

Open View-Centric Management of E-Services

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What We'll Cover

- The Opportunity
- The Implementation Approach
- Management of E-Services
- Glimpses of What You Get
- Cost, Time and ROI

The Opportunity

The Threshold for Pain for E-commerce Customers

What will end-users tolerate?


- **8 seconds** maximum to show something on the page
- **20 seconds** to complete the display
- **6 seconds** for end user to decide to stay/leave
- **6 mouse-clicks** maximum to find the desired information

And if the threshold is exceeded?

- Take their business to a competitor
- Hold on to their money
- Make use of a more costly channel - a call center, the local sales rep...

The Opportunity

Costs
of Poor Customer
Experiences



\$4.35 billion per year lost in
total E-commerce sales due to
unacceptable end-user wait times!

Zona Research

The Opportunity



The **competition** is a mouse-click away!

What **will it cost** your organization ?

- If e-shoppers get disconnected in the middle of lengthy sessions?
- If your sales reps and channels can't get their orders in at month-end?
- If your clients can't access your systems to enter their trades?
- If your customers go back to phone support because they couldn't access your website?

More traffic means **less revenue** if customers click away because of poor performance.



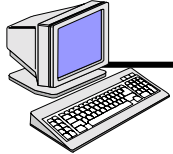
The Opportunity

Like it or not ... You're at bat ...



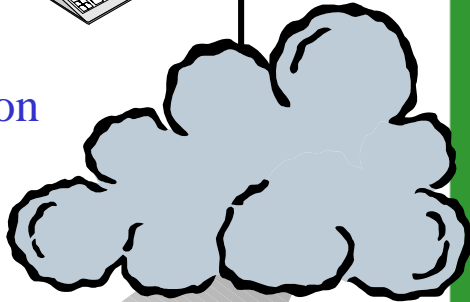
Customers Visit
Your Store

Customers Visit
Your Data Center



Personal Interaction
with Customers

Electronic Interaction
with Customers



Known Number of
Customers

Unknown Number
of Customers





The Opportunity

Like it or not ... You're at bat ... and the stadium is full



IT (you) **SUPPORT**
the Business

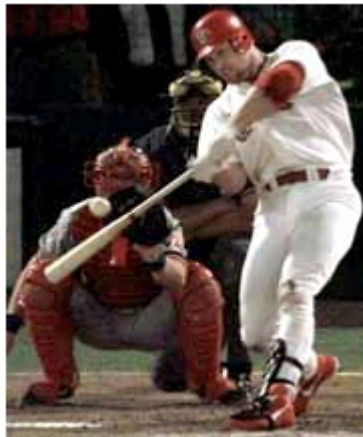
IT (you) **ARE** the
Business





The Opportunity

Like it or not ... You're at bat ... and the stadium is full



It's your moment to deliver ...

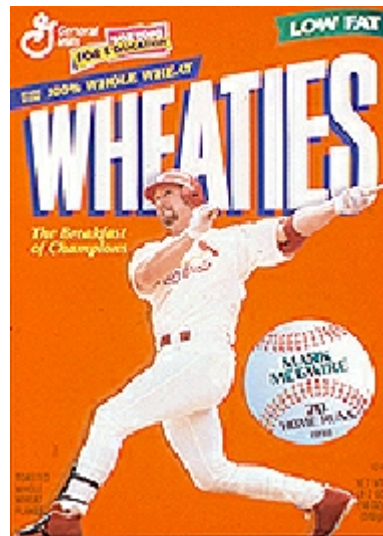


The Opportunity

And to **make sure** you do ... Apply technology and expertise ...



HP OPENVIEW



Agilent Technologies
Innovating the HP Way



The Opportunity

So you have an **Effective Management System**



Which **Clearly** and **Quantitatively**

- ✓ Proactively *Prevents* Problems
- ✓ *Quickly Find* the Root Cause of Problems that Occur
- ✓ Monitor and Communicate the *Health* of Your Infrastructure
- ✓ Provide Useful *Business Metrics* to Senior Management
- ✓ Monitor and Report *SLO* and *SLA Status*
- ✓ Monitor and Report *Customer Satisfaction* Metrics

The Implementation Approach



(Yeah, right ...)

Iterative Process

1. Understand Domain to be Managed

- IT Resource Perspective (Yours and Vendors)
- Business Services Perspective
- Customer Perspective
- User Perspective



The Implementation Approach



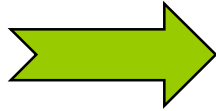
(Yeah, right ...)

2. Consider Value

- IT Now on Front-Line
- Basic Business Equation ...

$$\text{Revenue} - \text{Cost} = \text{Profit}$$

The Implementation Approach



(Yeah, right ...)

3. Consider Revenue

- **Ensure/Enhance Customer Experience**
(Can't improve what you're not measuring)
- **Collect Valuable Sales and Marketing Data**
- **Differentiate Your Organization**
(Automated, real-time, communication with customers)
- **Stay In Front of Competitors**
(Measure the customer experience at your competitors' sites)

The Implementation Approach



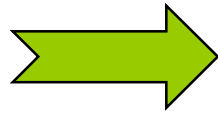
(Yeah, right ...)

4. Consider Costs (Direct, Indirect, Corporate Valuation)

- Downtime
- Performance Degradation
- Lost Customers/Orders
- Troubleshooting/Corrective Action
- Time To Effectiveness for New IT Ops Staff



The Implementation Approach



(Yeah, right ...)

5. Deploy

- Instrumentation
- Technology Integration
- Event Flow, Data Collection and Data Management
- User Interfaces - Ops, Escalation, Mgmt, Customers
- Reporting



The Implementation Approach



(Yeah, right ...)

5. Deploy (cont'd)

- Go for High Value/ROI (IRR)
- 80/20 Rule - Get the Basics
- Go for the Pain & What's Important
- Set-up for Success - SMART Objectives

The Implementation Approach



(Yeah, right ...)

6. Operate

- People
- Process/Work Flow/Change Management
- Key Performance Indicators/Metrics (Mgmt System)
- Management of Management System
- Minor Enhancements & Capture Knowledge



The Implementation Approach

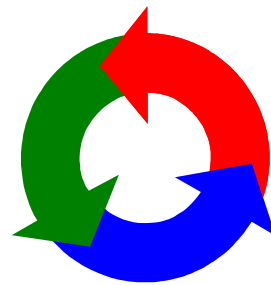


(Yeah, right ...)

6. Operate - Balance ...

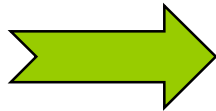
People

Process



Technology

The Implementation Approach



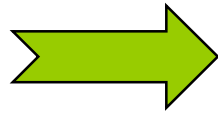
(Yeah, right ...)

7. Quarterly Review

- Changes in Managed Domain (Infrastructure, Scale)
- Opportunities for Value and Cost Savings
- Key Performance Indicators/Metrics (Mgmt System)
- Last Quarter's Events, Problems, Outages ...
- Captured Institutional Knowledge



The Implementation Approach

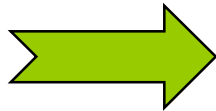


(Yeah, right ...)

8. Quarterly Management System Enhancement

- Additional Instrumentation
- Integration/Upgrade/Patching of Components
- Process/Work Flow Changes
- Training of New Personnel
- Changes to Event Flow, Data Collection and Data Mgmt

The Implementation Approach



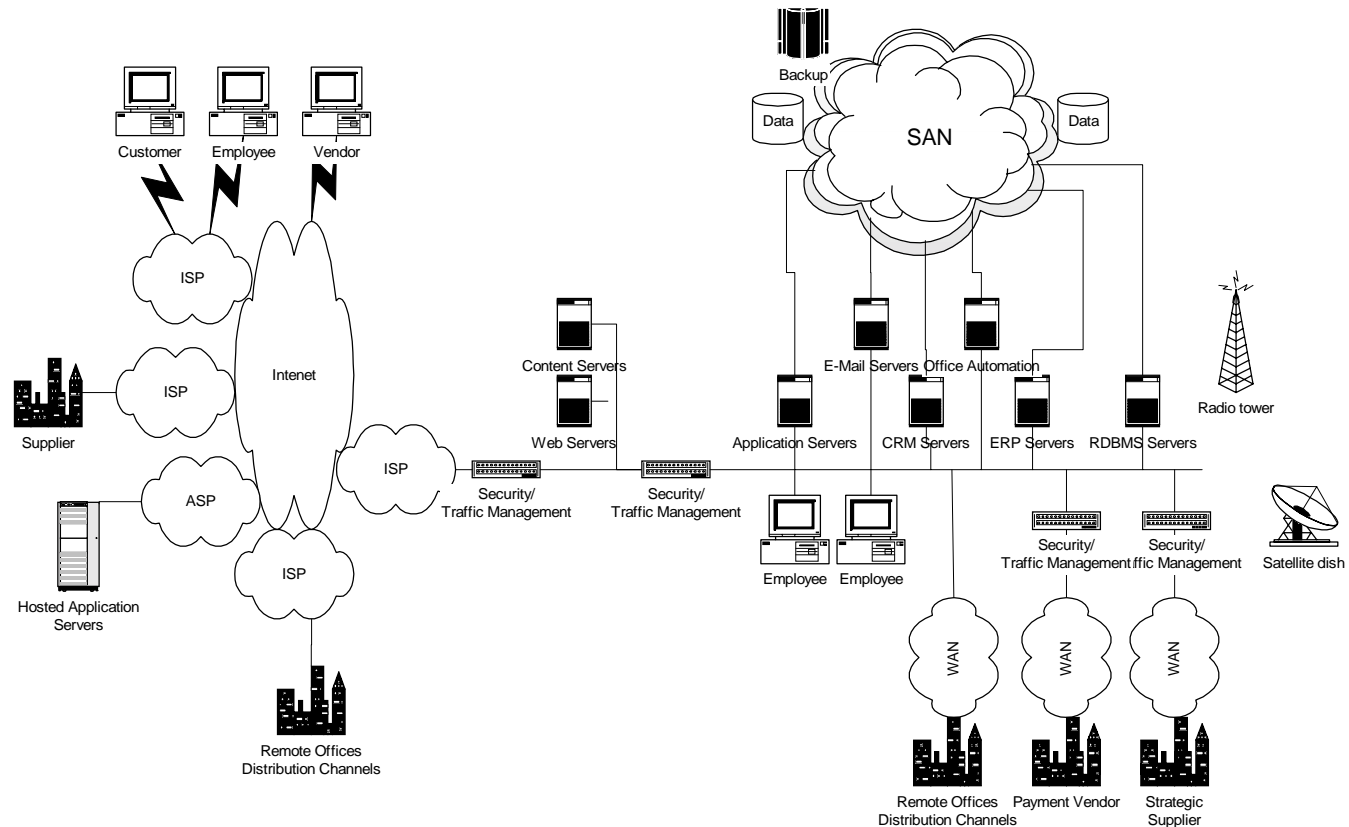
(Yeah, right ...)

8. Quarterly Management System Enhancement ... (cont'd)

- Enhance User Interfaces - Ops, Escalation, Mgmt, Customers
- Enhance/Expand Reporting

