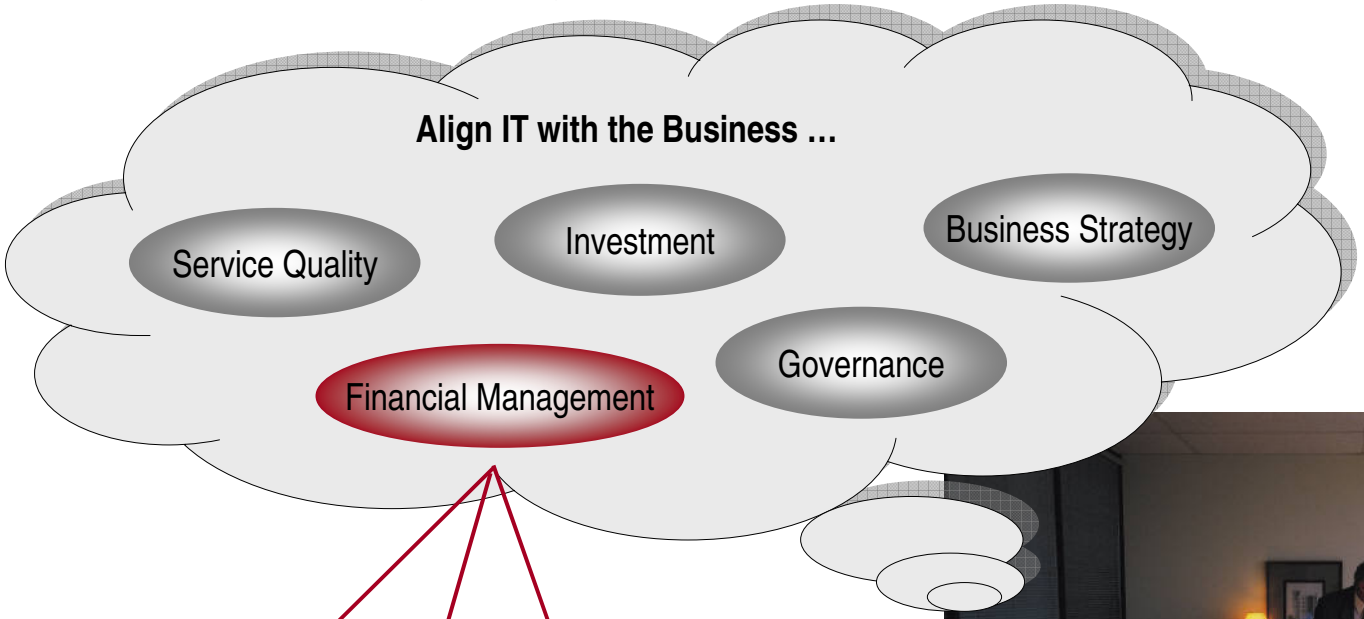
Best Practices: Defining the Right Chargeback Methodology

Agenda

- Understanding the need for effective Resource Cost Accounting
- The basics of cost accounting
- Tivoli Solution to cost accounting
- What can I do to get started

IT Financial Management has become a topic of increasing focus and an important issue for CXOs when aligning IT with the Business Goals.



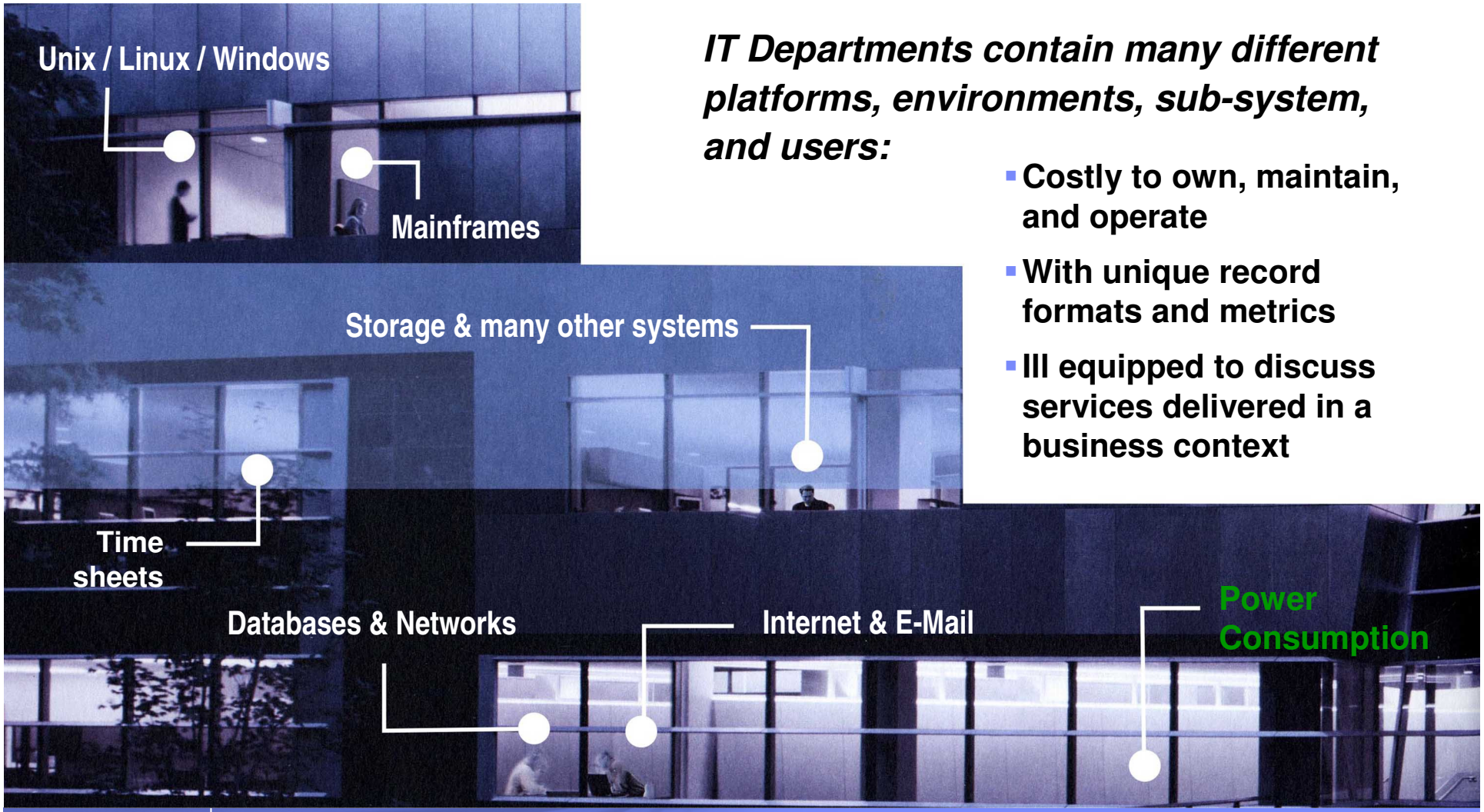
Asset Management & Compliance

Resource Accounting & Chargeback

Optimization

What problems need to be solved?

Inability to allocate IT costs, usage, and value – ***IT Cost Transparency and Business Contribution***

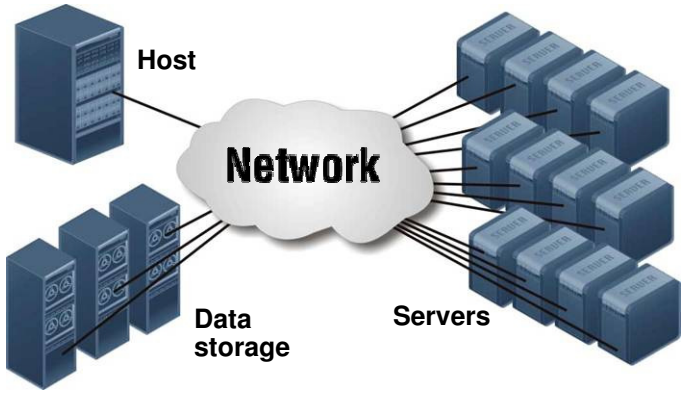


IT Departments contain many different platforms, environments, sub-system, and users:

- **Costly to own, maintain, and operate**
- **With unique record formats and metrics**
- **Ill equipped to discuss services delivered in a business context**

Virtualization: Significant advantages / new challenges

From Dedicated Systems, Storage, Applications . . .



