



IBM Software Group

Historical Information on Your IMS Environment

Session B62

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Agenda

- What is Tivoli Decision support for OS390?
- Reports
- Support for IMS Release 8
- TDS/390 V1R6 evolution toward Tivoli Data Warehouse



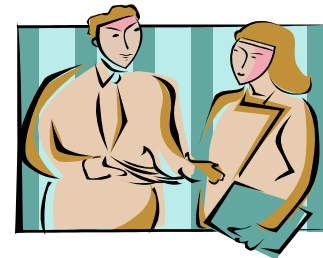
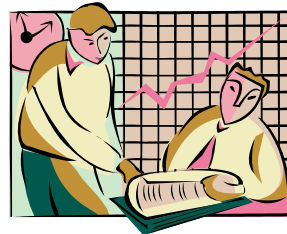
What is TDS/390?



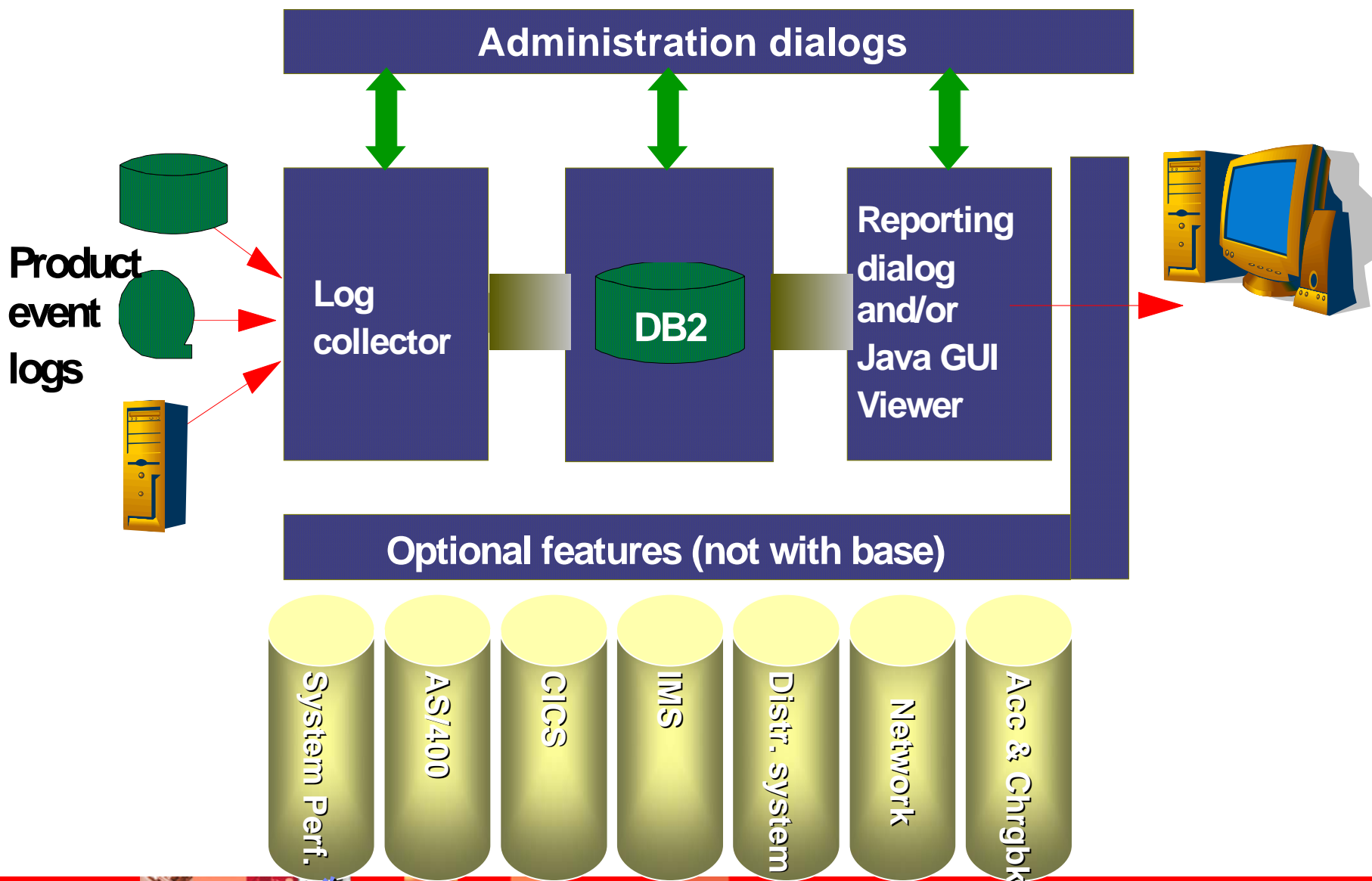
TDS/390's formula for success

- ✓ **Collects, Summarizes and Stores raw system metrics data and houses it in a ...**
- ✓ **Centralized Datastore - providing a fully SECURED, relational, centralized information portal...**

All the information you need to demonstrate the effectiveness of IT is at your fingertips!

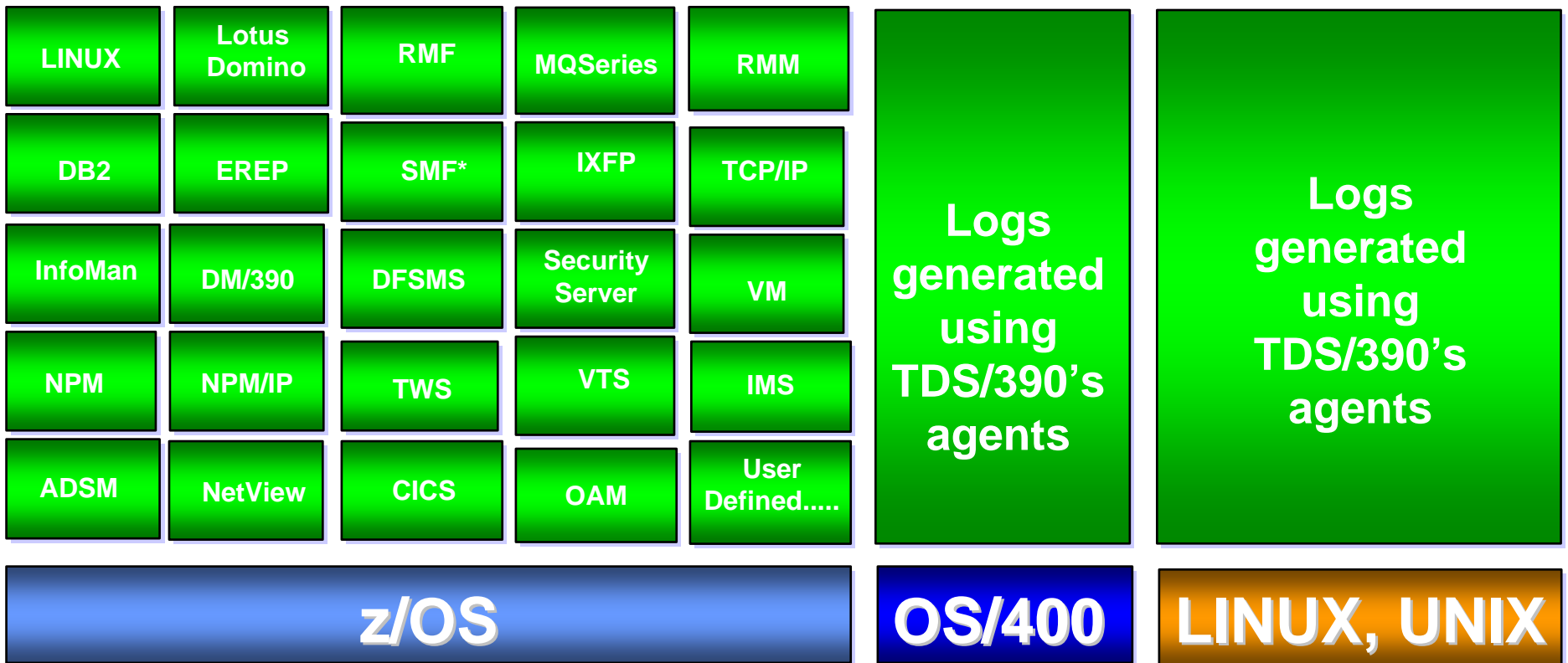


TDS/390 product concepts – Distinctive features



TDS/390 product concepts – Feeds

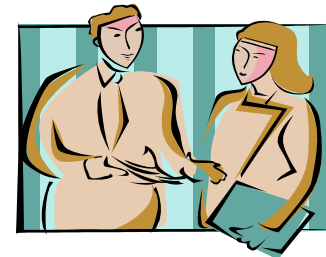
Tivoli Decision Support for OS/390



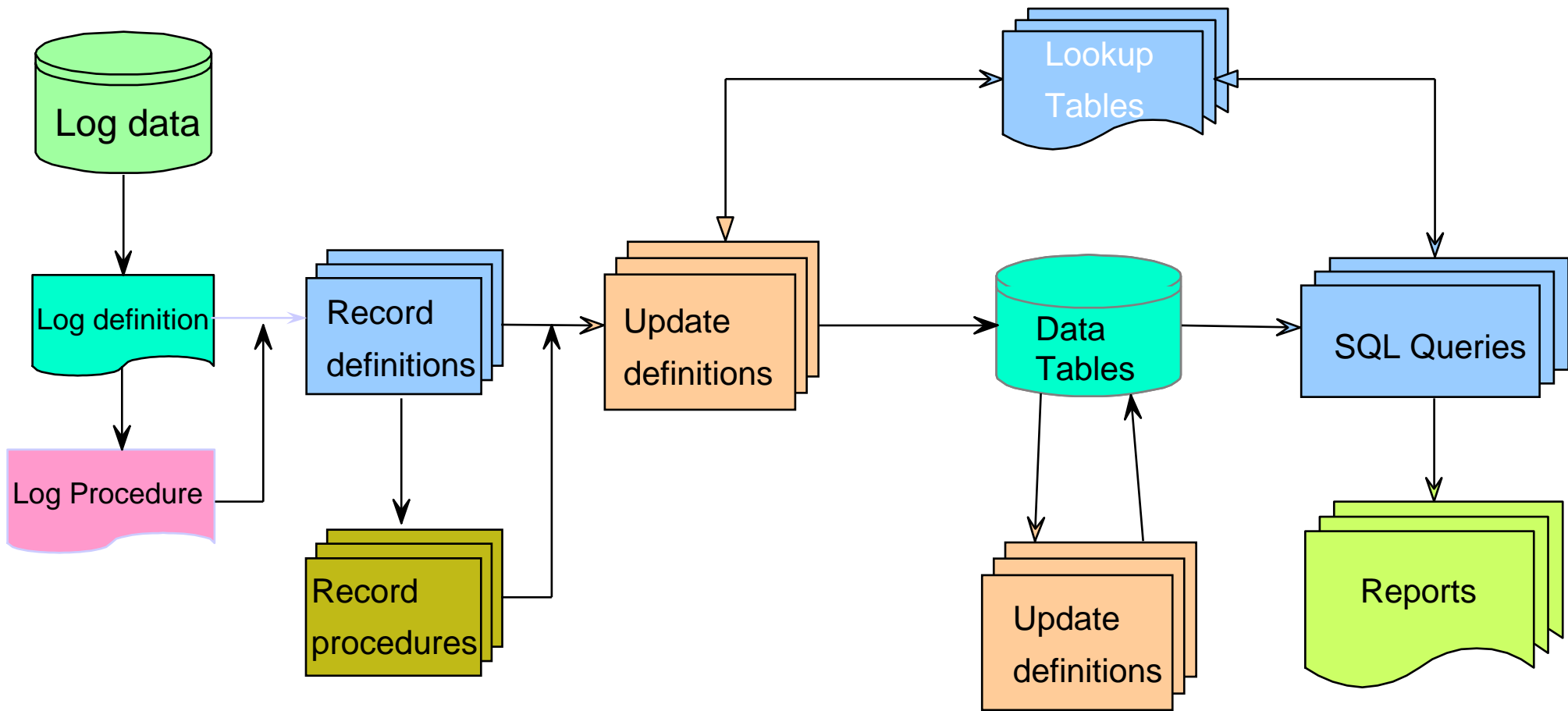
TDS/390's formula for business efficiency

- ✓ Collects, Manipulates and Consolidates raw system metrics data in a
- ✓ Centralized Datastore (DB2/390), providing a fully **SECURED**, relational, centralized information portal

All the information you need to demonstrate the effectiveness of IT is at your fingertips!



TDS/390's Data Flow



TDS/390's Interfaces

DB2	Relational Database for Storing Data and TDS/390 System Data
SQL	For Defining and Manipulating Data in a Relational Database
QMF	For Query Management and Data Formatting (Optional)
Java Viewer	For Presenting Reports Graphically on the desktop (Optional)
GDDM	For Presenting Reports Graphically on the host (Optional)

TDS/390's Log Collector

- Reads, processes and stores data in database
- Controlled by customizable definitions
- Invoked online or in batch
- Defines the rules for data collection
- Collects log data



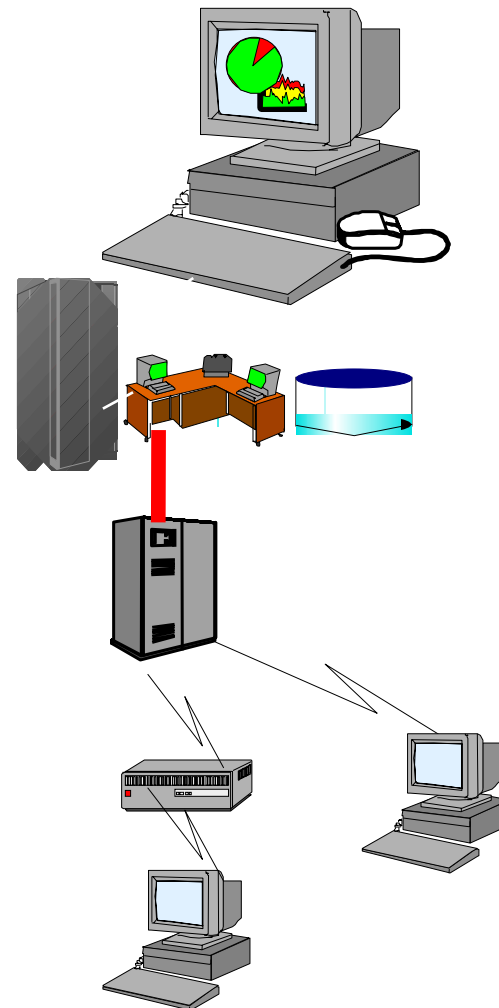
TDS/390's Online Dialog

- **Administration Dialog**

- Installation
- Customization
- Collect Data
- Database Administration
- Reporting
- Migrating

- **Reporting Dialog**

- Display Reports
- Customize Reports
- Print Reports

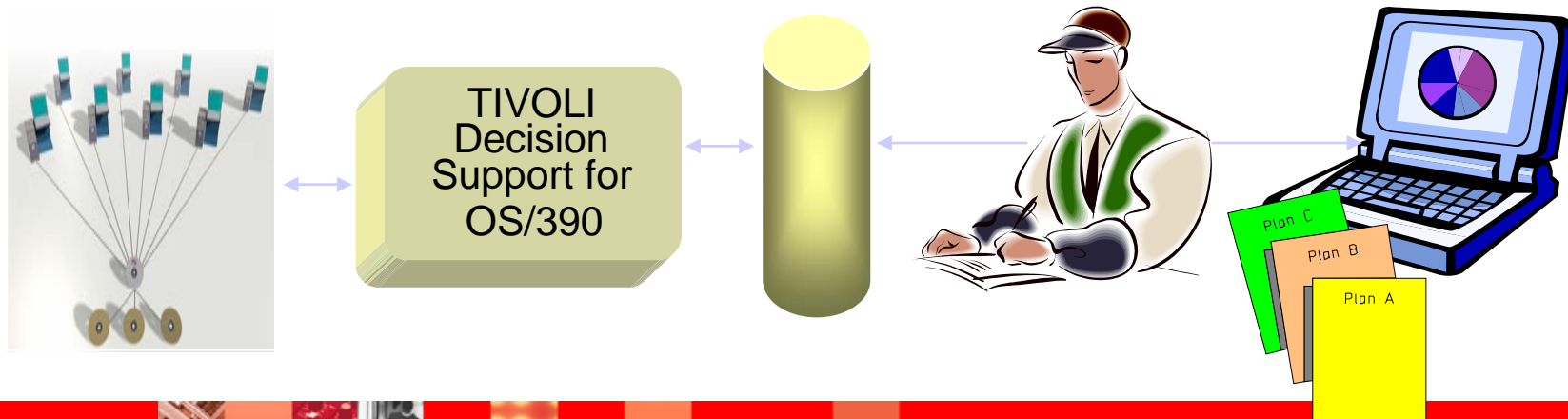


TDS/390's data sources

- **Tivoli Distributed Monitor**
- **ARM**
- **Tivoli NetView for OS/390**
- **TCP/IP for OS/390**
- **Tivoli Service Desk for OS/390**
- **Tivoli Security Server (RACF)**
- **Tivoli OPC**
- **Tivoli Storage Manager (ADSM)**
- **Tivoli NPM**
- **MQSeries**
- **DFSMS**
- **DB2**
- **RMF**
- **CICS**
- **IMS**
- **VM**
- **EREP**
- **IBM HTTP Server**
- **AS/400**
- **NT**
- **UNIX**
- **Linux and Linux 390**
- **User defined**
- **AND MANY MORE.....**

TDS/390's Accounting & Chargeback

- Provides the information you need to understand and manage IT costs, particularly as they relate to IT services and business applications, and the business functions that these services support.
- Allows you to link IT costs directly to the products and services produced by your business enterprise.
- Improves operational planning, cost management, responsiveness, decision making, overall reliability and business efficiency.



