

IBM Data Server Manager



Data Server Manager Overview

Topic agenda

- Monitoring - Lab 01
- Tuning - Lab 02
- Configuration - Lab 03
- Administration - Lab 04

DB2

Advanced Enterprise Server Edition License

- **DB2 V11.1 for LUW Announced 4/12/2015**
- **AESE bundle includes the following**
 - DB2 Enterprise Server Edition
 - DB2 pureScale
 - Database Partitioning Feature
 - BLU Acceleration
 - DB2 Storage Optimization Feature
 - DB2 Native Encryption
 - DB2 Tooling
 - InfoSphere Data Architect
 - Ingest Utility
 - Homogeneous Replication Feature for DB2
 - InfoSphere Federation Server
 - Performance Management
 - Data Server Manager
 - Configuration Manager
 - Data Server Manager Extended Edition
 - Query Workload Tuner
 - pureQuery Runtime

DB2 Business Value Offering

4 New Offerings – Announced on Jan 20, 2015

DB2 BLU Acceleration In-Memory

- Ability to scale from GBs to PBs of data
- 37x-70x performance gains for analytics and reporting
- 10x compression rates
- Load and Go simplicity; Application Transparent
- Real-time warehousing; columnar; in-memory
- HADR for High Availability and Disaster Recovery



Available for ESE and WSE

DB2 Business Application Continuity

- 24x7x365 Continuous Availability – No down time
- Protects from planned and unplanned outages
- Application transparent
- pureScale and HADR for Disaster Recovery



Available on ESE and WSE

DB2 Performance Management

- Capture and analyze real-time and historical data for capacity planning and growth
- Tune entire workloads to balance costs across query and insert actions
- Minimize events that impact user productivity and revenue
- Receive easy-to-understand, actionable recommendations for problem resolution



Available on ESE, WSE, and Express

DB2 Encryption

- Securely encrypt both databases and backup images
- Native to DB2 – runs anywhere DB2 runs – no restrictions!
- Transparent to applications and utilities
- Simple to deploy and manage



Available on ESE, WSE, and Express

Data Server Manager

Options Availability for DB2 Packaging

Packaging	Data Server Manager
Express-C Edition	Base Features
Express Edition	Base Features or BVO
Workgroup Server Edition	Base Features or BVO
Advanced Workgroup Server Edition	Enterprise Features
Enterprise Server Edition	Base Features or BVO
Advanced Enterprise Server Edition	Enterprise Features
Developer Edition	Enterprise Features

BVO – Business Value Offering – "DB2 Performance Management" Pack purchase

Data Server Manager

DB2 z/OS Tools – At a Glance

Data Server Manager Based Tools for DB2 zOS

DB2 Query Workload Tuner for zOS V5.1 (Standalone – DB2 Performance Solution Pack)

DB2 Configuration Manager for zOS V5.1 (Inside - DB2 Performance Solution Pack)

DB2 Utility Solution Pack V 2.2

Database Server Manager

Simplified Install

- **Base Edition**

- Download software
- Run setup command to install software as non-root to do the real-time basic monitoring

- **Enterprise Edition**

- Download software and license key in the directory
- Run setup command to install the software as non-root
- Setup repository database to store monitoring data before or after the install



Data Server Manager

Availability Options for Customers

- **DB2 Advanced Workgroup or Enterprise Editions**
 - Data Server Manager is included as part of DB2 advanced editions for existing and new customers
- **Business Value Offering – Performance Management Offering**
 - Included in Business Value Offering
 - Purchase in support of non-advanced DB2 editions
- **License Exchange Offer from Existing Tools**
 - Move existing customers (OPM, OCM and OQWT) to DB2 Advanced Editions via trade-up part number or through Performance Management Offering (via license exchange)

Performance Management Business Value Offering Include:

- ✓ Data Server Manager
- ✓ Optim Performance manager Extended Edition
- ✓ Optim Query Workload Tuner
- ✓ DB2 Workload Manager

Data Server Manager

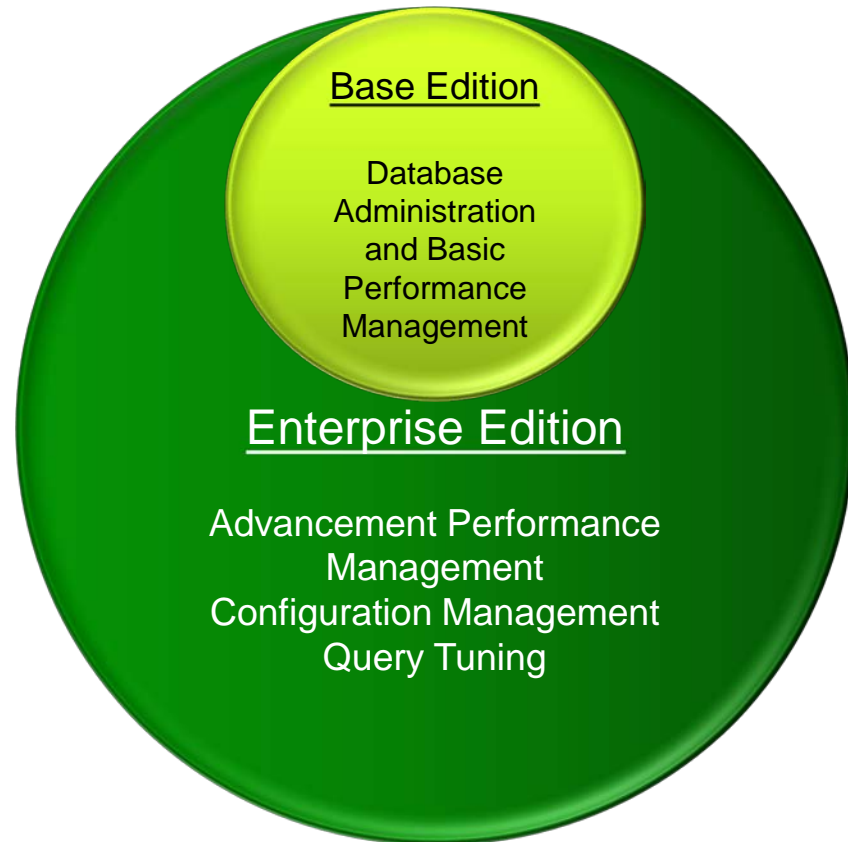
Packaging options

- **Base Edition**

- offers database administration and basic performance monitoring capabilities to all DB2 clients at no charge.

- **Enterprise Edition**

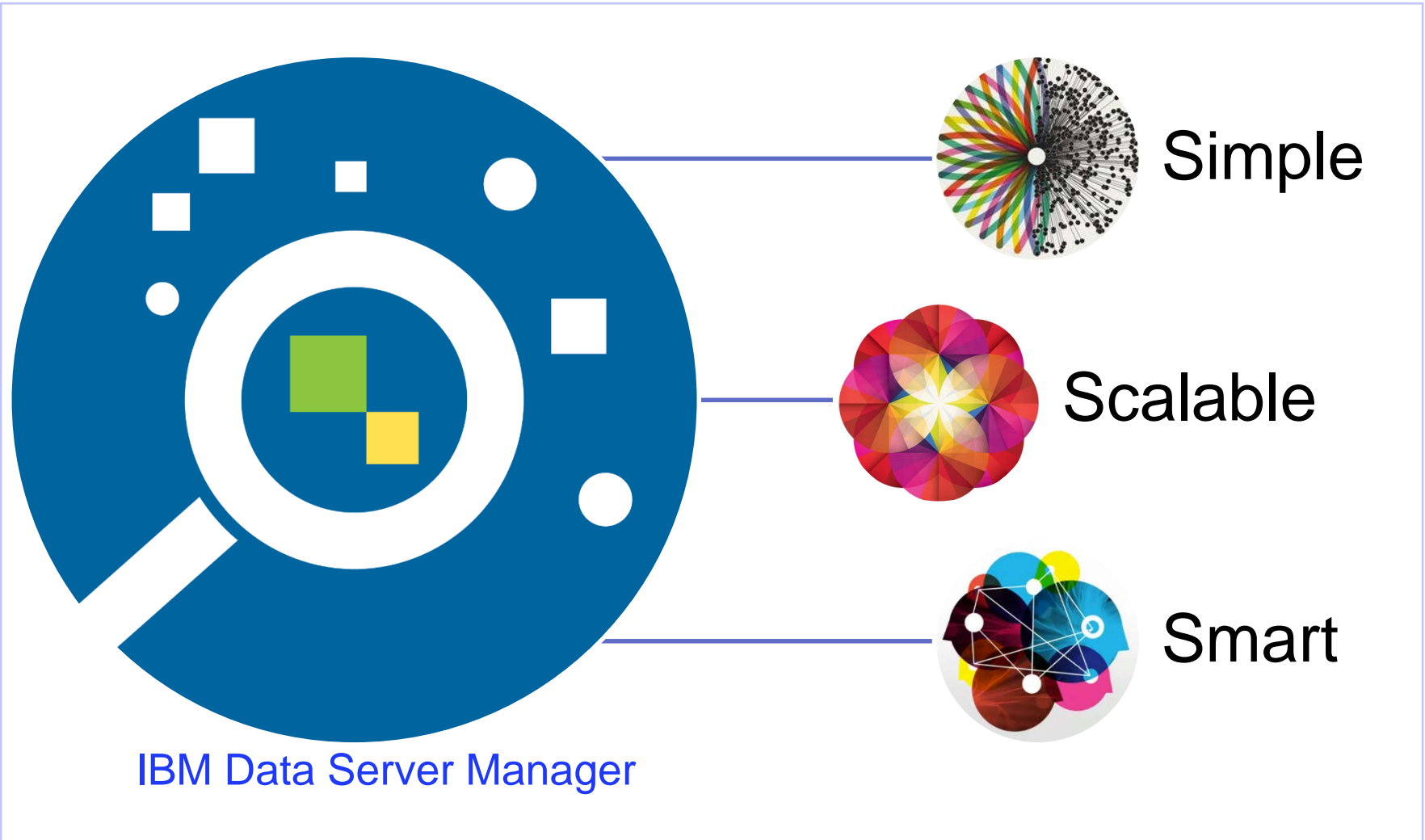
- offers more advanced capabilities including enhanced monitoring, centralized configuration management, refined performance management and query tuning capabilities with expert advice.
- is included in "DB2 Performance Management" of new Business Value Offering for non-advanced DB2 Editions
- is packaged with DB2 advanced editions



