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# l'informatique diffuse : Etat de l'Art

## IBM Software et la mobilité

**Lotus** software



@business on demand software

Nestor Bonifas

Lotus software

# Agenda

- Introduction
- Les “Tiens dans la main”
- Les Réseaux
- Les solutions
- Exemple
- Conclusion



## Le « pervasive computing »

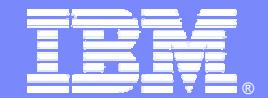
- Le phénomène
  - ▶ Réponse à des besoins réels exprimés par les entreprises
  - ▶ Réponse à des modes pour le grand Public
  - ▶ Mise en connexion des appareils électriques pour maintenance,télégestion ( domotique ,auto « intelligente »..
  - ▶ .... plus de différence entre sa vie privée et son travail
- Ce que recherchent les entreprises pour le professionnel qui se déplace
  - ▶ Efficacité et réduction des cycles
  - ▶ D'avantage d'interactions clients / fournisseurs
  - ▶ Optimiser la « relation » client
  - ▶ Communication & Localisation



## Tendances du marché mondial

- 500 Millions de téléphones mobiles fin 2004
- Taux de croissance du marché PDA 20% l'an
  - ▶ Les prix baissent
  - ▶ Les OS et fonctions de bases sont améliorés
  - ▶ Le multimédia : photo et musique et...
  - ▶ ...les PDA's communiquent (idem Grand Public/Professionnel)
  - ▶ .....convergence « **SMARTPHONE** »
  - ▶ Wireless : « le sans-fil »
    - BlueTooth
    - 802.11 (Wi-Fi)
    - GPRS et 3G (UMTS)
- Marché professionnel internet mobile : 160 Millions d'€ en 2008





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## Les « tiens dans la main »

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## Machines

- Portable: micro-ordinateur ou téléphone ??
- Tablette= micro-ordinateur tactilisé (Windows XP)
- PDA : assistant de poche
- Smartphone = Téléphone+PDA
- Equipements spécialisés: Scanners et lecteurs optiques
- Toute l'électronique embarquée
  - ▶ Véhicules              localisation
  - ▶ Appareillages          télémaintenance
  - ▶ Locaux                  télésurveillance



## Classement « fonctionnel »

- Trois familles :

- ▶ Machines à microbrowser
- ▶ Pagers et mobiles SMS
- ▶ PDA's phone / Smartphones