Management of E-Services

Typical Managed Domain

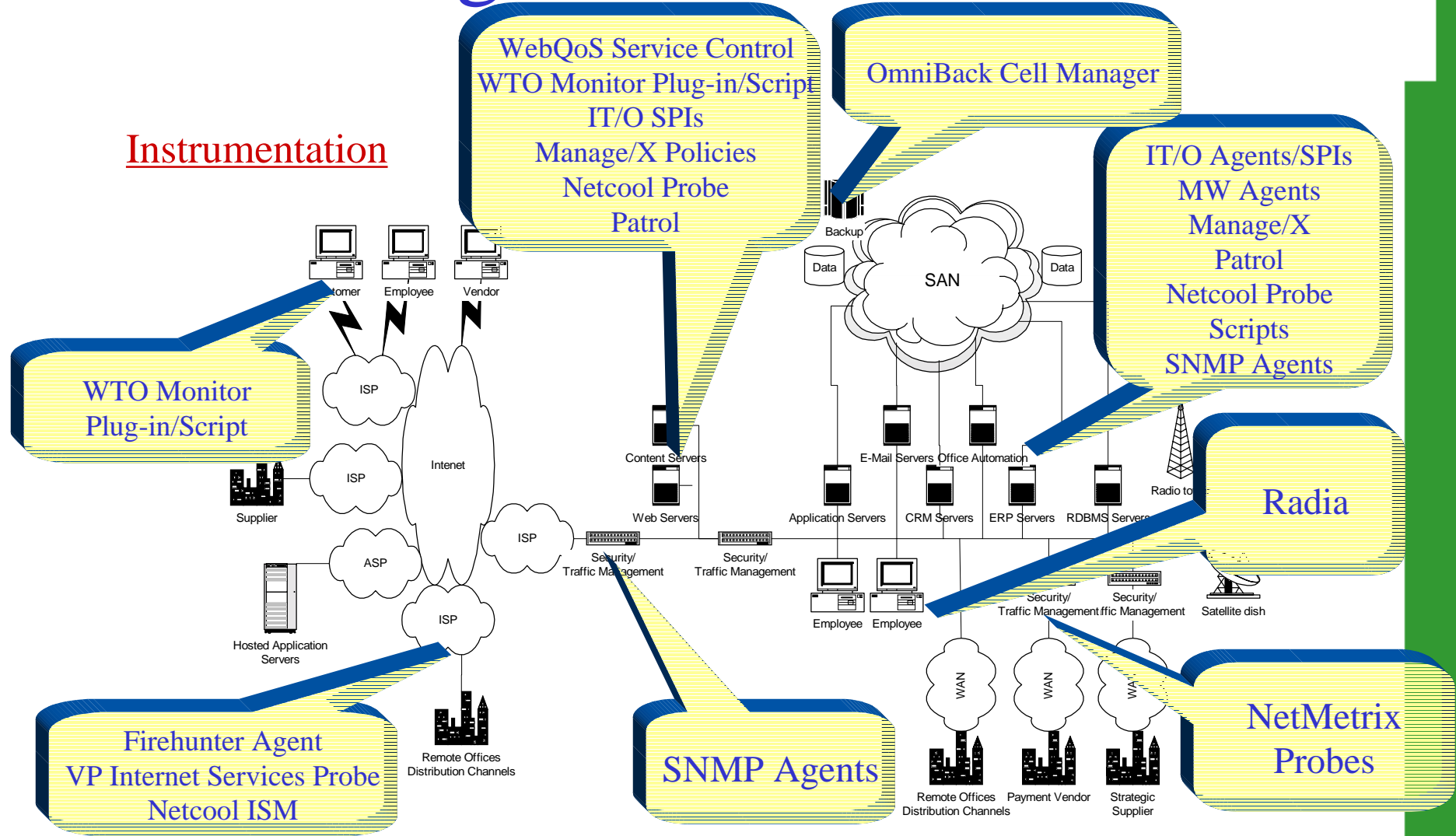




Typical Managed Domain

Management of E-Services

Instrumentation





Management of E-Services



Operators



Engineers



Users



Customers



Management

Technology

User Interfaces

Event Mgmt

Reporting

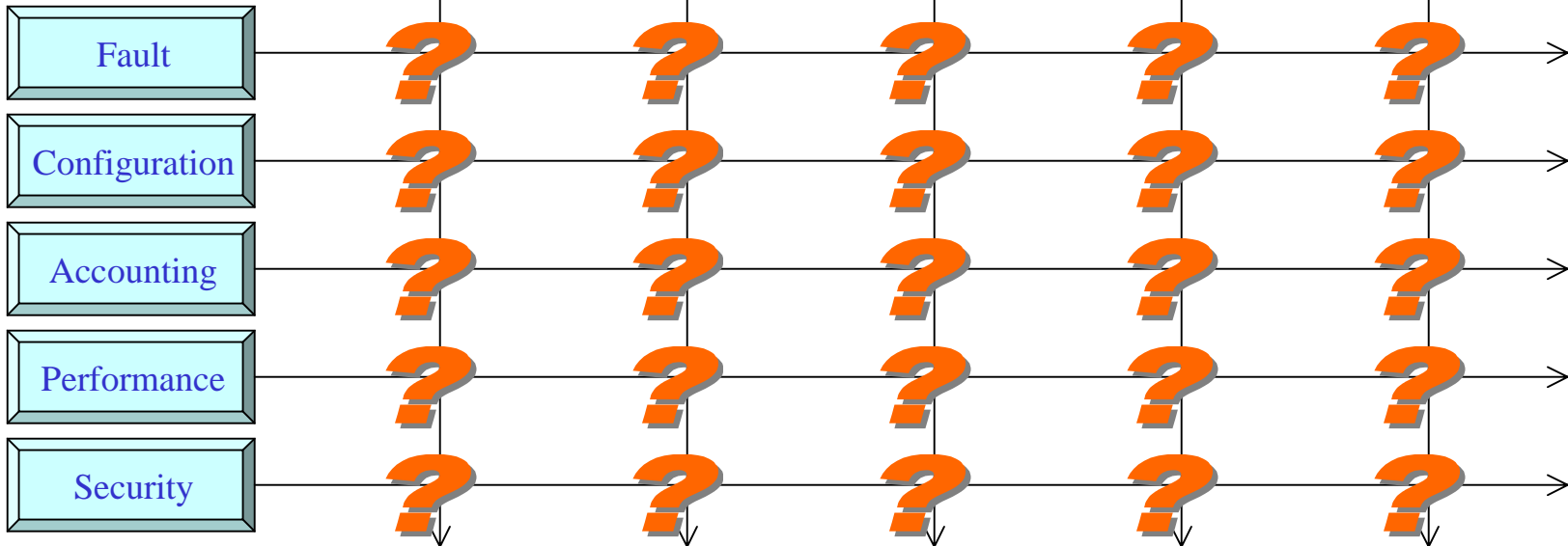
Network Devices

Computer Systems

Software Apps

Business Services

Customer Experience



Management of E-Services

Technology



Operators



Engineers



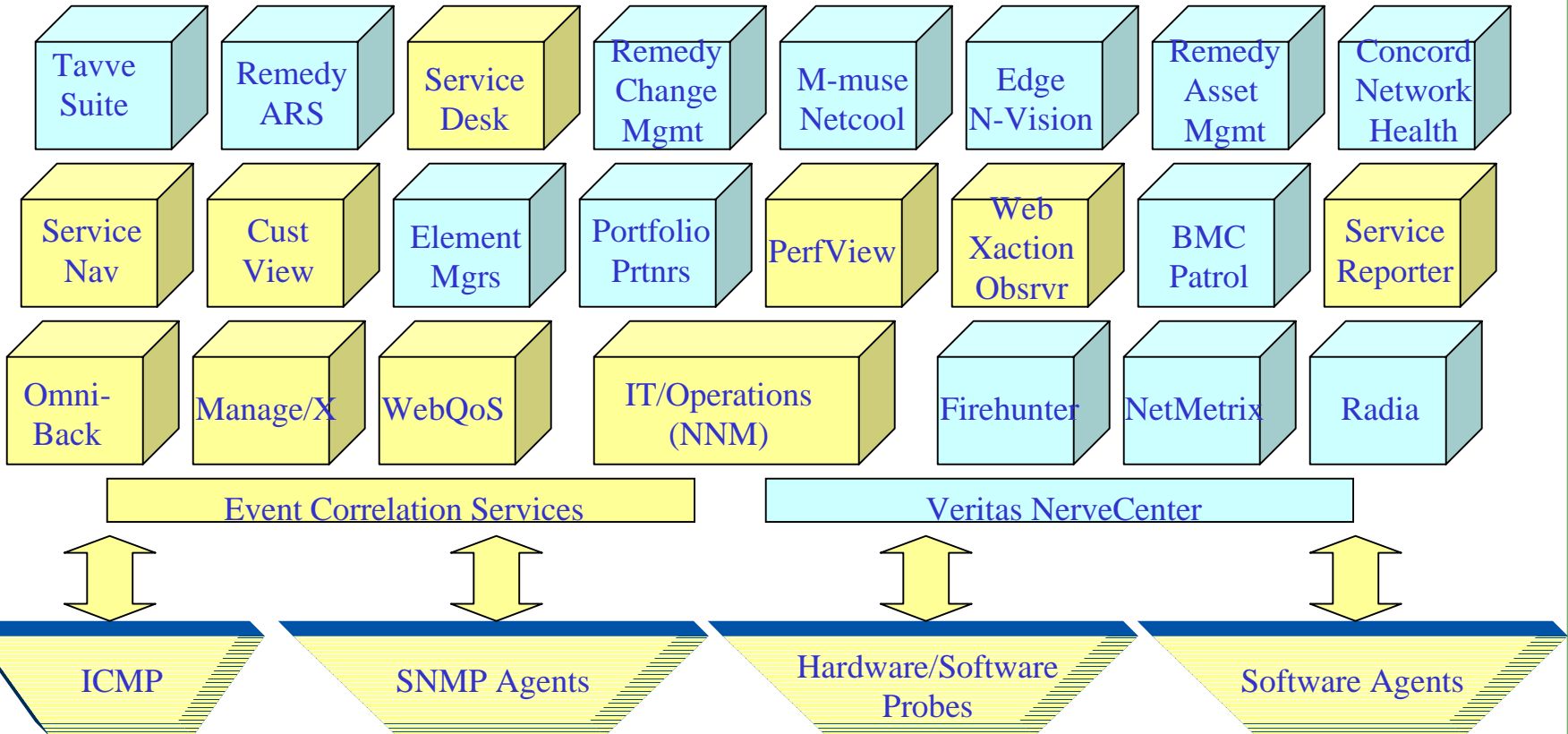
Users



Customers



Management





Management of E-Services

Technology



Operators



Engineers



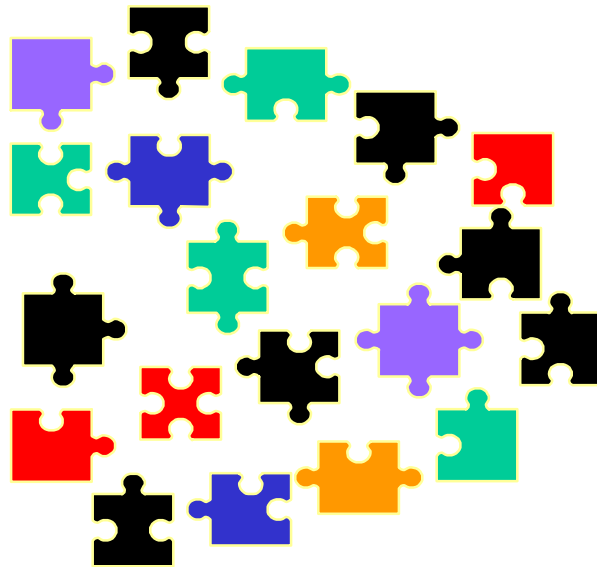
Users



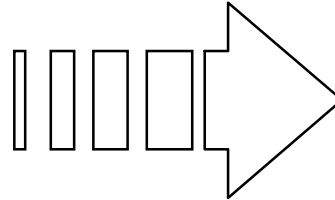
Customers



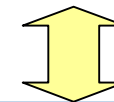
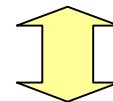
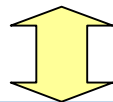
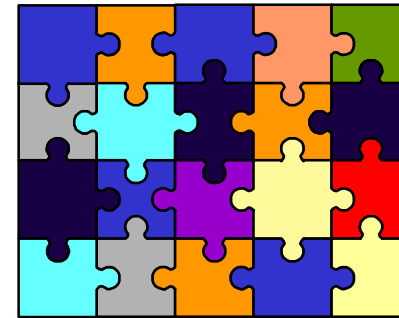
Management



Processes



Perf



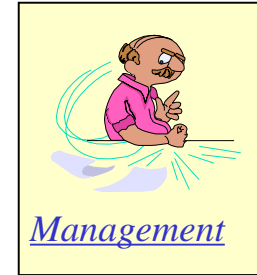
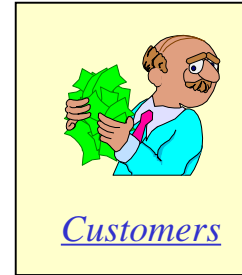
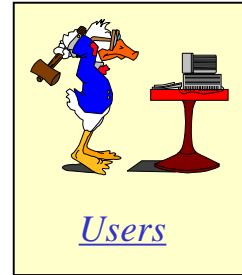
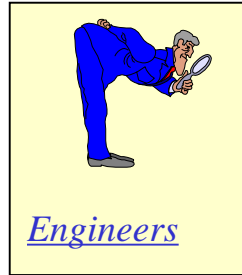
ICMP

SNMP Agents

Hardware/Software Probes

Software Agents

Glimpses of What You Get

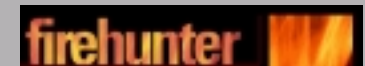
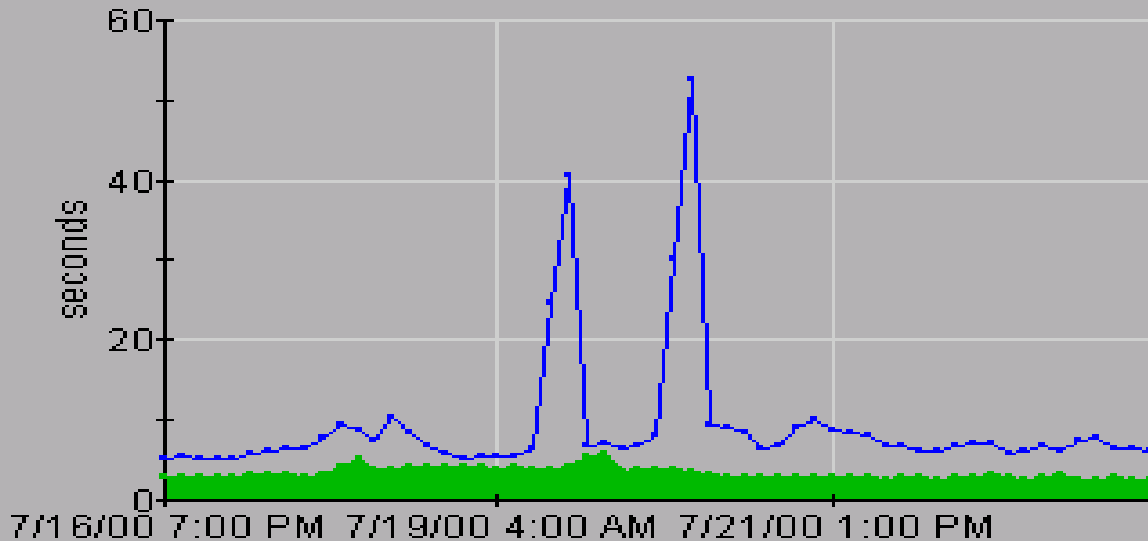


Customer Experience

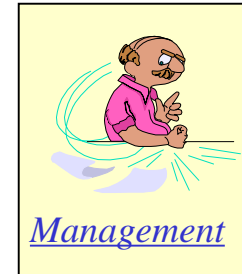
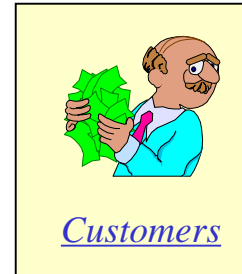
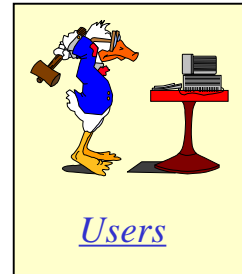
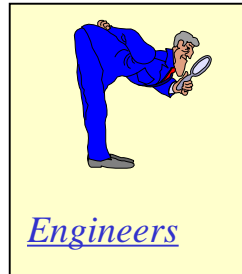
Time period:

Graph Size:

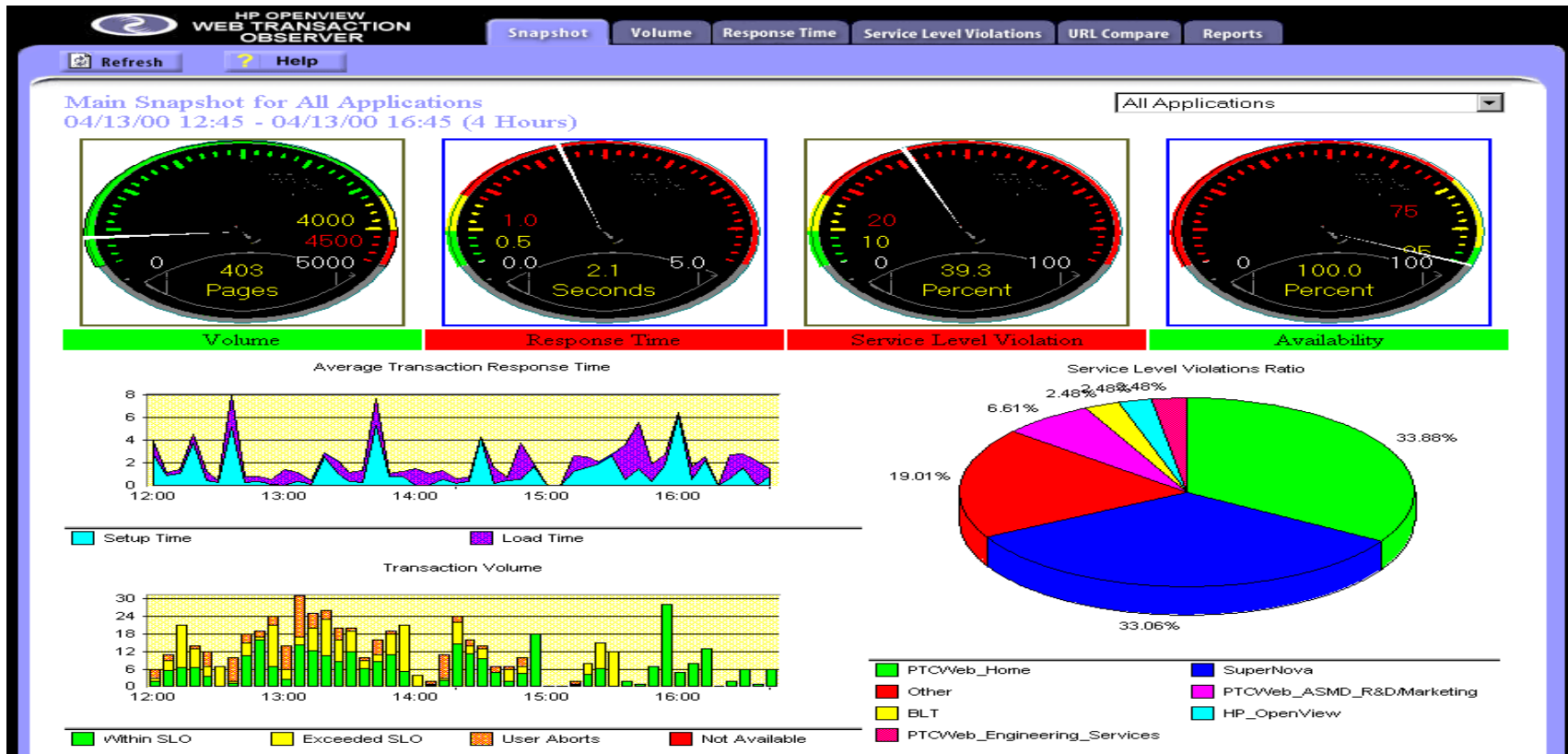
■ TotalResponseTime on BookSeller_A Http-Test
■ TotalResponseTime on BookSeller_B Http-Test



