Beyond Query/400

IBM

IBM DB2 Web Query for System i

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i want stress-free IT.
i want control.
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IBM

Business Intelligence In the News: 2007

- 3/1: Oracle Announces Acquisition of Hyperion

- 3/14: IBM Announces Dynamic Data Warehouse Initiative

- 3/15: Gartner produces report on Msoft's BI Strategy for midmarket

- *4/10: IBM Announces IBM DB2 Web Query for System i*

- 4/24: HP Announces NeoView

- *9/18: IBM Starts Shipping DB2 Web Query*

- 10/7: SAP Acquires Business Objects

- 11/12: IBM Announces plans to acquire Cognos

- *12/31: IBM Ships close to 6000 licenses of DB2 Web Query and exceeds 10,000 downloads of the DB2 Web Query Redbooks*
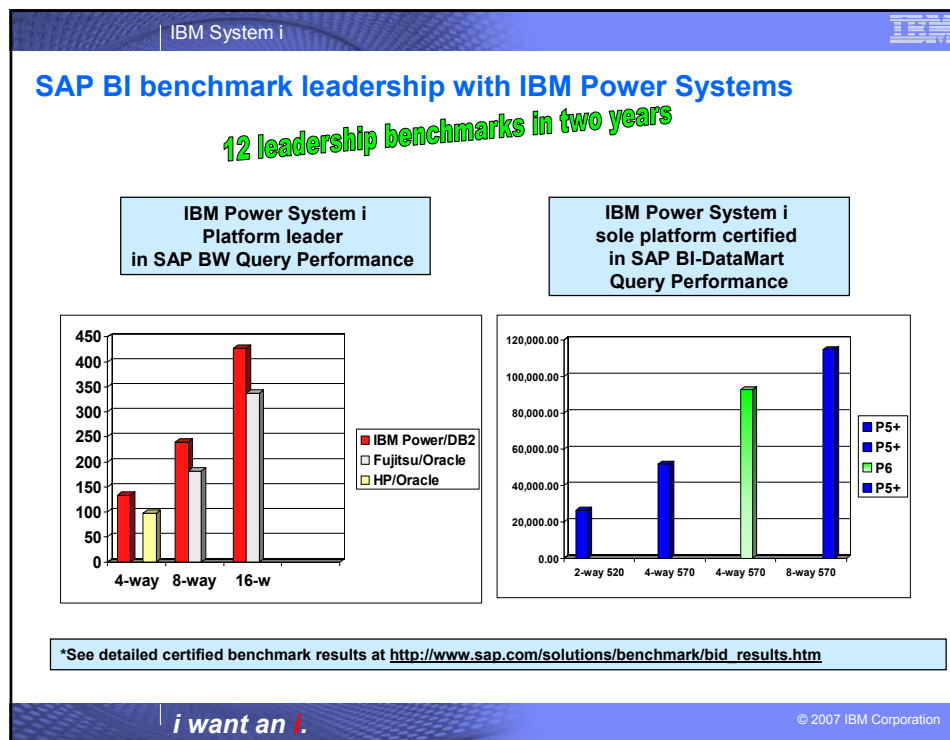
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SAP BI benchmark leadership with IBM Power Systems

12 leadership benchmarks in two years

IBM Power System i Platform leader in SAP BW Query Performance	IBM Power System i sole platform certified in SAP BI-DataMart Query Performance

Chart 1 legend:
- IBM Power/DB2
- Fujitsu/Oracle
- HP/Oracle

Chart 1 categories: 4-way, 8-way, 16-w

Chart 2 legend:
- P5+
- P5+
- P6
- P5+

Chart 2 categories: 2-way 520, 4-way 570, 4-way 570, 8-way 570

*See detailed certified benchmark results at http://www.sap.com/solutions/benchmark/bid_results.htm

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Today's BI Requirements

- **Remove Dependency on IT for reporting purposes**
  - Ease IT backlog of reporting requests
  - **Parameterized Reporting**
    - Reduce Report Maintenance
    - Empower End Users
- **Client Independence**
  - Web Based
    - Reduce Software Maintenance
- **Multiple Viewing Options**
  - Dashboards/Scorecards
  - Spreadsheet Integration
  - Static Reports/Intelligent Bursting
  - Report Archival
- **Operational or Data Warehouse**
  - Real time or Historical Reporting
- **Secure the Data**
  - Avoid Data replication
  - Adhere to compliance requirements

