Comments
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#### Identification / Authentification renforcée

Carte à puce: SLE44CR80S (UTIMACO)	WINDOWS 95 / WINDOWS NT / UNIX		PO	Encore disponible
Carte à puce: SLE66CX160S (UTIMACO)	WINDOWS 95 / WINDOWS NT / UNIX	B	OP	
Lecteur Carte à puce UTI MACO CardMan II Compact (C2C-SER)	WINDOWS 95 / WINDOWS NT	B	OP	
Lecteur Carte à puce UTI MACO CardMan Mobile (C2C-PCC)	WINDOWS 95 / WINDOWS NT	B	OP	
DigiPass700	WINDOWS 95 / WINDOWS NT	C	OP	DI/TR

#### Journalisation, Monitoring, Alerte

Security Manager suite (NetIQ)	WINDOWS NT	-	EV	
INTRUDER ALERT (AXENT TECHN)	WINDOWS NT / UNIX		EV	Prend en compte un ensemble large de composants du SI (NT, UNIX, FireWall, Proxies, etc.) et comporte certaines fonctionnalités d'audit (CF. projet LAURE).
EVENT LOG MONITOR (TNT SOFTWARE)	WINDOWS 95, WINDOWS NT, UNIX (prévu)		EV	Plus orienté Logging (CF. projet LAURE).
NETWORK MONITORING SUITE (LANWARE)	WINDOWS NT		EV	Suite logicielle (CF. projet LAURE).
PATROL (BMC Software)	WINDOWS NT / UNIX		EV	Possibilité d'ajout de "Knowledge Modules" (cf. Projet LAURE).

#### Systèmes d'audit

TIGER-COPS	UNIX		PO	
TRIPWIRE	UNIX / WINDOWS NT	B	OP	Version commerciale
PC-UNIX-AUDIT	WINDOWS NT (Audit UNIX)	C	OP	Remplace TIGER-COPS
KANE SECURITY ANALYST	WINDOWS NT	C	OP	
SATAN	UNIX / WINDOWS NT		PO	
ISS-SCANNER (ISS)	WINDOWS NT (Audit UNIX, FireWall, Web)	C	OP	Usage sous contrôle SPS-SI
REALSECURE (ISS)	WINDOWS NT (FireWall, Audit Real Time)		EV	Par DI-TR / SPS-SI
NETRECON (AXENT)	WINDOWS NT (Audit UNIX, FireWall, Web)	C	OP	Usage sous contrôle SPS-SI

#### Sécurité physique (antivol)

SECUPLUS		C	OP	
LOCK-IT		C	OP	

#### Matériel

CRYPTOFAX		C	OP	Domaine classifié
Matériel TEMPEST		C	OP	Domaine classifié
DEGAUSSER	Démagnétiseurs pour supports magnétiques		EV	Par SPS/SI

## Office Automation and Documents Management

Product family managers:  
F. KODECK SG / C. D'ASCANIO DI-STB  
03 octobre 2001

### ARCHITECTURAL SPECIFICATIONS

Product name	Environnement (*)	Classe	Status	Comments
UNICODE		A	OP	
OLE 2.0		A	OP	
MS-Word97 file format	MS NT WS	A	OP	
MS-Excel97 file format	MS NT WS	A	OP	
MS-Powerpoint97 file format	MS NT WS	A	OP	
HTML 4 01	MS NT WS, Unix	A	OP	Europa / Europa + Recommandation de vérifier toujours la compatibilité d'affichage avec les différents navigateurs
CSS 1.0	MS NT WS, Unix	A	OP	Europa / Europa + Recommandation de vérifier toujours la compatibilité d'affichage avec les différents navigateurs
SGML	MS NT WS, Unix	A	OP	
Adobe PDF 1.3	MS NT WS	A	OP	Nouveau format introduit par Acrobat V.4 Voir note ci dessus

### WORD PROCESSING

Product name	Environnement	Classe	Status	Comments
Office 97 / Word 97	MS NT WS	B	OP	
Office 2000/ Word 2000 SR1	MS NT WS		EV	
Office XP/ Word 2002	MS NT WS		EV	

### SPREADSHEET

Product name	Environnement	Classe	Status	Comments
Office 97 / Excel 97	MS NT WS	B	OP	
Office 2000/ Excel 2000 SR1	MS NT WS		EV	
Office XP/ EXcel 2002	MS NT WS		EV	

