

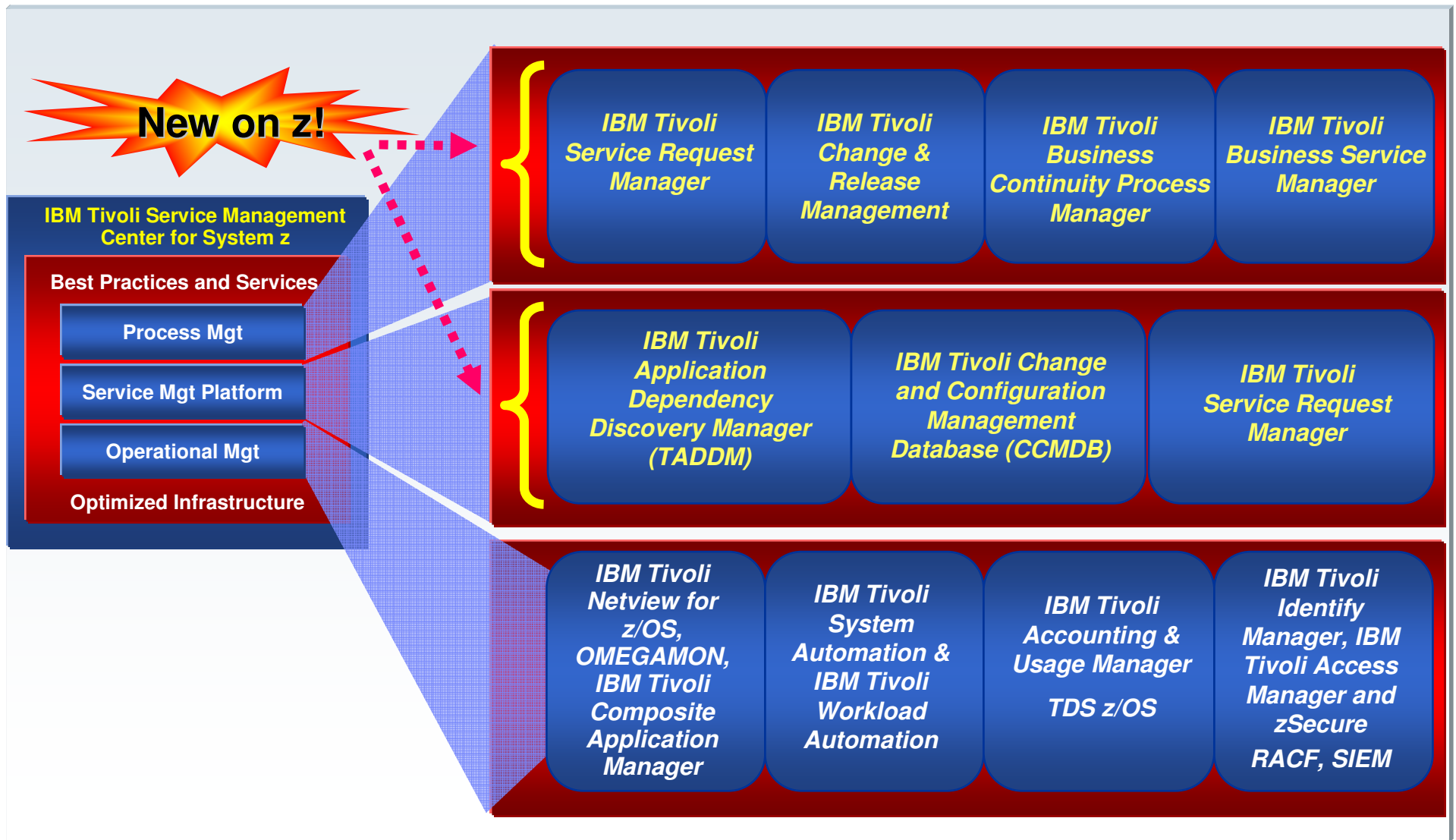


IBM Tivoli Software

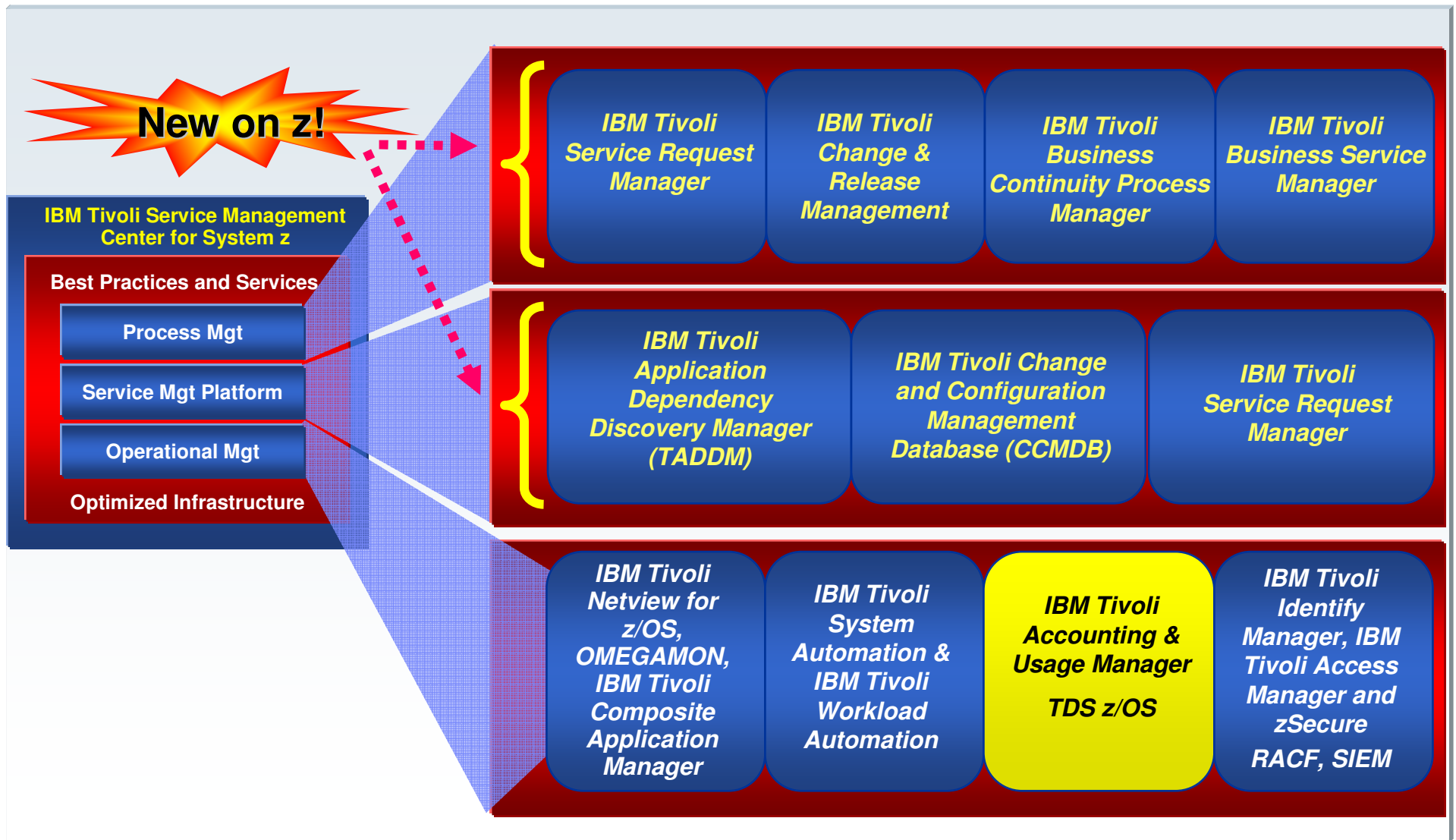
Determining Financial Responsibility for the Workload of 1000 Servers Consolidated on Linux on System z

Tracking, Reporting and Billing IT Utilization & Costs

Service Management Center for System z Provides a Rich Portfolio of Solutions to Help Manage Your Enterprise



Service Management Center for System z Provides a Rich Portfolio of Solutions to Help Manage Your Enterprise



End-to-End Solution – IT Financial Management

Align IT Cost with Business Goals

Business Challenges

- CIO has limited visibility into IT costs to justify expenses
- CFO has limited visibility into IT costs to determine business unit profitability
- Inability to allocate cost for shared resources (e.g. System z)
- Pressure to lower Total Cost of Ownership

IBM Tivoli Service Management Center for System z Solution

- Measure the usage of shared IT resources for resource accounting, charge back billing and IT cost management
- Reduce costs by managing all business assets through an asset management lifecycle
- Optimize software licenses and reduce likelihood of overbuying as well as fines due to under-licensing
- Streamline routing of service requests with accurate warranty information

Business benefits

- Control IT costs
- Mitigate compliance risk
- Improve IT service levels to meet increasing business demands



End-to-End Solution – IT Financial Management

Align IT Cost with Business Goals

Business Challenges

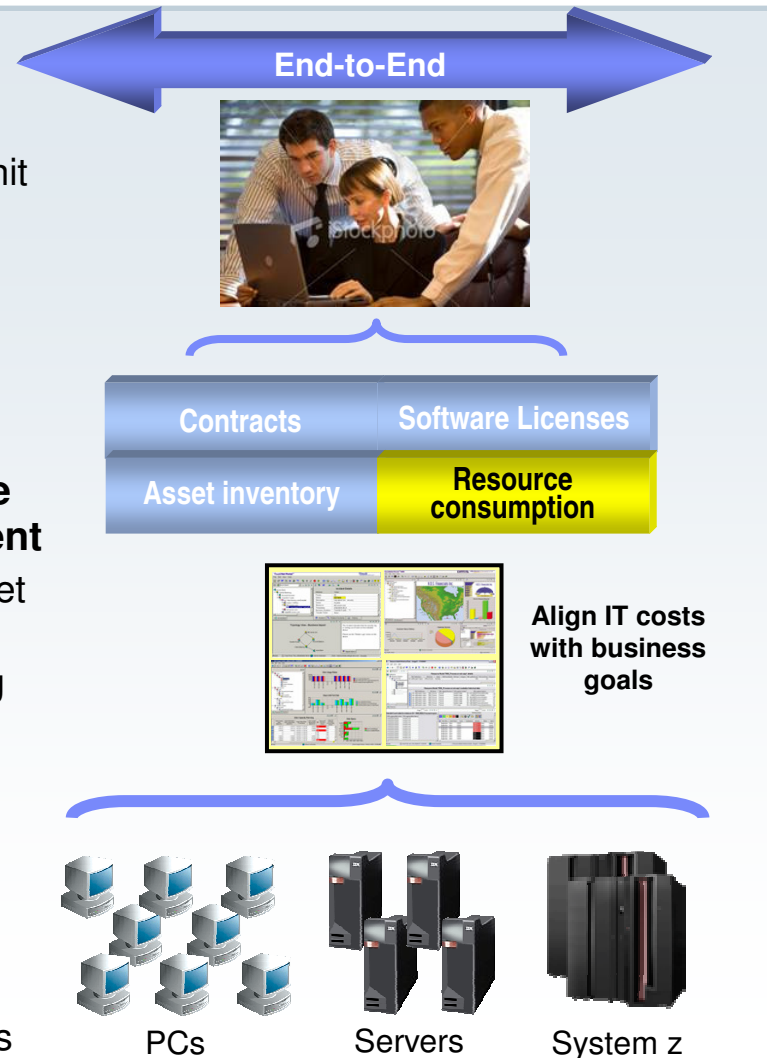
- CIO has limited visibility into IT costs to justify expenses
- CFO has limited visibility into IT costs to determine business unit profitability
- Inability to allocate cost for shared resources (e.g. System z)
- Pressure to lower Total Cost of Ownership

IBM Tivoli Service Management Center for System z Solution

- **Measure the usage of shared IT resources for resource accounting, charge back billing and IT cost management**
- Reduce costs by managing all business assets through an asset management lifecycle
- Optimize software licenses and reduce likelihood of overbuying as well as fines due to under-licensing
- Streamline routing of service requests with accurate warranty information

Business benefits

- Control IT costs
- Mitigate compliance risk
- Improve IT service levels to meet increasing business demands