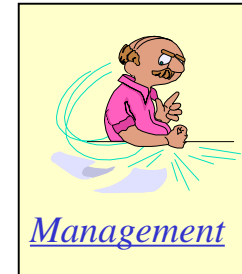
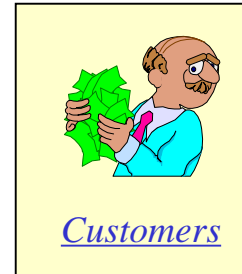
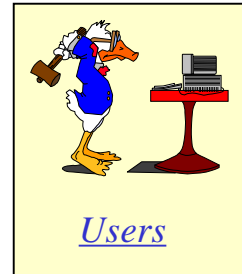
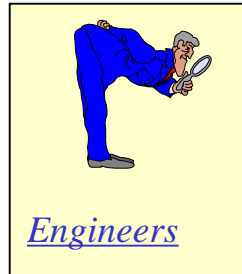
Glimpses of What You Get



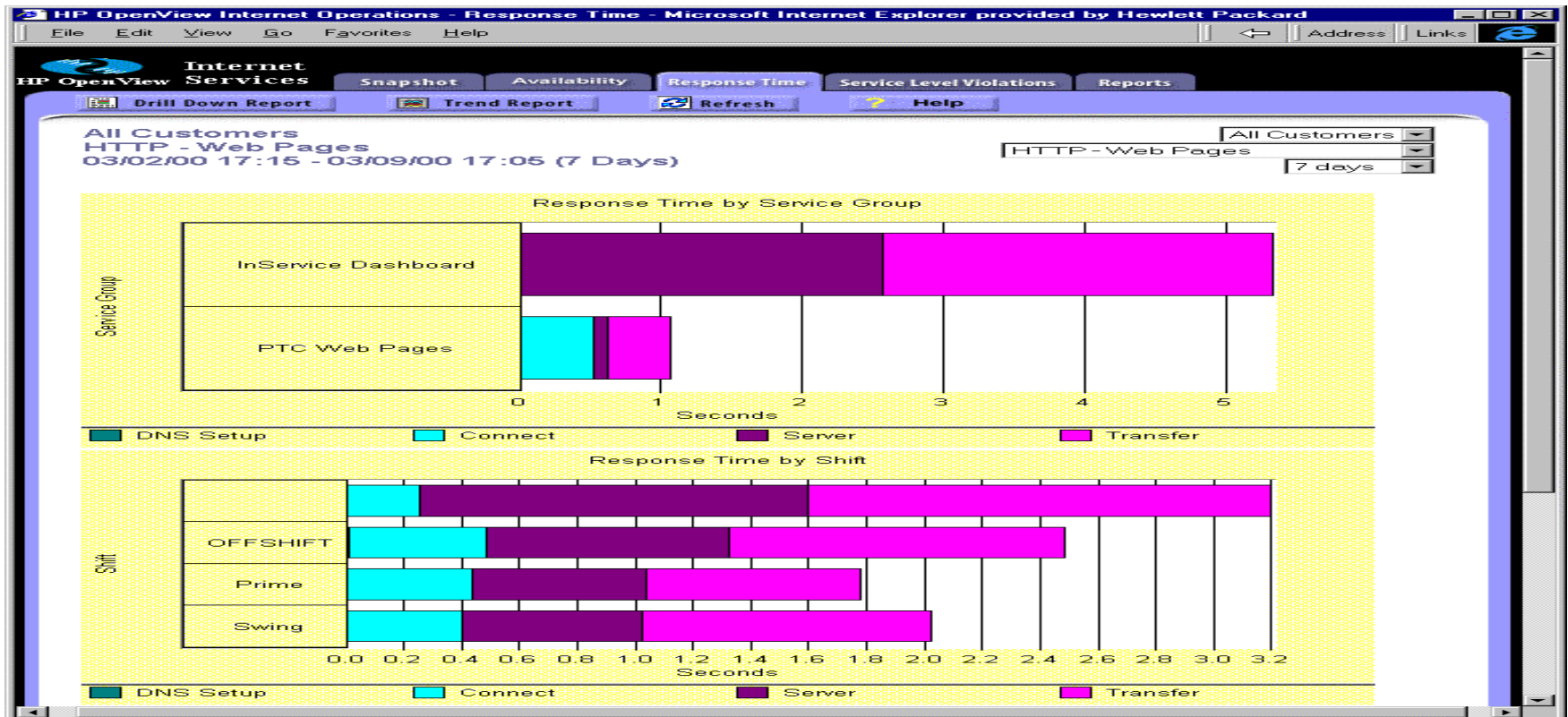
Customer Experience



Glimpses of What You Get



Customer Experience



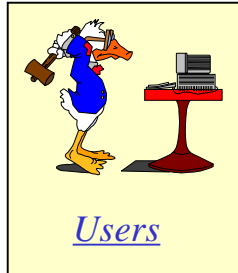
Glimpses of What You Get



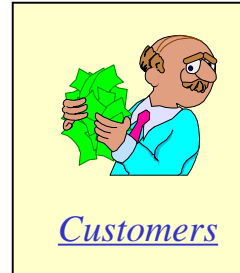
Operators



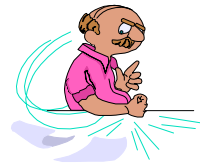
Engineers



Users



Customers



Management

Customer Experience

Action Request System -- User Tool

File Edit Query Actions Macros

Finding no solutions matching his problem, Joe completes and submits the form.

Your Profile

Employee ID+ Last Name First Name

Case Information

Category Type Item Affected

Short Description Impact

Details

Self Help

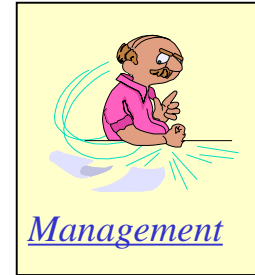
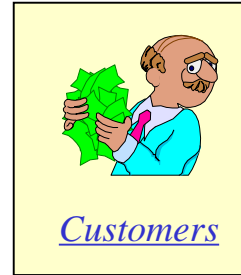
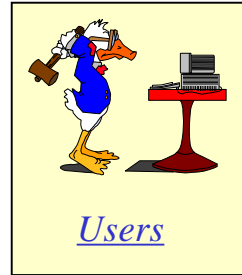
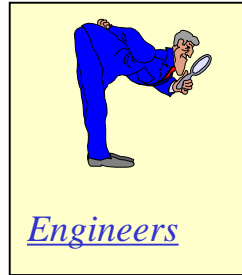
Possible Solution

Search Keyword

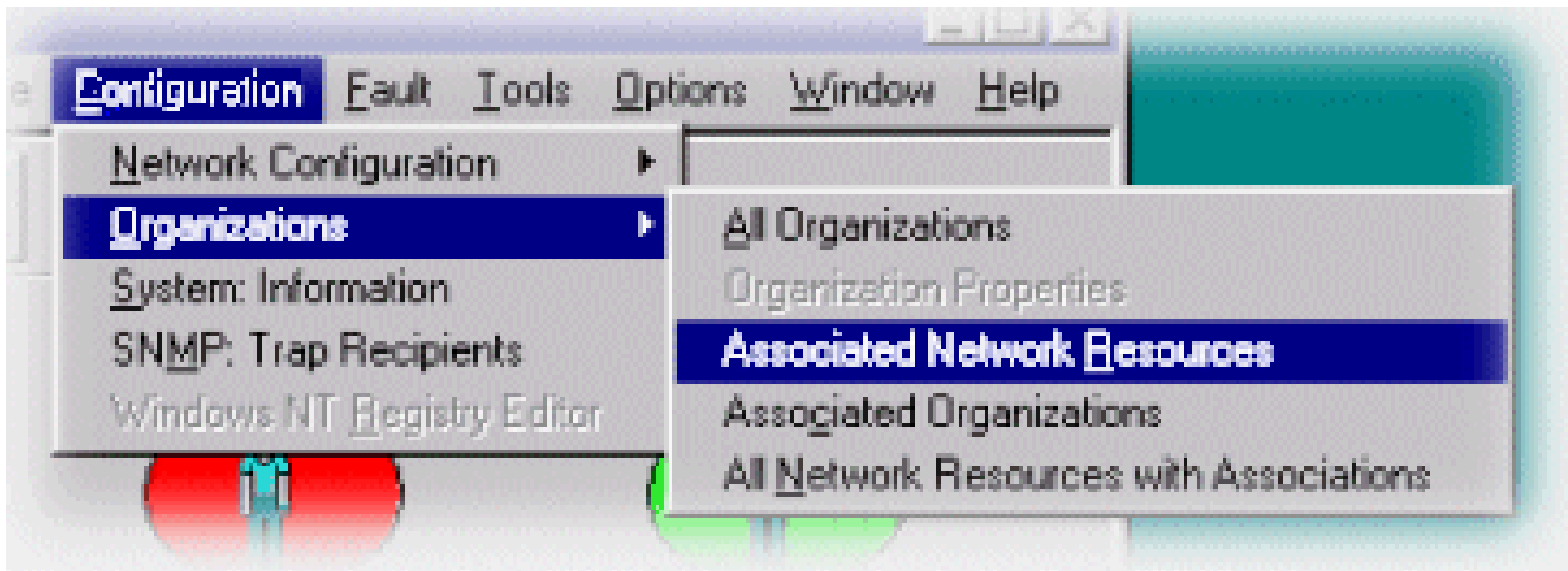
Possible Solutions becomes available upon selection of a Category and a Type.

Search the Knowledge Base by entering data in Category, Type, or Search Keyword and selecting Search.

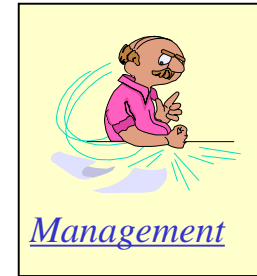
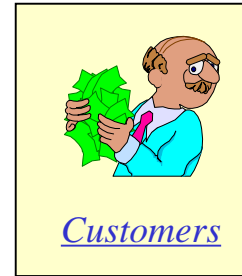
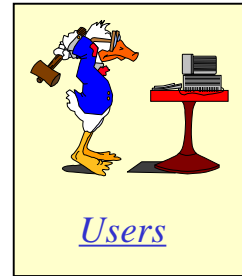
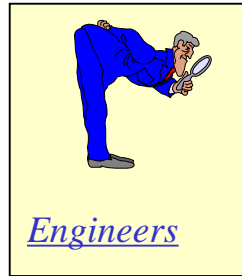
Glimpses of What You Get



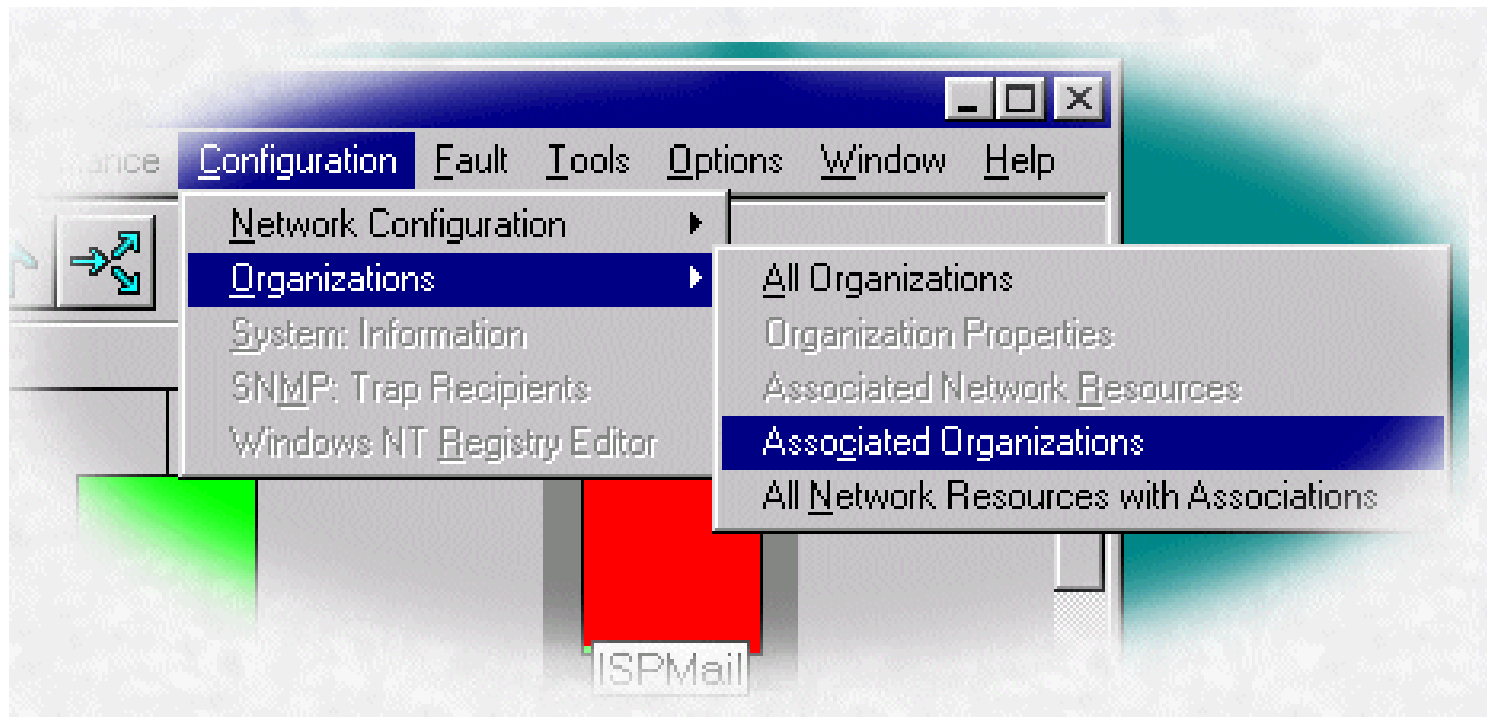
Customer Perspective



Glimpses of What You Get



Customer Perspective

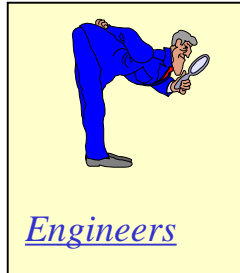


Glimpses of What You Get

Best-of-Breed,
Powerful,
Integrated Tools



Operators



Engineers



Users



Customers



Management

The screenshot displays the InoTech management software interface with several key components:

- Network Map:** A hierarchical tree view showing network devices like 'CustA', 'CustB', 'CustC', and 'CustE' connected to various IP addresses (e.g., 192.168.1.10, 192.168.1.20).
- All Alarms Explorer:** A table listing active alarms with columns for Ack, Cor, Severity, Date/Time, and Source.

Ack	Cor	Severity	Date/Time	Source	Message
<input checked="" type="checkbox"/>		Major	Tue Mar 20 12:51:52	foqibon.cnd.tp.coa	Network Mode
<input checked="" type="checkbox"/>		Major	Tue Mar 20 12:52:24	foqibon.cnd.tp.coa	Network Mode
<input checked="" type="checkbox"/>		Normal	Tue Mar 20 12:44:06	foqibon.cnd.tp.coa	Network Mode
<input checked="" type="checkbox"/>		Normal	Tue Mar 20 12:53:40	ci004k1.cnd.tp.coa	Object status
<input checked="" type="checkbox"/>		Normal	Tue Mar 20 12:54:02	ci004k1.cnd.tp.coa:2e0_1:15_2:137	
<input checked="" type="checkbox"/>		Normal	Tue Mar 20 12:55:12	ci004k1.cnd.tp.coa:2e0_1:15_2:137	
<input checked="" type="checkbox"/>		Normal	Tue Mar 20 12:55:50	ci004k1.cnd.tp.coa:1aa6:19_15_15.2	
- Packet Interface Throughput:** A line graph showing network performance metrics like 'Packets/sec' over time. The y-axis ranges from 4000 to 5500. Multiple colored lines represent different network segments.
- Alarm Categories:** A sidebar menu with options for Error Alarms, Threshold Alarms, Status Alarms, Configuration Alarms, Application Alert Alarms, and All Alarms.
- Device Status Table:** A table listing network devices with their status and classification.

