



Risk free cost reduction for SAP clients

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IBM & SAP focusing on increasing Business Value

- Avoiding / Reducing costs
- Optimising the organisation
- Improving service
- Maximising revenue



Agenda

- SAP & IBM
- Managing data cost effectively
 - Innovation
 - People utilisation
 - Performance
- Pure Systems
- Deriving Value from HANA
- Summary



IBM and SAP *offering excellent performance @ lower TCO*

Lower TCO

- Reduced overall total cost of ownership
- ✓ low license and maintenance costs
- ✓ deep compression

Innovation

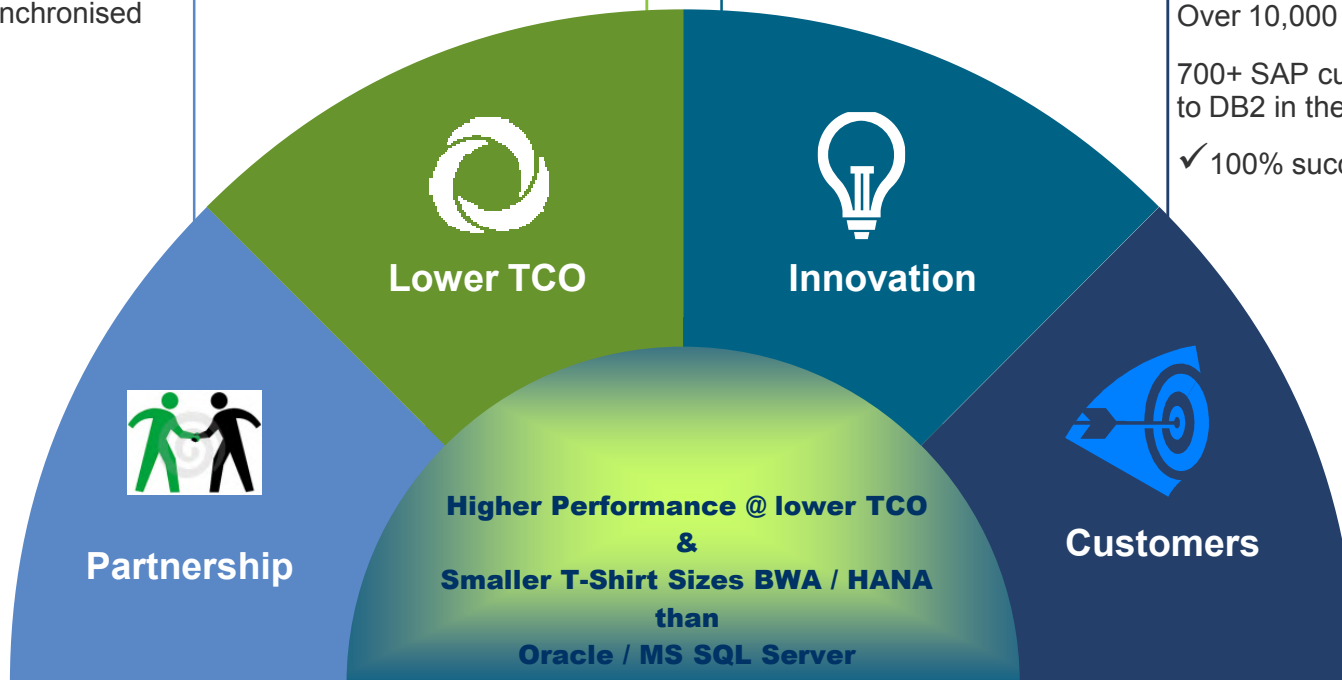
- Innovative database technology
- ✓ better tuned and automated systems
- ✓ improved performance, scalability and reliability

Partnership

Strategic partnership with SAP
Joint Roadmap synchronised until 2015

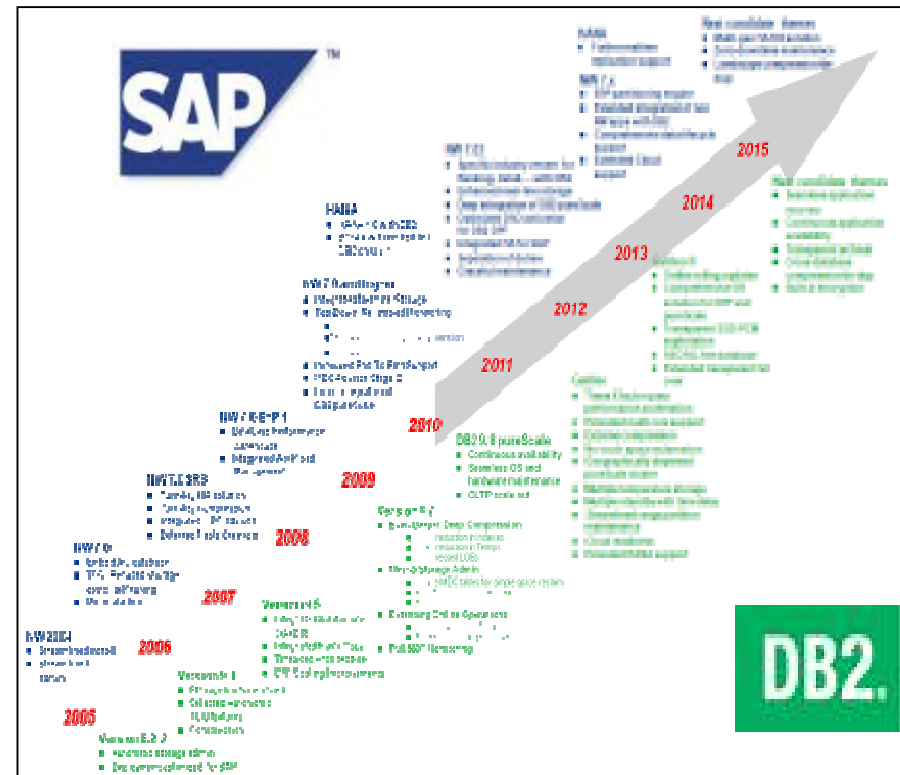
Customer Excellence

Over 10,000 installations worldwide
700+ SAP customers moved SAP to DB2 in the last 12 months
✓ 100% success rate!



Reducing cost through consolidation of existing SAP infrastructure

- **Consolidation of SAP instances on DB2 reduces TCO due to a differentiated solution with**
 - Superior performance
 - Superior features
 - Support for all releases of SAP versions (no need to upgrade SAP applications if it is risky)
- **IBM and SAP partner through every stage of the DB2 for SAP software lifecycle**
 - Long term, joint product roadmaps
 - Jointly staffed development, testing and support teams
 - SAP certifies every IBM DB2 version and fix pack (for all releases of all applications)
- **Risk-free early adoption of new technology**
 - IBM and SAP align release, maintenance and support cycles



DB2 9.7 launched March 2009 has fully committed support until end of 2022

SAP's statements about DBMS and HANA/ In-Memory Computing

SAP® BUSINESS ANALYTIC ENGINE POSITIONING STATEMENT



One of the highest priorities for organizations of any size and across any industry is managing and analyzing the soaring quantity of data, and harnessing that information to improve their business. SAP has always understood this and has addressed this challenge by developing in-memory solutions such as SAP® BusinessObjects™ Explorer accelerated edition, which allows customers to analyze data quickly and iteratively, and the SAP® Business Analytic Engine, an easy-to-use, business-centric data management appliance that allows users to instantaneously access, explore and analyze data in a single environment, without impacting existing OLTP systems.

To further enhance performance, SAP Business Analytic Engine delivered on its commitment to deliver innovative systems, automatically find the right data to conduct complex analytic queries in real time.