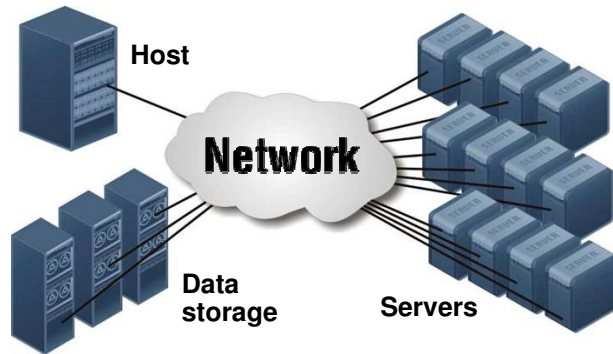


Our Scenario

- Workload of 1000 distributed servers consolidated on several zLinux IFLs
- Several additional unix servers continue to process unique portions of application
- Application requires transactions processed by CICS and IMS, data from DB2 as well as zLinux and Unix components
- Tivoli Decision Support for zOS serves as the metric collector of SMF data
- Usage & Accounting Collectors (UAC) aggregate data from CICS & IMS logs
- Data is passed to TUAM
- zLinux and unix usage data is harvested from performance accounting records. Application log data provide web servers, e-mail usage and time keeping data.
- Non-zOS data also passed to TUAM
- TUAM applies appropriate business rules for each data source (e.g. IP address) and assigns data to accounts (co/product/division)
- Rate tables determine costs
- Analysis of charges

Virtualization and Data Center Consolidation

***From Dedicated Systems,
Storage, Applications . . .***



Advantage:

- More simple to account for with a spreadsheet – one machine, one workload, and one cost center

Challenges – Resources are highly underutilized which means:

- Paying more for hardware and software
- Unnecessarily high energy costs
- Using more real estate than required
- More assets that are harder to track, manage, and maintain
- Inflexible to varying peak in demand

. . . to Shared Virtualized Environments



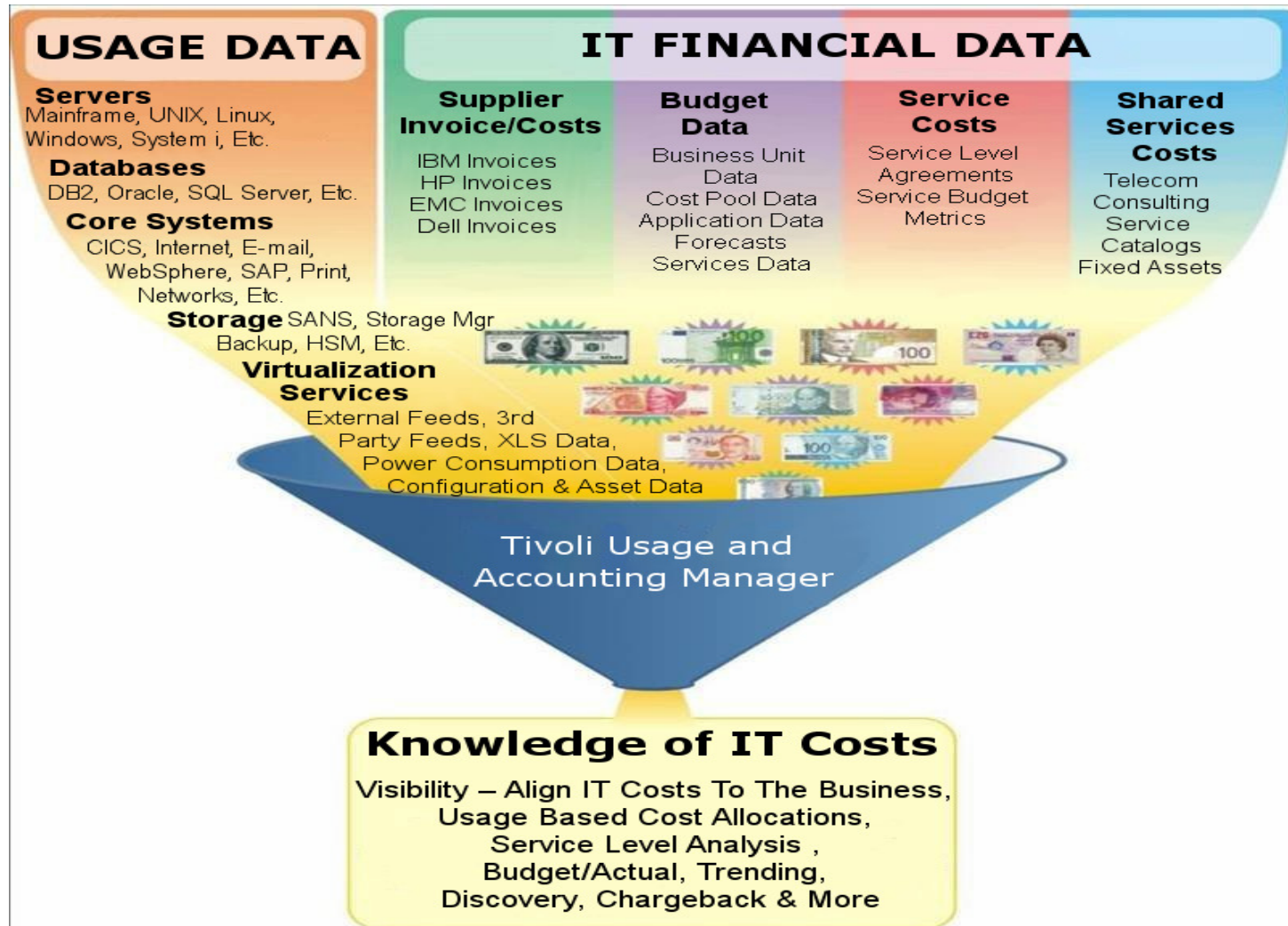
Advantages:

- Better utilization of existing resources so future investments can be deferred
- More cost effective – hardware, software, energy, staff, and floor space
- More responsive to differing peak loads

Challenges:

- System and financial impacts to change
- Allocating costs
- Providing proof to customers that they receive the same resources in virtualized environment.

Know what it costs – The TUAM funnel



<http://www-01.ibm.com/software/tivoli/products/usage-accounting/>

IBM Tivoli Usage and Accounting Manager (TUAM) Enables Sophisticated Chargeback Methodologies

TUAM:
End-to-end scalability & flexibility enables business units and IT to establish appropriate chargeback methodologies for specific IT services.

- **SBP** Service based pricing
- **NFR** Negotiated flat rate
- **TFR** Tiered flat rate
- **MRU** Measured resource usage
- DC** Direct cost
- LLA** Low-level allocation
- HLA** High-level allocation

↑
Tivoli Decision Support for z/OS

Batch, TSO, Transaction Processing, VM, AS400, Database and Storage

↑↑↑↑↑↑↑↑↑↑
TUAM Data Collectors

Unix, Linux, Oracle, Storage, Middleware, third party hardware, Windows, Exchange, Notes, SQL Server, MS Disk Storage, Middleware and Applications

“Selecting a Chargeback Method Depends on the Business Unit and IT Service”
-Gartner Research 2005

Tivoli Decision Support for z/OS – A Quick Review

Tivoli Decision Support for z/OS collects log data from various sources and provides a central repository for easy access to the historical enterprise-wide IT utilization information and statistics valuable for use in providing performance reporting, data for service level management and usage accounting.

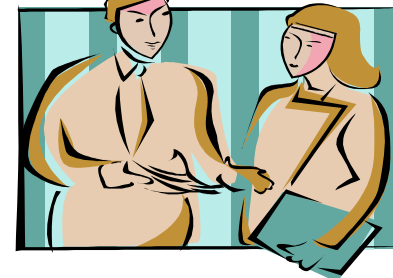


Performance



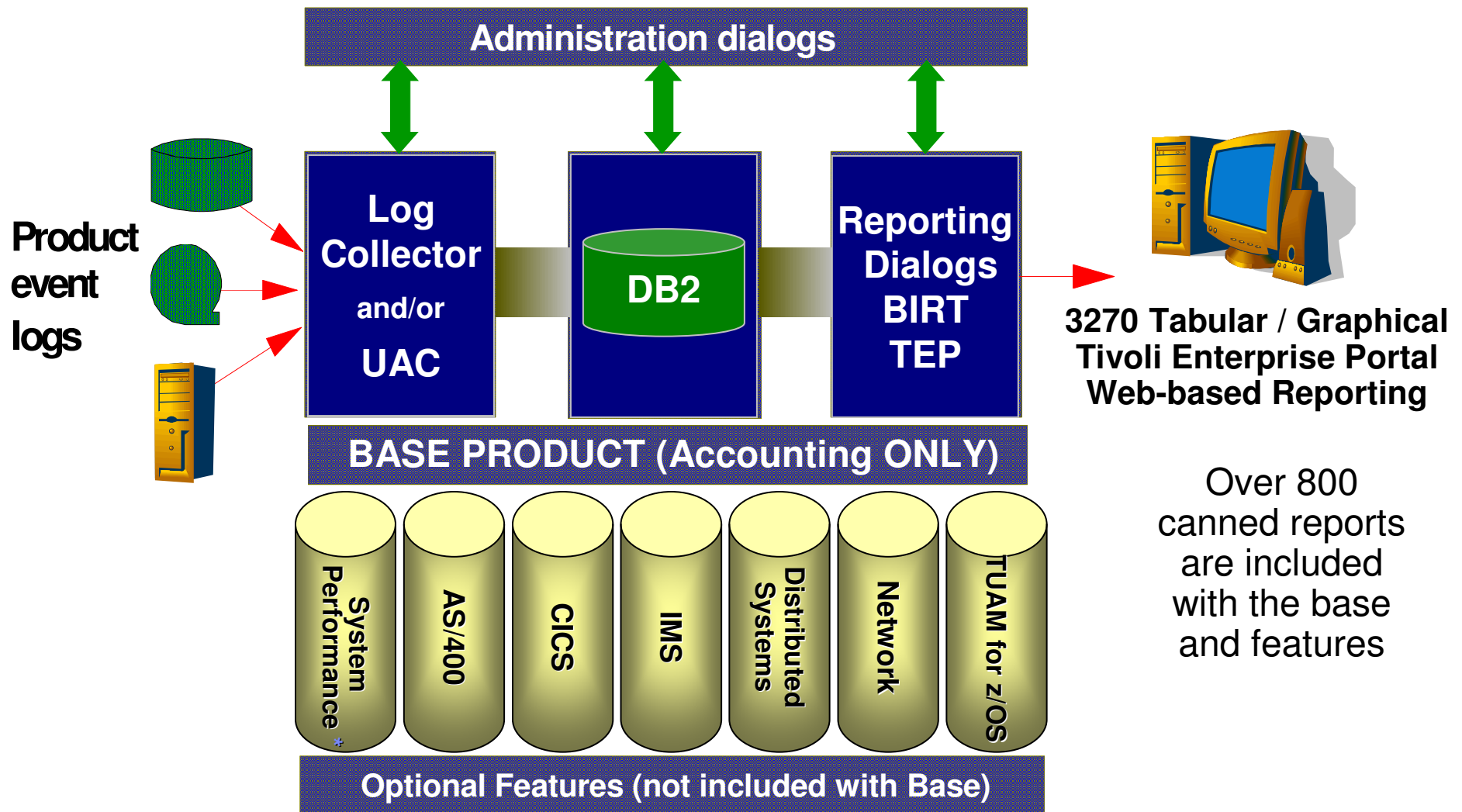
Chargeback & Accounting-
Cost Recovery

Service Level Reporting



<http://www-01.ibm.com/software/tivoli/products/tds-zos/>

Tivoli Decision Support for z/OS – A Quick Review



IBM Tivoli Usage and Accounting Manager (TUAM) Enables Sophisticated Chargeback Methodologies

TUAM:
 End-to-end scalability & flexibility enables business units and IT to establish appropriate chargeback methodologies for specific IT services.

