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June 13th DM Partner Call

IBM DB2 and Business Intelligence Business

Moderator: Rick Fraser

DM Partner Sales

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813-290-9719

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July 11th DM Partner Call

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Agenda

- BI Boot Camp
- BI Top Gun
- BI Market Directions
- BI Co-marketing opportunities
- IBM Wireless Database Management Strategy
- Q&A

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BI Boot Camp Technical Training

- To enroll: call IBM Learning Services at 800-426-8322 (800-IBM-TEAC)
IBM BI Bootcamp (class code is X7BIB)
- Class Dates and locations:
 - Chicago July 23 - 27
 - Dallas August 20 - 24 and October 15 - 19
 - Atlanta - September 10 - 14 and December 17 - 21
- Course Objectives :
 - ▶ Understanding of IBM Technologies used in the Building and Installation of a typical data warehouse.
 - ▶ Hands-on experience in building an end-to-end solution.
 - ▶ Typical Data Warehouse/Data Mart using DB2 , DB2 WHM, DB2 OLAP and DB2 Analyser
- Course Abstract:
 - Building and Installing Typical Data Warehouse scenarios with DB2 Version 7 (using the Warehouse Center). The final output is a star-schema which is then exported to the OLAP Integration Server. An OLAP Model and metaoutline are then built and several DB2 OLAP Server databases (cubes) are built. The lab completes with using DB2 OLAP Analyzer to view one of the OLAP cubes which were built. The OLAP cube is defined for drill-through back to the detailed relational data used to source the data in the cube.
- **Don't forget!!!**
 - When enrolling, please make sure that you indicate you are an IBM Business Partner so that you receive the standard 25% discount. Also, if you have purchased the "Value Package" as part of the "PartnerWorld for Software" program, this class is eligible for the "You Attend/We Pay" benefit. You may be able to have the remaining 75% of the class cost reimbursed under the "You Attend/We Pay" offerings, providing your firm hasn't exhausted your benefit entitlement.
 - If you would like to bring your own laptop to the class, instructions are provided below with prerequisites. If you do not bring your own laptop, machines will be provided during the class for sharing between 2 students.





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BI Boot Camp Technical Training

■ Laptop Requirements

- Instructions for students who wish to bring their own laptops to the BI Bootcamp:
 - As part of the "Value Package" within the "PartnerWorld for Software" program, Business Partners can request Demonstration & Evaluation (D&E) software from within "Business Partner Zone" at the PartnerWorld for Software website.
 - If students want to bring their own Thinkpads with software installed, then they should install DB2 UDB V7.1 with the warehouse components. It is not necessary to install the OLAP Starter Kit that comes with DB2 UDB V7.1. In addition, students can install IBM DB2 OLAP Server V7.1.
 - 233 mhz processor - minimum ... faster is definitely better!
- CD Reader
- 128 MG or more Ram recommended ---- more is definitely better!
- 500MG free disk space
- Windows NT 4.0 either Workstation or Server OR Windows 2000 Professional
- Service Pack 5 or greater for Windows NT 4
- DB2 UDB 7.1 is ok (we can install Fix Pack 1 in Chicago)
- DB2 UDB 7.1 with Fix Pack 1 is ok (what will be on the lab systems)
- DB2 UDB 7.1 with Fix Pack 2 is ok (we will work around known problems with our labs)
- DB2 OLAP Server 7.1
- They can install Fix Pack 1, 2 or 3. They should install all components (especially the OLAP Integration Server). If they do not have the code, it can be done in Chicago.
- They will need either Lotus 123 or MS Excel. The labs will be with Lotus, but Excel is fine.
- DB2 OLAP Analyzer
- If they want to do the short Analyzer lab at the end of class, they will need DB2 OLAP Analyzer code. There is a supplied URL that comes with DB2 UDB 7.1 that allows one to download the code. DB2 OLAP Analyzer is also available via CD via the "Business Partner Zone" for those who have purchased the "Value Package".
- There will not be a need to install DB2 Warehouse Manager, Query Patroller, or Information Catalog Manager.





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BI Top Gun Sales Training

- Business Intelligence and Applications TOP GUN class September 10-13, 2001
 - ▶ The class is aimed at new and experienced server sales, data management and GBIS specialists, along with client reps, software account managers, IBM Business Partners and anyone else selling BI and Enterprise Applications.
- Objectives:
 - ▶ Spot and generate BI and Enterprise Applications leads
 - ▶ Differentiate IBM as an applications vendor
 - ▶ Understand IBM's Applications-related technology and components
 - ▶ Recognize how customers' business issues drive product sales
 - ▶ Assess and win against the competition
 - ▶ Understand how the CRM, ERP and SCM processes blends with the BI sell
 - ▶ Understand the IBM Solution Offerings
- For more information and to enroll: Visit our web site at:
<http://www.ibm.com/eserver/topgun>

or

Call the TOP GUN enrollment & information hot-line at:
(301)-803-6339.

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Business Intelligence Market Directions



From Data Warehousing to Business Intelligence



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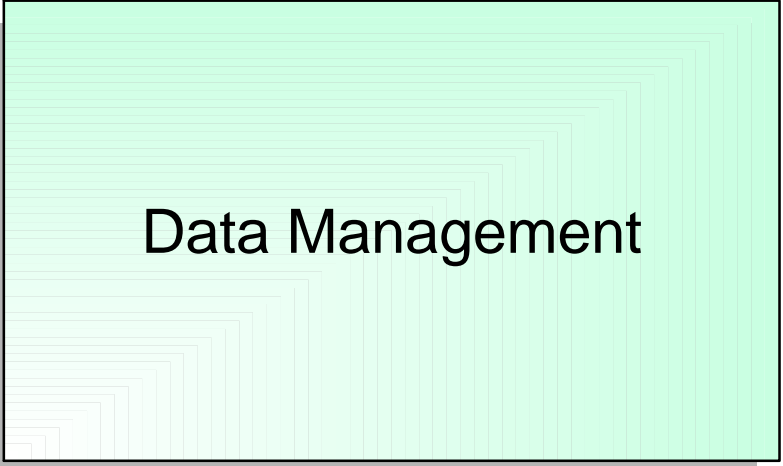


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From Data Warehousing to Business Intelligence

A rectangular box with a light green background and a black border, containing the text 'Data Management'. The box is positioned in the lower-left quadrant of the slide.

Data Management

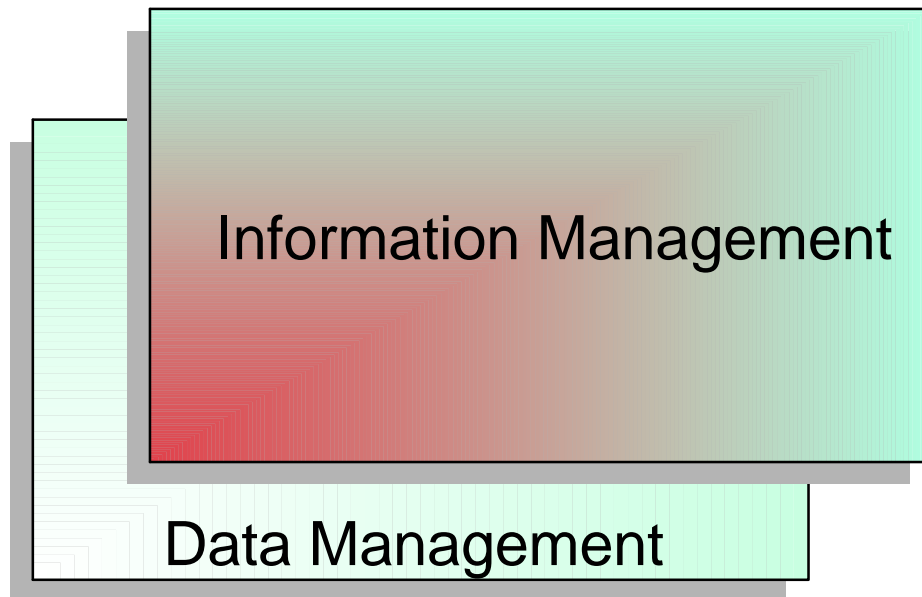
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From Data Warehousing to Business Intelligence

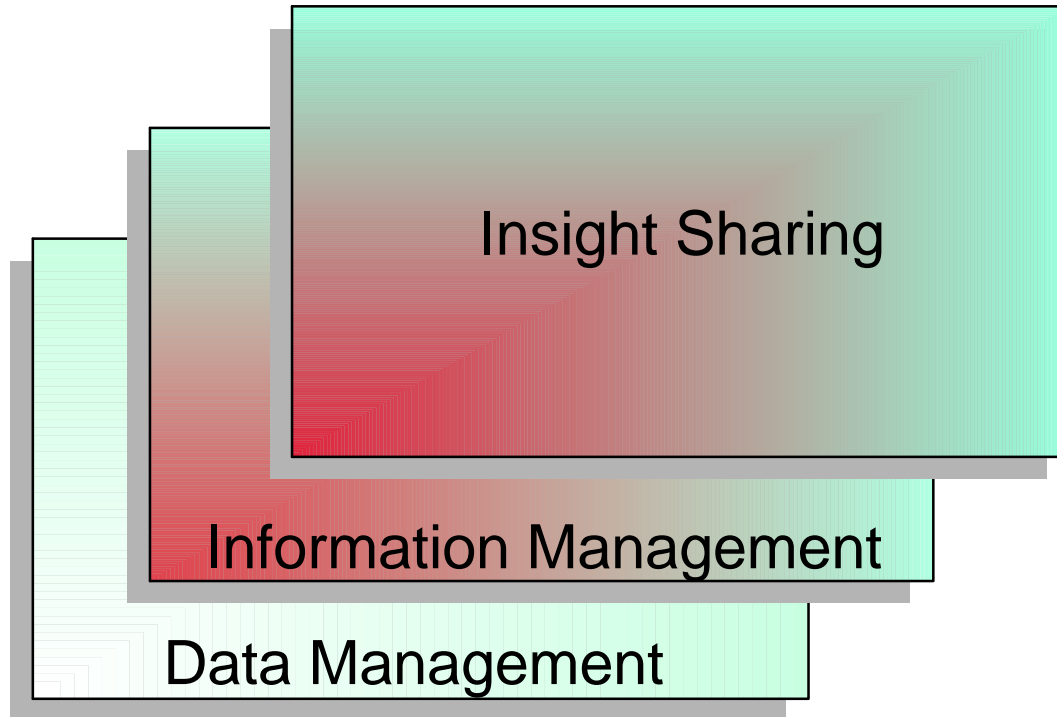


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From Data Warehousing to Business Intelligence