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Beyond Query/400

IBM DB2 Web Query for System i Powered By Information Builders

- **5733-QU2 V1R1 Available 9/14**
- Base Program Product Includes:
  - i5/OS Web Reporting Server
  - Several Web Based authoring tools
    - RA, GA, Power Painter
  - Query/400 (5722-QU1)
    - Web Enable Query/400 Reports
    - Unlimited users
  - *BASE PRODUCT OFFERED AS NO CHARGE UPGRADE FROM QU1*
    - Does not include Software Maintenance
    - Includes handful of user licenses based on tier

- Additional Features
  - Additional Named Users
  - Active Reports (Disconnected Analysis)
  - On Line Analytical Processing
    - Requires Meta Data provided with Developer Workbench
  - Developer Workbench
    - IT Tool for meta data

http://www.ibm.com/systems/i/db2/webquery

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DB2 Web Query Enhancement

- New Run-Time User License Enablement Feature
  - New Flexible Pricing option
  - Can now define a single user license as either a:
    - Report "Author"
      - Can create/edit reports with web based tools
      - Synonymous with a Named User as known today
    - Run Time Only Group of Users
      - Can only run reports
      - Can Group multiple users into a single license
- Significantly reduced prices for scenarios with large set of run-time users

Named User Pricing

Tier	Number of Named Users	Price*
P05	40	$15,200
P10	80	$32,000
P20	150	$57,600

US list prices, subject to change without notice

New Run Time Pricing

Tier	Number of "Authors"	Number of Run Time Groups	Price*
P05	4	5	$6,000
P10	4	10	$10,400
P20	8	20	$23,200

•Assumes upgrade into QU2 from QU1

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Run Time User Enablement Feature (DB2 Web Query Opt. 4)

- Enablement feature licensed to SERVER
  - Provides ability to define user LICENSES as either
    - Report Authors (named "developers")
    - A Group of Run Time Only (can only execute reports, but can execute concurrently)

NEW

Tier	QU2 Base Server License (includes QU1)	Included Users	Additional User (Author or group run-time)	Run Time User Enablement Feature
P05	$1,600	2	$400	$3,200
P10	$3,200	4	$400	$6,400
P20	$9,600	6	$400	$9,600
P30	$19,200	8	$400	$19,200
P40	$28,800	10	$400	$28,800
P50	$38,400	15	$400	$38,400
P60	$48,000	20	$400	$48,000

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What is Different about DB2 Web Query

- Single Server Solution
  - Simpler Software Maintenance
  - Multiple functions in single OS/server
    - OLAP, Report Writer, Web Server, Meta Data, Database
  - Simpler Licensing
- Vertical Scalability
  - Grow without Disruption
- Start Small, Grow Big
  - DB2 Web Query provides FOUNDATON
  - Add additional features per requirements
- Security/Auditability
  - All the data in ONE PLACE
  - No Viruses, No "Patch Tuesday"
- DB2 Query Optimization
  - Patented IBM Technology
  - SQE vs. CQE (Query/400)
- Simplified Data Access
  - No Data Replication Required

Database Server

OLAP Server

Report Server

Web Server

ETL Server

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Comparisons

Function	Query/400	DB2 Web Query Base + IBM Features	DB2 Web Query IBI Add-ons
UI for Query Developer	5250	Browser (BASE) or Windows (Developer Workbench)	
UI for End User	5250	Browser or Windows (Active Reports or output formats requiring Windows, e.g., Excel)	
Remote DB2 for i5/OS Access	No	Via DRDA (BASE)	
Remote Oracle, SQLServer or other DBMS Access	No	Yes	Future Direction. Available today with WebFOCUS Adapters
Interactive Output	5250, Spoofile, DB2 Table	PDF, XML, Spreadsheet, HTML, PC-File Formats, Spoolfile, DB2 Table, etc. (BASE)	
Batch Scheduling and Output	i5/OS Scheduler; Spoolfile, DB2 Table	i5/OS Scheduler; Spoolfile, DB2 Table (BASE)	Future Direction. Available today with WebFOCUS and Report Caster
Traffic Lighting	No	Yes (BASE)	
Linked Reports with Drill Down	No	Yes (BASE)	
OLAP	No	Yes (OLAP Feature)	
Disconnected Analysis	No	Yes (Active Reports Feature)	
Dashboarding	No	Yes (requires Developer Workbench)	
Parameterized Reporting	Prompting via 5250 RUNQRY Single Parameter	Yes (BASE), advanced parameterization controls with Dev. Workbench)	
Meta Data Layer	No	Yes (customization of meta data available with Dev. Workbench)	

