

Welcome

An Introduction to DB2 Advanced Enterprise Server Edition



Frank C. Fillmore, Jr.



About The Fillmore Group

- Founded in 1987
- Headquartered in Baltimore, Maryland
- DB2 Database Support – all platforms
- IBM Authorized Training Partner for DB2
- IBM DB2 Software Reseller



IBM Announced Advanced Enterprise Server Edition in late 2010

- Why should you consider it?
- How can you upgrade?
- What happens to your existing licenses?



What's Included in AESE?

Everything that was in DB2 Enterprise Server Edition, and more...

Compression: Storage Optimization Feature

Tuning: Workload Management & Optim Performance Manager

Tools: Optim Database Administrator & Development Studio

Federation: Support for Oracle & DB2 federation

High Availability: Q-Replication for DB2 LUW source/targets

Security: Label based access control

Storage Optimization Feature (SOF)

Deep compression for lower data storage costs

Gives you the ability to transparently compress data on disk in order to decrease disk space and storage infrastructure requirements. Since disk storage systems are often the most expensive components of a database solution, even a small reduction in the storage subsystem can result in substantial cost savings for the entire database solution.

Performance Optimization Feature (POF)

DB2 Performance Optimization Feature gives customers the insight and ability to optimize workload execution. This feature can save money and lower risks by helping customers do more work with existing hardware, ensure Service Level Agreements (SLAs) are met or exceeded and increase DBA productivity.

The Performance Optimization Feature includes three capabilities: DB2 Workload Manager, Optim Performance Manager Extended Edition for DB2 for LUW, and DB2 Query Patroller.

Optim Tools

Database Administrator & Development Studio

Optim Database Administrator helps organizations manage databases and database changes without disruption. It improves productivity and reduces application outages for complex structural changes to streamline change-in-place and database migration scenarios.

Optim Development Studio provides an integrated database development environment for Oracle, DB2, and Informix. ODS improves development productivity up to 50% for developing and testing SQL and XQuery queries, stored procedures, Web services, and Java data access layers.

Federation

InfoSphere Federation Server (IFS) creates a consolidated view of your data to support key business processes and decisions. With Federation you can access and integrate diverse data and content sources as if they were a single resource - regardless of where the information resides.

The Federation capability being included with AESE is limited to combining data from Oracle with DB2 for LUW.

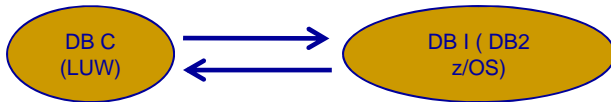
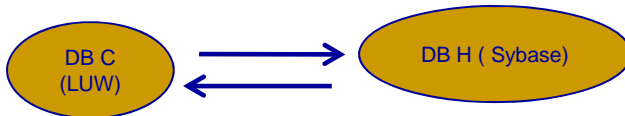
If you are already using IFS to combine other disparate sources such as SQL Server, Sybase and DB2 into a single virtual view, or need this capability, you must purchase the IFS software separately.

Q Replication – Limited Use

What is allowed



What isn't allowed



Security: Label-Based Access Control

For the ultimate data access control, the Advanced Access Control feature uses Label Based Access Control (LBAC) to let you decide exactly who has write access and who has read access to individual rows and individual columns in any given table.

Once the LBAC rules have been defined, data access control is managed by DB2 and is completely transparent to the user. For example, a user accessing a table will only see the rows they are authorized to see and DB2 will act as if any unauthorized rows don't exist.

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Current Packaging (separately priced features are in yellow)