. . . to Shared Virtualized Environments and SOA

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

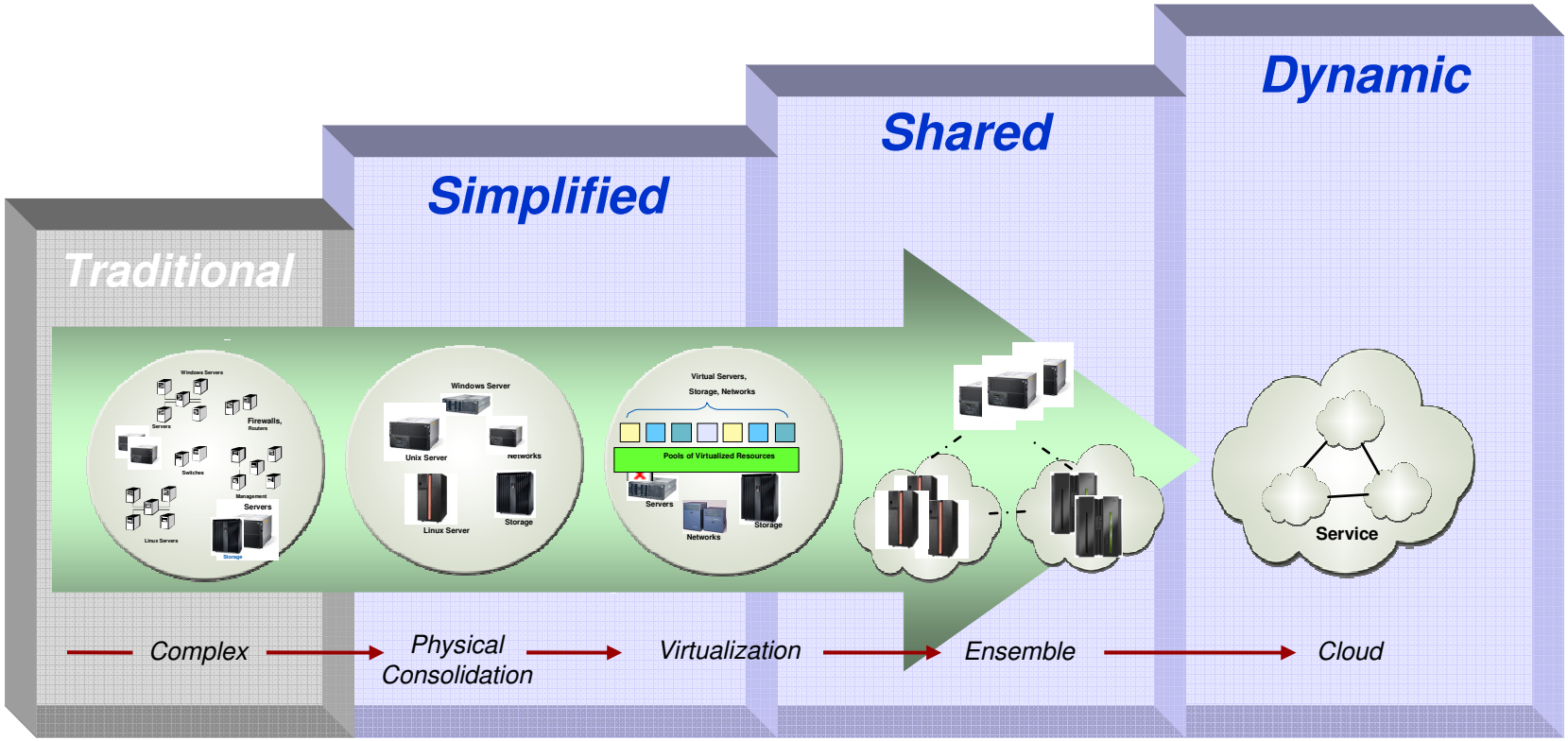
Advantages:

- 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:

- How to allocate costs
- Prove to the users they're getting what they deserve

New Enterprise Data Center stages of adoption



- ✓ **Drive IT efficiency**
- ✓ **Consolidate and simplify the view** of IT operations and physical resources

- ✓ **Rapidly deploy**
- ✓ **Build ensembles of services** by decoupling services from the IT infrastructure, and standardizing processes

- ✓ **Respond quickly**
- ✓ **Shift from IT operations (break/fix) to IT business analysts** by breaking down silos and organizing around service delivery and shared environments

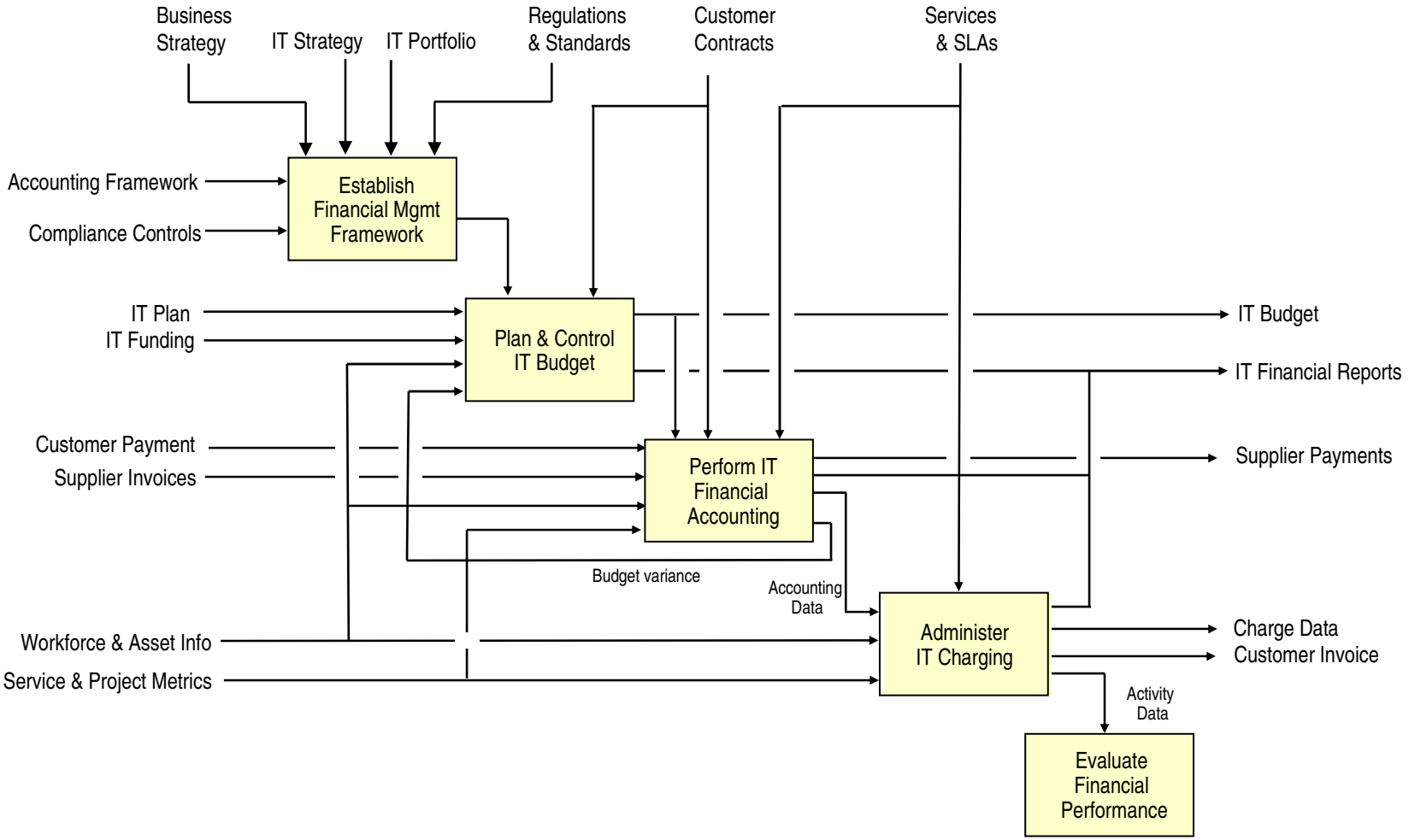
Understanding IT costs and usage only gets harder

