2007 ASUG Annual Conference

April 22-25

Georgia World Congress Center

Atlanta, Georgia, USA

ILM for SAP NetWeaver® BI & mySAP™ ERP at Excelcom

Session # 5800
Dr. Michael Hanhe - Sand Technologies
Mr. Tom Simmons - Open Text Corporation

EDUCATING | NETWORKING | INFLUENCING

Integrated Lifecycle Management for mySAP™ ERP & NetWeaver® BI Archiving Solution
at
PT Excelcomindo Pratama, Tbk.

using solutions from

OPEN TEXT CORPORATION

SAND™ TECHNOLOGY

EDUCATING | NETWORKING | INFLUENCING

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Learning Points

- Best Practice Solution for Applying Integrated Lifecycle Management To mySAP™ ERP and NetWeaver® BI Archiving Data
- Telco Industry Needs for Data Archiving and Near-line Storage Needs Unique – TCO Driven
- Solution Must Address All Data Lifecycle Phases – Integrated Solution Proved Best

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Excelcom Background

- Headquarters in Jakarta, Indonesia
- Third largest telecom in Indonesia
- Began operations October 1996
- Operator of GSM 900 \ 1800
- First to launch 3G in Indonesia
- 10 million subscribers
- SAP since 1996
- Migrated from SAP ERP to mySAP™ ERP & NetWeaver®

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System Background

- SAP ERP to mySAP™ ERP (ECC 5.0)
  - Originally in Production 1996
  - Modules - MM, SD, PM, MM, FI/CO, PS, HR, WM, LES
- SAP NetWeaver® BI (7.0)

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XL's SAP System Architecture

mySAP™ ERP

SUN SF 6900

- 32 CPU
- 128 GB Memory
- 2.2 TB Hard disk

SAP NetWeaver® BI

HP Itanium RX7620

- 8 CPU
- 16 GB Memory
- 5.4 TB Hard disk

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Why Archiving?

- Constantly increasing storage needs
- Declining performance for daily reporting, daily preparation of statistical data and aggregations
- Change-runs (adjustment of attributes to master data) can only be conducted on weekends
- Constantly increasing running times for backup/recovery

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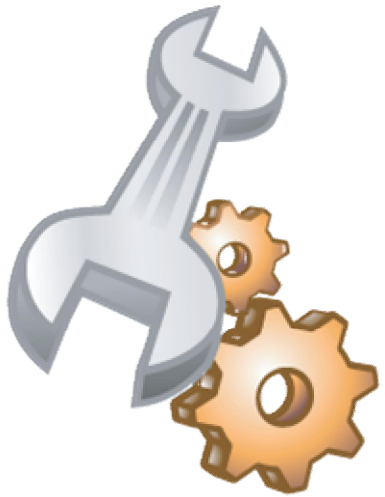
Business Challenges at Excelcom

- Drive Cost Out of Business & IT Operations
- High DB Growth Rates – Storage Management Issues
  - Average 100GB \ month for mySAP™ ERP
  - Average 120GB \ month for SAP NetWeaver ® BI
- Unplanned System Downtime
- High Resource Utilization
  - Quarter-End Closing/Reporting
- Excessive Backup Times
- Need to access outdated ERP & BW data



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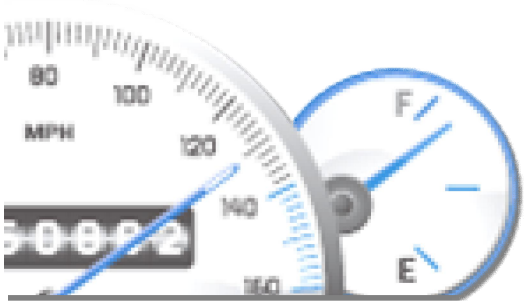
High Growth Rate Creating Daily Service Window Issue

"Our backup now takes 4 hours for mySAP™ ERP Production and 13 hours for NetWeaver® BI Production"