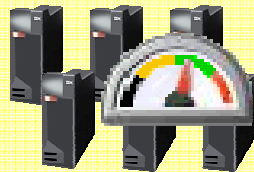
- **SBP** **Service based pricing**
- **NFR** **Negotiated flat rate**
- **TFR** **Tiered flat rate**
- **MRU** **Measured resource usage**
- DC** **Direct cost**
- LLA** **Low-level allocation**
- HLA** **High-level allocation**

↑
 Tivoli Decision Support for z/OS



Batch, TSO, Transaction Processing, VM, AS400, Database and Storage

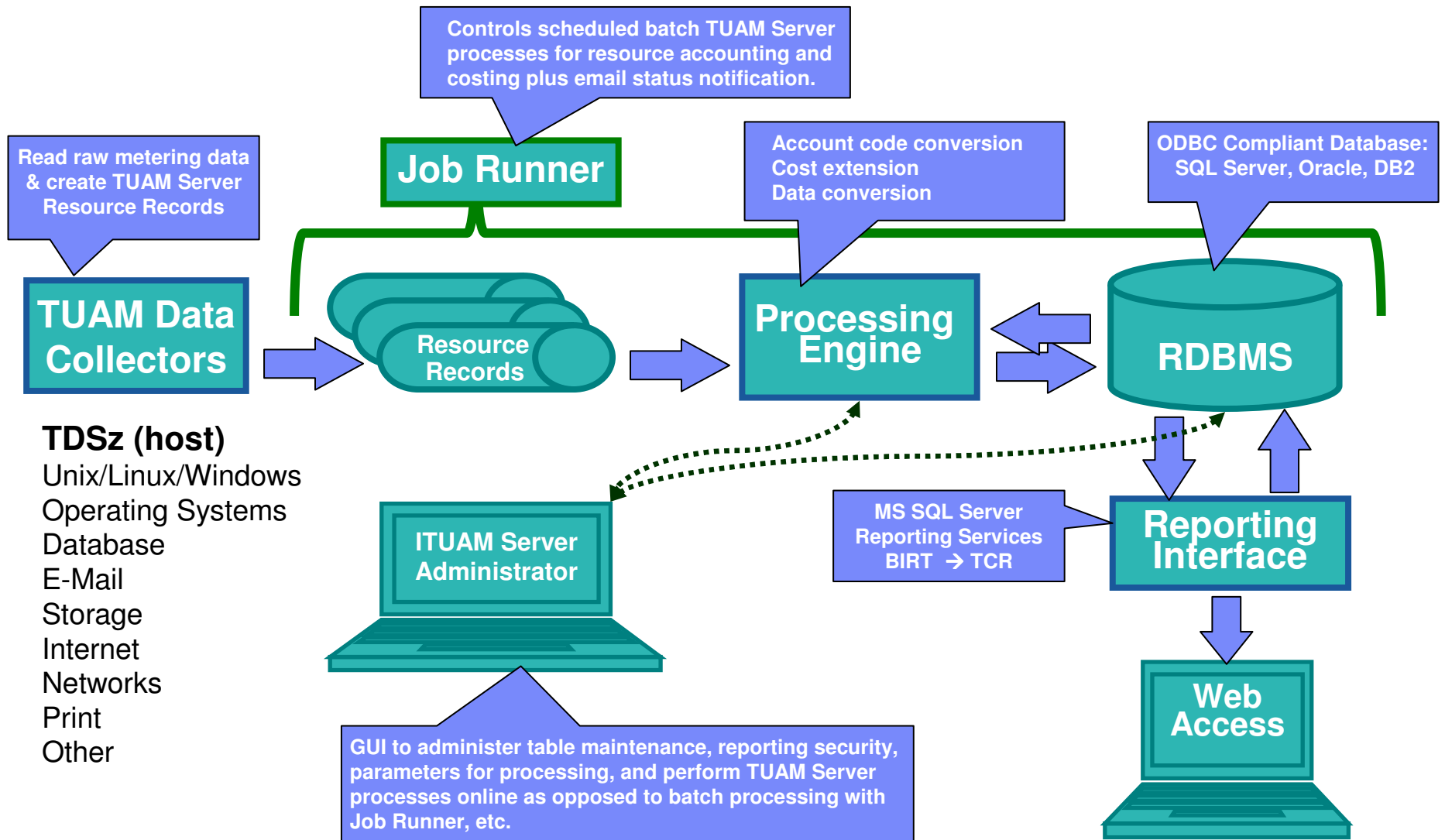
↑↑↑↑↑↑↑↑↑↑
 TUAM Data Collectors



Unix, Linux, Oracle, Storage, Middleware, third party hardware, Windows, Exchange, Notes, SQL Server, MS Disk Storage, Middleware and Applications

“Selecting a Chargeback Method Depends on the Business Unit and IT Service”
 -Gartner Research 2005

IBM Tivoli Usage and Accounting Manager Components & Flow



z/OS data via TDS for z/OS

Partial List

Goal:

**ANY
usage
file
from
ANY
system!**

Mainframe

- Jobs Processed
- Steps Processed
- CPU Time
- Equation Time
- Service Units
- TSO CPU Time
- TSO I/O
- TSO Time
- Cards Read
- Cards Punched

CICS

- Elapsed Time
- CPU Time
- Transactions
- Input Messages
- Output Messages
- Total Messages
- File Access Count

Storage

- Space Allocated
- Space Used
- Space Wasted
- Migrated Datasets
- Backup Datasets
- Disk I/O
- Disk Datasets
- Tape I/O
- Tape Mounts
- Tape Storage

Print

- Lines Printed
- Pages Printed
- Paper & Forms
- Laser Printers
- Color/B&W
- Simplex/Duplex
- RDMS Systems

DB2

- CPU Time
- Elapsed Time
- # of DB2 Records
- # of Get Pages
- # of Entry/Exit Events
- Accumulated CPU Time
- Accumulated Elapsed Time

IBM Tivoli Usage and Accounting Data Collection

Partial List

Goal:

**ANY
usage
file
from
ANY
system!**

Unix/Linux

- CPU – ucpu, scpu
- Connect Time
- Seat Time
- Window Time
- Disk & Character I/O
- Images Activated
- Software Packages
- Disk Storage Space
- Oracle Resource Usage
- AIX, HP/UX, and Solaris
- Linux: RedHat and Novell SUSE – all IBM Systems
- AIX Advanced Accounting & AIX Server VIO

Windows Server

- Elapsed Time
- CPU Time
- Kernal CPU Time
- User CPU Time
- Disk Space by Folder Name, File Name, etc.
- # of Read Requests
- KB's Read
- # of Write Requests
- KB's Written
- Etc.

Other OSS

- VMware
- z/VM
- i5OS
- Citrix
- Windows System Resource Manager

Tivoli Data Warehouse

- Tivoli Composite Application Manager (TCAM) for SOA
- IBM Systems Director Active Energy Manager (AEM)
- Other TDW Data

IBM Tivoli Usage and Accounting Enterprise Collector Pack

Partial List

Goal:

**ANY
usage
file
from
ANY
system!**

E-Mail Systems

- Microsoft Exchange
- Lotus Notes
- Sendmail

Network and Printing

- Windows Print
- Cisco Netflow
- Unix/Linux ftp transfer usage

Internet

- WebSphere HTTP & XD
- Apache
- Microsoft IIS
- Microsoft Proxy Server
- Netscape Proxy Server
- Microsoft ISA Server

Databases

- DB2
- Oracle
- SQL Server
- Sybase (Windows)

Other

- Tivoli Storage Manager
- TotalStorage Productivity Center for Data
- Veritas Netbackup
- SAP

What people have done with TUAM Integrator

Partial List

Goal:

**ANY
usage
file
from
ANY
system!**

Network

- Netscout
- RMON2
- SNA Server/Host Integration Server
- Network Decisions
- Radius
- NetworkVantage
- Novell Web, Etc.

External

- Personnel Time
- Help Desk Time
- Equipment Rental
- Software
- Communications
- Networks
- Telecom Charges
- IMAC's / Desktop Support
- Recurring & Misc. Charges

ERP Systems

- PeopleSoft
- Oracle Financials
- Hyperion
- JD Edwards
- Lawson
- BAAN
- Walker
- Etc.

Internet / Telecom

- IBM WebSphere
- BEA WebLogic
- 3COM Routers
- Firewalls
- Switches/Lines
- PBX Systems
- RMON2
- WebTrends
- Etc.

What people have done with TUAM Integrator

Partial List

Goal:

**ANY
usage
file
from
ANY
system!**

Databases

- IMS
- IDMS
- ADABAS
- MS Access
- Focus
- Datacom
- Supra, M204
- Universal
- Etc.

Operating Systems

- z/VSE
- Unisys
- Netware
- MS Virtual PC
- MS Virtual Server
- Etc.

Output

- Actuate
- Business Objects
- MS Reporting Svcs.
- Oracle Reports
- Mainframe RDMS
 - CA/Dispatch
 - SAR/Express
 - Etc.
- Print Servers
- Etc.

Human Resources

- WSG Empire Time
- ChangePoint
- Kronos
- TimeSlips
- MS Project
- Help Desks
- Consultants
- Etc.

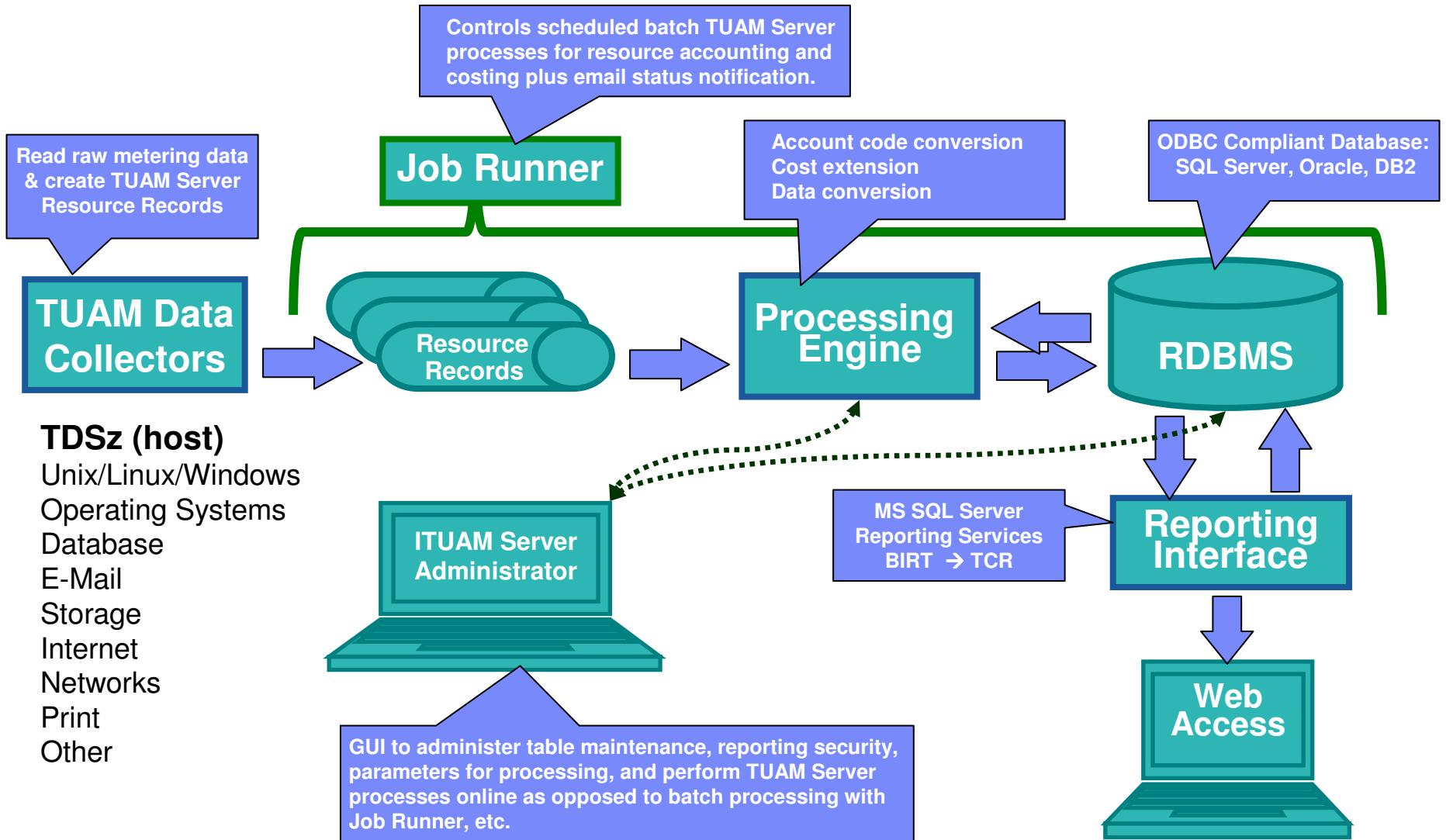
3rd Party Systems

- Tivoli Systems Management
- BMC Patrol Suite
- HP Openview
- ASG TMON
- CA Unicenter
- Net IQ
- CRM Products
- Etc.

Storage

- SANS
- Backup Systems
- Monitors/Managers
- Tape Systems
- Veritas
- Etc.