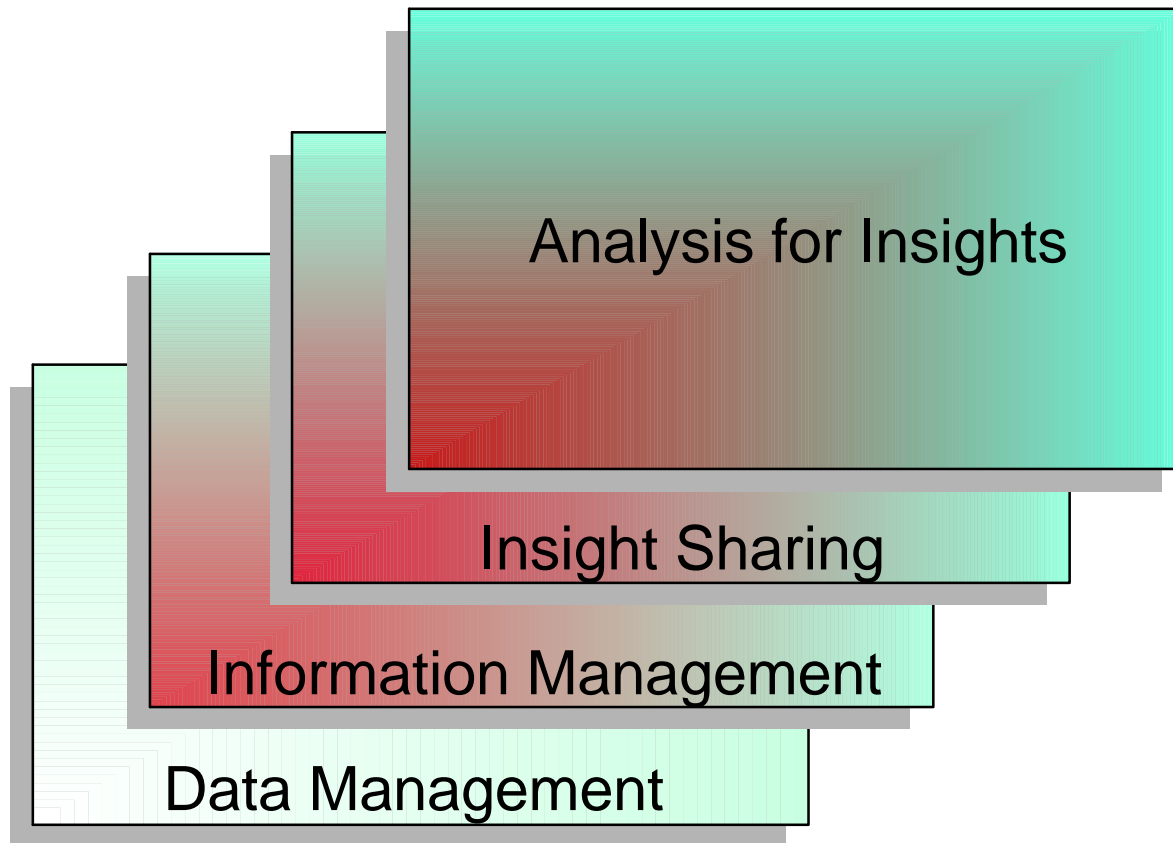


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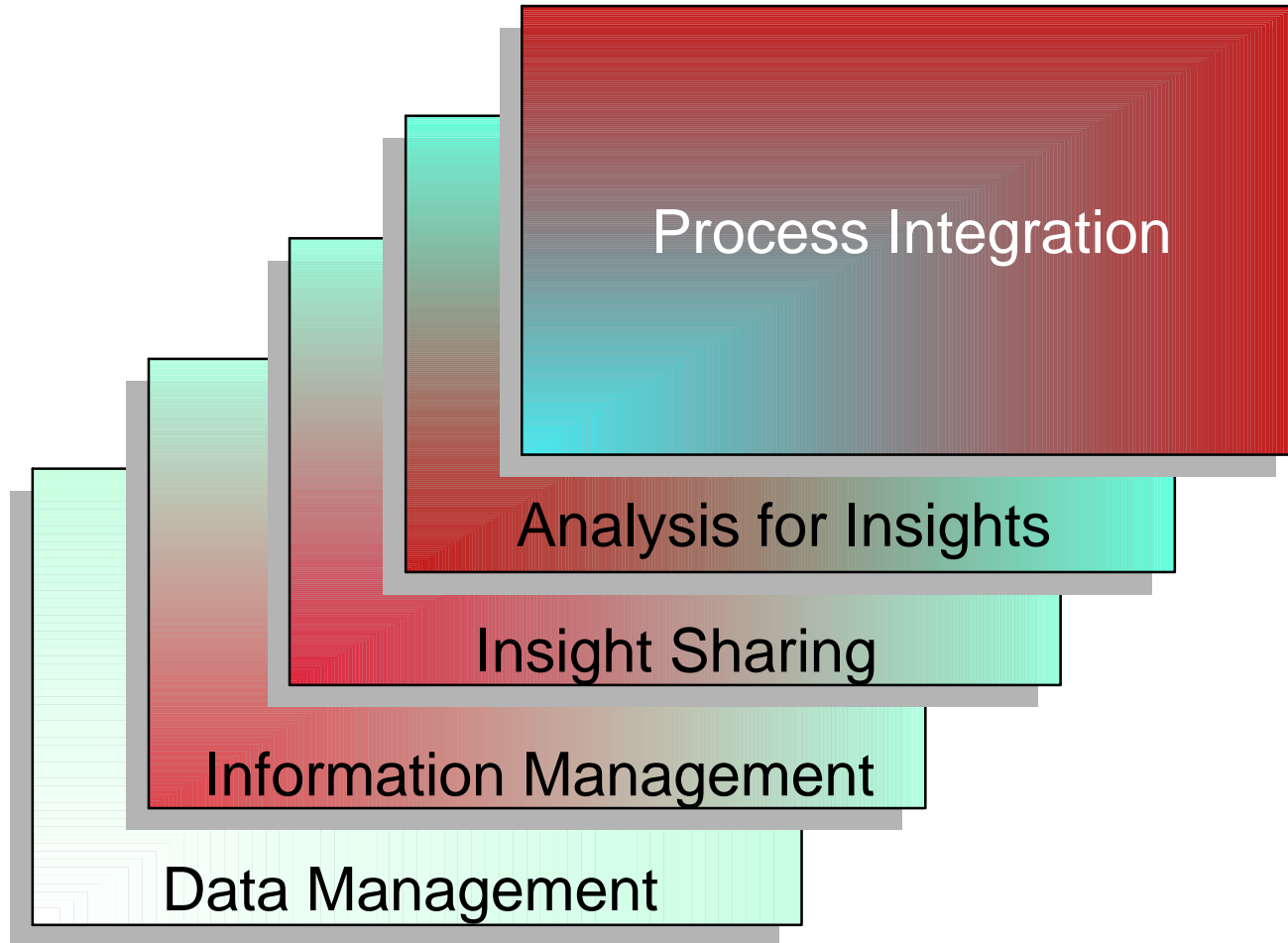
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From Data Warehousing to Business Intelligence



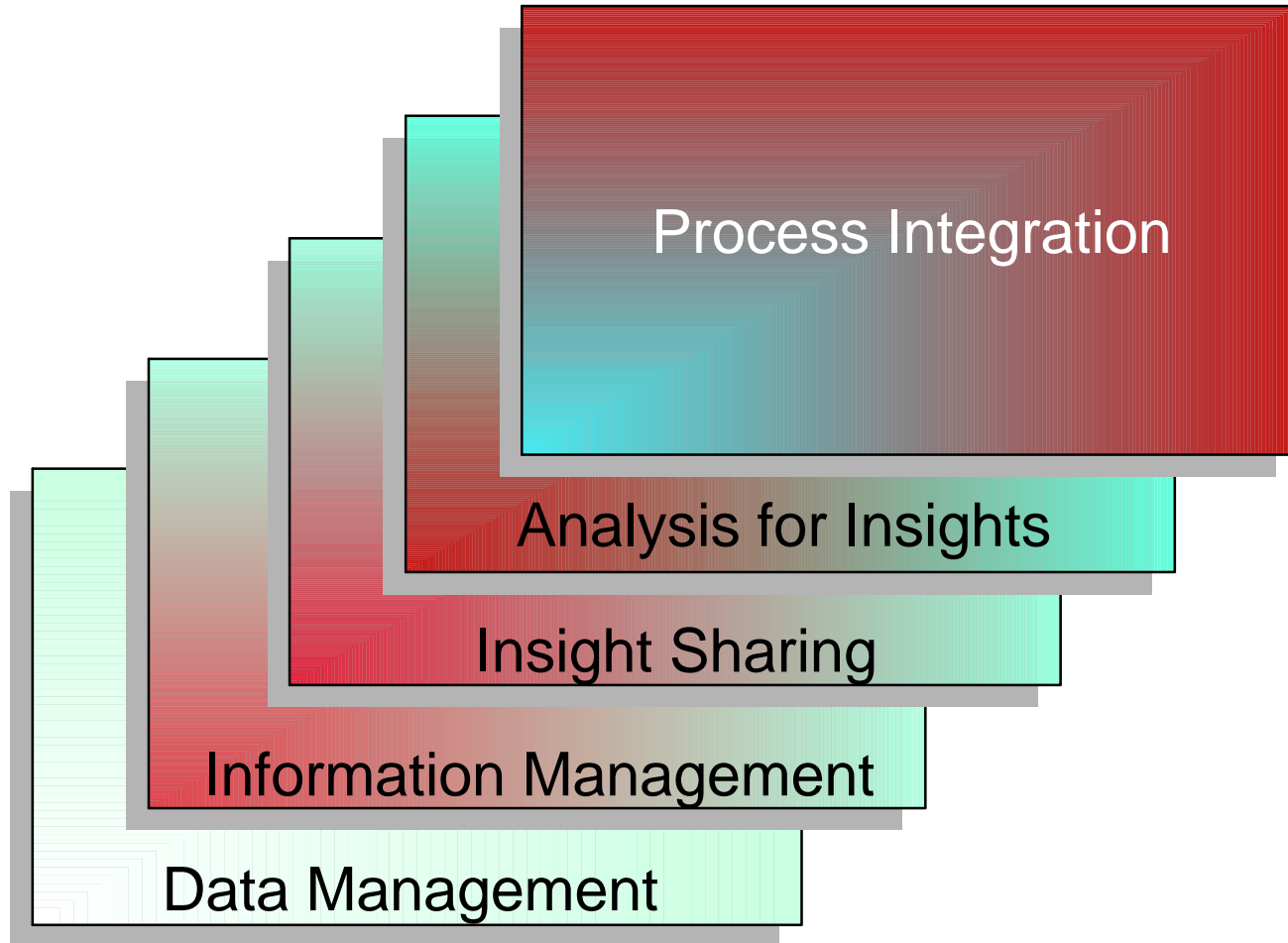
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From Data Warehousing to Business Intelligence

Data Warehousing



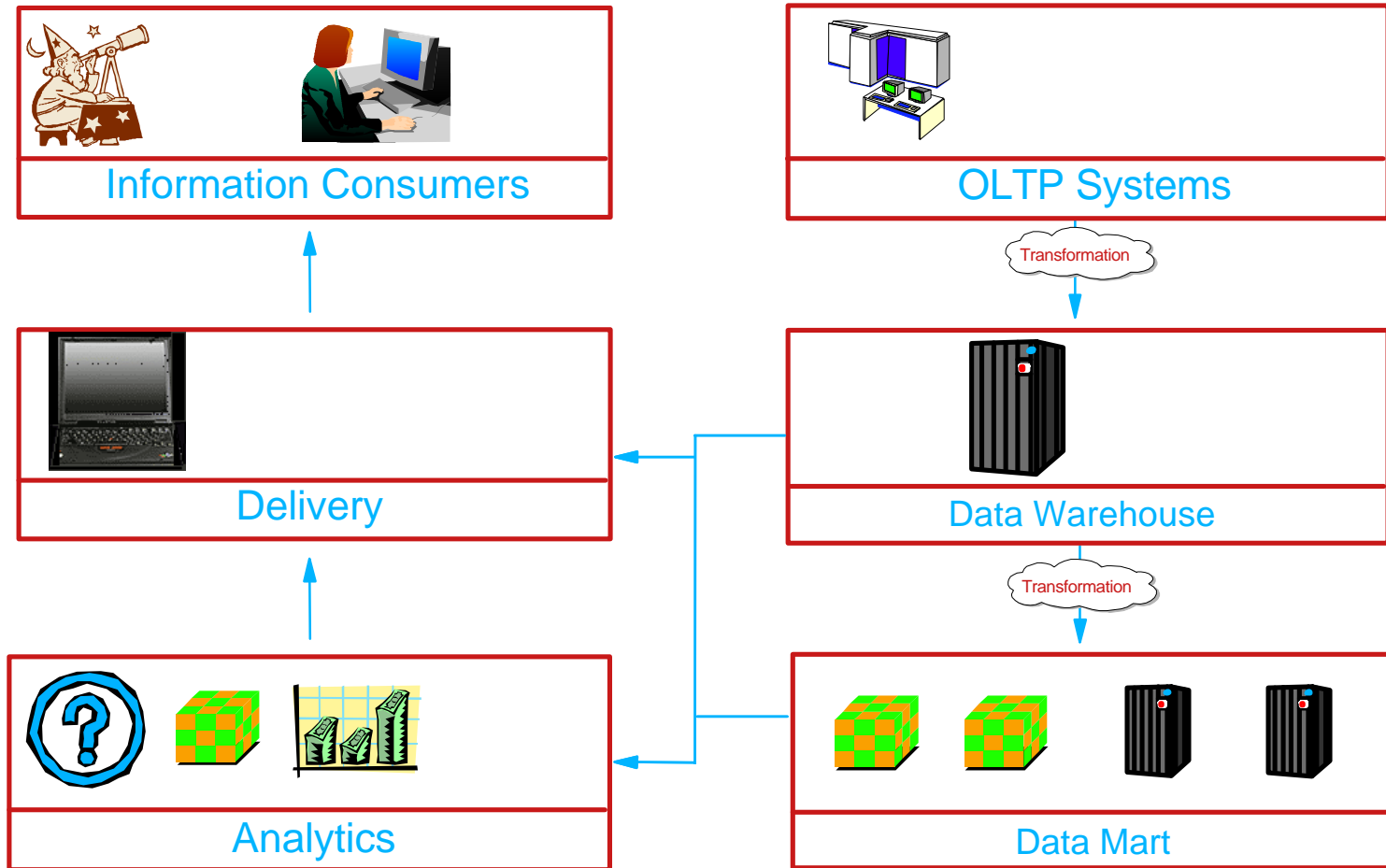
Business Intelligence





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Data Warehousing Architecture





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Nice facade. Bad infrastructure.