Melinda Dharmadi, General Manager,

Enterprise Resource Planning (ERP),

PT Excelcomindo Pratama Tbk

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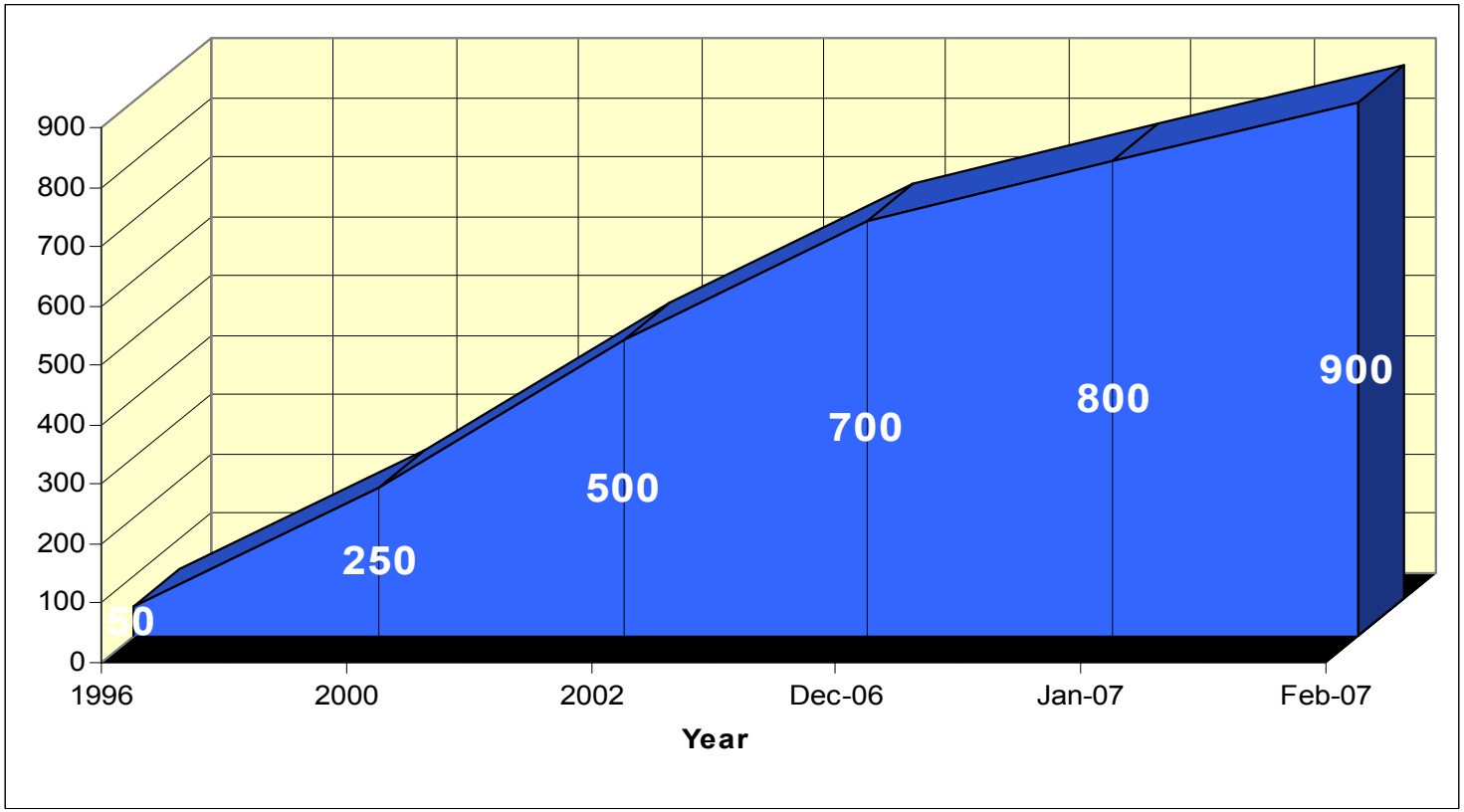
SAP Data Growth at XL



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XL's Action Plan for Improvement

- Issue SAP Data Archiving RFP with the following objectives:
  - Requirement to Archive SAP/R3 Data from 1996 – 2002
  - Requirement to Archive SAP BW Data
  - Requirement for Read/Display of Data Archiving with SAP Standard Transaction for R/3 and BW
  - All functionality of BW has to work as well after the data has been archive, especially slice & dice, calculation, reporting, analysis, etc
  - Requirement to reduce hard disk usage by at least 30%
- Competition included IBM (CommStore), HP (Infolife & OuterBay), SUN (PBS) and Open Text (with SAND)

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Winning Solution

- Selected Open Text & Sand Technology Solution for mySAP ERP and BI Archiving for the following reasons:
  - Single Unifited solution for Data, Document, Printlist and NetWeaver® BI Archiving – Trusted Vendor – SAP Expertise
  - Ability to read \ display data \ documents via standard mySAP™ transactions – simplified user access
  - Ablility to display online and offline NetWeaver® BI data in single query
  - High compression ratio on NetWeaver® BI archiving
  - Lowest overall cost of ownership

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Initial Project Scope

- Object for SD Module = SD_VBAK, SD_VBKA, SD_VBRK,RV_LIKP
- Object for MM Module = MM_EBAN, MM_EKKO, MM_INVBEL, MM_REBEL, MM_MATBEL
- Object for PM Module = PM_ORDER, PM_QMEL
- Object for FI Module = FI_DOCUMNT
- Migrate existing data archiving from PBS and SAP Content Server to new server for object MM_EBAN, MM_EKKO, SD_VBAK, SD_VBKA, SD_VBRK, RV_LIKP
- Reduce NetWeaver® BI online data at least 30%