Data Server Manager Compatibility Matrix

Operating System	Database Versions	Prerequisites
AIX 6.1 TL 7	DB2 9.7 Fix Pack 6 or higher	JCC Driver 3.66 or higher
AIX 7.1 TL1	DB2 10.1 Fix Pack 3 or higher	Java SDK 7.1.2 or higher
RHEL 5, Update 9	DB2 10.5 All Fix Packs	Web Browser
RHEL 6		Chrome 40 or up
SuSe SLED 11		FireFox 35 or up
SuSe SLES 11 SP2		IE 9,10,11
SuSe 12		
Ubuntu 12.04 and 14.04		
Windows 7		
Windows 8		
Windows Server 2008 R2 and 2012		

Data Server Manager Value Offering



Data Server Manager

Simple, Scalable and Smart



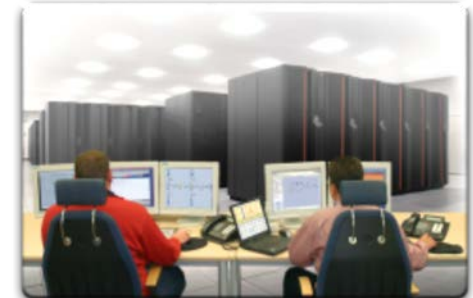
Deliver a Simplified User Experience

- Single installer and integrated repository



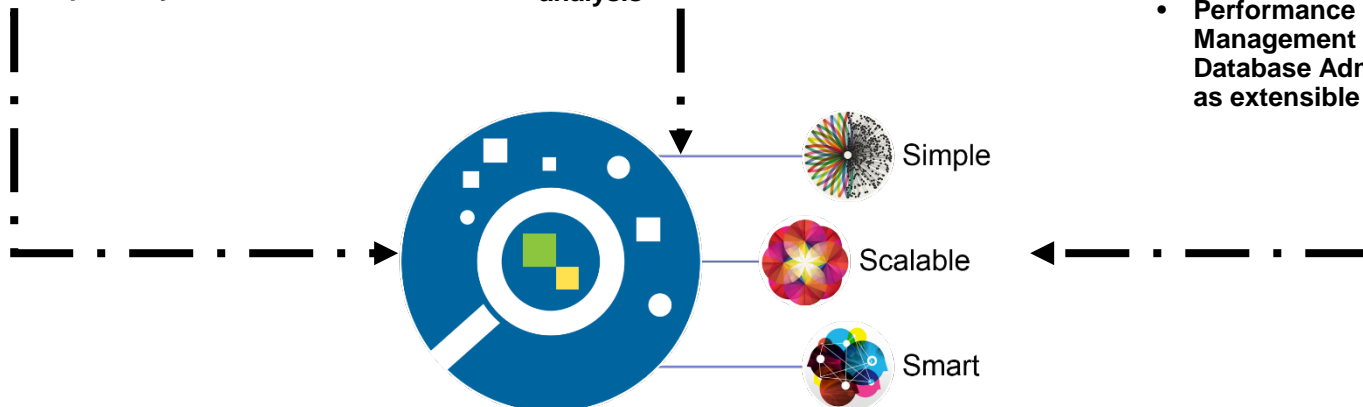
Common integrated web console

- Provides enterprise view of your environment
- Guided workflow and analysis



Deliver familiar capabilities from Optim Database Tools

- Performance Management and Database Administration as extensible services



Database Server Manager

Capabilities and Features

Monitoring

- **Monitoring**
- The capabilities of the Optim Performance Manager and new features are rolled into the new Data Server Manager

Tuning

- **Tuning**
- The capabilities of the Optim Query Workload Tuner and new features are rolled into the new Data Server Manager

Configuration

- **Configuration**
- The capabilities of the Optim Configuration Manager and new features are rolled into the new Data Server Manager

Administration

- **Administration**
- The capabilities of the Data Studio and new features are rolled into the new Data Server Manager

All of the above is one tool!

Data Server Manager

Fix pack Summary

- **V 1.1.2 – Fix Pack 1 (03/21/2016) Summary**

- Federation support (create / drop wrapper, server, user mapping and nicknames)
- Support for DB2 family data sources, Oracle, Teradata and plain JDBC.
- Query tuning enhancements – Automated tuning services, Optimized access plan graph
- Admin support for DB2 z/OS enhancements
- Compare objects alter SQL enhancements
- Report generation enhancements

- **V 1.1.2 – Features**

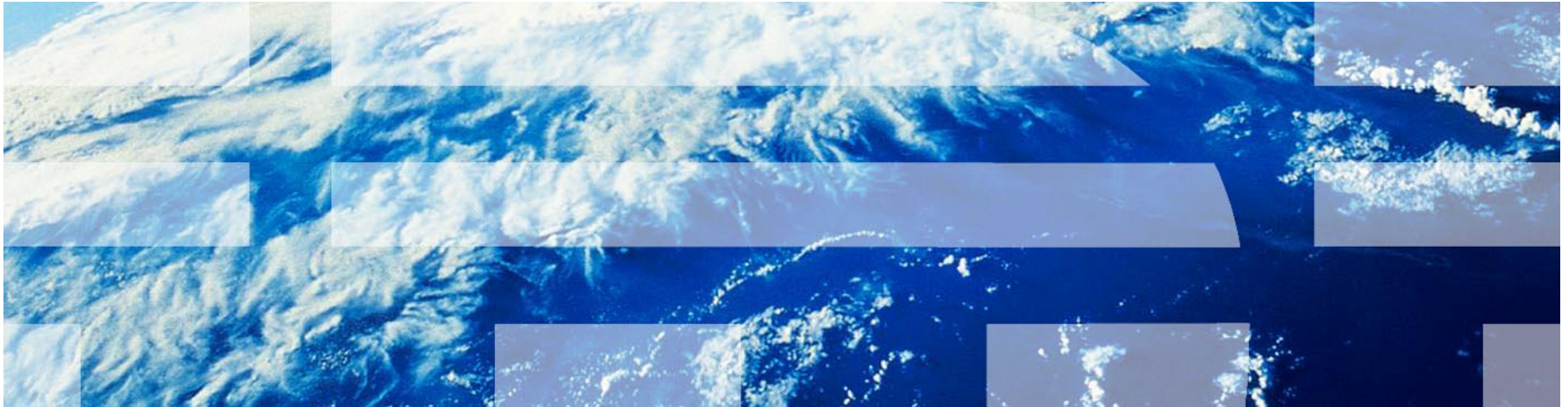
- DB2 for z/OS support for V10 and V11
- Simplified Overview Dashboard with improved baseline comparison
- Several tuning enhancements - simplified optimization profile creation, index impact analysis
- Generate reports improvements
- Several configuration management enhancements, Configure zParm, and Managed Clients

- **V 1.1.1 – Features**

- Significant performance improvements compared to Optim Performance Manager
- Simplified install and license management
- Combining four different products in a single we
- Get alerts on Workload Management Policy deviations