INFRASTRUCTURE: SOONER OR LATER, IT MATTERS.

INFRASTRUCTURE. The physical foundation of any thriving enterprise. In the world of technology, infrastructure means integrating the servers, software and storage systems of an e-business into one finely tuned machine. And a well-planned, well-executed infrastructure is the underlying foundation of successful communication, commerce, competitiveness and growth within and among e-businesses everywhere.

To put it simply: as goes infrastructure, so goes the enterprise. In today's economy, all the ingenious products, brilliant marketing and champion deal closers won't amount to a heck of a lot if you can't connect to your outside suppliers, if the network crashes or the databases fail (and all you can say to customers is, "Sorry, the computers are down; can you call us back tomorrow?").

Planning, building and maintaining e-business infrastructure is about hard questions: What platforms should I use? How do I plan for the unexpected? Will it grow when we grow? Will it work with new technology in the future? Will it build

upon my current systems? Can I link to my customers' and suppliers' systems? I've heard about open standards, but what can they do for my business? What about outsourcing? How do I finance all of this?

The people of IBM, together with our business partners, help thousands of companies answer difficult questions like these every day. And solve them with flexible, open technologies, such as Linux-enabled servers, and storage systems that scale on a simple, pay-as-you-grow basis. By working with companies such as Cisco Systems® and by using innovative IBM software tools like Tivoli® and WebSphere® IBM specialists are helping real businesses plan, build and manage infrastructures that are at once both solid and flexible.

So, unless you are able to turn hatched infrastructure attempts into fabulously profitable tourist attractions, call us at 800 426 7080 (ask for infrastructure) or visit us at ibm.com/e-business for our latest white paper on e-business infrastructure. The sooner, of course, the better.



business infrastructure





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DB2 Everyplace

“Extending Data to Mobile Devices”



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DB2 Everyplace

“Extending Data to Mobile Devices”





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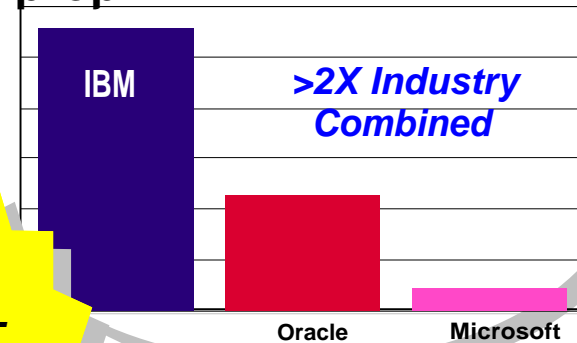




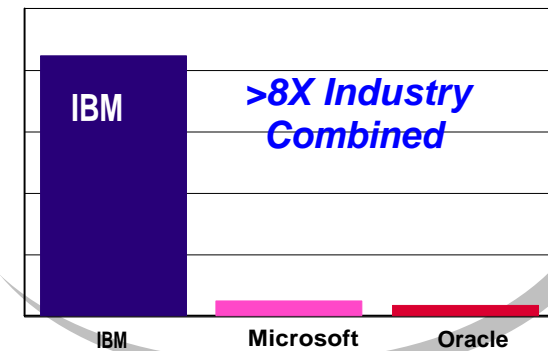
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Technology Innovators

Accepted standards proposals



Patents



SyncML
XQuery
XML,
JOLAP...

IBM Data Management has more patents and accepted standards proposals than the rest of the industry combined



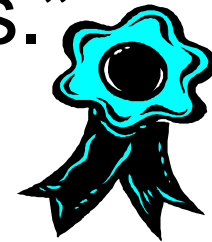


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Best Embedded Linux Solution

“IBM’s DB2 Everyplace embedded system is interesting, based on its very small footprint. Requiring less than 150KB of memory, this technology should find wide scale market potential in a great number of devices.”

Robert Williams (LinuxWorld NYC 2001 Judge)



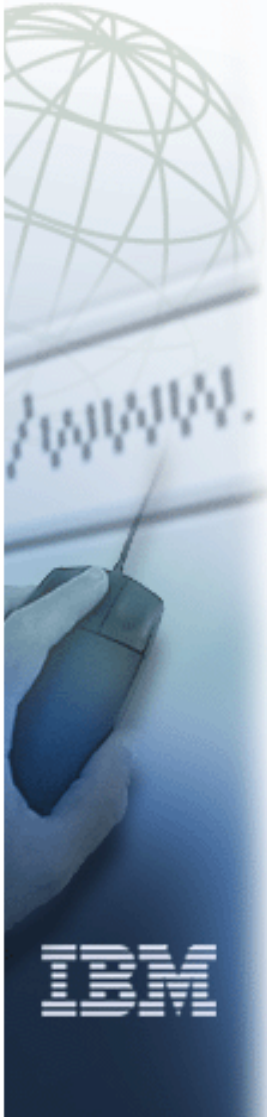
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Why a Database on Mobile Devices?

- Extend Applications using relational down to handheld devices and existing DB2 skills
 - ➔ Store
 - ➔ Update
 - ➔ Query
- Customer Service, Sales Force Automation, and
- Convenient access, through a new class of application information when and where you need it
- Appliances, handheld devices, and machines often contain an embedded database with very specific application functionality





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Who Benefits from Pervasive Applications?

- ▶ **Hot segments - Business to Employee Productivity**
 - ▶ **Field Force Automation**
 - ▶ **Customer and product information**
 - ▶ **Barcode/part information from scanning devices**
 - ▶ **Insurance policy information**
 - ▶ **Auditing information for quality and safety applications**
 - ▶ **Monitoring of system information**

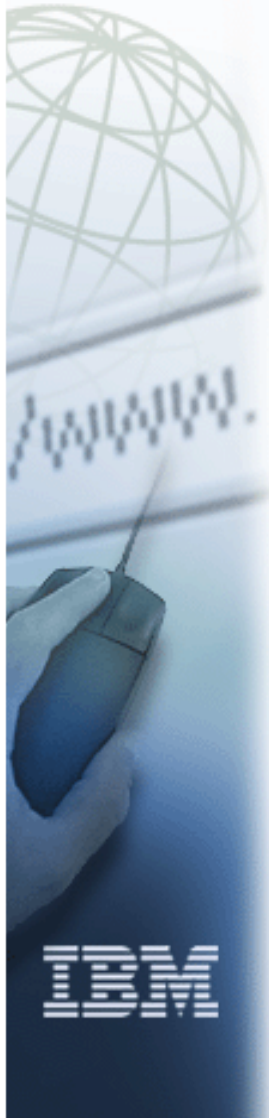
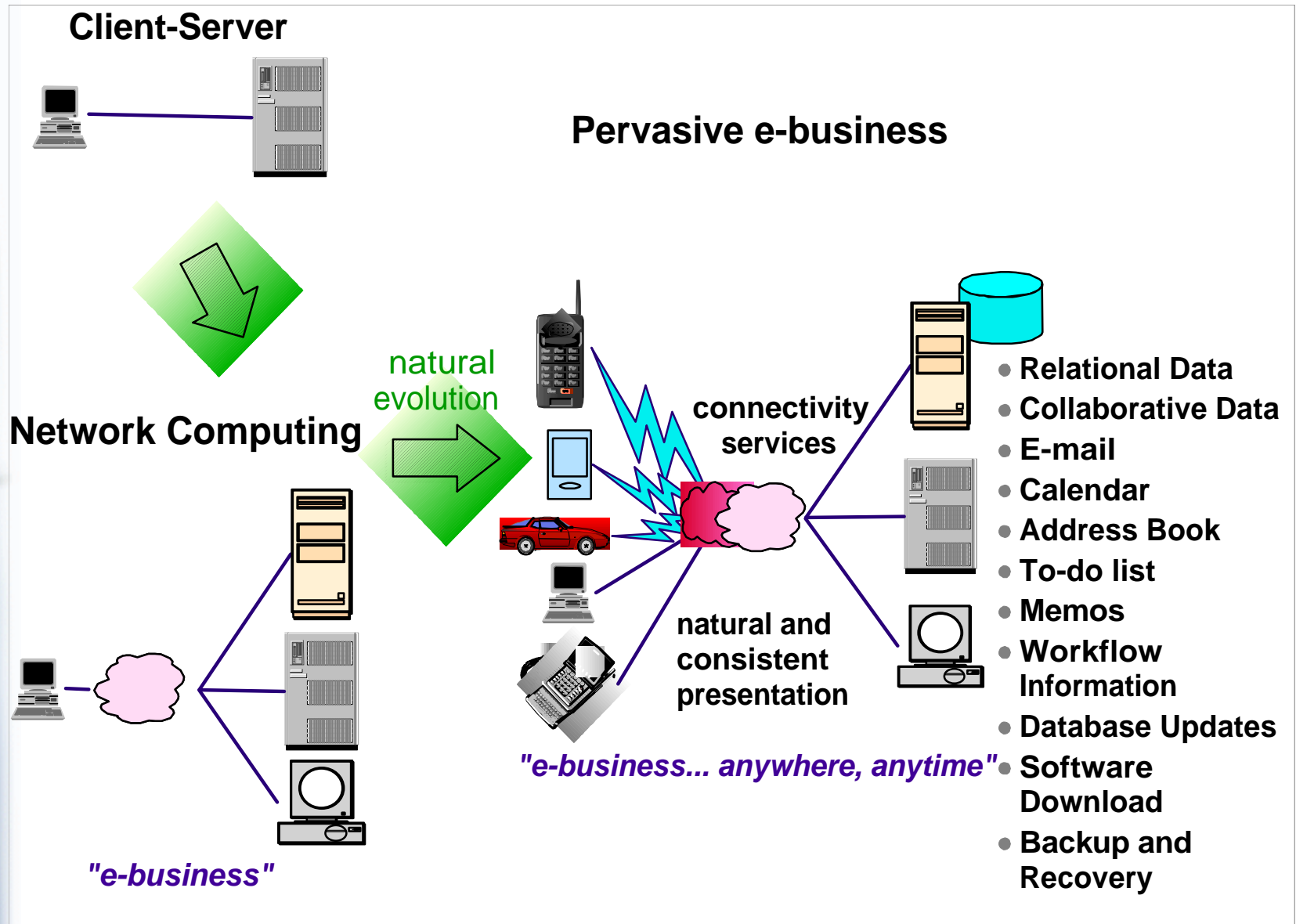
- ▶ **Industries - Customer Relationship Management**
 - ▶ **Insurance - policy information, pricing information**
 - ▶ **Healthcare - visiting nurses**
 - ▶ **Education - student information for teachers**
 - ▶ **Distribution - inventory tracking**
 - ▶ **Retail - SFA for retail chains, kiosks**
 - ▶ **Telecommunications - auditing of telecommunications sites**
 - ▶ **Finance - mobile banking**
 - ▶ **Government - Social Services**





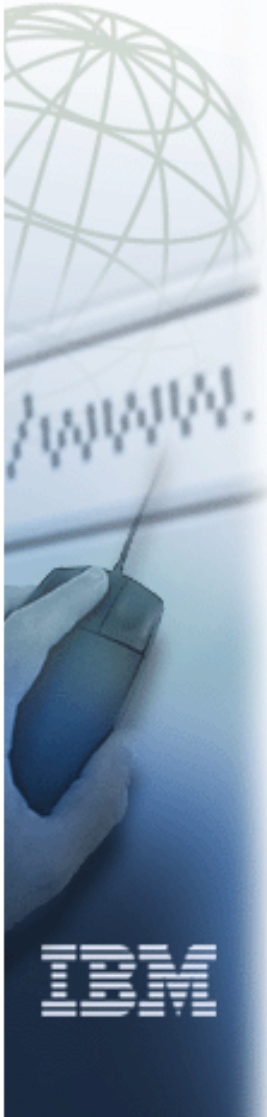
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Pervasive e-business Paradigm





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What Does Pervasive e-business Mean?