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Function	Query/400	DB2 Web Query Base + IBM Features	DB2 Web Query IBI Add-ons
Unlimited User Licensing	Yes	Named User Only	Unlimited User option with upgrade into IBI's WebFOCUS
i5/OS Support	V5R2 and up	V5R4	V5R2 and up with WebFOCUS
Report Content Management	No	No	WebFOCUS Report Caster
Target Audience for developing reports	IT	IT and Business Community	
Portal Integration	No	No	Future Direction (available today with WebFOCUS)
Integration with Operational application	Via RunQry API	As callable URL from Browser	Future Direction (available today with WebFOCUS)
Web Application Server Support	N/A	Comes with Lightweight Web Server	Websphere, TomCat (requires WebFOCUS)
Compound Reports	No	Yes (BASE), additional capabilities with Dev. Workbench)	
ESSBASE API	No	No	Future Direction
Data Mining API	No	No	Future Direction
Excel Integration	No, must run Query, Download, then Import	Yes, Excel is an output option with report characteristics preserved	
DB2 for i5/OS Optimization	CQE Only	SQE or CQE	
Impact Analysis and Data Profiling	No	Yes (Developer workbench)	

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Output Reports and Graphs to:

- HTML
- PDF
- Excel 97/2k/2k w formula's
- Active Reports
- Postscript

- DB2 for i5/OS table

- Excel 95
- Doc with and without page breaks
- WK1
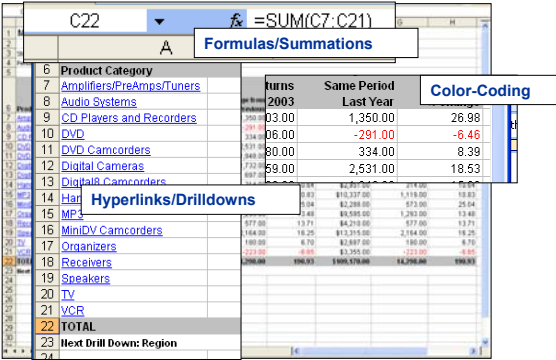- DIF
- Lotus
- Tab Delimited
- XML

MS Excel Integration

- DB2 Web Query has excellent MS Excel integration
- Dynamically generates fully formatted Excel spreadsheets
  - W/ Drilldowns, Formulas, Summations, Color-coding & more
- Improves end user productivity; reduces errors

| C22 | ▼ | fx =SUM(C7:C21) |

Formulas/Summations

Color-Coding

Hyperlinks/Drilldowns

	Product Category	turns 2003	Same Period Last Year	
6	Product Category			
7	Amplifiers/PreAmps/Tuners			
8	Audio Systems			
9	CD Players and Recorders	03.00	1,350.00	26.98
10	DVD	06.00	-291.00	-6.46
11	DVD Camcorders	80.00	334.00	8.39
12	Digital Cameras	59.00	2,531.00	18.53
13	Digital8 Camcorders			
14	Har		$10,337.00	1,119.00	10.83
15	MP3		$2,288.00	573.00	25.04
			$9,595.00	1,293.00	13.48
16	MiniDV Camcorders	577.00	$4,210.00	577.00	13.71
17	Organizers	180.00	$2,697.00	180.00	6.70
18	Receivers		$3,355.00		
19	Speakers			
20	TV			
21	VCR			
22	TOTAL			
23	Next Drill Down: Region			

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Graphing Assistant

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Import Query/400 Definitions