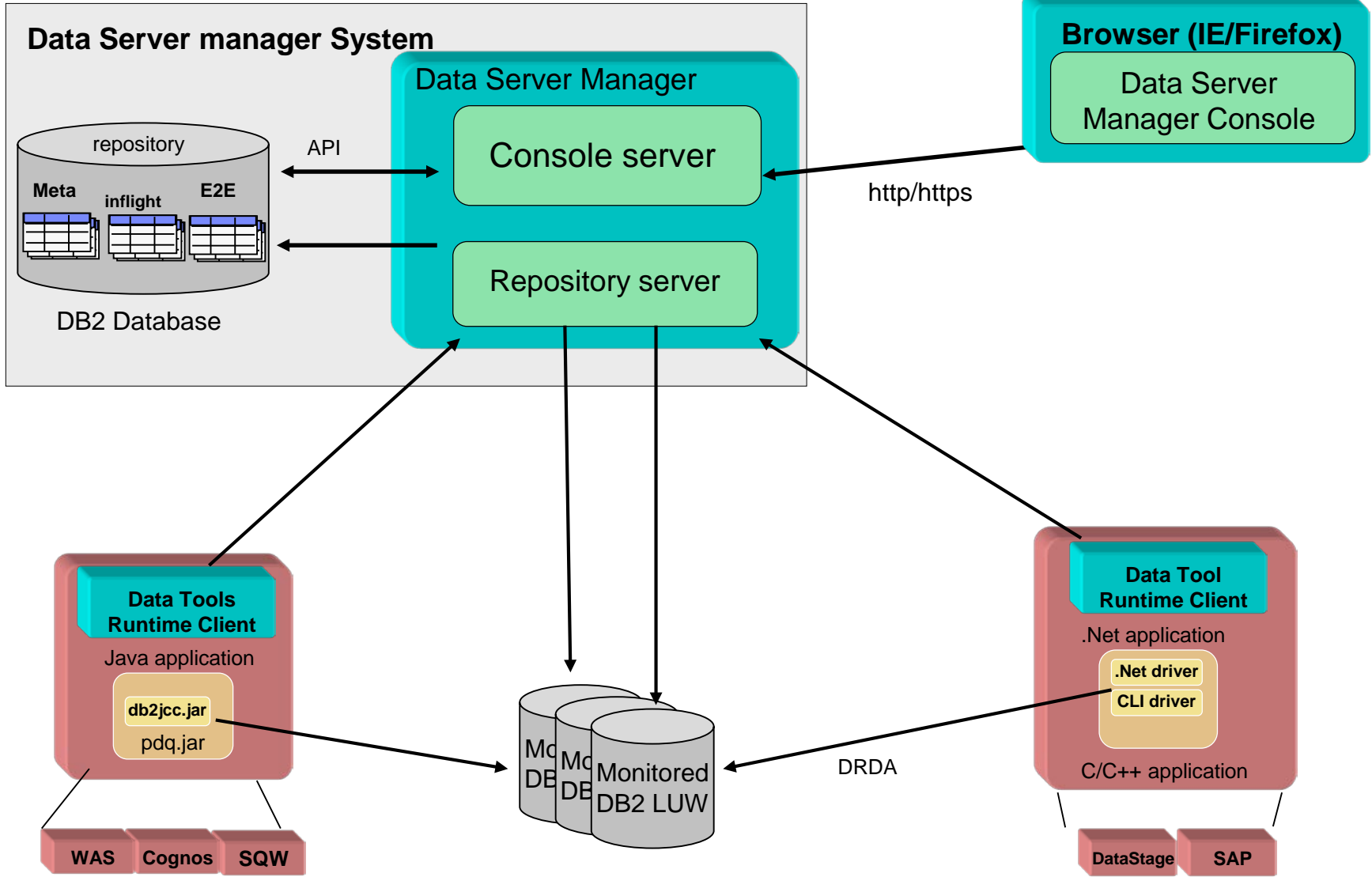
Data Server Manager Release Schedule – Approx. 90 -120 days

Monitoring



Data Server Manager

Architectural diagram (with Client Monitoring)



Data Server Manager

Monitoring Features

- **Guided Approach to Solve Performance Problems**
 - Identify
 - Diagnose
 - Solve
 - Prevent
- **Monitor database and transaction performance**
 - Get notified of emergent issues using proactive alerts
 - Use overview dashboards and drill into problem area specific detailed dashboards to diagnose issues quickly
 - Identify potential data access bottlenecks for distributed applications
 - Access real-time, near real-time and historical performance metrics
 - Compare SQL performance over time
 - Create reports to share findings or use as input for trend analysis and capacity planning
 - Get alerts on Workload Management Policy deviations

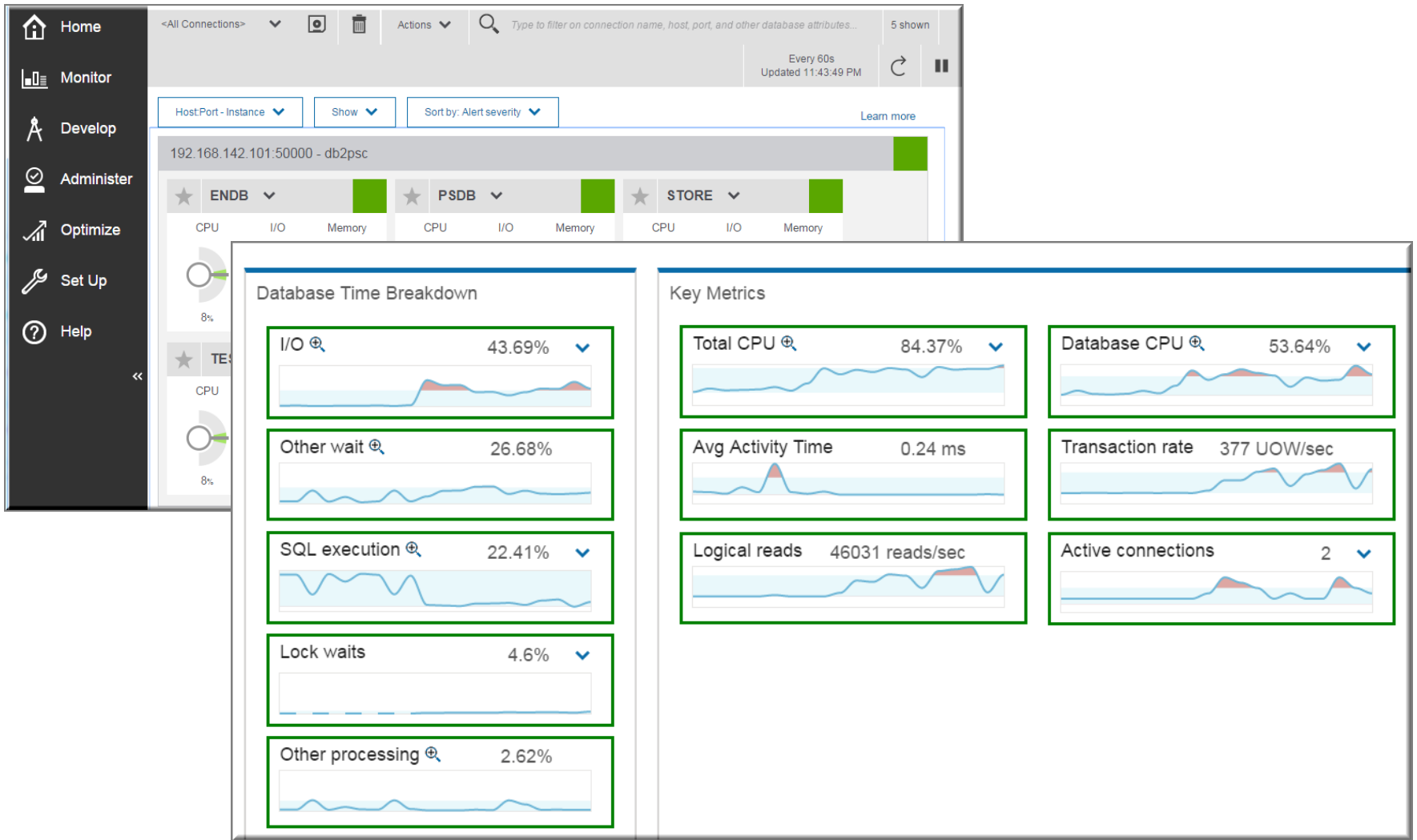
Data Server Manager

Monitoring Dashboards

- 24x7 monitoring
- Real-time monitoring
- Historical monitoring
- Web based dashboards
- Baseline Overview for database key performance indicators
- Client Monitoring and Managed Clients
- Alerting and notification via customized email, SMTP, SNMP, alert history, alert details
- Drill through to detailed data for alerted condition
- Generate Reports for trends, performance, lock analysis, SQL statements

Data Server Manager

Enterprise-wide monitoring of DB2 servers



Data Server Manager

Enterprise-wide monitoring of DB2 servers

The screenshot displays the IBM Data Server Manager interface for a database named 'PSDB'. The top navigation bar includes 'Home', 'Monitor', 'Administer', 'Optimize', 'Set Up', and 'Help'. The main content area is divided into two sections:

Applications View: This view shows 'Top Consumers' with sub-tabs for 'Connections', 'Managed Clients', and 'Utilities'. A table lists server resources with columns for 'Server resource', 'Application handle', 'Rank #', 'Value of top UOW', 'Average, excluding top UOW', 'Application name', 'User ID', and 'Workload name'. Action buttons include 'View Details', 'Force Application', and 'Cancel Activities'.