TDS/390's Accounting & Chargeback

- IT Financial Analysis

Designed for the financial analyst to assist in IT financial analysis functions

Automated e-mail invoicing to LOB's

ODBC access

FTP batch download and import

Accounting and Chargeback from the desktop

Analytical functions include :

- data drill-down

- trending

- Forecasting

- budgeting

- business service analysis

- custom report development

- query functionality

- SQL logging



TDS/390's Accounting & Chargeback

The screenshot shows the 'PR for OS/390 Accounting Workstation Option' interface. The 'Ledger Functions' menu is open, displaying options like 'Import', 'Apply Rates', and 'Advanced Ledger Functions'. The 'Advanced Ledger Functions' sub-menu is also open, showing options like 'Restore from Interim', 'Create Interim', and 'SQL'. A data table is visible in the background with columns for SERVICE, QUANTITY, RATE, RATE 2, CHARGES, and CHARGES 2.

SERVICE	QUANTITY	RATE	RATE 2	CHARGES	CHARGES 2
CLASSCSV	PROVIDER	\$5.00	€3.75	\$175.00	€131.25
CLASSCSV	PROVIDER	\$5.00	€3.75	\$60.00	€45.00
CLASSCSV	PROVIDER	\$5.00	€3.75	\$62.50	€46.88
CLASSCSV	PROVIDER	\$5.00	€3.75	\$62.50	€46.88
CLASSTXT	PROVIDER	\$5.00	€3.75	\$125.00	€93.75
CLASSTXT	PROVIDER	\$1.50	€1.13	\$52.50	€39.38
CLASSTXT	PROVIDER	\$1.50	€1.13	\$18.00	€13.50
CLASSTXT	PROVIDER	\$1.50	€1.13	\$18.75	€14.06
CLASSTXT	PROVIDER	\$1.50	€1.13	\$18.75	€14.06
CLASSTXT	PROVIDER	\$1.50	€1.13	\$37.50	€28.13

TDS/390 v1.6 New Functions

- ✓ IMS Enhancements – Addressing Customer Feedback
 - Shared Queue Enhancement
 - IMS-light feature for performance enhancement
 - IMS message queue statistics
- ✓ Websphere App Server for z/Os and OS/390 V4.01 support
- ✓ Improved High Availability Support
- ✓ Time to Value enhancements:
 - Intelligent TDS/390 upgrade preserving existing customizations
 - Customization enhancements for init members
 - Archive Facility
 - Data Dictionary for MVS, MVSPM and DFSMS subcomponents
- ✓ MQSERIES availability metrics and reports for SLM
- ✓ Processor utilization metrics consistency (MIPS metrics)
- ✓ New Admin. Reports for TDS390's system objects
- ✓ Ongoing Application Currencies (including development run Beta programs for specific, requested Subcomponents)
- ✓ NPM/IP subcomponent redesign
- ✓ SMF30 Interval records support provided as sample

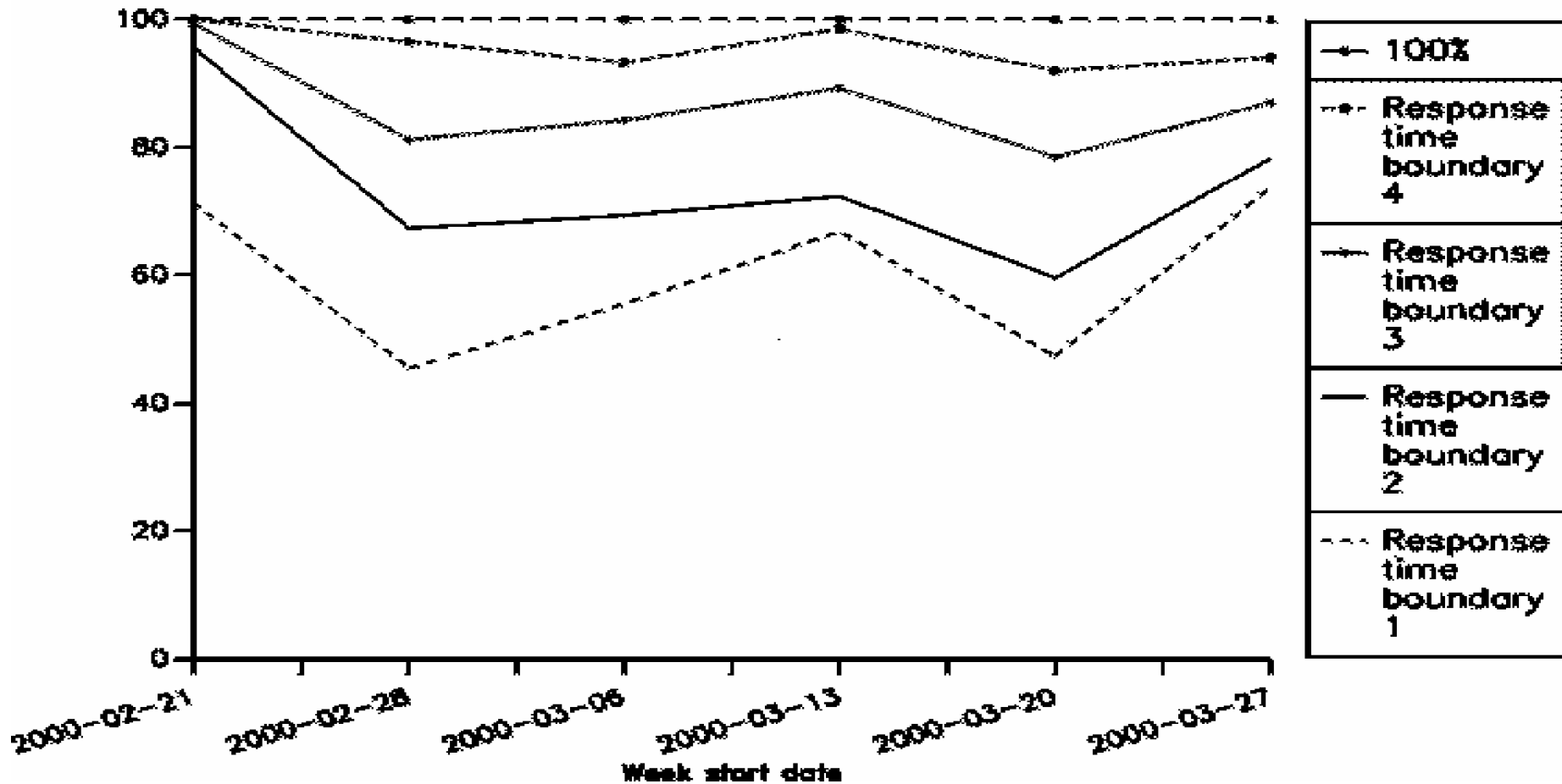
Agenda

- What is Tivoli Decision support for OS390?
- Reports
- IMS Support Version 8
- TDS/390 V1R6 evolution toward Tivoli Data Warehouse



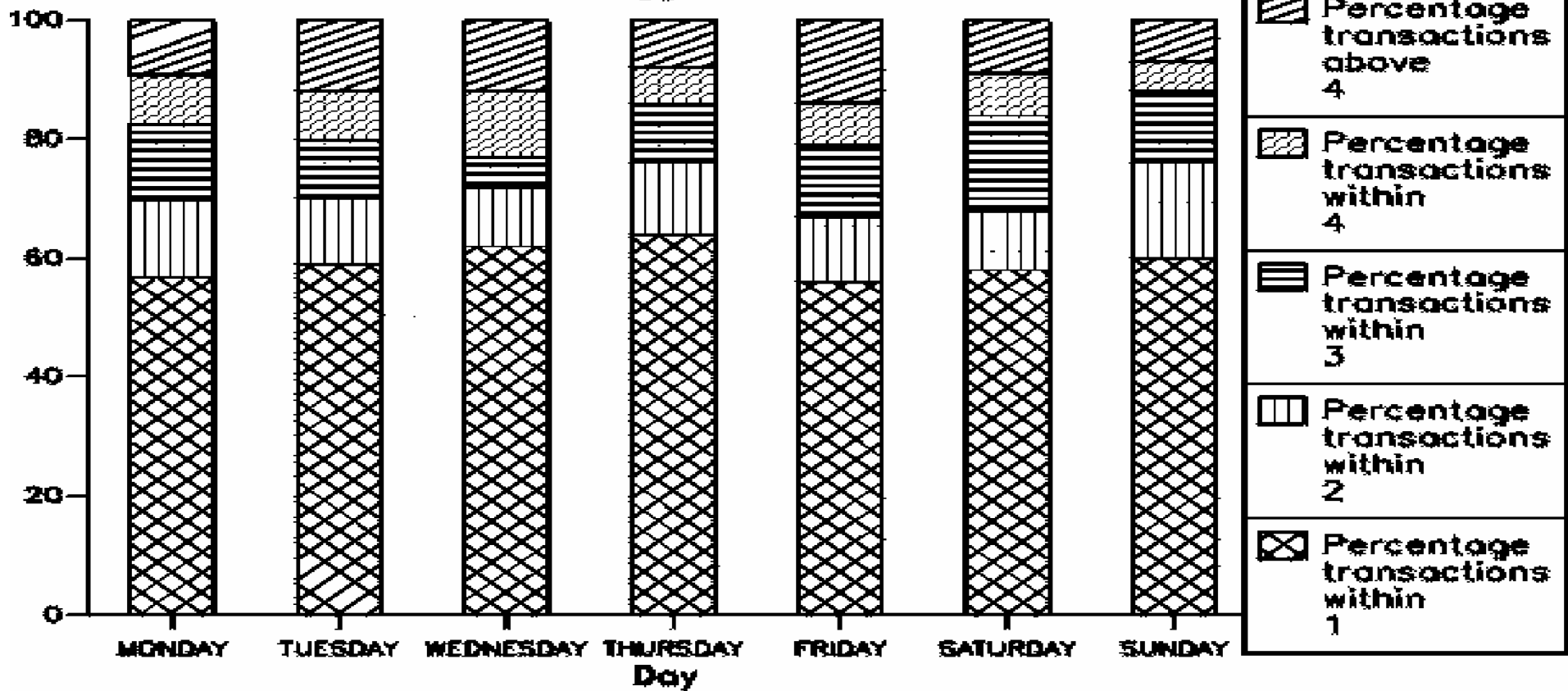
Application Response Time

MIS Application Response Time Trend
 Date: '2000-02-01' to '2000-03-30'
 System: MVS2 MIS System: M02
 Appl: 'C8C201 PFSC2A01'



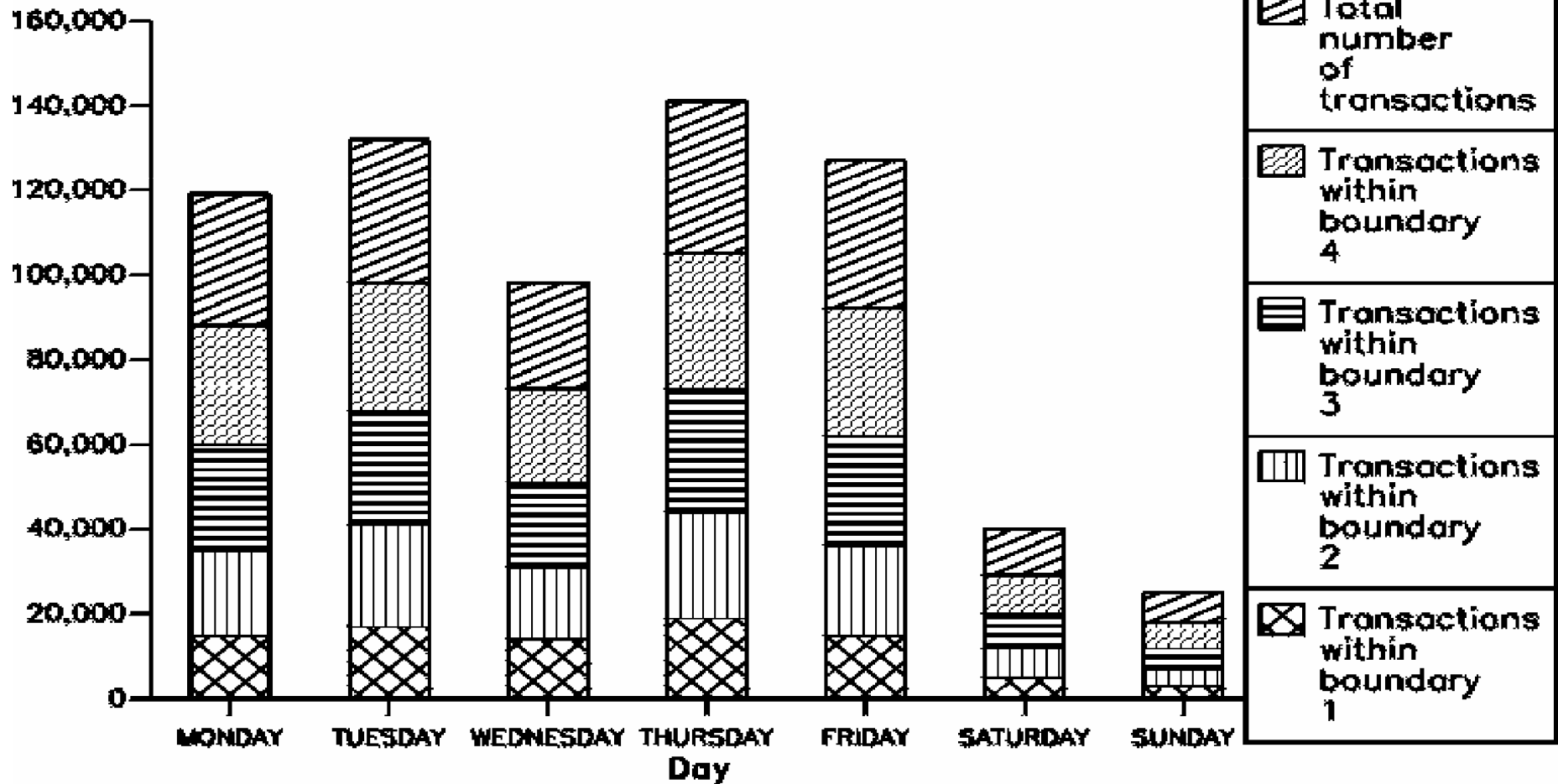
Application Response Time Overview

MVS Application Response Time Overview
Date: 2000-03-24
System: 'MVS.J' MVS System: 'MVS.J'
Appl: 'OTHER'