- Capacités et performances

- ▶ 400 Mhz CPUs (499€)
- ▶ 128MB Memory
- ▶ 1GB Micro Drive

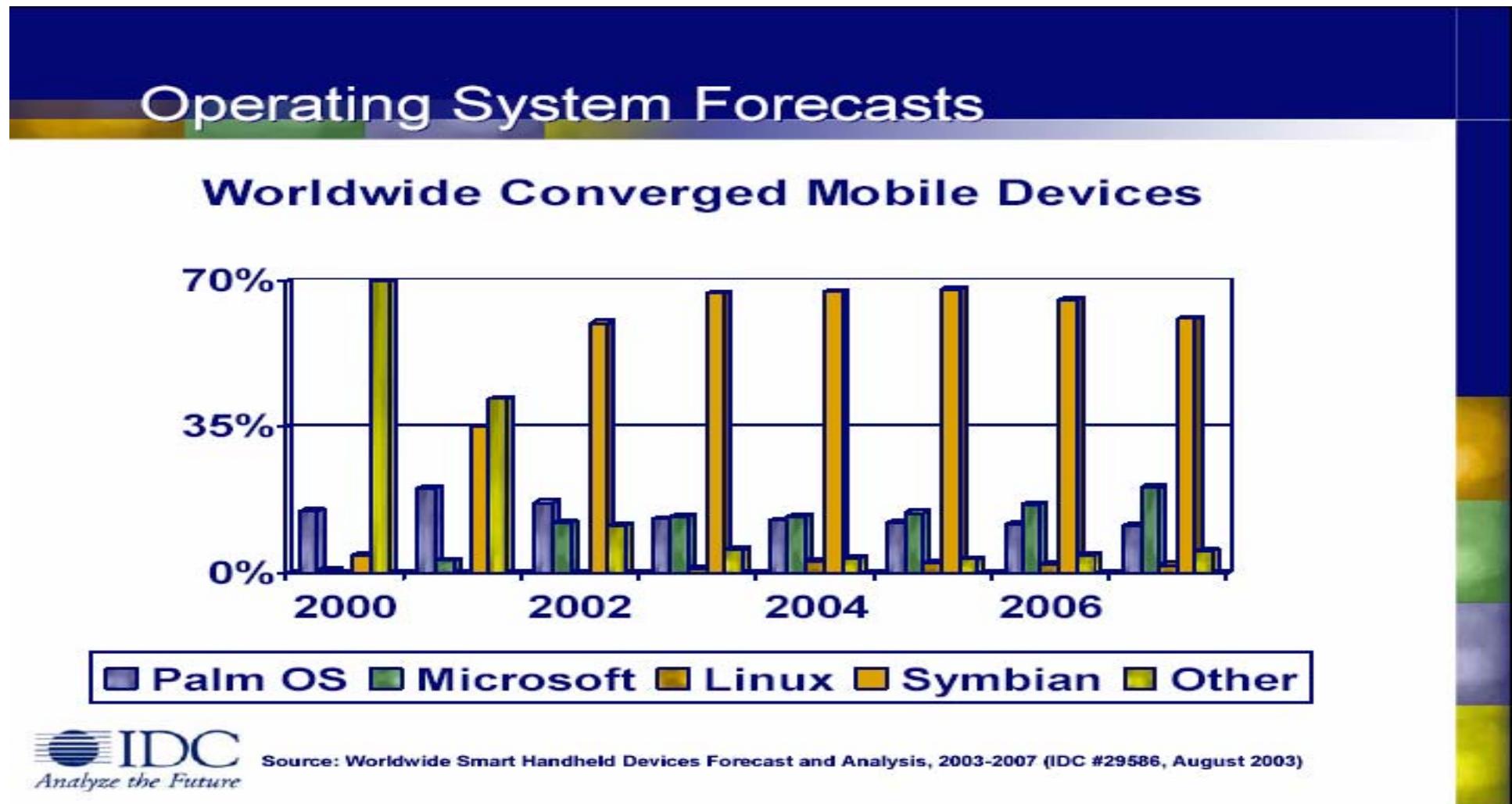


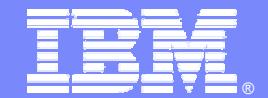
- Prix:

- ▶ Palm Zire 21 monochrome (99€), Palm Tungsten E couleur (199€)
- ▶ HP Jornada 565 (499€) , ipaq H1940 (249€)
- ▶ Smartphone SPV 200 + Forfait 12 mois (199€)



## Répartition des OS : prévisions IDC





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## Les « réseaux »

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# Modes d'usage versus réseau

- **Notification/Alertes**
  - ▶ Short Simple Messages (SMS)
  - ▶ To 1 & 2-way Pagers, téléphones portables et/ou PDA's
- **On-line wireless access**
  - ▶ Databases et applications
  - ▶ Accès On-line via le micro-browser
- **Off-line synchronization des datas and applications**
  - ▶ Off-line synchronisation pour données & applications
  - ▶ Mobile client pour gérer les données à travers l'execution locale de l'applicatif

