



Managing Service Levels and Performance of Your Web-based Applications

Dan Squillace
R&D Director, IT Management Solutions
SAS Institute
Cary

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Moving Beyond Availability to Quality of Service

Response time as perceived by the user.

Application failures as perceived by the user

Ultimately, availability and accuracy as perceived by
the user.

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Questions Application Managers need answered to Deliver Quality Service

- What is the transaction response time?
- When is response time unsatisfactory?
- What is the transaction volume/throughput?
- What are the root causes of poor response time?
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- What is the client application environment?
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- Will my resources handle the new growth?

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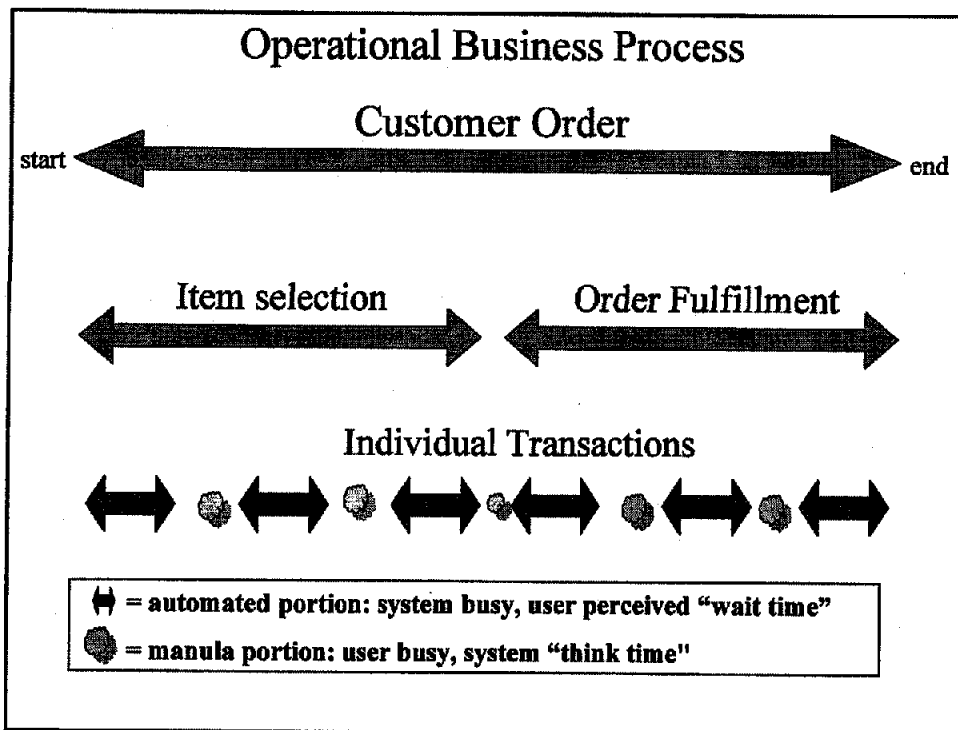


What is "Response Time" Quality of Service?

- Can be more than just transaction response time
- Can be more task-oriented where task is a series of transactions.
- Can include manual activities and other external factors.

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Web Log Basics

URL
 event timestamp
 URL parm
 client IP address
 response time
 status code
 user ID

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Web log response time field

Report in milliseconds

IIS

Websphere

Report in truncated seconds

Apache

Includes all time for subsidiary tiers

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A Word about Other Data Sources

End-to-end measurement products such as eBA from Candle include network time.

ARM (Application Response Measurement API) is a way to Business Process metrics. SAS supports ARM for application use in DATA and PROC step streams as well as SCL programs in V8.

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Transaction Determination

Combination of information extracted from
URL
parm

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Case Study Application: eStars

Web-based multi-tier
web server
jsp server
database server
SAS server

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eSTARS - My Desktop - Microsoft Internet Explorer

Address: http://eStar.sas.com/desktop.jsp

eSTARS sas

Welcome Dan Squillace

75 Days left in Qtr2!
[What's New in eSTARS!](#)
[Refresh this page!](#)

Quick Search

- Just Mine (NO search text required)
- Current View (NO search text required)
- Everyone's

[Add an SSO](#) [Add a Contact](#)

Web Links

Select an eStar link...

No personal links found.
 Click New button to add links.

Selected e-Comm

11 items added this week!