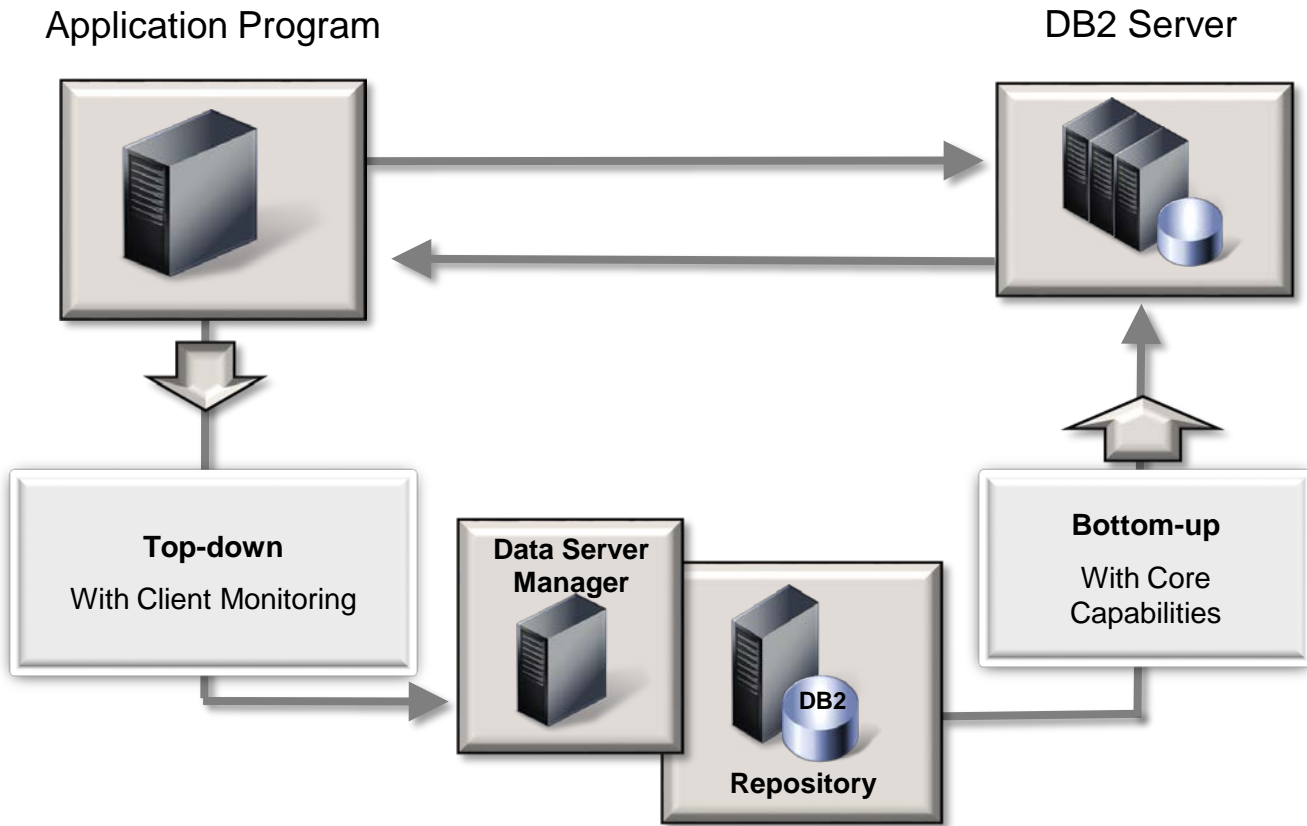
Statements View: This view shows 'In-Flight Statements' with sub-tabs for 'Executed Statements' and 'Stored Procedures'. A table lists in-flight statements with columns for 'Statement ID', 'Statement Text', 'User ID', and 'Workload name'. Action buttons include 'View Details', 'Visual Explain', 'Tune Query', 'Force Application', 'Cancel Activities', and 'Show System Statements'.

Data Server Manager

Database Monitoring

- Different monitoring categories
 - Overview
 - Locking
 - Memory
 - Top Consumers
 - Connections
 - Statements
 - Storage Savings
- Smart Alerts using a rolling baseline for comparison to show if current metrics are out of norm
- Ability to force connections and cancel statements (not the entire workload)
- Blackout periods
 - Disallow monitoring during maintenance periods
- Get alerted on DB2 Workload Manager Thresholds
 - WLM is a feature of the DB2 server
 - Get alerted when WLM thresholds are breached

Data Server Manager Client Monitoring

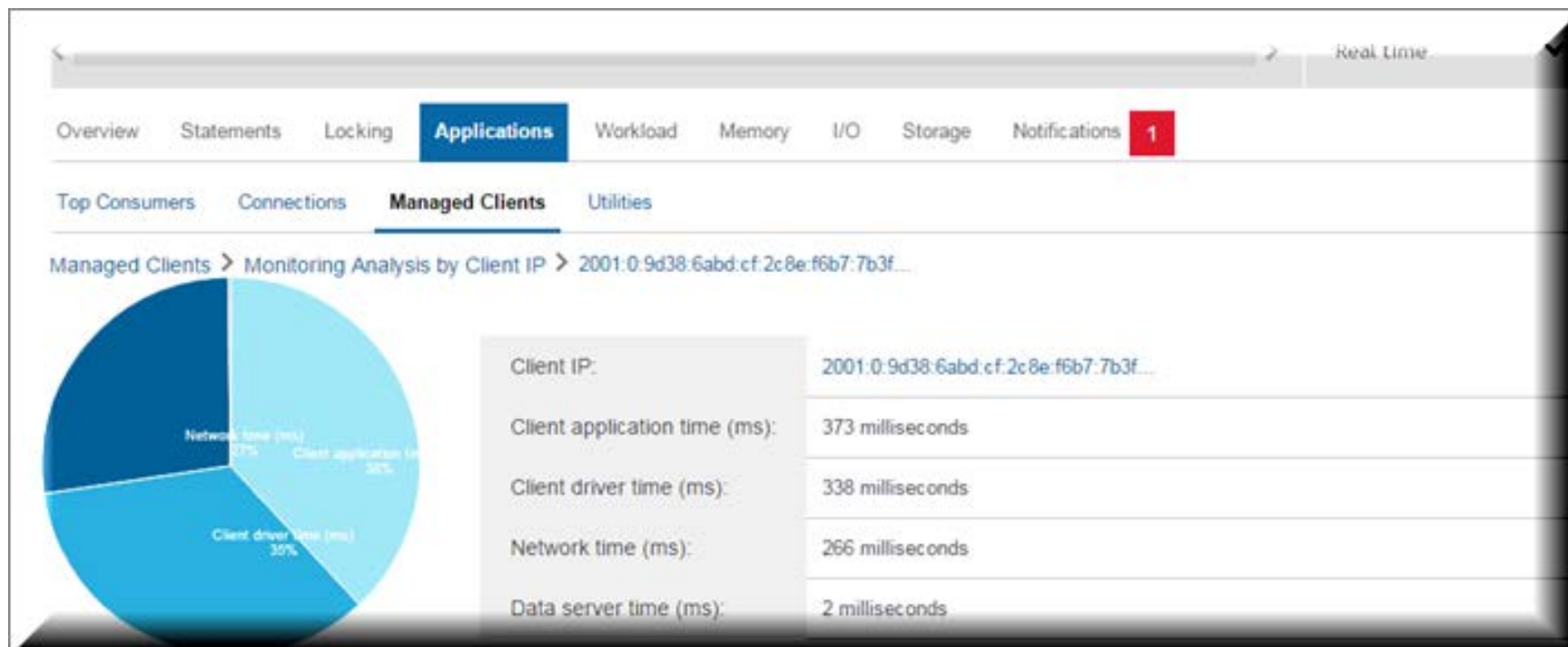


Unique feature in Industry

Data Server Manager

Client Monitoring – Top Down Performance Monitoring

- Monitor end-to-end transaction response with Client Monitoring (aka Extended Insight)
 - Identify the problem workload (Who)
 - Problem period (When)
 - Problem SQL (What)
 - Problem Layer (Why)