Functionality	DB2 Express-C	DB2 Express	DB2 Workgroup	DB2 Enterprise
SQL Replication	✓	✓	✓	✓
Homogeneous Federation	✓	✓	✓	✓
Web Services Federation	✓	✓	✓	✓
pureXML Storage	✓	✓	✓	✓
Compression: Backup	✓	✓	✓	✓
High Availability Disaster Recovery	✗	Included - requires secondary server	✓	✓
Tivoli System Automation	✗		✓	✓
Online Reorg	✗	✗	✓	✓
Governor	✗	✗	✗	✓
Materialized Query Tables	✗	✗	✗	✓
Multi Dimensional Clustering	✗	✗	✗	✓
Query Parallelism	✗	✗	✗	✓
Connection Concentrator	✗	✗	✗	✓
Table Partitioning	✗	✗	✗	✓
Plan Lockdown	✗	✗	✗	✓
Scan Sharing	✗	✗	✗	✓
DB2 pureScale	✗	✗	✗	DB2 pureScale
Geodetic Extender	✗	✗	✗	DB2 Geodetic Feature
Homogeneous Replication	✗	✗	✗	DB2 Homogeneous Replication Feature
Compression: Row Level	✗	✗	✗	Storage Optimization Feature
Compression: Indexes	✗	✗	✗	
Compression: Replication	✗	✗	✗	
Compression: XML	✗	✗	✗	
Label Based Access Control	✗	✗	✗	DB2 Advanced Access Control Feature
Sybase Compatibility	✗	✗	✗	Sybase SQL Skin feature
Database Partitioning: Relational	✗	✗	✗	Only in InfoSphere
Database Partitioning: XML	✗	✗	✗	
Query Patroller	✗	✗	✗	DB2 Performance Optimization Feature
Workload Management	✗	✗	✗	
Data Studio Workload Analyzer	✗	✗	✗	
OptimPerformance Manager	✗	DataStudio add-on	DataStudio add-on	
Multi database Federation	✗	InfoSphere Federation Server		
Multi database Replication	✗	InfoSphere Replication Server		
OptimData Administrator	✗	Optim DB Administrator	Optim DB Administrator	Optim DB Administrator
OptimDevelopment Studio	✗	Optim Dev Studio	Optim Dev Studio	Optim Dev Studio

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Current Pricing

Feature	Part Number(s)	DB2 Express-C	DB2 Express	DB2 Workgroup	DB2 Enterprise
		Free	\$9K Server	\$15K Socket	\$405/PVU
Charge Metric		Server	Server	Socket	Value Unit
Usage Limits		2 Cores	4 Cores	4 Sockets (16 core)	Unlimited
Memory limits used by DB2		2GB	4GB	16GB	Unlimited
Platforms		Linux&Windows	Linux&Windows	LUW	LUW + z/Linux
DB2 Storage Optimization Feature	D59GFLL	X	X	X	\$153/PVU
DB2 Geodetic Mgmt Feature	D55LVLL	X	X	X	\$111/PVU, \$293/user
DB2 Performance Optimization Feature	D5907LL/D5874LL	X	X	X	\$153/PVU, \$391/user
Sybase SQL Skin Feature	D0CR1LL/D0CR3LL	X	X	X	\$100/PVU, \$257/user
DB2 pureScale	D0BQ0LL/D0BPYLL	X	X	X	\$196/PVU, \$503/user
solidDB Universal Cache	D082CLL	X	\$200/PVU	\$200/PVU	\$200/PVU
DB2 Advanced Access Control Feature	D590ZLL/D58N3LL	X	X	X	\$111/PVU, \$293/user
Optim Performance Manager	D551QLL/D55KALL	X	\$35.50/PVU	\$35.50/PVU	\$117/PVU
InfoSphere Federation Server	D61B6LL	X	\$695/PVU	\$695/PVU	\$695/PVU
InfoSphere Replication Server	D59IILL	X	\$163/PVU	\$163/PVU	\$163/PVU
Optim Data Administrator	D590YLL/D61RTLL	X	\$59.50/PVU, \$5570/user	\$59.50/PVU, \$5570/user	\$59.50/PVU, \$5570/user
Optim Development Studio	D61YILL	X	\$886/user	\$886/user	\$886/user

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Advanced Enterprise Server Edition Packaging