Opportunities within the month

Opportunity	Company	CloseDate	Amount	Status
No opportunities found				

Largest Opportunities in Pipeline

Opportunity	Company	CloseDate	Amount	Status
No opportunities found				

Activities

Date	Activity	Contact/Opportunity	Company	Type	Priority
No dated Activities found					

Quarterly Opportunity Summary

Qtr	Cnt	Total	Yield
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
Total	0	0	0

View New Leads Older than April 1, 2002

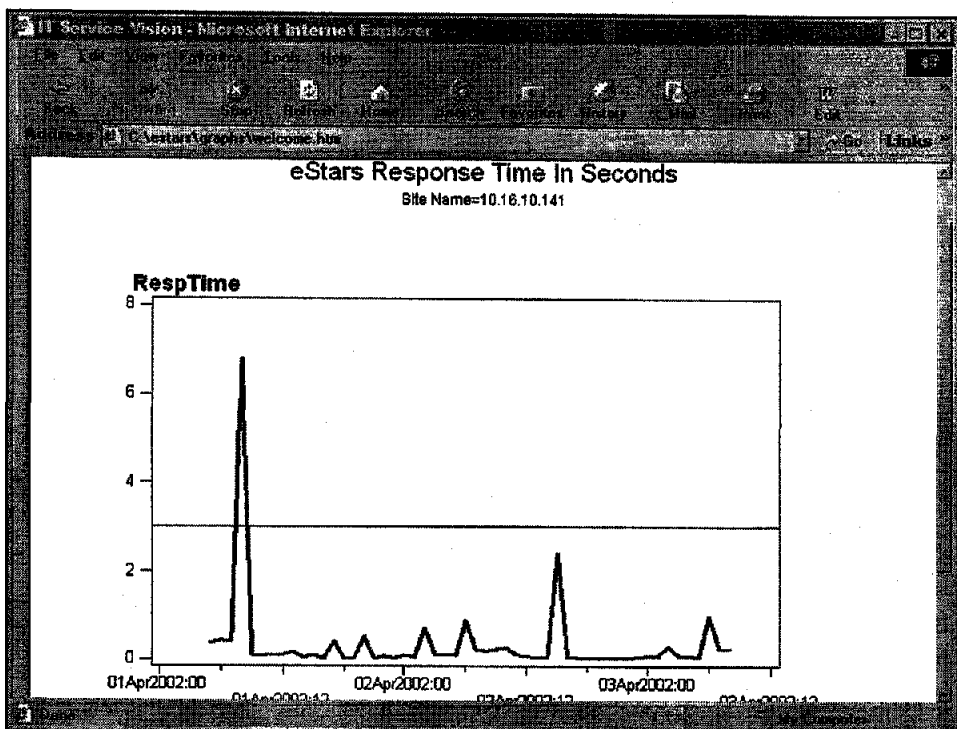
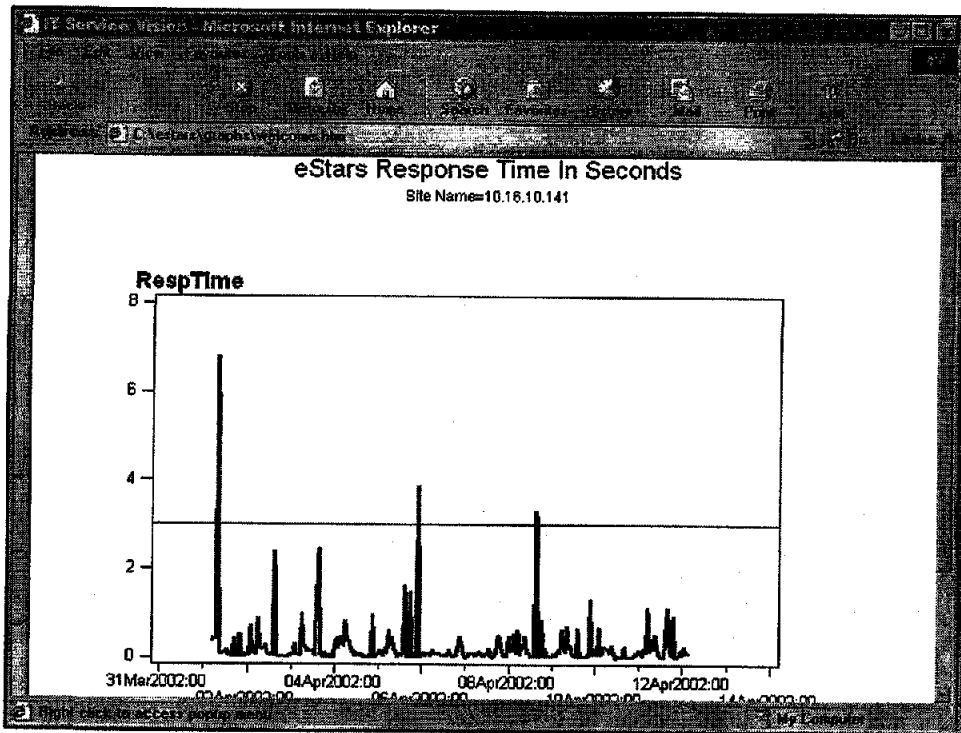
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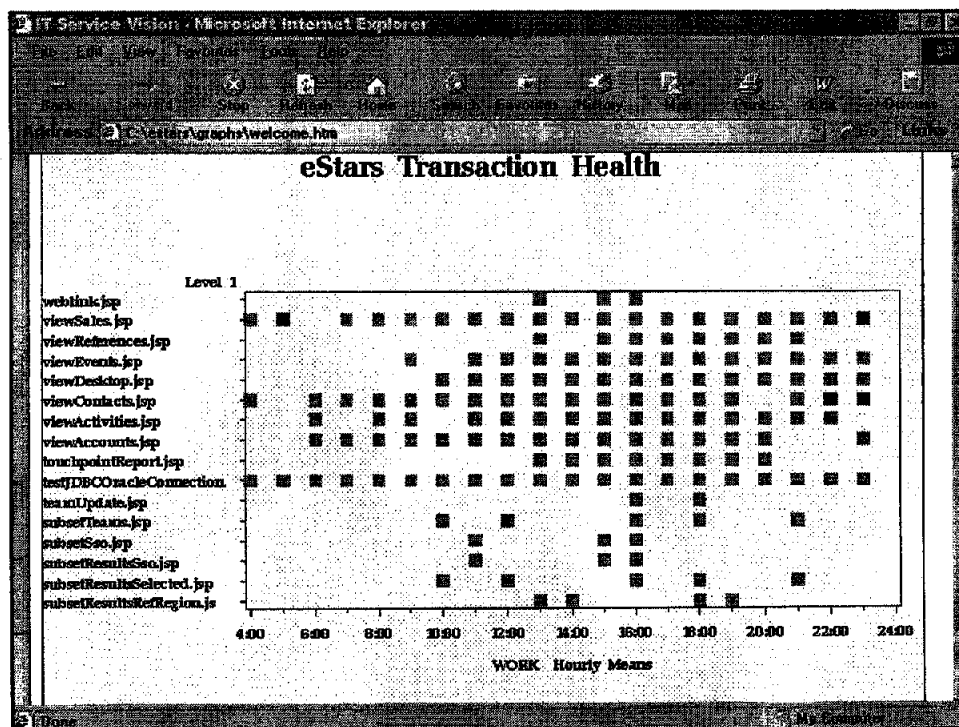
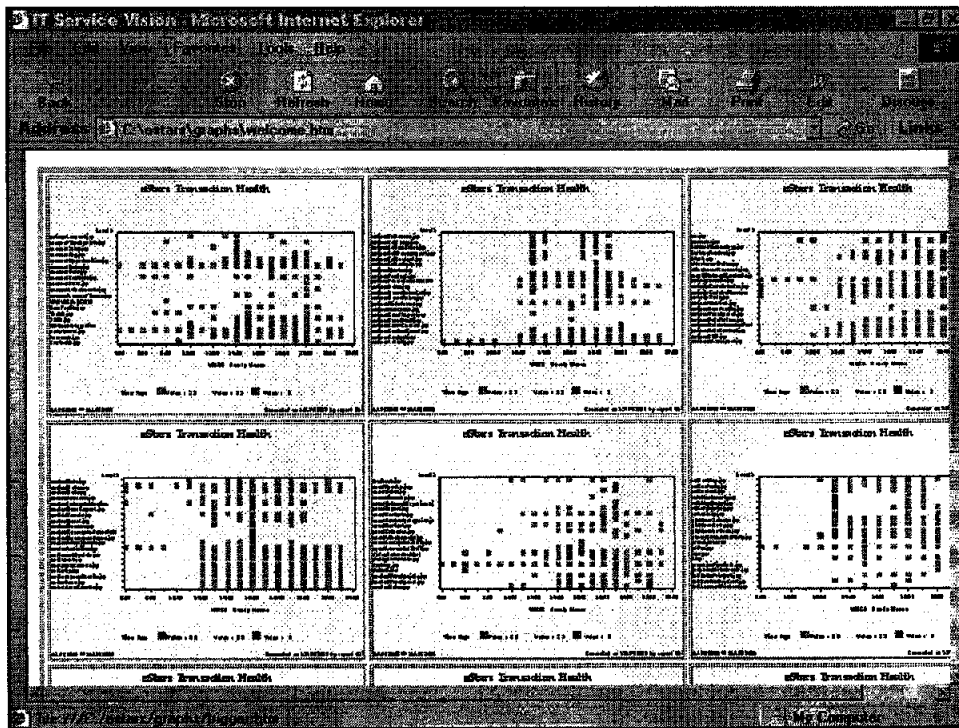
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What application failures are occurring?