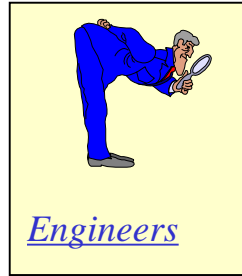
Label	Status	Class	Subclass
noctue	Critical	Server	NetWare
nsmd-gwt	Normal	Connector	Gateway
nugget	Warning	Computer	HP-UK
oldweb	Warning	Computer	HP-UK
ontip2	Major	Connector	Gateway
Print-LAN	Major	Network	IP Network
Production-LAN	Minor	Network	IP Network

Glimpses of What You Get

Best-of-Breed,
Powerful,
Integrated Tools



Operators



Engineers



Users



Customers



Management

Message Browser [opc_adm on garlic.cnd.hp.com]

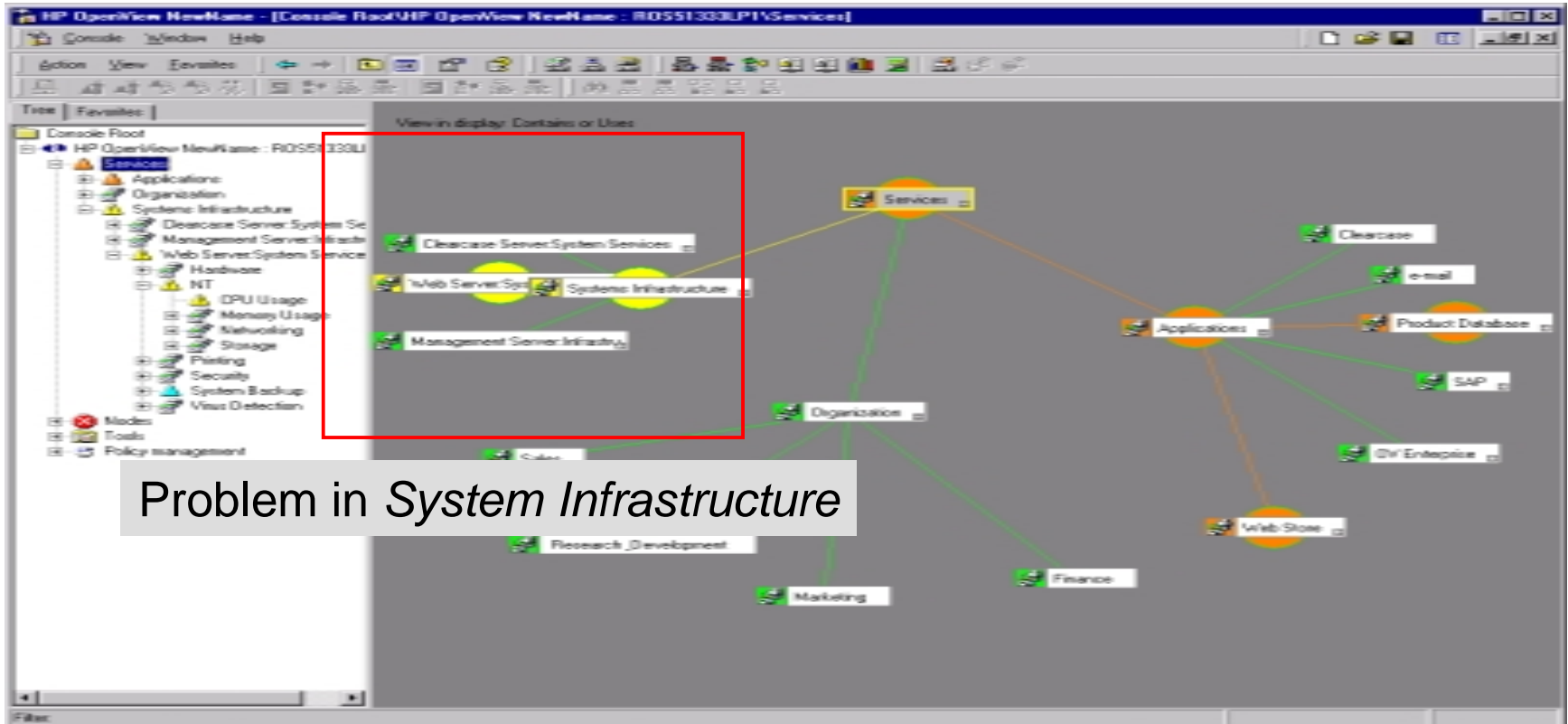
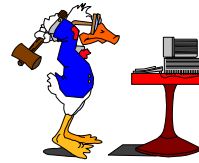
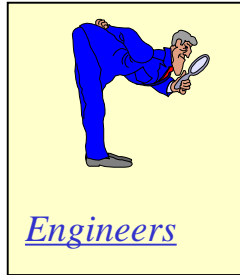
Sev.	SUIAONE	Date	Time	Node	Application	MsgID	Object	Message Text
Maj	-----	04/11/00	09:44:04	nadine.cnd	OVIS	OVIS_DNS	www.hp.co	DNS Service RESPONSE_TIME is slow (5.558 vs 2.000)
Crit	-----	04/11/00	10:00:04	nadine.cnd	OVIS	OVIS_POP3	mhaent@je	POP3 Service RESPONSE_TIME is slow (13.039 vs 4.0)
Warn	-----	04/11/00	10:05:07	nadine.cnd	OVIS	OVIS_NNTP	comp.os.1	NNTP Service RESPONSE_TIME is slow (6.229 vs 6.00)
Crit	-----	04/11/00	12:01:00	nadine.cnd	OVIS	OVIS_POP3	mhaent@je	POP3 Service RESPONSE_TIME is slow (13.009 vs 4.0)
Min	-----	04/11/00	12:15:00	nadine.cnd	OVIS	OVIS_DNS	www.hp.co	DNS Service RESPONSE_TIME is slow (1.141 vs 1.000)
Maj	-----	04/11/00	12:50:48	nadine.cnd	OVIS	OVIS_HTTP	dws-direk	HTTPS Service RESPONSE_TIME is slow (6.069 vs 6.0)
Warn	-----	04/11/00	13:00:14	nadine.cnd	OVIS	OVIS_SMTP	mhaent@je	SMTP Service RESPONSE_TIME is slow (0.631 vs 0.50)
Crit	-----	04/11/00	13:05:38	nadine.cnd	OVIS	OVIS_HTTP	62.52.71.	HTTP Service RESPONSE_TIME is slow (14.931 vs 10.0)
Maj	-----	04/11/00	13:05:38	nadine.cnd	OVIS	OVIS_HTTP	195.71.13	HTTP Service RESPONSE_TIME is slow (6.299 vs 6.00)
Min	-----	04/11/00	13:05:38	nadine.cnd	OVIS	OVIS_HTTP	ptcweb.ro	HTTP Service RESPONSE_TIME is slow (13.799 vs 4.0)
Crit	-----	04/11/00	13:05:38	nadine.cnd	OVIS	OVIS_HTTP	dws-direk	HTTPS Service is unavailable
Maj	-----	04/11/00	13:05:38	nadine.cnd	OVIS	OVIS_HTTP	dws-direk	HTTPS Service RESPONSE_TIME is slow (6.148 vs 6.0)
Crit	-----	04/11/00	13:06:19	nadine.cnd	OVIS	OVIS_Radi	user1@fc-	RADIUS Service is unavailable

Active Messages: 5 (Maj), 4 (Crit), 2 (Warn), 2 (Min), 0 (Maj), 0 (Min), 0 (Crit), 0 (Maj), 0 (Crit)

Buttons: Own, Highlight, Details..., Perform Action, Annotations..., Acknowledge

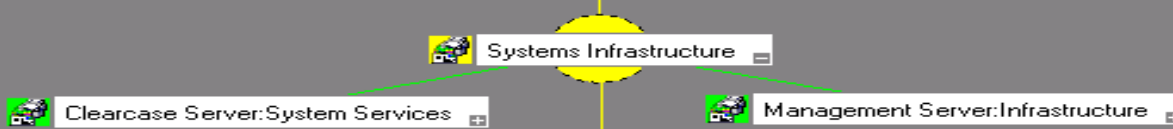
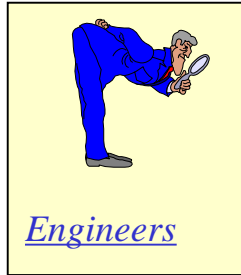
Glimpses of What You Get

Status from a Service and Business Perspective



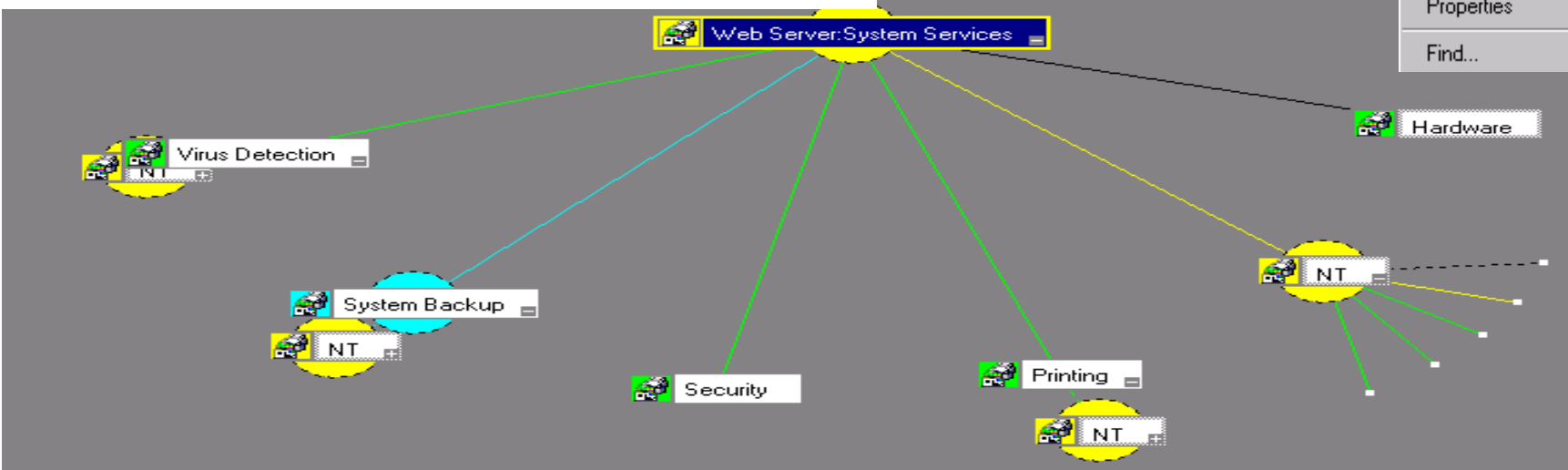
Glimpses of What You Get

State-of-the-Art
Context-Rich
Visualization
Capability



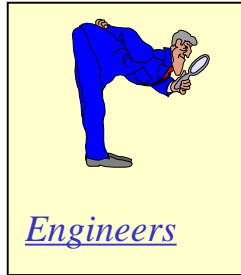
- Root Cause
- Impacted
- Map
- Launch Tool
- Launch Performance Grapher
- Active Messages
- Acknowledged Messages
- Properties
- Find...

Event affecting Webserver (Yellow = Minor)
 What is the root cause?



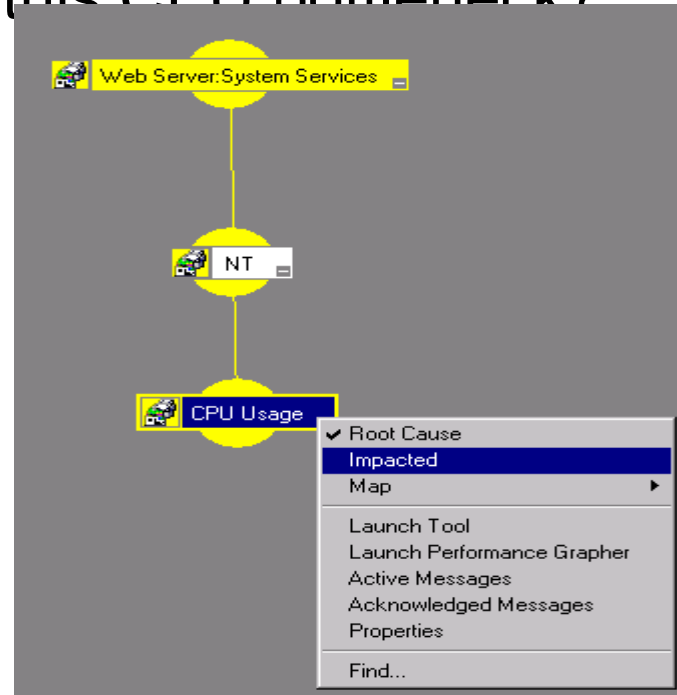
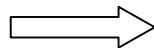
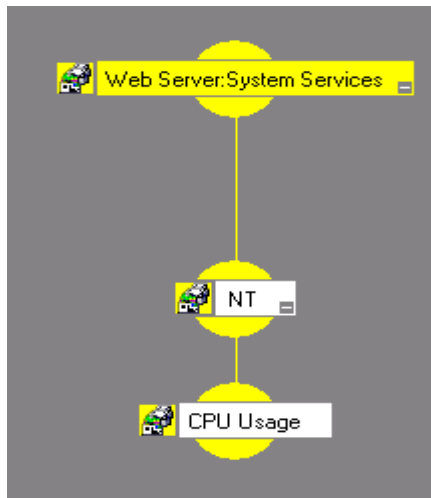
Glimpses of What You Get

State-of-the-Art
Context-Rich
Visualization
Capability



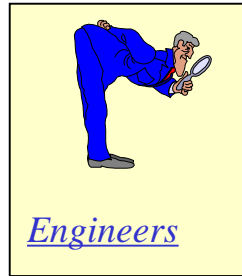
Root Cause: CPU bottleneck

What else is impacted by this CPU bottleneck?