With this technology, SAP aims to further accelerate the SAP Business Objects to use this technology to develop and strategic vision and one which might non-disruptive strategy which allows customers should feel confident that their existing and future investments are safe.

As outlined by Prof. Hasso Plattner in his SAPHIRE NOW keynote, in-memory computing will not replace existing relational database systems from day one. Rather, the two types of systems will co-exist for several years and will be implemented side-by-side, with in-memory initially focusing on analytics scenarios running side-by-side with OLTP systems such as the SAP Business Suite and enterprise data warehouses such as SAP BW. Over time, traditional relational databases are expected to become less critical and ultimately redundant. However this represents a long-term vision. As such, there is no requirement to replace existing relational database systems at this time, and customers will still need to invest in relational database systems for new deployments of transactional applications.

Similarly, the introduction of a new generation of in-memory enabled analytics based on the SAP Business Analytic Engine and the high performance analytic appliance should not cause customers to question their existing investments in SAP Business Warehouse (BW). New and existing customers will initially be able to deploy the high performance analytic appliance as an in-memory analytic appliance alongside their existing BW systems. SAP can bring before them. They can do Explorer, accelerated version which to the high performance analytic appliance.

Independent of SAP's recent announcement, SAP's strategic relationships with key hardware partners are also unaffected by SAP's high performance analytic appliance initiative. For example, SAP has been closely collaborating with IBM on the "DB2 Optimized for SAP Software" project and this strategic partnership will continue to focus on continuing to deliver substantial performance increases, cost savings, and easier system administration in the future.

Whilst it will eventually be possible to fully deliver on the promise of end-state scenario progressively on solutions as well as traditional relational database systems, SAP's knowledge that their existing and future investments are safe.

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Independent of SAP's recent announcement of the intention to acquire Sybase, SAP continues to remain database agnostic and fully supports the leading relational database systems in the market whether they be from IBM, Sybase, Oracle, or other vendors. SAP's strategic relationships with key hardware partners are also unaffected by SAP's high performance analytic appliance initiative. For example, **SAP has been closely collaborating with IBM on the "DB2 Optimized for SAP Software" project to deliver DB2 releases specially tailored to meet the needs of SAP customers and this strategic partnership will continue to focus on continuing to deliver substantial performance increases, cost savings, and easier system administration in the future.**

Breakthrough Savings with Adaptive Compression

Lower Storage Costs; Lower Administration Costs

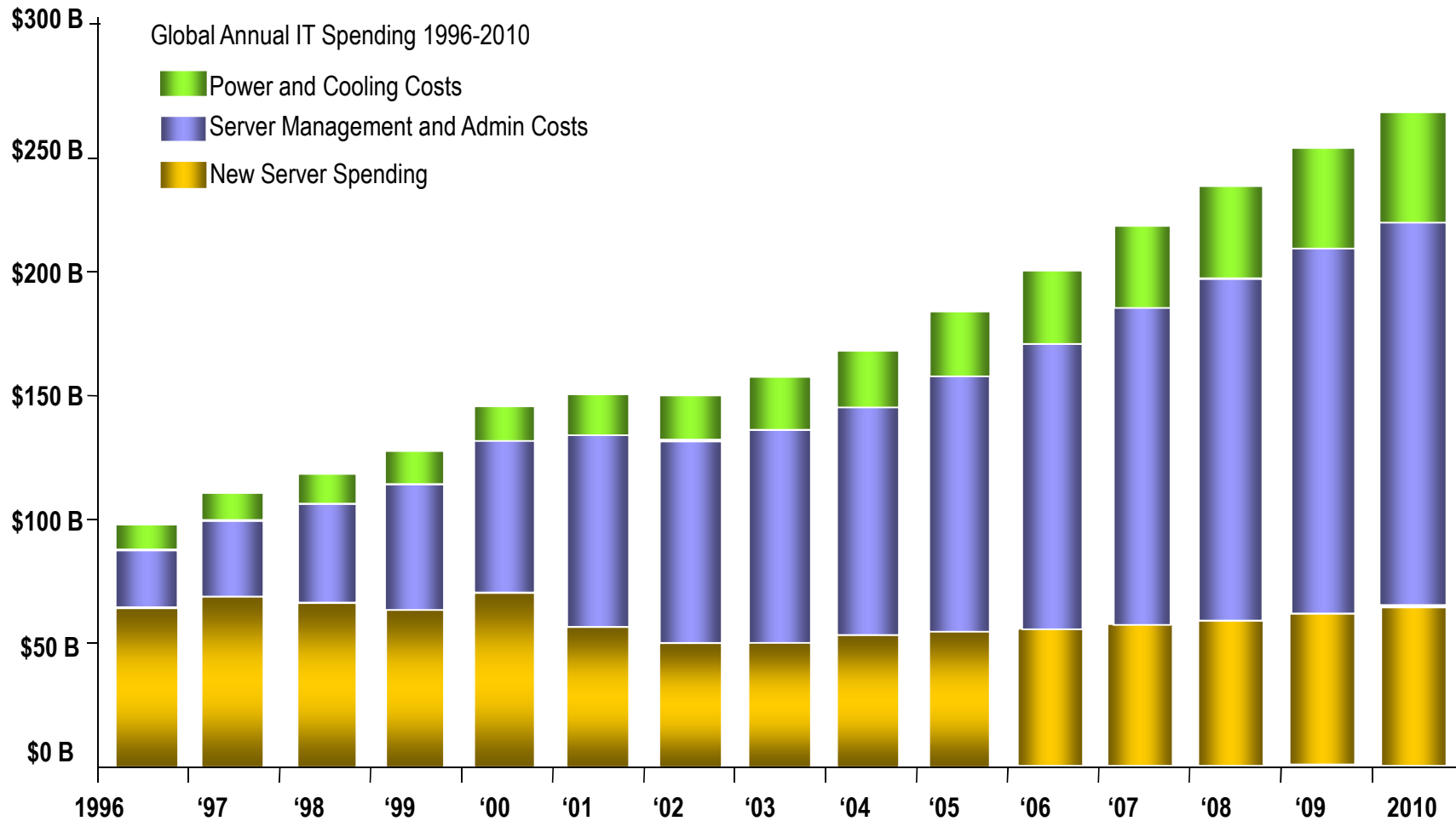
- **Higher performance**
 - More efficient operation
 - Reduced maintenance windows
- **Lower costs**
 - Postpone upcoming storage purchases
 - Lower ongoing storage needs
 - Easier administration with reduced need for table re-orgs



“Our migration from Oracle Database to DB2 resulted in a 40% storage savings. Upgrading to DB2 9.7 and index compression brought our average savings to 57%. Now adaptive compression brings our **average savings to 77%**, dramatic savings!”

—Andrew Juarez, Lead SAP Basis / DBA, Coca Cola Bottling Company.