### PRESENTATIONS

Product name	Environnement	Classe	Status	Comments
Office 97 / Powerpoint 97	MS NT WS	B	OP	
Office 2000/ PowerPoint 2000 SR1	MS NT WS		EV	
Office XP/ PowerPoint 2002	MS NT WS		EV	

### AGENDA

Product name	Environnement	Classe	Status	Comments
Outlook 2000	MS NT WS	B	OP	Projet INSEM 3 – version SR1 disponible
Office XP/ Outlook 2002	MS NT WS		EV	

### GRAPHICS TOOLS

Product name	Environnement	Classe	Status	Comments
VISIO 2000	MS NT WS	B	OP	Procédure écrite pour passage en Classe B
Corel Draw 8	MS NT WS	C	OP	
Adobe Photoshop 5	MS NT WS		EV	
INTERLEAF	UNIX, MS DOS	C	OP	
QuickSilver	MS NT WS	C	OP	Produit remplaçant Interleaf dans l'environnement NT. Demandé par la DG ECFIN.

## Office Automation and Documents Management

Product family managers:

F. KODECK SG / C. D'ASCANIO DI-STB

03 octobre 2001

### DOCUMENT EXCHANGE TOOLS

Product name	Environnement	Classe	Status	Comments
ACROBAT Reader V.5	MS NT WS		OP	Version qui permet l'affichage du format PDF 1.4
ACROBAT Reader V.4	MS NT WS	B	OP	Dernière version disponible : 4.05 (avec support pour la recherche)
ACROBAT Distiller V.3	MS NT WS	B	OP/PO	Passage en PO dès que la version 4 ou 5 passera en Classe B
ACROBAT Exchange V.3	MS NT WS	B	OP/PO	Passage en PO dès que la version 4 ou 5 passera en Classe B
ACROBAT V.4 (Authoring suite)	MS NT WS		EV	Ce produit a été retiré du marché par Adobe. Il a été remplacé par la version 5, qui passe en évaluation. Voir note sur le sujet aux IRM Juillet 2001
ACROBAT V.5 (Authoring suite)	MS NT WS		EV	

### VIEWERS

Product name	Environnement	Classe	Status	Comments
Quickview+ 6	MS NT WS	B	OP	
Quickview+ 5.11	MS NT WS	B	PO	Sera retiré dès pleine diffusion de la vers. 6

### MULTILINGUAL TOOLS

Product name	Environnement	Classe	Status	Comments
MF WINDOWS 5	MS NT WS	B	OP	Multilingual kit

### HTML AUTHORIZING TOOLS

Product name	Environnement	Classe	Status	Comments
FrontPage 2000	MS NT WS	B	OP	Les composants de Frontpage qui ne produisent pas du contenu html standard ne sont pas admis, ni supportés Dernière version recommandée : SR1
Office XP/ Frontpage 2002	MS NT WS		EV	
FrontPage 98	MS NT WS	B	PO	Les composants de Frontpage qui ne produisent pas du contenu html standard ne sont pas admis, ni supportés.
Eurolook/WEB	MS NT WS	B	OP	Convertisseur du format Word en HTML avec support pour la conversion des styles et des templates Eurolook. Nouvelle version 1.1 disponible depuis juin 2000 sur Softline et incluse dans la CRB 4.1
HoTMetal Pro	MS NT WS	C	OP	Pour usage spécifique

### WEB UTILITIES & TOOLS

Product name	Environnement	Classe	Status	Comments
Linkbot 5 Pro	MS NT WS	C	OP	Demandé par les Correspondants Europa
Linkbot Developer Edition	MS NT WS	C	OP	Demandé par les Correspondants Europa
WebTrends	MS NT WS	C		Logiciel de statistique pour les site web

### WEB BROWSERS

Product name	Environnement	Classe	Status	Comments
Internet Explorer 5	MS NT WS	B	OP	Dernière version recommandée : 5.5 SP1 plus security patch pour NIMDA
Netscape Communicator 4.7	MS NT WS	C	OP	
Netscape 6	MS NT WS		EV	
Internet Explorer 4	MS NT WS	C	PO	