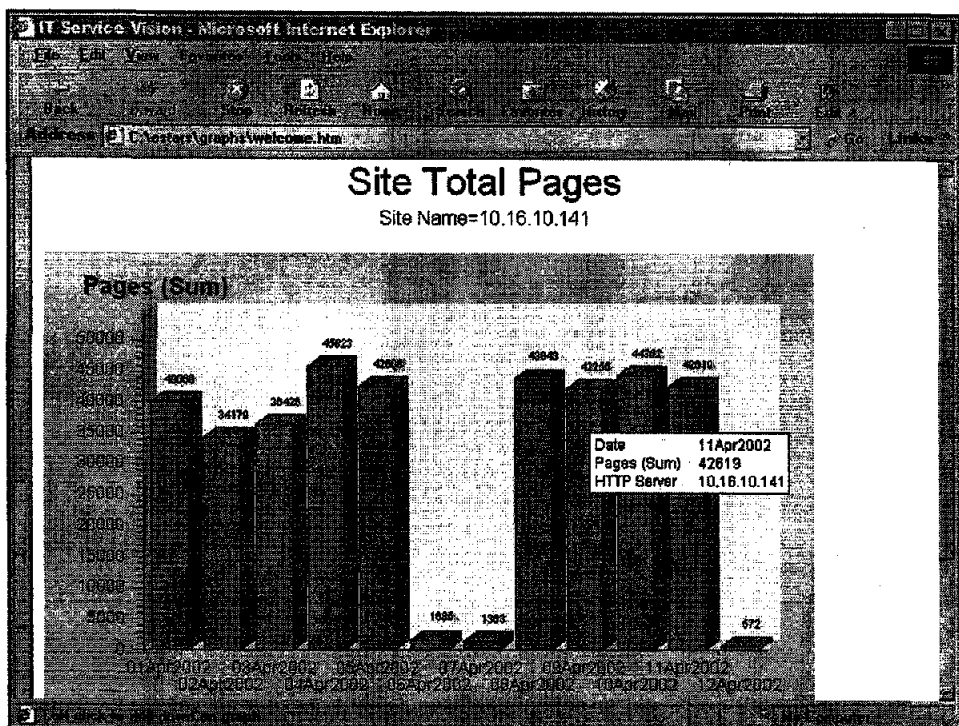
What is the client application environment?