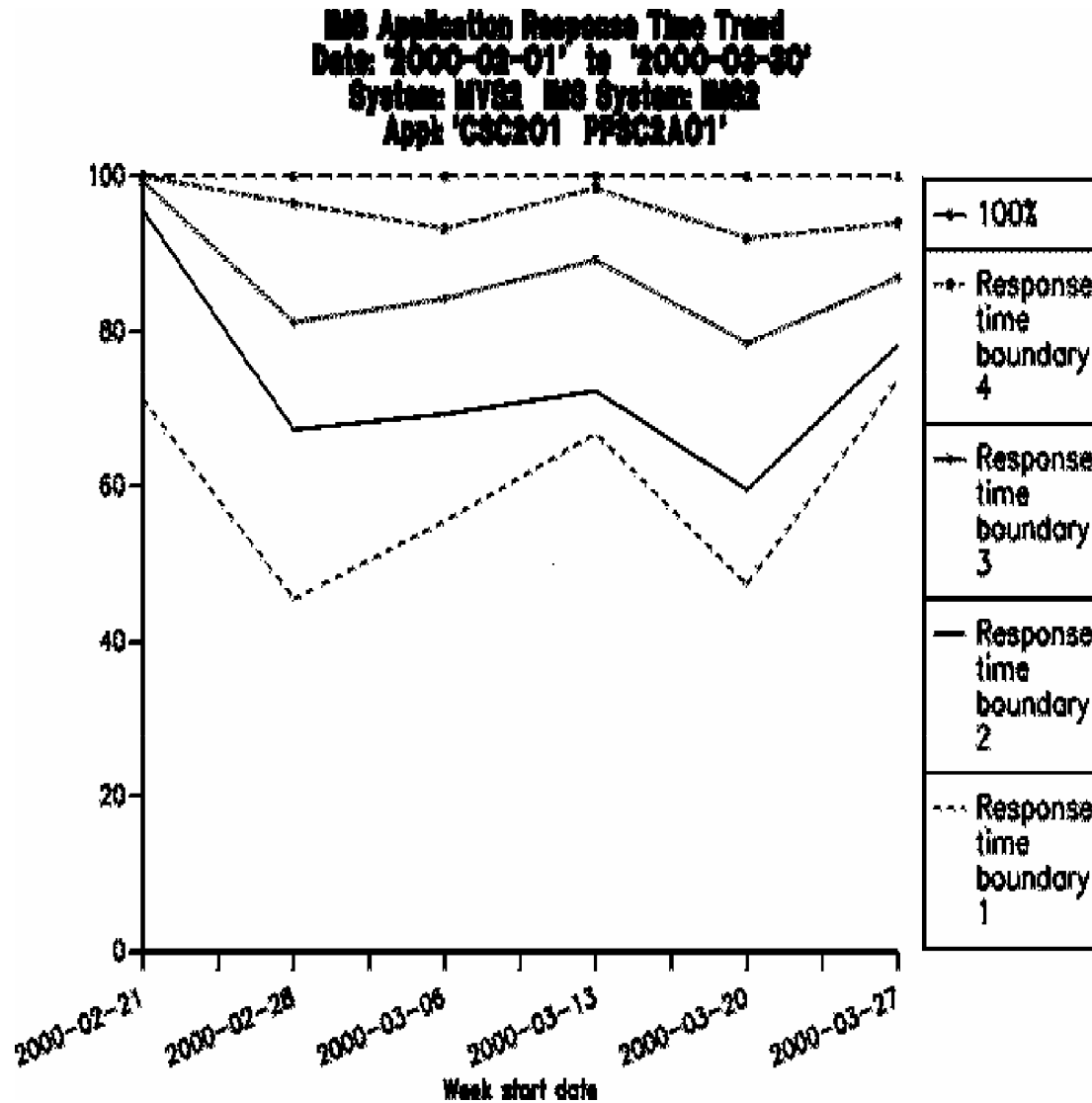


IMS Application Transaction Overview

IMS Application Transaction Overview
 Date: 2000-03-31
 System: 'MVSJ' MS System: 'IMSJ'
 Appt 'OTHER'

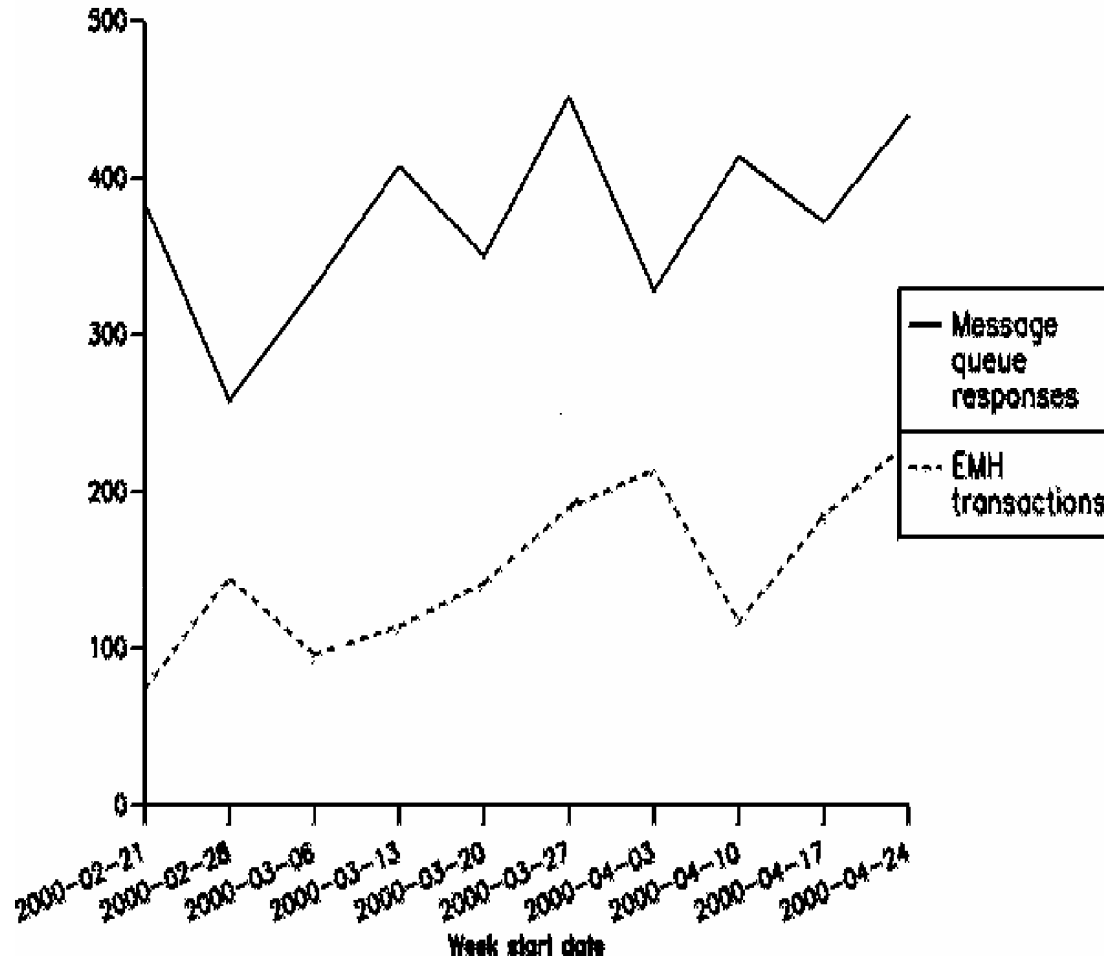


IMS Application Response Time Trend



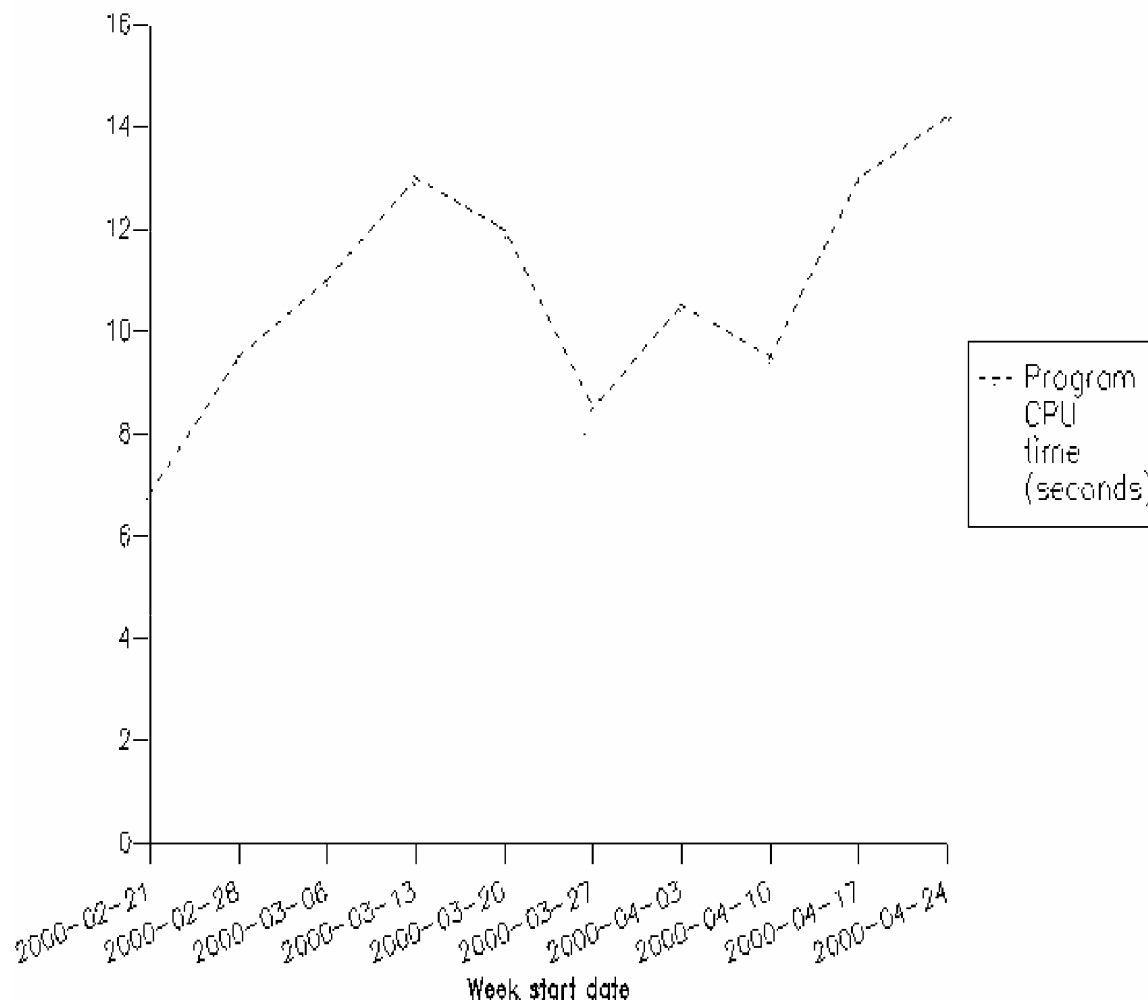
IMS Application Transaction Trends

IMS Application Transaction Trend
 Date: '2000-02-14' to '2000-04-30'
 System: MY92 IMS System: IMS2
 Appl: 'CSC101 PPSC1A01'



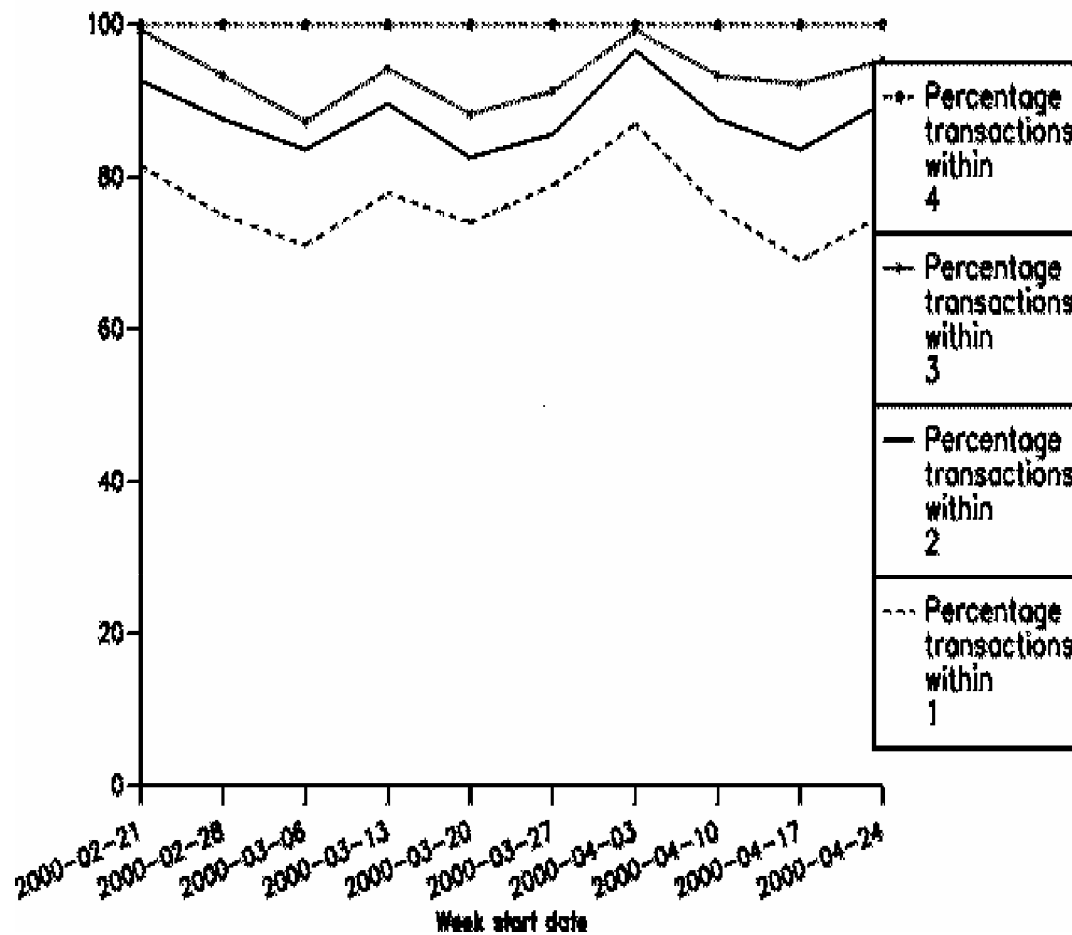
IMS CPU Utilization

IMS Application CPU Utilization Trend
 Date: '2000-02-14' to '2000-04-30'
 System: MVS2 IMS System: IMS2
 Appl: 'CSC101 PPSC1A01'



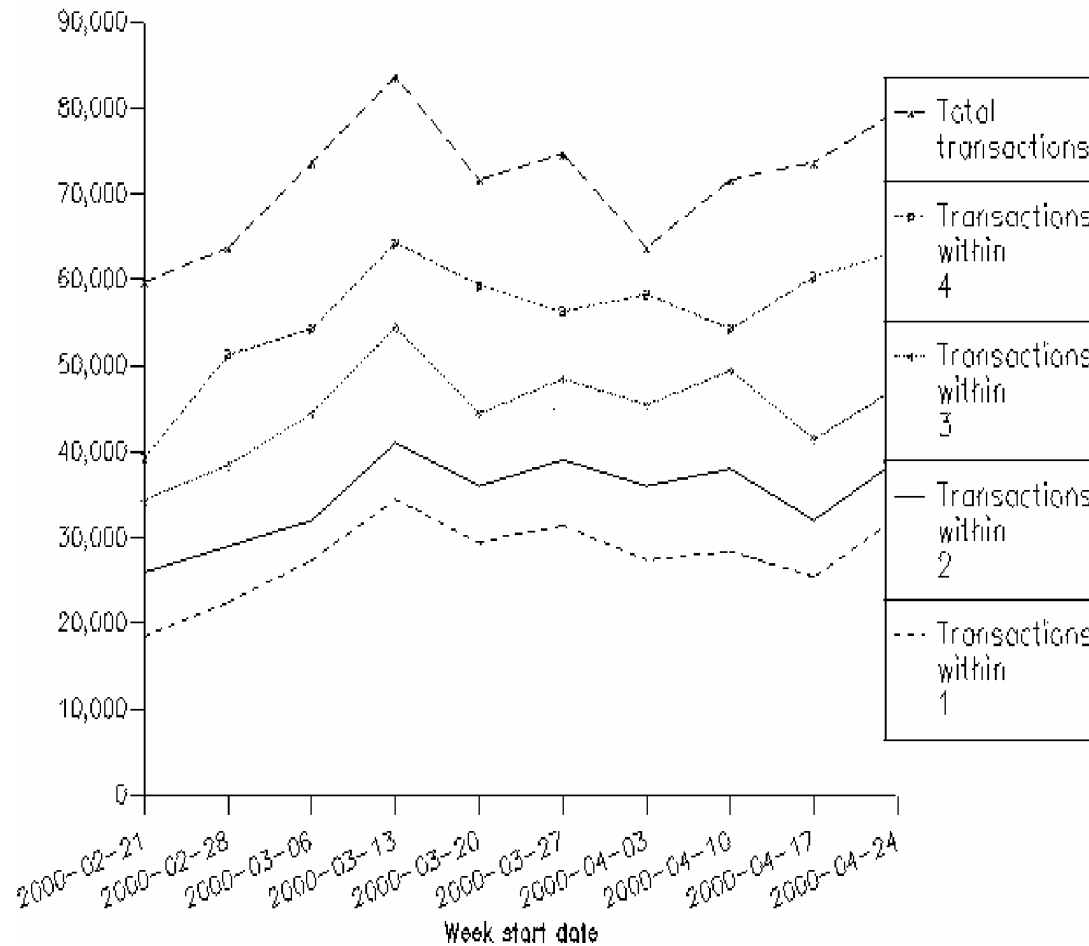
IMS Response Time Trend Report

IMS System Response Time Trend
 Date: '2000-02-21' to '2000-04-30'
 System: MVS2 IMS System: IMS2