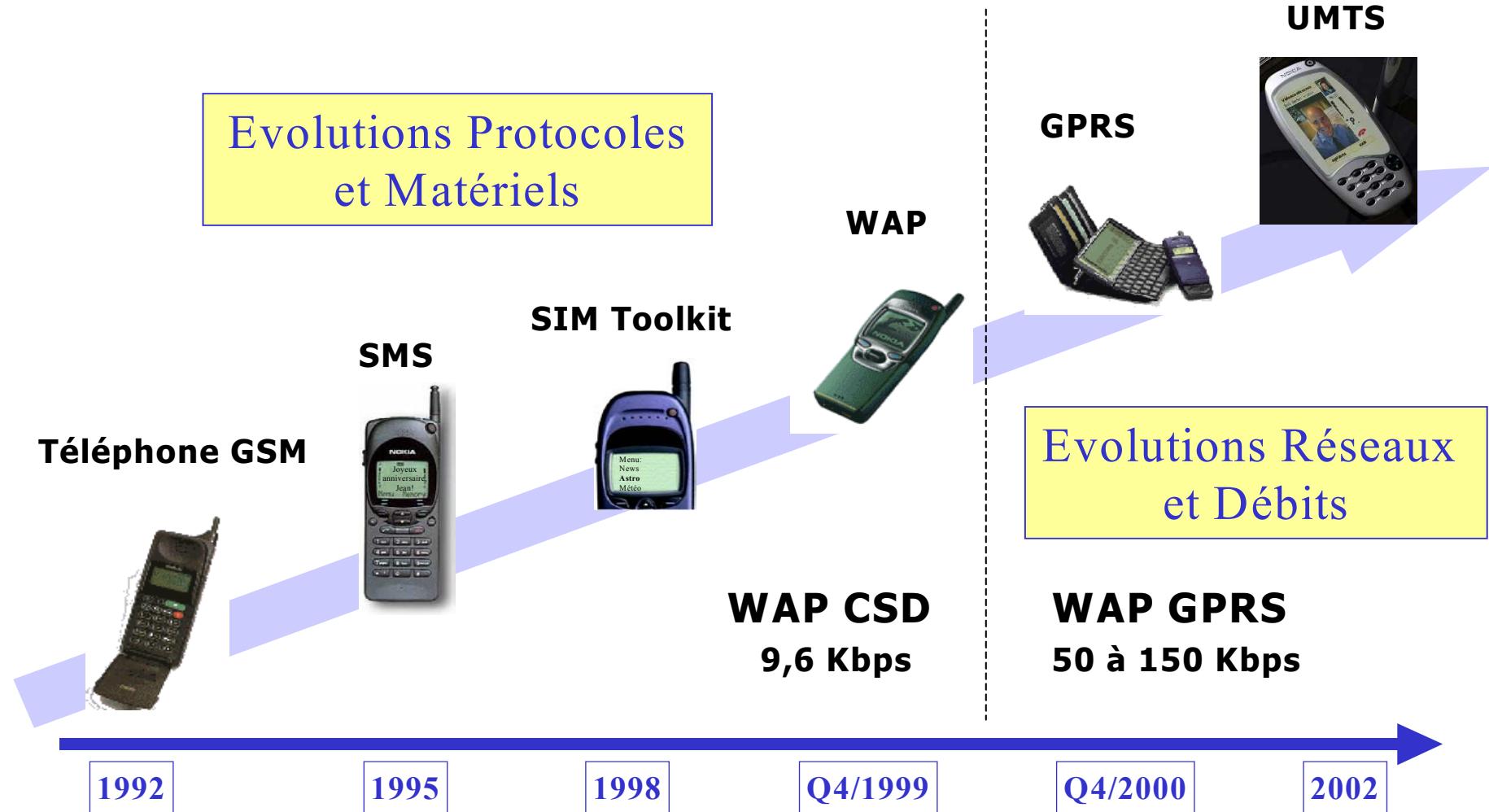


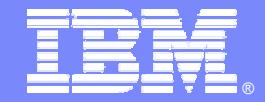
# Réseaux

- **La bande passante augmente**
  - ▶ 2G GSM 10 K
  - ▶ 2,5G GPRS 100 k
  - ▶ 3G UMTS 1 à 20 Mbits/s
  - ▶ 4G ou 3G améliorée “Beyond 3G” B3G
    - Convergence Wi-Fi UMTS
    - 1 Giga bit / s pour Hot spot Wi-Fi
    - 100 Mbits/s pour UMTS
- **Attention à la “couverture”**



## LES EVOLUTIONS TECHNOLOGIQUES





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## Les « solutions »

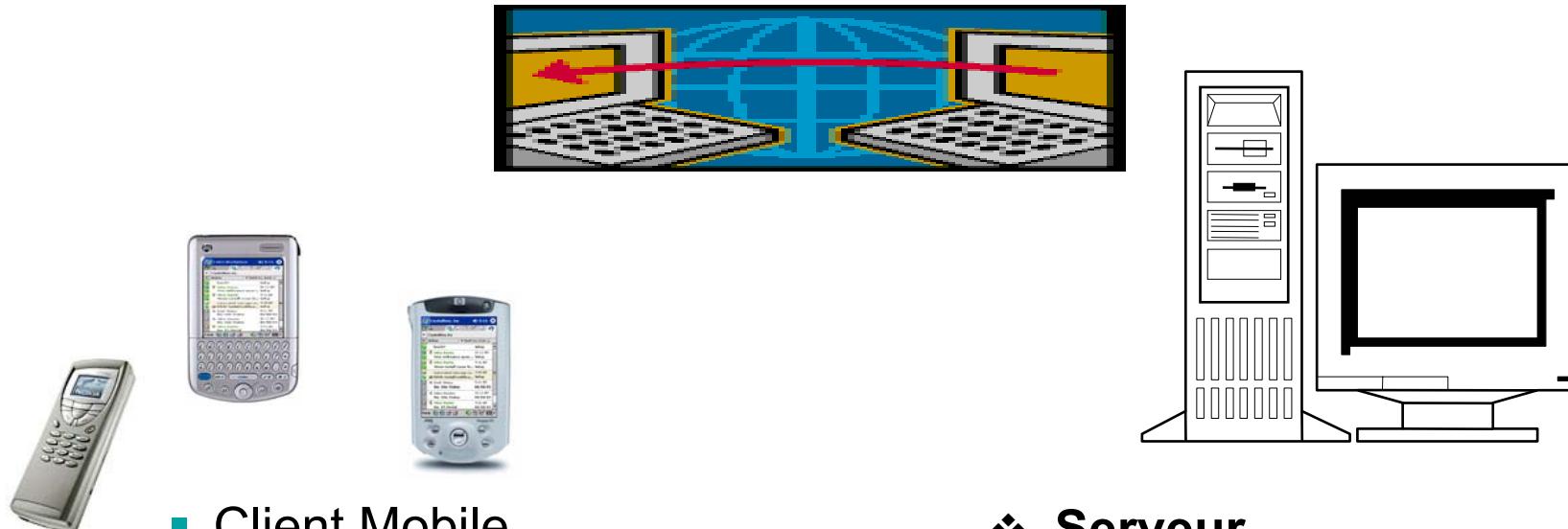
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## Le tableau....