Costing methods supported

As described by Professor Brant Allen of the Colgate Darden School of Business at the University of Virginia

- **No Charge Back**
  - IT Department is Overhead
- **Overhead Allocation**
  - Based on head count, assets, revenue, floor space, and so forth (not usage)
- **Memo Record Billing**
  - We don't do this, but if we did . . .
- **Classic Chargeback**
  - End of Year Budget Charge . . . Zero Cost
- **Break Even (Year End Adjustment)**
  - Same as Classic except budgets are charged monthly . . . Zero Cost
- **Budgeted Rates**
  - See Rates for Year, Quarter, etc.
- **Standard Rates and Negotiated Prices**
  - Similar to other inter-divisional accounting practices. Cost and price are two different things. The IT Department is run like a business
- **Functional Pricing**
  - Instead of CPU time, or disk usage, users are charged for functional items such as orders entered, claims processed, and checks written

Before we move on let's just ensure we're all using the same language



IBM Process Reference Model for IT (PRM-it) V1.0

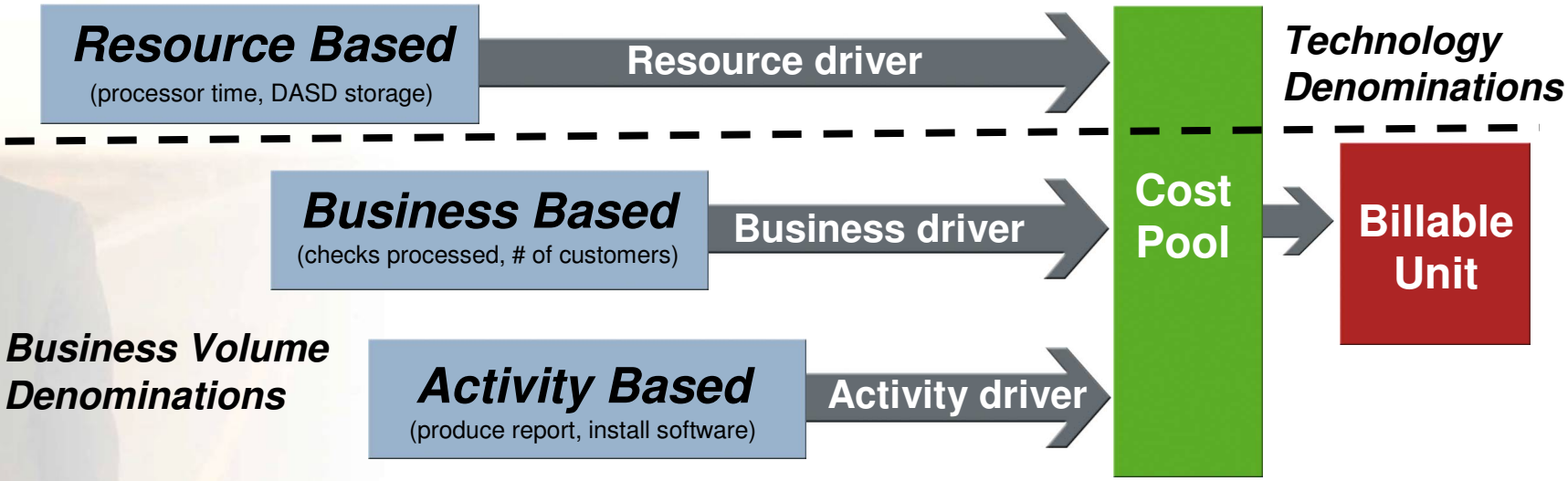
What are the elements of IT Total Cost of Ownership need to be accounted for and aligned?

- Server hardware
- Storage
- Network
- Software
- Labor
- Power
- Floor space
- Development / Test
- Backup and disaster recovery

Accurate Data Makes the Difference

IT Services	Allocation Basis	Level of Maturity and Common Allocation Methodologies			
		Basic	**Low**	**Medium**	**High**
1. Mainframe Computing	Usage / Consumption of Computing Resources	Snapshot of consumption and Management Estimates	CPU, DASD, Tape, Print	Application Cost, Application Ownership	Business Transaction
2. Distributed Computing	Usage / Consumption of Computing Resources	Management Estimates of Ownership or Usage	Ownership of Box CPU, DASD, Tape, Print	Application Cost, Application Ownership	Business Transaction
3. Desktop Support – Helpdesk	Subscription Based Charge or Charge per Call / Request	FTE	Devices	Weighted Device or Weighted User Type	Cost per Call / Request
4. Desktop Support – Licenses	Direct Charge to Owner	Include in Desktop or FTE	Direct Charge to Owner	N.A.	N.A.
5. Data / Voice Networks	Subscription or Usage Based Charge	FTE	Devices / Connections	Weighted Device or Weighted User Type	Usage / Consumption of the Network
6. Data Usage	Subscription or Usage Based Charge	FTE	Devices / Connections	Weighted Device or Weighted User Type	Usage / Consumption of Data Network
7. Voice Usage	Usage Based Charge from Vendor Billing	Local & Long Distance Direct to User	N.A	N.A	N.A
8. Application Development	Project / Application Costing via Time Tracking	Management Estimate of Effort to Owners	Project Budget Amounts Divide by 12	Hours Tracking & Project Costing	Project Costing Tied with Application Costing

The “industry standard” starting point – establish a strong technology resource-based cost accounting system and then build upon that to a business-based or activity-based cost accounting system.



- **Resources** are the people and IT equipment, hardware and software.
- **Business** is the business units or volumes that result in resources being used and activities being performed.
- **Activities** are all of the things done to carry out work related to the use and maintenance of IT resources and processes.
- **Cost Pools** are the components selected to quantify the cost and to account for costs.
- **Billable Unit** is the measured unit that is used to calculate the charge for either the resource, business item or activity being charged.

What is needed to do Usage & Accounting?

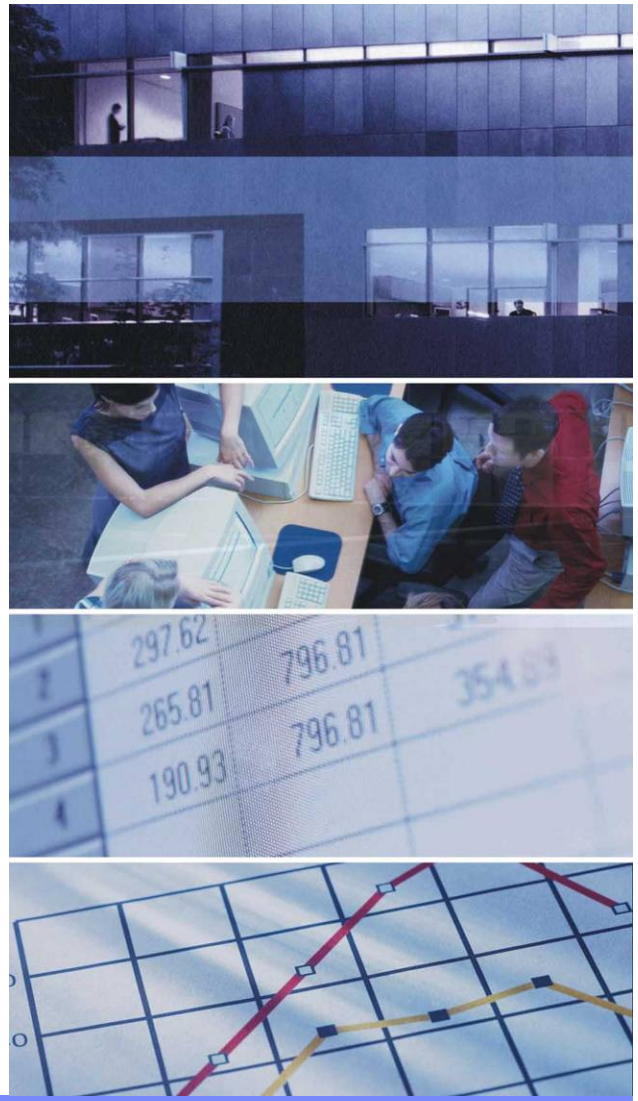
Three variables to the equation

Align IT Software Spending with Business Priorities	Capability
Who is consuming which IT resources?	Data collectors for IT infrastructure can review consumption across multiple dimensions
What is the cost of those resources, including those that are shared?	Costing engine assigns cost to resource usage
How should IT allocate cost for chargeback, ROI, costing analysis, and reporting/billing?	Costing and reporting engine associates and report usage costs to consumers of IT resources