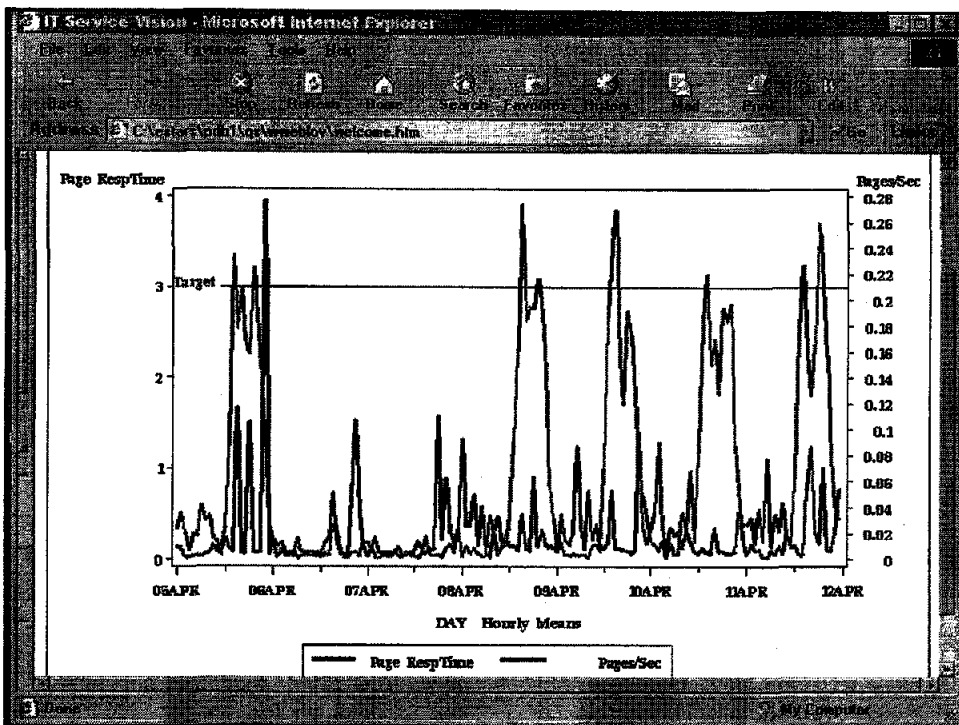
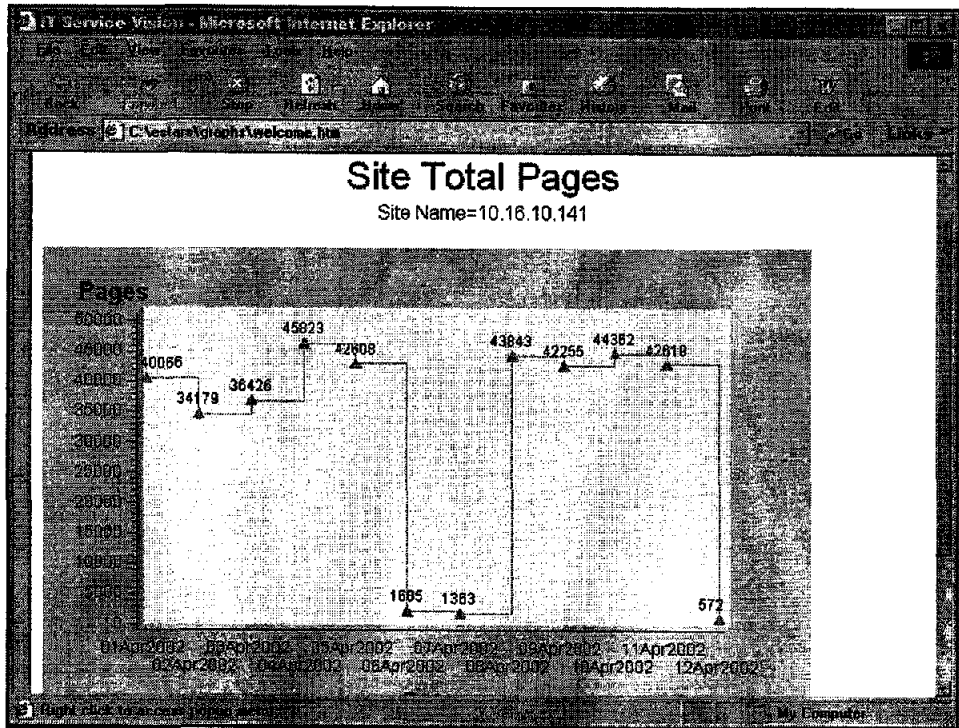
What is the growth in application demand?

Will my resources handle the new growth?

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IT Service Vision All Exception Reporting - Microsoft Internet Explorer

Address: C:\inetpub\wwwroot\itvision\all.htm

All Exception Rules Summary

[Notes](#) [Help](#)

Other

Rule	Recent Days	Recent Weeks	Recent Months
All Code 400 - Bad Requests	OK	NoRule	NoRule
All Code 401 - Unauthorized	1 exceptions	NoRule	NoRule
All Code 403 - Forbidden	1 exceptions	NoRule	NoRule
All Code 404 - Not Found	1 exceptions	NoRule	NoRule
All Code 500 - Internal Server Error	1 exceptions	1 exceptions	1 exceptions
High Machine Resp Time	1 exceptions	OK	OK
High Site Byte Rate	1 exceptions	NoRule	NoRule
High Site Bytes/Page	inactive	NoRule	NoRule
High Site Hit Rate	1 exceptions	NoRule	NoRule
High Site Resp Time	1 exceptions	OK	OK

OK = No exceptions nm = Exceptions found Other = Rule not checked

[Rule Details](#)

IT Service Vision All Exception Reporting - Microsoft Internet Explorer

Address: http://www.bps.com/.../.../...