Data Server Manager Client Monitoring – Implementation

- A simplified implementation approach
 - Download Data Tools Runtime Client (DTRC) from Fix Central
 - For Java – It is just a `pdq.jar` file that you need
 - For Non-Java – It is the installation of `libpqcmx.so` library
 - For Java
 - Copy `pdq.jar` in the directory containing `db2jcc.jar` for the application
 - For Non-Java
 - Copy `libpqcmx.so` in `~/sqllib/lib32` and `~/sqllib/lib64` directory
- Client monitoring for all applications – No change in code
 - For Java
 - Create `pdq.properties` file and copy in same directory where you have `db2jcc.jar`
 - Sample `pdq.properties`
`pdq.cmx.http.controllerURL=http://192.168.142.101:11080`
`pdq.cmx.controllerAccessPolicy=2`

No change in application required to enable Client Monitoring for all applications

Data Server Manager

Client Monitoring – Implementation (..continued)

- Client monitoring for all applications – No change in code
 - For Non-Java
 - Create `db2dsdriver.cfg` in `~/sqlllib/cfg` directory
 - Tip – Use `db2dsdcfgfill` to create your catalogued databases entries in `db2dsdriver.cfg`
 - Sample `db2dsdriver.cfg`

```

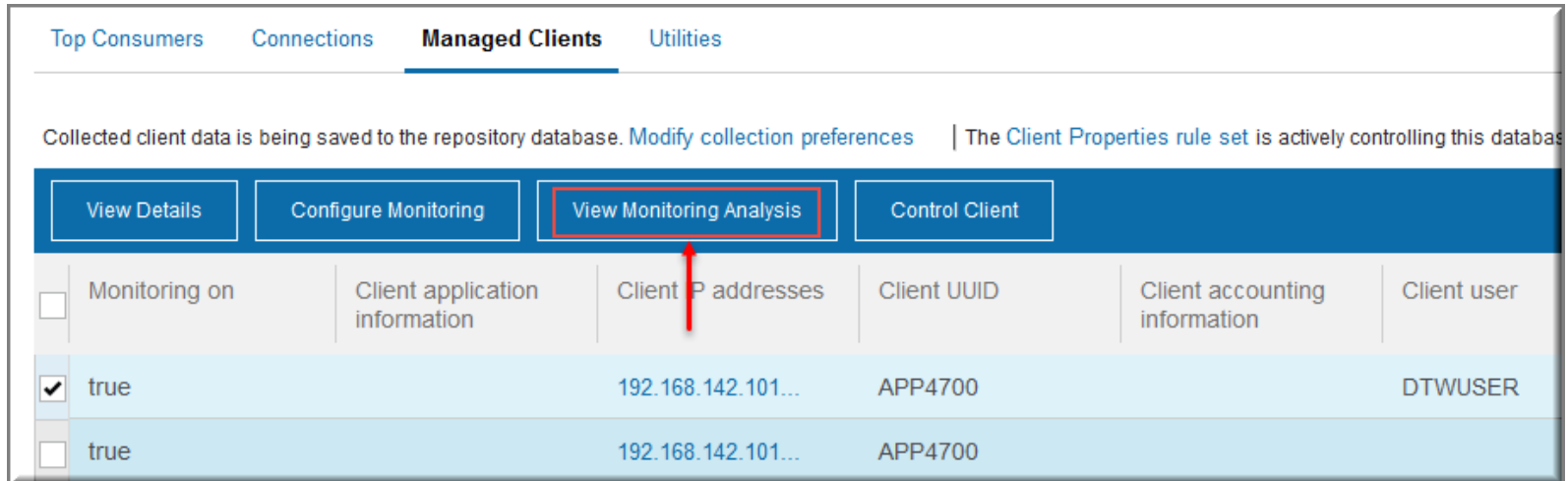
<?xml version="1.0" encoding="UTF-8"?>
<configuration>
  <dsnrcollection>
    <dsn alias="store" host="dsmsserver" name="store" port="50000"/>
  </dsnrcollection>
  <databases>
    <database host="dsmsserver" name="store" port="50000">
      <parameter name="CurrentSchema" value="db2psc"/>
      <parameter name="ClientApplicationName" value="db2cli"/>
      <parameter name="ClientWorkstationName" value="VMwarei SuSe Linux"/>
      <parameter name="ClientUserID" value="cliuser"/>
      <parameter name="IsolationLevel" value="ReadCommitted"/>
      <parameter name="KeepAliveTimeout" value="10"/>
      <parameter name="ProgramName" value="db2cli 64bit"/>
      <parameter name="QueryOptimizationLevel" value="1"/>
      <wlb>
        <parameter name="enableWLB" value="true"/>
        <parameter name="maxTransports" value="50"/>
      </wlb>
      <acr>
        <parameter name="enableACR" value="true"/>
      </acr>
      <specialregisters>
        <parameter name="CURRENT DEGREE" value="'ANY'"/>
      </specialregisters>
    </database>
  </databases>
  <parameters>
    <parameter name="connectionSupervisorProperties" value="httpControllerURL=
http://dsmsserver:11080,cmxUUID=e485a065-01c0-469e-9b99-fe98225feb0,cmxControlle
rAccessPolicy=2"/>
    <parameter name="connectionSupervisorLibrary" value="/home/db2psc/dtrc/non
-Java/linuxx64/lib64/pqcmx"/>
  </parameters>
</configuration>

```

Data Server Manager

Client Monitoring – All applications

- Enabling all applications for client monitoring does not mean that all applications are being monitored by the Data Server Manager
 - DBAs still have the control to turn on / off client monitoring – On demand monitoring
 - When a client application entry appears in Managed Client view, the client monitoring is turned off by default
 - The `Configure Monitoring` allows a DBA to turn on / off client monitoring dynamically



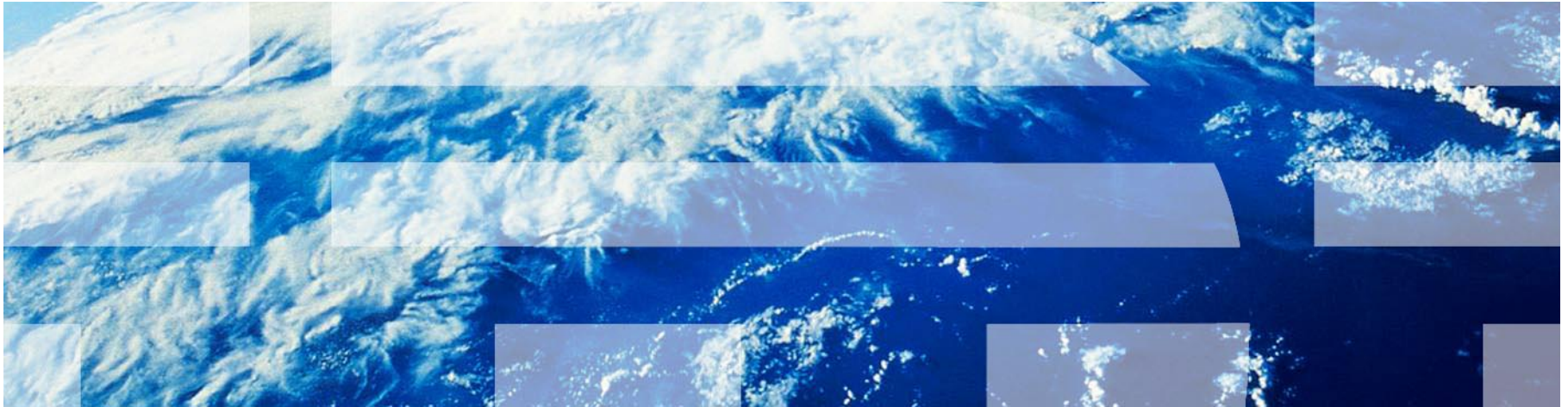
Top Consumers Connections **Managed Clients** Utilities

Collected client data is being saved to the repository database. [Modify collection preferences](#) | The Client Properties rule set is actively controlling this database

[View Details](#) [Configure Monitoring](#) [View Monitoring Analysis](#) [Control Client](#)

<input type="checkbox"/>	Monitoring on	Client application information	Client IP addresses	Client UUID	Client accounting information	Client user
<input checked="" type="checkbox"/>	true		192.168.142.101...	APP4700		DTWUSER
<input type="checkbox"/>	true		192.168.142.101...	APP4700		