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Schedule - November 2006

Mon	Tue	Wed	Thur	Fri	Sat/Sun
		1	2	3	4
6	7	8	9	10	11
13	14	15	16	17	18
20	21	22	23	24	25
27	28	29	30	1	2
					3

- Gather requirement (Fri 3)
- Training Preparation (Mon 6)
- Training (Tue 7)
- Gather requirement (Wed 8 – Thur 9)
- Unit test (Fri 10)
- Software Installation (Thur 9 – Fri 10)
- Conceptual Design & Unit test for 5 archive objects (Mon 13 – Thur 16)
- Software Installation (Mon 13 – Wed 15)
- Conceptual Design Documentation (Fri 17)
- Conceptual Design Documentation (Mon 20 – Thur 23)
- Submit Conceptual Design (Thur 23)
- User review and confirm conceptual document (Mon 27 – Fri 1)

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Schedule December 2006

Mon	Tue	Wed	Thur	Fri	Sat/Sun
				1	2
					3
4	5	6	7	8	9
QAS system & UAT Preparation					10
11	12	13	14	15	16
QAS system & UAT Preparation			UAT		17
18	19	20	21	22	23
UAT					24
			Sign-off UAT		
25	26	27	28	29	30
					31

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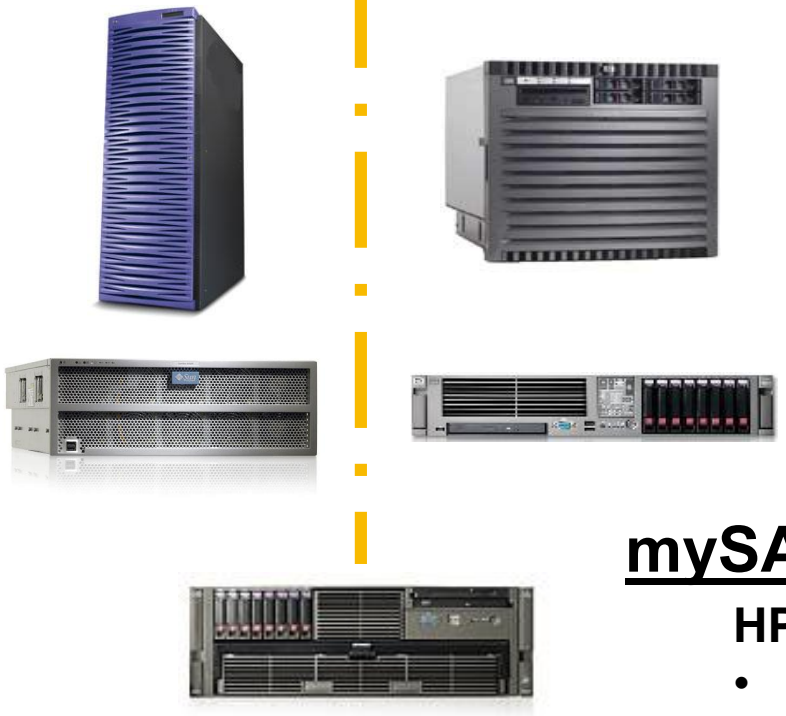
XL's Archiving System Architecture

mySAP™ ERP

SUN SF 6900

- 32 CPU
- 128 GB Memory
- 2.2 TB Storage



NetWeaver® BI

HP Itanium RX7620

- 8 CPU
- 16 GB Memory
- 5.4 TB Storage

mySAP™ Archiving

HP DL Server

- 4 CPU
- 6 GB Memory
- 400GB Hard disk

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Extended Solution

- SAP Document Management with Open Text's Livelink ECM for SAP – Document Management DocuLink^{tm}
- Livelink Meeting Management
- Livelink Document Management