## Office Automation and Documents Management

Product family managers:  
F. KODECK SG / C. D'ASCANIO DI-STB  
03 octobre 2001

### PLUG-INS

Product name	Environnement	Classe	Status	Comments
QuickTime 5	MS NT 4.x	C	OP	(2) Disponibilité du script d'installation DI pour Netscape 4.x et IE 5.x
QuickTime 4	MS NT 4.x	C	PO	Voir (2)
Live Picture Viewer 3.2	MS NT 4.x	C	OP	(1) Script d'installation disponible pour Netscape 4.x
Shock Wave Flash 6.0.1	MS NT 4.x	C	OP	Voir (1)
ViScape 5.62 SVR	MS NT 4.x	C	OP	Voir (2)
Neuron 5.02 Plug-in	MS NT 4.x	C	OP	Voir (1)
Real Player 7	MS NT 4 x	C	PO	Voir (2)
Real Player 8 – Intranet version	MS NT 4.x	C	OP	Voir (2)
Media Player 6	MS NT 4.x	C	OP	Voir (2) Pour version plus récente que celle qui vient avec IE 5.0
Media Player 8	MS NT 4.x		OP	Seulement le codec qui sera intégré au MediaPlayer 6

### PROJECT MANAGEMENT

Product name	Environnement	Classe	Status	Comments
MS-Project 98	MS NT WS	B	OP	
MS-Project 2000	MS NT WS		EV	Classe B à prévoir.

### ELECTRONIC MAIL

Product name	Environnement	Classe	Status	Comments
SendMail (UTI MACO)	MS NT WS		EV	En attente de la version pour Exchange/Outlook
Office XP/ Outlook 2002	MS NT WS		EV	
Outlook 2000 / Exchange 5.5	MS NT WS	B	OP	
Outlook Express 5	MS NT WS		EV	Seulement pour accès aux newsgroup

### COMMUNICATION/COLLABORATIVE TOOLS

Product name	Environnement	Classe	Status	Comments
NetMeeting 3	MS NT WS		EV	

### OCR

Product name	Environnement	Classe	Status	Comments
OMNIPAGE	MS Windows 3.1 / 95 / NT	C	OP	
TEXIRIS	MS Windows 3.1 / 95 / NT	C	OP	

### ADMINISTRATIVE SOFTWARE PACKAGES

Product name	Environnement	Classe	Status	Comments
Euroforms	MS NT WS	B	OP	
Eurolook 3.7 – 3.9	MS NT WS	B	PO	
Eurolook 4	MS NT 4.x	B	OP	Dernière version: 4 1
LegisWrite 4	MS NT WS	B	OP	Dernière version: 4 5

## Office Automation and Documents Management

Product family managers:

F. KODECK SG / C. D'ASCANIO DI-STB

03 octobre 2001

### SECURITY & CRYPTOGRAPHY TOOLS

Produit	Environnement	C	OP	Commentaire
SAFEGUARD SIGN & CRYPT (UTIMACO)	MS NT 4.x		EV/OP	Signature et chiffrement de fichiers et de message e-mail. Version intégrée avec le client INSEM 3 et l'environnement NT/OFFICE 97 Classe B à prévoir.
CryptWare User Agent – CUA (UTIMACO)	MS NT 4.x		EV/OP	PKI : générateur de clés et certificat. Version intégrée avec le client INSEM 3 et l'environnement NT/OFFICE 97 Classe B à prévoir.
SAFEGUARD Advanced (UTIMACO)	MS NT WS	C	OP	Protection renforcée du poste de travail
SAFEGUARD Easy (UTIMACO)	MS NT WS	C	OP	Protection du poste de travail (Portable) Boot protection et encryption du hard disk
Stoplock NT Boot Protector (PCSL)	MS NT 4.x		EV	Protection du poste de travail (Portable) Boot protection et encryption du hard disk
DiskNet (REFLEX)	MS NT WS	C	OP	

### ANTI-VIRUS

Produit	Environnement	C	OP	Commentaire
VIRUS SCAN SECURITY SUITE (Network Associates)	Voir <i>Comments</i>	B	OP	VirusScan Security Suite (VSS) comprend : - VirusScan pour les desktops (NT) - NetShield pour les serveurs de fichiers NT et Unix
SWEEP (SOPHOS)	MS NT WS	B	OP	Produit complet
F-Secure AntiVirus de F-Secure	MS NT WS	B	OP	Produit complet

## Information Systems Infrastructure

Product family managers:

W. BEURMS DG ENTR / R. RUIZ DE LA TORRE DI-STB

11 octobre 2001

### Middleware (connectivity)

Product name	Class	Status	Environments	Comments
Net 8	B	OP	MS Windows 95/NT, Unix	linked to Oracle 8
SQL* Net 2	B	PO	MS Windows 3.1/95/NT, Unix	linked to Oracle 7
SQL*Net 1	B	PO	MS Windows 3.1, Unix	to migrate, not supported
Tuxedo	C		Unix	used only in DG XXI
Object Transaction Server or application server		EV		REDIS II