Administration is the Largest Cost

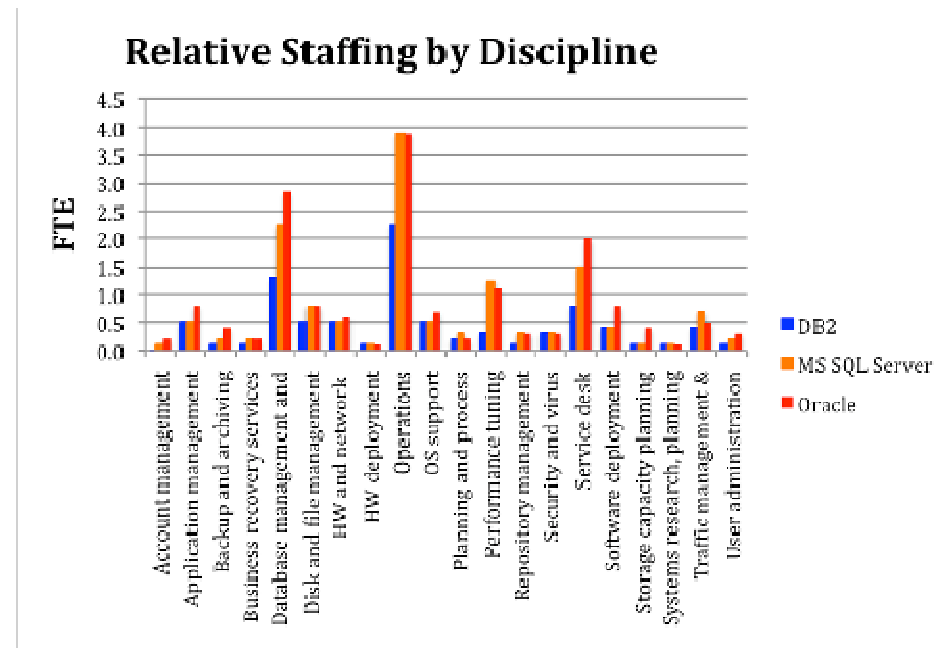
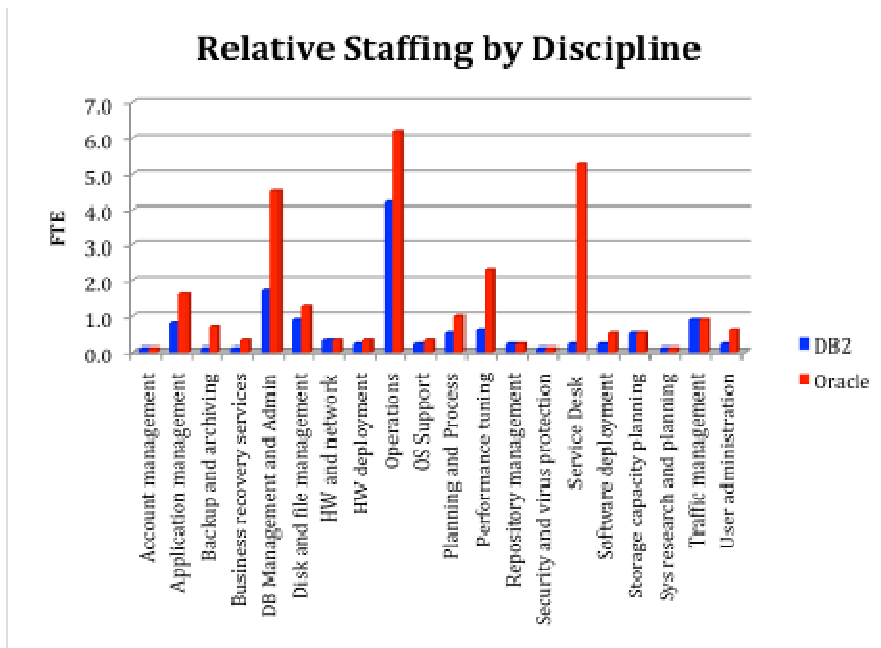


Autonomics Reduce DBA Requirements

- **Autonomics are vital for database environments and help manage the system**
 - Key Autonomic features DB2 provides for DBAs
 - Self-Tuning Memory Manager
 - Policy-Based Maintenance
 - Throttling
 - Log Archiving
- **Let DB2 automatically react to changes in the workload**
 - As workload changes, DB2 adapts

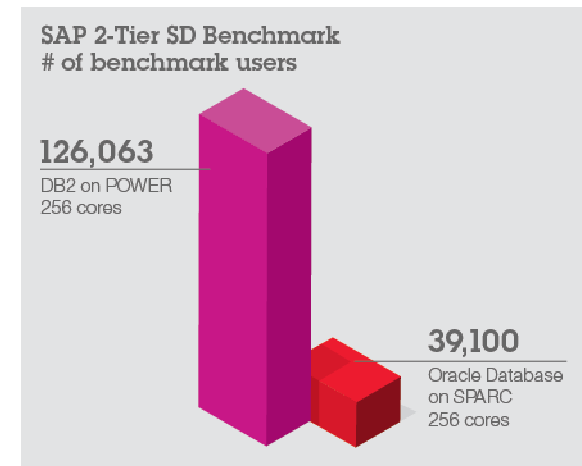
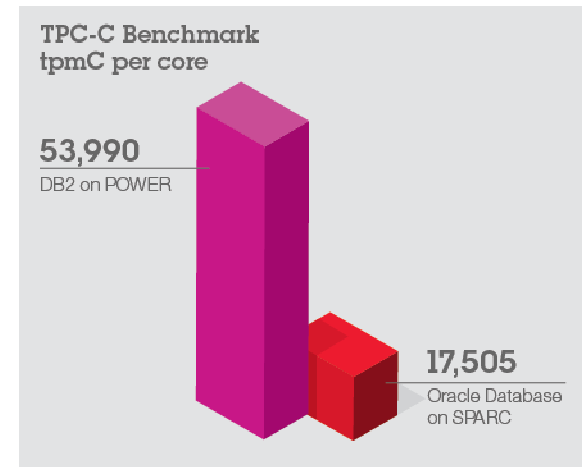
Staffing Effort Advantages of DB2

- **55% Less Staffing Effort than Oracle**
- **40% Less Staffing Effort than SQL Server**



DB2 on Power Delivers up to 3x the Performance per Core of Oracle Database on SPARC

- Two leading independent benchmarks
- IBM DB2 on Power Systems vs. Oracle Database on SPARC
- TPC-C: more than 3x the throughput per core
- SAP: more than 3x the benchmark users
- The IBM advantage... helps lower hardware & software costs



PERFORMANCE: www.tpc.org (<http://www.tpc.org>) as of 4/3/2012 [IBM Power 780 (3 x 64 C)(24 Ch/192 C/768 Th); 10,366,254 tpmC; \$1.38/tpmC; avail 10/13/10 v. Oracle SPARC SuperCluster w/T3-4 Servers (27 x 64 C)(108 Ch/1728 C/13824 Th); 30,249,688 tpmC; \$1.01/tpmC; avail 6/1/11]. TPC-C is a trademark of Transaction Performance Processing Council. www.sap.com/solutions/benchmark/ (<http://www.sap.com/solutions/benchmark/>) as of 4/3/2012 [IBM Power 795 (32 P/256 C/1024 Th); 126063 users/2-tier SAP ERP 6.0 pack4/AIX 7.1 + DB2 9.7; cert 2010046 v. Oracle SPARC Enterprise Server M9000 (64 P/256 C/512 Th); 39100 users/2-tier SAP ERP 6.0/Solaris 10, Oracle 10g; cert 2008042]. SAP is registered trademark of SAP AG in Germany and in several other countries.