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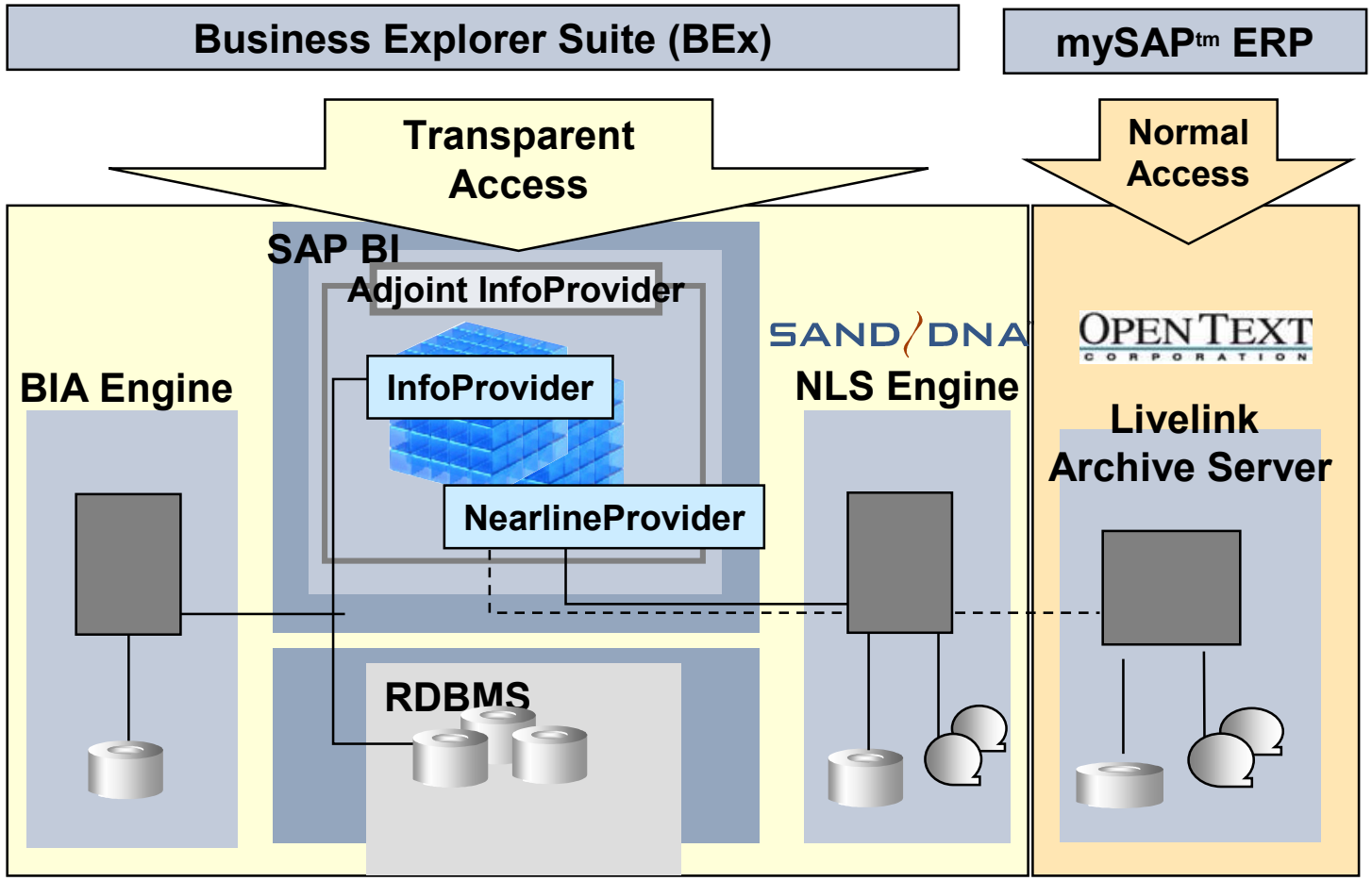
SAP Archiving Architecture with Nearline Storage (NLS) for



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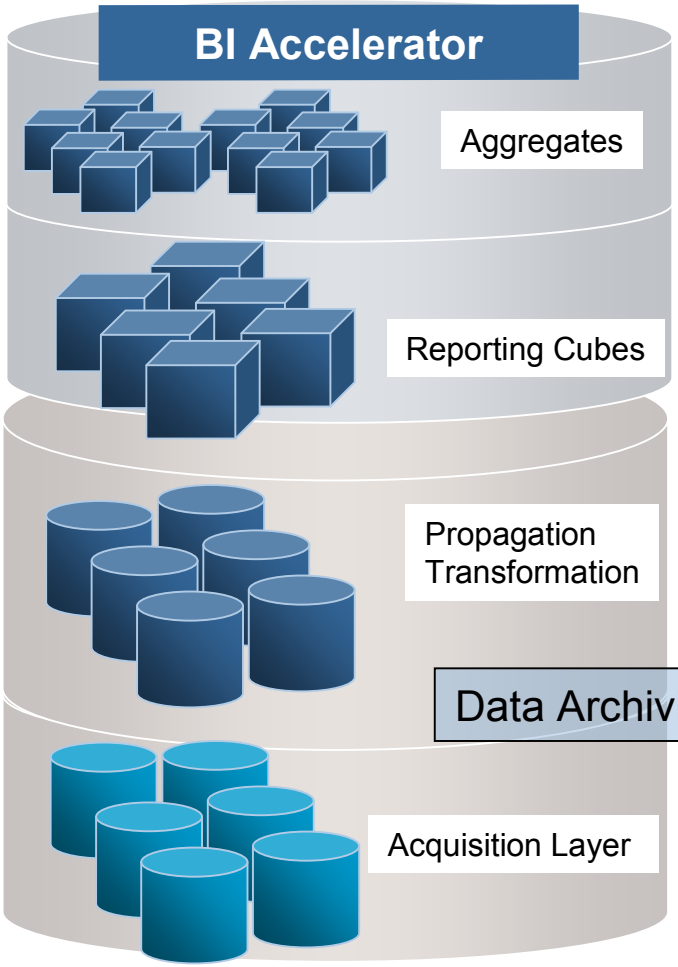
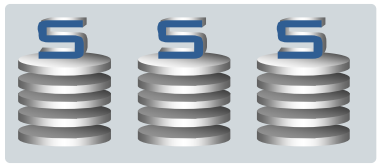
Lesson Learned: Nearline Concentrates on Detailed Data