## Over the Air & Bidirectionnel



### ■ Client Mobile

- ▶ OS
- ▶ Applicatif
- ▶ Données
- ▶ Gestion de la connexion

### ❖ Serveur

- ✓ OS
- ✓ Applicatif
- ✓ Données
- ✓ Gestion de la connexion



## On line notification

- SRV On sélectionne l'évènement
  - On crée le texte de l'alerte + le destinataire
  - On appelle une **passerelle**
  - On y copie le message
  - Le client est appelé
  - Si il est en marche et à accès au réseau il reçoit le sms
- 
- Normalisation coté client
  - Push « **selectif** » serveur



## On line « transaction »

- Centré sur l'application
  - On a un langage commun
  - Si il y a plusieurs serveurs d'application on met en place une machine serveur intermédiaire
- 
- Soit à travers un micro-browser
  - Ou Conversation Application-Application



## Off-line & synchronisation

- Centré sur les données
  - Conversion ou standard (XML ???)
  - Il faut un client sur le mobile pour pouvoir traiter les données en local
- 
- Java doit s'imposer pour éviter d'avoir à développer et administrer un client par plateforme



## Standards applicatifs et synchronisation

- Wap
- Wml
- SyncML
- J2ME (Java...)



## EasySync Pro 4.2.1

### Description

Maintain productivity with email/PIM while on the road



- **Synchronizes your Lotus Notes e-mail, calendar, to-do list, contacts and journal** with your PocketPC or Palm PDA.
- Allows you to choose to **synchronize bi-directionally, upload only or download only based upon filter settings** for any category of information.
- Lets you **read, reply to and manage your e-mail while away from your PC** using the “native” email application (e.g. Versamail or Pocket Outlook).
- In 2003, there have been a number of fixes to EasySync Pro that resolve past issues as well as keeping it up to date with latest versions of Palm and Pocket PC (Mobile Windows 2003). Another MR is scheduled for 1H 2004 (4.2.2)
- Supports Notes/Domino versions 6.0 and 6.5



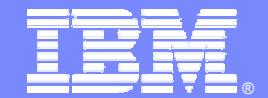
## WebSphere Everyplace Access 4.3 for Lotus Domino

### Description

*Help mobile employees respond to customers and colleagues anywhere*



- **Synchronizes server information with mobile devices** so mobile employees don't have to carry laptop computers or access desktop.
- **Improves productivity of mobile employees** through centralized, server-based synchronization of email, calendaring and scheduling, address books, task lists, and journal memos between Lotus Domino and many mobile devices.
- **Integrates handheld devices securely into Lotus Domino** collaborative environments to maximize efficiencies.
- Provides an **easy upgrade path to the full IBM WebSphere Everyplace Access**, which extends existing and new business applications to mobile devices, beyond collaboration
- Supports Notes/Domino versions 6.0 and 6.5



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## Petite histoire « vraie »

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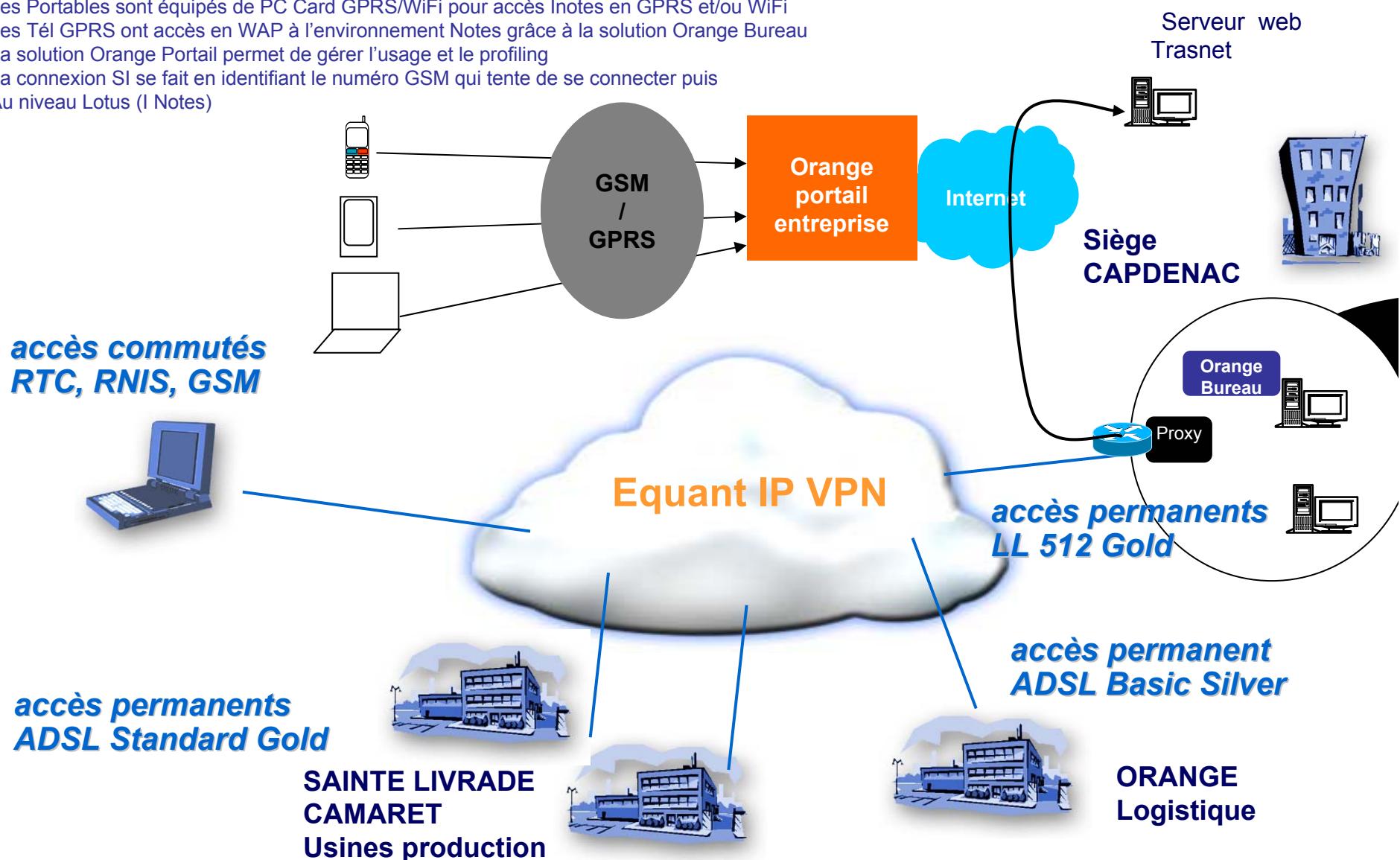
## Lotus inotes via Gprs pour Raynal&Roquelaure