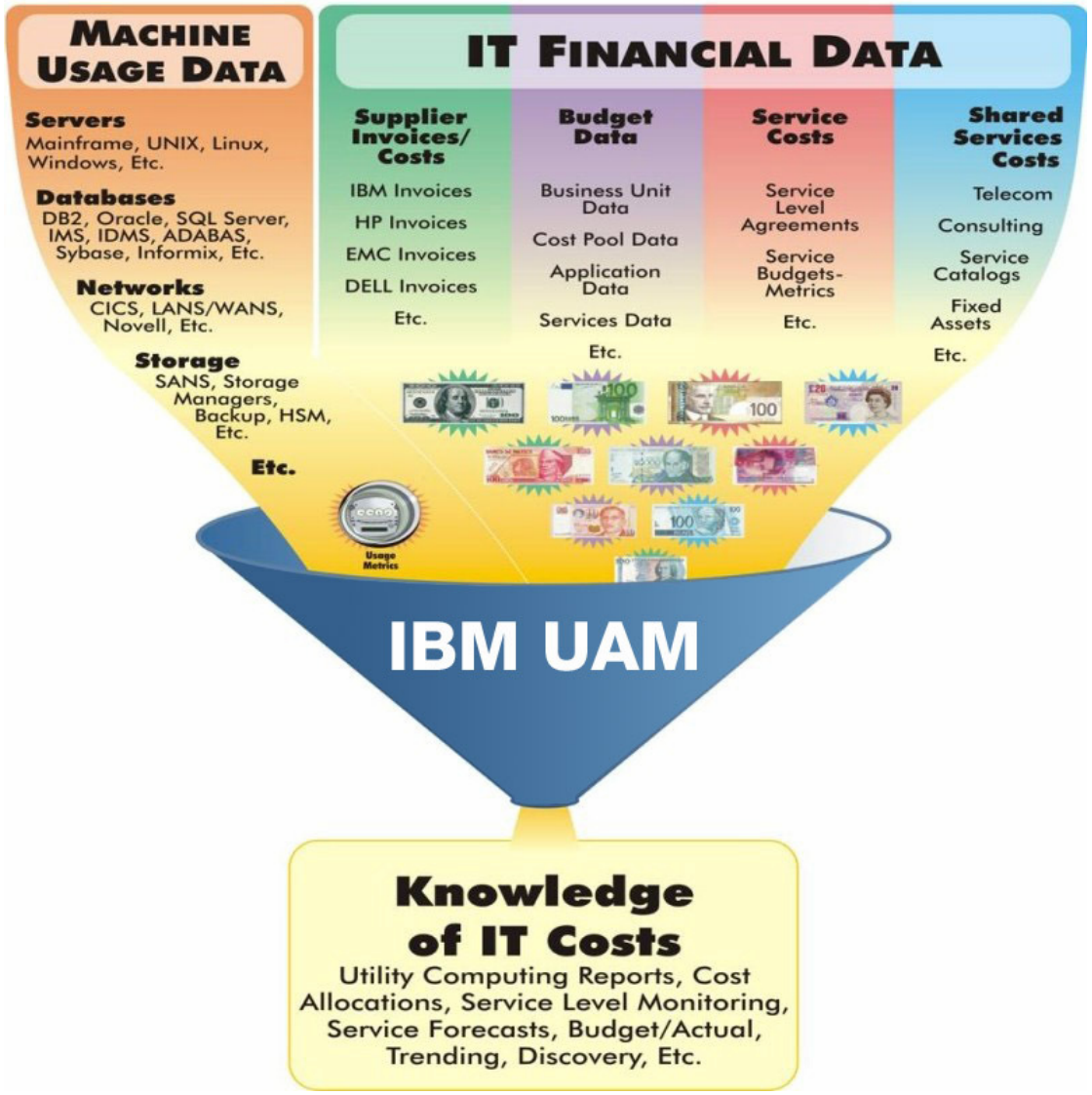
All three questions help align IT spending with business priorities

Tivoli Usage and Accounting Manager is . . .

- **An integral part of an organization's financial reporting systems**
  (Shared Services, Invoicing, Product Profitability, ERP Integration, Cost Allocations, Activity Based Costing, Resource & Cost Trending, etc.)
- **Used across multiple platforms**
  (Including Mainframe, Unix, Linux, Windows, etc.)
- **Supporting multiple sub-systems**
  (DB2, Oracle, SQL Server, CICS, Virtualization, Web, E-Mail, Networks, Storage, Print Servers, etc.)
- **Internet enabled**
  (Web-Based Reporting & Drill-Down and multiple outputs)