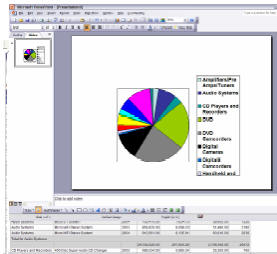Then Modify with Report Assistant

Store Revenue by Product

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Active Reports: Disconnected Support
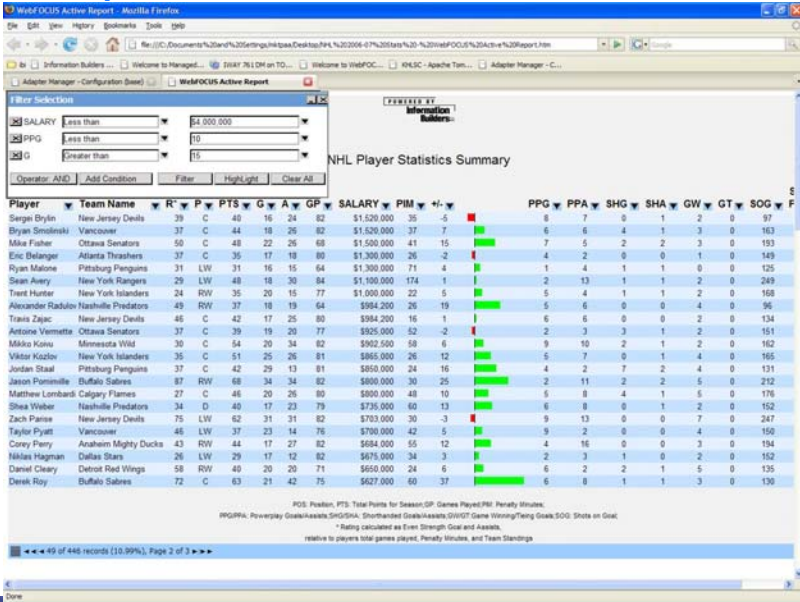
- Self-contained analytical reports
  - Delivered to users via email or browser

- Users interact with the data on the report w/o being connected to infrastructure

- Intuitive built-in controls
  - Sorting, Filtering, Visualization, Charting, Dynamic Roll-ups
  - Export to HTML, CSV or Excel
  - Export Charts to Word, Excel, or PowerPoint

- Great for mobile sales reps and other users that are not connected or defined to the System i

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Active Reports

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On-Line Analytical Processing (OLAP)

Measures | Graph

Date Dimension | Product Hierarchy | Plant Hierarchy | Store Hierarchy

COUNTRY	REGION	STATE	CITY	Store Name
=--All--	=--All--	=--All--	=--All--	=--All--

France
Germany
Spain
United States

OLAP | Run | Reset | Save | Help

Gross Profit by Product Category
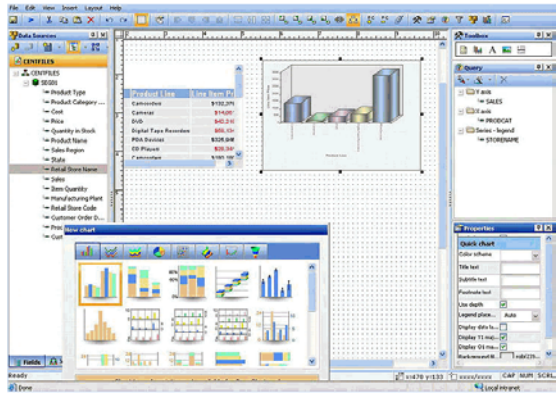
Product Type	Product Category	Line Total	Cost of Goods Sold	Gross Profit
Audio	Amplifiers/PreAmps/Tuners	$42,374,428.	$25,739,570.	$42,011,058.
	Audio Systems	$122,345,680.	$82,282,820.	$121,004,220.
	CD Players and Recorders	$53,847,459.	$37,838,460.	$53,200,739.
	MP3	$43,491,588.	$26,438,660.	$43,090,478.
	Receivers	$35,907,113.	$22,998,000.	$35,555,263.
	Speakers	$84,717,053.	$24,680,990.	$84,373,233.
Camcorders	Digital8 Camcorders	$13,614,953.	$6,512,600.	$13,535,923.
	DVD Camcorders	$379,376,637.	$300,373,350.	$375,144,437.
	MiniDV Camcorders	$51,539,451.	$34,128,360.	$50,991,761.
Cameras	Digital Cameras	$184,103,667.	$133,328,830.	$182,200,567.
Office	Handheld and PDA	$18,533,190.	$14,067,420.	$18,374,880.
	Organizers	$11,712,495.	$4,957,305.	$11,655,940.
Video	DVD	$329,872,045.	$248,768,900.	$326,179,845.
	TV	$168,799,539.	$150,771,700.	$166,628,939.
	VCR	$21,688,621.	$16,270,950.	$21,463,121.
TOTAL		$1,561,923,919.	$1,129,157,915.	$1,545,410,404.