IBM Tivoli Usage and Accounting Manager Components & Flow



Financial Modeler

Budget Values Percent Allocation Cost Calculations Rate Calculations

View cost calculations for each pool.

	Server Costs			Storage Costs			Software Costs			Other Hard	
	Mainframe	Unix	Wintel	Tape	DASD	San	Mainframe	Unix	Windows	Network	Host P
Total Budget 12 Months	5,000,000	1,000,000	500,000	500,000	2,500,000	350,000	1,500,000	500,000	500,000	250,000	
Budget Per Month	416,667	83,333	41,667	41,667	208,333	29,167	125,000	41,667	41,667	20,833	
Z017 - Pages Printed - Local	0	0	0	0	0	0	0	0	0	0	
Z016 - Lines Printed - Local	0	0	0	0	0	0	0	0	0	0	
WPRTSBPC - MS Windows Print Submi...	0	0	0	0	0	0	0	0	0	0	
LLH101 - Unix Pages Printed	0	0	0	0	0	0	0	0	0	0	
LLA107 - Unix Interactive Total CPU (...)	0	16,667	0	0	0	0	0	29,167	0	0	
WSCBytes - IIS Web Bytes Sent	0	0	0	0	0	0	0	0	8,333	0	
WTimeTkn - IIS Web Time Taken (Milli...	0	0	14,583	0	0	0	0	0	8,333	0	
SQLWRITE - MS Windows SQL Server...	0	0	0	0	0	0	0	0	4,167	0	
SQLREADS - MS Windows SQL Server...	0	0	0	0	0	0	0	0	4,167	0	
SQLCPU - MS Windows SQL Server C...	0	0	14,583	0	0	0	0	0	8,333	0	
LLR105 - Unix Filesystem Used (GB D...	0	16,667	0	0	83,333	17,500	0	0	0	0	
LLA104 - Unix Interactive Connect Ti...	0	8,333	0	0	0	0	0	2,083	0	0	
LLE102 - Unix Oracle Session CPU (Mi...	0	25,000	0	0	0	0	0	10,417	0	0	
LLE107 - Unix Oracle User Commits	0	8,333	0	0	0	0	0	0	0	0	
LLE103 - Unix Oracle Connect (Hours)	0	8,333	0	0	0	0	0	0	0	0	
DISKSIZE - MS Windows Folder Disk U...	0	0	12,500	0	0	11,667	0	0	0	0	
EXMBXMSG - MS Exchange Mailbox (...)	0	0	0	0	0	0	0	0	0	4,167	
EXMBXSIZ - MS Exchange Mailbox Siz...	0	0	0	0	0	0	0	0	8,333	1,042	
ZDSK@@06 - Migrated to Tape DSNs	0	0	0	0	104,167	0	0	0	0	0	
ZZ32 - DB2 Transaction CPU Minutes	104,167	0	0	0	0	0	25,000	0	0	0	
ZZ05 - Tape Mounts	0	0	0	39,583	0	0	0	0	0	0	
Z036 - TSO CPU Minutes (All)	104,167	0	0	0	0	0	0	0	0	0	
Z003 - Mainframe CPU Minutes	208,333	0	0	2,083	20,833	0	100,000	0	0	15,625	
Total	416,667	83,333	41,667	41,667	208,333	29,167	125,000	41,667	41,667	20,833	

View cost calculations for each pool.

	e Costs		Other Hardware Costs			Personnel Costs			Miscellaneous Cost		Total
	ix	Windows	Network	Host Printers	Misc.	Support Staff	DBA Group	Help Desk	Floor Space	Etc.	
Total Budget 12 Months	500,000	500,000	250,000	450,000	300,000	3,500,000	1,250,000	500,000	200,000	0	18,800,000
Budget Per Month	41,667	41,667	20,833	37,500	25,000	291,667	104,167	41,667	16,667	0	1,566,667
Z017 - Pages Printed - Local	0	0	0	15,000	0	0	0	0	0	0	15,000
Z016 - Lines Printed - Local	0	0	0	7,500	0	0	0	0	0	0	7,500
WPRTSBPC - MS Windows Print Submi...	0	0	0	3,750	0	0	0	0	0	0	3,750
LLH101 - Unix Pages Printed	0	0	0	11,250	0	0	0	0	0	0	11,250
LLA107 - Unix Interactive Total CPU (...)	29,167	0	0	0	0	43,750	0	0	0	0	89,583
W5CBytes - IIS Web Bytes Sent	0	8,333	0	0	0	29,167	0	0	0	0	37,500
WTimeTkn - IIS Web Time Taken (Milli...	0	8,333	0	0	0	29,167	0	8,333	1,667	0	62,083
SQLWRITE - MS Windows SQL Server...	0	4,167	0	0	0	0	0	0	833	0	5,000
SQLREADS - MS Windows SQL Server...	0	4,167	0	0	0	0	0	0	833	0	5,000
SQLCPU - MS Windows SQL Server C...	0	8,333	0	0	0	0	31,250	0	0	0	54,167
LLR105 - Unix Filesystem Used (GB D...	0	0	0	0	0	14,583	0	0	1,667	0	133,750
LLA104 - Unix Interactive Connect Ti...	2,083	0	0	0	0	0	0	0	0	0	10,417
LLE102 - Unix Oracle Session CPU (Mi...	10,417	0	0	0	0	0	36,458	0	0	0	71,875
LLE107 - Unix Oracle User Commits	0	0	0	0	0	0	0	0	0	0	8,333
LLE103 - Unix Oracle Connect (Hours)	0	0	0	0	0	0	0	0	0	0	8,333
DISKSIZE - MS Windows Folder Disk U...	0	0	0	0	0	0	0	4,167	3,333	0	31,667
EXMBXMSG - MS Exchange Mailbox (...)	0	0	4,167	0	0	0	0	0	0	0	4,167
EXMBXSIZ - MS Exchange Mailbox Siz...	0	8,333	1,042	0	0	0	0	6,250	0	0	15,625
ZDSK@@06 - Migrated to Tape DSNs	0	0	0	0	0	0	0	4,167	0	0	108,333
ZZ32 - DB2 Transaction CPU Minutes	0	0	0	0	0	0	26,042	0	0	0	155,208
ZZ05 - Tape Mounts	0	0	0	0	0	29,167	0	0	0	0	68,750
Z036 - TSO CPU Minutes (All)	0	0	0	0	0	0	0	8,333	0	0	112,500
Z003 - Mainframe CPU Minutes	0	0	15,625	0	25,000	145,833	10,417	10,417	8,333	0	546,875
Total	41,667	41,667	20,833	37,500	25,000	291,667	104,167	41,667	16,667	0	1,566,667

Exclude Accounts + - Start Date: 12/01/2005 End Date: 12/31/2005 Calculate Rates Update Rates Run Report

Resource Name	Budget Per Month	Total Units	Units Per Month	Current Rate	Per 1000	Zero Cost Rate	Factor	New Rate
Z017 - Pages Printed - Local	15,000	73776.00000	73776.00000	0.00000		0.20332	1	0.20332
Z016 - Lines Printed - Local	7,500	3136176.00000	3136176.00000	0.00100	M	2.39145	1	2.39145
WPRTSBPC - MS Windows Print Submi...	3,750	0.00000	0.00000	0.02300		0.00000	1	0.00000
LLH101 - Unix Pages Printed	11,250	0.00000	0.00000	0.15000		0.00000	1	0.00000
LLA107 - Unix Interactive Total CPU (...)	89,583	0.00000	0.00000	0.03000		0.00000	1	0.00000
W5CBytes - IIS Web Bytes Sent	37,500	3664630808.00000	3664630808.00000	0.00100	M	0.01023	1	0.01023
WTimeTkn - IIS Web Time Taken (Milli...	62,083	128058036.00000	128058036.00000	0.00000		0.00048	1	0.00048
SQLWRITE - MS Windows SQL Server ...	5,000	13989814.00000	13989814.00000	0.08000	M	0.35740	1	0.35740
SQLREADS - MS Windows SQL Server ...	5,000	300109049.00000	300109049.00000	0.00120	M	0.01666	1	0.01666
SQLCPU - MS Windows SQL Server C...	54,167	14108.40000	14108.40000	0.01500	M	3839.27306	1	3839.27306
LLR105 - Unix Filesystem Used (GB D...	133,750	1684.64200	1684.64200	0.00000		79.39372	1	79.39372
LLA104 - Unix Interactive Connect Ti...	10,417	0.00000	0.00000	0.09500		0.00000	1	0.00000
LLE102 - Unix Oracle Session CPU (Mi...	71,875	2209.13000	2209.13000	0.23000		32.53543	1	32.53543
LLE107 - Unix Oracle User Commits	8,333	92116.30000	92116.30000	0.00250		0.09046	1	0.09046
LLE103 - Unix Oracle Connect (Hours)	8,333	47084.33000	47084.33000	0.04500		0.17698	1	0.17698
DISKSIZE - MS Windows Folder Disk U...	31,667	2054.05775	2054.05775	0.00001	M	15416.31437	1	15416.31437
EXMBXMSG - MS Exchange Mailbox (...)	4,167	4072213.00000	4072213.00000	0.00100		0.00102	1	0.00102
EXMBXSIZ - MS Exchange Mailbox Siz...	15,625	204157478.66300	204157478.66300	0.15000	M	0.07653	1	0.07653
ZDSK@@06 - Migrated to Tape D5Ns	108,333	0.00000	0.00000	0.07000		0.00000	1	0.00000
ZZ32 - DB2 Transaction CPU Minutes	155,208	1050.10392	1050.10392	5.00000		147.80251	1	147.80251
ZZ05 - Tape Mounts	68,750	7.00000	7.00000	0.00000		9821.42857	1	9821.42857
Z036 - TSO CPU Minutes (All)	112,500	52.11234	52.11234	0.00000		2158.79771	1	2158.79771
Z003 - Mainframe CPU Minutes	546,875	351.41064	351.41064	10.00000		1556.22778	1	1556.22778



- View: All tasks
- Welcome
 - My Startup Pages
 - Security
 - Users and Groups
 - Troubleshooting
 - Usage and Accounting Manager
 - Chargeback Maintenance
 - Job Runner
 - Load Tracking
 - Clients
 - Rates
 - Rate Groups
 - System Maintenance
 - Settings

Rates

Rate List Maintenance

Rate Table
STANDARD

New Delete Delete Rate Shifts New Table Duplicate Table Delete Table

--- Select Action --- Go

Select	Rate Code	Index	Rate Value	Description	Rate Group	Rate Table
Filter	Filter	Filter	Filter	Filter	mainframe	Filter
<input type="checkbox"/>	CREDCICS	152	-1	CICS Credit	Mainframe CICS	STANDARD
<input type="checkbox"/>	ZCS1	153	0.18	CICS Transaction Minutes	Mainframe CICS	STANDARD
<input type="checkbox"/>	ZCS2	154	30	CICS CPU Minutes	Mainframe CICS	STANDARD
<input type="checkbox"/>	ZCS3	155	0.015	CICS Transactions	Mainframe CICS	STANDARD
<input type="checkbox"/>	ZCS4	156	0.015	CICS Input Messages	Mainframe CICS	STANDARD
<input type="checkbox"/>	ZCS5	157	0.015	CICS Output Messages	Mainframe CICS	STANDARD
<input type="checkbox"/>	ZCS6	158	0	CICS Messages	Mainframe CICS	STANDARD
<input type="checkbox"/>	ZCS7	159	0.75	CICS File Access Count	Mainframe CICS	STANDARD
<input type="checkbox"/>	CREddb2	160	-1	DB2 Credit	Mainframe DB2	STANDARD
<input type="checkbox"/>	ZZ32	161	5	DB2 Transaction CPU Minutes	Mainframe DB2	STANDARD
<input type="checkbox"/>	ZZ33	162	0.015	DB2 Transactions (Records)	Mainframe DB2	STANDARD
<input type="checkbox"/>	ZZ34	163	0.015	DB2 Transaction Elapsed Minutes	Mainframe DB2	STANDARD
<input type="checkbox"/>	ZZ35	164	0.01	DB2 Entry/Exit Events	Mainframe DB2	STANDARD
<input type="checkbox"/>	ZZ36	165	0.001	DB2 I/O Activity (Get Pages)	Mainframe DB2	STANDARD
<input type="checkbox"/>	ZZ37	166	5	DB2 Accumulated CPU Minutes	Mainframe DB2	STANDARD
<input type="checkbox"/>	ZZ38	167	0.15	DB2 Accumulated Elapsed Minutes	Mainframe DB2	STANDARD
<input type="checkbox"/>	ZZ15	168	10	IMS Online Transaction Minutes	Mainframe IMS Charges	STANDARD
<input type="checkbox"/>	ZZ16	169	0.03	IMS Online Transactions	Mainframe IMS Charges	STANDARD
<input type="checkbox"/>	ZZ17	170	0.5	IMS Online Database Calls	Mainframe IMS Charges	STANDARD
<input type="checkbox"/>	ZZ18	171	0.5	IMS Online DL/1 Calls	Mainframe IMS Charges	STANDARD