Glimpses of What You Get

State-of-the-Art
Context-Rich
Visualization
Capability



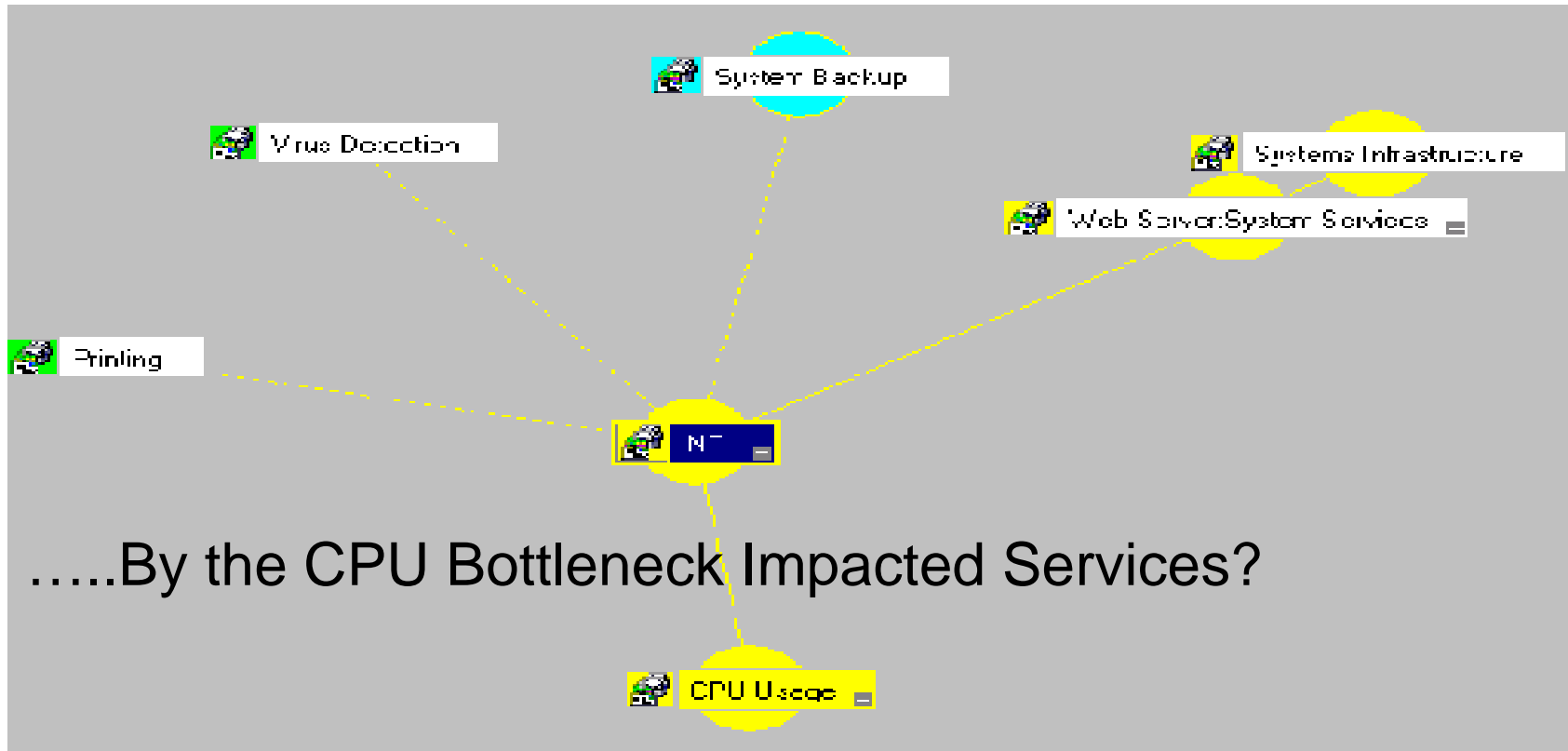
Users



Customers

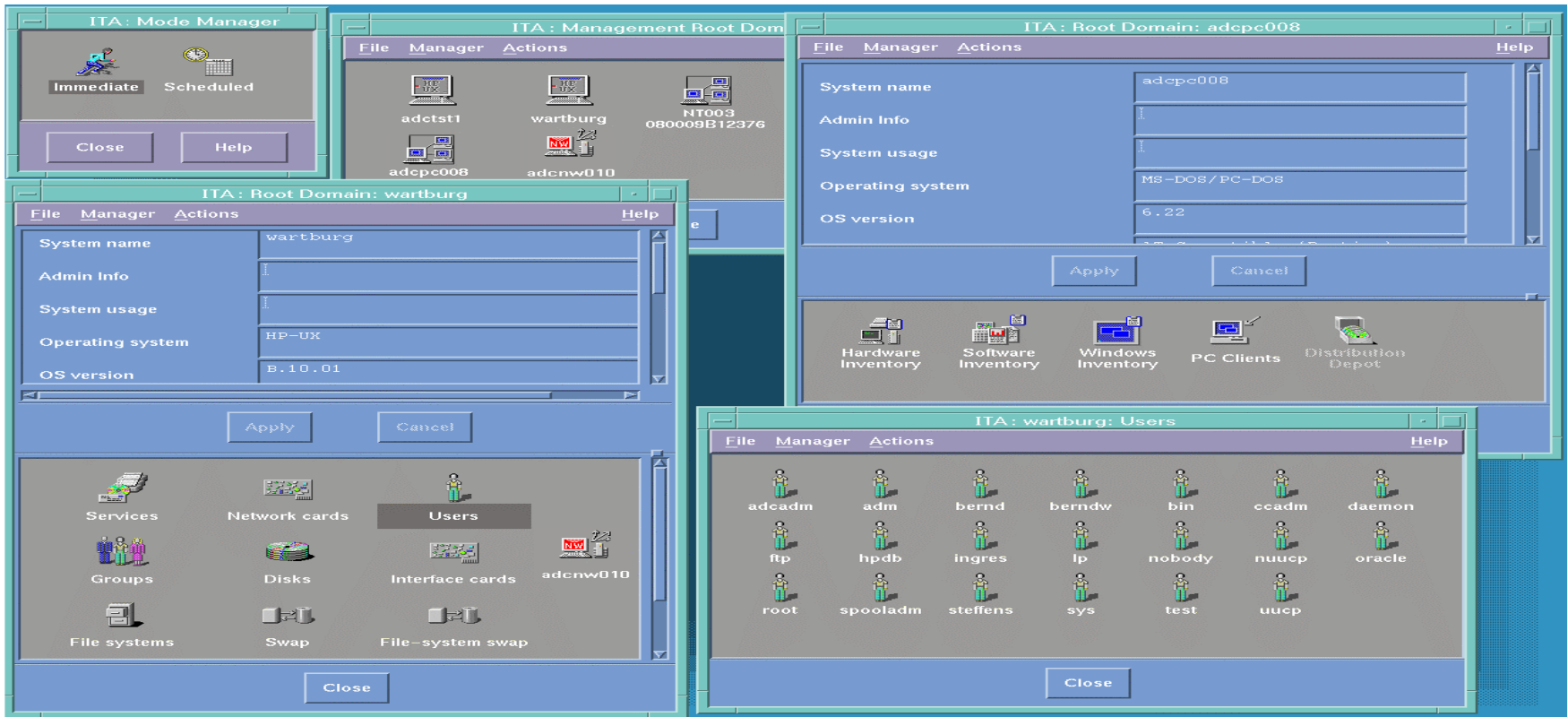
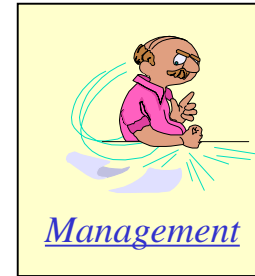
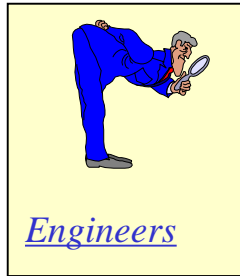


Management



Glimpses of What You Get

Expanding
Acquisition of
Institutional
Knowledge and
Processes

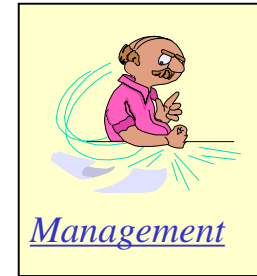
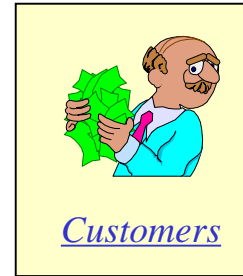
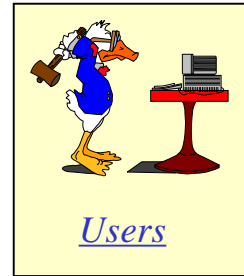
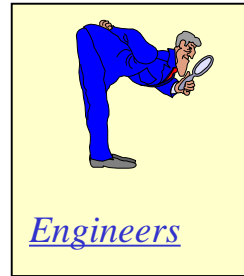


The screenshot displays the ITA (InnoTech Applications) interface with several overlapping windows:

- ITA : Mode Manager:** Shows 'Immediate' and 'Scheduled' modes with 'Close' and 'Help' buttons.
- ITA : Management Root Dom:** A file manager showing system icons for 'adctst1', 'wartburg', 'NT003 080009B12376', 'adcpc008', and 'adcnw010'.
- ITA : Root Domain: adcpc008:** A configuration window for 'adcpc008' with fields for 'System name', 'Admin Info', 'System usage', 'Operating system' (MS-DOS/PC-DOS), and 'OS version' (6.22). It includes 'Apply' and 'Cancel' buttons and a 'Distribution Depot' section with icons for Hardware, Software, Windows, and PC Clients.
- ITA : Root Domain: wartburg:** A configuration window for 'wartburg' with fields for 'System name', 'Admin Info', 'System usage', 'Operating system' (HP-UX), and 'OS version' (B.10.01). It includes 'Apply' and 'Cancel' buttons and a 'Users' section with icons for Services, Network cards, Groups, Disks, Interface cards, File systems, Swap, and File-system swap.
- ITA : wartburg: Users:** A user management window showing a grid of user accounts: 'adcadm', 'adm', 'bernd', 'berndw', 'bin', 'ccadm', 'daemon', 'ftp', 'hpdb', 'ingres', 'lp', 'nobody', 'nuucp', 'oracle', 'root', 'spooladm', 'steffens', 'sys', 'test', and 'uucp'. It has a 'Close' button.

Glimpses of What You Get

Real-Time
Web QoS
Management



HP WebQoS

File Actions Help

Filter Statistics Edit Copy

Web QoS
THE WEB EXPRESSWAY

Services

- My Domain
 - BigCompany
 - hpntc2k
 - www.BigCompanyStore.com
 - www.BigCompanySupport.com
 - SmallCompany
 - hpntc2k
 - www.SmallComapny.com

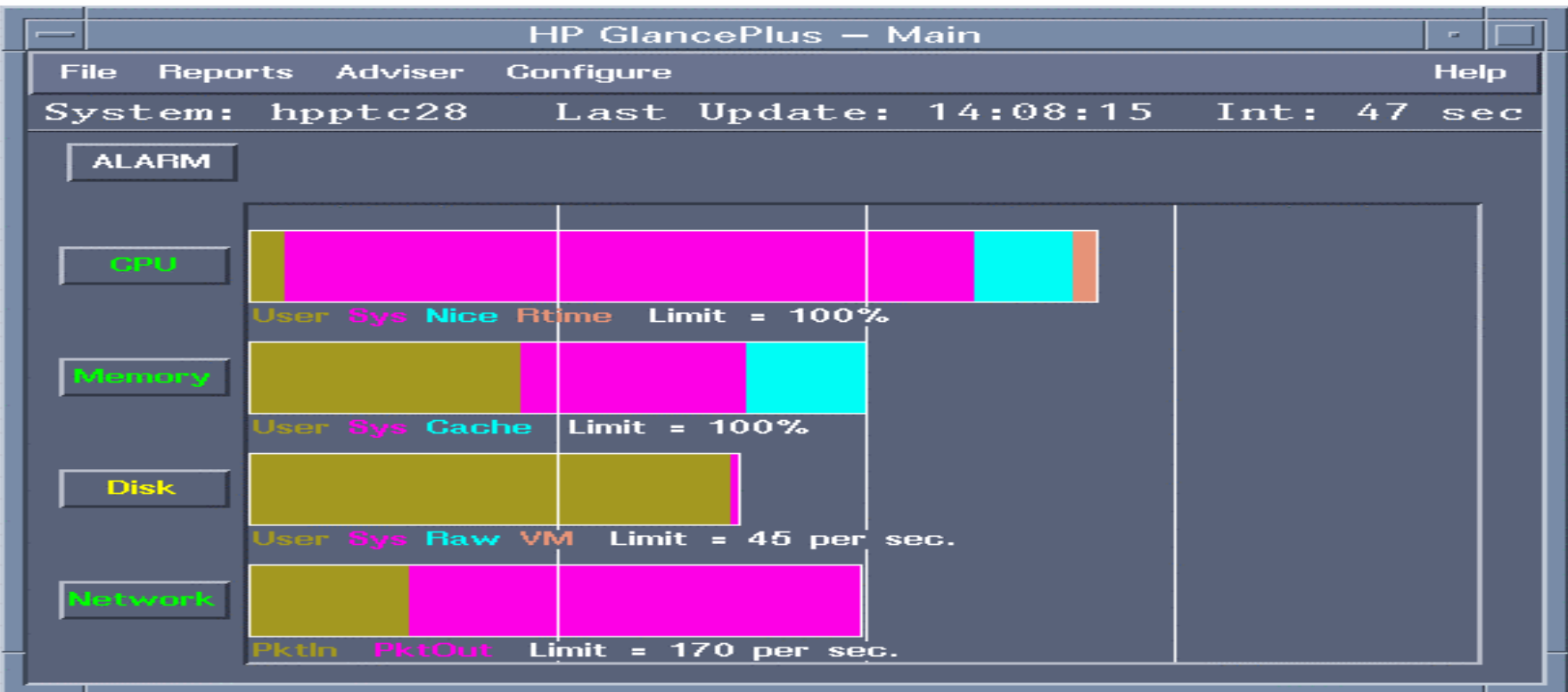
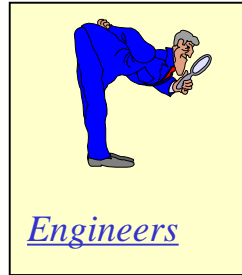
Service level objectives for www.BigCompanyStore.com in BigCompany on hpntc2k

Status	Priority	Component	Objective
Violation	3	www.BigCompanyStore.com	Support up to 90% CPU load on hpntc2k.cup.hp.com in v
Risk	2	www.BigCompanyStore.com	Support at least 100 concurrent session(s) in www.BigCo
Compliance	1	www.BigCompanyStore.com	Maintain less than 5 millisecond average response time