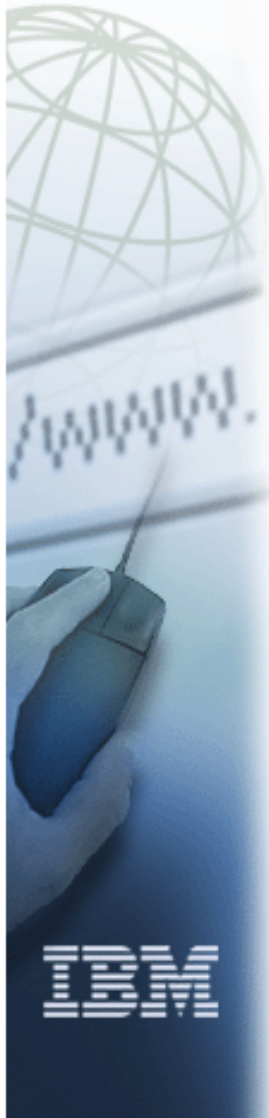
- For businesses, this new paradigm fulfills on the promise of e-business:
 - ▶ Reaching new markets
 - ▶ Improving customer satisfaction
 - ▶ Growing the top line
 - ▶ Reducing cycle times and costs
- Pervasive e-business brings e-business to the individual, enabling:
 - ▶ Flexible and productive work style - location-independent, secure information access and transactions at points-of-need
 - ▶ New lifestyle - personal, in-touch, safe and secured, easy to use, convenient and fun



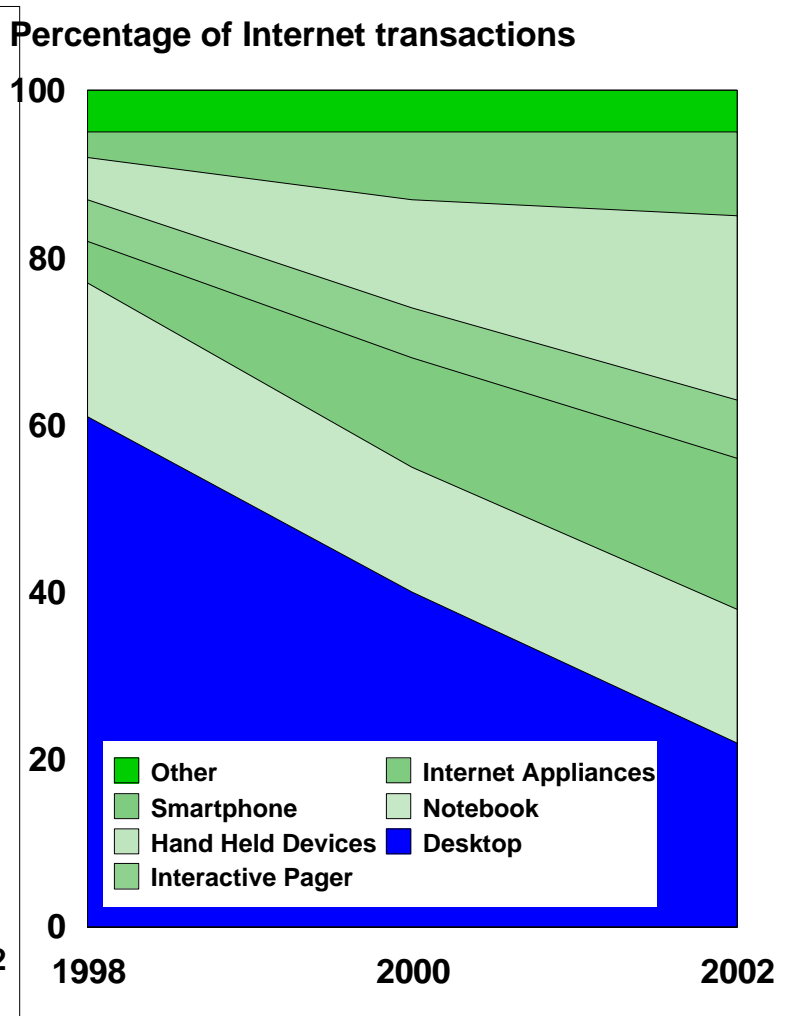
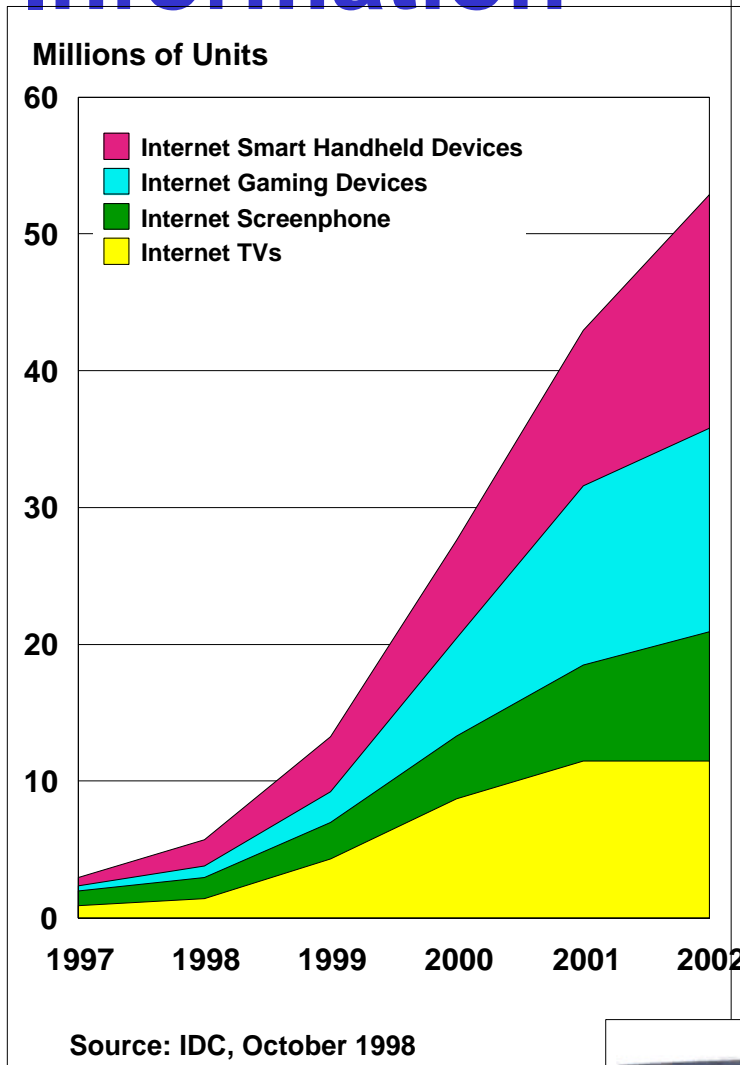
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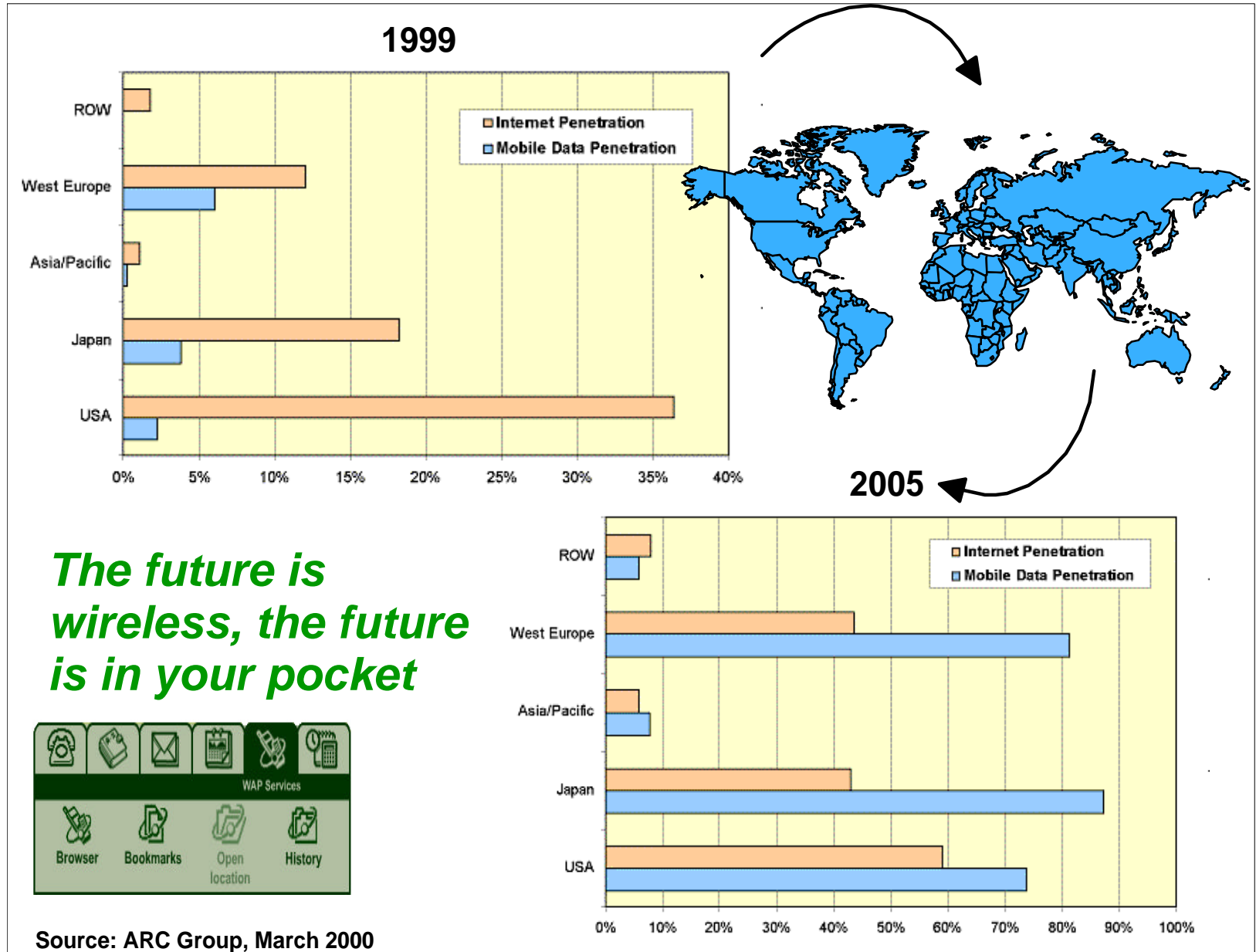
Demands for Anytime Anywhere Information





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Regional Internet and Mobile Penetration

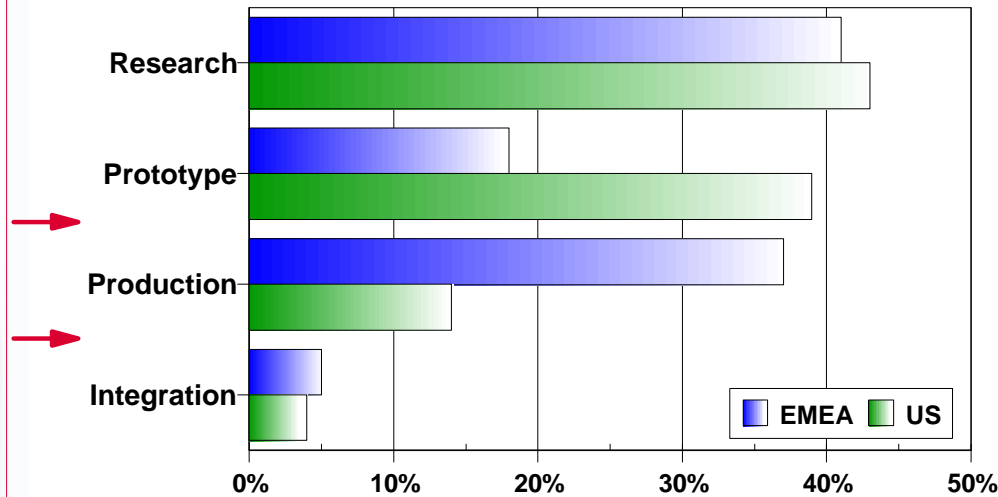




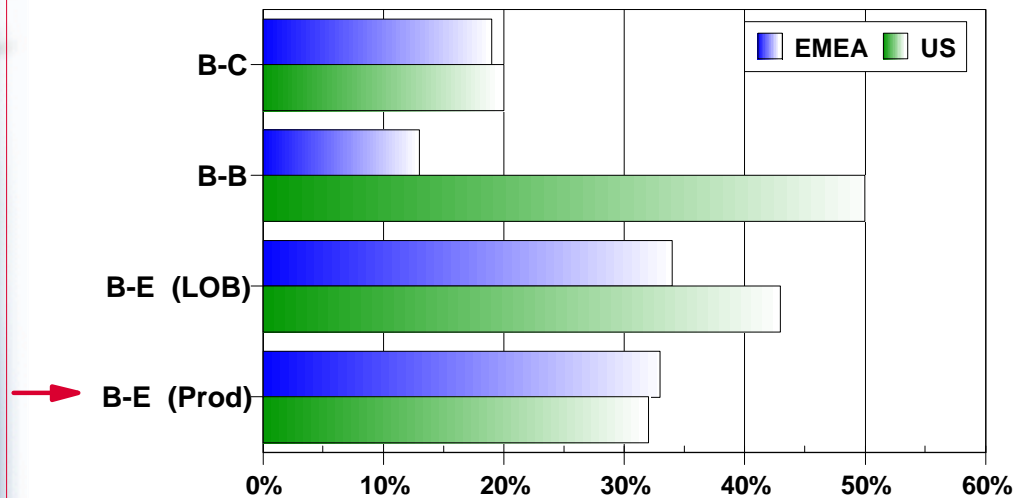
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Enterprise Market Maturity