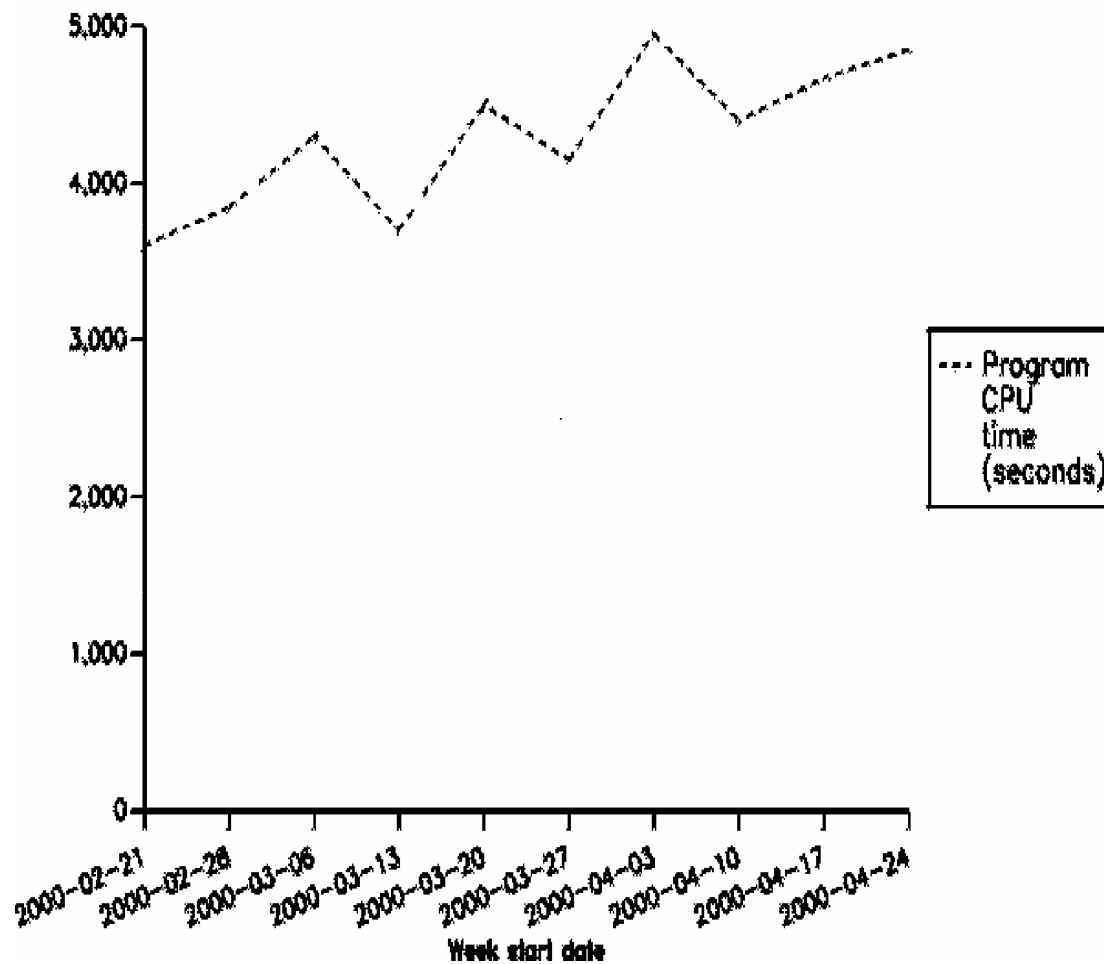
IMS System Transaction Volumes Trend

IMS System Transaction Volumes Trend
 Date: '2000-02-21' to '2000-04-24'
 System: MVS3 IMS System: IMS



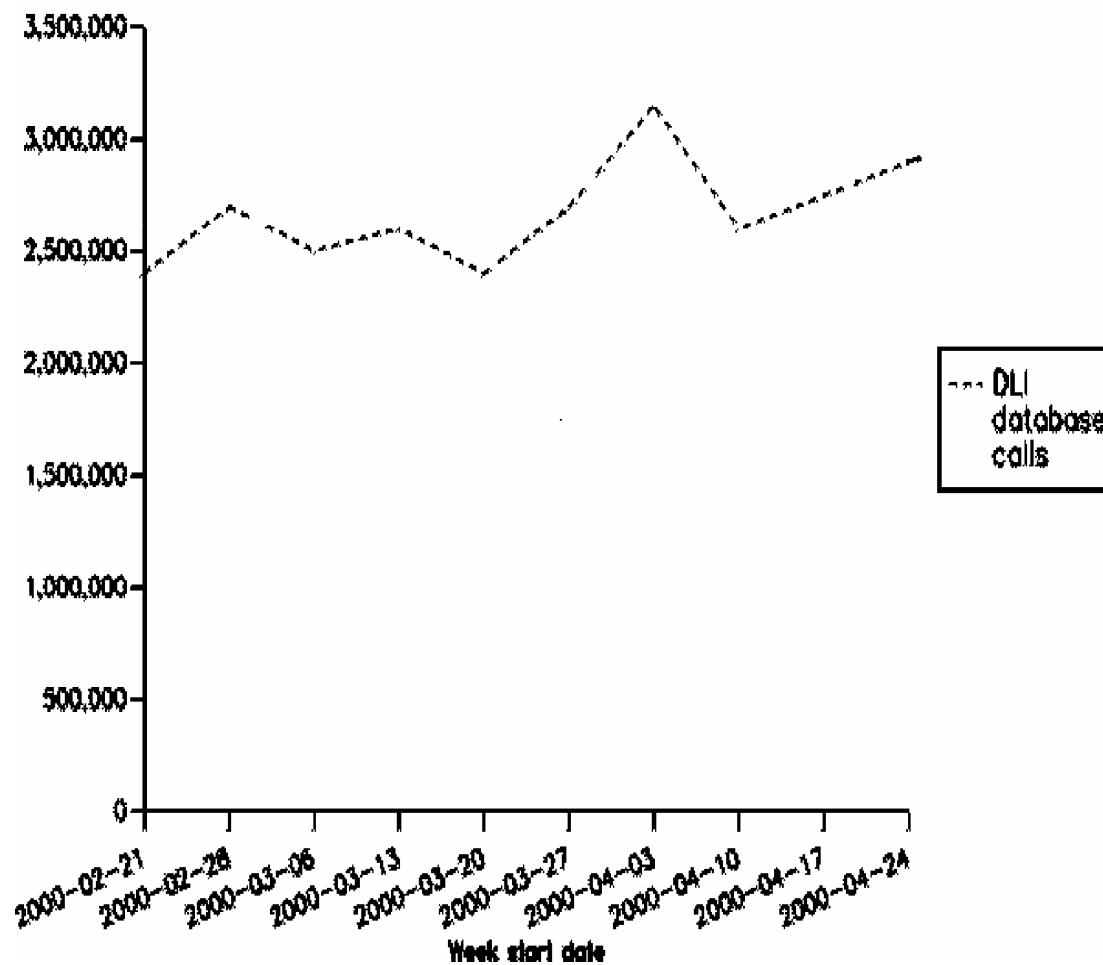
IMS System Utilization Trend Report

IMS System CPU Utilization Trend
 Date: '2000-02-21' to '2000-04-30'
 System: MV62 IMS System: IMS2



IMS System DLI Utilization Trend

IMS System DLI Utilization Trend
Date: '2000-02-21' to '2000-04-24'
System: MV62 IMS System: MS2

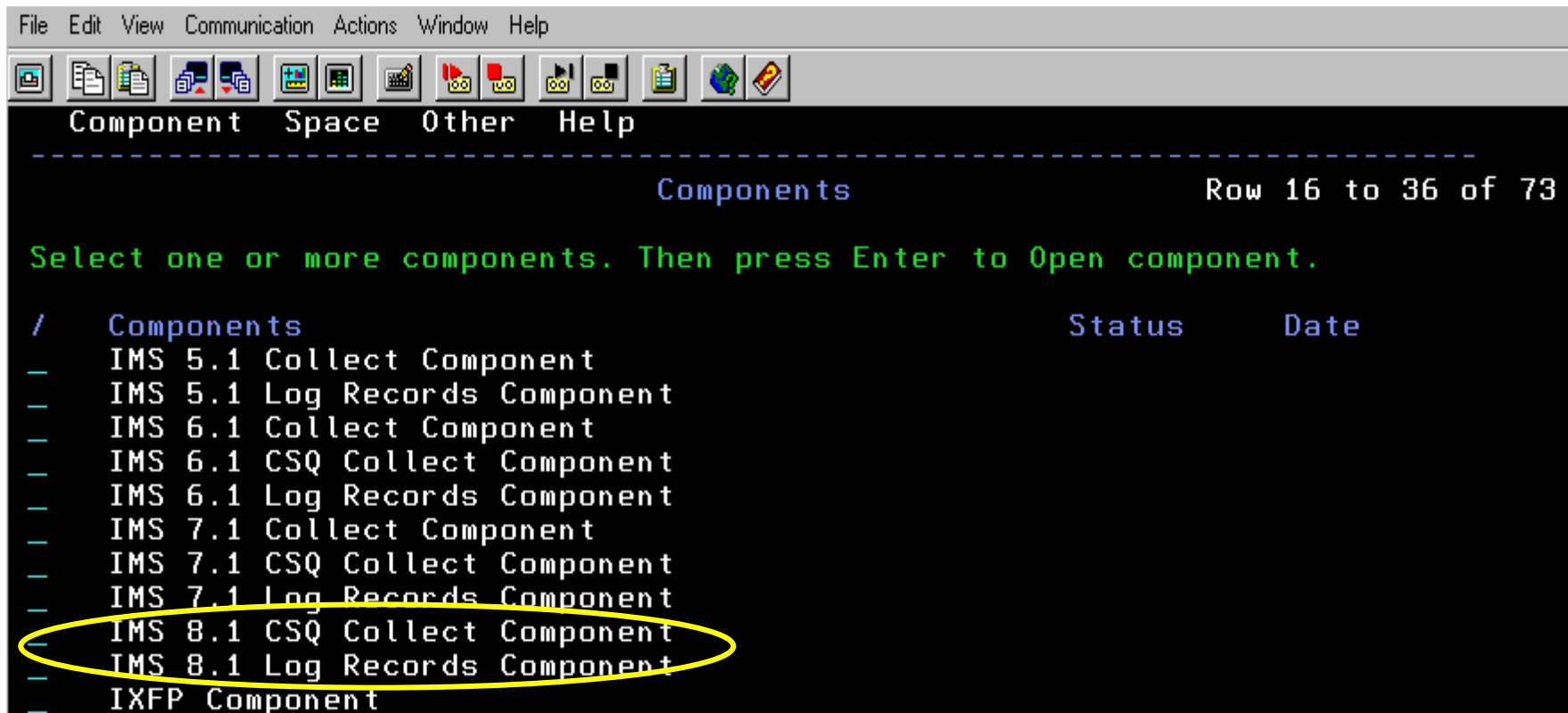


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TDS/390 1.6 IMS Version 8 Support

- IMS Version 8 support is completely based on the
TDS IMS SHARED QUEUES ENGINE



File Edit View Communication Actions Window Help

Component Space Other Help

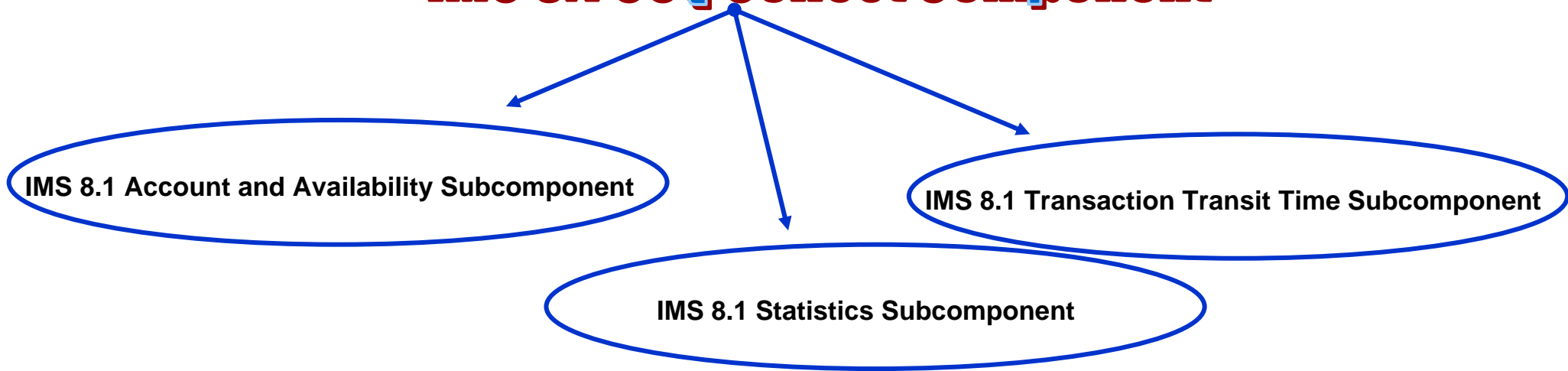
Components Row 16 to 36 of 73

Select one or more components. Then press Enter to Open component.