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Power Painter

- Business people designing reports for business people

- Powerful thin-AJAX based Report Design tool

- Build Rich Compound Reports in your business unit

- Simple, flexible access without the need to rely on IT
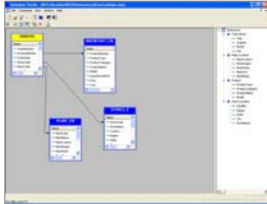
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DB2 Web Query Developer Workbench

- Excellent Date understanding and added functionality including Date decomposition (Year, Quarter, Month, Day)

- Creation of Hierarchies and Dimension

- Very good awareness of DB2 Foreign Key constraints

- Basic DB2 Web Query metadata also includes: Column-titles, Business Descriptions, Alias, Format, Usage, Pre and Post Processing Calculations, hundreds of data manipulation functions

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Development priorities for DB2 Web Query*

- Improved Batch reporting and automated report distribution
  - Automated scheduling of batch reports with additional output options and automated report distribution
- Software Development Toolkit
  - Enables embedding of report execution within application/portal
    - Over 25 ISVs have already asked for this
- DB2 Web Query Data Connectors (Name may change)
  - Features for:
    - SQL Server
    - JDBC (any DBMS Type 4 JDBC driver can allow for reports to access other DBMS's
    - JDE (first ERP adapter we will deliver as part of IBM product)
  - Product Vehicle for future Adapter Support
    - SAP, Lawson/Intentia, Infor, Domino, SPSS Adapters being assessed
- Improved Excel Integration
  - "pull" data (vs. current "push" approach)
- Other improvements
  - Additional NLS Support, HTTPS/SSL, etc.

· **All statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only.**

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Building a Reporting Repository

ERP	Data Mart or DW
i5/OS LPAR **2 CPUs**	i5/OS **2 CPUs**

MS SQLServer Or Other

ETL Tool or
Remote Journal with
Transformation Server

Information Builder's Data Migrator
- i5/OS Extract/Transform/Load
- GUI to define mappings
- Scheduler
- Can pull data from MANY different data sources
  - Not just DB2
- Other Options
  - Partner ETL Tools (e.g., Coglin Mill's Rodin)
  - Remote Journaling/IBM's (DataMirror) Transformation Server

WebFOCUS Data Migrator

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DB2 for i5/OS Enablers for BI