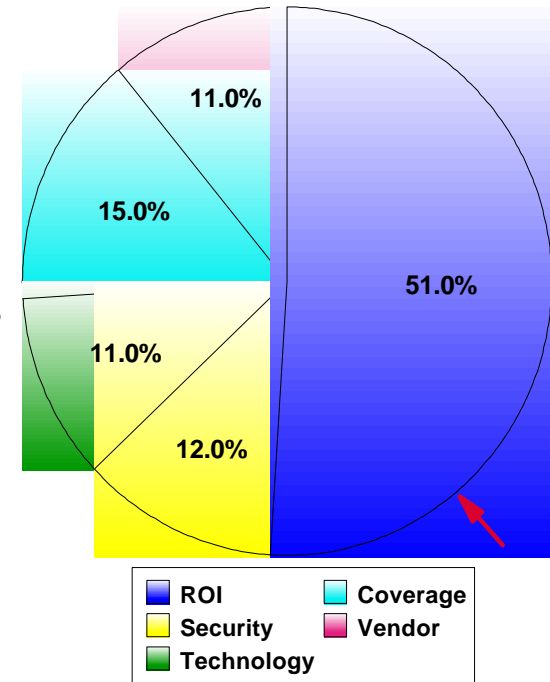
Where is your company in adopting wireless apps



What type of deployments are you targeting?



What are your biggest concerns?



Source: Giga Information Group 2/23/2001 Survey Summary

Almost half of all companies are still "watching"

EMEA remains 6-9 months ahead of the US in deployments.

B-E deployments are most popular because their ROI is more clearly articulated

ROI is the single largest reason for companies to still be watching



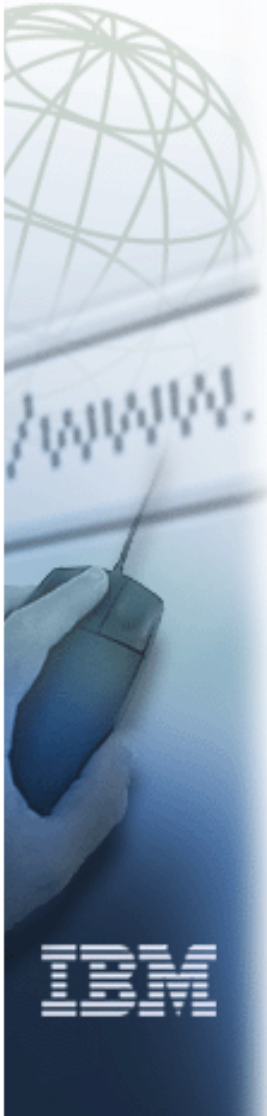


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Why Now??

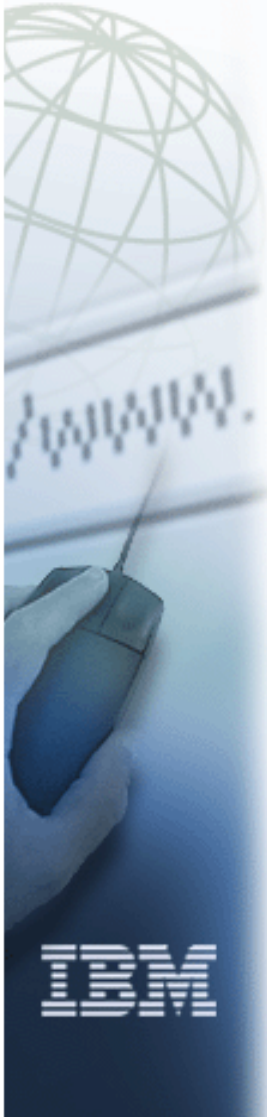


- Mobile computing technology is reaching a level of performance and capacity needed for enterprise applications
- Storage has evolved from 2MB maximum to 8MB and more (IBM MicroDrive enables 1Gig and more storage on a handheld!)
- Cost of devices is declining. IDC forecasts average price for a smart handheld device dropping from \$790 in 1998 to \$600 in 2001 and \$400 in 2004.
- Several mobile device manufacturers are aggressively pushing to expand the device market (Palm Computing, Handspring, HP-UX, Phillips, Psion, Sharp, Nokia, Ericsson, and Motorola)
- Growth in wireless access is allowing even greater flexibility in accessing enterprise data from a mobile device. IBM Pervasive Computing Division estimates that within 2 years from 2000 there will be over 1 Billion wireless subscribers worldwide
 - 80% of new PDAs will be web-connected
 - 63% of Web transactions will be generated from mobile devices





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DB2 Everyplace (DB2e)

DB2e is a small footprint (approx. 150K) relational database and enterprise synchronization architecture for mobile and embedded devices. DB2e's components are written in Java, with the DB2e engine written for C for performance gains

- Easy to use – standardized interfaces
- Easy to write applications for – C, C++, Java, and MAB
- Easy to deploy with existing enterprise application – standard interfaces and SQL
- Extensible with adapters – open adapter framework and published APIs
- Interoperable – works with SyncML clients



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IBM DB2 Family Version 7

- Universal Access
- Universal Application
- Universal Extensibility
- Universal Scalability
- Universal Reliability
- Universal Management

Enterprise Servers

- DB2 UDB for OS/390 and z/OS
- DB2 for VM and VSE
- DB2 UDB for OS/400



DB2 Connect

Enterprise

- Win NT, 2000, OS/2
- AIX, HP-UX, Solaris
- Linux, NUMA-Q

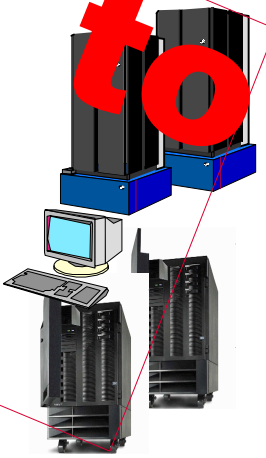


Workgroup

- Win NT, 2000

Enterprise - Extended

- AIX
- Solaris
- Win NT, 2000
- HP-UX
- NUMA-Q
- Linux



Personal

- Win 95, 98, NT, 2000
- Linux
- OS/2

Clients



Everyplace

- PalmOS
- Win CE
- EPOC-32
- Linux
- Win32



From Palm to Teraflop

DB2 Universal Database





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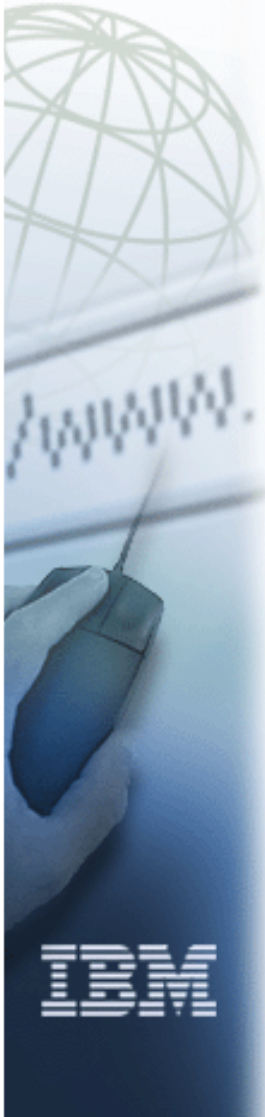
DB2 Everyplace Product Components

Component Name	Description
DB2 Everyplace Database	Database Engine Stores and processes data on mobile and embedded devices
DB2 Everyplace Sync Server + MDAC	Synchronization Server Synchronizes data between devices and backend data sources
DB2 Everyplace Mobile Application Builder (MAB)	Application Development Tool Allows rapid application development for Palm OS platform





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DB2 Everyplace Topology Overview

■ DB2 Everyplace Database on device to manage data

- Smallest mobile relational database available - designed for minimum storage use
- High performance design using main memory database techniques, scrollable cursors, and advanced indexing
- Support for Relational Operators such as Joins, Group By, and Order By.
- Industry standard database interfaces for C/C++, JAVA, CLI/ODBC, JDBC
- Easy application development using standard SQL & off-the-shelf A/D tools
- Globalized for major languages (NLS)

■ DB2 Everyplace Synchronization Server

- Bi-directional synchronization of DB2 Everyplace to DB2 Universal Database
- HTTP-based synchronization well suited to both wireline and wireless networks
- Open Architecture: Adapters can be written to access any data source; DB2 and any JDBC-compliant data sources
- Interoperable with SyncML-based clients and servers
- Centralized administration through the Mobile Devices Administration Center - Zero administration on client devices

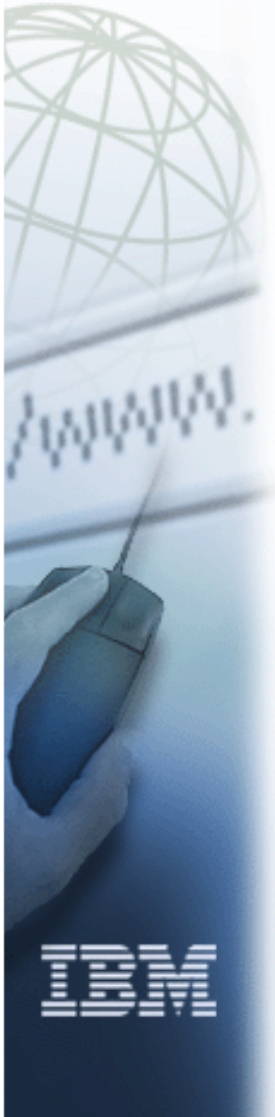


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DB2 Everyplace Topology Overview

■ Mobile Application Builder (MAB)

- Bi-directional synchronization
- Enables Palm OS A/D without writing a single line of code. EPOC support in plan. Free download from the Web
- Ships with DB2 Everyplace along with powerful sample applications with MAB project file
- Extensible design based on XML/XSL to enable application development for other platforms in the future. XSL allows you to pick your output!