/	Components	Status	Date
—	IMS 5.1 Collect Component		
—	IMS 5.1 Log Records Component		
—	IMS 6.1 Collect Component		
—	IMS 6.1 CSQ Collect Component		
—	IMS 6.1 Log Records Component		
—	IMS 7.1 Collect Component		
—	IMS 7.1 CSQ Collect Component		
—	IMS 7.1 Log Records Component		
—	IMS 8.1 CSQ Collect Component		
—	IMS 8.1 Log Records Component		
—	IXFP Component		

TDS/390 1.6 IMS Version 8 Support

IMS 8.1 CSQ Collect Component



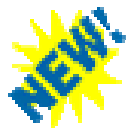
```

CSQV810C Component Parts                               Row 1 to 3 of 3

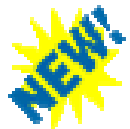
Select the parts of the component you want to install. Then press Enter.

/ Component Part                                     Status      Date
- IMS 8.1 Account and Availability Subcomponent
- IMS 8.1 Statistics Subcomponent
- IMS 8.1 Transaction Transit Time Subcomponent
***** Bottom of data *****
  
```

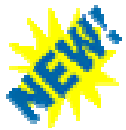
TDS/390 1.6 IMS Version 8 Support



Synchronous APPC (OTMA) Transactions Support



Java (JMP and JBP) Dependent Regions



Fast Path - Record type x'5951'

TDS/390 1.6 IMS Version 8 Support

Synchronous APPC AND OTMA Transactions

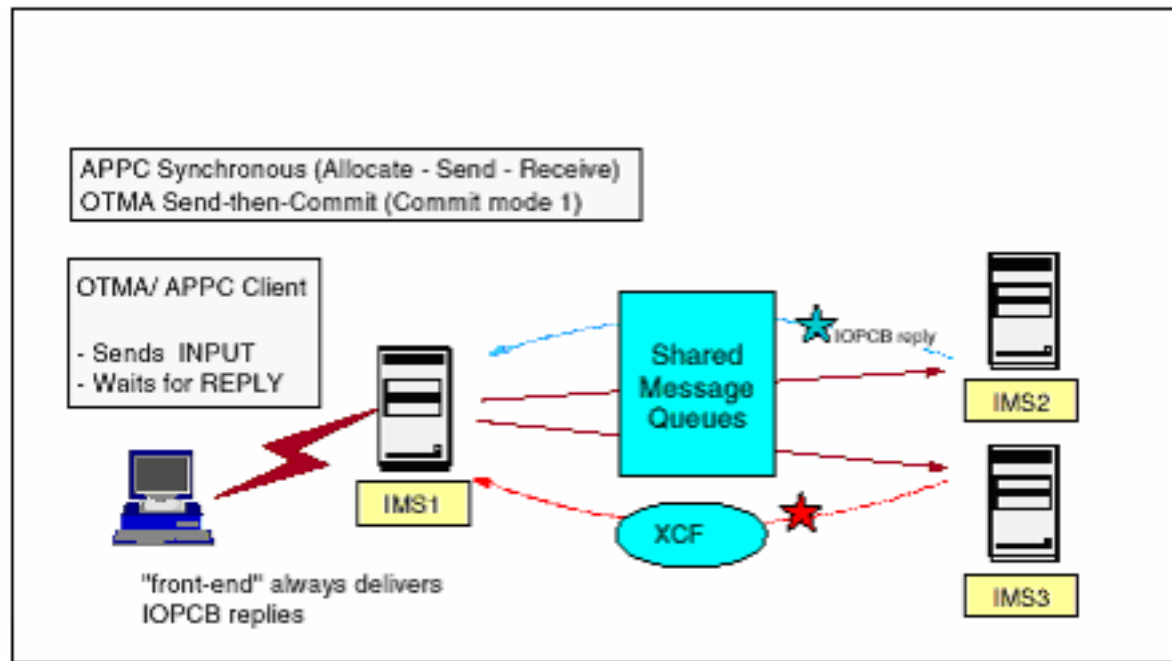


TDS/390 1.6 IMS Version 8 Support

With IMS Version 8 ...

Shared Queue support to synchronous APPC and OTMA transactions

These enhancement makes it possible to run synchronous transactions entered from APPC or OTMA on any IMS system in the shared queues group.

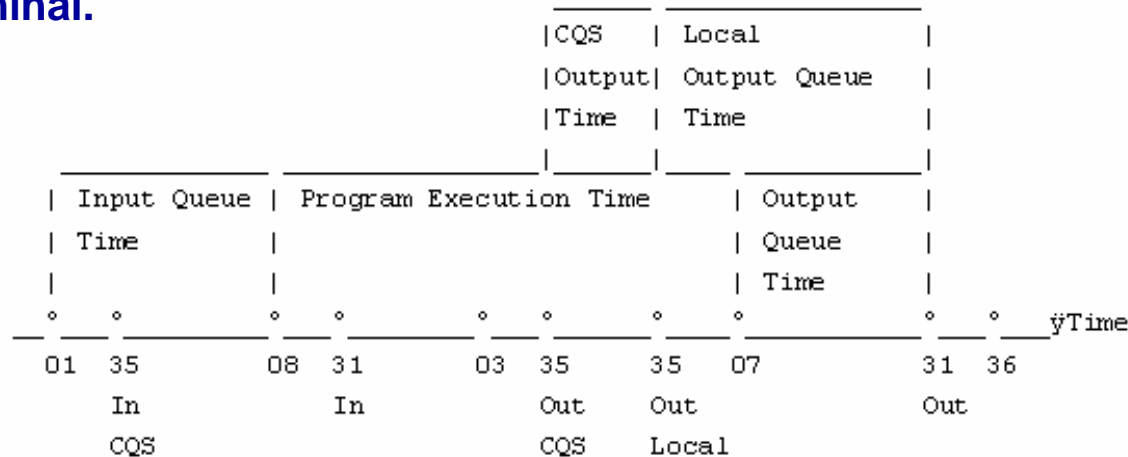


TDS/390 1.6 IMS Version 8 Support

General Transactions

Consider a simple transaction that has one input message, schedules a program and issues some DL/I database calls, then issues one output message back to the terminal. The record flow can be as follows:

- The input message from the terminal is accepted and put onto the shared queue
- The input message on the shared queue is read, an application is scheduled, and an output message is put onto the shared queue (x'35'Output, containing the Recovery Token).
- The output message on the shared queue is read and the response is sent back to the terminal.

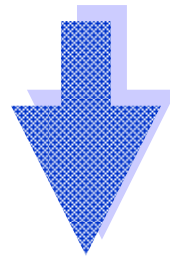


TDS/390 1.6 IMS Version 8 Support

General Transactions

The X'08' (PSB start) and X'07' (PSB termination) records may not be in the log data that is being processed.

The Output set of records is linked with the PSB set of records by the recovery token that we find in the X'35' Output record.

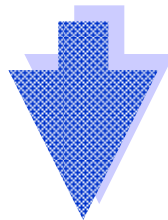


AN IMS TRANSACTION HAVING A X'35'OUT RECORD IS CONSIDERED AS A COMPLETE TRANSACTION BY THE TDS IMS LOG PROCEDURE EVEN WITHOUT HAVING X'08'/X'07' RECORDS IN THE SAME LOG DATA.

TDS/390 1.6 IMS Version 8 Support

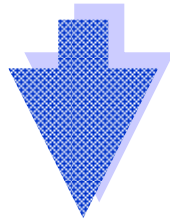
Synchronous APPC (OTMA) Transactions

For a synchronous APPC(OTMA) transaction, the output does not get queued



NO X'35' OUTPUT RECORDS

For synchronous transactions, at application syncpoint time, IMS APPC code is called under the dependent region and it does a GU and SEND for the output message.



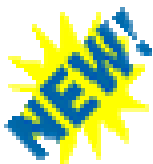
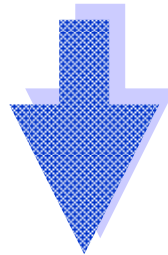
AN IMS TRANSACTION NOT HAVING X'08'/X'07' RECORDS IN THE SAME LOG DATA COULD NOT BE CONSIDERED AS A COMPLETE TRANSACTION BY THE TDS IMS LOG PROCEDURE WITHOUT HAVING ANY X'35' OUTPUT

RECORDS

TDS/390 1.6 IMS Version 8 Support

Synchronous APPC (OTMA) Transactions

The X'31' record is a special "BYPASS ENQUEUE" GU record



**SYNCHRONOUS APPC (OTMA) TRANSACTIONS ARE
CONSIDERED AS COMPLETE TRANSACTIONS BY
THE TDS IMS LOG PROCEDURE**

TDS/390 1.6 IMS Version 8 Support

JMP and JBP Dependent Regions

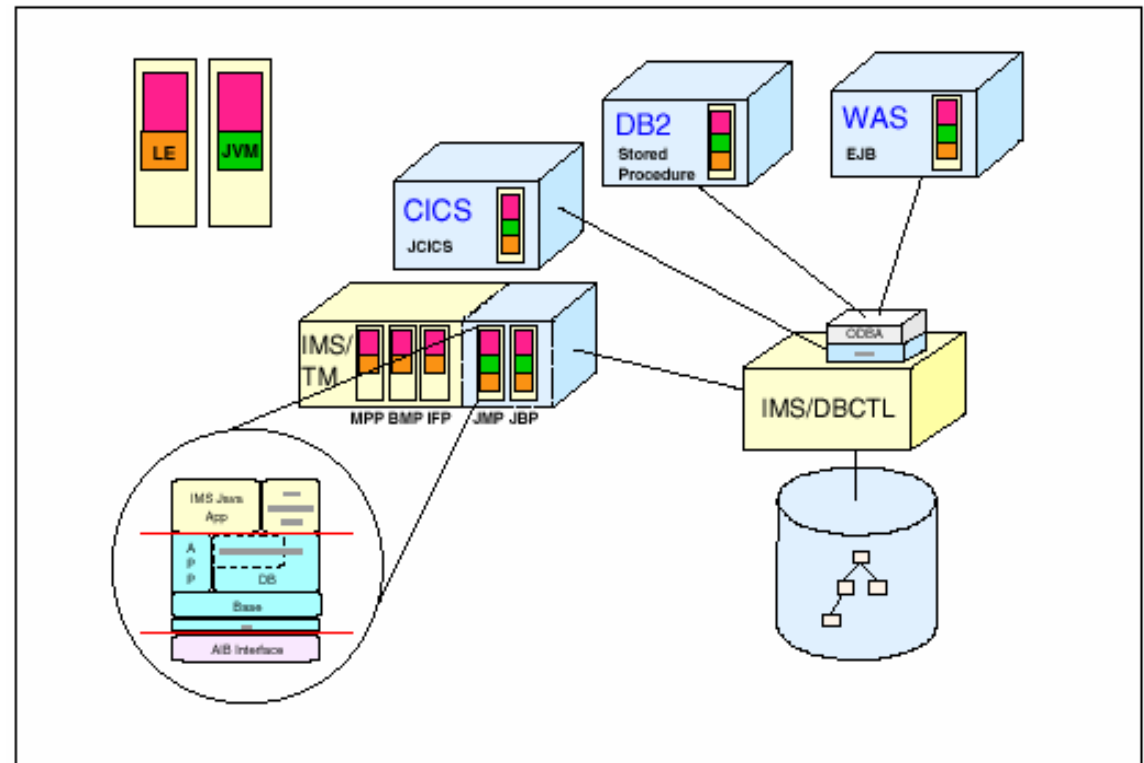


TDS/390 1.6 IMS Version 8 Support

With IMS Version 8 ...

Additional IMS Java processing environments to run Java application programs.

In addition to the IMS Java dependent regions, you can access data in IMS databases using Java application programs running in other OS/390 subsystems.

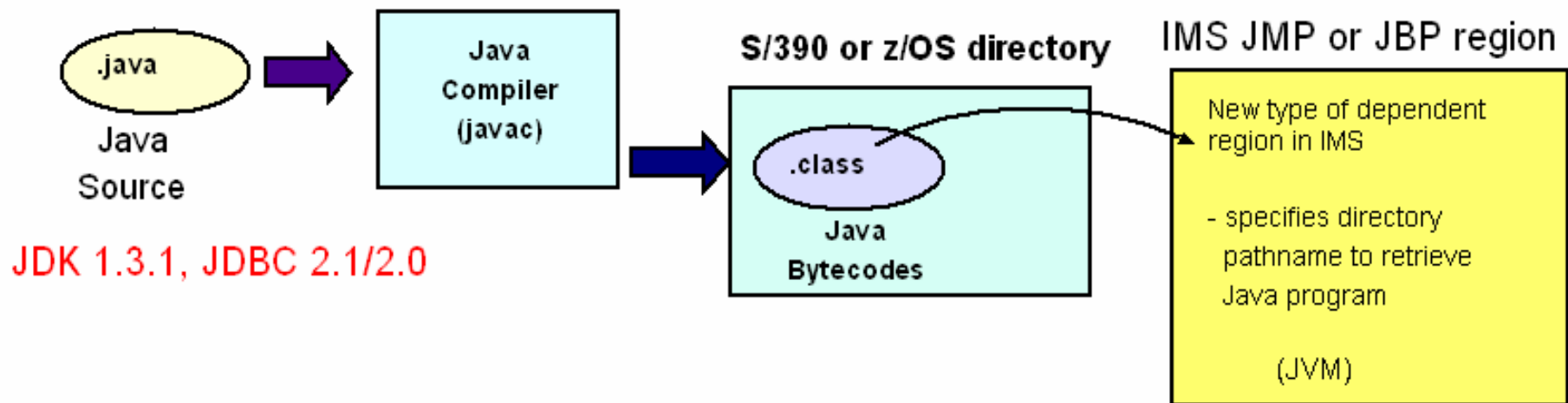


TDS/390 1.6 IMS Version 8 Support

With IMS Version 8 ...

To execute Java application programs in a Java Virtual Machine (JVM) environment, IMS has two new region types:

- **JMP = Java Message Processing** (for message driven JVM applications)
- **JBP = Java Batch Processing** (for non-message driven JVM applications)



TDS/390 1.6 IMS Version 8 Support

Java (UMP and JBP) Dependent Regions

Two values from DRLTYPE have been added, as we can see in the following tables – PROGRAM_TYPE field:

- ✓IMS_PSB_ACCOUNT_H
- ✓IMS_PSB_ACCOUNT_D
- ✓IMS_PSB_ACCOUNT_W

PROGRAM_TYPE	Char(10)		From DLRTYPE. When
			X'80' UOR END
			X'10' CPI REGION
			X'08' QUICK RESC
			X'04' DBCTL THRD
			X'02' BMP REGION
			X'01' MPP REGION
			X'22' JBP REGION
			X'21' JMP REGION

From DRLTYPE To PROGRAM_TYPE :

X'21' ==> JMP (Java Message Processing) Region

X'22' ==> JBP (Java Batch Processing) Region

TDS/390 1.6 IMS Version 8 Support

Fast Path - Record Type X'5951'

TDS/390 1.6 IMS Version 8 Support

The New Record Type X'5951'

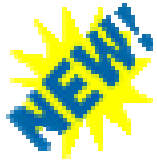
The new record type **X'5951'** has been added in

IMS V8 support – SLDS component

It is a Fast Path DEDB database update record and indicates an update made in a non-recoverable AREA/DEDB.

This record type has been added as it is used by Fast Path to show an AREA/DEDB is non-recoverable. In this case, there is no 5950's log record. A 5951 is logged instead.

Record type	Record definition	Description
X'5951'	IMS_V810_5951	Fast Path DEDB database update record. This record indicates an update made in a non-recoverable AREA/DEDB.