### Data Base management systems

Product name	Class	Status	Environments	Comments
ORACLE 8.1	B	OP	Unix, Windows NT	
ORACLE 8.0	B	OP	Unix, Windows NT	
ORACLE 7.X	B	PO	Unix, Windows NT	Full support ends: 31/12/2000 Extended support ends: 31/12/2003
ORACLE 6.0	B	PO	Unix	not supported, migration to be planned
ADABAS C 2.2	B	PO	Unix	
ADABAS C 5.2	B	OP	BS2000, MVS	Running on PO OS
SQL Server	C	OP	Windows NT	Used as a black-box by a packaged application (to be used as it is)

### Retrieval and document management systems

Product name	Class	Status	Environments	Comments
SEARCHServer (Fullcrum)	B	OP	Unix, Windows NT	Windows NT evaluation to be done
ORACLE intermedia / CONTEXT	C	OP	Unix, Windows NT	
VERITY SEARCH	C	OP	Unix, Windows NT	only CC for Web indexing
ACTION WORKFLOW	B	OP	Windows 95/NT, Unix	Framework contract available
PANAGON 2000	B	OP	Windows 95/NT, Unix	Framework contract available
HYPERVAWE		EV	Unix, Windows NT	Prototype until end 98
DORIS		EV		to be used in CELEX
DORODOC	C	PO	Unix-Oracle	
BASIS	C	PO	CC: BS2000 Local : Unix	

### Configuration Management tools

Product name	Class	Status	Environments	Comments
MS VISUAL SOURCE SAFE	C	OP	MS Windows 95/NT	use specially with Microsoft tools
PVCS	C	OP	MS Windows 95/NT	Recommended use: large projects and co-ordination of several small projects

### 3<sup>rd</sup> generation languages

Product name	Class	Status	Environments	Comments
C, C++	B	OP	all OS	
JAVA	B	OP	all OS	REDIS II
APL	C	OP	Unix, Windows	used in EUROSTAT
MARKIT	C	OP	Unix, Windows	
COBOL	C	OP	All OS	
FORTRAN	C	OP	All OS	

## Information Systems Infrastructure

Product family managers:

W. BEURMS DG ENTR / R. RUIZ DE LA TORRE DI-STB

11 octobre 2001

### 4th generation Environment

Product name	Class	Status	Environments	Comments
ColdFusion	B	OP	MS Windows NT, Unix	
POWERBUILDER 6	B	OP ??	MS Windows 3.1/95/NT, Unix	
DEVELOPER/2000 2.0	B	OP	MS Windows 3.1/95/NT, Unix	Only Oracle context
VISUAL BASIC 6.0	B	OP	MS Windows 95/NT	Windows integration
MS-ACCESS 97	B	OP	MS Windows 95/NT	end-user tool
MS-ACCESS 97 and ODE	B	OP	MS Windows 95/NT	Office developer tool
NATURAL 2.2	B	OP	Mainframes	
NATURAL 2.2	B	PO	Unix	

### Case tools

Product name	Class	Status	Environments	Comments
POWERDESIGNER	C	OP	MS Windows 95/NT	training on demand
DESIGNER 2000 2.0	C	OP	MS Windows 95/NT	training on demand
Object oriented case tool				UML CASE tool evaluation

### Testing tools

Product name	Class	Status	Environments	Comments
WIN RUNNER	C	OP	MS Windows 95/NT	training on demand

### Project Management tools

Product name	Class	Status	Environments	Comments
MS-PROJET	B	OP	MS Windows 95/NT	Included in family 3

### Web servers

Product name	Class	Status	Environments	Comments
Enterprise Netscape 3.0	B	OP	Unix, Windows NT	
Internet Information Server 4.0	B	OP	Windows NT	REDIS II
Apache Web Server		EV	Unix	REDIS II

### Application servers

Product name	Class	Status	Environments	Comments
WebLogic	B	OP	Unix, Windows NT	

### Development environment

Product name	Class	Status	Environments	Comments
WebGain	B	OP	Unix, Windows NT	

## Information Systems Infrastructure

Product family managers:

W. BEURMS DG ENTR / R. RUIZ DE LA TORRE DI-STB

11 octobre 2001

### Statistical or data analyses software packages

On-line analytical process  
product, Data Decision Systems

Product name	Class	Status	Environments	Comments
SAS	B	OP	all platforms	
FAME	B	OP	Unix, Windows	No support available at DI
ORACLE EXPRESS	C	OP	Unix, Windows NT	
ACL	C	OP	Unix	DG XX, audit language
ACUMEN	C	OP	Unix	Eurostat, DG VII
TROLL	C	OP	Unix	DG 2, 12, 17B
AREMOS	C	PO	Unix	DG 2, Eurostat

### Advanced query an reporting tools

Product name	Class	Status	Environments	Comments
BUSINESS OBJECTS	B	OP	MS Windows 95/NT	
DISCOVERER 2000	C	OP	MS Windows 95/NT	

### Administrative software packages (external)

Product name	Class	Status	Environments	Comments
ASSYST	B	OP	Unix	Central Help desk tool
GLOBUS	C	OP	Unix	Financial package (DG II-SOF)
BAVARIA	C	PO	BS2000	Financial package, running in PO OS

### Administrative software packages (Internal)

*Strategy to be defined*

*To be discussed, which family*

Product name	Class	Status	Environments	Comments
SIC	B	OP	Windows 98/NT, Unix	
ADONIS	B	OP	Windows 98/NT, Unix	
SYSLOG	B	OP	Windows 98/NT, Unix	
SINCOM	B	OP	Windows 98/NT, Unix	
ELS/INVENTAIRE	B	OP	Windows 98/NT, Unix	
ELS/SICMOD	B	OP	Windows 98/NT, Unix	
SICMOB	B	OP	Windows 98/NT, Unix	

### Infrastructure information systems packages

Product name	Class	Status	Environments	Comments
MULTILIS	C	OP	Unix	
MILLENIUMS	C	OP	CC: MVS	Financial package, running in PO OS
IRC	C	OP	Unix	Web information dissemination
SAP	C	OP		



## Information Systems Infrastructure

Product family managers:

W. BEURMS DG ENTR / R. RUIZ DE LA TORRE DI-STB

11 octobre 2001

### Geographical information systems

Product name	Class	Status	Environments	Comments
ARCView	B	OP	Windows NT	no support available in DI
ARC/INFO	B	OP	Unix	no support available in DI
MAP INFO	C	PO	MS-Windows	no support available in DI

### Interface, Protocol, standard

Product name	Class	Status	Environments	Comments
DCE RPC	A	OP		
SQL 2	A	OP		
SQL3	A	EV		
ODBC 3	A	OP		
JDBC	A	OP		REDIS II
WINSOCKETS	A	OP		
HTTP 1.1	A	OP		
Corba IIOP	A	EV		REDIS II
DCOM	A	EV		REDIS II
SGML	A	OP		
HTML 3.2	A	OP		
DHTML	A	EV		REDIS II
J2EE	A	EV		REDIS II
XML	A	EV		XML Study
UNICODE 2.0	A	OP		