High Machine Resp Time Rule Back Notes Help

Message: This triggers when the hourly average internal response (timetak) exceeds the threshold.

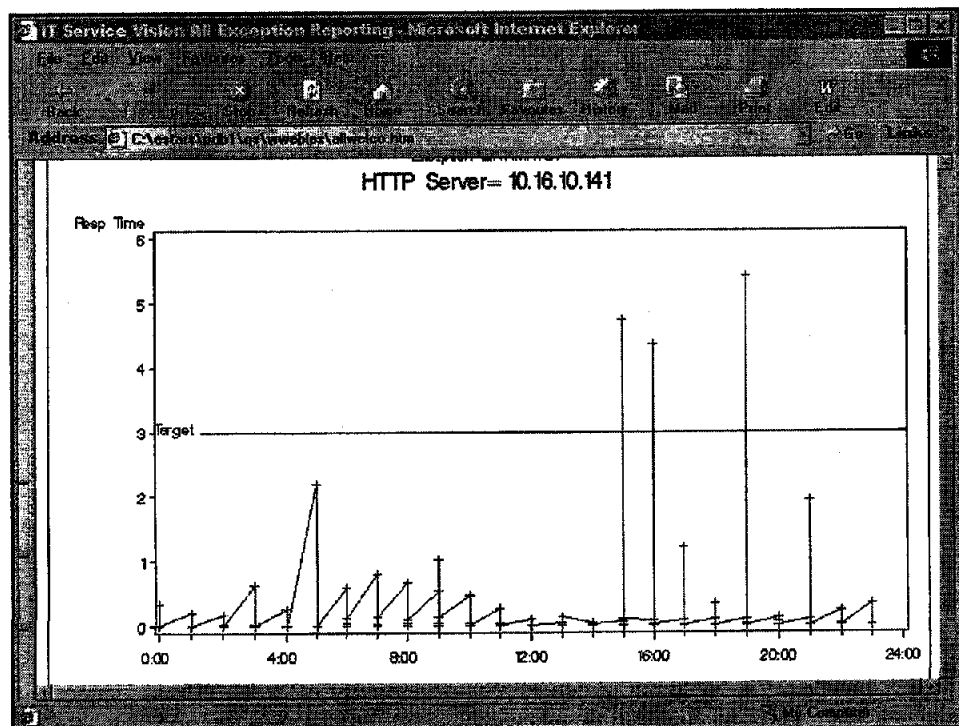
Recommendation: There are many root causes of high response time. It may be caused by volume of traffic, particular types of requests, machine contention or other machine problems, or disk and database response problems. Further investigation may be required.

Actions: RUN_REPORT=QWXMRTDY, folder=admin.itwrpt

☒ Rule Name:	QWRMRTDY
☒ Table:	DAY.WEBSRV
☒ Type:	ANY
☒ Expression:	TIMETAK GE 3.0
☒ Where Clause:	N/A
☒ Day Cutoff:	Partial day ending before 6:15:00 ignored
☒ Time Range:	11APR2002:00:00:00 to 11APR2002:23:59:59

Occurrence	Observations	Graph
HTTP Server = 10.16.10.141	3 Observations (2 % of 130 Total)	

Done



Results Viewer - Explorer: graphs-P2.htm		
Time	File	Dialog
11APR2002:15:14:20.00 -	subsetResultsSso.jsp	dialogType=contactsale&showA20Name&or
11APR2002:15:14:21.00 -	subsetResultsSso.jsp	dialogType=contactsale&showA20Sale%20
11APR2002:15:14:22.00 -	subsetResultsSso.jsp	dialogType=contactsale&showA20Sale%
11APR2002:15:14:22.00 -	subsetResultsSso.jsp	dialogType=contactsale&showA20Sa
11APR2002:15:15:05.00 -	subsetResultsSso.jsp	dialogType=contactsale&showA20Name&o
11APR2002:15:15:06.00 -	subsetResultsSso.jsp	dialogType=contactsale&showA20Sale%20
11APR2002:15:15:06.00 -	subsetResultsSso.jsp	dialogType=contactsale&showA20Sale%2
11APR2002:15:20:55.00 -	subsetResults.jsp	dialogType=territory&showAllBut