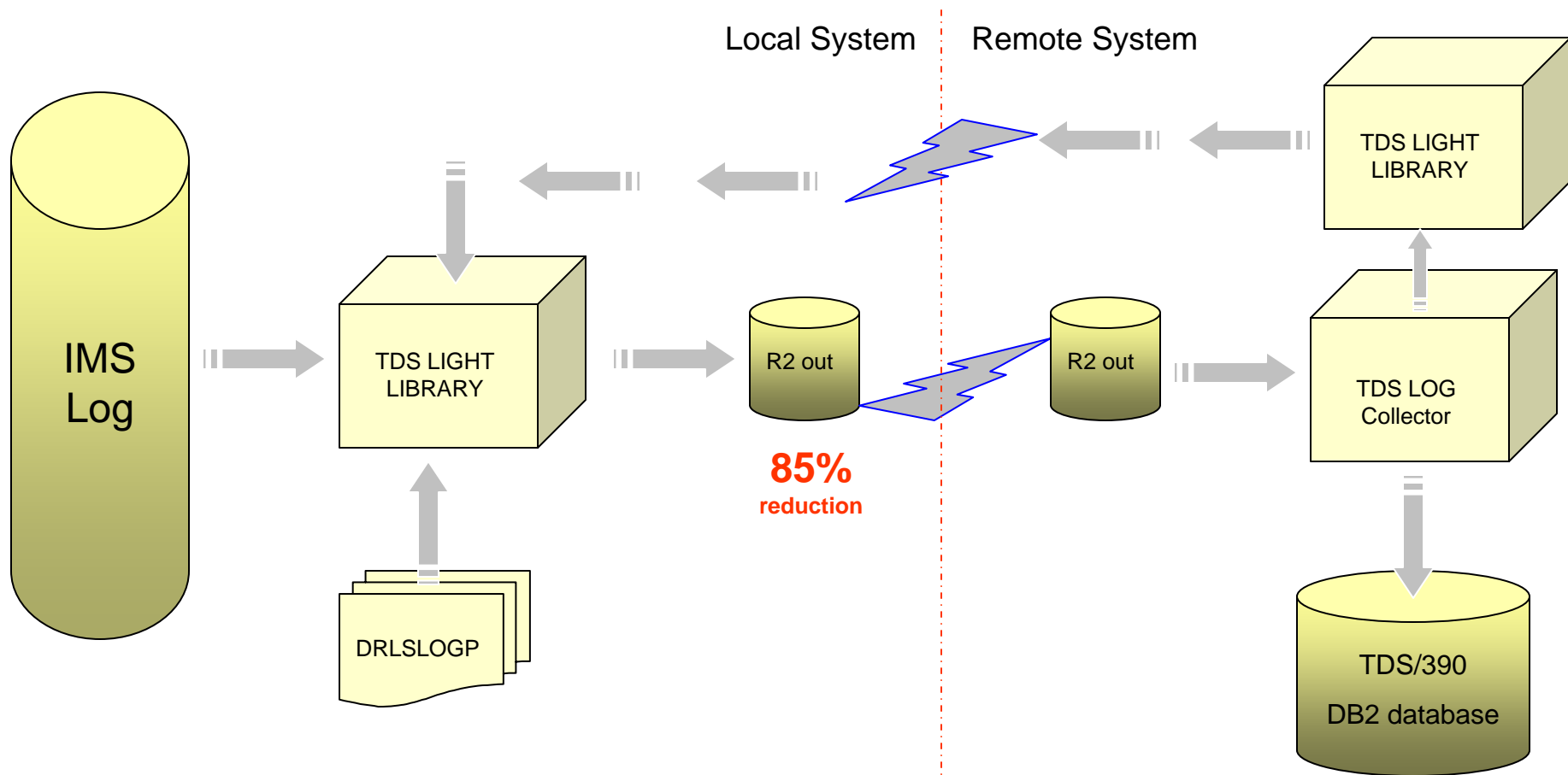
Object Name	Object Type	Member Name
CSQV810CHKPTIOSAMT	Update	DRLUC81S
CSQV810CHKPTPOOLST	Update	DRLUC81S
CSQV810CHKPTREGNT	Update	DRLUC81S
CSQV810CHKPTSTATT1	Update	DRLUC81S
CSQV810CHKPTSTATT2	Update	DRLUC81S
CSQV810CHKPTSTATT3	Update	DRLUC81S
CSQV810CHKPTSTATT4	Update	DRLUC81S
CSQV810CHKPTSTATT5	Update	DRLUC81S
CSQV810CHKPTSTATT6	Update	DRLUC81S
CSQV810CHKPTSTATT7	Update	DRLUC81S
CSQV810CHKPTVSAMT	Update	DRLUC81S
CSQV810TRANH	Update	DRLUI81C
CSQV810SYSTH	Update	DRLUI81C
CSQV810PSBACCNT H	Update	DRLUI81P
CSQV810PSBACCA7 H	Update	DRLUI81P
IMSV810AVLIMSSYS06	Update	DRLUI81V
IMSV810AVLIMSSYS40	Update	DRLUI81V
IMSV810AVLREGION47	Update	DRLUI81V
CSQ_V810_COLLECT	Log	DRLLS81C
CSQ_V810_COMP	Record	DRLRS81C
CSQ_V810_R2	Record	DRLRS81C
CSQ_V810_ST4001	Record	DRLRS81C
CSQ_V810_ST4502	Record	DRLRS81C
CSQ_V810_ST4503	Record	DRLRS81C
CSQ_V810_ST4504	Record	DRLRS81C
CSQ_V810_ST4505	Record	DRLRS81C
CSQ_V810_ST4506	Record	DRLRS81C
CSQ_V810_ST4507	Record	DRLRS81C
CSQ_V810_ST4508	Record	DRLRS81C
CSQ_V810_ST4509	Record	DRLRS81C
CSQ_V810_ST450A	Record	DRLRS81C
CSQ_V810_ST450B	Record	DRLRS81C
CSQ_V810_ST450C	Record	DRLRS81C
CSQ_V810_ST450D	Record	DRLRS81C
CSQ_V810_ST450E	Record	DRLRS81C
CSQ_V810_ST47	Record	DRLRS81C
CSQ_V810_ST06	Record	DRLRS81C
CSQ_V810_ST07	Record	DRLRS81C
CSQ_V810_ST08	Record	DRLRS81C

DB2 ODBC

IMS Light

IMS Light Feature Component

When there is the need to collect IMS data in one location and to process it in a different location running TDS390 data base, the IMS Light component will make the difference.



IMS Shared Queue

IMS Shared Queue enhancement: Online log merging

In order to use the Shared Queue support, an IMS log pre-processing was needed by using the IMS merge utility (DFSLMTG0). An alternative way (online merging option) is now added.

```

Menu Utilities Compilers Help
-----
BROWSE      LONGOBA.COLLECT.JOBOUT          Line 00000029 Col 001 080
Command ==>                               Scroll ==> CSR
  6 //DRLIN      DD *
  7 //DRLOUT     DD SYSOUT=*
  8 //DRLLG1    DD DISP=SHR,DSN=LONGOBA.SHARED.IMS6.IMSLOG1.RB
  9 //DRLLG2    DD DISP=SHR,DSN=LONGOBA.SHARED.IMS6.IMSLOG2.RB
 10 //DRLCHKI   DD DUMMY
 11 //DRLCHKO   DD DUMMY
 12 //DRLDUMP   DD SYSOUT=*
 13 //SYSUDUMP  DD SYSOUT=*
 14 //DRLIPARM  DD *

ICH70001I LONGOBA  LAST ACCESS AT 13:31:42 ON MONDAY, JANUARY 13, 2003
IEF236I ALLOC. FOR LONGOBA2 RUNLOG
IEF237I 0125 ALLOCATED TO STEPLIB
IEF237I 0129 ALLOCATED TO
IEF237I 0130 ALLOCATED TO
IEF237I JES2 ALLOCATED TO DRLIN
IEF237I JES2 ALLOCATED TO DRLOUT
IEF237I 010D ALLOCATED TO DRLLG1
  F1=Help   F2=Split   F3=Exit   F5=Rfind   F7=Up     F8=Down   F9=Swap
  F10=Left  F11=Right  F12=Cancel

```

Shared Queue Processing

```

Menu Utilities Compilers Help
-----
BROWSE LONGOBA.COLLECT.JOBOUT Line 00000079 Col 001 080
Command ==> Scroll ==> CSR
DRL0300I Collect started at 2003-01-13-13.34.30.
DRL0302I Processing LONGOBA.SHARED.IMS6.IMSLOG1.RB on EPDM0G .
DRL0302I Processing LONGOBA.SHARED.IMS6.IMSLOG2.RB on EPDM0D .

DRL2071I Parameters used in this run:
-----
Default TABLE FLUSH = 0
Default MAX FREE POINTERS = 800
Default START = 0000000F 0000000F
Default STOP = 2050365F 2359599F
Default IMSID = IMS
Default RECTYPE = FF
DRLIPARM WRITEPENDING = NO
Default RESTARTCHECK = YES
DRLIPARM SQ NLOGS = 2
Default STATISTIC = YES
DRLIPARM ACCOUNT = YES
F1=Help F2=Split F3=Exit F5=Rfind F7=Up F8=Down F9=Swap
F10=Left F11=Right F12=Cancel
    
```

```

Menu Utilities Compilers Help
-----
BROWSE LONGOBA.COLLECT.JOBOUT Line 00000097 Col 001 080
Command ==> Scroll ==> CSR
DRL2064I IM2 started at 2001156F 23330409 has switched OLDS at 2001157F
15223107 as indicated by type X'42' record at 034301BE.
DRL2064I IMS started at 2001156F 23143569 has switched OLDS at 2001157F
15222173 as indicated by type X'42' record at 0367F311.
DRL0304W The log data set is being reprocessed.
Dataset Name: LONGOBA.SHARED.IMS6.IMSLOG1.RB
DRL0304W The log data set is being reprocessed.
Dataset Name: LONGOBA.SHARED.IMS6.IMSLOG2.RB
DRL2064I IM2 started at 2001156F 23330409 has switched OLDS at 2001157F
15223107 as indicated by type X'42' record at 034308F2.

DRL2072I Statistics for NODEs created this run:
-----
NODE NODE Initially Total NODEs
type length allocated allocated pending
-----
OUOW 52 182000 182000 449
F1=Help F2=Split F3=Exit F5=Rfind F7=Up F8=Down F9=Swap
F10=Left F11=Right F12=Cancel
    
```

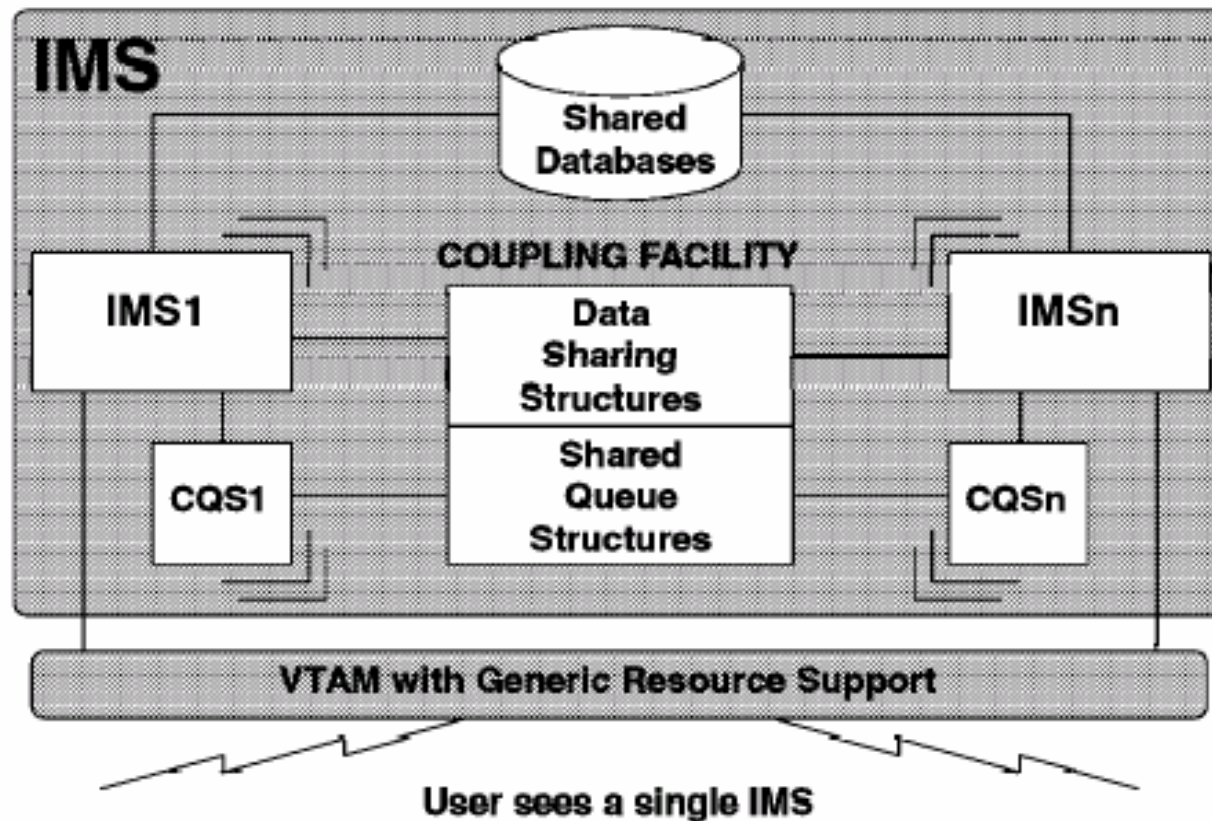
```

Menu Utilities Compilers Help
-----
BROWSE LONGOBA.COLLECT.JOBOUT Line 00000114 Col 001 080
Command ==> Scroll ==> CSR
PUOW 44 418000 418000 1258
PSB 40 180000 270000 6079
IMS 70 5775000 5775000 17658
-----
TOTALS 206 6555000 6645000 25444
-----
DRL2052I IMS log processing stopped at 2001157F 1525073F.
DRL0310I A database update started after 148815 records due to end of log, at
2003-01-13-13.34.36.
Ended Log: LONGOBA.SHARED.IMS6.IMSLOG1.RB
DRL2053I 74269 records were read from DRLL0G1 .
DRL2053I 74546 records were read from DRLL0G2 .
DRL0003I
DRL0315I Records read from the log or built by log procedure:
DRL0317I Record name ! Number
DRL0318I -----!-----
DRL0319I CSQ_V610_COMP ! 3231
F1=Help F2=Split F3=Exit F5=Rfind F7=Up F8=Down F9=Swap
F10=Left F11=Right F12=Cancel
    
```

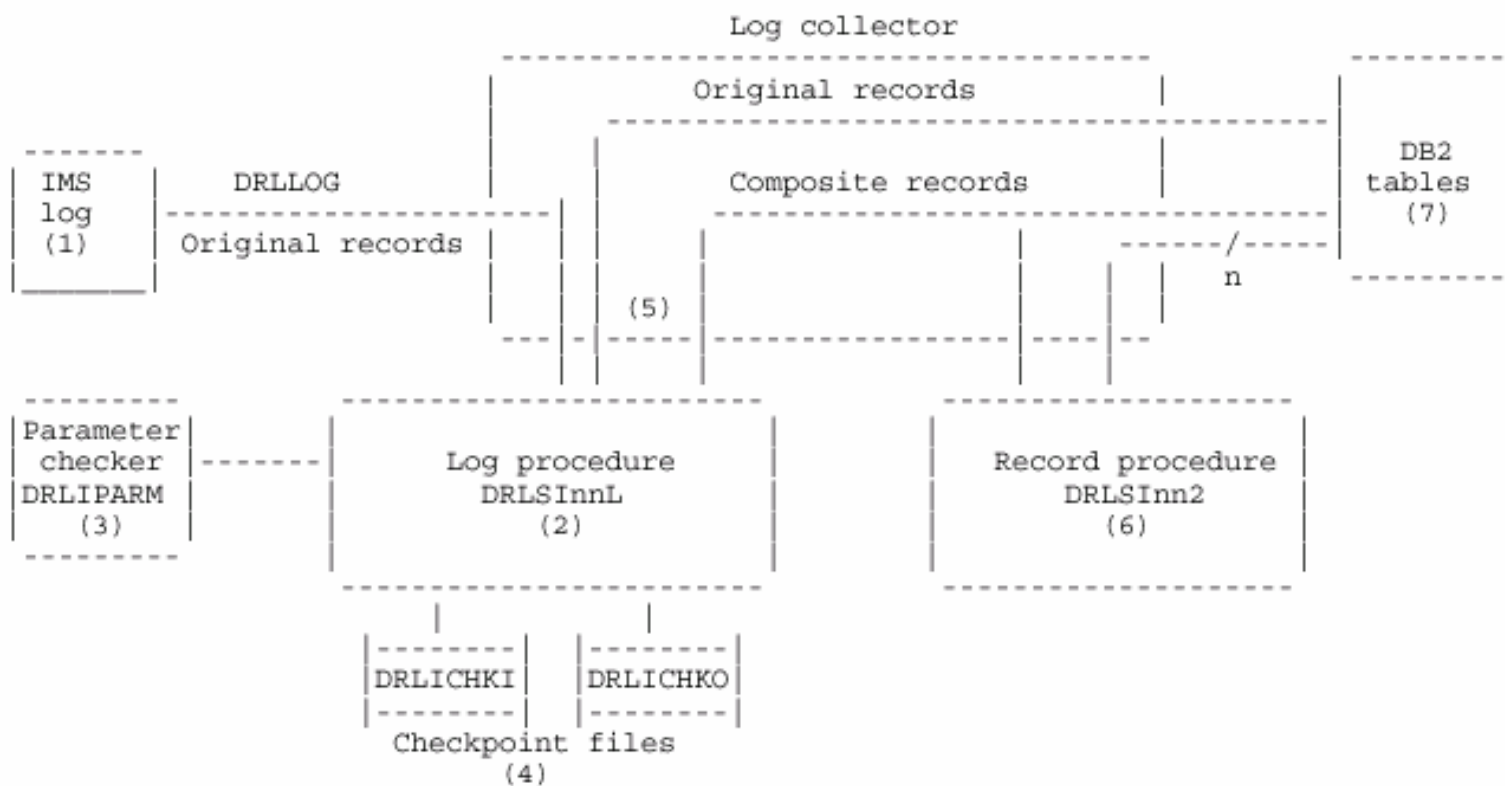

IMS Shared Queue

IMS Shared Queue Component

IMS Shared Queue support have been added to TDS/390's IMS feature. It is a brand new IMS component. (Available on 1.5.0 and 1.5.1 also, with APAR PQ63006).



Data Flow through the Log Collector



Data flow through the log collector.

IMS Message Queue Statistics

The “IMS Message Queue Statistics” support is added to TDS/390 to answer the customer needs to collect statistics about the accumulation of messages in the queue. This will permit to answer to questions like:

- At what time the input queue count begin to increase?
- Which transactions begin to queue?
- How deep did the queue get?