IBM Expert Integrated Systems

DB2 10 - a Foundational Element

- **The first members of a new family of expert integrated systems with:**
- ***Built-in expertise to address complex business and operational tasks automatically***
- ***Integration by design to tune systems for optimal performance and efficiency***
- ***Simplified experience from design to purchase to maintenance***

IBM Pure Flex

Expert at: sensing and anticipating resource needs to optimize your Infrastructure

- Factory integrated and optimized system infrastructure
- Integrated management
- Automation and optimization expertise



Available from EIS Centre

- DB2 10.1 (& 9.7) Enterprise Server Edition HV

IBM Pure Application System

Expert at: optimally deploying and running applications for rapid time-to-value

- Expert designed, integrated and optimized application aware platform
- Workload patterns of expertise
- Simplified management with a single console



Included on System

- IBM Transactional Database Pattern (DB2 10.1 & 9.7)
- IBM Data Mart Pattern (DB2 10.1 & 9.7)
- DB2 10.1 (& 9.7) Enterprise Server Edition HV

Extensibility is made easy with IBM PureSystems Centre



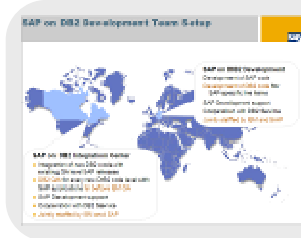
- Optimized solutions from 100+ leading ISV partners
- Search by solution area, industry or system.
- Gain access to ISV application patterns for trial and production.

- Certified through 'Ready for IBM PureSystems' program.



- All of your existing AIX, IBM i, Linux and Windows applications will run on NGP





Development

- ✓ **Optimal Stability:** SAP on DB2 is jointly developed by IBM and SAP
Less patches than other vendors databases due to joint test cycles early in development
- ✓ **Near concurrent GA** by SAP Certification after 6-8 weeks after IBM GA
- ✓ **Mandatory design review + approval by SAP** for all SAP relevant DB2 line items



Product Integration

- ✓ **One product, one maintenance strategy, one-stop-service**
Aligned maintenance strategy: „7+2“ years supported with SAP
Unmatched business value: No forced or undesired database upgrades
- ✓ **Integrated installation** of DB2 software / HA setup during SAP install
- ✓ **One-step SAP-tailored DB2 configuration:** DB2_WORKLOAD=SAP
- ✓ **Full DB2 administration and monitoring through SAP DBA Cockpit**



Technology innovation

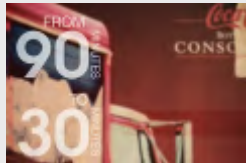
- ✓ **Joint technology roadmap with agreed deliverables, synchronized until 2015**
- ✓ **Superior customer value with DB2**
Boost SAP BW performance with DPF, MDC, NLS
Tailored Availability solutions: HADR, pureScale, Tivoli SA MP
Better resource utilization through compression



SAP runs DB2

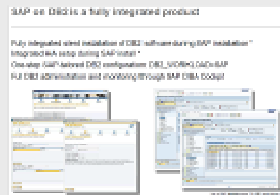
- ✓ **DB2 is a widely used database platform at SAP IT**
- ✓ **Over 1200 internal SAP systems run on DB2**
- ✓ **All SAP mission critical business systems migrated from Oracle to DB2**

SAP Support for DB2 9.7 extended to end of 2022 (SAP note 1168456)



Leading DB2 performance

- ✓ #1 in performance to SAP customers:
 - faster than Oracle for ERP ⇒ 40+%
 - faster than Oracle for BW ⇒ 50+%
- ✓ Superior scale out for SAP solutions (productive customer @100+ TB SAP BW)



Ease-of-Use and Autonomics

- ✓ SAP DBA cockpit: A complete built-in solution. No need for any external tools
 - SAP DBA Cockpit for DB2 reduces DBA time up to 30%
- ✓ Almost all DBA activities are automated with DB2
 - Memory tuning and configuration (Self Tuning Memory Management)
 - Storage and logfile management, ...

No extra cost



Unique Technology

- ✓ DB2 Database Partitioning feature (DPF) and Multi Dimensional Clustering for SAP BW
- ✓ DB2 HADR for ultrafast takeover, minimized downtime for planned maintenance
- ✓ DB2 Nearline Storage for SAP BW, archive solution, improve overall system performance
- ✓ HP-UX Itanium support for the next DB2 version, protect customer investment
- ✓ VMWare, XEN, KVM, Hyper-V and zBX fully supported (SAP note: 1130801)

OEM No extra cost



DB2 pureScale

- ✓ Shared-disk scale out and HA architecture for OLTP workloads
- ✓ Unlimited capacity: Buy only what you need, add capacity as your needs grow
- ✓ Continuous Availability: Protection against planned and unplanned outages
- ✓ Fully endorsed by SAP

OEM +2%

Customers

Coexistence of SAP HANA and IBM DB2



**IBM and SAP
=
1 product**

- Coca-Cola
- Colgate
- LSI Corporation
- Medtronic
- SAP-IT

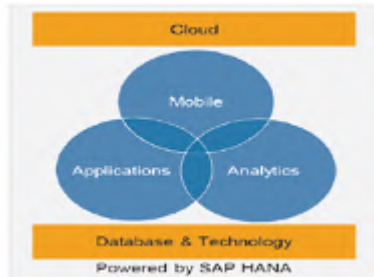
HANA and DB2 coexist and complement one another

Agenda

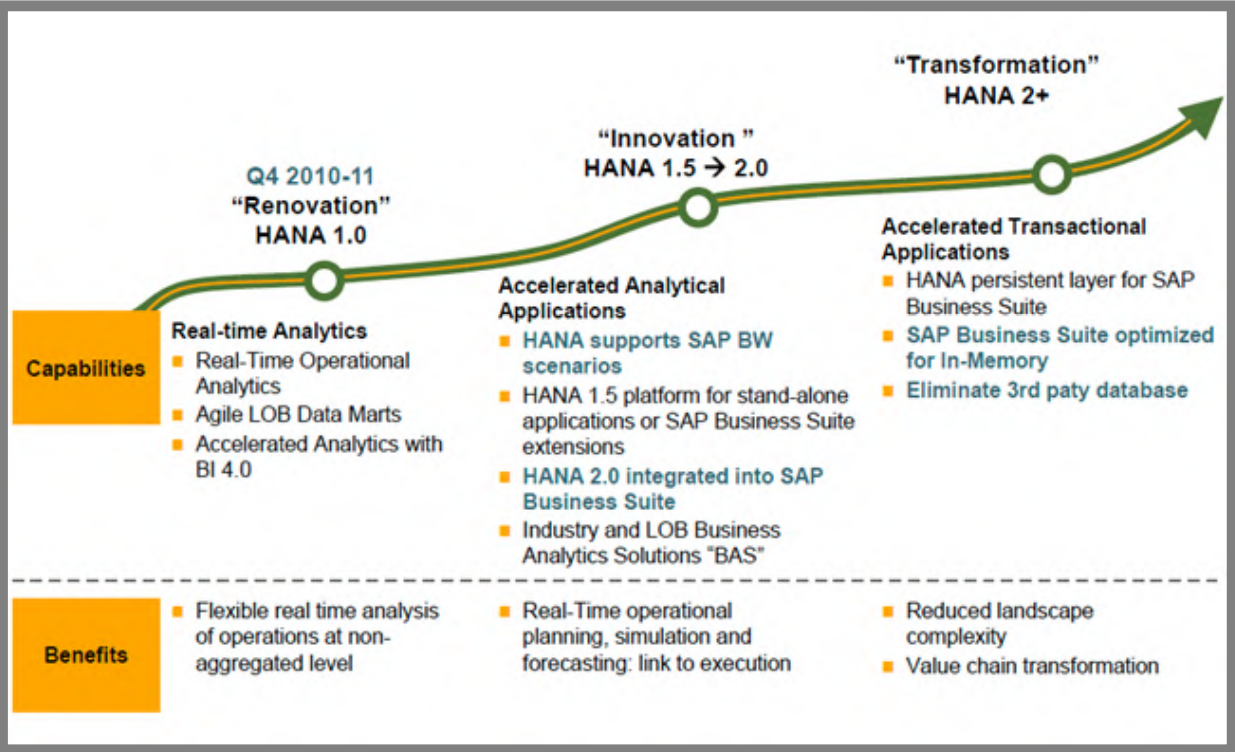
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 - Innovation
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SAP HANA in-memory computing ensures that the results of complex analyses and transactions involving large volume of data are available at your fingertips