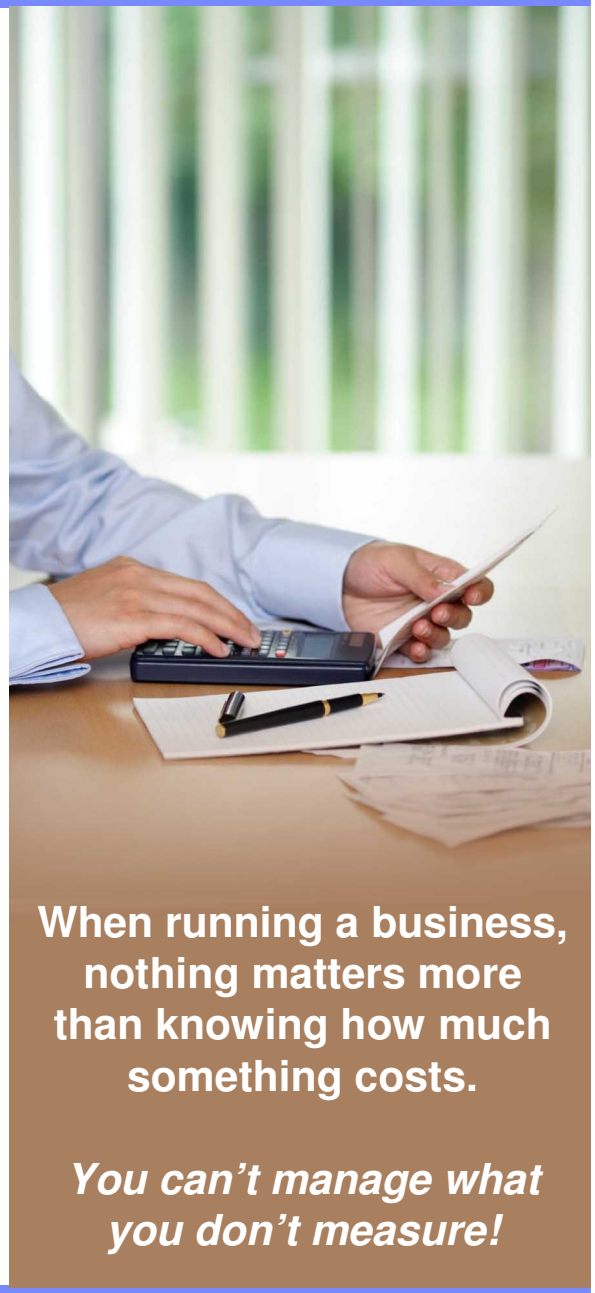


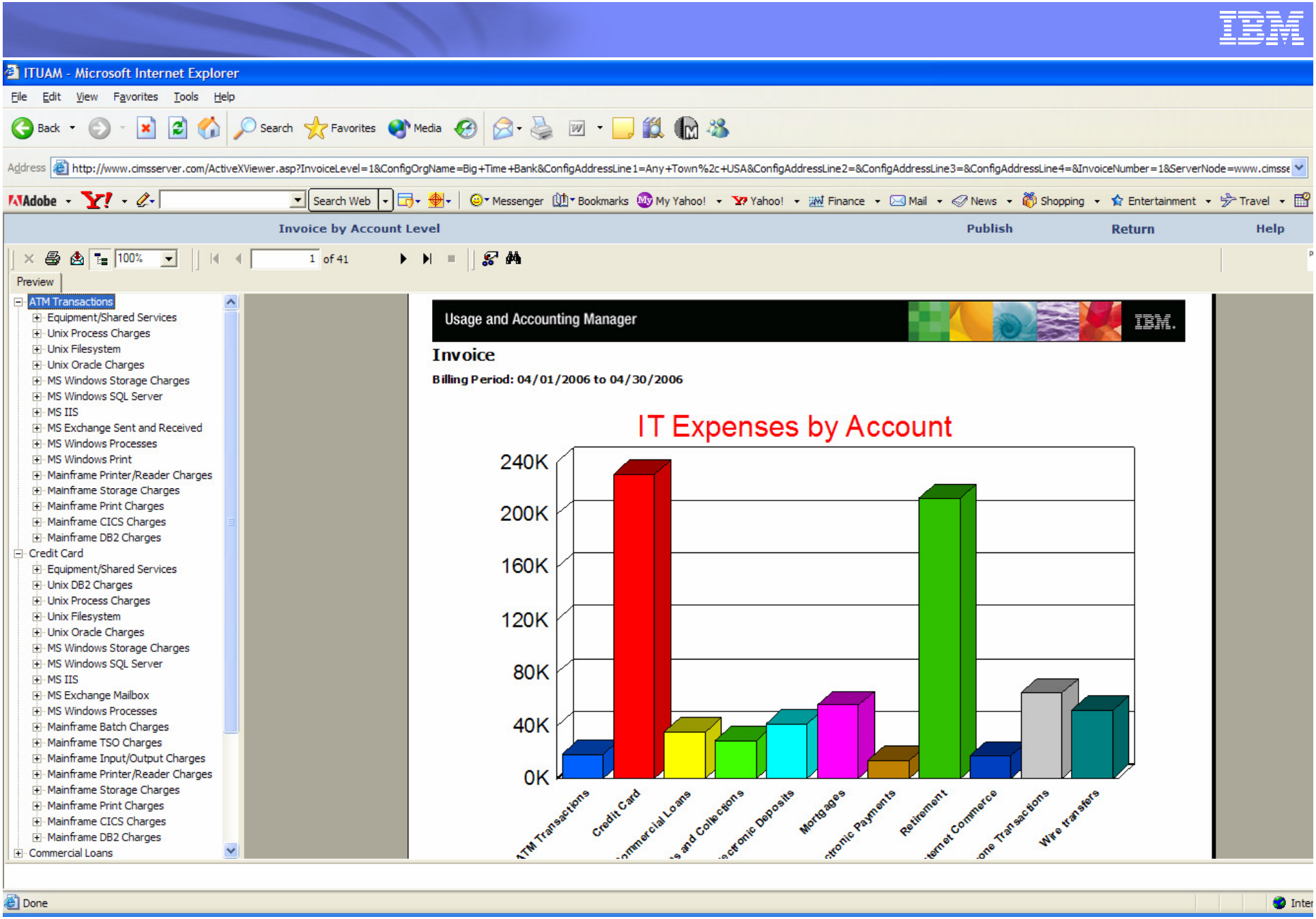
Know what IT costs – The TUAM funnel



Usage and accounting capabilities can help realize immediate benefits

- **Increase Client (Business Units) Satisfaction**
  - Real Usage = Accurate Billing
  - 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

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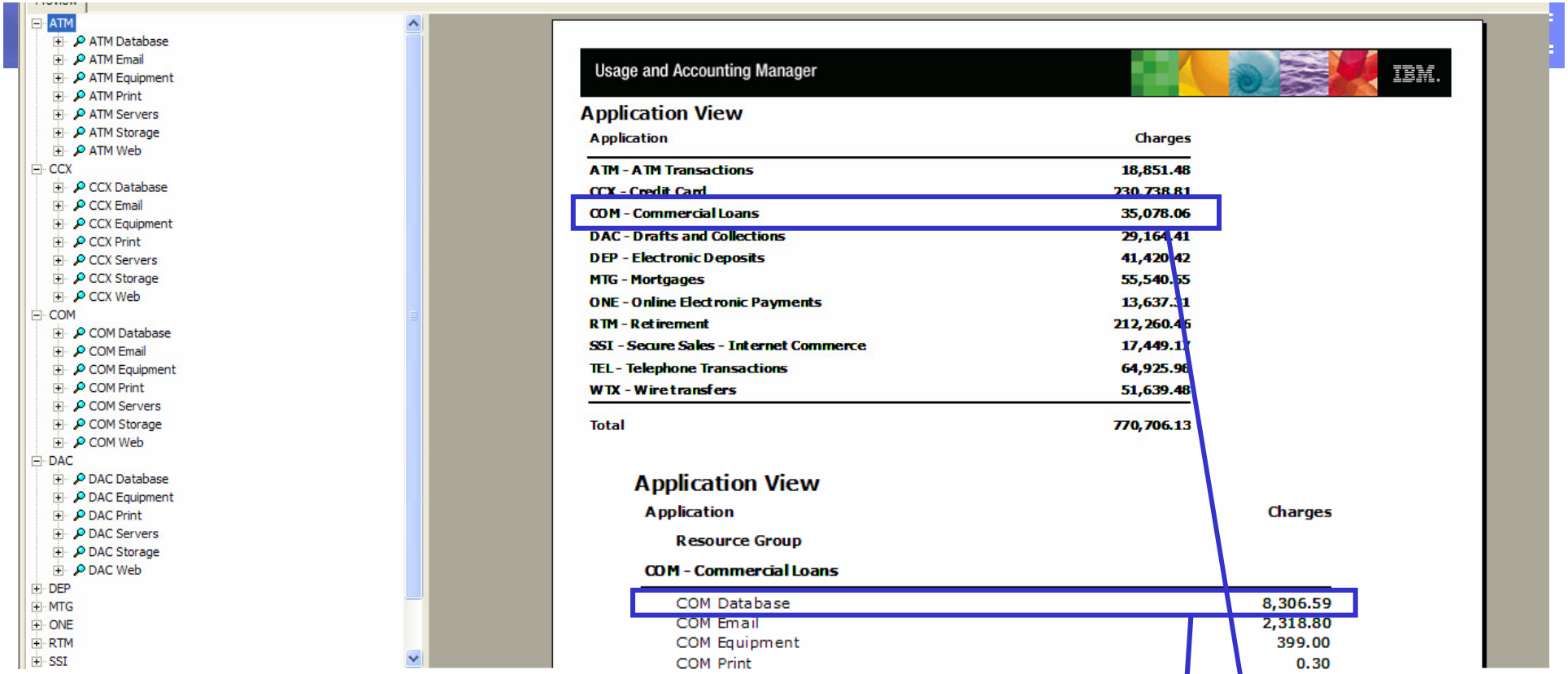
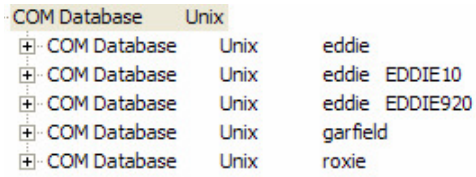
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://www.cimsserver.com/ActiveXViewer.asp?InvoiceLevel=1&ConfigOrgName=Big+Time+Bank&ConfigAddressLine1=Any+Town%2c+USA&ConfigAddressLine2=&ConfigAddressLine3=&ConfigAddressLine4=&InvoiceNumber=1&ServerNode=www.cimsse
Search Web Messenger Bookmarks My Yahoo! Yahoo! Finance Mail News Shopping Entertainment Travel
Invoice by Account Level
Publish
Return
Help
100%
1 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
Usage and Accounting Manager
IBM.
Invoice
Billing Period: 04/01/2006 to 04/30/2006
IT Expenses by Account
240K
200K
160K
120K
80K
40K
0K
Credit Card
Retirement
Wire transfers
Done