- La machine est un PC portable
  - ▶ Commerciaux France vs Grande distribution
  - ▶ Gestion graphique des rayons
  - ▶ Applicatif métier Statigest
  - ▶ Email action
- La couverture de ce besoin spécifique a conduit à une refonte complète du réseau
- Et à un début de mise à disposition d'une flotte mobile pour tous les utilisateurs « nomades »



## Le réseau Raynal&Roquelaure

Les Portables sont équipés de PC Card GPRS/WiFi pour accès Notes en GPRS et/ou WiFi  
 Les Tél GPRS ont accès en WAP à l'environnement Notes grâce à la solution Orange Bureau  
 La solution Orange Portail permet de gérer l'usage et le profiling  
 La connexion SI se fait en identifiant le numéro GSM qui tente de se connecter puis  
 Au niveau Lotus (I Notes)



## Orange bureau : les principes

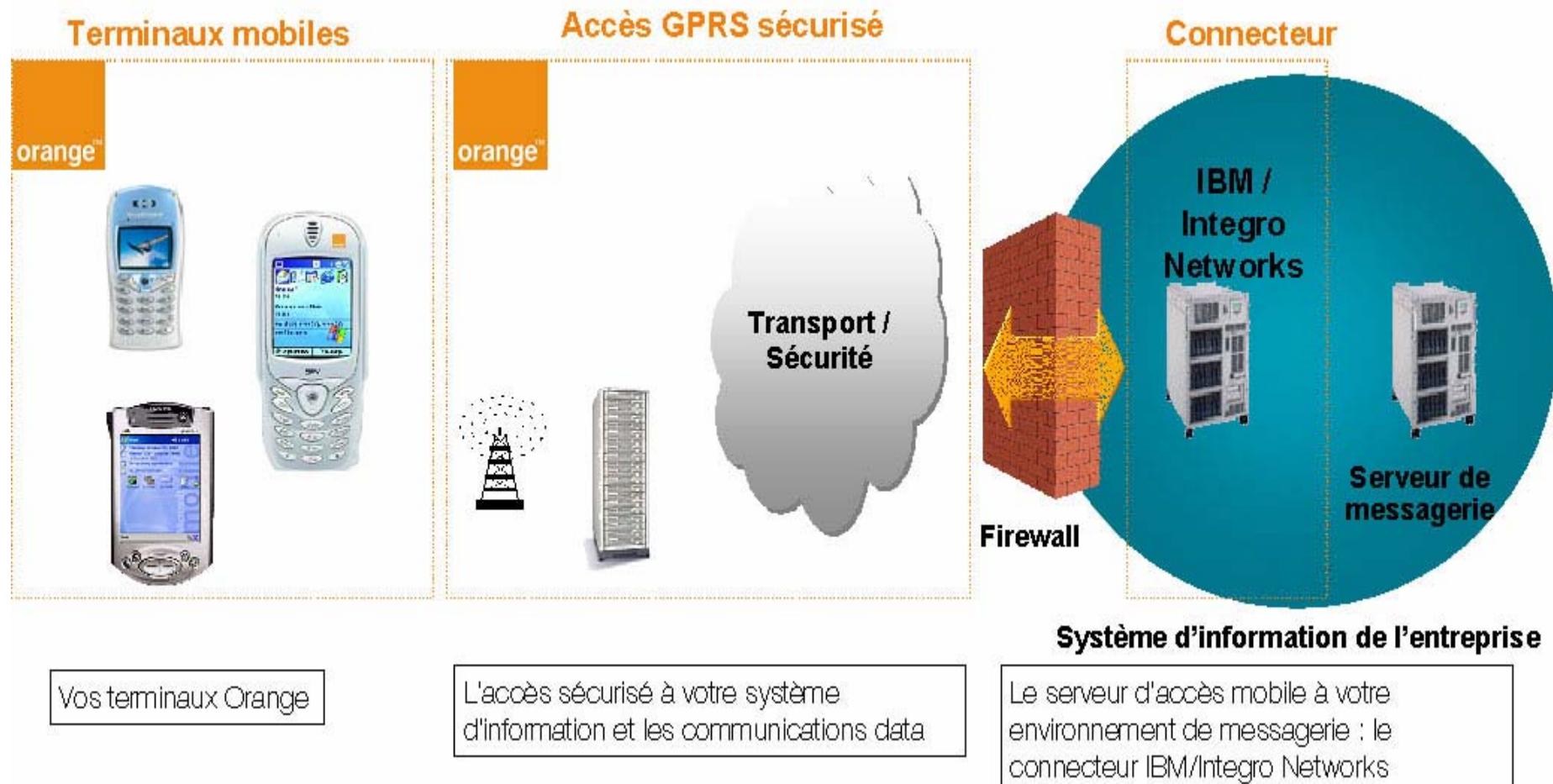
- Le service s'adapte à tous les téléphones \* et les smartphones
- L'accès mobile aux mails se fait par le navigateur Internet du terminal,
- La solution permet à un collaborateur d'accéder à son mail quel que soit le terminal dont il dispose, sans intervention d'un technicien
- L'accès au service est facilité grâce à la reconnaissance du numéro de téléphone
  - login/password sur le terminal
- Les mails ne sont pas stockées de manière permanente sur le terminal,
- L'application est optimisée
- Le collaborateur a également accès à son agenda et à son carnet d'adresses