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DB2 Everyplace Database Support



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DB2 Everyplace Maturity

7.2

- New Platforms for Client and SyncServer
- Remote Stored Procedure Support
- Indexing Improvements and Dirtybit Indexing
- Basic Transaction Support
- Big Decimal and Timestamp Support
- Complete JDBC Support
- New SQL Functions
- Full functions from DB2e to MAB
- Palm OS 4 Secondary Storage and ROM support
- Improved BLOB Support in CLP and MAB
- Syntax Error Including Token for Error Identification

7.1

- ...
- Windows 32-bit support
- Support for Read Only devices on Windows 32-bit

7

- Multiple platforms
- Synchronization
- Personal Application Builder
- Indexes
- Enhanced SQL

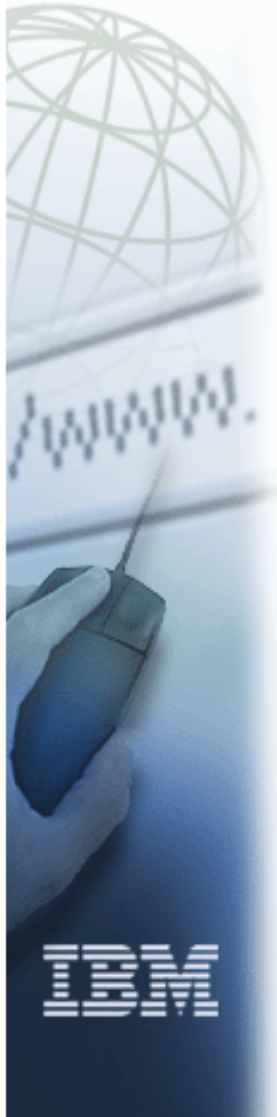
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- First DB2 database on pervasive device
- SQL
- Small footprint

- ▶ Extensible
- ▶ Interoperable
- ▶ Open-framework
- ▶ Fast performing
- ▶ Ease of Management
- ▶ "Fingerprint" RDBMS
- ▶ DB2 Family



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DB2 Everyplace Database

- Design Objective - Small footprint and Zero Administration
- Provides the functionality needed on the mobile device

- Data Definition Language (DDL)
 - CREATE TABLE, DROP TABLE
 - CREATE INDEX, DROP INDEX
 - CHECK Constraints, DEFAULT VALUE
 - Multiple-column primary key, foreign key & Bi-dir
- Data Manipulation Language (DML)
 - INSERT, INSERT with subselect, DELETE, UPDA
 - SELECT (records), Scrollable Cursor, JOIN, LENGTH, RTRIM
 - IN list, GROUP BY, ORDER BY
 - Basic transactions and Expression & Aggregate Functions
- Data Types
 - SMALLINT, INT, DEC, BIG DEC, CHAR, VARCHAR, BLOB, DATE, TIME, TIMESTAMP



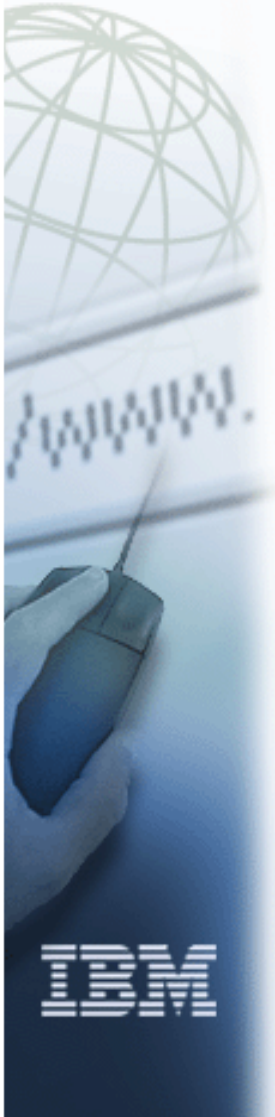
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DB2 Everyplace Database

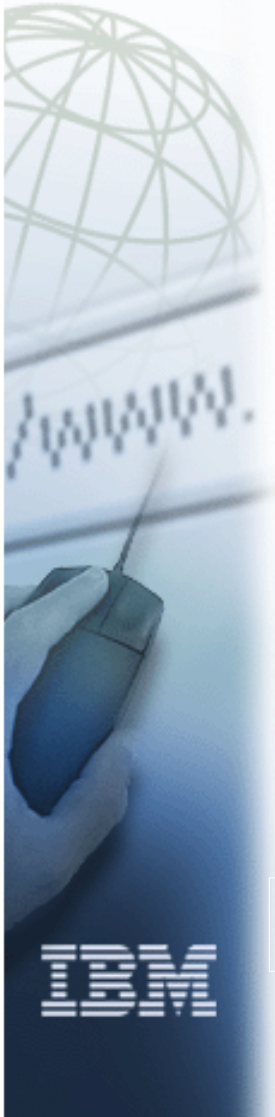
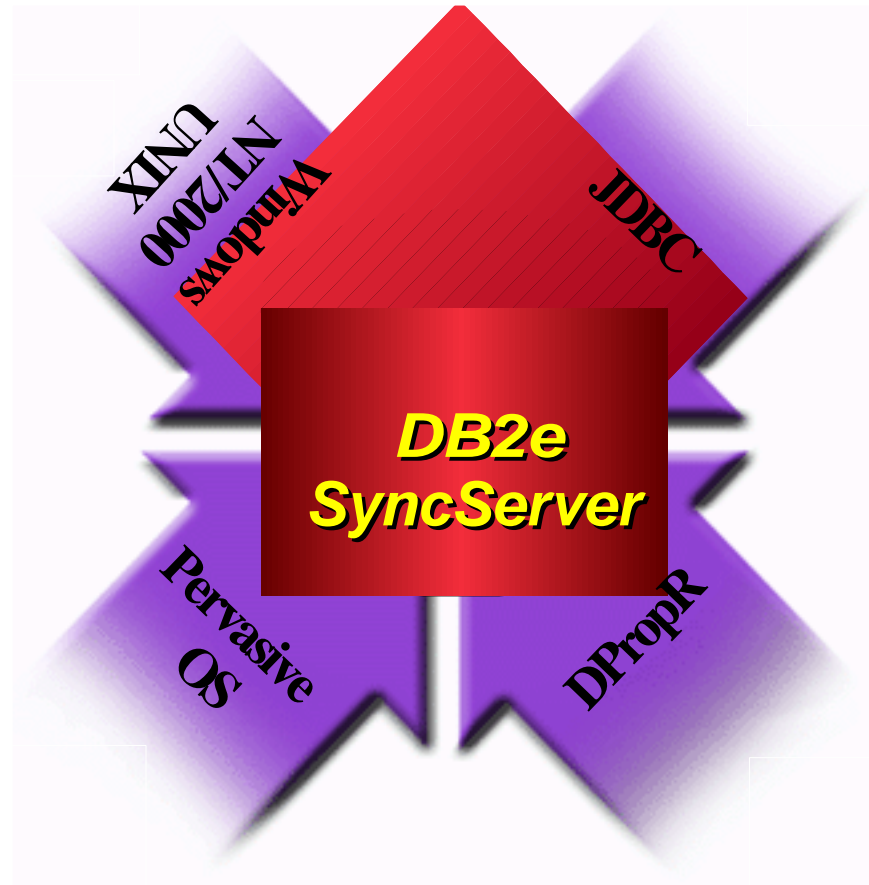
- **Read-Only media support on Windows-32 bit O/S**
- **Ringer when sync is finished**
- **Expansion card support**
 - IBM Microdrive (340MB to 1GB of storage)
 - Compact Flash (16MB to 256MB of storage)
 - Sony Memory Stick (Normal and Secure MagicGate)
 - Secure SD Card and MultiMedia Card (MMC)
- **Languages supported (SBCS, DBCS, and UNICODE engine)**
 - Arabic, Chinese - Simplified & Traditional, Czech, English, French
 - German, Hebrew, Italian, Japanese, Korean, Spanish





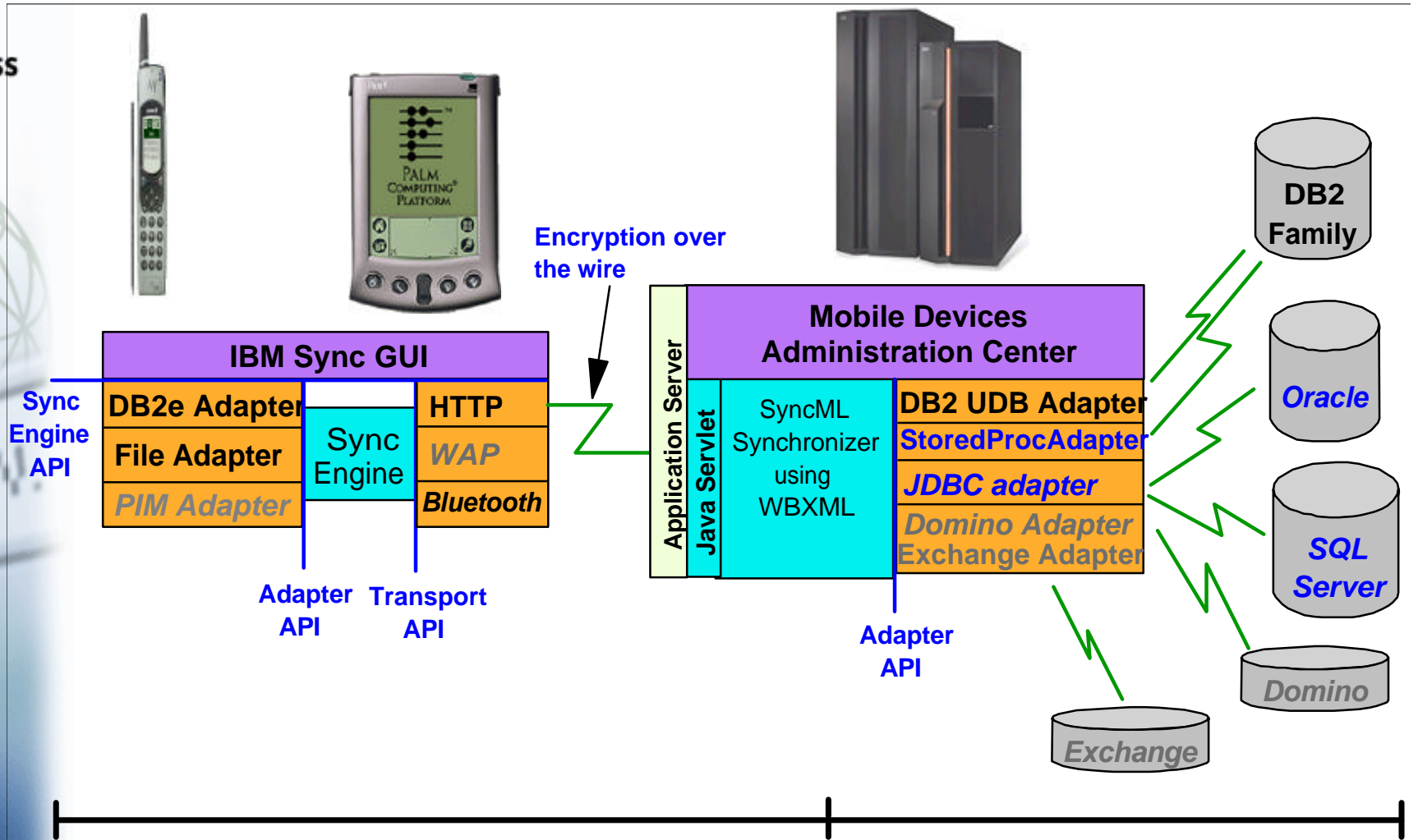
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DB2 Everyplace SyncServer Support





SyncServer Design Overview



Devices

Palm OS, WinCE, EPOC R5 & Symbian platform V6, QNX
 Neutrino, embedded Linux, Linux, and Win32

Synchronization Server

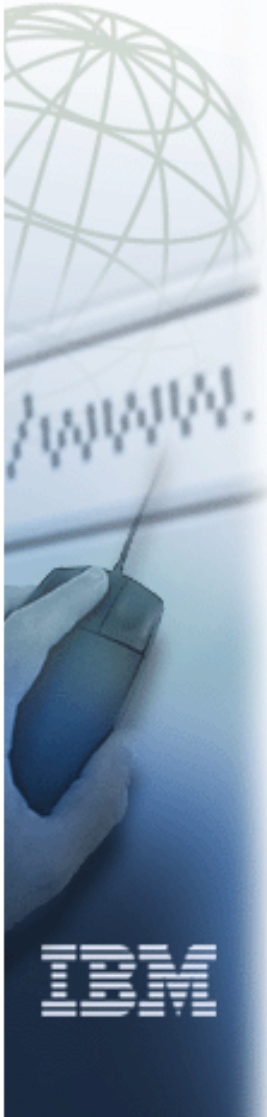
Windows NT/2000, AIX, Solaris, Linux

Data Sources

***Items in grayed italics are planned for future releases*



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DB2 Everyplace SyncServer

- **Efficient two way synchronization**
 - ▶ Synchronizes with DB2 Universal Database on all platforms
 - ▶ Incremental Updates using DB2 Universal Database DataPropagator data replication technology.
 - ▶ JDBC support will enable synchronizing to any backend database
 - ▶ Option to offload work from production machine. This minimizes system impact by using log data for capturing changes via vanilla DPropR

- **Centralized administration**
 - ▶ Grouping and management of users and data subscriptions into mobile applications with zero administration for devices
 - ▶ Handles distribution of data, files, and applications
 - ▶ Access control for device users based on insert, update, delete privileges

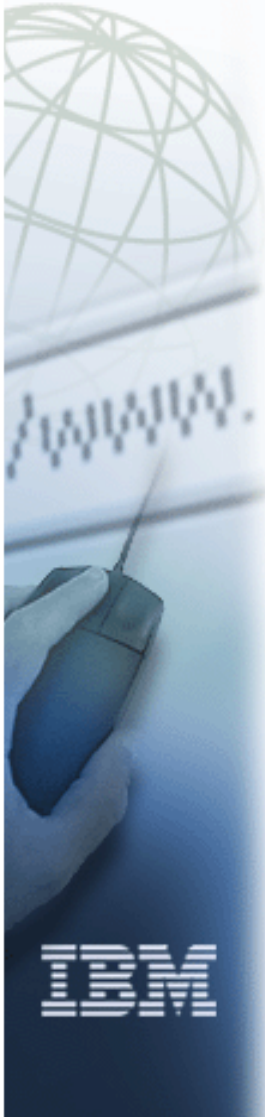
- **Interoperable, Extensible and Open Architecture**
 - ▶ SyncML based for data interchange with published APIs
 - ▶ SyncML is an industry consortium dedicated to create a standard for synchronization of data - can sync with all SyncML enabled devices