Functionality	DB2 Express-C	DB2 Express	DB2 Workgroup	DB2 Enterprise	DB2 Advanced Enterprise
SQL Replication	✓	✓	✓	✓	✓
Homogeneous Federation	✓	✓	✓	✓	✓
Web Services Federation	✓	✓	✓	✓	✓
pureXML Storage	✓	✓	✓	✓	✓
Compression: Backup	✓	✓	✓	✓	✓
OptimDatabase Administrator	✓	✓	✓	✓	✓
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High Availability Disaster Recovery	✗	Included - requires secondary server	✓	✓	✓
Tivoli SystemAutomation	✗		✓	✓	✓
Online Reorg	✗	✗	✓	✓	✓
Governor	✗	✗	✗	✓	✓
Materialized Query Tables	✗	✗	✗	✓	✓
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Connection Concentrator	✗	✗	✗	✓	✓
Table Partitioning	✗	✗	✗	✓	✓
Plan Lockdown	✗	✗	✗	✓	✓
Scan Sharing	✗	✗	✗	✓	✓
Homogeneous Replication	✗	✗	✗	DB2 Homogeneous Replication Feature	✓ (Restricted DB2 LUW only)
Compression: Row Level	✗	✗	✗	Storage Optimization Feature	✓
Compression: Indexes	✗	✗	✗		✓
Compression: Replication	✗	✗	✗		✓
Compression: XML	✗	✗	✗		✓
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Query Patroller	✗	✗	✗	DB2 Performance Optimization Feature	✓
Workload Management	✗	✗	✗		✓
Data Studio Workload Analyzer	✗	✗	✗		✓
OptimPerformance Manager		DataStudio add-on	DataStudio add-on		✓
Multi database Federation	✗		InfoSphere Federation Server		✓ (DB2 & Oracle)
Multi database Creplication	✗		InfoSphere Replication Server		
Database Partitioning: Relational	✗	✗	✗	Only in InfoSphere	Only in InfoSphere
Database Partitioning: XML	✗	✗	✗		
Sybase SQL Skin	✗	✗	✗	Sybase SQL Skin feature	Sybase SQL Skin feature
DB2 pureScale	✗	✗	✓	DB2 pureScale	DB2 pureScale
Geodetic Extender	✗	✗	✗	DB2 Geodetic Feature	DB2 Geodetic Feature

How Do You Get AESE?

Existing DB2 ESE customers have 2 choices:

1. Purchase new AESE licenses to replace and extend current ESE or other DB2 licenses.
2. Consolidate the products you already own and enable the rest in the bundle with special AESE part numbers that give you credit for products you own.



Option 1: Purchase New Licenses for AESE

Based on the Processor Value Unit (PVU) model

DB2 Enterprise Server Edition = D55IULL, \$405

DB2 Advanced ESE = D0GB4LL, \$450

Option 2: Trade up Parts – also sold by PVU

If you already own DB2 Enterprise Server Edition,
 Storage Optimization and/or Performance
 Optimization

Description	ESE to AESE	ESE + SOF to AESE	ESE + POF to AESE	ESE+SOF+POF to AESE
Part Number	DOGBRLL	DOGBSLL	DOGBTLL	DOGKKLL
Price	\$210	\$170	\$170	\$150

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Confused
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Quick PVU Explanation

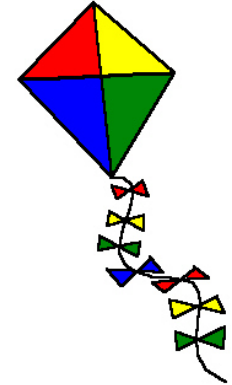
- A PVU is a unit of measure used to differentiate licensing of software on distributed processor technologies.
- A PVU is defined by Processor Vendor, Brand, Type and Model Number.
- IBM defines a processor, for purposes of PVU-based licensing, to be each processor core on a chip (socket).
- Each software product has a unique price per PVU.

PVU Table Example

Intel processor PVU table

<i>Processor Technologies</i>									
Processor Vendor	<i>Processor Brand</i>		<i>Processor Type</i>					Processor Model Number ¹	PVUs per Core
	Processor name	Maximum number of sockets per server	Cores per socket						
			One-Core (1)	Dual-Core (2)	Quad-Core (4)	Hexa-Core (6)	Octi-Core (8)		
Intel®	Xeon® (Nehalem EP)	2		■	■			3400 to 3599 5500 to 5599	70
	Xeon® (pre-Nehalem)	All		■	■	■		3000 to 3399 5000 to 5499 7000 to 7499	50
AMD	Opteron	All		■	■	■		All Existing	50
Any	Any single-core	All	■					All Existing	100

* Requirements as of Publish Date: Feb 8, 2010



Example 1: ESE to AESE Kim's Kites

Kim's Kites owns 200 PVU's of DB2 Enterprise Server Edition and wants to move to DB2 Advanced ESE.