\*Nota : Au minimum un téléphone wap, mais le service fonctionne également pour les flottes hétérogènes de terminaux (tel wap, smartphone, PDA, PC portable).



# Concrètement : comment ça marche ?

## Architecture d'Orange bureau



## Orange bureau : à quel prix ?

- L'abonnement Orange bureau :

Nb d'utilisateurs	% de remise	Prix HT par utilisateurs /mois
<b>1-100</b>	0%	6€
<b>101-500</b>	16,7%	5€
<b>501-1000</b>	33,3%	4€
<b>+1000</b>	50%	3€

- En complément d'un forfait data mobile à 5€ HT par ligne/mois
  - ▶ Orange bureau est compatible également avec les autres forfaits GPRS



## Quelles sont les briques à souscrire pour bénéficier d'Orange bureau?

Orange

Abonnement voix ou data OBS

Votre terminal Wap existant\*

Forfait data mobile\*\*

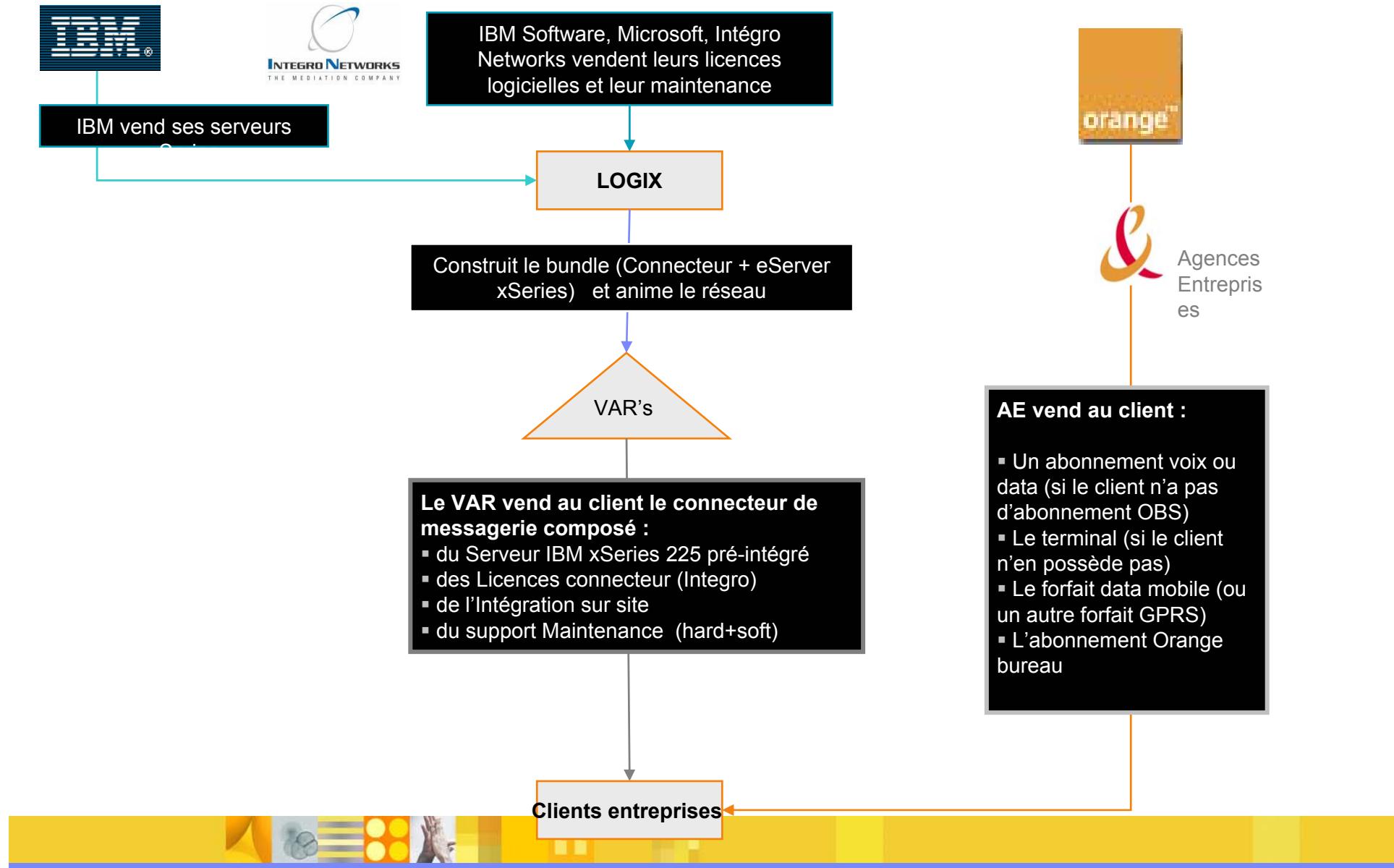
Abonnement Orange bureau

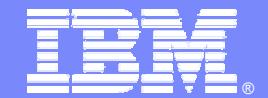
### Partenaires



Connecteur de messagerie IBM/Intégro clé en main :  
eServer IBM xSeries 225 pré-intégré, support hardware,  
software, paramétrage s/site & formation utilisateurs *en option*







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## En guise de conclusion

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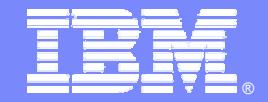


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## Projet de mobilité ????

- Tâches relatives à la gestion de flotte
- Configuration des nouveaux appareils (déploiement ou reset)
- Mise à jour du software (OS+Applications)
- Installation de nouveaux applicatifs
- Sauvegarde et restauration
- Suivi et gestion de parc
- Récupération de données
- Prise de main à distance , Hot-Line
- Mettre en place des kiosques de services nouveaux





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# Bonus Slides

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# LINUX

- As smartphones grow more popular, Linux will become a threat to more established mobile operating systems:
  - ▶ Microsoft's Windows Mobile OS
  - ▶ Symbian, developed by an alliance of companies led by No. 1 cell-phone maker Nokia.
- Motorola has already narrowed its bets on which operating system will win: It created a stir last August by selling its 19% stake in Symbian and deciding to go with Windows Mobile and Linux.
- April 05, 2004 1:17 PM EST
- LONDON-April 05, 2004 —The smart-phone market could grow from about 10 million units last year to almost 90 million units in 2008, according to new research from ARC Group.



**What is EasySync Pro?**

EasySync Pro is a personal productivity solution that provides data synchronization between your Lotus Notes desktop and handheld devices running PalmOS and Windows CE/Pocket PC operating systems. EasySync Pro enables you to work with your most critical Lotus Notes-based information anytime.