Tuning



Data Server Manager

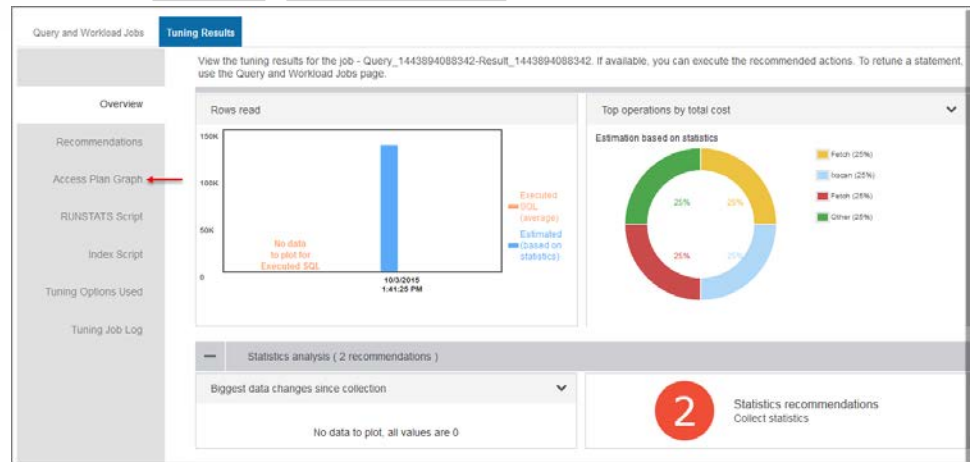
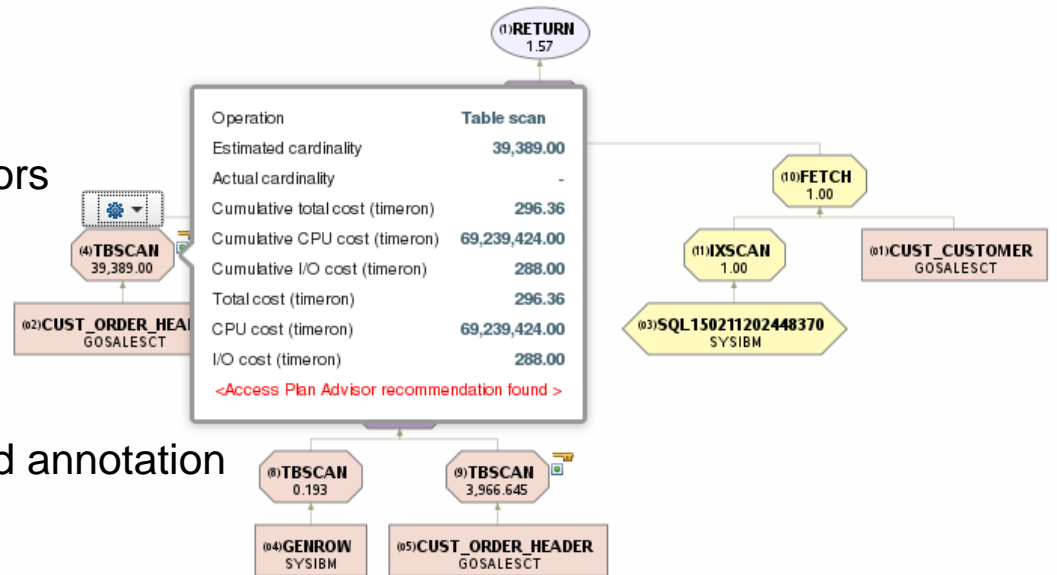
Query Tuning

- Tune individual SQL or entire workloads
 - Improve statistics quality
 - Improve database design
 - Improve query design
- Simplify tuning process for DBAs and developers
 - Capture SQL and workloads from a variety of sources (e.g. performance monitor, development environment, or directly from database)
 - Understand DB2's SQL processing through advanced access plan visualization (graph or grid based)
 - Use wizards to identify tuning opportunities and assess benefits and impact
 - Create detailed reports to document and share your findings

Data Server Manager

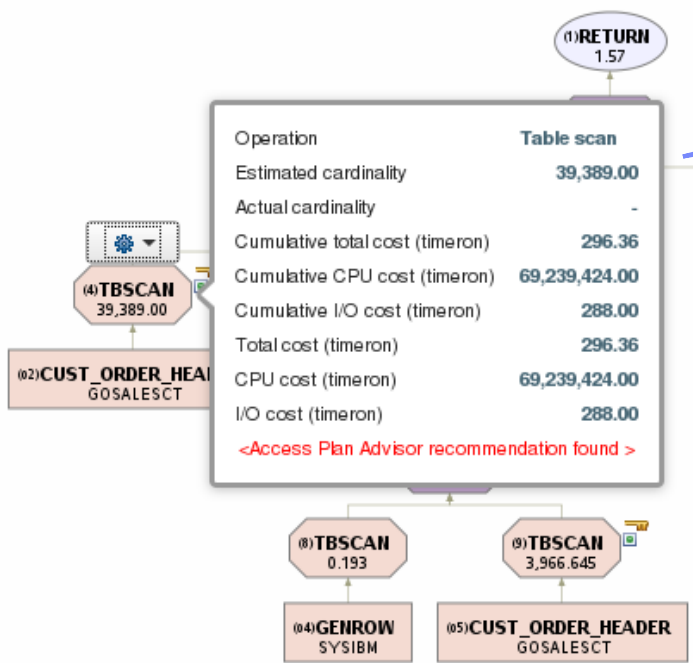
Query or Workload Tuning - Overview

- Identify query candidates
 - DB2 catalog
 - Statement cache
 - Query or performance monitors
 - Editors...
- Facilitate analysis
 - Query formatting
 - Query annotation
 - Access path visualization and annotation
- Get expert tuning advice
 - Improve statistics quality
 - Improve database design
 - Improve query design
- Validate results
 - Compare iterations



Data Server Manager

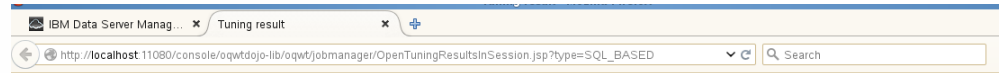
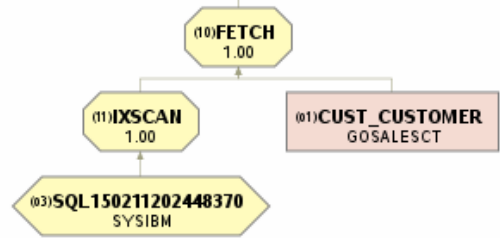
Diagnose using Query Tuner



Operation	Table scan
Estimated cardinality	39,389.00
Actual cardinality	-
Cumulative total cost (timeron)	296.36
Cumulative CPU cost (timeron)	69,239,424.00
Cumulative I/O cost (timeron)	288.00
Total cost (timeron)	296.36
CPU cost (timeron)	69,239,424.00
I/O cost (timeron)	288.00

<Access Plan Advisor recommendation found >

Examine access path information



Summary of Single-Query Tuning Recommendations and Analysis

This report contains a summary of the recommendations and analysis from the selected tuning advisors and tools. Examine the recommendations and take appropriate actions to tune your query. You can view the version of the SQL statement and information about the access plan. Finally, you can examine table, column, and index information from system catalog to do further analysis and tuning.

- Recommended Actions
- Formatted and Annotated SQL Statement
- Access Plan Summary
- Table and Index Information

Overview

Timestamp for the recommendations and analysis: 2015-02-19 00:49:32
 Database server connection: jdbc:db2://localhost:50001/REGION2 (DB2 for Linux, Unix, and Windows V10.5 Fix Pack 5)
 Estimated plan cost: 680,233,000 units
 Critical recommendations: 0 regarding statistics, 0 regarding indexes, and 2 regarding the access path.
 Recommended best practices: 1 regarding statistics, 1 regarding indexes, and 1 regarding access path.

Recommendation	Category	Importance	Description
4	Access path	CRITICAL	Avoid joining two tables without a join predicate in nested loop join (Operator ID = 7). The optimizer chooses a join sequence that contains an inner table GOSALESCT.CUST_ORDER_HEADER without join predicates to any of the outer tables. When a large number of records are returned, DB2 might be using an inefficient access path. Consider providing an appropriate join predicate. Click here to see the access plan operator.
5	Access path	CRITICAL	Avoid table space scan on the inner table of a nested loop join (Operator ID = 7). The inner table GOSALESCT.CUST_ORDER_HEADER in a nested loop join is accessed by a table space scan (table scan). When a large number of records are returned after the outer table is accessed, DB2 might use an inefficient access path. Consider running the Statistics Advisor or run the Index Advisor to determine whether creating an index might improve the access path. Click here to see the access plan operator.
1	Statistics		Consolidate statistics: Use RUNSTATS to recollect all the relevant statistics for this query. Important: If statistics are missing, recommendations regarding indexes and the access path will be based on default statistics. Click here to review the recommended RUNSTATS control statements.
2	Index		Index recommendation is found for the following tables: GOSALESCT.CUST_ORDER_HEADER. The total estimated disk space required is 0.367 MB and the estimated performance improvement is 94%. This index recommendation will help improve query performance for general indexing. Click here to review the recommended CREATE INDEX DDL script.
3	Access path		Avoid table space scans (Operator ID = 4) on table GOSALESCT.CUST_ORDER_HEADER. The table is accessed by a table space scan. Consider running the Statistics Advisor, because the improving statistics might improve the access path. Also, consider running the Index Advisor to determine whether creating an index might improve the access path. Click here to see the access plan operator.