Keeping data in-memory Minimising data movement Dividing & Conquering



Benefits:

- Doing things that you already do significantly faster
- Replacing complex data warehouses with in-memory data storage
- Solving problems that could not be solved before

HANA is integral part of SAP road map - IBM is helping customers to align IT Strategy to set themselves in the HANA Value Journey & implement HANA to drive business value

Mondi HANA – Results



Performance

- Functionality which was done by BW, BW – OLAP, MDX Interface and BOBJ Report was moved to HANA DB.
- Navigation time reduced from up to 30 Minutes to 5 – 10 seconds

Online Data

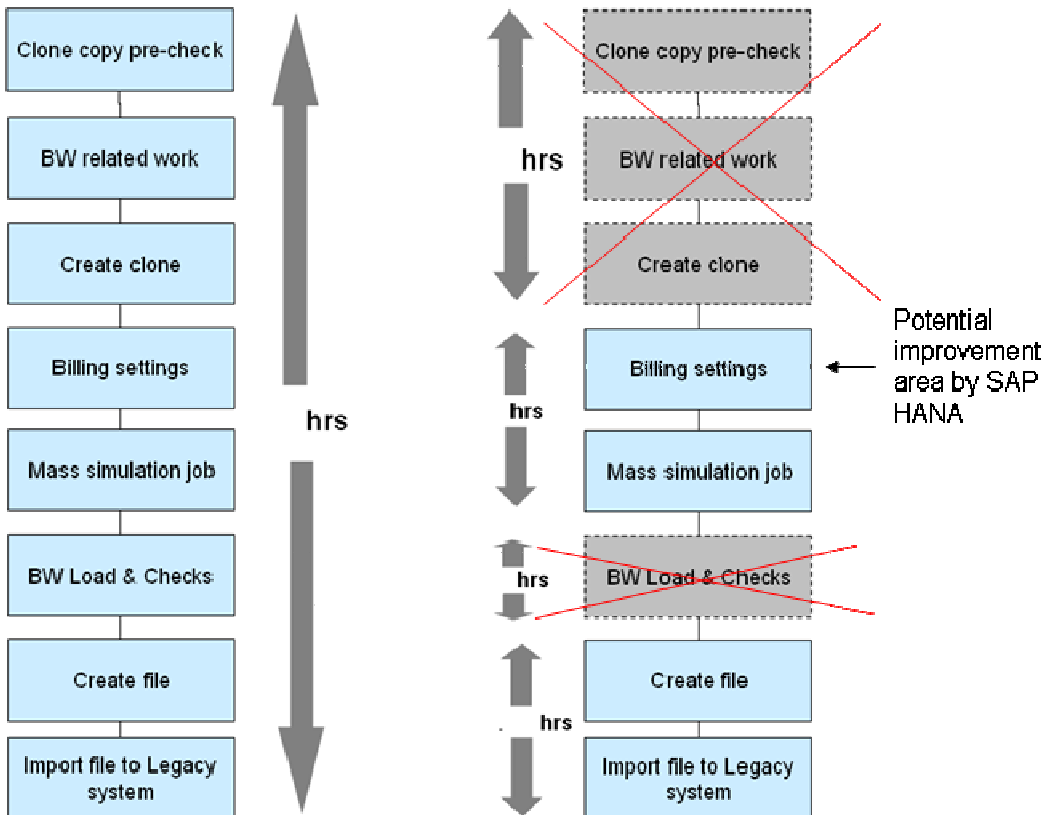
- Set up Online replication via SLT for all data needed in HANA
- Each change in SAP ECC Data is immediately replicated to HANA DB BOBJ reports
- No impact on ECC performance

Compression

- HANA compresses ECC tables with an overall ratio of 8 – 10.