- **Relieving SAP BI from detailed data**
- **Compressed by more than 85%**
- **Used as a "Corporate Memory"**
  - Detail in its "pure" form
  - Infrequently used detailed data
  - "Just-in-time" data
  - Aged and historical data
  - Legacy data



Data Archiving Process (DAP)



Livelink Enterprise Archive Server

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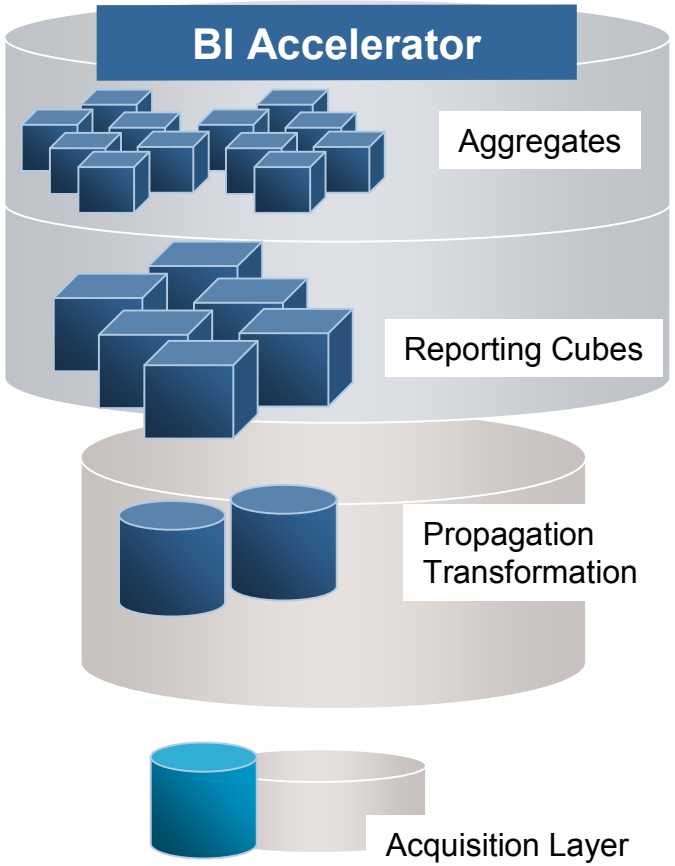
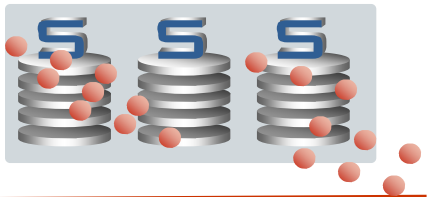
Better Use of "Corporate Memory"



Greater Flexibility in Responding to New Analytical Requirements

- Deriving new InfoCubes or DSO's
- Building new KPI's based on historical data

Data Transfer Process (DTP)
& Look Up API



Livelink Enterprise Archive Server

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Why Open Text and Sand Technologies?

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SAND Technology – Open Text Partner

SAND Technology provides software for
Intelligent Information Management
to enterprises that have increasingly large
amounts of granular or historical data
which needs to be economically stored, and
efficiently and easily retrieved
"just-in-time" and on demand
to meet changing business needs and
regulations.

SOFTWARE™
SAP
PARTNER

POWERED BY
SAP NetWeaver®

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SAND/DNA for SAP BI – What is it ?

- Software-based solution, fully integrated into the SAP NetWeaver BI 2004s infrastructure
- Data compression of at least 85%, frequently as high as 95% (depending on the data)
- Database-independent - no special hardware required
- Does not require index building, but still allows any data field to be accessed within Data Transfer Processes (DTP's), BEx or any SAP BI-certified front-end tool
- Runs on most popular operating systems (Tru64, Solaris, AIX, HP-UX, Linux, Windows)
- Can run on the same server as SAP BI, or on a different server

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Open Text Overview

❑ Overview

Founded:	**1988 (IXOS is Open Text)**
Ownership:	**Public (NASDAQ: OTEX)**
HQ:	**North America: Waterloo Europe: Munich**
Employees:	**3,100**
Focus:	**Fortune 2000**

❑ Analyst comments

"IXOS/Open Text addresses needs in high-volume imaging and document management environments involving integration with mission-critical business applications like ERP, CRM and Groupware. That these features are provided in a single integrated solution providing companies with the ability to meet critical compliance and business viability goals without having to resort to a non-integrated collection of point solutions."