<b>COOPERATION ENTRE LA DI ET LES DG/SERVICES</b>
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<b>COMITES/GROUPES</b>	<b>PARTICIPANTS</b>	<b>Réunions prévues</b>
<b>COMITES</b>		
. GEBIS	Co-Présidents Rapporteur	Bertrand P. (BUDG)/J.P. Weidert (DI) Bertrand P. (BUDG)
	DG :*	SG,SJ,ENTR,ADMIN,INFSO,BUDG, ESTAT,AUDIT,DEV,EAC,FISH, TAXUD
. Comité Technique Informatique	Président Rapporteur	Garcia Moran P. (DI) De Vriendt K. (DI)
	DG :	Ouvert à toutes les DG
. Sous-Comité CTI "E-Commission Technological Platform"	Co-Présidents Rapporteurs	G. Benali (DI)/W. Beurms (ENTR)
. Cellule Evolution Stratégique	Co-Présidents Rapporteur	J.P. Weidert (DI) / Kodeck F.(SG) Garant P. (DI)
	DG :	SG,RELEX,ECFIN,ENTR,PRESS, INFSO,BUDG,EUROSTAT, SDT
. Cellule Systèmes d'Information	Co-Présidents Rapporteur	J.P. Buisseret (BUDG) / P.Garant (DI) P. Garant (DI)
	DG :	SG,TAXUD,ECFIN,ENTR,AGRI,FISH, AIDCO,BUDG,EUROSTAT, SANCO, EMPL, OLAF,ADMIN
. User Committee Adonis	Président Rapporteur	Blerot J.F. (DI) Blerot J.F. (DI)
	DG :	Ouvert à toutes les DG
. User Committee Forum SIC Map 2000	Co-Présidents Rapporteur	Brizzi. (DI) /Frutuoso Melo F. (ADMIN)
	DG :	Ouvert à toutes les DG
<b>* A ajouter : 4 IRM des DG qui, sur une base tournante, représentent leur "famille" de DG au sein du GCOM</b>		
<b>COMITES DE SUIVI DE PROJET DE SOUS TRAITANCE COMMUNE</b>		
. Formation bureautique	Chef de projet + Rapporteur	Gritsch M. (DI)
	DG	PRESS
. Local call dispatch	Chef de projet + Rapporteur	Debacker M. (DI)
	DG	DG utilisant ce contrat
. Support PC commun	Chef de projet + Rapporteur	Claes L. (DI)
	DG	DG utilisant ce contrat
<b>PRODUCT MANAGEMENT</b>		
. Equipements et systèmes d'exploitation (hardware and operating systems)	Co-managers + Rapporteurs	Lambot J.P. (DI) Hirn P. (ECFIN)
	DG	Ouvert à toutes les DG
. Bureautique individuelle et collective (Office automation and groupware)	Co-managers + Rapporteurs	D'Ascanio C. (DI) Kodeck F. (SG)
	DG	Ouvert à toutes les DG
. Infrastructure des systèmes d'information (Information systems infrastructure)	Co-managers + Rapporteurs	Ruiz De La Torre R. (DI) Beurms W. (ENTR)
	DG	Ouvert à toutes les DG

<b>COOPERATION ENTRE LA DI ET LES DG/SERVICES</b>
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<b>GROUPES</b>			
<b>.GED/WORKFLOW</b>	Co-Présidents Rapporteur	Blerot J.F. (DI) /Feidt M. (ESTAT) (DI)	
	DG :	SG,PRESS,ADMIN/SPS,INFSO, MARKT,BUDG,CCR,ESTAT	
<b>.Groupe des correspondants "Grefe 2000"</b>	Président Rapporteur	(SG) Scottini M. (SG)	
	DG :	Ouvert à toutes les DG	
<b>.Groupe de suivi du projet "Grefe 2000"</b>	Président Rapporteur	(SG) (SG)	
	DG :	SG,SJ,OPOCE,SDT	
<b>. Groupe de travail Formation informatique</b>	Président + Rapporteur	J.L. Brousmiche (DI)	
	DG	EMPL,DEV,ADMIN,PRESS,ENV, INFSO,MARKT,REGIO,BUDG, OPOCE,SJ	
<b>. Groupe technique interservices IDA</b>	Président Rapporteur	Finetti M. (IDA)	
	DG	Ouvert à toutes les DG	
<b>. Project Management</b>	Président Rapporteur	Dascalu Y(TAXUD)/Groemer T. (DI) Groemer T. (DI)	
	DG		
<b>. Groupe de travail "Active Directory Architecture"</b>	Président Rapporteur	M. Sonderkov (DI)	

# Calendrier

# 34/2001

concernant la coopération entre la DI et les DG / SERVICES

23.10.2001

<i>COMITES</i>				
	08.11.2001	15H00-17H00	VID BREY/JMO	Cellule Evolution Stratégique
	15.11.2001	16H00-18H00	VID BREY/JMO	Cellule des Systèmes d'information
	21.11.2001	10H00-17H30	A confirmer	Comité Technique Informatique

<i>GROUPES DE TRAVAIL</i>				
	08.11.2001	09H30-13H00	BUDG-BRE2 12/405	Groupe de travail "Formation Informatique" J.L. Brousmiche / A.Puers Tel. 55793/56193
	06.12.2001	09H30-13H00	JECL 7/1A	Groupe de travail "Formation Informatique" J.L. Brousmiche / A.Puers Tel. 55793/56193

<i>PRODUCT MANAGEMENT</i>				
	08.11.2001	10H00-12H30	CHARL S1	Product Family Office Automation and Document Management C. D'Ascanio / F. Kodeck

<i>PRESENTATIONS DEMONSTRATIONS / SEMINAIRES / FORUMS / COURS / AUTRES</i>				
	19.12.2001	13H15-14H45	A confirmer	Conférence de midi sur la sécurité informatique J.L. VERBRUGGEN Tel. : 33279



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