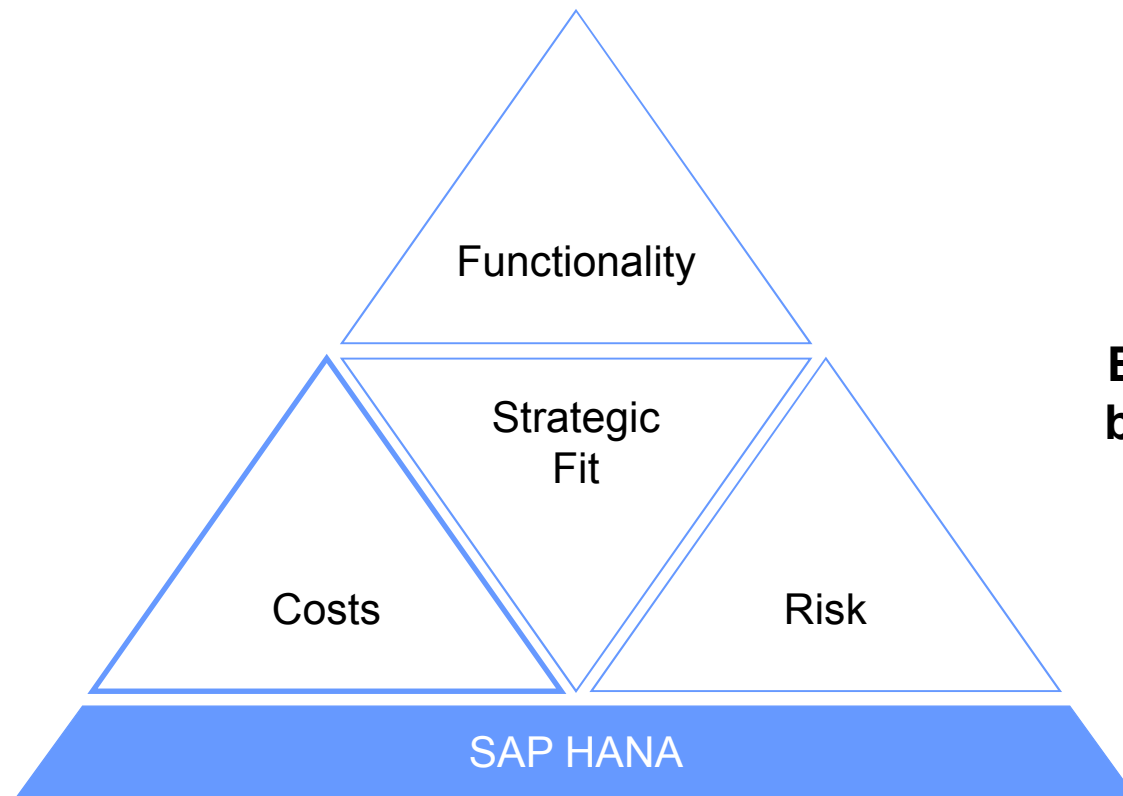
Major utility company



The performance gain comes through simplification of process



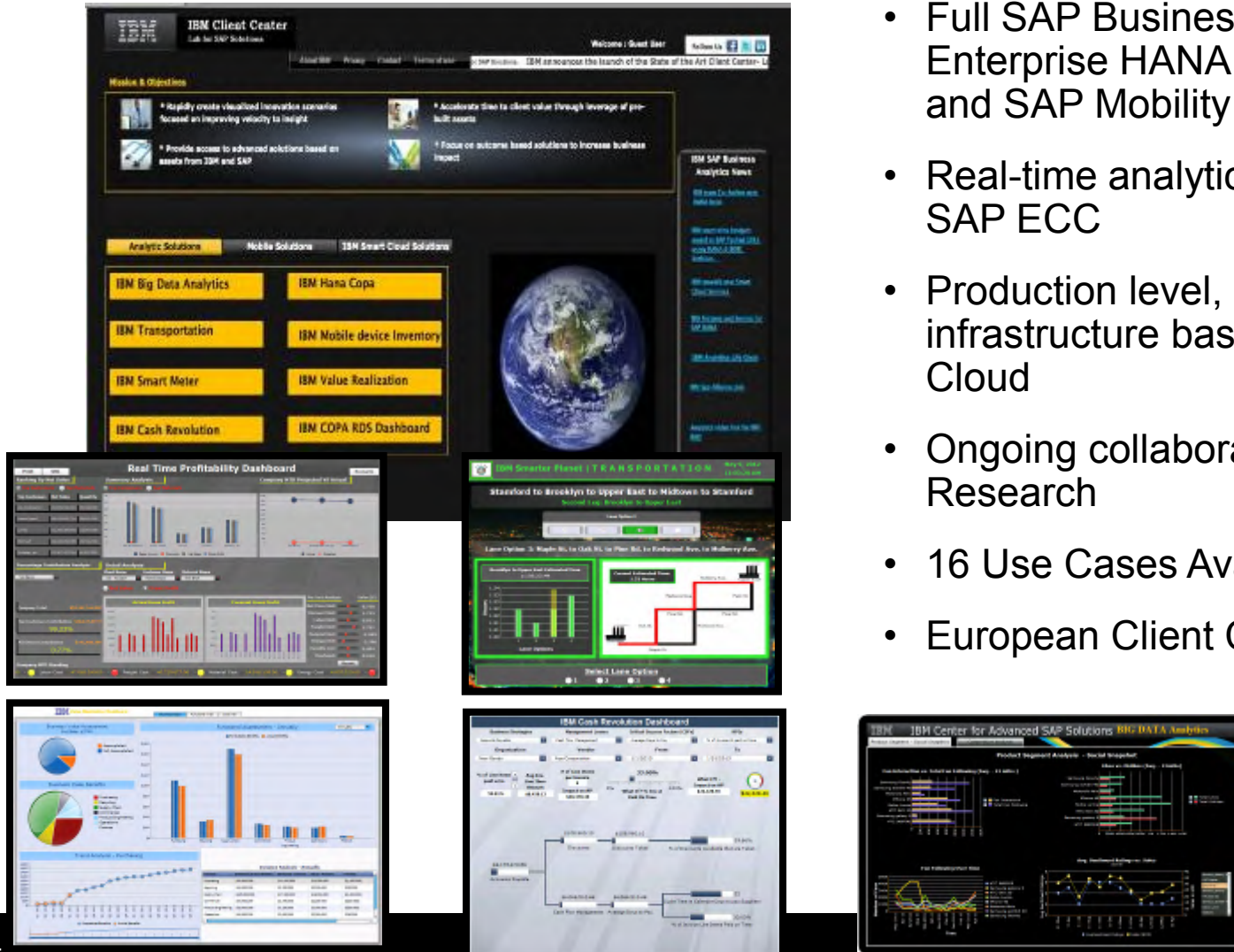
Just taking a look at possible Performance Improvements is insufficient to justify an investment in SAP HANA.



Business benefit is key

IBM Lab for SAP Solutions – focusing on Use cases & Assets

- Full SAP Business Objects, Enterprise HANA, BW on HANA, and SAP Mobility Integration
- Real-time analytics and feeds from SAP ECC
- Production level, multi-node infrastructure based on IBM Smart Cloud
- Ongoing collaboration with IBM Research
- 16 Use Cases Available today
- European Client Centers:



IBM asset on real-time profitability management on COPA, powered by HANA





The Mobile Inventory dashboard for in real-time supply chain monitoring, powered by HANA

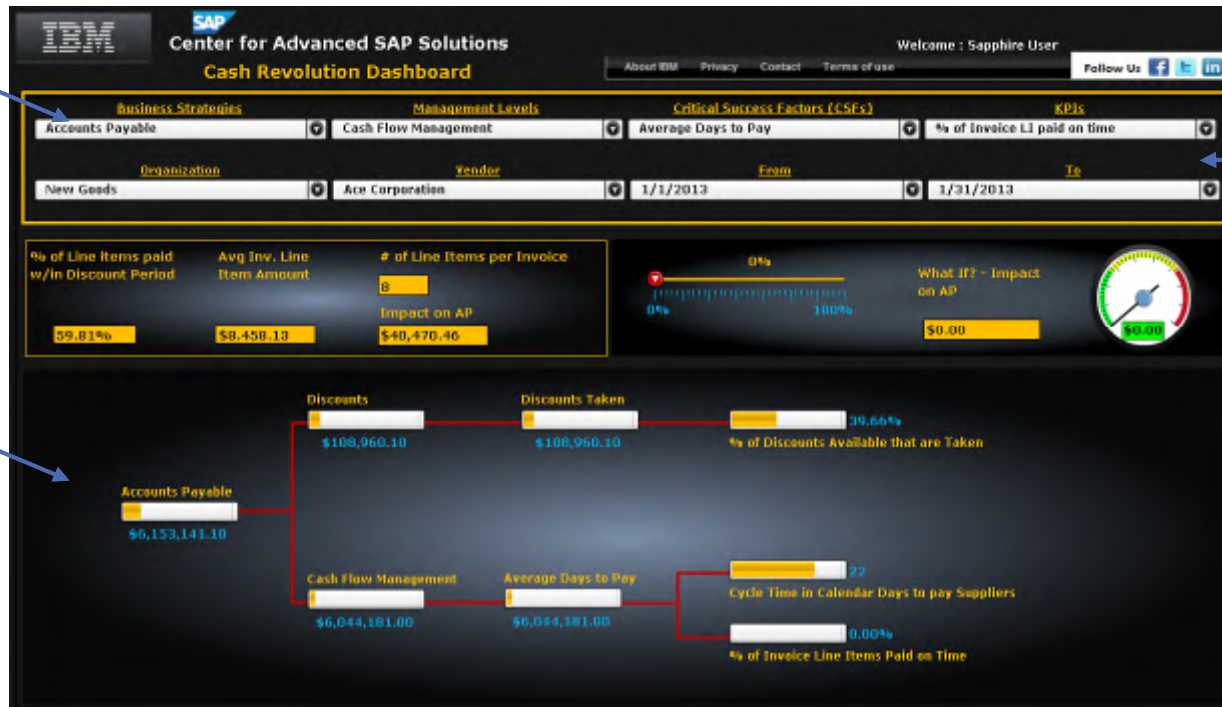


Working Capital Management dashboard can be leveraged for optimizing Cash-flow, powered by HANA

provides "What if" impact on cash using financial levers and KPI's



Multiple business strategies can be setup for What If analysis



Multiple time frame selections can be made to evaluate monthly, yearly or quarterly performance