Doculabs

❑ Strategic Position

- Largest Independent ECM Vendor Worldwide
- Proven Success with SAP Spanning two decades
- Selected by SAP as Global Reseller!

❑ Customers

Total

Over all products: **20 million seats**
13,000 deployments

SAP product specific: **>2.3 million seats**
2,700 customers

❑ Other Info

Certified Solutions — Certified by SAP under the name "IXOS" in many categories. Certifications include:

- Powered by SAP NetWeaver

- ArchiveLink 4.5 and HTTP Content Server (BC-HCS)

- ArchiveLink Load Test (AL-Load)

- WebDAV XML Content Connector 6.40 (BC-DAR 6.40)

- Enterprise Portal iViews (EP-IVW)

-Knowledge Management Repository Manager (KM-REP)

- Composite Application – xAPP for Contracts Mgt.

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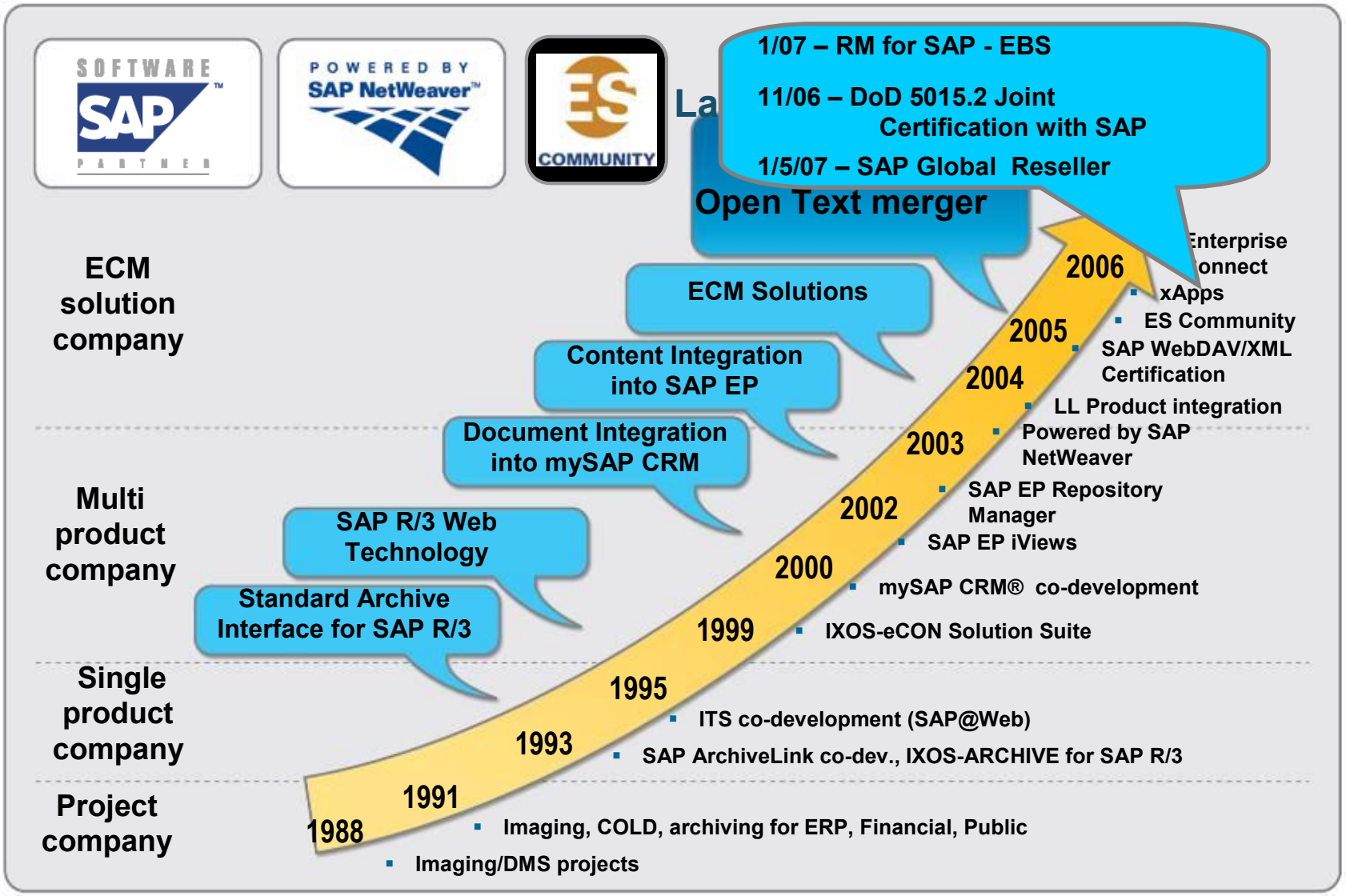
Co-Innovation Spanning 2 Decades - SAP & Open Text