This information is needed not only for after-the-fact problem determination but also for capacity planning, to answer to questions like:

- How the IMS system performs, with the message queue resources, at various points along the transaction arrival rate curve?



New Reports

IMS Msg Queue Utilization by Transaction
Date: 2002-12-05
IMS System: 'CSSD '
Queue Type: 'MSGQ LOCAL '

IMS Msg Queue Utilization by Transaction, Date report

Time	Transaction Name	<-----Input Message----->					<-----Output Message----->				
		FpMsg	ShMsg	LgMsg	Processed	AvgTime	FpMsg	ShMsg	LgMsg	Processed	AvgTime
15.15	HC9CHKRT	-	1.00	0.00	1	0.00	-	0.00	0.00	0	0.00
	HC9PMUT0	-	1.00	0.00	2	0.40	-	0.00	0.00	0	0.00
	HC9SWFT0	-	0.00	4.00	2	0.10	-	0.00	0.00	2	0.00
	HC9T100T	-	0.00	1.00	2	0.00	-	0.00	0.00	2	0.00
	HC9T200T	-	0.00	3.50	2	0.00	-	0.00	0.00	0	0.00

IMS Msg Queue Utilization, Date Report
Date: 2002-12-05
IMS System: 'CSSD '
Queue Type: 'MSGQ LOCAL '

Time	<-----Input Message----->					<-----Output Message----->				
	FpMsg	ShMsg	LgMsg	Processed	AvgTime	FpMsg	ShMsg	LgMsg	Processed	AvgTime
15.15	-	0.16	1.38	251	0.21	-	0.00	0.00	217	0.00
15.30	-	0.15	9.06	481	0.45	-	0.00	0.00	393	0.00
15.45	-	1.39	20.84	463	0.43	-	41.90	0.00	421	0.00
16.00	-	0.49	2.41	459	0.18	-	6.21	0.00	438	0.00
16.15	-	0.12	5.08	368	0.23	-	0.00	0.00	362	0.00
16.30	-	0.10	14.42	278	0.29	-	0.00	0.00	266	0.00

IMS Msg Queue Utilization, Date report

Tivoli Decision Support: CSQTQ01

New Reports

IMS Transaction Arrival Rate and Msg Queue Usage

Date: '2002-07-17' to '2002-07-19'

IMS System: 'CSSD'

Queue Type: 'MSGQ LOCAL'

Date	<---Transaction-->		<-----Input Message----->					<-----Output Message----->				
	Total	Rate	FpMsg	ShMsg	LgMsg Processed	AvgTime	FpMsg	ShMsg	LgMsg Processed	AvgTime		
2002-07-17	3841	0.0445	-	0.24	10.56	3841	0.36	-	5.20	0.00	3609	0.00
2002-07-18	7000	0.0810	-	1.00	20.30	7000	0.70	-	6.30	4.00	6500	0.40
2002-07-19	4511	0.0522	-	0.50	11.20	4511	0.46	-	3.20	2.00	4211	0.20

IMS Transaction Arrival Rate and Msg Queue Usage, Daily Trend

Tivoli Decision Support: CSQTQ04

IMS Msg Queue Utilization Overview, Daily Report

Date: '2002-07-17' to '2002-07-17'

IMS System: 'CSSD'

Date	Queue Type	<-----Input Message----->					<-----Output Message----->				
		FpMsg	ShMsg	LgMsg Processed	AvgTime	FpMsg	ShMsg	LgMsg Processed	AvgTime		
2002-07-17	EMHQ LOCAL	1.00	-	-	1	0.00	1.00	-	-	1	0.63
	MSGQ LOCAL	-	0.24	10.56	3841	0.36	-	5.20	0.00	3609	0.00

IMS Msg Queue Utilization Overview, Daily Report

Tivoli Decision Support: CSQTQ03

Installation Options

```

Session A - [24 x 80]
File Edit Transfer Appearance Communication Assistant Window Help
Print Copy Paste Send Receive Display Color Map Record Stop Play Quit Debug Support Index

Component Space Other Help
-----
DRLDACMP                Components                Row 20 to 32 of 79

Select one or more components. Then press Enter to Open component.

/ Components                Status Date
- CICS Monitoring Component
- WebSphere Activity Component
- WebSphere Interval Component
- DB2 Component
- IMS 7.1 Collect Component
- OS/400 Accounting Component
- OS/400 Configuration Component
- OS/400 Job Statistics Component
- OS/400 Messages Component
- OS/400 Performance Component
- IMS 6.1 Collect Component
- IMS 6.1 Log Records Component
- IMS 7.1 Log Records Component

Command ==>
F1=Help      F2=Split    F3=Exit     F5=New      F6=Install  F7=Bkwd
F8=Fwd       F9=Swap     F10=Actions F12=Cancel
  
```

Using the administration dialogue, access to component panel DRLDACMP and the following WebSphere components will be reported in the component list:

```

Session A - [24 x 80]
File Edit Transfer Appearance Communication Assistant Window Help
Print Copy Paste Send Receive Display Color Map Record Stop Play Quit Debug Support Index

Component Space Other Help
-----
DRLDACPA                WASPINTC Component Parts                Row 1 to 3 of 3

Select the parts of the component you want to install. Then press Enter.

/ Component Part                Status Date
- Container Interval Subcomponent
- J2EE & WEB Container Interval Subcomponent
- Server Interval Subcomponent
***** Bottom of data *****

Command ==>
F1=Help      F2=Split    F7=Bkwd     F8=Fwd      F9=Swap     F12=Cancel
F8=Fwd       F9=Swap     F10=Actions F12=Cancel
  
```

Selecting the component to install (here, the WebSphere Interval Component) and pressing F6, because the WebSphere component contains subcomponents, TDS for OS/390 displays the WASPINTC Component Parts window

Archive Facility: Reorg/Discard Utility

- The Reorg/Discard Utility enables you to delete the data contained in the tables using the *Purge Condition* present in the DRLPURGECOND table pre-loaded in Tivoli Decision Support for OS/390. At the same time the Reorg/Discard utility automatically reorganizes the table space where data has been deleted.
- The Reorg/Discard Utility can be a valid alternative to the Purge Utility!***

```

Table Maintenance Utilities Edit View Other Help
-----
12 1. Display... F11 Row 1 to 21 of 229
   2. Show size...
   3. Import...
   4. Export...
   5. Grant...
   6. Revoke...
   7. Document...
   8. Recalculate...
   9. Purge...
  10. Unload...
  11. Load...
  12. Reorg/Discard...
  13. DB2HP Unload...

Select one or more

/ Tables
- AVAILABILITY_D
- AVAILABILITY_M
- AVAILABILITY_PA
- AVAILABILITY_T
- AVAILABILITY_W
- CICS_DICTIONARY
- CICS_FIELD
- DAY_OF_WEEK
- EXCEPTION_T
- LINUX_CPU_TIME_D DRLR TABLE
- LINUX_FILESYS_D DRLR TABLE
- LINUX_FILESYS_H DRLR TABLE
- LINUX_FILESYS_M DRLR TABLE
- LINUX_MEM_D DRLR TABLE
- LINUX_MEM_H DRLR TABLE
- LINUX_MEM_M DRLR TABLE
- LINUX_PROCESS_D DRLR TABLE
- LINUX_PROCESS_H DRLR TABLE
- LINUX_PROCESS_M DRLR TABLE
- LINUX_USERS_D DRLR TABLE
- LINUX_USERS_H DRLR TABLE

Command ==>
F1=Help F2=Split F3=Exit F5=Updates F6=PurCond F7=Bkwd
F8=Fwd F9=Swap F10=Actions F11=Display F12=Cancel

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```

The **first** way: from **Tables Window** select the **option 12** in the **Utilities** pull-down menu

In this way, the data contained in the Table (or Tables) selected from the Table list is **Discarded**, and a **space reorganization** is automatically performed in the **Tablespace** where the selected Tables reside.

Therefore, **Discard** operation is performed only on the selected Tables, while **Reorg** operation is performed on **ALL** the Tables contained in the Tablespace.

Unload and Load Utilities

- Unload Utility:** is used to Unload data from one table. Unload must be run on the system where the definitions of the tablespace and the table exist. The dataset, used for the Unload operation of data, can be saved on Disk (sequential dataset) or, with this new enhancement, on Tape.
- Load Utility:** is used to Load data in a table in tablespace. Load loads records into the table and build or extend any indexes defined on them. If the tablespace already contains data, you can choose whether you want to add the new data to the existing data or replace the existing data. The dataset, used for the Load operation of data, can be read from Disk or, with this new enhancement, from Tape.

```

Table Maintenance Utilities Edit View Other Help
-----
10 1. Display... F11 Row 1 to 21 of 229
   2. Show size...
   3. Import...
   4. Export...
   5. Grant...
   6. Revoke...
   7. Document...
   8. Recalculate...
   9. Purge...
  10. Unload...
  11. Load...
  12. Reorg/Discard...
  13. DB2HP Unload...

Select one or more

/ Tables
/ AVAILABILITY_D
- AVAILABILITY_M
- AVAILABILITY_PA
- AVAILABILITY_T
- AVAILABILITY_W
- CICS_DICTIONARY
- CICS_FIELD
- DAY_OF_WEEK
- EXCEPTION_T
- LINUX_CPUTIME_D DRLR TABLE
- LINUX_FILESYS_D DRLR TABLE
- LINUX_FILESYS_H DRLR TABLE
- LINUX_FILESYS_M DRLR TABLE
- LINUX_MEM_D DRLR TABLE
- LINUX_MEM_H DRLR TABLE
- LINUX_MEM_M DRLR TABLE
- LINUX_PROCESS_D DRLR TABLE
- LINUX_PROCESS_H DRLR TABLE
- LINUX_PROCESS_M DRLR TABLE
- LINUX_USERS_D DRLR TABLE
- LINUX_USERS_H DRLR TABLE

Command ==>
F1=Help F2=Split F3=Exit F5=Updates F6=PurCond F7=Bkwd
F8=Fwd F9=Swap F10=Actions F11=Display F12=Cancel

MÂ c 03/025
  
```

From **Tables Window** select the **option 10** in the **Utilities** pull-down menu

New Unload Facility

```

Table Maintenance Utilities Edit View Other Help

                                UNLOAD Utility

The DB2* utility will unload table data to a data set. Type the fully
qualified data set name, without quotes. Then press Enter to create the
JCL.

Type of UNLOAD . . . . . 2  1. Disk
                             2. Tape
Table . . . . . : AVAILABILITY_M
UNLOAD data set name . . . . : USER.DATASET

Type information in the following fields. In case of Tape UNLOAD, VOLSER
is the Tape Label. In case of Disk UNLOAD, type information only if the
data set is not available.
UNIT . . . . . _____
VOLSER . . . . . _____

F1=Help   F2=Split   F9=Swap   F12=Cancel

_ LINUX_PROCESS_D   DRLR   TABLE
_ LINUX_PROCESS_H   DRLR   TABLE
_ LINUX_PROCESS_M   DRLR   TABLE
_ LINUX_USERS_D     DRLR   TABLE
_ LINUX_USERS_H     DRLR   TABLE

Command ==>
F1=Help   F2=Split   F3=Exit   F5=Updates   F6=PurCond   F7=Bkwd
F8=Fwd    F9=Swap    F10=Actions F11=Display  F12=Cancel
    
```

Select the type of Unload: Disk or Tape

This is the selected Table from precedent panel (Tables Window)

Specify UNIT and VOLSER

New Load Facility

```

Table Maintenance Utilities Edit View Other Help

LOAD Utility

The DB2* utility will load table data from the data set that was used for
the unload. Type the fully qualified data set name, without quotes. Then
press Enter to create the JCL.

Type of LOAD . . . . . 2  1. Disk
                        2. Tape
Table . . . . . : DRLR.AVAILABILITY_D
LOAD data set name . . . . . USER.DATASET

In case of LOAD from Disk, leave the fields UNIT and VOLSER blank. In case
of LOAD from Tape, enter the required information in both the fields.
UNIT . . . . . _____
VOLSER . . . . . _____

F1=Help  F2=Split  F9=Swap  F12=Cancel

- LINUX_PROCESS_D    DRLR    TABLE
- LINUX_PROCESS_H    DRLR    TABLE
- LINUX_PROCESS_M    DRLR    TABLE
- LINUX_USERS_D      DRLR    TABLE
- LINUX_USERS_H      DRLR    TABLE

Command ==>
F1=Help  F2=Split  F3=Exit  F5=Updates  F6=PurCond  F7=Bkwd
F8=Fwd   F9=Swap   F10=Actions  F11=Display  F12=Cancel
    
```

Select the type of Load: Disk or Tape

This is the selected Table from precedent panel (Tables Window)

Specify UNIT and VOLSER (always in case of Tape Load)

DB2 Unload Facility

-
- The *DB2 High Performance Unload* (hereafter called DB2 HPU) is a high-speed DB2 product for unloading DB2 tables from either a tablespace or an image copy. Tables are unloaded to one or more files based on a specified format. You can use it to extract data for movement across enterprise systems or for reorganization in-place.

DB2 HPU can do the following:

- Rapidly Unload tablespaces;
- Parallel execution of several Unloads accessing the same tablespace;
- Do Unload against any image copy to eliminate interference with DB2 production databases;
- Unload selected rows and columns;
- Unload every n rows and maximum rows;
- Generate Load control statements for subsequent reload.

DB2 Unload Utility Panel

```

Table Maintenance Utilities Edit View Other Help

                DB2HP Unload Utility

The DB2HP Unload will unload table data to a data set. You can use the
utility only if the DB2HPU product is present on system. Type the fully
qualified data set name, without quotes. Then press Enter to create the
JCL.

Type of DB2HP Unload . . . . . 2  1. Disk
                                   2. Tape
Table . . . . . : AVAILABILITY_D
Unload data set name . . . . . USER.DATASET

Type information in the following fields. In case of Tape UNLOAD, VOLSER
is the Tape Label. In case of Disk UNLOAD, type information only if the
data set is not available.
UNIT . . . . . _____
VOLSER . . . . . _____

F1=Help   F2=Split  F9=Swap   F12=Cancel

- LINUX_PROCESS_D   DRLR   TABLE
- LINUX_PROCESS_H   DRLR   TABLE
- LINUX_PROCESS_M   DRLR   TABLE
- LINUX_USERS_D     DRLR   TABLE
- LINUX_USERS_H     DRLR   TABLE

Command ==>
F1=Help   F2=Split  F3=Exit   F5=Updates  F6=PurCond  F7=Bkwd
F8=Fwd    F9=Swap   F10=Actions  F11=Display  F12=Cancel