- Built into i5/OS
  - SQL Query Engine (SQE)
  - On Demand Performance Center
  - Database Parallelism*
  - Real time statistics
  - Materialized Query Tables
  - Star Join/LPG
  - Query Rewrite
  - Encoded Vector Indexing
  - Remote Journaling (Trickle Feed)
  - Single Level Storage
  - Autonomic Indexes
  - Index Advisor
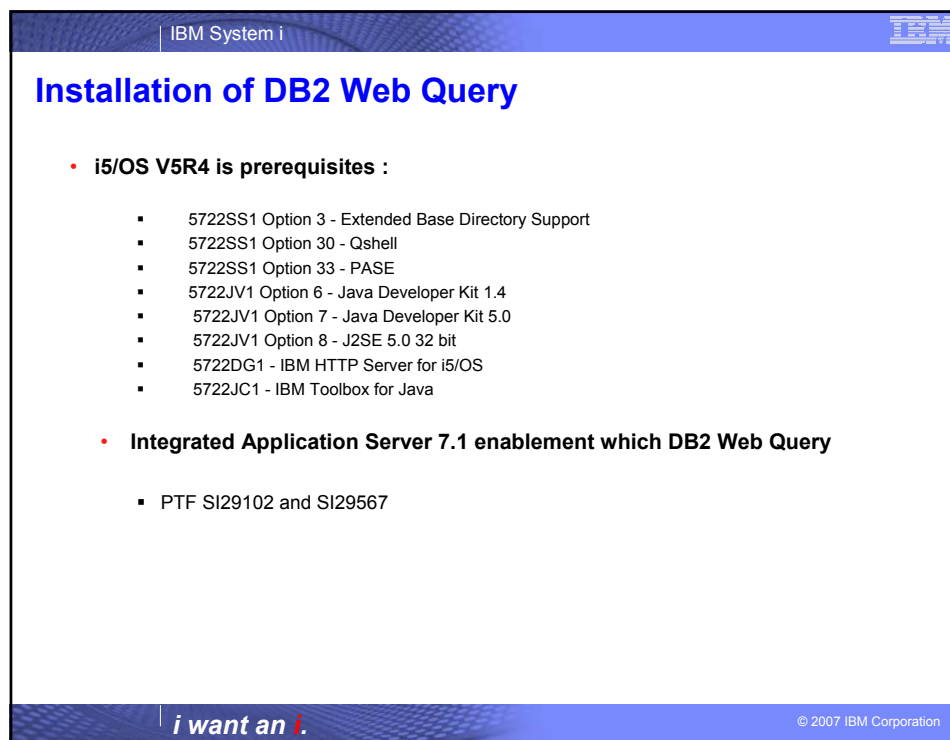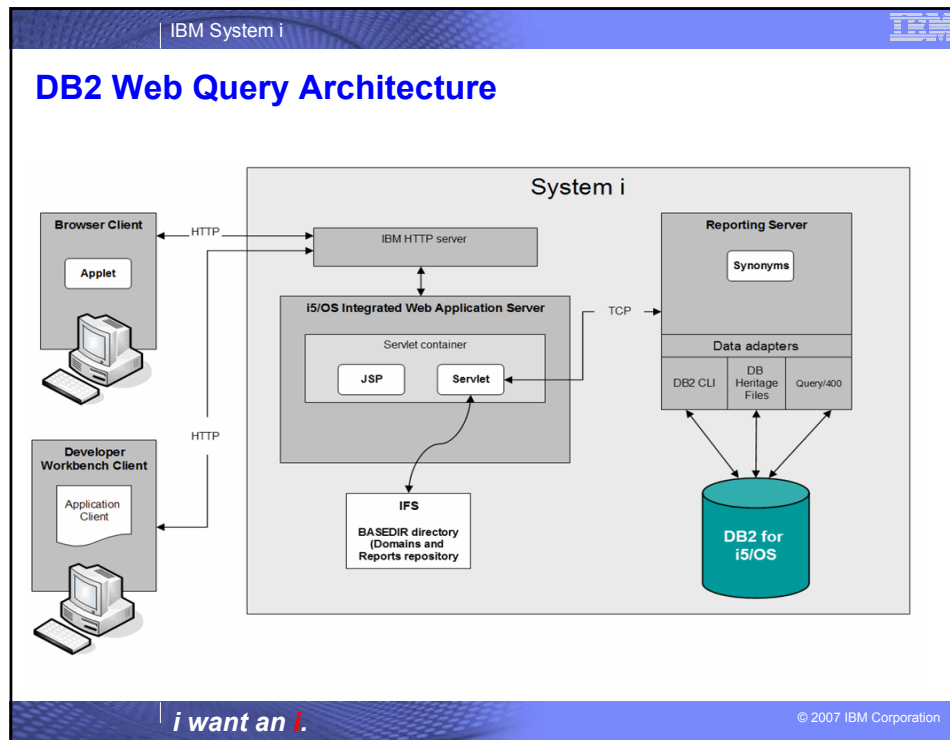 - Database Monitors

#1 in SAP BW Query/Hr Benchmark

| | 450 |
| 4-core | 8-core | 16-core |

Legend: ■ IBM Power/DB2 ■ Fujitsu/Oracle □ HP/Oracle

*See detailed certified benchmark results at
http://www.sap.com/solutions/benchmark/BW2_results.htm