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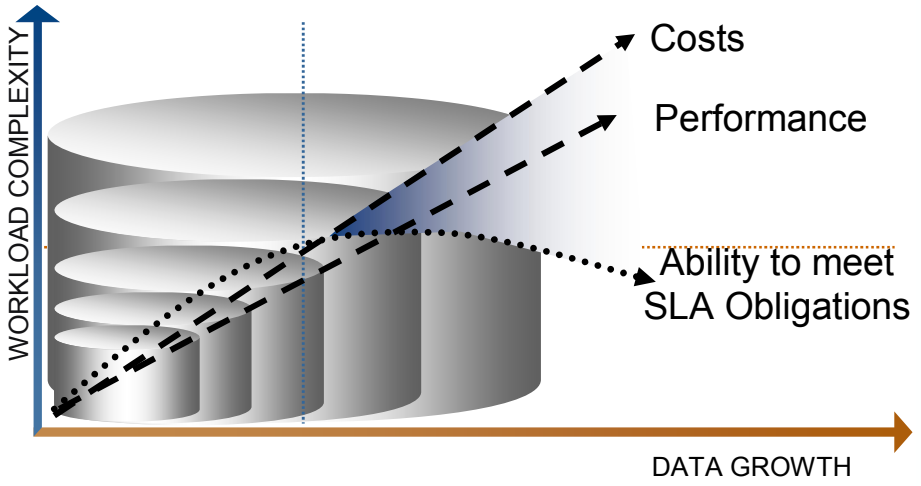
What Companies like XL are Facing.....

- Unprecedented growth in data volumes, driven by:
  - **Rapid business growth – more data types – growth rate**
  - **Need to keep new types of data – IM files, RFID, Retail**
  - **Regulatory mandates - e.g. SOX, Basel II compliance**

➔ Data Warehouse Managers are challenged to meet SLA obligations

- ➔ Impact on ability to meet analytical requirements
- ➔ Disrupt the decision-making process
- ➔ Potential regulatory risks



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Why Not Just Add More Storage ?

- "Fast-Cheap-Storage" is still expensive!
- For every $1 in hardware - $5 to $10 in other costs
- Storage TCO is **> $ 150,000 per TB per year**
- High storage volumes can impact:
  - Data loading performance
  - Performance of change runs, rollups, etc.
  - Backup and recovery times
  - Migration and upgrade times.

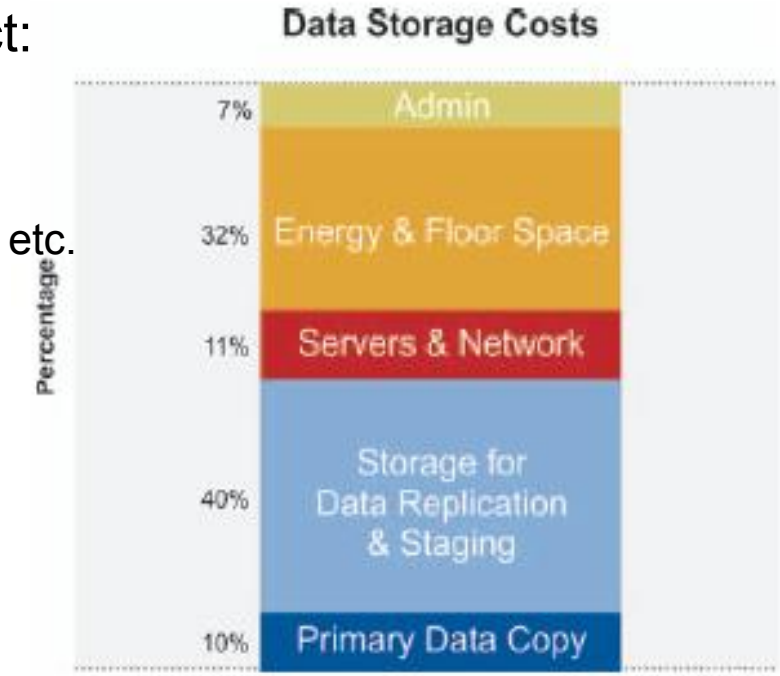

Figure 1: Breakdown of Data Storage Costs

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SAP's ILM/Data Aging Strategy

ILM for SAP NetWeaver BI 2004s:

Split the data according to age or frequency of access into the following areas, moving data to the next level after a specified retention period

	Online Database Storage	Near Line Storage	Data Archiving
Frequently read/updated data	✓		
Infrequently read data	✓	✓	
Very rarely read data	✓	✓	✓

Source: SAP 2006

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Other BI Archiving Customer Results:

- Query time: 1.x slower than SAP BI examples
- Compression Rate: More than 85% and less than 98%

December 13; 2006 SAP Info Online
RI Solution moves SAP data to nearline store: **From 650 to 25 GB in One Go**

The IT service provider RI Solution GmbH has achieved a compression rate of *96 percent* for its data in SAP NetWeaver Business Intelligence. Thanks to nearline storage, the company is saving on archiving costs and at the same time has lower administration expense.