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
IBM.
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 64,925.96
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 22,185.45
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



Usage and Accounting Manager

Application View

Platform / Server			Charges
COM Database	**Unix**		
COM Database	Unix	eddie	0.00
COM Database	Unix	eddie	554.96
COM Database	Unix	eddie	840.70
COM Database	Unix	garfield	0.00
COM Database	Unix	roxie	0.00
COM Database	**Unix**		**1,395.66**

Application View

Server / Rate Group				Charges
COM Database	**Unix**	**eddie**	**EDDIE9**	
Unix Oracle Charges				840.70
COM Database	**Unix**	**eddie**	**EDDIE9**	**840.70**

Application View

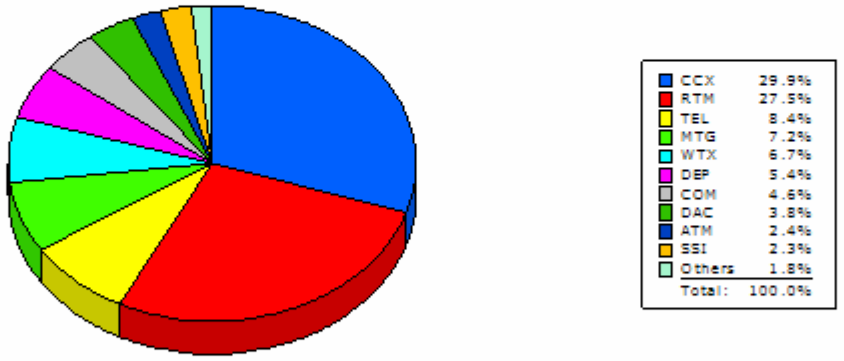
Rate Group / Rate	Units	Charges
COM Database **Unix** **eddie** **EDDIE9**		
Unix Oracle Charges		
Unix Oracle	23	0.04
Unix Oracle Session CPU (Minutes)	411.36	40.81
Unix Oracle Connect (Hours)	3,562.49	160.31
Unix Oracle UGA Memory (MB Days)	9,266.99	0.00
Unix Oracle PGA Memory (MB Days)	86,747.06	0.19
Unix Oracle Rec CPU (Minutes)	0.02	0.02
Unix Oracle User Commits	1	0.00
Unix Oracle Physical Reads	273,677	41.04
Unix Oracle Physical Writes	52,944	18.51
Unix Oracle DB Block Gets	8,321,411	416.05
Unix Oracle Messages Sent	327,441	147.36
Unix Oracle Messages Received	327,707	16.37
Unix Oracle Charges		**840.70**

Usage and Accounting Manager

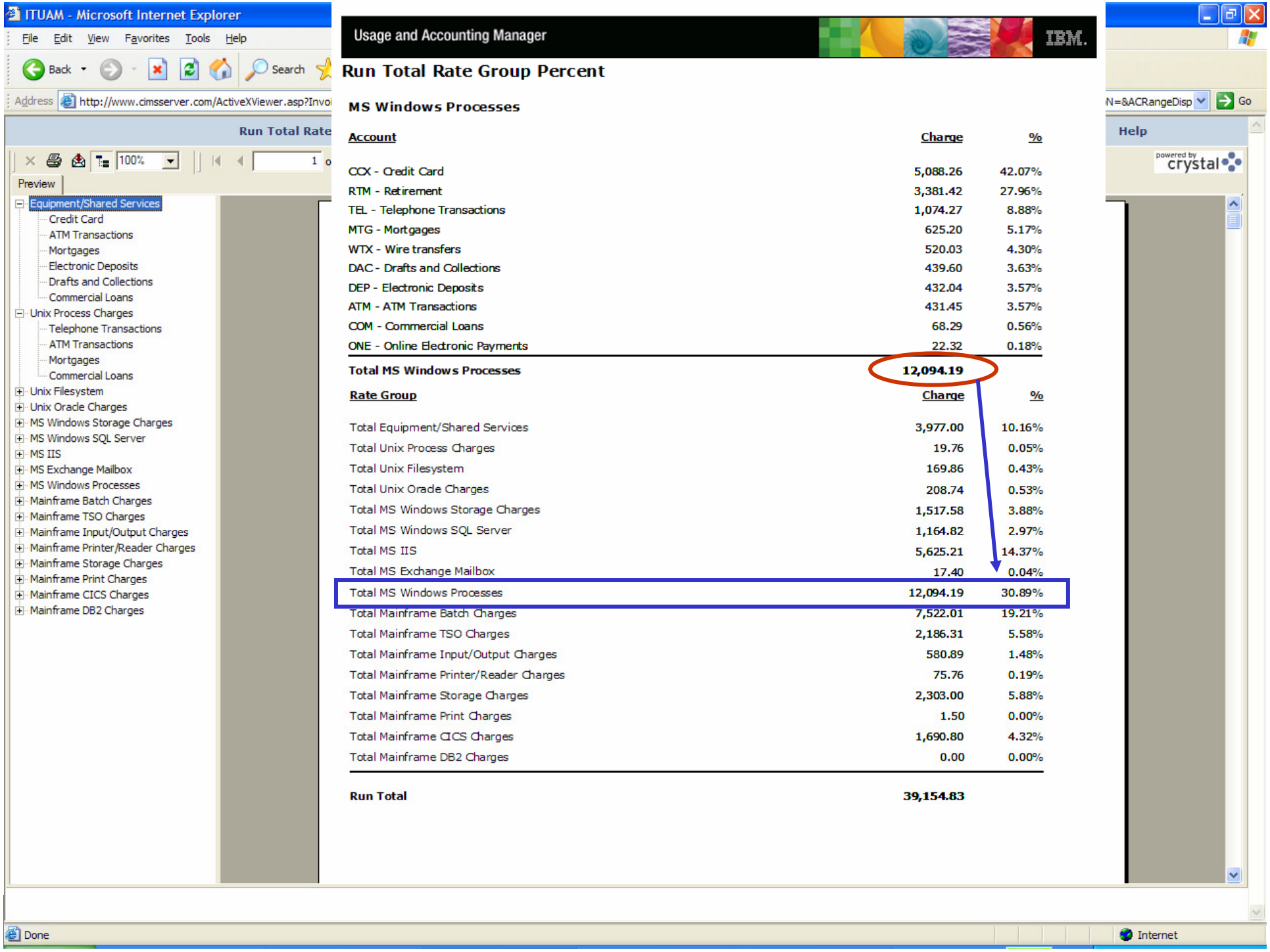
Top 10 Cost Report - Pie Chart

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

Account Charges



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



Run Total Rate Group Percent

MS Windows Processes

Account	Charge	%
CCX - Credit Card	5,088.26	42.07%
RTM - Retirement	3,381.42	27.96%
TEL - Telephone Transactions	1,074.27	8.88%
MTG - Mortgages	625.20	5.17%
WTX - Wire transfers	520.03	4.30%
DAC - Drafts and Collections	439.60	3.63%
DEP - Electronic Deposits	432.04	3.57%
ATM - ATM Transactions	431.45	3.57%
COM - Commercial Loans	68.29	0.56%
ONE - Online Electronic Payments	22.32	0.18%
Total MS Windows Processes	**12,094.19**	