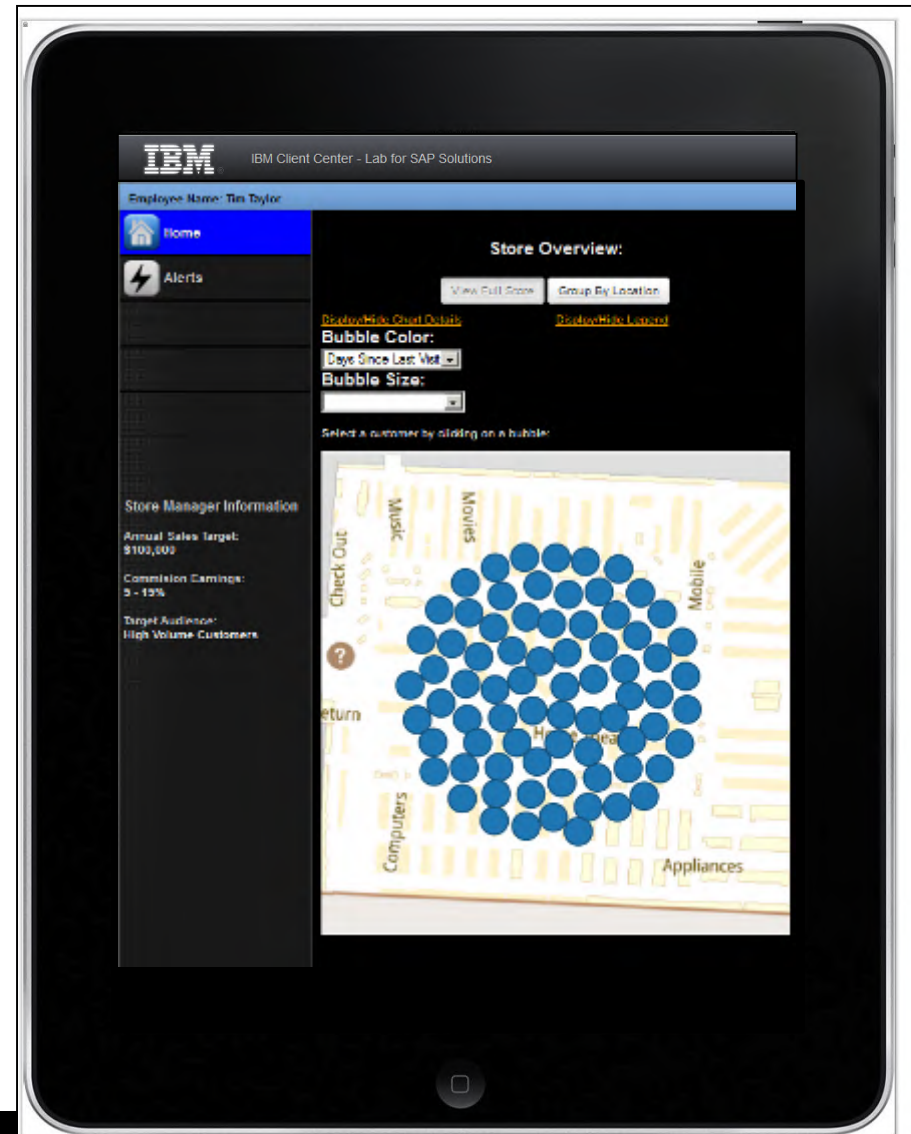
Business KPIs for each strategy or process area has an impact on total cash flow

Value driver tree show cases the impact an increase or decrease of a KPI can have to overall cash revolution i.e. Accounts Payable, Accounts Receivable and Inventories

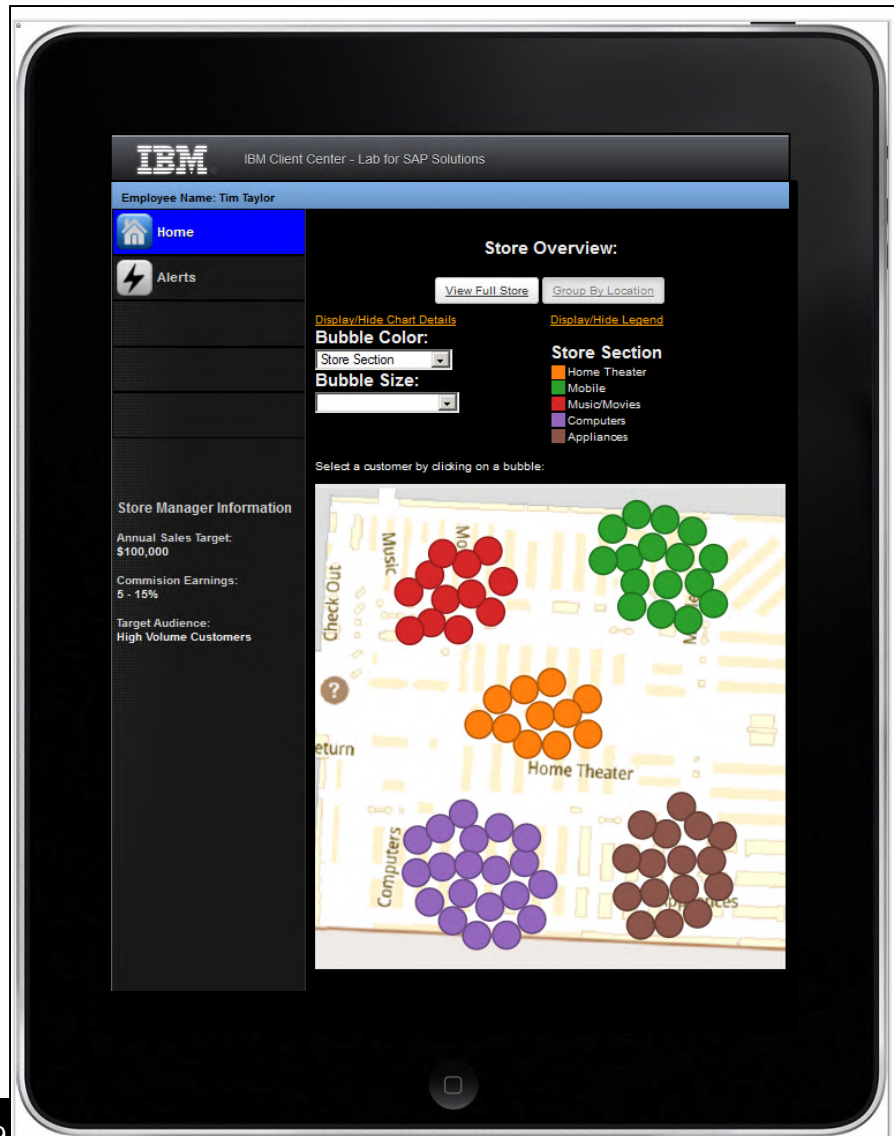
Monitor Customers in a real time in an Electronics Retail Store & Make Promos

- An electronics retail store manager is the end user. He is monitoring all the customers who are in the store at the present point in time.
- Each customer has a mobile device (cell phone) which transmits a NFC signal or a Store Rewards Card that transmits a RF signal.
- The signals are received by a receiver(s) and entered in a HANA database table.
- By querying HANA tables, the store manager observes customer traffic in real time from the browser on his own mobile device by accessing a web-based application published on HANA's XS Server.

Each bubble represents a user in the store. He/she is identified by the NFC/RF Reader signal



Retail Manager View- Customer Map Screen



Static Receivers set up in the store allow the Store Manager to identify what section a user is located in. Click Group by Location/select Store Section from color dropdown

Retail Manager View- Customer Map Screen



As the customers move around the store, the bubbles move from section to section in the Customer Map Screen. The color of the bubble will change based on the Section

Retail Manager View- Drill-Down Screens



Customer specific information like recent purchases and related products/accessories give the retail manager a good idea of what the customer may be looking for. In this case, Nancy loves Apple products. She upgraded from the iPhone3 to the iPhone 4s. She currently has an iPad1 that may be ready to be updated.