Examine table statistics and additional information

Data Server Manager

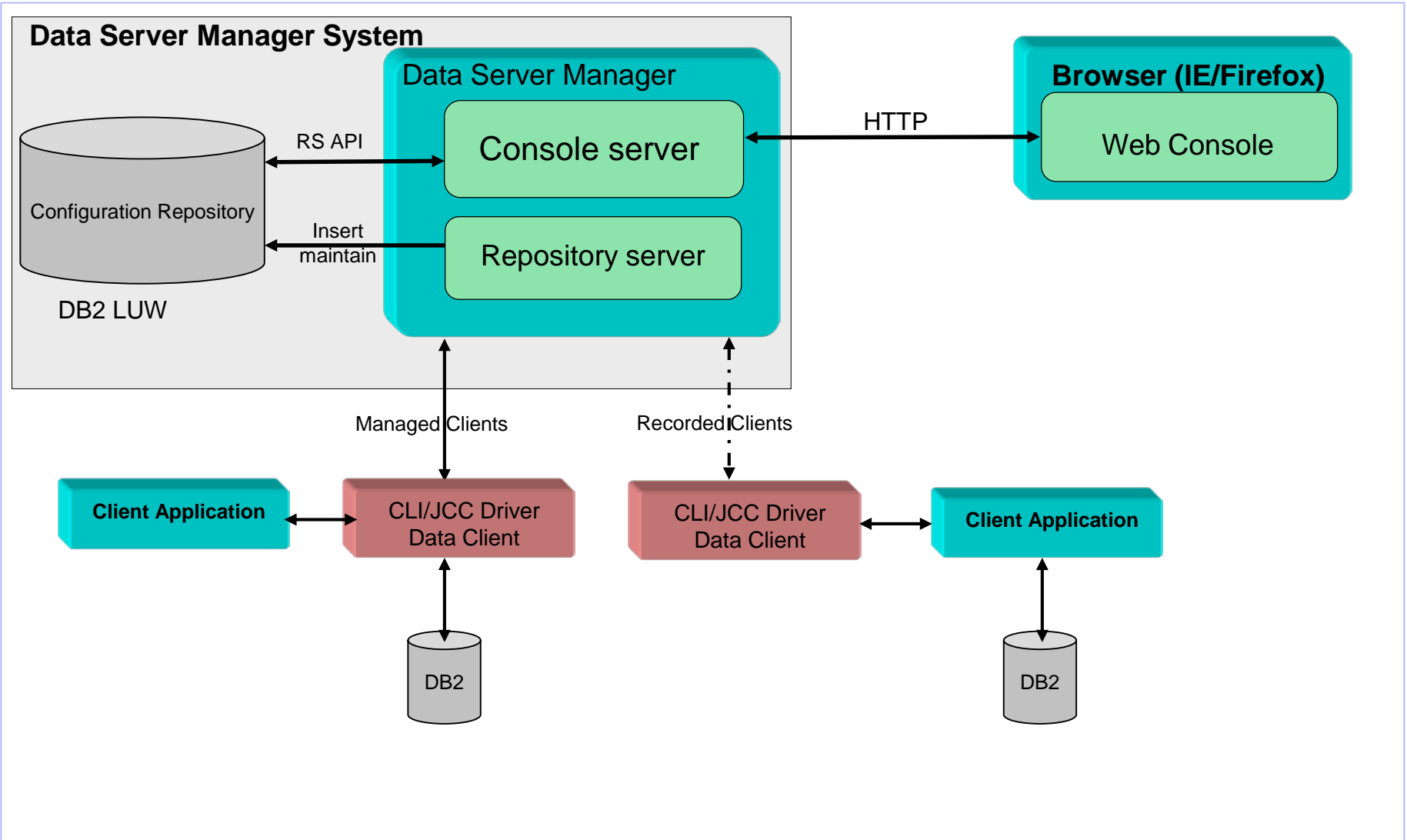
BLU / Shadow Tables Advisor

- Displays performance improvement
- Lists all tables in the workload and ones that should be converted
- Displays the current and recommended organization for each table as well as other properties including:
 - The number of references of the table in the workload
 - Findings of why a table was or was not recommended, and any warnings if a conversion is made
- Lists the statements in the workload affected by the table conversion

Configuration



Data Server Manager Configuration - Architectural diagram



Configuration

Capability highlights: Scope

- **Get insights into IT deployments**
 - Explore information about all the entities in your enterprise that the Data Server Manager finds and is aware of.
- **Monitor client and server configuration changes**
 - View the modifications made to client and server configurations
 - See a history of the changes.
- **Control client applications from a central location**
 - Use the Rule Set Manager to act on managed clients
 - Define rules to isolate application transactions
 - ✓ Map workload management service classes
 - ✓ Redirect managed connections
 - ✓ Throttle managed connections
 - ✓ Tune workload balancing
- **Optimize storage utilizations**
 - Automatic movement of data between storage groups for table spaces
 - Show classic and adaptive compression savings
 - Show storage savings by reclaiming deleted pages
 - Show storage access patterns to highlight most used objects
- **Job Manager**
 - Create, manage jobs, schedule, chain and alerts notifications

Configuration


Managed Clients - Java

• Java Clients

- Method – 1 (No impact on application – Control is at global level)
 - Use `pdq.properties` to specify location of the DSM server
 - Copy `pdq.jar` to the same location having `db2jcc.jar`
 - Copy `pdq.properties` in same location with `pdq.jar`
 - Add this line to `pdq.properties`
- Method – 2 (Add `-D` switch to the application configuration to specify its uniqueness to allow control of clients from DSM)
 - Use `pdq.properties` as shown above
 - Specify `-D` switch to specify `pdq.cmx.uid` to specify a unique identifier to the application
- Method – 3 (Add `-D` switch to specify location of `pdq.properties` and can provide maximum control of clients at a very granular level)
 - Create a text file with following entries. e.g. `pdq.prop`

```
pdq.cmx.http.controllerURL=http://192.168.142.101:11080
pdq.cmx.uid=APP4200
pdq.cmx.controllerAccessPolicy=2
```

```
JVMFLAGS="-Xmx400m -DOUTPUT_DIR=${LOGDIR}"
JVMFLAGS="$JVMFLAGS -DDTWPROFFILE=$PROFFILE -Dpdq.configFile=pdq.prop"
```



Configuration

Managed Clients - CLI

- **CLI Clients (ODBC, .NET, PHP, Perl, Ruby, etc.)**

- Through `db2dsdriver.cfg`

```
<?xml version="1.0" encoding="UTF-8"?>
<configuration>
  <dsncollection>
    <dsn alias="store" host="dsmsserver" name="store" port="50000"/>
  </dsncollection>
  <databases>
    <database host="dsmsserver" name="store" port="50000">
      <parameter name="CurrentSchema" value="db2psc"/>
      <parameter name="ClientApplicationName" value="db2cli"/>
      <parameter name="ClientWorkstationName" value="VMwarei SuSe Linux"/>
      <parameter name="ClientUserID" value="cliuser"/>
      <parameter name="IsolationLevel" value="ReadCommitted"/>
      <parameter name="KeepAliveTimeout" value="10"/>
      <parameter name="ProgramName" value="db2cli 64bit"/>
      <parameter name="QueryOptimizationLevel" value="1"/>
      <wlb>
        <parameter name="enableWLB" value="true"/>
        <parameter name="maxTransports" value="50"/>
      </wlb>
      <acr>
        <parameter name="enableACR" value="true"/>
      </acr>
      <specialregisters>
        <parameter name="CURRENT DEGREE" value="'ANY'"/>
      </specialregisters>
    </database>
  </databases>
  <parameters>
    <parameter name="connectionSupervisorProperties" value="httpControllerURL=http://dsmsserver:11080,cmxUUID=e485a065-01c0-4
39e-9b99-fe98225feb0,cmxControllerAccessPolicy=2"/>
    <parameter name="connectionSupervisorLibrary" value="/home/db2psc/dtrc/non-Java/linuxx64/lib64/pqcmx"/>
  </parameters>
</configuration>
```

Configuration Compare Configurations

The screenshot shows the IBM Data Server Manager web interface. The browser address bar displays the URL: `192.168.142.101/console/ots/index.jsp#tasks=ocm..multiDBView.task.id%2Cocm.configCompare.task.id&`. The page title is "IBM Data Server Manager". The main navigation bar includes "Compare Configurations", "Alerts", "Hello, admin", and "Log Out".

The left sidebar contains the following menu items: Home, Monitor, Administer, Optimize, Set Up, and Help. The "Administer" menu is expanded, showing sub-items: Explore Databases, SQL Editor, Jobs, Track Changes, Compare Configurations (highlighted), and Diagnostic Log. A tooltip for "Compare Configurations" reads "Compare database configurations".