- **Optimized for wireless**
 - ▶ Uses WAP WBXML for encoding and decoding messages

- **Scalability**
 - ▶ Works with any JAVA Application Server (such as WebSphere) to communicate with clients and scale the connection capacity



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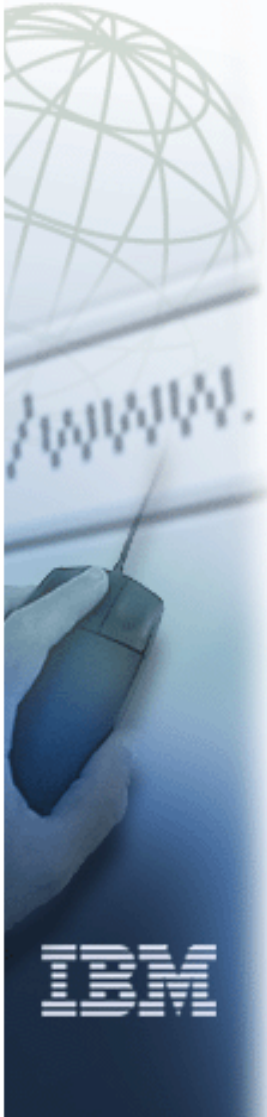


DB2 Everyplace SyncServer

- New Sync Server platforms: Windows NT/2000, *AIX*, *Solaris*, and *Linux*
- Support for all DB2e client platforms: Palm OS, WinCE/Pocket PC, EPOC R5 & R6, QNX Neutrino, *Linux*, and *Win32*
- JDBC adapter
 - ▶ Enables access to any JDBC compliant data source
 - ▶ Available for DB2, Oracle, Sybase, Informix, and MS SQL Server engines
 - ▶ Based on triggers, not DPropR technology
 - ▶ Oneway INSERTs with PUT option
- Remote Stored Procedure Adapter
 - ▶ Allows mobile users to run stored procedures defined in source databases
- Conflict Improvements
 - ▶ Reject Logging on Server
 - SyncServer now logs *all* rejected rows at the server. This allows administrators to tune the synchronization configuration of users to avoid as many conflicts as possible
 - ▶ User Exit on Conflict
 - Support for User Exit whenever a conflict is logged. Gives administrators the option to call some custom code to take



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DB2 Everyplace SyncServer

- Encryption Over the Wire
 - ▶ Encryption is now used for all TCP/IP connections between the SyncServer and the Sync client on the PDA
 - ▶ No 'sniffing' the connection
- Administration Improvements for Subscriptions
 - ▶ Check clause support
 - Define multiple check clauses for columns of data
 - Check clause field has increased from 255 to 1024 characters
 - Can also define check clauses for mobile databases as well
 - ▶ Index Management
 - MDAC has tools that allow you to manage the creation of indexes for tables on mobile devices
 - Indexes can be created for the mobile device, but they are not synchronized (max. 10 columns)
 - Can extract indexes from JDBC source databases for reuse of DDL
- Vertical Partitioning of Columns of Source Data
 - ▶ Allows an administrators to take a large table and select which columns to have synchronized
 - ▶ Adds security for sensitive data columns in base tables which are left inside the enterprise; can further specify columns that are hidden for specific groups or users



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DB2 Everyplace SyncServer

- Improved InstallShield
 - ▶ User Centered Design input and human factors analysis to improve installation
- Optional Automated Install of DB2 UDB Workgroup Edition
- Publish Adapter API & IBM Sync Client API
 - ▶ The APIs for client and server synchronization adapters (as well as the IBM Sync API) will now be published in the documentation allowing developers to expand and enhance SyncServer functionality
 - Client Sync Adapter API can be used to write new adapters to support additional data types, data handling, and data sources on the PDA
 - Server Sync Adapter API allows new adapters to be written to support new data types, data handling, and data sources on the SyncServer and within the enterprise
 - IBM Sync API allows programmatic access to synchronization functions of the IBM Sync client

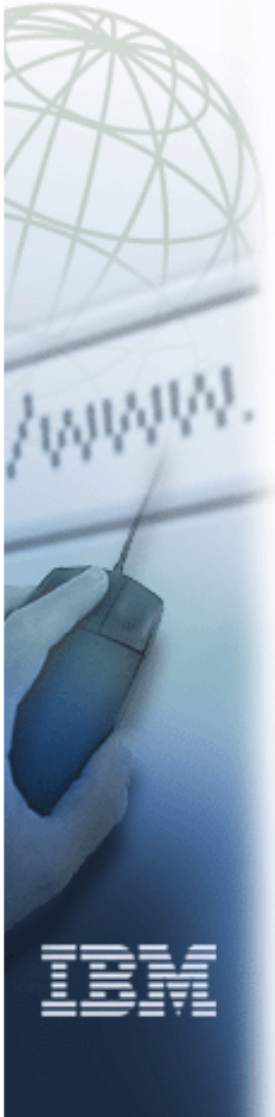
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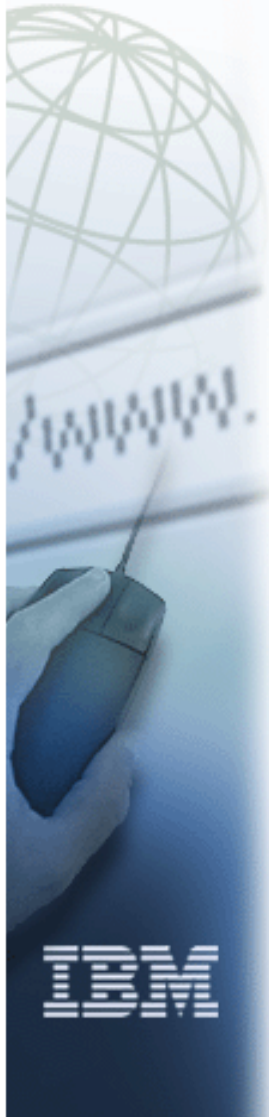
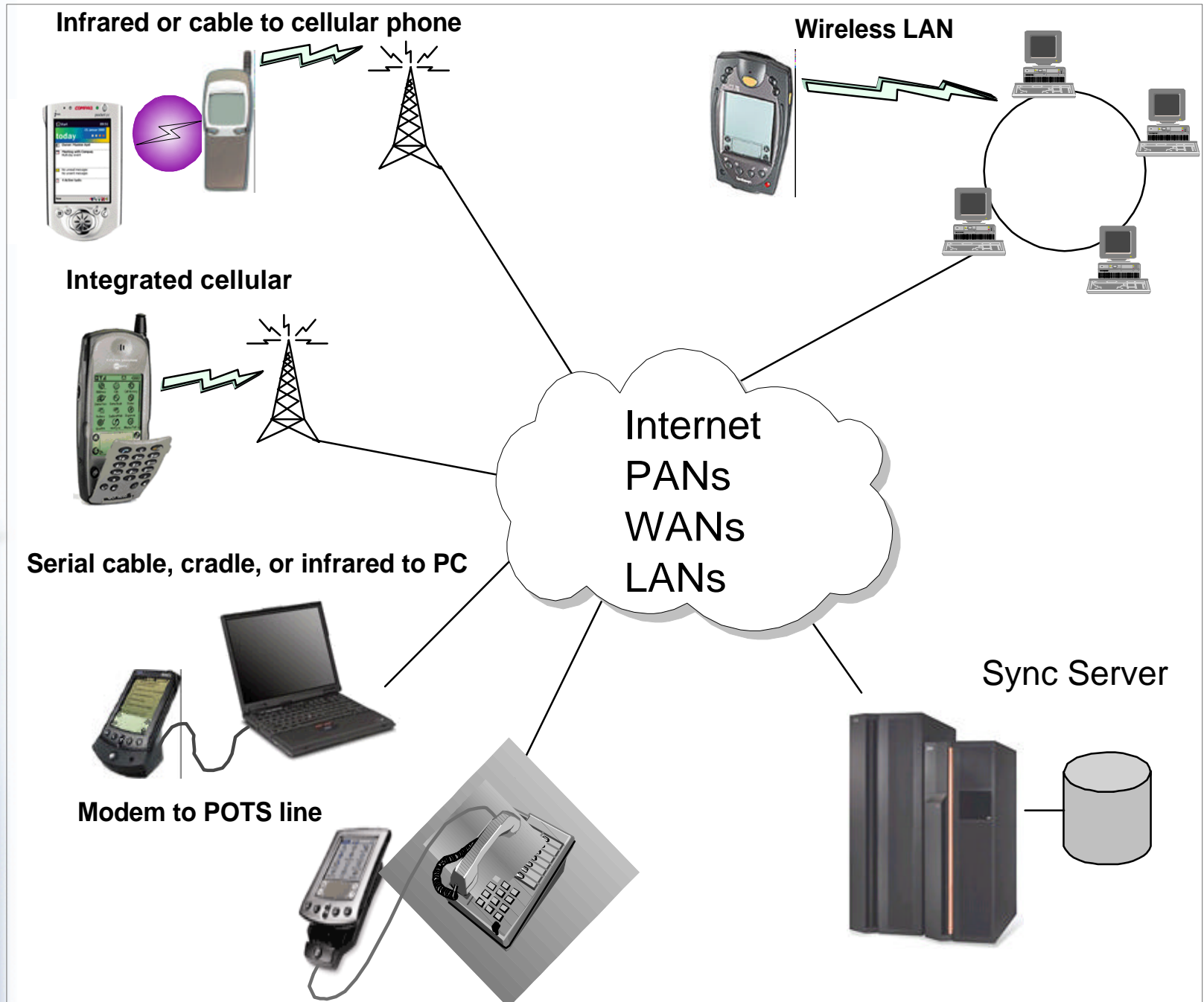
Mobile Device Administration Center (MDAC)





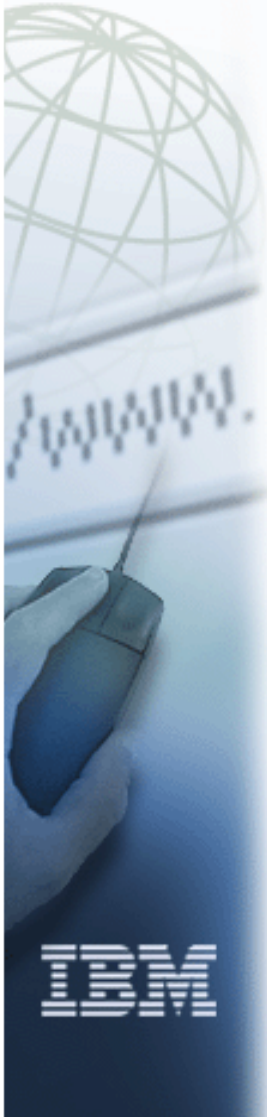
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Sync Connection Options





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WAP and Bluetooth

WAP (Wireless Application Protocol)

- ✓ Monochrome text-only protocol designed to work with low bandwidth connections and small phone screens.
- ✓ Applications are written in WML and eventually will merge with XML where transformation engines will then be used to determine output to fixed or mobile device.
- ✓ WML will evolve as mobile device interfaces and displays mature

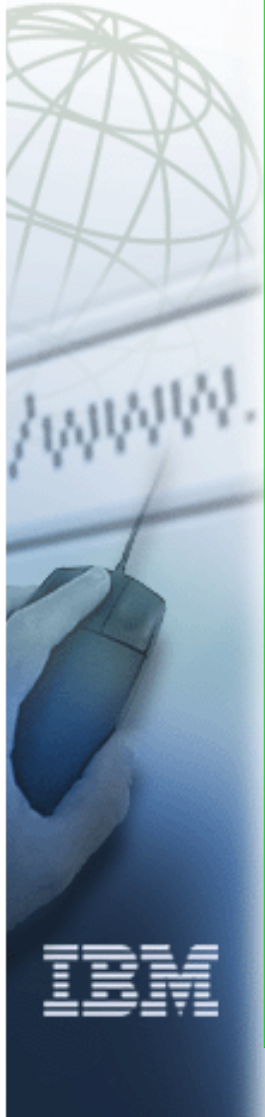


Bluetooth (named after Harald Bluetooth)