1 1 1 0

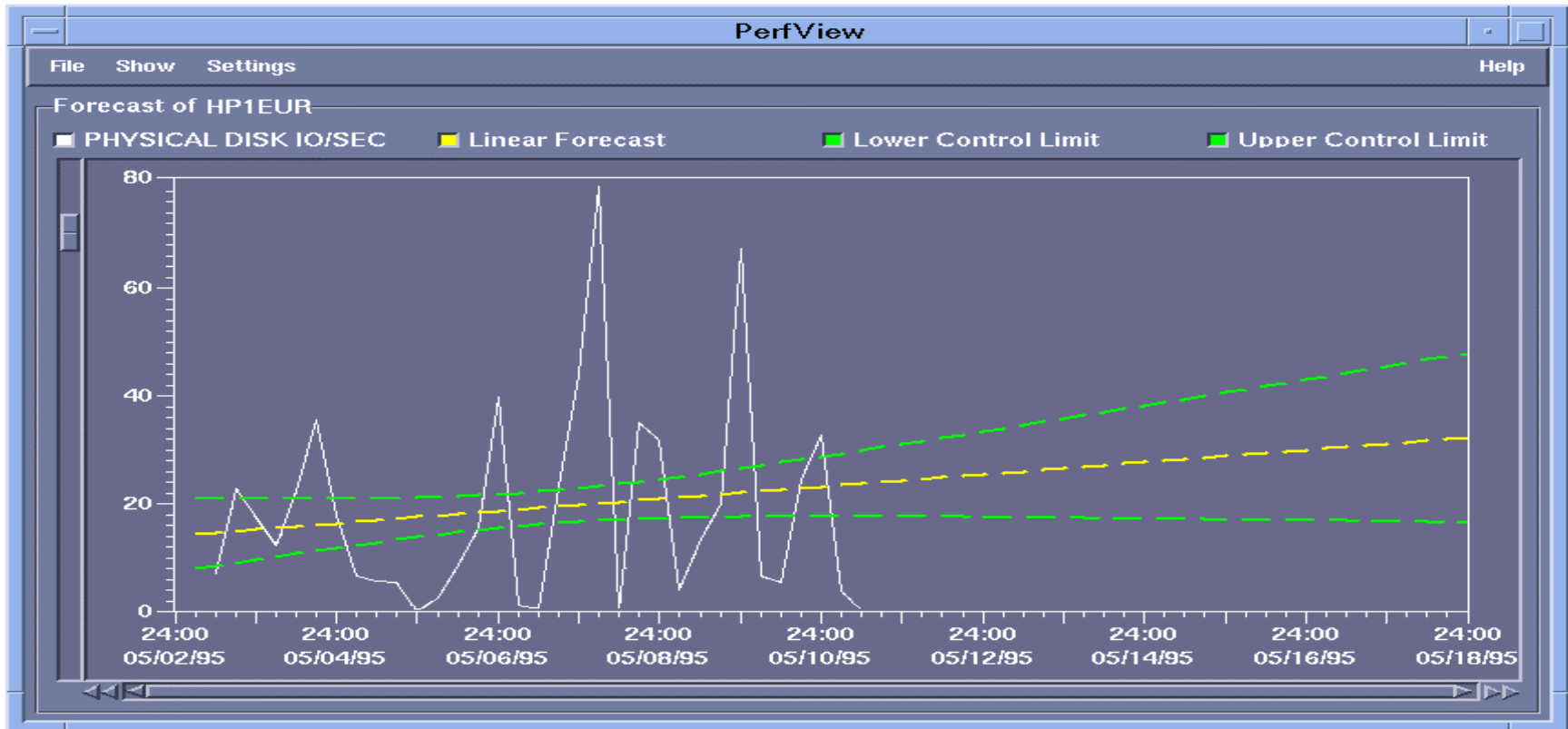
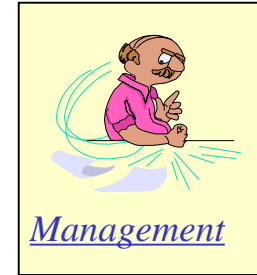
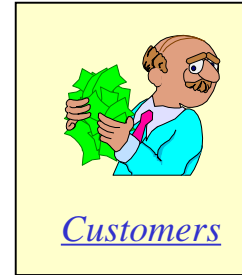
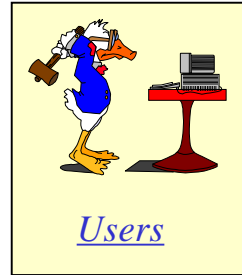
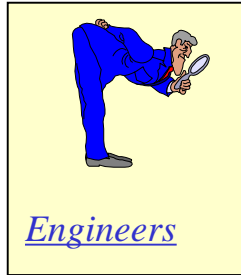
Glimpses of What You Get

Real-Time
Server
Management



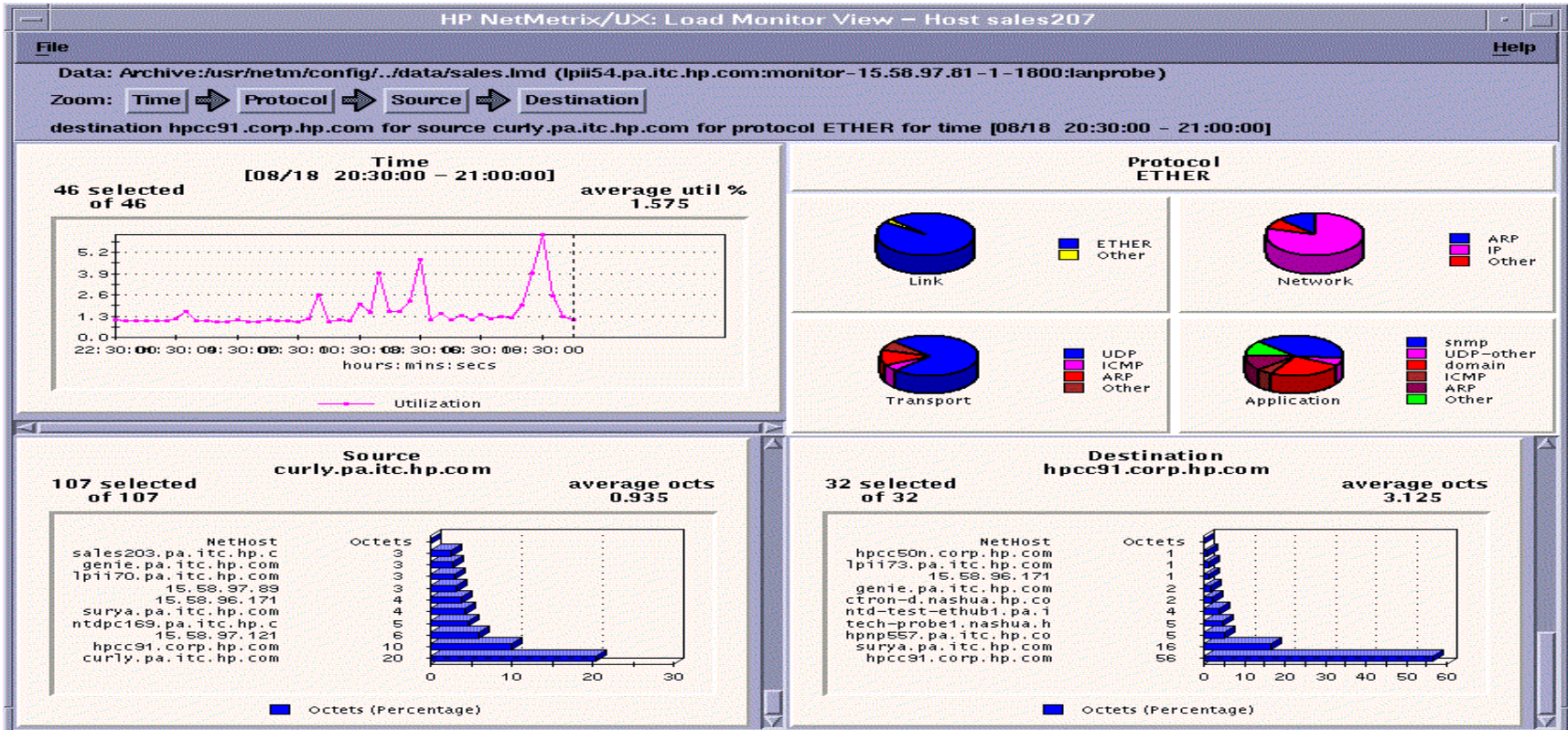
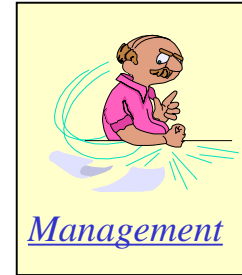
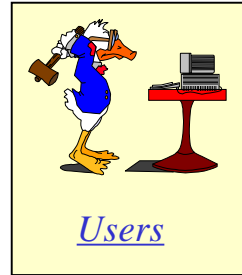
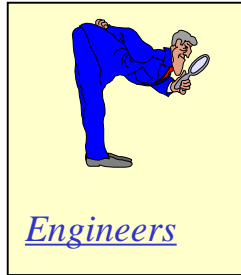
Glimpses of What You Get

System Resource Forecasting



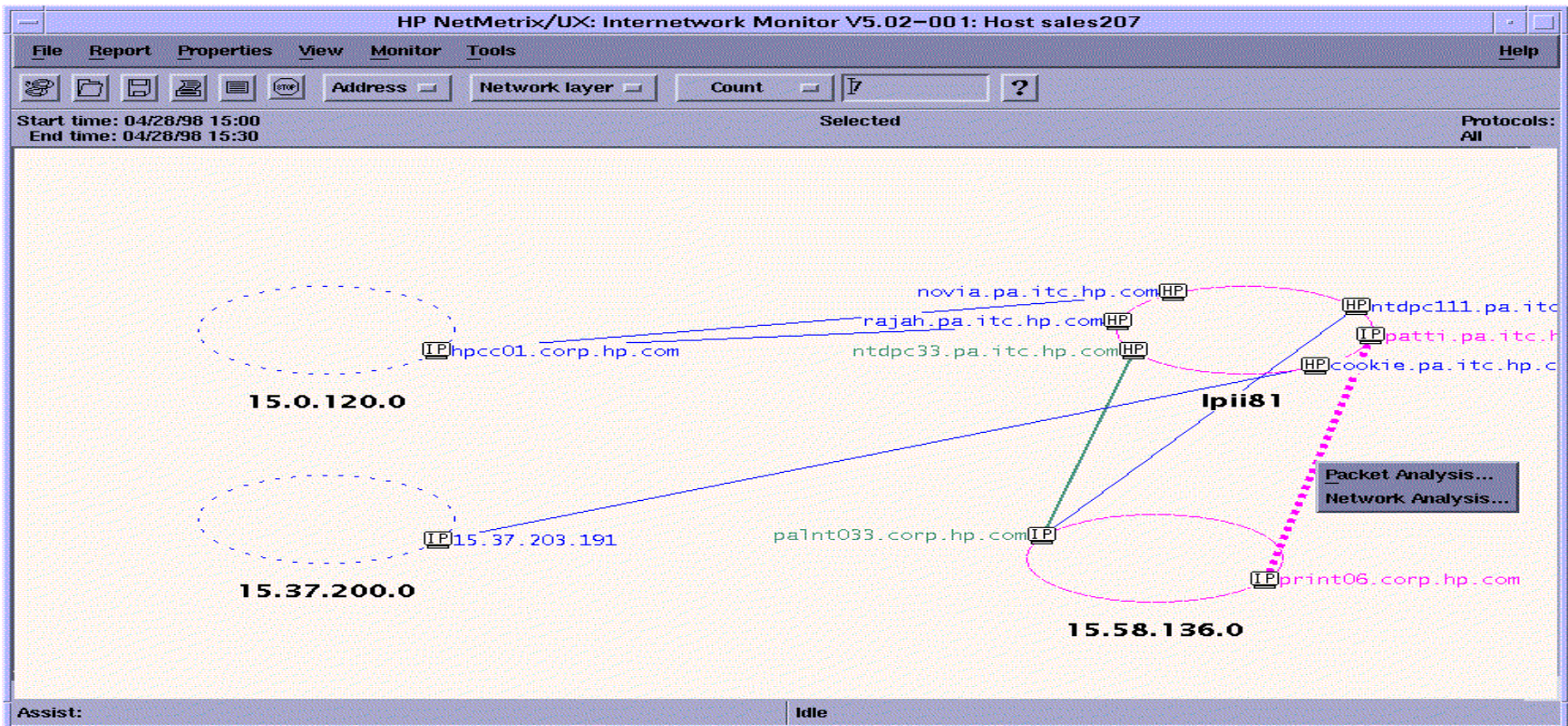
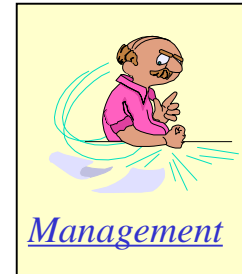
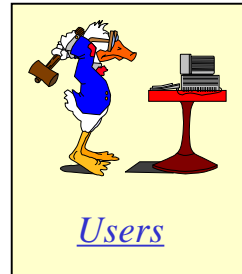
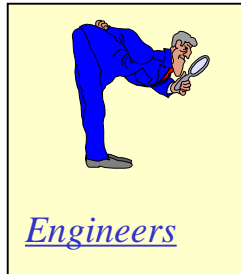
Glimpses of What You Get

Detailed Info on
What's REALLY
Going on in Your
Network



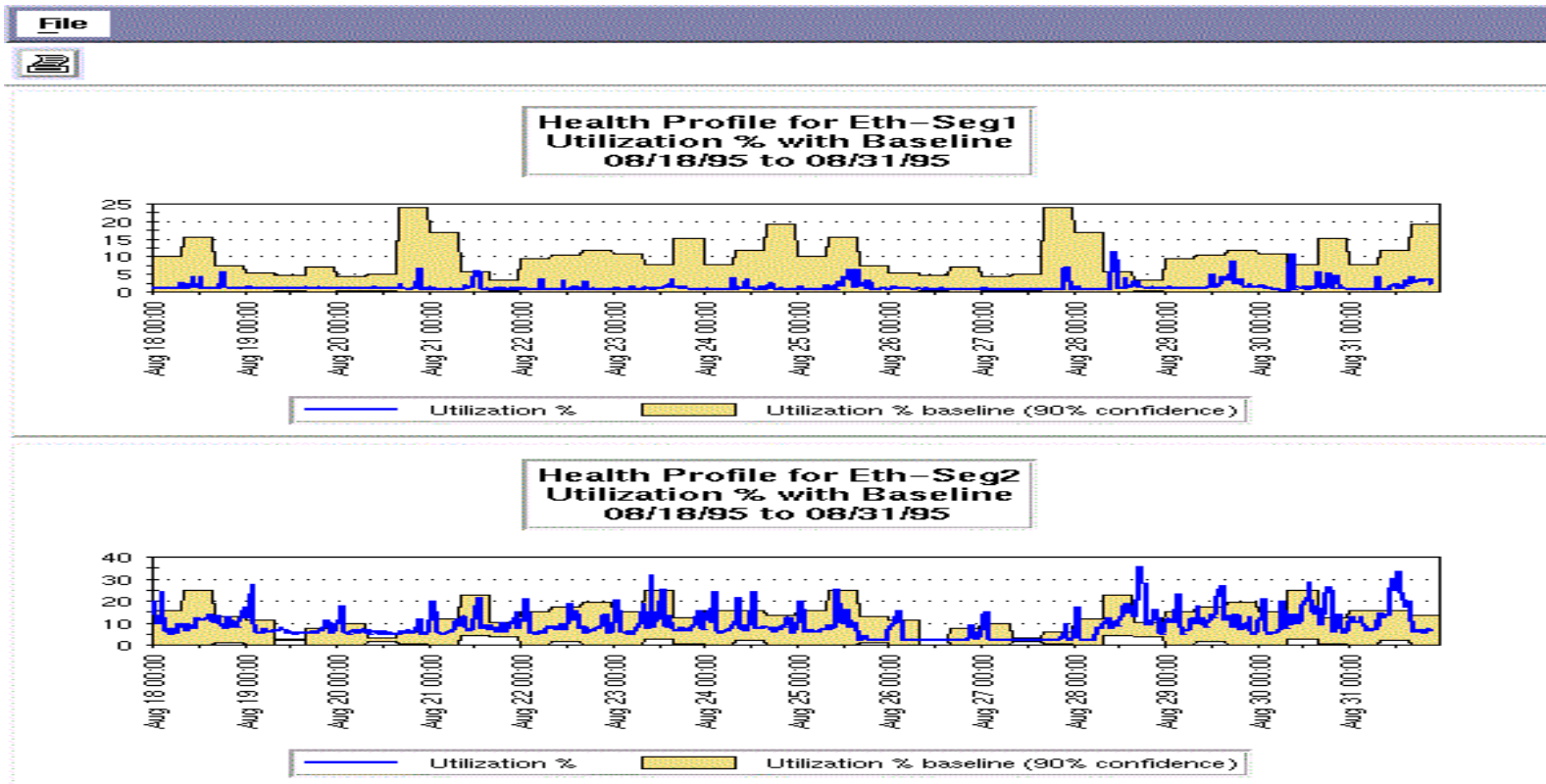
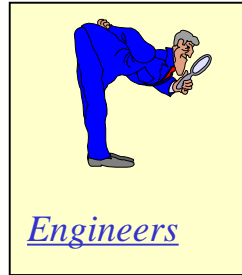
Glimpses of What You Get