Page 1 of 9 Total: 485 Filtered: 172 Displayed: 20

View: All tasks

- Welcome
- My Startup Pages
- Security
- Users and Groups
- Troubleshooting
- Usage and Accounting Manager
 - Chargeback Maintenance
 - Job Runner
 - Load Tracking
 - Clients
 - Rates
 - Rate Groups
 - System Maintenance
- Settings

Rates

Rate Maintenance

General Properties

Rate Code: *Z003

Description: Mainframe CPU Minutes

Rate Value: 10

Rate Index: 185

Rate Table: STANDARD

Rate Group: Mainframe Batch [New Rate Group]

Detail

Use 4 decimals for rate

Rate is per thousand

Do not adjust for zero cost

Flat fee money charges

CPU value

Resource Conversion: Divide By 60

Conversion Factor: 0

Resource Decimals: Default

Report Flag 1: 1

Report Flag 2: []

Currency Symbol: []

Detail Description: Mainframe CPU Minutes

Comments: []

Rate Shifts

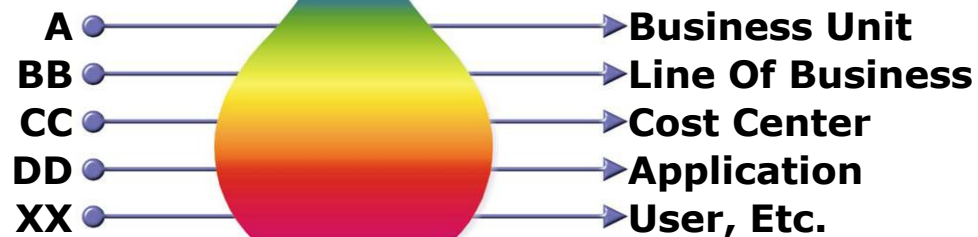
[Edit Rate Shifts] [Delete Rate Shifts]

[OK] [Cancel]

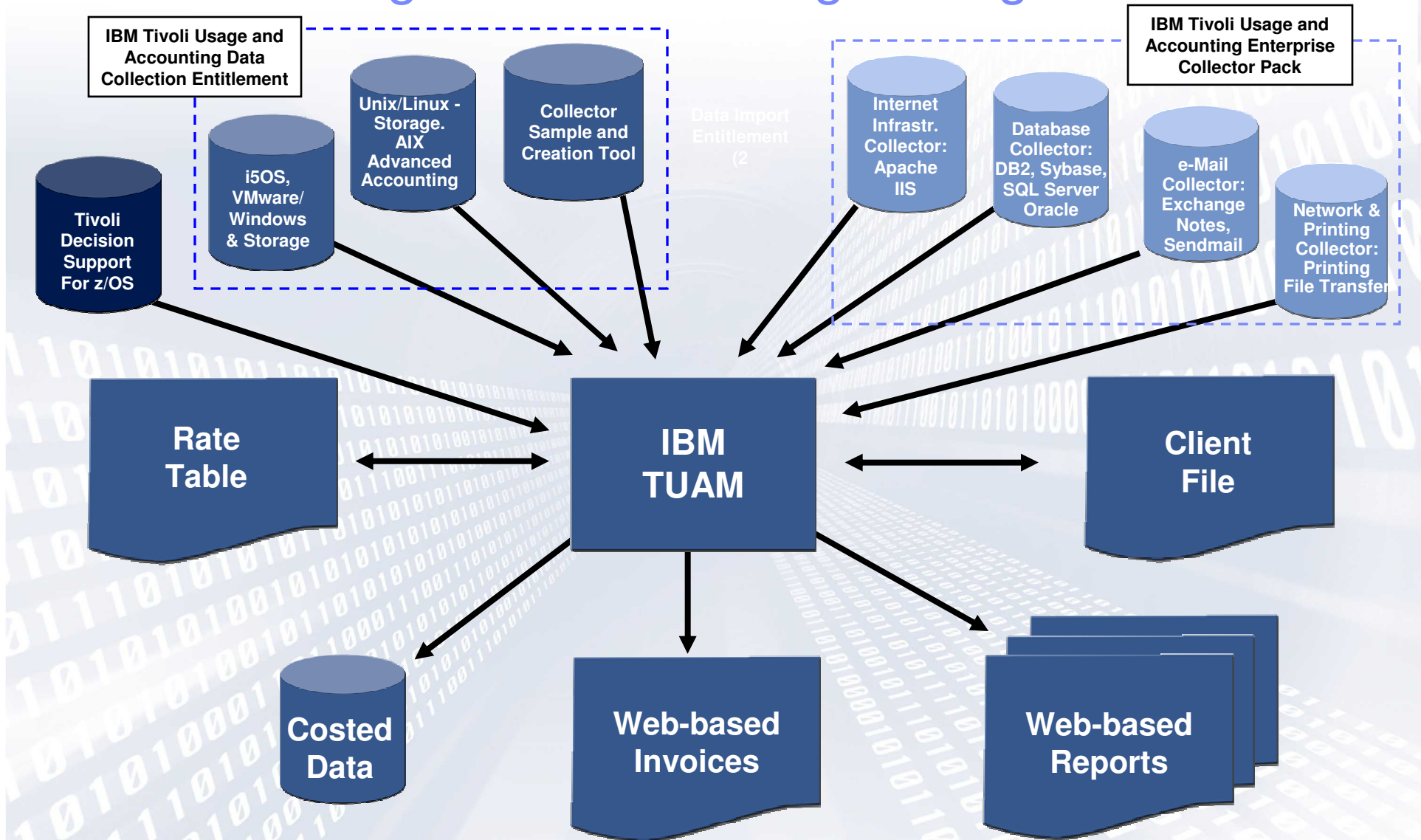
IBM Tivoli Usage and Accounting Manager Apply Business Rules

IDENTIFICATION CODES

User ID's ♦ Job Names ♦ Account Codes ♦ Transaction ID's
Network ID's ♦ Project Codes ♦ DSN's ♦ Email Addresses
Security ID's ♦ Extensions ♦ Folder Names
Authorization ID's ♦ IP Addresses
Server ID's
Etc.



IBM Tivoli Usage and Accounting Manager



IBM Tivoli Usage and Accounting Manager Report Chart (partial list of categories)

- Budget Analysis Reports
- Database Reports
- E-Mail Reports
- Hog Reports
- Internet Reports
- Invoices
- Network Reports

- Operating System Reports
- Print Reports
- Resource Usage Reports
- Storage Reports
- Top 10 Consumers
- YTD Reports

Favorite List

Chargeback information is now a click away. Web based reporting provides access to the critical usage information. Drill down to the details that makes up the monthly Invoice charges.

- [Invoice by Account Level](#)
- [Top 10 Cost](#)
- [Run Total Invoice](#)

Login successful

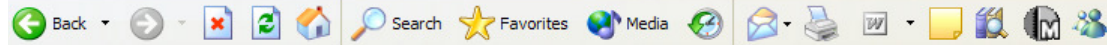
Welcome John Q. Customer, you are currently signed on as know

- News:**
- [4/18/2006 Now running IBM Tivoli Accounting and Usage Manager!](#)
 - [4/17/2006 See the new demo version of the Job Runner Joblog Viewer!](#)
 - [4/17/2006 See the demo of the new CIMS Financial Modeler...](#)

<http://knowitcosts.demos.ibm.com>

userid = know
password = costs

© Copyright IBM Corp. 2000,2006



Usage and Accounting Manager

Login
 Reports
 Spreadsheets
 Favorites
 Admin
 Help
 Logout
 Home

Reports

Invoices

- Invoice by Account Level
- Application Cost
- Account Total Invoice
- Alternate Invoice
- Invoice with Budget
- Invoice with Shifts
- Run Total Invoice with Shifts
- Run Total Invoice
- Run Total Percent
- Run Total Rate Group Percent
- Zero Cost Center Invoice
- Invoice by Account Level V2

Account Reports

- Account Budget for Period YTD
- Account Summary YTD
- Account Summary by Week
- Account Summary YTD - Wide
- Account Summary by Week - Wide
- Account Summary Daily
- Account Summary Daily 2
- Summary Crosstab - Charges
- Summary Crosstab 2 - Charges
- Summary Crosstab - Usage
- Summary Crosstab 2 - Usage
- Daily Crosstab - Charges
- Daily Crosstab - Usage
- Weekly Crosstab - Charges
- Weekly Crosstab - Usage

Monthly Crosstab - Charges

- Monthly Crosstab - Usage**
- Top Usage Reports**
- Top 10 Cost
- Top 10 Bar Graph
- Top 10 Pie Chart
- Top 10 By Rate Code
- Variance Reports**
- Cost Variance
- Cost Variance Drilldown
- Resource Variance
- Trend**
- Cost Trend
- Resource Usage Trend
- Cost Trend Graph
- Cost Trend Graph 2
- Usage Trend Graph
- Cost Trend by Rate
- Resource Detail**
- Detail By Multiple Identifiers
- Detail By Multiple Identifiers with Acct
- Detail by Rate Group
- Detail by Rate Group/Identifier
- Batch Report
- CICS Transaction ID Report
- DB2 Summary
- Exchange 2000
- SQL Server 2000

Windows Disk

- Audit**
- Client Audit Report
- Rate Audit Report
- Transaction Audit Report
- Other**
- Job Cost
- Percentage
- Transaction Report
- Line Item Budget
- Zero Cost Factor
- Rate
- Client
- Configuration
- Custom**
- HBReport
- Storage Usage
- CIO Usage
- test

Expand All

Collapse All

Invoice by Account Level

Publish

Return

Help

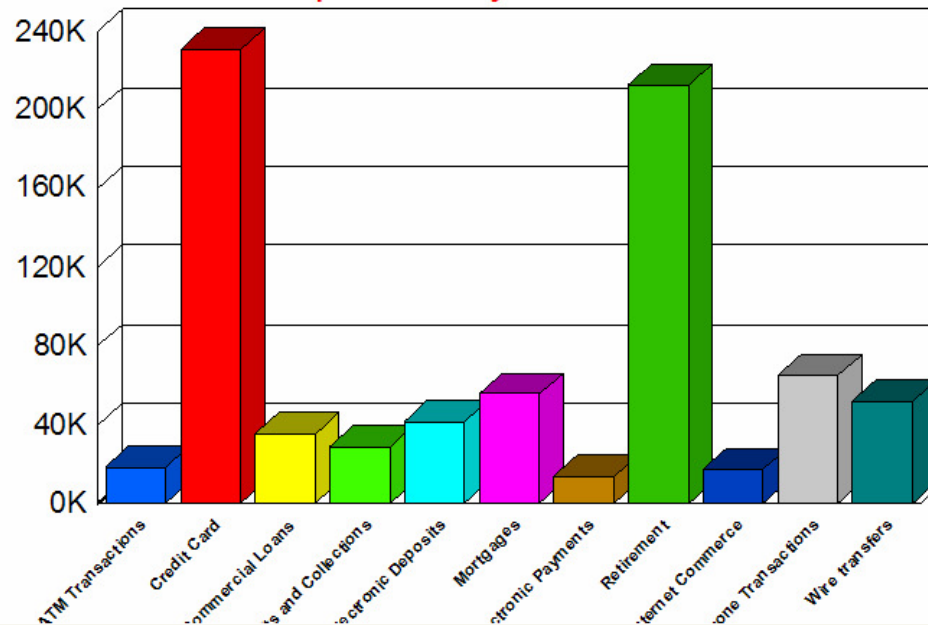
- Preview
- [-] ATM Transactions
 - [+] Equipment/Shared Services
 - [+] Unix Process Charges
 - [+] Unix Filesystem
 - [+] Unix Oracle Charges
 - [+] MS Windows Storage Charges
 - [+] MS Windows SQL Server
 - [+] MS IIS
 - [+] MS Exchange Sent and Received
 - [+] MS Windows Processes
 - [+] MS Windows Print
 - [+] Mainframe Printer/Reader Charges
 - [+] Mainframe Storage Charges
 - [+] Mainframe Print Charges
 - [+] Mainframe CICS Charges
 - [+] Mainframe DB2 Charges
 - [-] Credit Card
 - [+] Equipment/Shared Services
 - [+] Unix DB2 Charges
 - [+] Unix Process Charges
 - [+] Unix Filesystem
 - [+] Unix Oracle Charges
 - [+] MS Windows Storage Charges
 - [+] MS Windows SQL Server
 - [+] MS IIS
 - [+] MS Exchange Mailbox
 - [+] MS Windows Processes
 - [+] Mainframe Batch Charges
 - [+] Mainframe TSO Charges
 - [+] Mainframe Input/Output Charges
 - [+] Mainframe Printer/Reader Charges
 - [+] Mainframe Storage Charges
 - [+] Mainframe Print Charges
 - [+] Mainframe CICS Charges
 - [+] Mainframe DB2 Charges
 - [-] Commercial Loans