- ✓ Harald Bluetooth was a Viking and king of Denmark between 940 and 981. One of his skills was to make people talk to each other, and during his rule Denmark and Norway were Christianized and united.
- ✓ Solution to the oxymoron of wireless (can talk to anyone in the world wireless, but need to connect the headset to the phone with wires) - and not pointing like infrared!
- ✓ Bluetooth allows electronic devices to be tied together so that they can communicate with each other; essentially, it is a short-range radio communications links for transmitting digital voice and data
- ✓ Used for document printing, headsets, I-phones that know what service to use
- ✓ Designed for short range (up to 10m) but amplifiers will extend up to 100M, create a rather large PAN
- ✓ IBM, Ericsson, Intel, Nokia, Toshiba have formed a Bluetooth SIG



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Robust Development Environment

- Supports CLI/ODBC and JDBC interfaces
- Included Developer tools
 - ▶ Database Import and Export utilities
 - ▶ **Command Line Processor for all platforms**
 - ▶ Sample applications with full source C/C++ code
 - ▶ Mobile Application Builder for Palm OS available free from website
- Commercial Development tools
 - Supports Palm OS, JAVA 1.1.8+, QNX Neutrino, and **Symbian platform**

 - Supports Windows Embedded Tools 3.0

 - Supports JAVA 1.1.8+ on Palm OS, QNX Neutrino, and embedded Linux

 - ▶ Software Development Kits
 - Palm OS SDK
 - EPOC R5 & **Symbian platform V6 SDKs**
 - Lineo Embedix SDK (embedded Linux)
 - Lynuxworks Lynux SDK (embedded Linux)
 - QNX Neutrino 2.0 SDK



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Fast Development with Mobile Application Builder

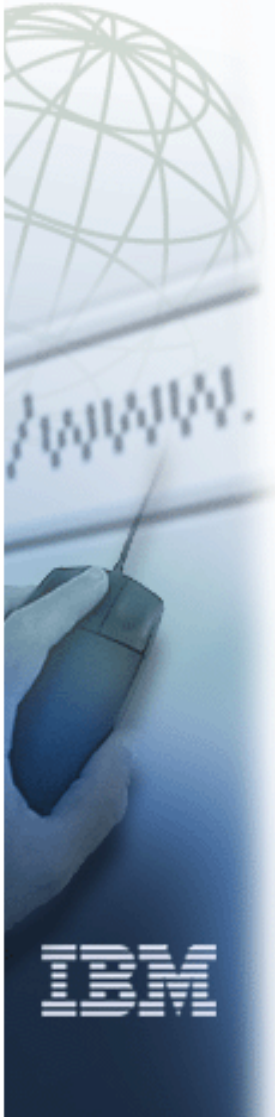
- Rapid prototyping capability
 - ▶ Generates DB2 Everyplace applications without writing a single line of code
 - ▶ Applications are native compiled C code
 - ▶ No Runtime Interpreter therefore no runtime performance penalties
- Fully supports relational database operations
 - ▶ Database joins on a single form
 - ▶ Automated BLOB data handling
 - ▶ SELECT DISTINCT and ORDER BY
 - ▶ Databases on expansion cards (Microdrive, CF, SD Card, Memorstick)
 - ▶ Supports automatic form creation directly from database table definitions
- Easy to use
 - ▶ Visually create and edit forms by selecting controls from a palette
 - ▶ Project tree enables easy management of all parts of the project
 - ▶ One button code generation and compilation
- Global scripting and custom function support for advanced operations
- Complete sample application developed in MAB included
 - ▶ demonstrates the controls and database functions
 - ▶ sample includes scripting and custom function samples
- Sync API support for integration of synchronization into the application

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Mobile Application Builder - MAB

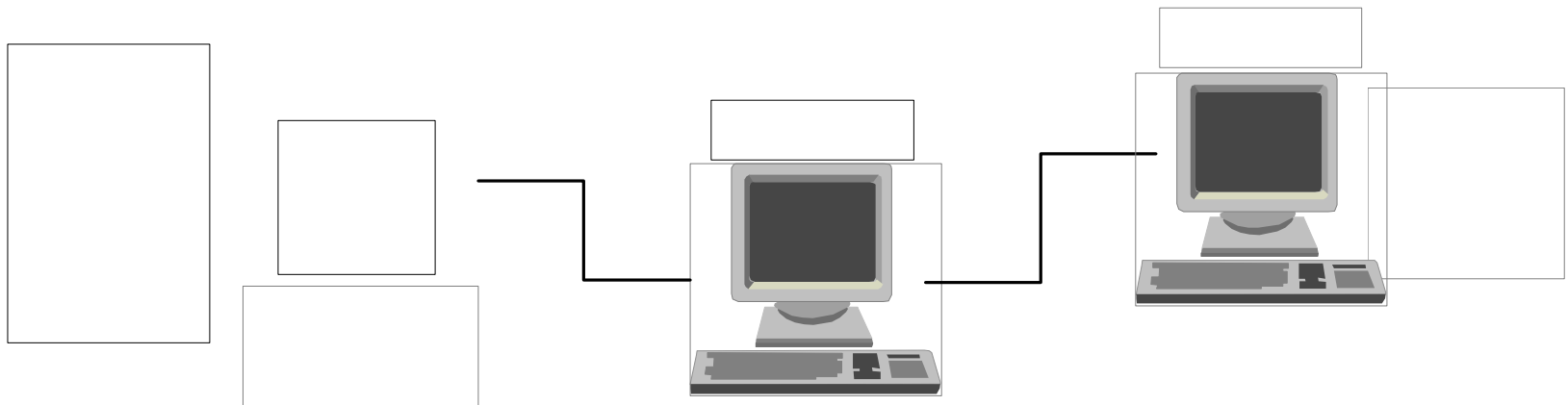
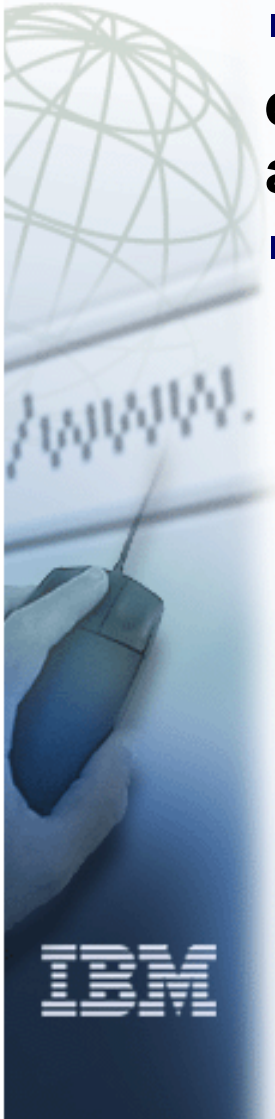




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- **Asset tracking application**
- **Worker scans barcode of tool and it is associated with employee ID. Data is then reconciled with corporate accounting, inventory, and employee systems**
- **Benefits**
 - Tool and usage stats tracked – employee accountability for missing tools
 - Granularity in charge-back accounting - tools can now be billed per job





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“The **reliability and scalability** of DB2 Universal Database, along with its ability to **integrate with applications** designed to take advantage of e-business and mobile computing, make it our database of choice.”

“We **evaluated Sybase SQL Anywhere** for the mobile database, but it **doesn't have the horsepower** to handle a complex application that has to sync with a database server. DB2 Everyplace gives us the **speed and functionality of DB2 on a hand-held device** with a 150KB footprint, which is incredible.”

Bob Kaule, President



ReferenceEssential.pdf

IBM



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Other Quotes from References

■ **“We chose IBM’s DB2e over Oracle because it would take a considerable amount of time to write the same application to Oracle and would affect our speed to market. Also, IBM’s DB2e is less expensive and the Oracle solution doesn’t offer the power and flexibility that DB2e does.”**

The PDA Group - Jeff Norton, CTO



■ **“...highly scalable, we have downloaded thousands of entries without even coming close to taxing its capacity.”**

Sean Bay, CEO

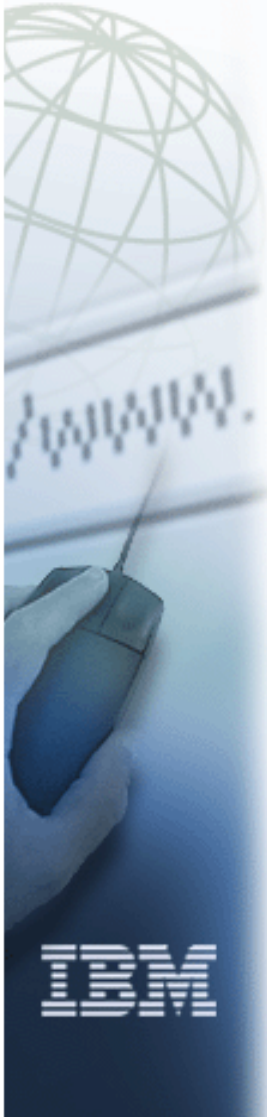


■ **“IBM DB2 Everywhere is truly the most complete and ready-to-use database solutions for mobile computing on the market.”**

Carlos Olivara, Managing Directors



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DB2 Everyplace

- Relational database functionality – not flat file
- Most function per footprint (150K) of any mobile device
- Performance – fast query capability
- Multi-platform: supports all leading mobile and enterprise operating systems
- Ease of application development using Mobile Application Builder, C, C++, and Java support
- Zero administration option of mobile device
- Secure synchronization between pervasive device and SyncServer
- Connectivity to *any* DB2 UDB or JDBC-compliant data source



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Resources

- DB2 Everyplace Homepage
 - ▶ www.ibm.com/software/data/db2/everyplace/
 - ▶ Contains current product information, support documentation, white papers, partner information events, etc.
- "You Can Take it With You: Mobile Databases", DB2 Magazine, Fall 2000
- "Extending enterprise data to mobile devices", IBM PartnerWorld for Developers, Nov.. 2000

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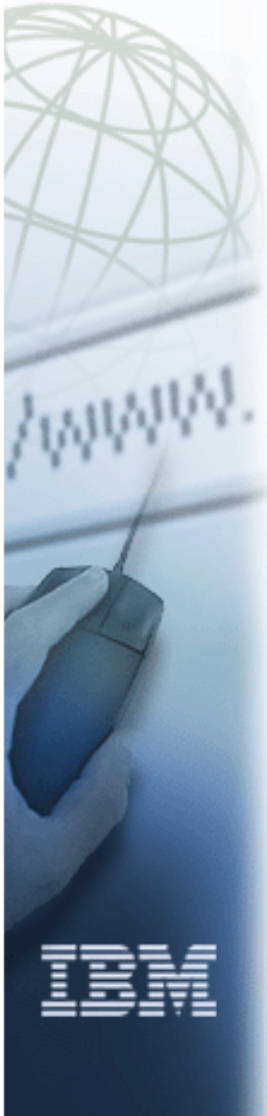
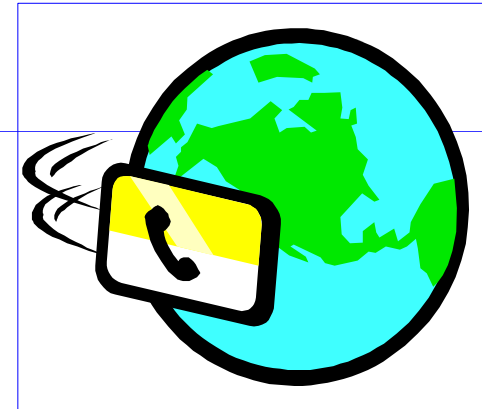
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Key Differentiators

- **Complete Data Centric solution**
 - ▶ DB2 Everyplace Database
 - ▶ DB2 Everyplace MobileApplication Builder- **unique**
 - ▶ DB2 Everyplace Sync Server

- **Amount of function for its size**

- **Platform support**

- **Performance**
 - ▶ High availability architecture (won't slow down main database performance while syncing)
 - ▶ Advanced indexing capabilities (faster queries)
 - ▶ Tested with 400,000 rows 120MB table on Palm with microdrive

- **Architecture- open and standards based allows for application flexibility**
 - ▶ supports Standard based APIs (ODBC, JDBC) for application customization
 - ▶ Adapter API allows access to custom data sources- **unique**
 - ▶ Microdrive and/or Compact Flash Card Support for greater storage- **unique**

- **Working towards full support of SyncML standard which will allow future interoperability with other SyncML applications and hardware- **unique****

- **Remote query capability - **unique****

- **Automatic query capability built in to base product for basic data browsing and manipulation without writing an application- **unique****