The ability of SAND/DNA to compress selected data to an extremely high degree (*approximately 90 percent on average*) while making it available for use in reporting or as the basis for new DataStore objects or InfoCubes was the key factor in Volkswagen Financial Services' decision. The low total cost of ownership, due to the need for far less administrative support as compared with standard archiving solutions, was also very appealing

Volkswagen Bank

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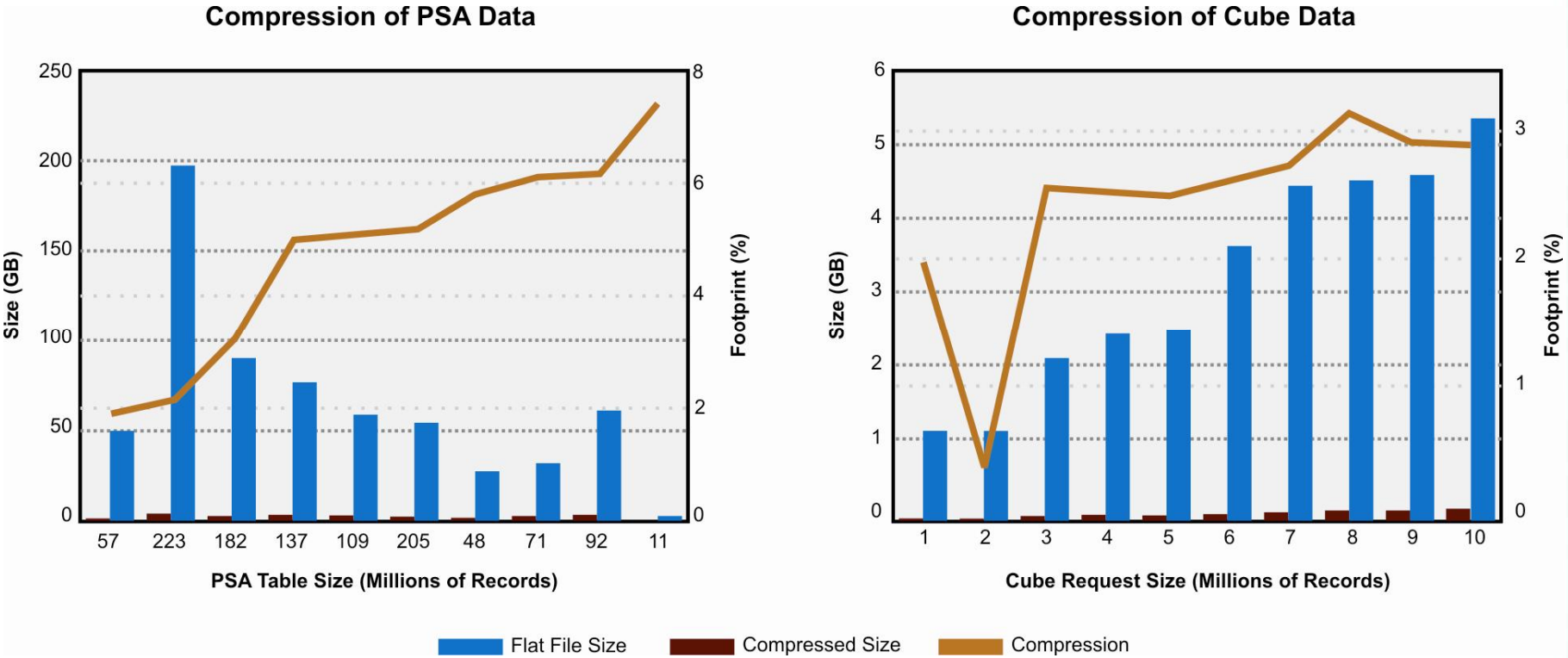
Typical Compression Ratios



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What is SAP Saying About SAND/DNA?

Integrated.

"SAND uses the same technological potentials for its solutions as SAP uses for its NetWeaver environment and, thus, fits in perfectly with our strategy of reducing costs in the area of storage, without having to sacrifice integration and interoperability."

- Rainer Uhle, Product Manager BI,
SAP Netweaver Product Management, SAP AG

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For more information:

- Stop by Open Text @ Booth # 325, or Partner Pavilion
- www.opentext.com

- Stop by SAND Technology @ Partner Pavilion
- www.sand.com

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