Rate Group	Charge	%
Total Equipment/Shared Services	3,977.00	10.16%
Total Unix Process Charges	19.76	0.05%
Total Unix Filesystem	169.86	0.43%
Total Unix Oracle Charges	208.74	0.53%
Total MS Windows Storage Charges	1,517.58	3.88%
Total MS Windows SQL Server	1,164.82	2.97%
Total MS IIS	5,625.21	14.37%
Total MS Exchange Mailbox	17.40	0.04%
Total MS Windows Processes	12,094.19	30.89%
Total Mainframe Batch Charges	7,522.01	19.21%
Total Mainframe TSO Charges	2,186.31	5.58%
Total Mainframe Input/Output Charges	580.89	1.48%
Total Mainframe Printer/Reader Charges	75.76	0.19%
Total Mainframe Storage Charges	2,303.00	5.88%
Total Mainframe Print Charges	1.50	0.00%
Total Mainframe CICS Charges	1,690.80	4.32%
Total Mainframe DB2 Charges	0.00	0.00%
Run Total	**39,154.83**	

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Back Search Favorites

Address http://www.cimsserver.com/ActiveXViewer.asp?Year=2006&ACRangeDisplay=Account+Range%3a+All+Accounts&InvoiceLevel=1&AccountCodeStart=&AccountCodeEnd=zzzz&AccountStart=1&AccountLength=4&UserID=mark&Yea Go

Usage Trend Graph Publish Return Help

100% 57 of 135 powered by crystal

Preview

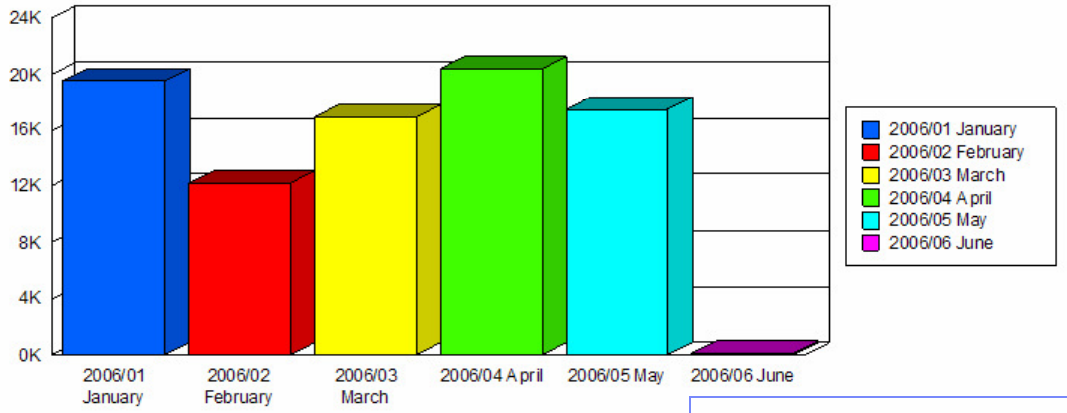
- PSF Number of Feet of Paper
- Tape Mounts
- Disk Data Sets
- Disk Space Allocated (MB Days)
- Disk Space Used (Non VSAM) (MB D
- Secondary Space Allocated (Non VS
- Disk Space Wasted (Non VSAM) (ME
- One Part Forms
- Standard Forms
- Standard Forms Remote
- CICS Transaction Minutes
- CICS CPU Minutes
- CICS Transactions
- CICS Input Messages
- CICS Output Messages
- CICS Messages
- CICS File Access Count
- VMware CPU Usage
- VMware CPU Usage Guaranteed
- VMware Disk Kilobytes Read
- VMware Disk Kilobytes Written
- VMware Memory Kilobytes Active
- VMware Memory Kilobytes Granted
- VMware Network Kilobytes Read
- VMware Network Kilobytes Transfer
- 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)
- MS Windows SQL Server Records
- MS Windows SQL Server Duration (S
- MS Windows SQL Server CPU (Seco
- MS Windows SQL Server Reads
- MS Windows SQL Server Writes
- MS Windows SQL Server Used (MB I
- IIS FTP Bytes Received
- IIS FTP Bytes Sent
- IIS FTP Successful Protocol Status 2
- IIS FTP Redirection Protocol Status
- IIS FTP Client Error Protocol Status

Usage and Accounting Manager IBM.

Resource Usage Trend

Account Range: All Accounts
Year: 2006
MS Windows SQL Server CPU (Seconds)

Resource Usage per Month

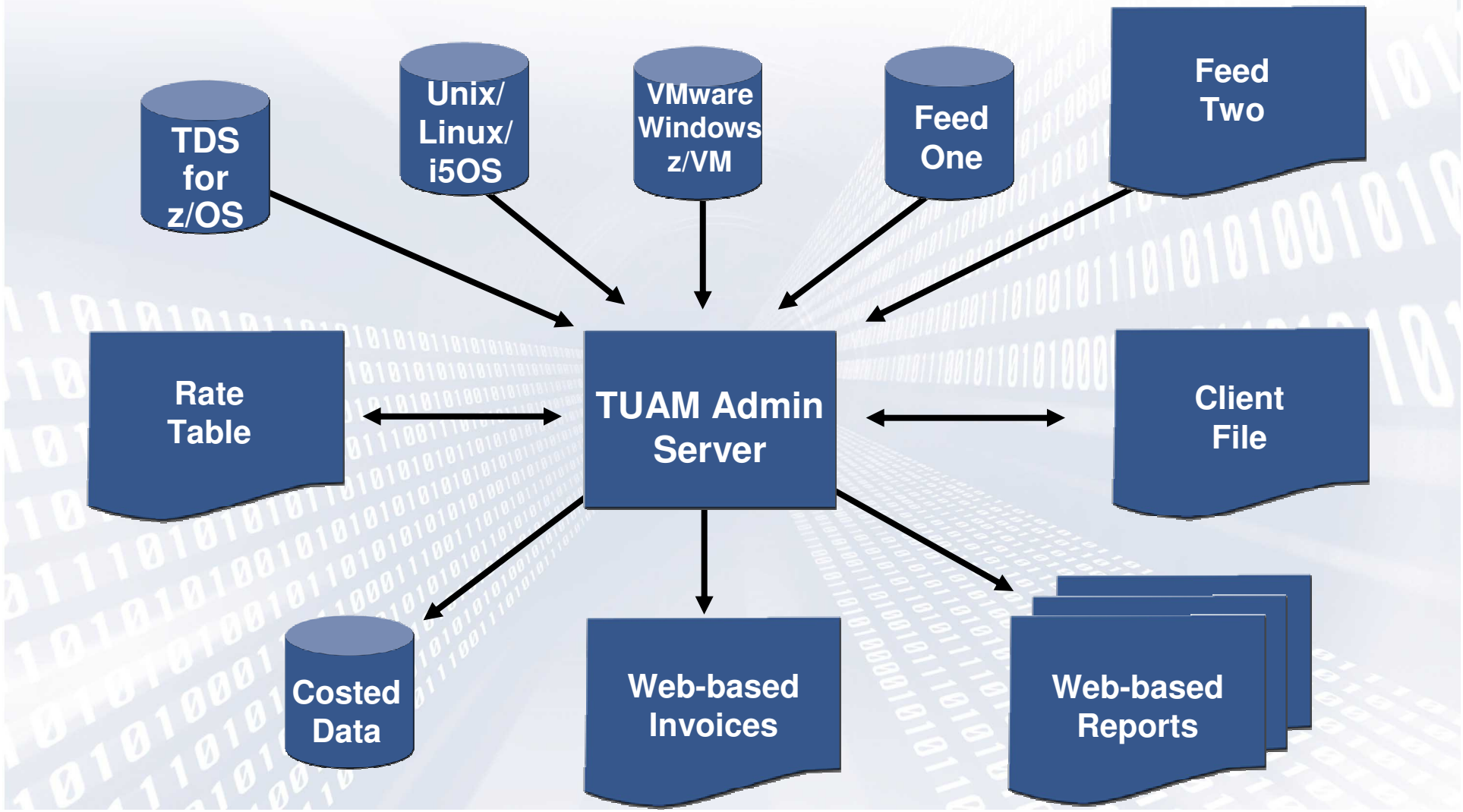


Month	Resource Usage
2006/01 January	19,545.66
2006/02 February	12,306.85
2006/03 March	16,959.50
2006/04 April	20,485.42
2006/05 May	17,487.22
2006/06 June	105.98
Total	**86,890.62**

Example of Resource Usage Trend report over a period of time

http://docs.dfw.ibm.com/knowITcosts/

IBM Tivoli Usage and Accounting Manager



Some of the over 200 customers

Large healthcare insurer

- CICS/DB2/Batch/TSO & normalization between 2 System zs. Rolled out Unix and Windows. Over 168 Unix and 300 Windows Servers.
- Replaced 2 homegrown systems after merger. Corp. finance is the user and owner of the system. Wanted federated auditabilty. TUAM only product to meet all RFP requirements.