Detailed Info on
What's REALLY
Going on in Your
Network



Glimpses of What You Get

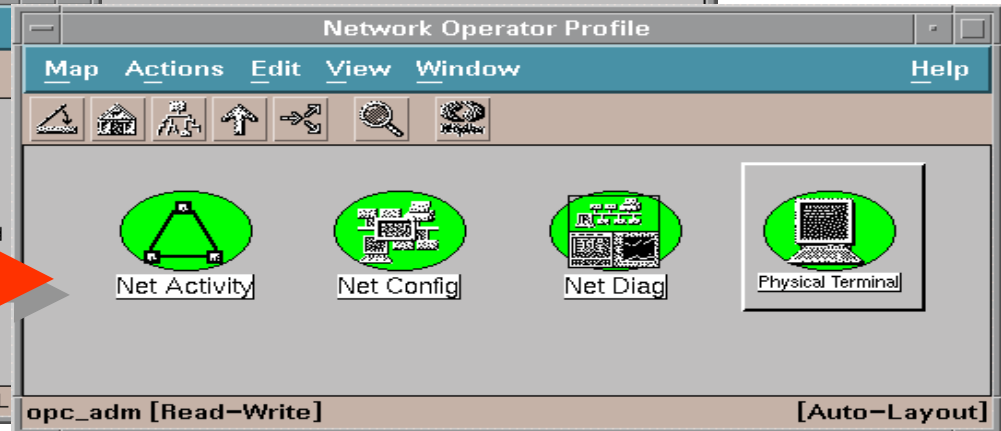
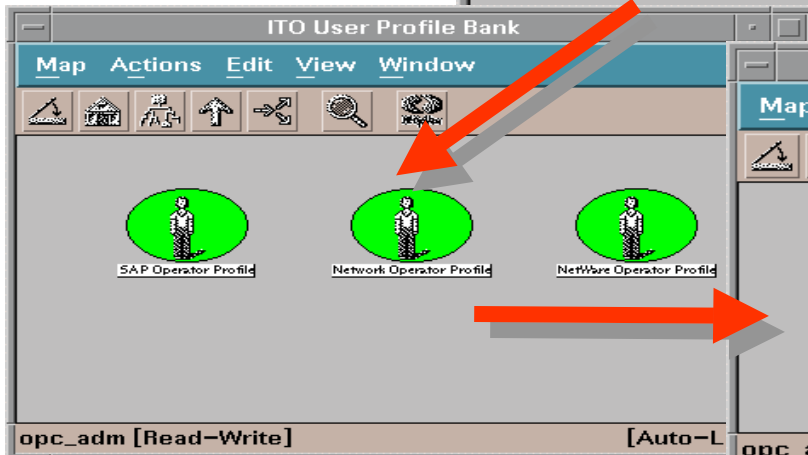
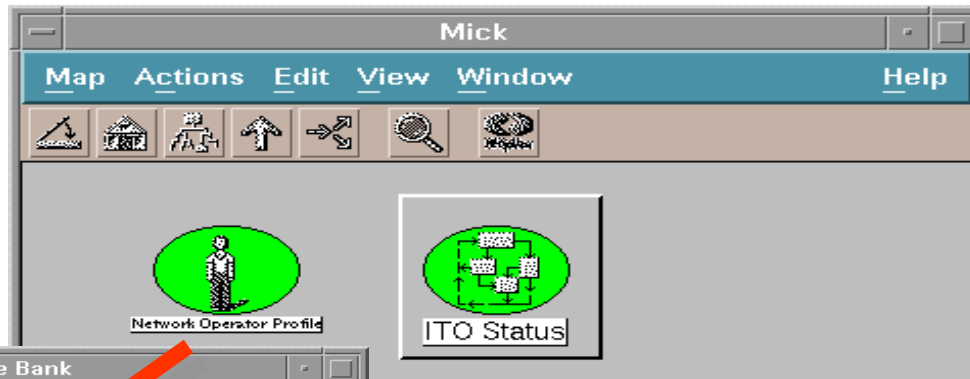
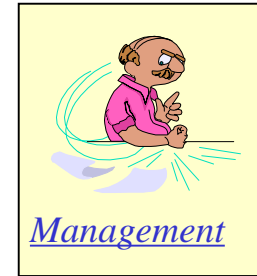
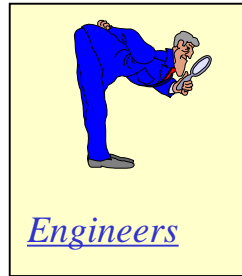
Along with
Baseline Data



Assist:

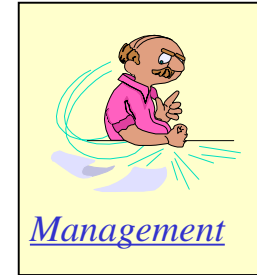
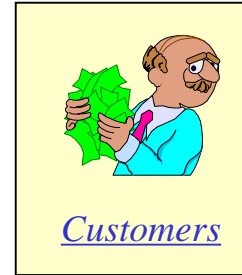
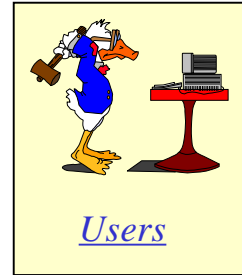
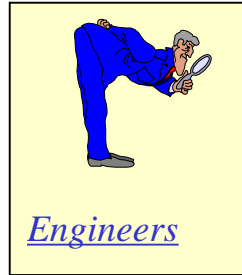
Glimpses of What You Get

Flexible Operator
Management
Domain
Assignment



Glimpses of What You Get

Powerful Reporting
Tool and Gobs of
Pre-configured
Reports



System Up Time

System Up Time is calculated based on the amount of time that the MeasureWare collector was running.

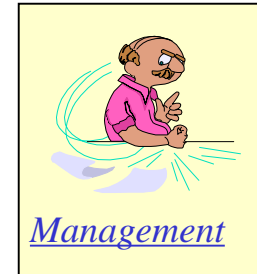
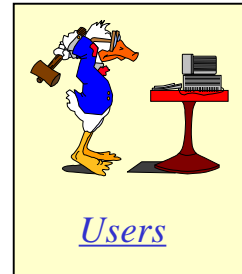
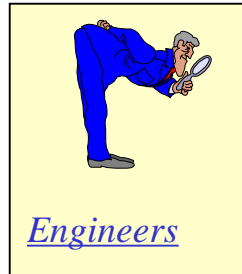
Prime Shift is defined as shown at the end of this report. **Off Shift** is all other times. The "**All Day**" percent is based on 24 hour days for the range of dates in the database.

This report was prepared: 7/2/99, 5:23:29 PM

<u>SystemName</u>	<u>Dates in Database</u>	<u>Days in Database</u>	<u>All Day Up Time %</u>	<u>Prime Up Time %</u>	<u>Off Shift Up Time %</u>
appsvr0	4/13/99 -4/19/99	7	100.0	100.0	100.0
appsvr1	4/13/99 -4/19/99	7	100.0	99.9	100.0
appsvr128	4/13/99 -4/19/99	7	100.0	100.0	100.0
appsvr27	4/13/99 -4/19/99	7	100.0	100.0	100.0
appsvr42	4/13/99 -4/19/99	7	100.0	100.0	100.0
appsvr50	4/13/99 -4/19/99	7	100.0	100.0	100.0
appsvr6	4/13/99 -4/19/99	7	98.9	96.6	99.4
appsvr77	4/13/99 -4/19/99	7	100.0	100.0	100.0
bashir	4/13/99 -4/19/99	7	99.6	99.1	99.7
belanna	4/13/99 -4/19/99	7	100.0	100.0	100.0
highbird	4/13/99 -4/19/99	7	97.1	87.0	99.4
cat	4/13/99 -4/19/99	7	99.9	99.7	100.0
chakotay	4/13/99 -4/14/99	2	89.2	91.3	88.1

Glimpses of What You Get

Including Reports
on Effectiveness of
Management
System



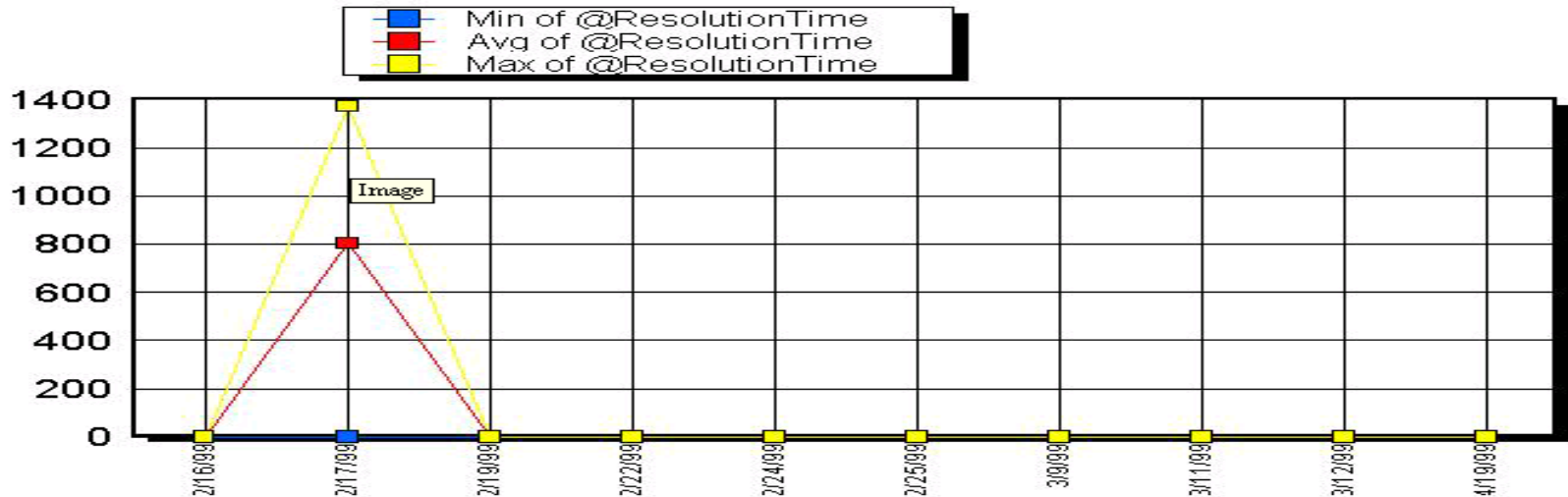
OpenView Service Reporter

ITO Resolution Time Trend

This report shows the minimum, average, and maximum time to acknowledge messages each day.

This report was prepared: 7/6/99, 12:25:55 PM

ITO Management Server: plumas

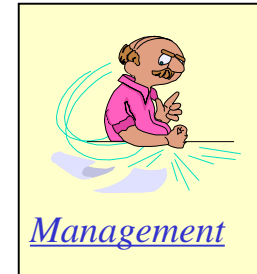
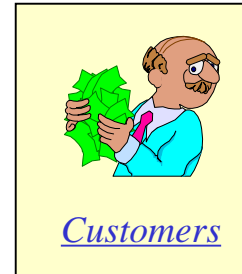
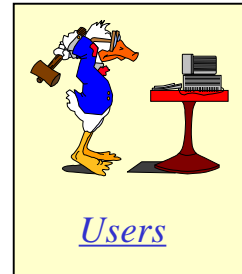
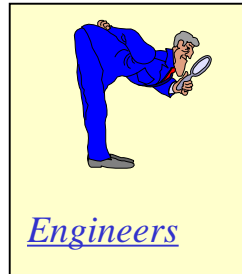


Note: The resolution time is given in minutes.

Date	Minimum	Average	Maximum	Count
2/16/99	0.00	0.00	0.02	14

Glimpses of What You Get

Including Reports
on Effectiveness of
Management
System

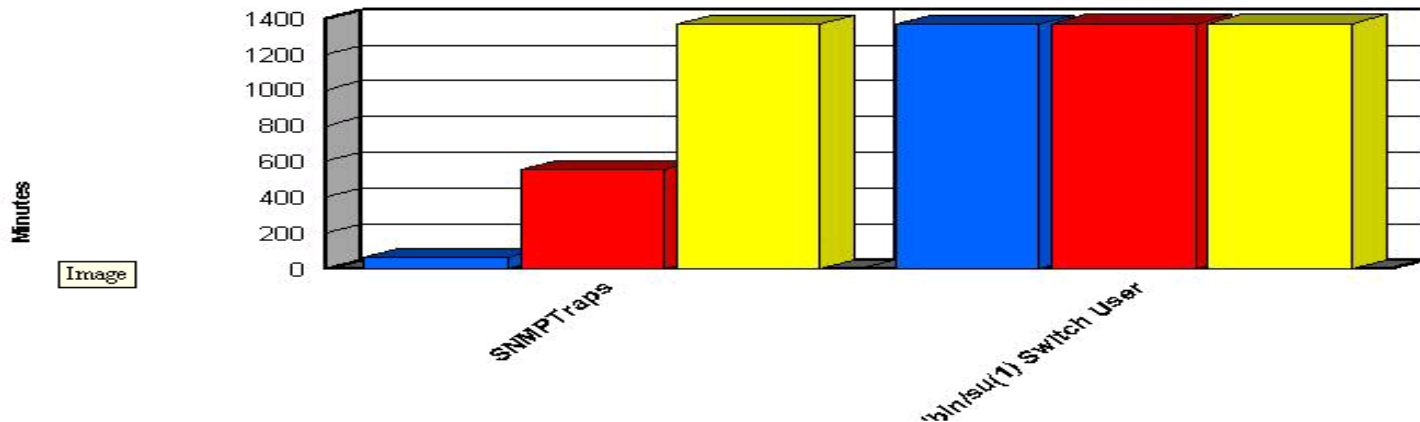


OpenView Service Reporter

ITO Resolution Time by Application

This report shows the time it takes to acknowledge a message for each application (minimum, average, and maximum).