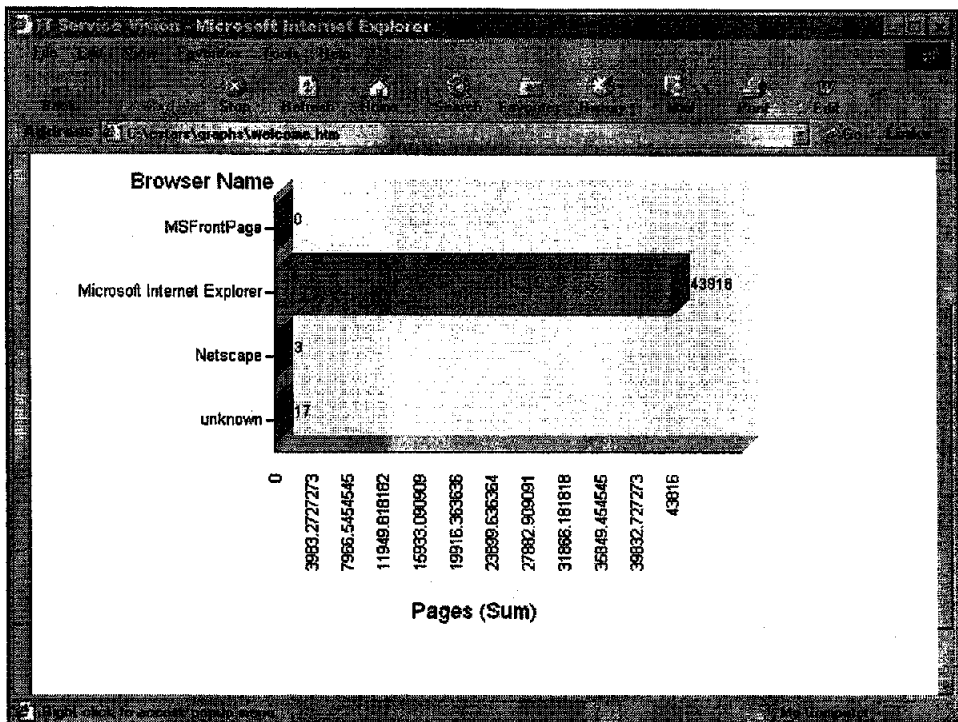
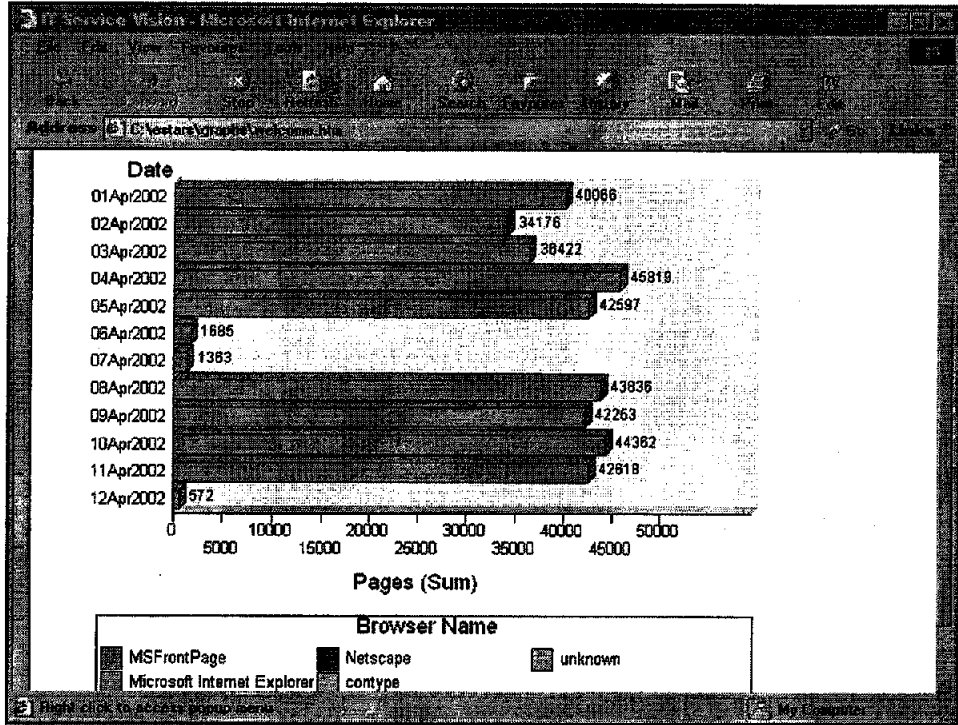