Insurance and Financial Product Broker

- z/OS, Linux for System z & Unix/Novell/Windows. Primavera importing for labor accounting. Inventory information, SAN, and Telcom.
- Doing memo billing now and will move to chargeback in the future.

Large aerospace manufacturer

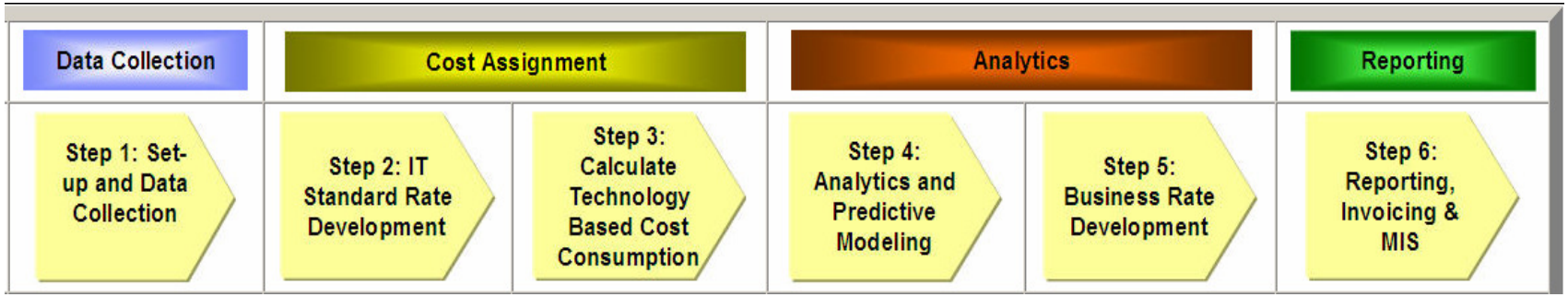
- Both z/OS & distributed. Bill $18-20M per month across 5,000 cost centers. 40K pieces of hardware. Do labor, WAN, assessments, and project costs. Feeding SAP GL and using Web reporting.
- Replaced RYO system.

State government

- z/OS, Telcom, Unix, Windows, labor. Oracle, SQL Server, & Exchange.
- Wanted to replace multiple billing systems with integrated system and meet government audit requirement.

How do I get started?

- **Financial Management and Accounting Workshop**
- **Client Implementation**
  - TUAM is ready to use software that is user installable and can quickly report on usage of a variety of shared and virtualized systems.
- **Tivoli Services**
  - TUAM QuickStart
  - Extended Engagements
- **IBM Global Business Services (ITVBA) & GTS**
  - Complete end to end implementation and on-going services using an IBM proprietary methodology.



What is a FMA Workshop?

- A workshop to provide you with best practices in a FMA methodology
- A high level review of your current IT cost methodology
- A discussion of the “do’s” and “don’ts” of the IT cost process
- Interview/Q&A session to develop a strategy for moving forward
- Results in an understanding and roadmap toward more effective Cost Transparency in your IT environment

Financial Management and Accounting Workshop "FMA"

The Process

- **Pre-Work**
  - Pre WS meeting to set expectations
  - Complete FMA Questionnaire
- **On-Site Workshop**
  - FMA Overview Presentation
  - Interview and open dialogue about questionnaire
  - In depth discussion about client's current environment
  - Review of common pitfalls
- **Deliverables**
  - Best practices methodology
  - Recommendations document

Who Participates in the FMA Workshop?

- CIO-CFO as appropriate
- IT Finance Managers and their direct reports that are responsible for setting and maintaining internal budgets and rates
- Line of Business (LOB) leaders responsible for budgets that are tied to internal IT rates
- IT Capacity Planners

What have customers received from the FMA Workshop

- A better understanding of the Financial Management and Accounting process
- A comparison of their environment to move to current Best Practice models and other companies
- A list of common pitfalls customers face in developing or implementing a IT cost process
- Recommendations for improving the current IT cost allocation process
- A “hit” list of suggestions for IT cost savings
- Techniques to assess the affordability of new applications on various platforms for Business reasons
- Overview of other customer focused service offerings from IBM

Contact
Jerry Bennett –Jerry.bennett@us.ibm.com
http://www-306.ibm.com/software/solutions/softwaremigration/charge_back.html

Usage and accounting capabilities can help realize immediate benefits

- **Increases Client (Business Units) Satisfaction**
  - Real Usage = Accurate Billing
  - Accountability = Improved services
  - Alignment between Business and IT costs
- **Lowers Infrastructure Cost**
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  - Higher utilization
  - Rationalization of resources
- **Continued Infrastructure Improvement**
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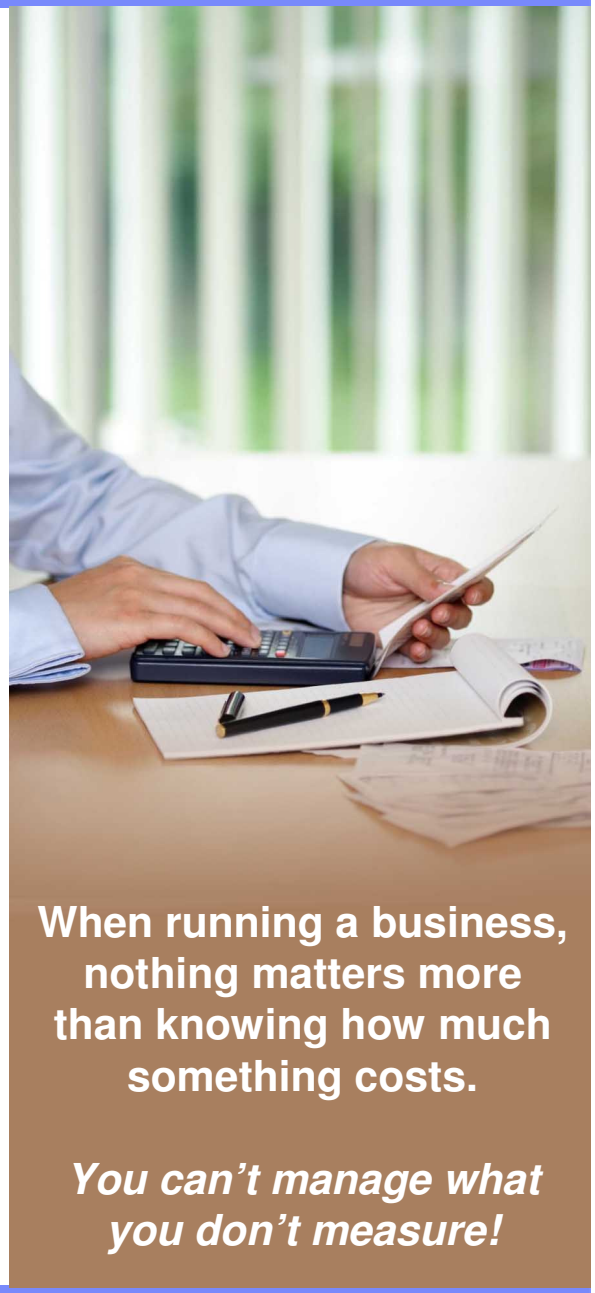
  - Usage comparisons can lead to more effective investments



Questions ?

Hindi

Traditional Chinese

Thai

Russian

English

Spanish

Arabic

Netherlands

German

Brazilian Portuguese

French

Poland

Simplified Chinese

Norway

Italian

Tamil

Japanese

Korean