This report was prepared: 7/6/99, 12:24:33 PM
ITO Management Server: plumas

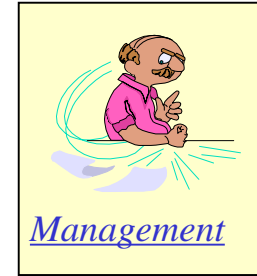
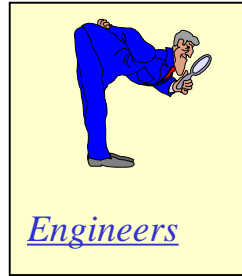


The resolution time (in minutes) for an incoming message is:

<u>Application</u>	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>	<u>Count</u>
SNMPTraps	64	554	1,367	4
/usr/bin/su(1) Switch User	1,368	1,370	1,372	6

Glimpses of What You Get

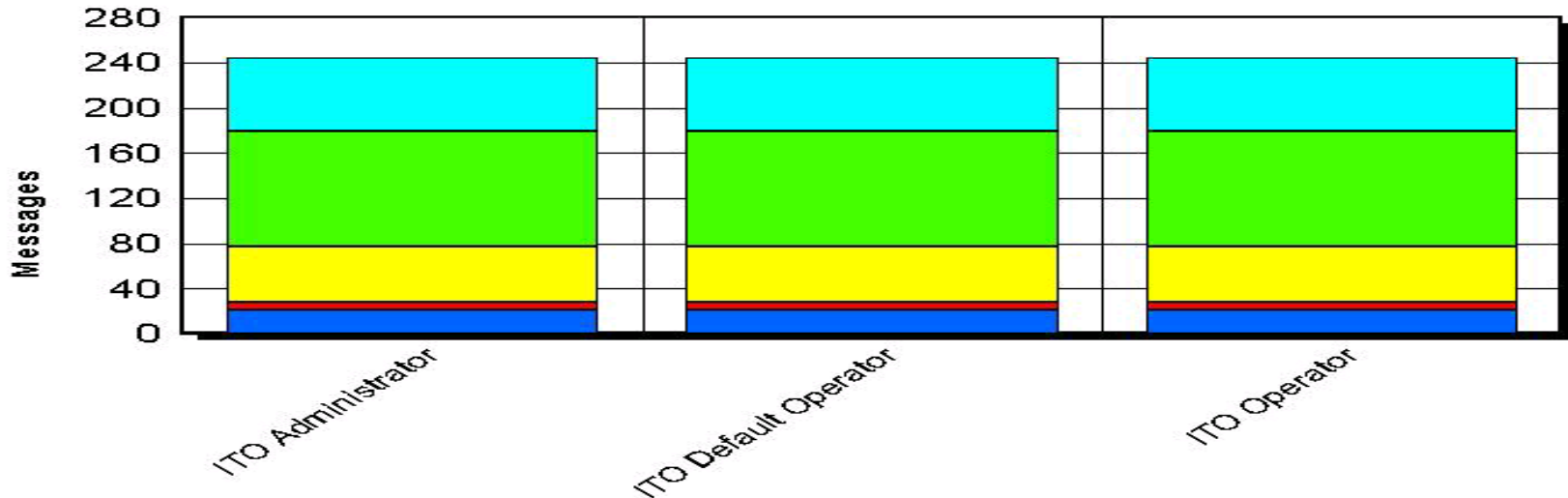
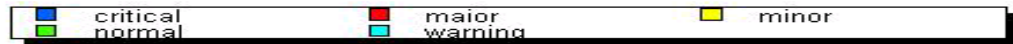
Including Reports
on Effectiveness of
Management
System



ITO Message Load per Operator

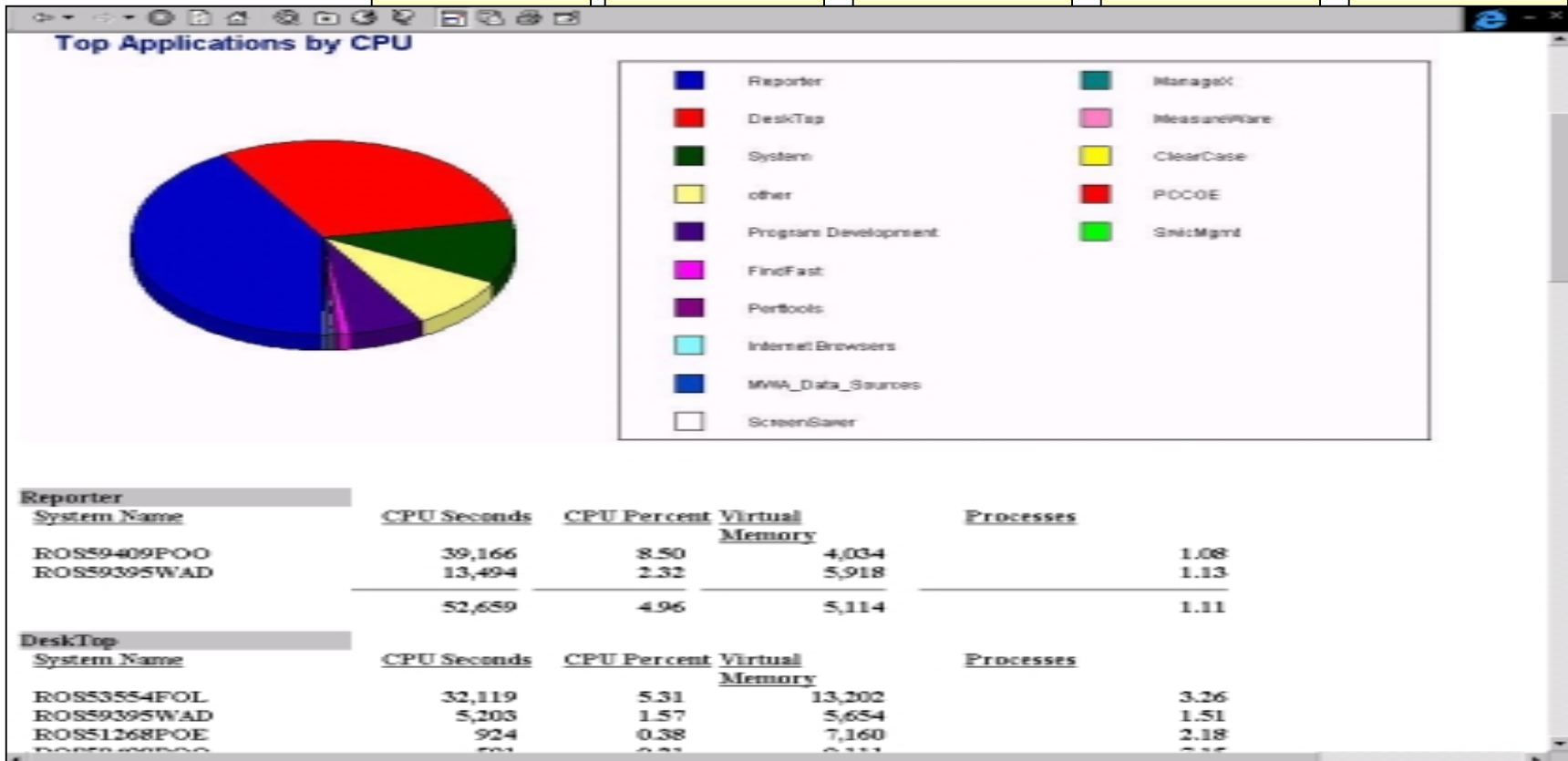
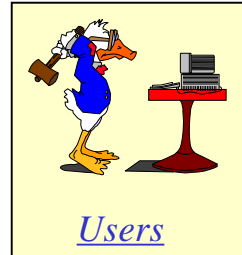
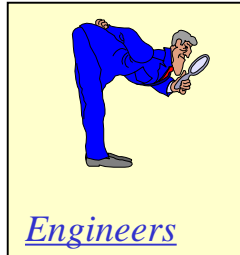
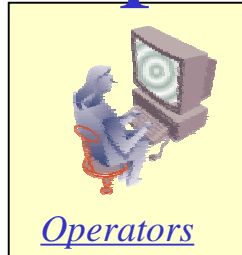
This report shows the number of messages received by each operator.

This report was prepared: 7/6/99, 12:24:53 PM
ITO Management Server: plumas



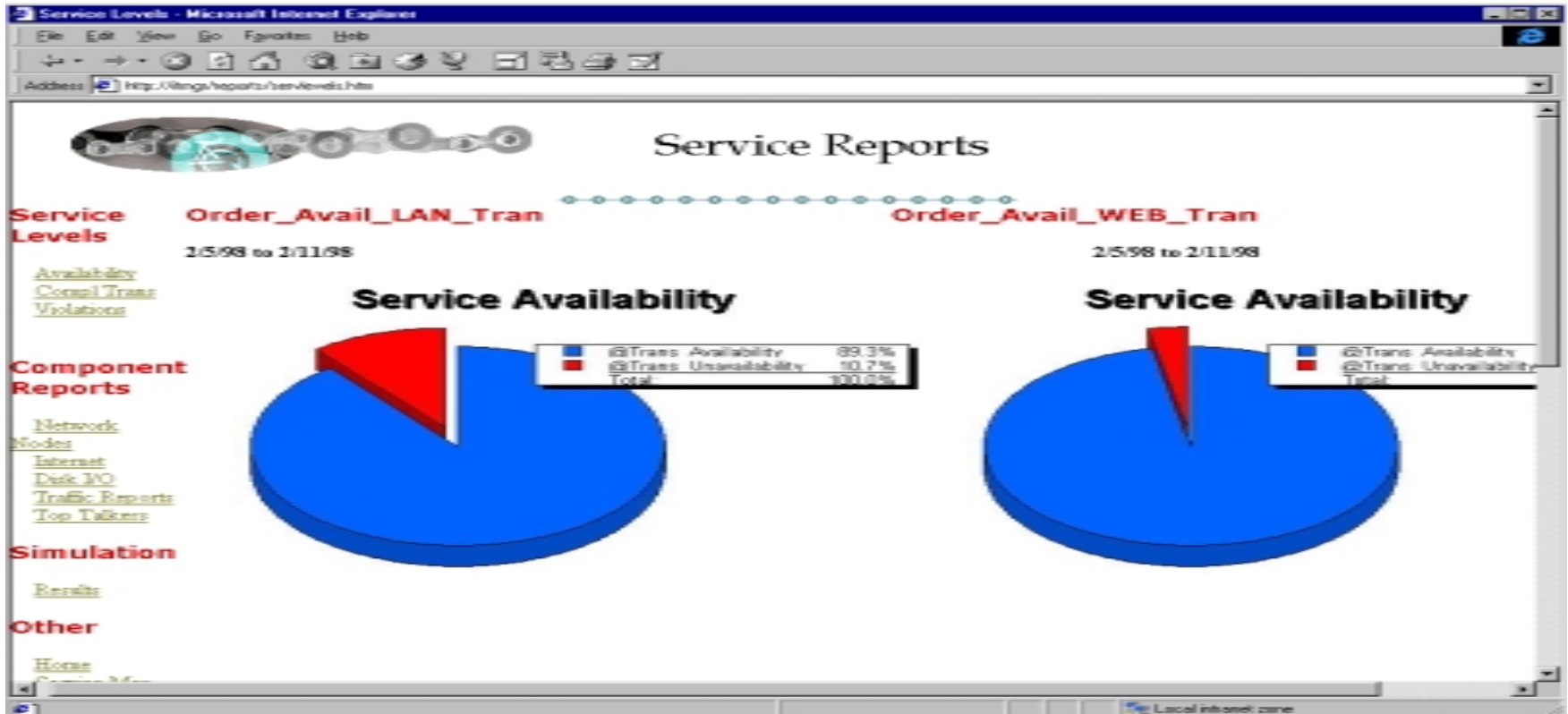
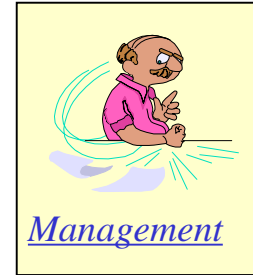
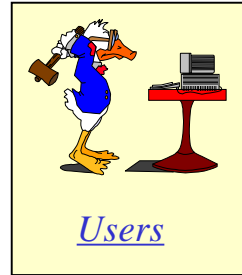
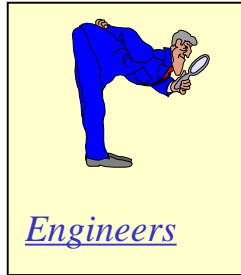
Glimpses of What You Get

Reports, Reports, Reports



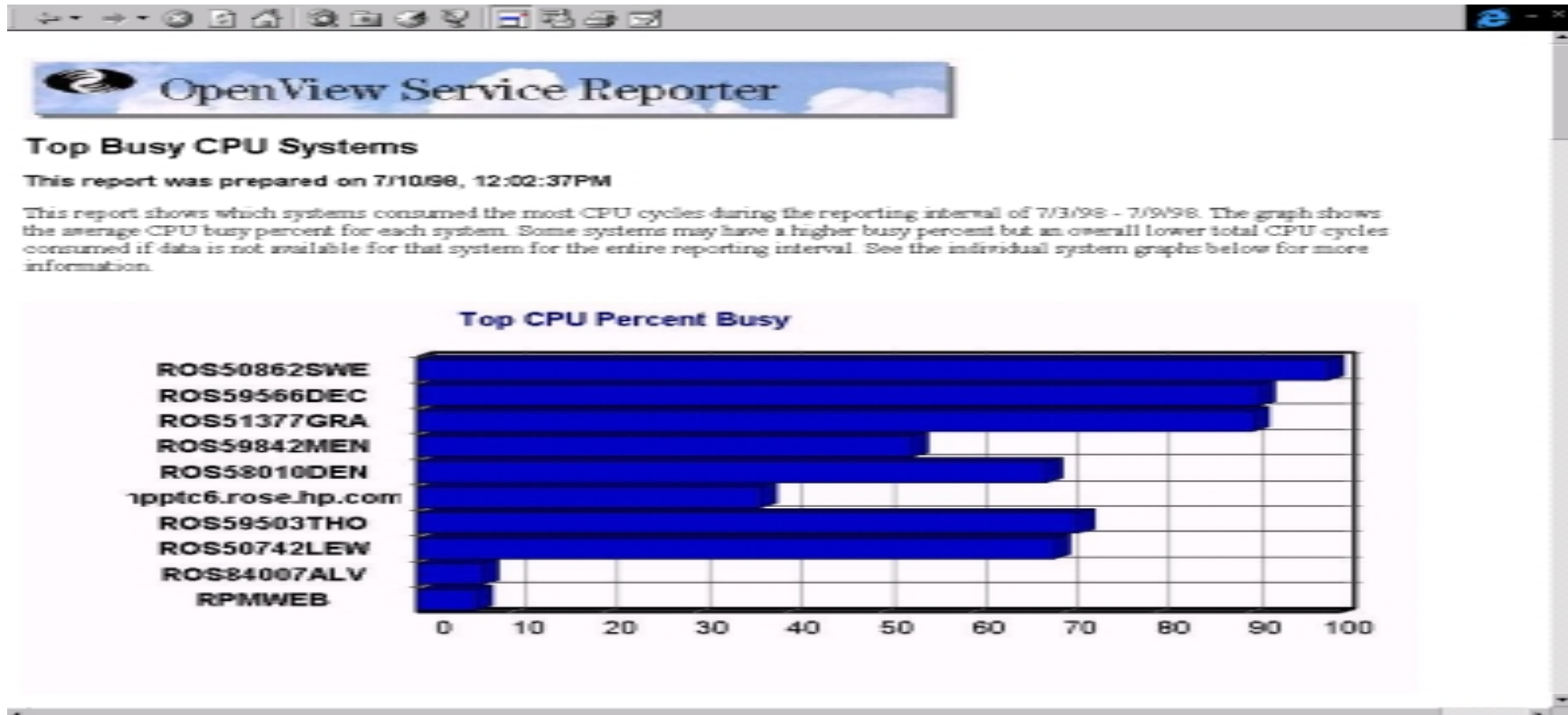
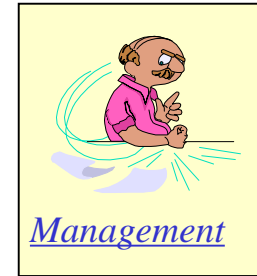
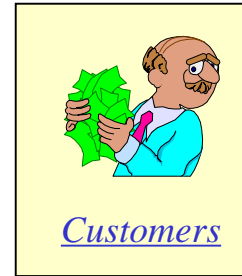
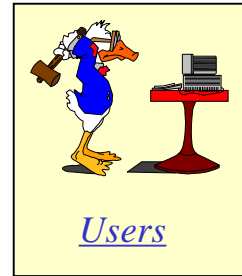
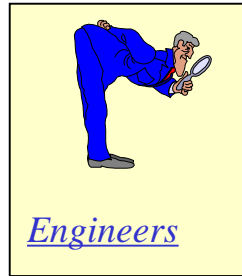
Glimpses of What You Get

Reports, Reports,
Reports



Glimpses of What You Get

Reports, Reports,
Reports



Cost, Time and ROI ...

(see fine-print)

- **Estimated Costs ...**

- From \$75k - \$100k to \$1.5m - \$3m



- **Time to Value ...**

- 1-3 months

- **Time to Substantially Operational ...**

- 3 - 9 months



- **Return-on-Investment**

- 10:1 within 12-24 months

Typical Estimates for Small to Medium-Large E-Business Infrastructures

Your Mileage May Vary

You Must Take Delivery By December 1, 1998

What We Covered ...

- The Opportunity
 - IT Front and Center ...



What We Covered ...

- The Implementation Approach
 - Understand Domain to be Managed
 - Consider Value
 - Consider Revenue
 - Consider Costs (Direct, Indirect, Corporate Valuation)
 - Deploy
 - Operate
 - Quarterly Review
 - Quarterly Management System Enhancement

What We Covered ...

- Management of E-Services
- Glimpses of What You Get
- Cost, Time and ROI

Questions ? ... More Info ?

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