Usage and Accounting Manager

Invoice

Billing Period: 04/01/2006 to 04/30/2006

IT Expenses by Account



- [-] ATM
 - [+] ATM Database
 - [+] ATM Email
 - [+] ATM Equipment
 - [+] ATM Print
 - [+] ATM Servers
 - [+] ATM Storage
 - [+] ATM Web
- [-] CCX
 - [+] CCX Database
 - [+] CCX Email
 - [+] CCX Equipment
 - [+] CCX Print
 - [+] CCX Servers
 - [+] CCX Storage
 - [+] CCX Web
- [-] COM
 - [+] COM Database
 - [+] COM Email
 - [+] COM Equipment
 - [+] COM Print
 - [+] COM Servers
 - [+] COM Storage
 - [+] COM Web
- [-] DAC
 - [+] DAC Database
 - [+] DAC Equipment
 - [+] DAC Print
 - [+] DAC Servers
 - [+] DAC Storage
 - [+] DAC Web
- [-] DEP
- [-] MTG
- [-] ONE
- [-] RTM
- [-] SSI

Usage and Accounting Manager

Application View

Application	Charges
ATM - ATM Transactions	18,851.48
CCX - Credit Card	230,738.81
COM - Commercial Loans	35,078.06
DAC - Drafts and Collections	29,164.41
DEP - Electronic Deposits	41,420.42
MTG - Mortgages	55,540.55
ONE - Online Electronic Payments	13,637.31
RTM - Retirement	212,260.46
SSI - Secure Sales - Internet Commerce	17,449.17
TEL - Telephone Transactions	64,925.98
WTX - Wire transfers	51,639.48
Total	770,706.13

- [-] ATM
 - [+] ATM Database
 - [+] ATM Email
 - [+] ATM Equipment
 - [+] ATM Print
 - [+] ATM Servers
 - [+] ATM Storage
 - [+] ATM Web
- [-] CCX
 - [+] CCX Database
 - [+] CCX Email
 - [+] CCX Equipment
 - [+] CCX Print
 - [+] CCX Servers
 - [+] CCX Storage
 - [+] CCX Web
- [-] COM
 - [+] COM Database
 - [+] COM Email
 - [+] COM Equipment
 - [+] COM Print
 - [+] COM Servers
 - [+] COM Storage
 - [+] COM Web
- [-] DAC
 - [+] DAC Database
 - [+] DAC Equipment
 - [+] DAC Print
 - [+] DAC Servers
 - [+] DAC Storage
 - [+] DAC Web
- [-] DEP
- [-] MTG
- [-] ONE
- [-] RTM
- [-] SSI

Usage and Accounting Manager

Application View

Application	Charges
ATM - ATM Transactions	18,851.48
CCX - Credit Card	230,738.81
COM - Commercial Loans	35,078.06
DAC - Drafts and Collections	29,164.41
DEP - Electronic Deposits	41,420.42
MTG - Mortgages	55,540.55
ONE - Online Electronic Payments	13,637.11
RTM - Retirement	212,260.46
SSI - Secure Sales - Internet Commerce	17,449.17
TEL - Telephone Transactions	64,925.96
WTX - Wire transfers	51,639.48
Total	770,706.13

Application View

Application	Charges
Resource Group	
COM - Commercial Loans	
COM Database	8,306.59
COM Email	2,318.80
COM Equipment	399.00
COM Print	0.30
COM Servers	1,534.31
COM Storage	12,185.45
COM Web	333.61
COM - Commercial Loans	35,078.06

- ATM
 - ATM Database
 - ATM Email
 - ATM Equipment
 - ATM Print
 - ATM Servers
 - ATM Storage
 - ATM Web
- CCX
 - CCX Database
 - CCX Email
 - CCX Equipment
 - CCX Print
 - CCX Servers
 - CCX Storage
 - CCX Web
- COM
 - COM Database
 - COM Email
 - COM Equipment
 - COM Print
 - COM Servers
 - COM Storage
 - COM Web
- DAC
 - DAC Database
 - DAC Equipment
 - DAC Print
 - DAC Servers
 - DAC Storage
 - DAC Web
- DEP
- MTG
- ONE
- RTM
- SSI

Usage and Accounting Manager

Application View

Application	Charges
ATM - ATM Transactions	18,851.48
CCX - Credit Card	230,738.81
COM - Commercial Loans	35,078.06
DAC - Drafts and Collections	29,164.41
DEP - Electronic Deposits	41,420.42
MTG - Mortgages	55,540.55
ONE - Online Electronic Payments	13,637.11
RTM - Retirement	212,260.46
SSI - Secure Sales - Internet Commerce	17,449.17
TEL - Telephone Transactions	64,925.96
WTX - Wire transfers	51,639.48
Total	770,706.13

Application View

Application	Resource Group	Charges
COM - Commercial Loans	COM Database	8,306.59
	COM Email	2,318.80
	COM Equipment	399.00
	COM Print	0.30
	COM Servers	1,534.31
	COM Storage	2,185.45
	COM Web	333.61
COM - Commercial Loans		35,078.06

Application View

Resource Group	Platform	Charges
COM Database		
COM Database	Mainframe	3,639.90
COM Database	Unix	1,395.66
COM Database	Windows	3,271.03
COM Database		8,306.59

- [-] COM Database
 - [-] COM Database Mainframe
 - [-] COM Database Mainframe SIE
 - [-] Mainframe DB2 Charges
 - [+] DB2 Transactions (Records)
 - [+] DB2 Transaction CPU Minutes
 - [+] DB2 Accumulated CPU Minutes
 - [+] DB2 Transaction Elapsed Minutes
 - [+] DB2 Accumulated Elapsed Minutes
 - [+] DB2 Entry/Exit Events
 - [+] DB2 I/O Activity (Get Pages)
 - [-] COM Database Unix
 - [-] COM Database Unix eddie
 - [-] Unix Oracle Charges
 - [+] Unix Oracle Blocks
 - [+] Unix Oracle Mbytes
 - [+] Unix Oracle Extents
 - [+] COM Database Unix eddie EDDIE10
 - [+] COM Database Unix eddie EDDIE920
 - [+] COM Database Unix garfield
 - [+] COM Database Unix roxie
 - [-] COM Database Windows
 - [-] COM Database Windows CIMSLAB-C
 - [-] MS Windows Storage Charges
 - [+] MS Windows Folder Disk Usage (GB Days)
 - [+] MS Windows Files in Folder
 - [+] COM Database Windows ROCA-DEMO
 - [+] COM Database Windows ROCA-SRV1
 - [+] COM Database Windows ROCA-SRV1 Common
 - [+] COM Database Windows ROCA-SRV1 Users
 - [+] COM Database Windows ROCA-WWW
 - [+] COM Database Windows WWWFTP

Usage and Accounting Manager



Application View

Resource Group	Platform	Charges
COM Database		
COM Database	Mainframe	3,639.90
COM Database	Unix	1,395.66
COM Database	Windows	3,271.03
COM Database		8,306.59

COM Database

- COM Database Mainframe
 - COM Database Mainframe SIE
 - Mainframe DB2 Charges
 - DB2 Transactions (Records)
 - DB2 Transaction CPU Minutes
 - DB2 Accumulated CPU Minutes
 - DB2 Transaction Elapsed Minutes
 - DB2 Accumulated Elapsed Minutes
 - DB2 Entry/Exit Events
 - DB2 I/O Activity (Get Pages)
- COM Database Unix
 - COM Database Unix eddie
 - Unix Oracle Charges
 - Unix Oracle Blocks
 - Unix Oracle Mbytes
 - Unix Oracle Extents
 - COM Database Unix eddie EDDIE10
 - COM Database Unix eddie EDDIE920
 - COM Database Unix garfield
 - COM Database Unix roxie
- COM Database Windows
 - COM Database Windows CIMSLAB-C
 - MS Windows Storage Charges
 - MS Windows Folder Disk Usage (GB Days)
 - MS Windows Files in Folder
 - COM Database Windows ROCA-DEMO
 - COM Database Windows ROCA-SRV1
 - COM Database Windows ROCA-SRV1 Common
 - COM Database Windows ROCA-SRV1 Users
 - COM Database Windows ROCA-WWW
 - COM Database Windows WWWFTP

Usage and Accounting Manager

Application View

Resource Group	Platform	Charges
COM Database		
COM Database	Mainframe	3,639.90
COM Database	Unix	1,395.66
COM Database	Windows	3,271.03
COM Database		8,306.59

Application View

Platform	Server	Charges
COM Database Windows		
COM Database	Windows CIMSL	1.85
COM Database	Windows ROCA	70.24
COM Database	Windows ROCA	1.70
COM Database	Windows ROCA	1,273.13
COM Database	Windows ROCA	1,429.70
COM Database	Windows ROCA	3.44
COM Database	Windows WWW	490.97
COM Database Windows		3,271.03

COM Database

- COM Database Mainframe
 - COM Database Mainframe SIE
 - Mainframe DB2 Charges
 - DB2 Transactions (Records)
 - DB2 Transaction CPU Minutes
 - DB2 Accumulated CPU Minutes
 - DB2 Transaction Elapsed Minutes
 - DB2 Accumulated Elapsed Minutes
 - DB2 Entry/Exit Events
 - DB2 I/O Activity (Get Pages)
- COM Database Unix
 - COM Database Unix eddie
 - Unix Oracle Charges
 - Unix Oracle Blocks
 - Unix Oracle Mbytes
 - Unix Oracle Extents
 - COM Database Unix eddie EDDIE10
 - COM Database Unix eddie EDDIE920
 - COM Database Unix garfield
 - COM Database Unix roxie
 - COM Database Windows
 - COM Database Windows CIMSLAB-C
 - MS Windows Storage Charges
 - MS Windows Folder Disk Usage (GB Days)
 - MS Windows Files in Folder
 - COM Database Windows ROCA-DEMO
 - COM Database Windows ROCA-SRV1
 - COM Database Windows ROCA-SRV1 Common
 - COM Database Windows ROCA-SRV1 Users
 - COM Database Windows ROCA-WWW
 - COM Database Windows WWWFTP

Done

Usage and Accounting Manager

Application View

Resource Group	Platform	Charges
COM Database		
COM Database	Mainframe	3,639.90
COM Database	Unix	1,395.66
COM Database	Windows	3,271.03
COM Database		8,306.59

Application View

Platform	Server	Charges
COM Database Windows		
COM Database	Windows CIMSL	1.85
COM Database	Windows ROCA	70.24
COM Database	Windows ROCA	1.70
COM Database	Windows ROCA	1,273.13
COM Database	Windows ROCA	1,429.70
COM Database	Windows ROCA	3.44
COM Database	Windows WWW	490.97
COM Database Windows		3,271.03

Application View

Server	Rate Group	Charges
COM Database Windows ROCA-SRV1		
	MS Windows Storage Charges	1,429.70
COM Database Windows ROCA-SRV1		1,429.70