The main content area shows a table with the following data:

Instance name	Managed connection nam	Host name:Port
db2psc	PSDB	dmsserver.ibm.local:50000

At the bottom of the interface, there are buttons for "Current selection:", "Set as Source", "Create Comparison Job...", and "Create Clone Job...".

Configuration Storage Savings

☰
IBM Data Server Manager
Jobs ▾
Alerts ▾
Hello, admin
Log Out

- 🏠 Home
- 📊 Monitor
- 🔧 Administer
- 📈 Optimize
- 🔑 Set Up
- ❓ Help

Execution History

Job Definition

View the job status details for all jobs or select a job and open the log file to see more detailed information.

View log in browser
Run Job...
Job History Settings...
Cancel
🗑️
🔍
↻

Job ID	Job Name	Start Time	End Time	Status	Database Name
1429757329960	Storage Saving	2015-04-22, 22:50:17	2015-04-22, 22:50:31	Succeeded with warnings	PSDB
1429757329960	Storage Saving	2015-04-22, 22:50:16	2015-04-22, 22:50:17	Succeeded	META_DB_CONNECTION_ID

Range: 1-2 Total: 2 Selected: 2
◀ 1 ▶
10 | 25 | 50 ⬆

Storage Savings Details

- **Reclaim Storage**
 - Show a list of tables and indexes with trapped storage
 - Candidates are ranked by space savings
 - Trapped storage results when
 - Rows are deleted
 - Rows are updated and their size changes
- **Find seldom Used Objects**
 - A list of objects that were seldom used
 - Candidates are ranked based upon last usage

Administration



Administration

Capability highlights: Scope

- **Administration**
 - Instance Level administration (Through ssh commands to the server)
 - Database level administration
 - Object Management
 - Privilege Management
 - Job Manager
- **Monitor**
 - Alerts
 - Dashboard
- **Schedule**
 - JDBC
 - CLP

Administration

Explore Database View

☰
Log Out
IBM Data Server Manager
Explore Databases ▾
Alerts ▾
Hello, admin

🏠 Home
📊 Monitor
👤 Administer
📈 Optimize
🔧 Set Up
❓ Help

Explore Databases - Browse database objects and run commands. [Learn more](#)

* Host:Port Instance ▾ PSDB ▾ ↻ User:db2psc Add ▾

192.168.142.101 / db2psc / PSDB - V10.5.5

Open SQL editor
Open scheduled commands

- ▾ db2psc
 - ▾ PSDB
 - 📄 Tables
 - 📄 Views
 - 📄 Indexes
 - 📄 Constraints
 - 📄 Triggers
 - 📄 MQTs
 - 📄 Sequences
 - 📄 Aliases
 - 📄 Schemas
 - 📄 Storage Groups
 - 📄 Table Spaces
 - 📄 Buffer Pools
 - 📄 Database Partition Groups
 - ▾ Application Objects
 - 📄 Packages
 - 📄 Stored Procedures
 - 📄 User-Defined Types
 - 📄 User-Defined Functions
 - 📄 PL/SQL Packages
 - 👤 Privileges

Activate
Deactivate
Backup
Restore
Quiesce
Unquiesce
More Actions(4) ▾

PSDB

- Configuration parameters
- Track configuration changes
- 04/22/2015: No storage savings found
- Configure BLU Acceleration

- Recover
- Roll Forward
- Revalidate
- Configure Logging

Administration

Edit and Run SQL

The screenshot shows the IBM Data Server Manager SQL Editor interface. At the top, there is a navigation bar with 'IBM Data Server Manager', 'SQL Editor', 'Alerts', 'Hello, admin', and 'Log Out'. A left sidebar contains navigation icons for Home, Monitor, Administer, Optimize, Set Up, and Help. The main area is divided into a SQL editor pane on the left and a configuration pane on the right. The configuration pane includes fields for Database connection, Statement terminator, Default schema, Current path, Run method (with a dropdown menu open showing 'JDBC' and 'CLP with SSH'), Maximum row returned, and options for 'On success' and 'On error' handling.

Administration

Generate SQL – Run db2look from Web Console

The screenshot displays the IBM Data Server Manager web console interface. The top navigation bar includes 'IBM Data Server Manager', 'Explore Databases', 'Alerts', and 'Hello, admin'. A left sidebar contains navigation options: Home, Monitor, Administer, Optimize, Set Up, and Help.

The main content area is titled 'Explore Databases - Browse database objects and run commands. Learn more'. It features a search bar with 'Host:Port Instance' set to '192.168.142.101:50000 - db2psc (Instance)' and 'User:db2psc'. A status bar indicates 'db2psc is started and ready.' with a timestamp of 'Apr 22, 2015, 10:57:14 PM'.

The left sidebar shows a tree view of database objects under 'db2psc' > 'PSDB', including Tables, Views, Indexes, Constraints, Triggers, MQTs, Sequences, Aliases, Schemas, Storage Groups, Table Spaces, Buffer Pools, Database Partition Groups, Application Objects, Packages, Stored Procedures, User-Defined Types, User-Defined Functions, and PL/SQL Packages.

The main workspace shows a 'Generate DDL' tab active. It includes a 'Run' button, a 'Validate' button (with 'Syntax Validation: Not Validated' status), and 'Explain', 'Tune', and 'More Actions(4)' options. The generated SQL code is displayed in a text area:

```

1  -- This CLP file was created using DB2LOOK Version "10.5"
2  -- Timestamp: Wed 22 Apr 2015 10:57:52 PM EDT
3  -- Database Name: PSDB
4  -- Database Manager Version: DB2/LINUX8664 Version 10.5.5
5  -- Database Codepage: 1208
6  -- Database Collating Sequence is: IDENTITY
7  -- Alternate collating sequence(alt_collate): null
8  -- varchar2 compatibility(varchar2_compat): OFF
9
10
11  CONNECT TO PSDB;
12
13  -----
14  -- DDL Statements for BUFFERPOOLS --
15  -----
16
17  DROP BUFFERPOOL "BP8K";
18
19  CREATE BUFFERPOOL "BP8K" SIZE AUTOMATIC PAGESIZE 8192;
20
21  --
  
```

Resources

- **Data Server Manager Demo**

<https://ibm.biz/Bd4SZg>

- **Data Server Manager – Web Cast on May 3rd, 2016 particularly for DB2 z/OS**

Register at: http://ibm.biz/DSM_May3rd

Resources

Data Server Manager 1.1.2.1

- <http://www-01.ibm.com/support/docview.wss?uid=swg27046073>
- DB2 Query Workload Tuner V5.1
- <http://www-01.ibm.com/support/docview.wss?uid=swg27047113>
- DB2 Configuration Manager for z/OS V4.1
- <http://www-01.ibm.com/support/docview.wss?uid=swg27047112>

Install

DSM <http://www.ibm.com/support/docview.wss?uid=swg21958071>

CMz <http://www.ibm.com/support/docview.wss?uid=swg27046889>

QWTz <http://www.ibm.com/support/docview.wss?uid=swg27046888>

What's New

DSM <http://www.ibm.com/support/docview.wss?uid=swg27046073>

CMz <http://www.ibm.com/support/docview.wss?uid=swg27047112>

QWTz <http://www.ibm.com/support/docview.wss?uid=swg27047113>

System Requirements

DSM <http://www.ibm.com/support/docview.wss?uid=swg27045176>

CMz <http://www.ibm.com/support/docview.wss?uid=swg27046988>

QWTz <http://www.ibm.com/support/docview.wss?uid=swg27046987>

Grazie धन्यवाद *Merci* ありがとうございます *Obrigado* 多谢
ITALIAN HINDI FRENCH JAPANESE BRAZILIAN PORTUGUESE SIMPLIFIED CHINESE

Thank You

多謝 Gracias Спасибо நன்றி ชอบคุณ *Danke* شكراً
TRADITIONAL CHINESE SPANISH RUSSIAN TAMIL THAI GERMAN ARABIC

We appreciate your feedback.
Please fill out the survey in order to improve this event.

Presentation By:

Vikram S Khatri

IBM Executive IT Specialist, IBM IT Certification Board
IBM Certified Advanced Database Administrator – DB2 10.5 for Linux, Unix and Windows
IBM Information Management DB2 10.1 pureScale Technical Mastery Test (v2)
IBM Certified Advanced Database Administrator – DB2 10.1 for Linux, Unix and Windows
IBM Certified Database Administrator for DB2 10.1 for Linux, UNIX and Windows
IBM Certified Solutions Developer DB2 9.7 SQL Procedures
IBM Certified Solutions Developer – DB2 9.5 SQL Procedure Developer
IBM Advanced Technical Expert for DB2 Clusters
Project Management Professional (PMP)
IBM Plateau Level 1 Inventor
vikram.khatri@us.ibm.com