MÁ c 10/032
    
```

Select the type of DB2 HP Unload: Disk or Tape

This is the selected Table from precedent panel (Tables Window)

Specify UNIT and VOLSER

Packaging

- **Packaging**

TDS/390 V1.6 will be shipped via tapes and CD for the Java console

A&C console (part of the A&C feature) will be shipped via CD

ETLs for TDW/390 enablement pack (delivered later than TDS390 GA via a separate media)

- **NLS Packaging (2 months after English GA, 08/03)**

Kanji for 390 objects and Java console

TDW/390 Enablement pack (ETLs) will be translated in the standard 9 languages (delivered later than TDS390 GA via a separate media)

A&C console will be translated in the same 5 languages as previous release (Chinese, Japanese, Korean, Braz/Portuguese, Spanish)

- **Updated Pricing Goals (announced in November '02)**

MLC pipe for 5695- 101: NO CHANGE

OTC pipe for 5698-TD9 under Passport Advantage: Points is now on MSU curve instead of the previous "by apps server".

OTC pipe for 5698-TDW under Passport Advantage: Points are now on MSU

TDS/390 v1.6 (GA 06/03) is priced in accordance with the November '02 new pricing model

- **Announcement Letter**

203086 April 2003

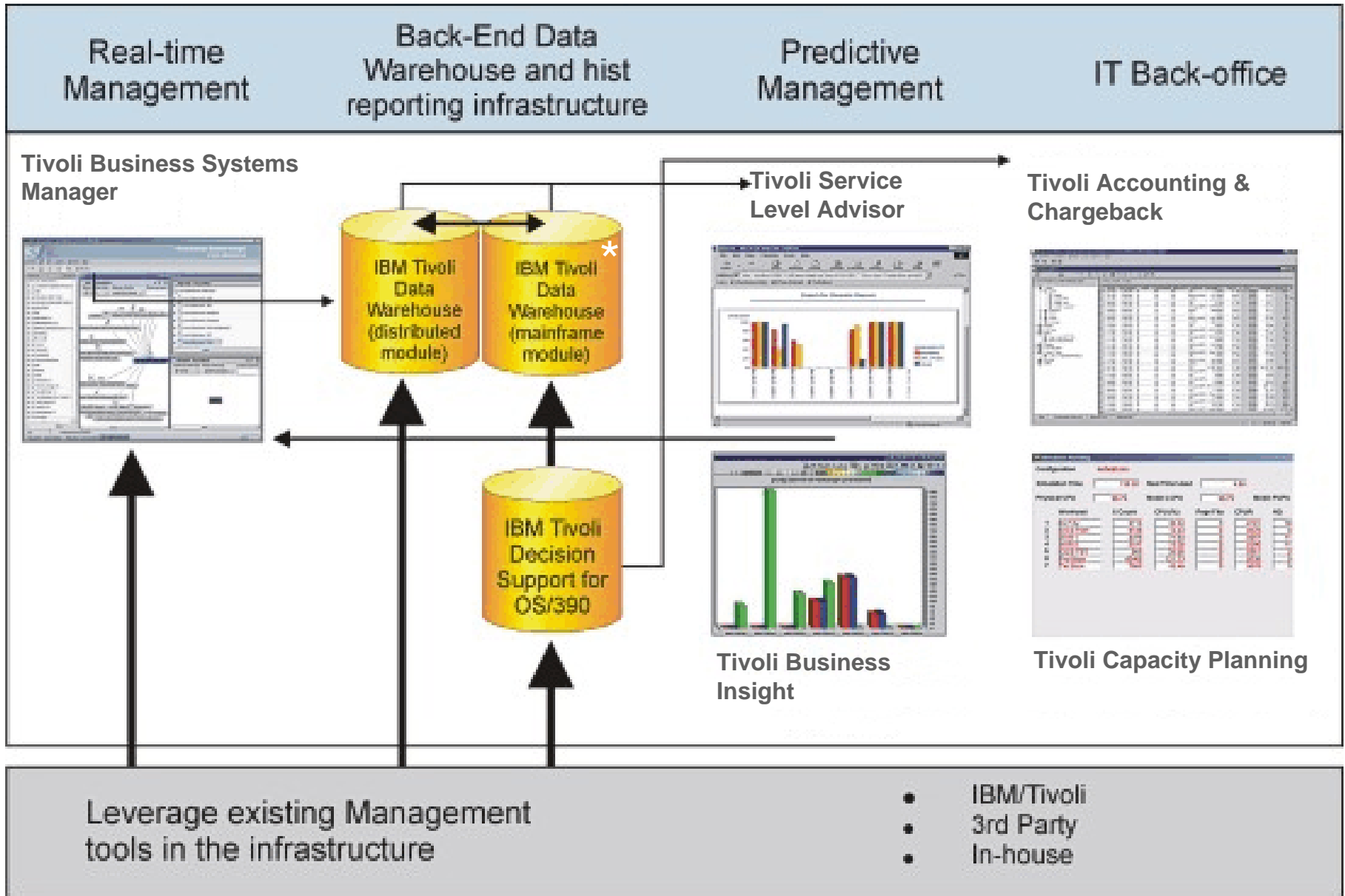
Planned Availability: June 27, 2003



Agenda

- What is Tivoli Decision support for OS390?
- Reports
- Support for IMS Release 8
- TDS/390 V1R6 evolution toward Tivoli Data Warehouse

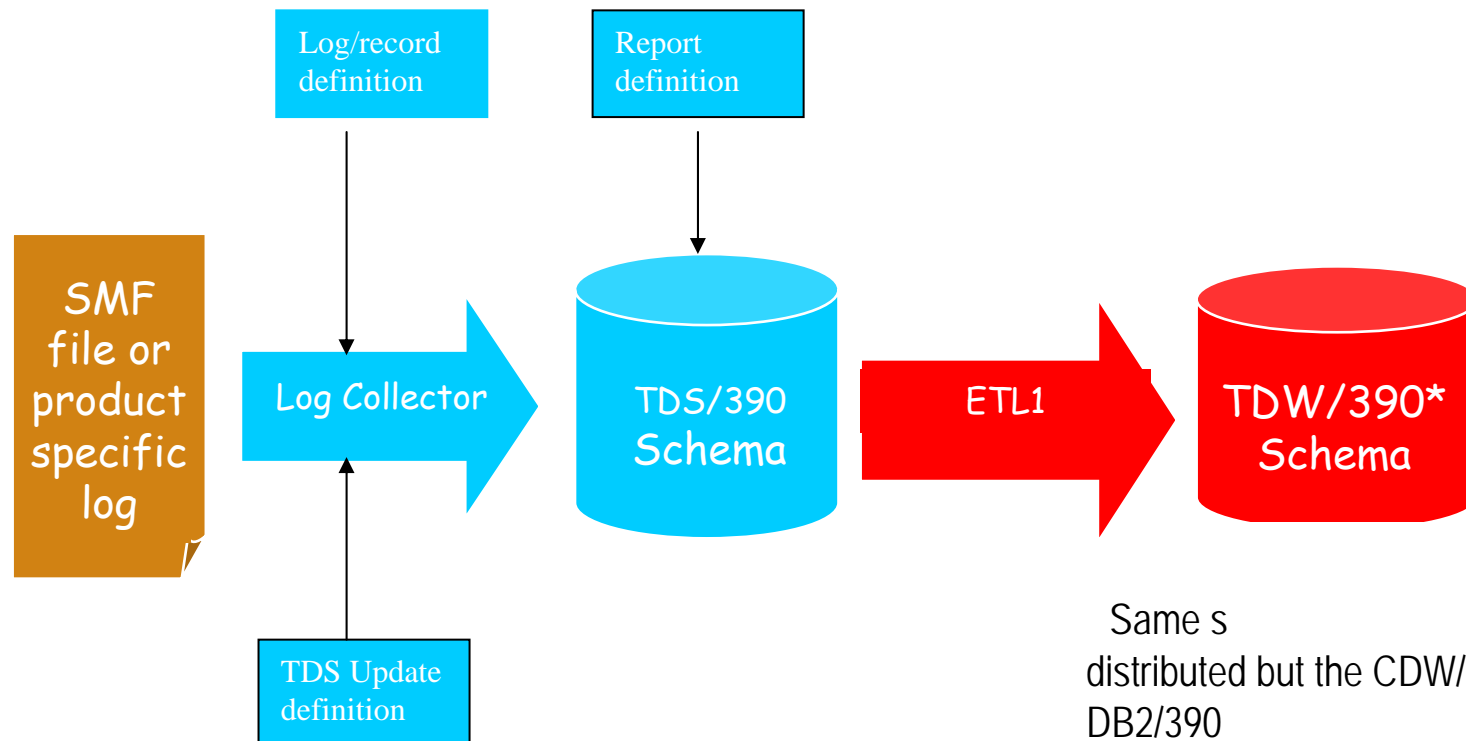
Solving IT Business pains....



* The zSeries enablement pack for Tivoli Data Warehouse will be available in 1Q04 as PTF on top of Tivoli Decision Support for OS/390 V1

TDS/390 v1.6 Offering Content – Main enhancements (first step)

- ✓ 390 ETL development for TDW/390 enablement pack
- ✓ Prioritized support for existing and new application data sources:
 - Available at April '03 (other delivery media):
Current - Z/OS, IMS, DFSMS, TWS 390 , DB2, NPM, MQSeries, RMF, CICS, NPMIP
 - Available at TDS/390 1.6 GA (June '03)
New - WebSphere for z/OS

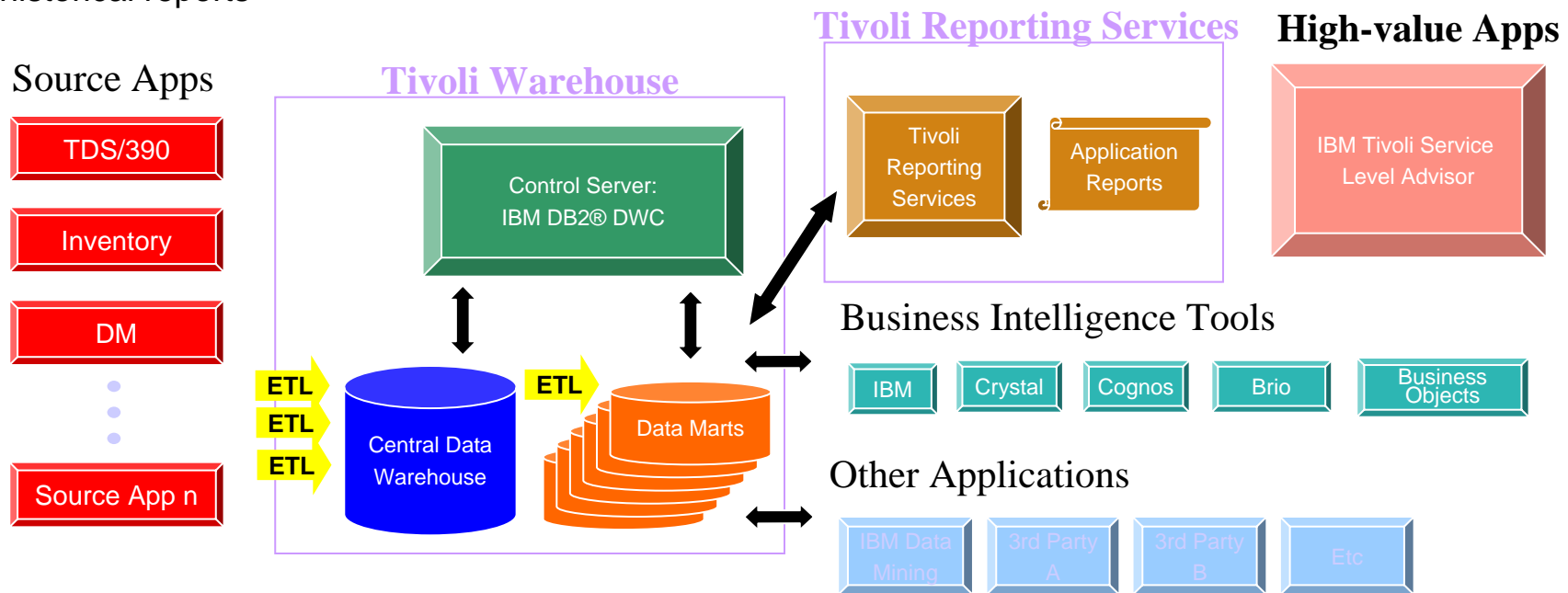


OS/390 environment with DB2 V7.1

Overall Evolution

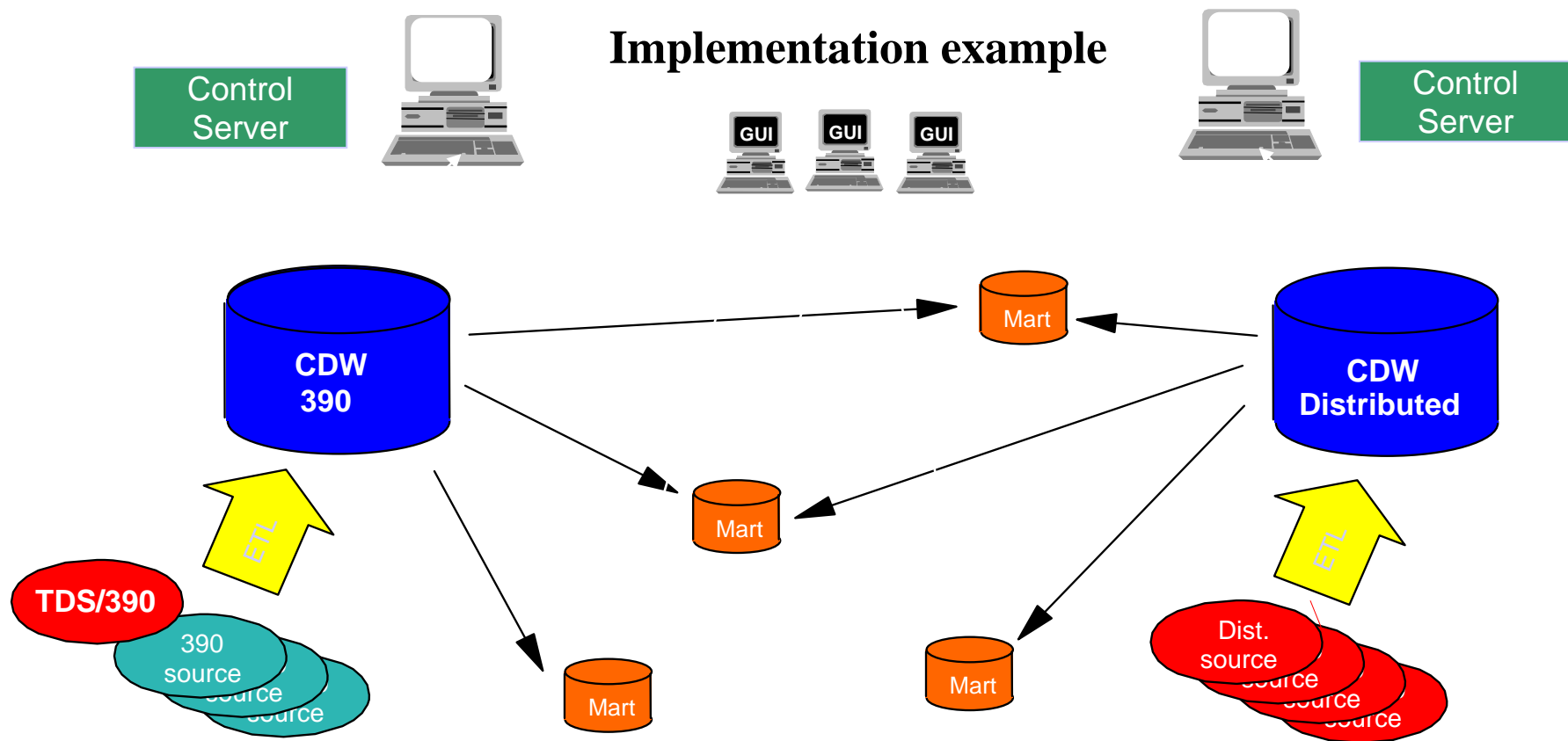
Strategic Fit & Positioning

- ▶ **Tivoli Enterprise Data Warehouse** is the centralized data store where historical systems management data from all applications is aggregated and correlated for use by:
 - ▶ Reporting and 3rd party OLAP tools
 - ▶ Planning, trending, analysis, accounting, and data mining tools
- ▶ **Tivoli Reporting Services** is the common reporting infrastructure for generating simple web-based historical reports



Tivoli Data Warehouse – implementation example

- ▶ One “logical” warehouse may result in multiple physical CDWs
- ▶ For example: Geography or environment (distributed vs. 390)
- ▶ Data Marts can be built from data residing in any one or multiple CDWs



Tivoli Data Warehouse - summary

- Leveraging a proven warehouse architecture and DB2 technology
- Schemas will be open and published
- Applications will provide free standard reports
- Open to all systems management data
- Provides the underlying infrastructure for value-add applications

External Resources

Yahoo Group Teamrooms *groups.yahoo.com (NPMIP, NPM, NetView, TBSM_Users)*

Tivoli software homepage -- *http://www-3.ibm.com/software/tivoli/*

Tivoli UserGroups --*http://www-3.ibm.com/software/sysmgmt/products/support/Tivoli_User_Groups.html*

Tivoli Customer Portal --*https://www6.software.ibm.com/reg/tivoli/custport-I*

Tivoli Education -- *http://www-3.ibm.com/software/tivoli/education*

Tivoli Software Events -- *http://www-3.ibm.com/software/tivoli/news/events/*

Tivoli Best Practices -- *http://www-3.ibm.com/software/tivoli/features/oct2002/best.html*

IBM Link - *http://www.ibm.link.ibm.com/*.

IBM Manuals - *http://w3.ehone.ibm.com/public/applications/publications/cgibin/pbi.cgi.*

IBM Software for zSeries On Demand Events -*http://www-3.ibm.com/software/is/mp/s390/ondemand/*



Thank You!

QUESTIONS?