- Preview
- [-] ATM Transactions
 - [-] Equipment/Shared Services
 - [-] Unix Process Charges
 - [-] Unix Filesystem
 - [-] Unix Oracle Charges
 - [-] MS Windows Storage Charges
 - [-] MS Windows SQL Server
 - [-] MS IIS
 - [-] MS Exchange Sent and Received
 - [-] MS Windows Processes
 - [-] MS Windows Print
 - [-] Mainframe Printer/Reader Charges
 - [-] Mainframe Storage Charges
 - [-] Mainframe Print Charges
 - [-] Mainframe CICS Charges
 - [-] Mainframe DB2 Charges
- [-] Credit Card
 - [-] Equipment/Shared Services
 - [-] Unix DB2 Charges
 - [-] Unix Process Charges
 - [-] Unix Filesystem
 - [-] Unix Oracle Charges
 - [-] MS Windows Storage Charges
 - [-] MS Windows SQL Server
 - [-] MS IIS
 - [-] MS Exchange Mailbox
 - [-] MS Windows Processes
 - [-] Mainframe Batch Charges
 - [-] Mainframe TSO Charges
 - [-] Mainframe Input/Output Charges
 - [-] Mainframe Printer/Reader Charges
 - [-] Mainframe Storage Charges
 - [-] Mainframe Print Charges
 - [-] Mainframe CICS Charges
 - [-] Mainframe DB2 Charges
- [-] Commercial Loans

Usage and Accounting Manager

Invoice
 Billing Period: 04/01/2006 to 04/30/2006
 Invoice No. 1
 Big Time Bank
 Any Town, USA

ATM - ATM Transactions

	Units	Rate	Charge
Laptops	6	45.0000	270.00
Desktops	8	49.0000	392.00
Pagers	1	28.0000	28.00
Blackberries	2	85.0000	170.00

Equipment/Shared Services 860.00

Unix Process Character I/O (100,000s)	62,951	0.0020 /M	0.13
Unix Process Image Time (Hours)	587.91	0.0000	0.00
Unix Process User CPU (Minutes)	71.43	0.0100	0.71
Unix Process System CPU (Minutes)	17.26	0.0104	0.19
Unix Process Total CPU (Minutes)	88.69	0.0300	2.65
Unix Process Memory (MB Days)	174,395.16	0.0006 /M	0.13
Unix Process Image Count	10,176	0.0200 /M	0.17

Unix Process Charges 3.98

ITUAM - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Media

Address <http://www.cimserver.com//nethook.asp?reportfile=IINXC001.rpt&reportID=0&AccountCodeStart=ATM&AccountLength=4&DateStart=04/01/2006&DateEnd=04/30/2006> Go Links

Adobe Y! Search Web Messenger Bookmarks My Yahoo! Yahoo! Finance Mail

Usage and Accounting Manager

ITUAM Reporting

Please select parameters for Reports.

Identifier :

Date Drilldown :

- Process Name
- Base Priority
- System ID
- Last Name
- Username

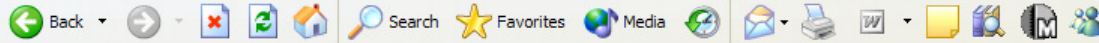
Internet

Usage and Accounting Manager

Unix Process for ATM-ATM Transactions by Process Name

Date Range: 4/1/2006 to 4/30/2006

Process Name	B21-Unix Process Character I/O (100,000s)	B22-Unix Process Image Time (Hours)	B23-Unix Process User CPU (Minutes)	B24-Unix Process System CPU (Minutes)	B25-Unix Process Total CPU (Minutes)	B26-Unix Process Memory (MB Days)
bellmail	3	0.00	0.00	0.00	0.00	2.46
httpd	0	166.79	0.01	0.00	0.01	12.22
odmget	2	0.00	0.00	0.00	0.00	4.55
oracle	62,945	421.12	71.42	17.25	88.67	174,241.53
pwd	2	0.00	0.00	0.00	0.00	0.95
tnslsnr	0	0.00	0.00	0.00	0.00	133.46
Total	62,951	587.91	71.43	17.26	88.69	174,395.16



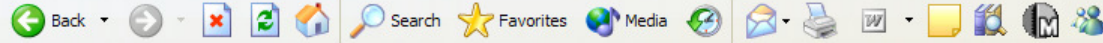
Invoice by Account Level

Publish

Return

100% 4 of 41

	Units	Rate	Charge
ATM Transactions			
+ Equipment/Shared Services			
+ Unix Process Charges			
+ Unix Filesystem			
+ Unix Oracle Charges			
+ MS Windows Storage Charges			
+ MS Windows SQL Server			
+ MS IIS			
+ MS Exchange Sent and Received			
+ MS Windows Processes			
+ MS Windows Print			
+ Mainframe Printer/Reader Charges			
+ Mainframe Storage Charges			
+ Mainframe Print Charges			
+ Mainframe CICS Charges			
+ Mainframe DB2 Charges			
Credit Card			
+ Equipment/Shared Services			
+ Unix DB2 Charges			
+ Unix Process Charges			
+ Unix Filesystem			
+ Unix Oracle Charges			
+ MS Windows Storage Charges			
+ MS Windows SQL Server			
+ MS IIS			
+ MS Exchange Mailbox			
+ MS Windows Processes			
+ Mainframe Batch Charges			
+ Mainframe TSO Charges			
+ Mainframe Input/Output Charges			
+ Mainframe Printer/Reader Charges			
+ Mainframe Storage Charges			
+ Mainframe Print Charges			
+ Mainframe CICS Charges			
+ Mainframe DB2 Charges			
Commercial Loans			
PSF Number of Impressions	9,630	0.0005	4.80
PSF Number of Feet of Paper	7,920	0.0010	7.80
Mainframe Printer/Reader Charges			12.60
Disk Space Allocated (MB Days)	36,679.5570	0.0130	476.70
Disk Space Used (Non VSAM) (MB Days)	30,577.6890	0.0000	0.00
Secondary Space Allocated (Non VSAM) (MB Days)	15,736.9710	0.0000	0.00
Disk Space Wasted (Non VSAM) (MB Days)	1,037.7960	0.0000	0.00
Mainframe Storage Charges			476.70
One Part Forms	8,850	0.0150 /M	0.00
Standard Forms	5,250	0.0150 /M	0.00
Mainframe Print Charges			0.00
CICS Transaction Minutes	0.80	0.1800	0.00
CICS CPU Minutes	0.05	30.0000	1.50
CICS Transactions	270	0.0150	4.20
CICS Input Messages	270	0.0150	4.20
CICS Output Messages	270	0.0150	4.20
CICS Messages	540	0.0000	0.00
Mainframe CICS Charges			14.10
DB2 Transactions (Records)	420	0.0150	6.30
DB2 Transaction CPU Minutes	0.88	5.0000	4.50
DB2 Accumulated CPU Minutes	0.83	5.0000	4.20
DB2 Transaction	11.73	0.0150	0.30
DB2 Accumulated Elapsed Minutes	10.69	0.1500	1.50
DB2 Entry/Exit Events	117,480	0.0100 /M	1.20
DB2 I/O Activity (Get Pages)	780,360	0.0010 /M	0.90



Invoice by Account Level

Publish

Return

- Preview
- [-] ATM Transactions
 - [+] Equipment/Shared Services
 - [+] Unix Process Charges
 - [+] Unix Filesystem
 - [+] Unix Oracle Charges
 - [+] MS Windows Storage Charges
 - [+] MS Windows SQL Server
 - [+] MS IIS
 - [+] MS Exchange Sent and Received
 - [+] MS Windows Processes
 - [+] MS Windows Print
 - [+] Mainframe Printer/Reader Charges
 - [+] Mainframe Storage Charges
 - [+] Mainframe Print Charges
 - [+] Mainframe CICS Charges
 - [+] Mainframe DB2 Charges
- [-] Credit Card
 - [+] Equipment/Shared Services
 - [+] Unix DB2 Charges
 - [+] Unix Process Charges
 - [+] Unix Filesystem
 - [+] Unix Oracle Charges
 - [+] MS Windows Storage Charges
 - [+] MS Windows SQL Server
 - [+] MS IIS
 - [+] MS Exchange Mailbox
 - [+] MS Windows Processes
 - [+] **Mainframe Batch Charges**
 - [+] Mainframe TSO Charges
 - [+] Mainframe Input/Output Charges
 - [+] Mainframe Printer/Reader Charges
 - [+] Mainframe Storage Charges
 - [+] Mainframe Print Charges
 - [+] Mainframe CICS Charges
 - [+] Mainframe DB2 Charges
- [-] Commercial Loans

Usage and Accounting Manager

Invoice

Billing Period: 04/01/2006 to 04/30/2006

Invoice No. 2

Big Time Bank
Any Town, USA

[CCX - Credit Card](#)

	Units	Rate	Charge
MS Windows Processes			222,201.94
Mainframe Jobs Started	31	2.0000	62.00
Mainframe Steps Started	31	0.2000	6.20
Mainframe CPU Minutes	0.17	10.0000	1.80
Mainframe CPU Minutes (Initiator)	0.23	0.0000	0.00
Mainframe CPU Minutes (All)	0.41	0.0000	0.00
Mainframe Batch Charges			70.00
TSO CPU Minutes	0.01	25.0000	0.36
TSO Connect Minutes	0.36	0.0250	0.01
TSO Inputs	4	2.0000 /M	0.01
TSO Outputs	12	1.0000 /M	0.01
TSO CPU Minutes (Initiator)	0.01	0.0000	0.00
TSO CPU Minutes (All)	0.03	0.0000	0.00
Mainframe TSO Charges			0.39

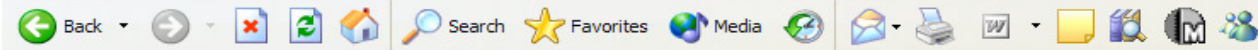
ITUAM Reporting

Please select parameters for Reports.

Identifier :

Date Drilldown :

- User
- Account Code
- Shift
- Jobname**
- Work ID
- System ID
- Job Priority
- Job Class
- Start Date
- Stop Date
- Last Name
- Site name
- S-IP
- S-IP0
- S-IP1
- S-IP2
- S-IP3
- S-PORT
- DESCRIPTION
- DATETIMESENT
- DATETIMEMODIFIED
- DATETIMEENTERED
- USERID



Publish

Preview

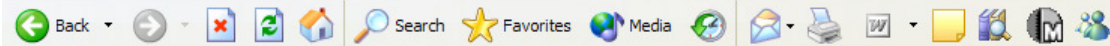
Usage and Accounting Manager



Mainframe Batch for CCX-Credit Card by Jobname

Date Range: 4/1/2006 to 4/30/2006

Jobname	1-Mainframe Jobs Started	3-Mainframe Steps Started	5-Mainframe CPU Minutes	7-Mainframe CPU Minutes (Initiator)	8-Mainframe CPU Minutes (All)
BACK01	1	1	0.00	0.00	0.00
DWKLPROD	30	30	0.17	0.23	0.41
Total	31	31	0.17	0.23	0.41



Invoice by Account Level

Publish

Return

100% 7 of 41

- Preview
- [-] ATM Transactions
 - [+] Equipment/Shared Services
 - [+] Unix Process Charges
 - [+] Unix Filesystem
 - [+] Unix Oracle Charges
 - [+] MS Windows Storage Charges
 - [+] MS Windows SQL Server
 - [+] MS IIS
 - [+] MS Exchange Sent and Received
 - [+] MS Windows Processes
 - [+] MS Windows Print
 - [+] Mainframe Printer/Reader Charges
 - [+] Mainframe Storage Charges
 - [+] Mainframe Print Charges
 - [+] Mainframe CICS Charges
 - [+] Mainframe DB2 Charges
- [-] Credit Card
 - [+] Equipment/Shared Services
 - [+] Unix DB2 Charges
 - [+] Unix Process Charges
 - [+] Unix Filesystem
 - [+] Unix Oracle Charges
 - [+] MS Windows Storage Charges
 - [+] MS Windows SQL Server
 - [+] MS IIS
 - [+] MS Exchange Mailbox
 - [+] MS Windows Processes
 - [+] Mainframe Batch Charges
 - [+] Mainframe TSO Charges
 - [+] Mainframe Input/Output Charges
 - [+] Mainframe Printer/Reader Charges
 - [+] Mainframe Storage Charges
 - [+] Mainframe Print Charges
 - [+] Mainframe CICS Charges
 - [+] Mainframe DB2 Charges
- [+] Commercial Loans

TSO CPU Minutes (Initiator)	0.01	0.0000	0.00
TSO CPU Minutes (All)	0.03	0.0000	0.00
Mainframe TSO Charges			0.39
Total SIOs	6,706	0.0000 /M	0.00
Disk SIOs	6,706	0.0250 /M	0.30
Mainframe Input/Output Charges			0.30
Input Records	1,350	1.0000 /M	1.50
Lines Printed - Local	84,000	0.0010 /M	0.00
Lines Printed - Remote	141,360	0.0020 /M	0.30
Pages Printed - Local	2,040	0.0000	0.00
Pages Printed - Remote	3,570	0.0000	0.00
PSF Number of Lines Printed	826,380	0.0000 /M	0.00
PSF Number of Pages Printed	7,920	0.0000	0.00
PSF Number of Impressions	13,500	0.0005	6.60
PSF Number of Feet of Paper	5,940	0.0010	5.70
Mainframe Printer/Reader Charges			14.10
Disk Data Sets	156	0.2500	39.00
Disk Space Allocated (MB Days)	133,977.5070	0.0130	1,741.80
Disk Space Used (Non VSAM) (MB Days)	188,837.1810	0.0000	0.00
Secondary Space Allocated (Non VSAM) (MB Days)	40,345.5120	0.0000	0.00
Disk Space Wasted (Non VSAM) (MB Days)	2,065.0230	0.0000	0.00

RINVC007.RPT run on 5/10/2006 at 1:50:20PM

Page 7 of 41



ITUAM Reporting

Please select parameters for Reports.