Data sources that you can synchronize include your e-mail, calendar, contacts and address information, journal and to-do lists.

EasySync Pro offers powerful sync features, advanced data filtering technology, and enhanced configuration options for greater flexibility and convenience.

With EasySync Pro, you can use your PDA device not only to read your e-mail and to see your latest appointments, but also to create new e-mail messages, schedule meetings, update your to-do list. You can conveniently capture new information while on the go and make more productive use of time away from your office. When you return to your desk, simply place the PDA in its cradle and touch the Sync button. All information on your PDA and on your Lotus Notes desktop is bi-directionally synchronized, including deletions.

For maximum efficiency, EasySync Pro enables you to specify what information you want to synchronize with Lotus Notes and/or download to your PDA.

**What's New in EasySync Pro 4.2.2?**

- Supports synchronization with Lotus Notes 6.5.1.
- Supports synchronization with Pocket PC 2003 and Palm OS 5.2.1.
- Provides a re-organized user interface based off a main menu instead of the button interface of previous versions.  
See the Online Help for assistance with this changed UI.
- Provides a new "user log" feature with options to set the level to track user synchronizations or, if needed, detailed synchronization information for debugging problems. See the Online Help for more information on setting and using the user log feature.
- New user-configurable choice to synchronize either "one-way" or "two-way" to/from the mobile device and Notes databases.  
"One-way" synchronization is a useful setting for databases that you always update on one device.

**What's new in EasySync Pro 4.2?****IBM Lotus Notes 6 support**

EasySync Pro 4.2 supports both Lotus Notes 5.x and Lotus Notes 6 clients

**IBM Lotus Notes Journal Support**

You can now synchronize your Lotus Notes Journal with the memo pad applications that come with your PDA

**PDA Device support:**

Support for all of the latest devices that use the following operating systems:

Palm OS devices (OS versions: 3.x, 4.x, 5.0; Hotsync versions: 3.x, 4.x)

Microsoft Pocket PC-based devices (OS versions: 3.0 and 3.01, 2002, Pocket PC Phone edition)

Microsoft Windows CE-based devices (OS version: 2.x)



**More Configuration options**

Choose the direction of data transfer. Synchronize bi-directionally, upload only or download only - for any category of information.