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DB2 Web Query Architecture

Installation of DB2 Web Query

- **i5/OS V5R4 is prerequisites :**

  - 5722SS1 Option 3 - Extended Base Directory Support
  - 5722SS1 Option 30 - Qshell
  - 5722SS1 Option 33 - PASE
  - 5722JV1 Option 6 - Java Developer Kit 1.4
  - 5722JV1 Option 7 - Java Developer Kit 5.0
  - 5722JV1 Option 8 - J2SE 5.0 32 bit
  - 5722DG1 - IBM HTTP Server for i5/OS
  - 5722JC1 - IBM Toolbox for Java

- **Integrated Application Server 7.1 enablement which DB2 Web Query**

  - PTF SI29102 and SI29567

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Installation of DB2 Web Query

- Base product:
  - RSTLICPGM LICPGM(5733QU2) DEV(OPT01)
- Active Reports was purchased
  - RSTLICPGM LICPGM(5733QU2) DEV(OPT01) OPTION(1)
- OLAP Enablement option
  - RSTLICPGM LICPGM(5733QU2) DEV(OPT01) OPTION(2)
- Developer Workbench
  - RSTLICPGM LICPGM(5733QU2) DEV(OPT01) OPTION(3)
- Read and press F14 to accept the license.
- Load and apply the lastest 5733QU2 PTFs, informational APAR II14318.
- CALL QWEBQRY76/REGWEBQRY // Register the DB2 Web Query HTTP instance.
- User profile QWEBQRYADM created at 1st installation

Registering Named Users

- *Registering Named Users.*
  - CALL QWEBQRY76/WQADDLIC 'USERPROFILE'
  - USERPROFILE references your System i user profile name and must be specified in upper case letters.

- *Removing a DB2 Web Query registration*
  - CALL QWEBQRY76/WQRLSLIC 'USERPROFILE'
  - Again your user profile needs to be in upper case.

- *Displaying registered users*
  - WRKLICINF PRDID(5733QU2), option 8 for #5050

- *User Categories*
  - Administrator (MRADMIN), Developer (MDMONTHEND), basic User (MUMONTHEND)
- *Named user*
  - I5/OS user (defined by user profile), registered to use the product
  - User must be "named" user to build and to execute queries against DB2
  - Viewing a report (excel or pdf): no named user required , creating report (pdf or excel): Named user required

Beyond Query/400

DB2 Web Query Sign on

- http://mysystem.abc.acme.com:11331/webquery

DB2 Web Q sales roadmap

- Until January 8, 2008 : all the edition orders will still include 5722-QU1
- Effective 8 Jan 2008 QU1 will no longer be included at no charge in these new systems
- 5722-QU1 is WDFM on January 4, 2008
- 5722-QU1 can no longer be ordered with V5R4
  - Only with V5R3
- SWMA specific to 5733-QU2
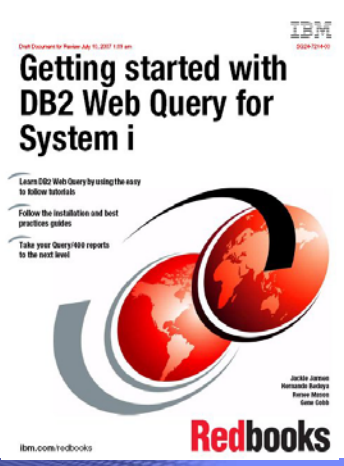 - Grace period of 90 days for transition
  - After grace period : after licence fee

Beyond Query/400

Redbook:
Getting Started with DB2 Web Query for System i

- SG24-7214
- Downloadable from:
  http://www.redbooks.ibm.com/redpieces/abstracts/sg247214.html?Open

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DB2 for i5/OS Home Page   *Ibm.com/systems/i/software/db2*

- Your portal to everything DB2!
- General Information
- See it Action Demos
- What's New
- Education Roadmaps
- *HOW TO Papers*
  - •Click on SUPPORT
  - •Articles and White Papers

NEW DB2 Web Query Website: http://www.ibm.com/systems/i/software/db2/webquery
- Frequently Asked Questions
- Detailed Demonstration
- "Why System i for BI" White Paper
- Links to Information Builder Add-on product information

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IBM System i

Questions
&Answers

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AS/400e	IBM	OS/400
eServer	IBM (logo)	System i5
@server	System i	

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