Part Numbers

DB2 ESE: Trans: D55IULL S&S: E020CLL

DB2 Advanced Trade Up from ESE: D0GBRLL

...\$210 per PVU

Kim's Kites purchases 200 PVU's of DB2 AESE trade up part from DB2 ESE (D0GBRLL), and will then have full entitlement for DB2 AESE and all its features.



Example 2: ESE to AESE

Donna's Donuts

Donna's Donuts owns 400 PVU's of DB2 Enterprise Server Edition. They want to move to DB2 Advanced Enterprise *and* buy 200 PVU's more, for a total 600 PVU's of AESE.

Part Numbers: **DB2 ESE:** D55IULL or E020CLL if at S&S
 DB2 Advanced: D0GB4LL (\$450 per PVU)
 DB2 AESE Trade Up from ESE: D0GBRLL
 ...\$210 per PVU

Donna's Donuts purchases 400 PVU of DB2 AESE trade up from DB2 ESE (D0GBRLL), and 200 PVUs of new DB2 AESE licenses (D0GB4LL), and will then have full entitlement for 600 PVU's of DB2 AESE.



Example 3: ESE and SOF to AESE Tammy's Towels

Tammy's Towels owns 400 PVU's of DB2 Enterprise Server Edition and 400 PVU's of Compression/Storage Optimization Feature (SOF) and wants to move to DB2 Advanced ESE.

P/N's: **DB2 ESE:** Trans: D55IULL S&S: E020CLL

DB2 AESE Trade Up from ESE&SOF: D0GBSLL

...\$170 per PVU

Tammy's Towels will purchase 400 PVU of DB2 AESE trade up part from DB2 ESE & SOF (D0GBSLL). They will stop paying 400 PVU of SOF and will have full entitlement for DB2 AESE.



Example 4: ESE and POF to AESE Renu's Range Rovers

Renu's Range Rovers owns 800 PVU's of DB2 Enterprise Server Edition and 800 PVU's of the DB2 Performance Optimization Feature (POF) and wants to move to DB2 Advanced ESE.

P/N's: **DB2 ESE:** Trans: D55IULL S&S: E020CLL

DB2 AESE Trade Up from ESE&POF: D0GTSLL

...\$170 per PVU

Renu's Range Rovers will purchase 800 PVU's of DB2 AESE trade up part from DB2 ESE & POF (D0GTSLL). They will stop paying for the 800 PVU's of POF and will have full entitlement included with DB2 AESE.



Example 5: ESE+SOF+POF to AESE Blaire's Bears

Blaire's Bears has both SOF and POF and owns 600 PVU's of DB2 Enterprise Server Edition, 600 PVU's of Compression/Storage Optimization Feature (SOF) and 600 PVU's of Performance Optimization Feature (POF).

P/N's: **DB2 ESE:** Trans: D55IULL S&S: E020CLL

AESE Trade Up from ESE&SOF&POF: D0GKKLL

...\$150 per PVU

Blaire's Bears will purchase 600 PVU of DB2 AESE trade up part from DB2 ESE&SOF&POF (D0GKKLL). They will stop paying for the 600 PVU's of SOF and POF and will have full entitlement under their DB2 AESE license.

Make the first move!

- Inventory your DB2, SOF, POF and other separately priced DB2 features
- Email Kim May at TFG your name, company name, address and main phone number and what you'd like to upgrade (kim.may@thefillmoregroup.com)
- Kim will send you an AESE upgrade plan in two business days.

Disclaimer

Specific part numbers and prices in this presentation were compiled based on information current as of February, 2011.

Your organization's annual purchases may qualify you for IBM discounting.

IBM Business Partner incentives may qualify you for additional discounts.

Prices do not include implementation services and/or training. Please factor these in to make the of your software investment.

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Thank You!

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