Choose separate data sources for mail, calendar, tasks and contacts. Point to a different address book and pull information selectively.

Synchronize with either client or server replicas. EasySync Pro checks your current Notes location settings to automatically synchronize with the mail database on your desktop or its replica on your home server.

**Data filtering:**

Filter information by text and/or date. Select only the e-mail messages and meeting information that you need to take with you.

**What information is synchronized?**

EasySync Pro supports your personal information:

E-mail: Synchronize your Inbox so that you can read and manage your mail while away from the office. You can also create new messages or reply, forward and delete existing messages.

Calendar: Synchronize all your appointments, meetings, events, anniversaries, reminders and alarms.

Addresses: Sync all key contact information from your Personal Name & Address book.

Tasks: Sync all tasks including priorities

Journal: Sync your journal entries with the Memo/Notes applications that come with your PDA.

Note: You can choose to synchronize all or part of the above data types.

**Is the Mobile Notes client required for EasySync Pro to work?**

No, Mobile Notes is not used for EasySync Pro. Think of EasySync Pro as a conduit. It helps move data from your Notes mail database and Personal Address book to the native email and PIM applications that come with your PDA device.

**What is the minimum version of Notes that is supported by EasySync Pro?**

EasySync Pro can synchronize with Notes 5.0 and above, including Lotus Notes 6.

**What versions of the Palm devices does EasySync Pro support?**

EasySync Pro works with any Palm device that is running 3.0 and above of the Palm OS.



**What versions of Windows CE/ Power PC does EasySync Pro support?**

EasySync Pro supports Microsoft Pocket PC-based devices (OS versions: 3.0 and 3.01, 2002, Pocket PC Phone edition) and Microsoft Windows CE-based devices (OS version: 2.x). This includes devices like the Compaq iPAq, HP Journada, Cassiopeia and others.

**Does EasySync Pro support Symbian EPOC devices?**

No. EasySync Pro supports Palm and Pocket PC devices only.

**Does EasySync Pro support RIM devices?**

No. EasySync Pro supports Palm and Pocket PC devices only.

**What other software is required to make EasySync Pro work with my Notes desktop?**

HotSync is required for Palm OS devices and Active Sync is required for WinCE/PocketPC devices.

**How do I acquire HotSync for Palm devices or Active Sync for WinCE devices?**

HotSync or Active Sync software is provided when you purchase the PDA devices.

**What methods / hardware can be utilized to sync my handheld device via EasySync Pro?**

You can sync via a cradle and cable that is attached to your desktop computer or wireless using the Infrared ports on your PC and PDA

**What OS/ platforms does EasySync support on the desktop?**

EasySync Pro is a Win32 application (Windows 95, Windows 98, Windows NT, Windows 2000 and Windows XP).

**What platforms does EasySync support on the Domino server?**

While it is possible to configure EasySync Pro to utilize server-based copies of your Notes databases. You are still required to connect the PDA cradle/cable/infrared to your desktop PC running Lotus Notes 5.x or 6.x. So, it doesn't really matter what version of Domino is being used.

**Can I sync directly with the Domino server via my ethernet cradle (without the use of my laptop or desktop computer)?**

No, EasySync Pro is a personal productivity solution, intended for end users to setup, configure and use at their desks not for Server based connectivity. If you are interested in an enterprise server based solution for synchronizing with Lotus Domino, Lotus recommends IBM WebSphere Everyplace Access.

**What languages are supported by EasySync Pro?**

English plus French, Italian, German and Spanish are enabled. This means that we provide cultural support for languages in the core English product. Language support defined by character set handling, sorting, date/time format, time zones, number formats etc.

Translated versions include French, Italian, German and Spanish.



## What is the difference between WEA and WEA for Lotus Domino?

**WebSphere Everyplace Access for Lotus Domino** offers wired or wireless synchronization of your Domino-based email and PIM data via single-server installation

**WebSphere Everyplace Access** not only offers wired or wireless synchronization of your Domino-based email and PIM data but also offers:

- Server-based email/PIM synchronization
- Device Management (over the air configuration)
- Server-initiated actions
- Sametime Connect client only
- Location Awareness Services
- Everyplace toolkit for WebSphere Studio
- Includes cradle sync via HTTP pass-through
- Distributed installation

### **WebSphere Everyplace Access for Lotus Domino**

- Provides email/PIM synchronization only
- Customer deployments (recommended up to 1000 users)
- Introducing Domino customers to WebSphere family of products as preparation for future tighter integration between Domino and Workplace (WebSphere-based)
- Lotus sells only
- CAL based pricing

### **WebSphere Everyplace Access**

- Large customer deployments and/or where additional WEA features are required
- Provide infrastructure and tooling for mobile application development
- Upgrades from WEA for Lotus Domino
- Pervasive sells only
- Server based pricing