Identifier1 : DSN Account Code 1
Identifier2 : **Optional**
Identifier3 : **Optional**
Identifier4 : Accounting Dates
 Usage Dates
 Account Code
Identifier5 : System ID
 Start Date
 DSN Account Code 1
 DSN Account Code 2
 Stop Date
 Last Name
 Sitename
 S-IP
 S-PORT
 SPID

Usage and Accounting Manager

**Invoice Drilldown**

CCX - Credit Card

Disk Space Allocated (MB Days)

Date Range: 4/1/2006 to 4/30/2006

DSN Account Code 1

CSF	966.0600
CSQ531	19,921.7310
DFR220	113.4870
EOY	7,263.9960
FMN310	2,778.5850
FMN410	2,746.1850
IGY320	1,008.2490
IGY330	953.1120
JES3	16.2300
QMF710	2,548.4220
TRN	3,234.2400
WAS401	15,318.2880
WAS500	77,108.9220
<hr/>	
TOTAL	133,977.5070

/ActiveXViewer.asp?ServerNode=www.cimserver.com&VirtualDir=&InvoiceLevel=1&PortNumber=&ACRangeDisplay=Account+Range%3a+All+Accounts&NoGroupTree=Y&AccountCodeStart=&Acco

Search Web Messenger Bookmarks My Yahoo! Yahoo! Finance Mail News Shopping Enter

Top 10 Pie Chart

Publish

Return

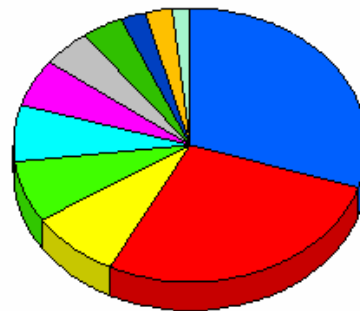
1 of 1

Usage and Accounting Manager

Top 10 Cost Report - Pie Chart

Account Range: All Accounts
Date Range: 4/1/2006 to 4/30/2006

Account Charges

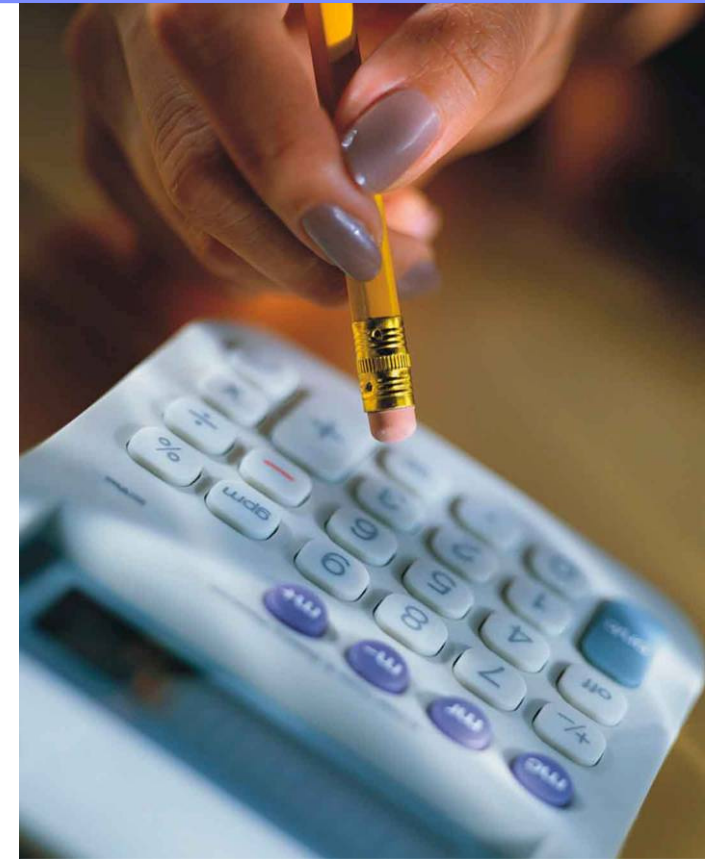


CCX	29.9%
RTM	27.5%
TEL	8.4%
MTG	7.2%
WTX	6.7%
DEP	5.4%
COM	4.6%
DAC	3.8%
ATM	2.4%
SSI	2.3%
Others	1.8%
Total: 100.0%	

Account	%	Charges
CCX-Credit Card	29.94%	230,738.81 Invoics
RTM-Retirement	27.54%	212,260.46 Invoics
TEL-Telephone Transactions	8.42%	64,925.98 Invoics
MTG-Mortgages	7.21%	55,540.55 Invoics
WTX-Wire transfers	6.70%	51,639.48 Invoics
DEP-Electronic Deposits	5.37%	41,420.42 Invoics
COM-Commercial Loans	4.55%	35,078.06 Invoics
DAC-Drafts and Collections	3.78%	29,164.41 Invoics
ATM-ATM Transactions	2.45%	18,851.48 Invoics
SSI-Secure Sales - Internet Commerce	2.26%	17,449.17 Invoics
Other Accounts	1.77%	13,637.31
Total		770,706.13

TUAM capabilities can help realize immediate benefits

- Increase Client (Business Units) Satisfaction
 - Real Usage = Accurate Reporting
 - Accountability = Improved services
 - Alignment between Business and IT costs
- Lower Infrastructure Cost
 - Reduced server sprawl
 - Higher utilization
 - Rationalization of resources
- Continued Infrastructure Improvement
 - Understanding costs can lead to managing costs
 - Usage comparisons can lead to more effective investments



**When running a business,
nothing matters more
than knowing how much
something costs.**

***You can't manage what
you don't measure!***

End-to-End Solution – IT Financial Management

Align IT Cost with Business Goals

Business Challenges

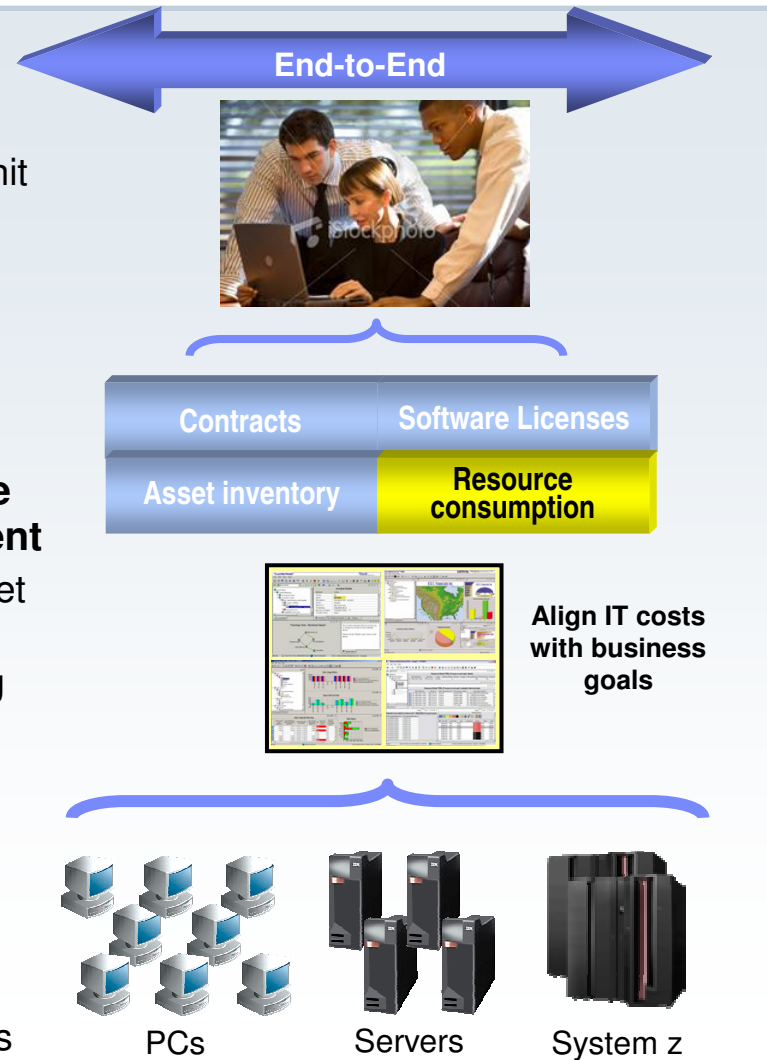
- CIO has limited visibility into IT costs to justify expenses
- CFO has limited visibility into IT costs to determine business unit profitability
- Inability to allocate cost for shared resources (e.g. System z)
- Pressure to lower Total Cost of Ownership

IBM Tivoli Service Management Center for System z Solution

- **Measure the usage of shared IT resources for resource accounting, charge back billing and IT cost management**
- Reduce costs by managing all business assets through an asset management lifecycle
- Optimize software licenses and reduce likelihood of overbuying as well as fines due to under-licensing
- Streamline routing of service requests with accurate warranty information

Business benefits

- Control IT costs
- Mitigate compliance risk
- Improve IT service levels to meet increasing business demands



QUESTIONS?

धन्यवाद

Hindi

多謝

Traditional Chinese

ขอบพระคุณ

Thai

Спасибо

Russian

Gracias

Spanish

Thank

English

شكراً

Arabic

You

Obrigado

Brazilian Portuguese

Grazie

Italian

多谢

Simplified Chinese

Danke

German

Merci

French

நன்றி

Tamil

ありがとうございました

Japanese

감사합니다

Korean

Trademarks

The following are trademarks of the International Business Machines Corporation in the United States and/or other countries.

AIX*	HiperSockets	S/390	
AIX 5L*	IBM*	ServerProven*	
BladeCenter	IBM eServer	Tivoli*	
Chipkill	IBM logo*	TotalStorage*	
DB2	iSeries	TotalStorage Proven	
DB2 Universal Database	Lotus*	Virtualization Engine	* Registered trademarks of IBM Corporation
Domino	OnForever*	X-Architecture	
Enterprise Storage Server*	Parallel Sysplex*	xSeries*	
e-business logo*	POWER	z/OS*	
GDPS*	POWER5	z/VM*	
Geographically Dispersed Parallel Sysplex	Predictive Failure Analysis*	zSeries*	
	pSeries*	System z9*	

The following are trademarks or registered trademarks of other companies.

Intel is a trademark of Intel Corporation in the United States, other countries or both.
 Java and all Java-based trademarks and logos are trademarks of Sun Microsystems, Inc., in the United States and other countries
 Linux is a registered trademark of Linux Torvalds in the United States other countries, or both.
 UNIX is a registered trademark of The Open Group in the United States and other countries.
 Microsoft, Windows and Windows NT are registered trademarks of Microsoft Corporation in the United States, other countries, or both.

* All other products may be trademarks or registered trademarks of their respective companies.

Notes:

Performance is in Internal Throughput Rate (ITR) ratio based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput improvements equivalent to the performance ratios stated here.

IBM hardware products are manufactured from new parts, or new and serviceable used parts. Regardless, our warranty terms apply.

All customer examples cited or described in this presentation are presented as illustrations of the manner in which some customers have used IBM products and the results they may have achieved. Actual environmental costs and performance characteristics will vary depending on individual customer configurations and conditions.

This publication was produced in the United States. IBM may not offer the products, services or features discussed in this document in other countries, and the information may be subject to change without notice. Consult your local IBM business contact for information on the product or services available in your area.

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

Information about non-IBM products is obtained from the manufacturers of those products or their published announcements. IBM has not tested those products and cannot confirm the performance, compatibility, or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

Prices subject to change without notice. Contact your IBM representative or Business Partner for the most current pricing in your geography.