Retail Manager View- Drill-Down Screens



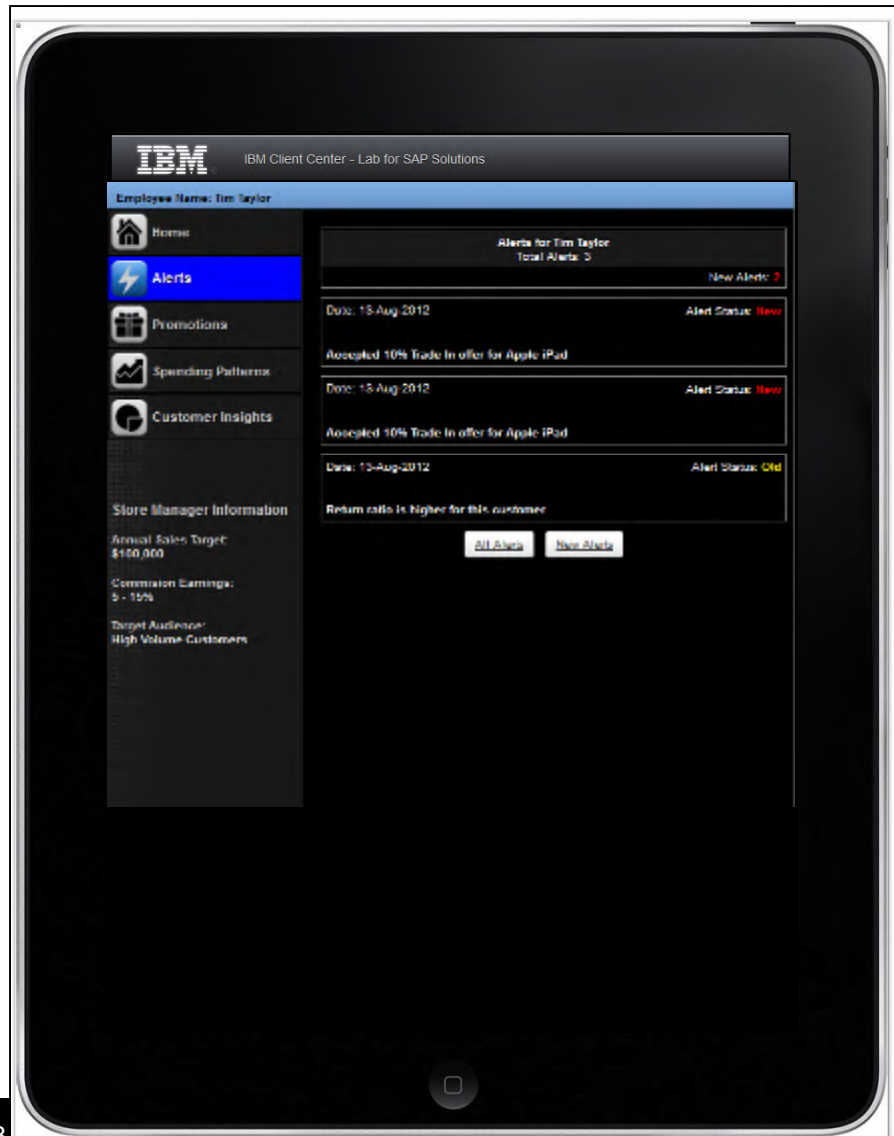
Additional visualizations provide insight that may lead to sales opportunities:

Story behind the data:

Nancy bought home theater and computer equipment over a year ago, and has recently shifted her attention to mobile devices. The application can provide the manager a visual recommendation of how to approach Nancy.

She may be interested in products that integrate mobile technology with her home theater system.

Retail Manager View- Drill-Down Screens



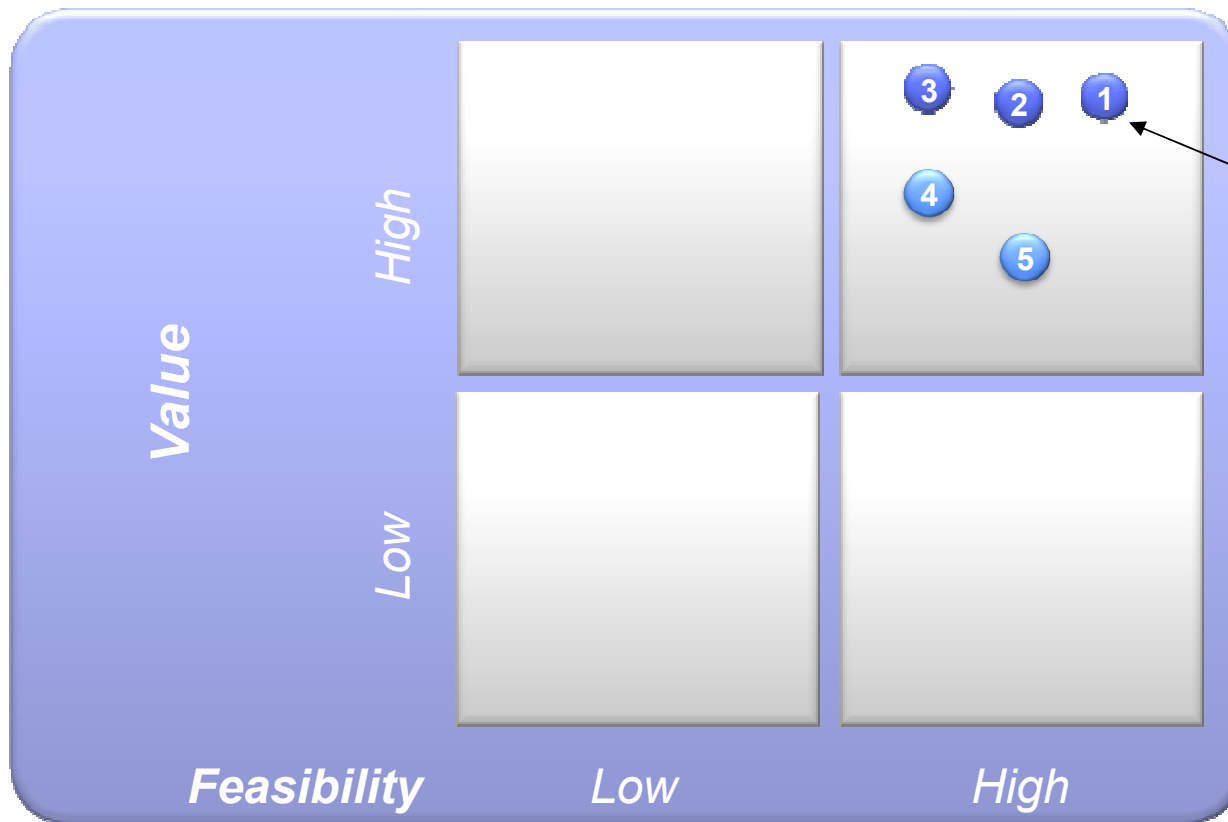
The manager is alerted when the customer accepts the promotion.

Later, the manager follows up with Nancy to recommend an Apple TV system for her home theater.

powered by HANA & IBM innovation

Identifying Use case Roadmap is key to HANA Business case

Retail Case Study - IBM is applying HANA value quadrant methodology for selecting use cases by optimising Value vs. Feasibility



1st Step: 'BW on HANA'

Use case road map:

1. SAP BW on HANA
2. Sales & stock analytics
3. Operational reports – with SAP & non-SAP data
4. Mobile dashboards
5. Internet sales optimisation

The HANA value quadrant is key to identifying the Road Map – optimising value, investment & risk – IBM can help

Why IBM?

- **Strategic Partnership with SAP**
- **Long term Hardware, Software and Services Roadmap**
- **Joint Development and Simultaneous Launch Strategy**
- **Innovative Joint Technology Propositions**
- **Lowest Proven Total Cost of Ownership**



Come and see us on Stand
56 for your complimentary
conference pen

[click here](#) for more info



Thank You

How to reduce your IT TCO and add Business Value.

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