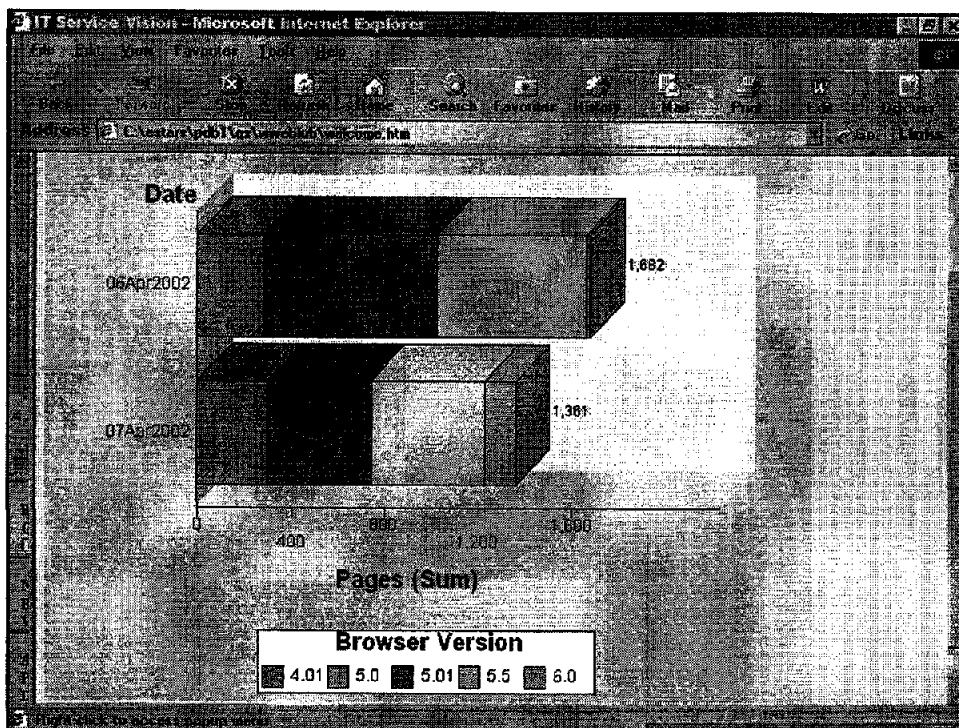
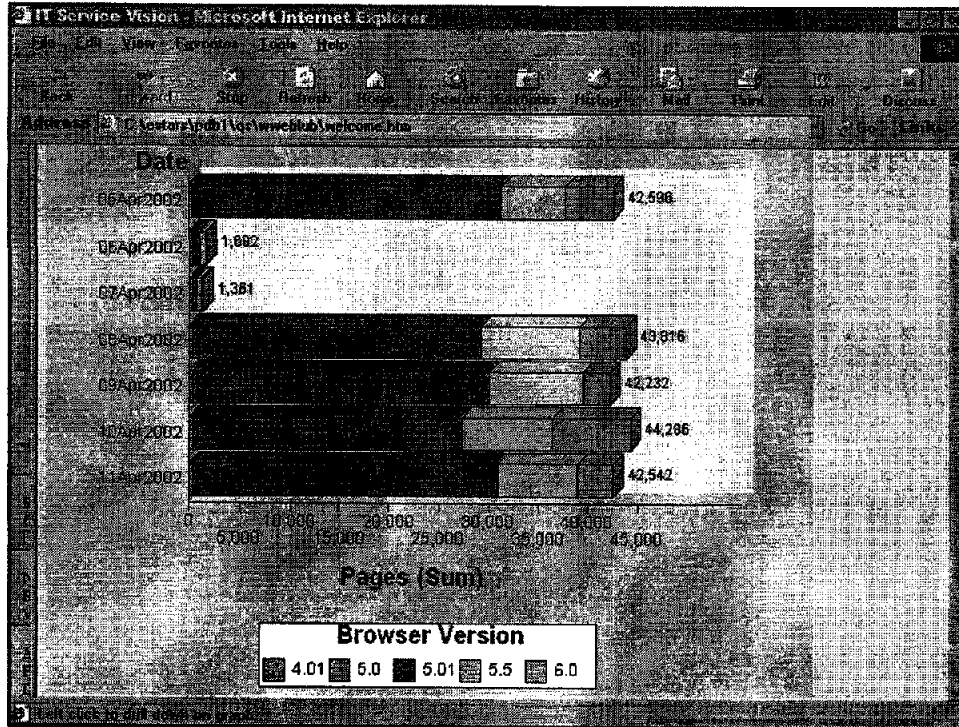
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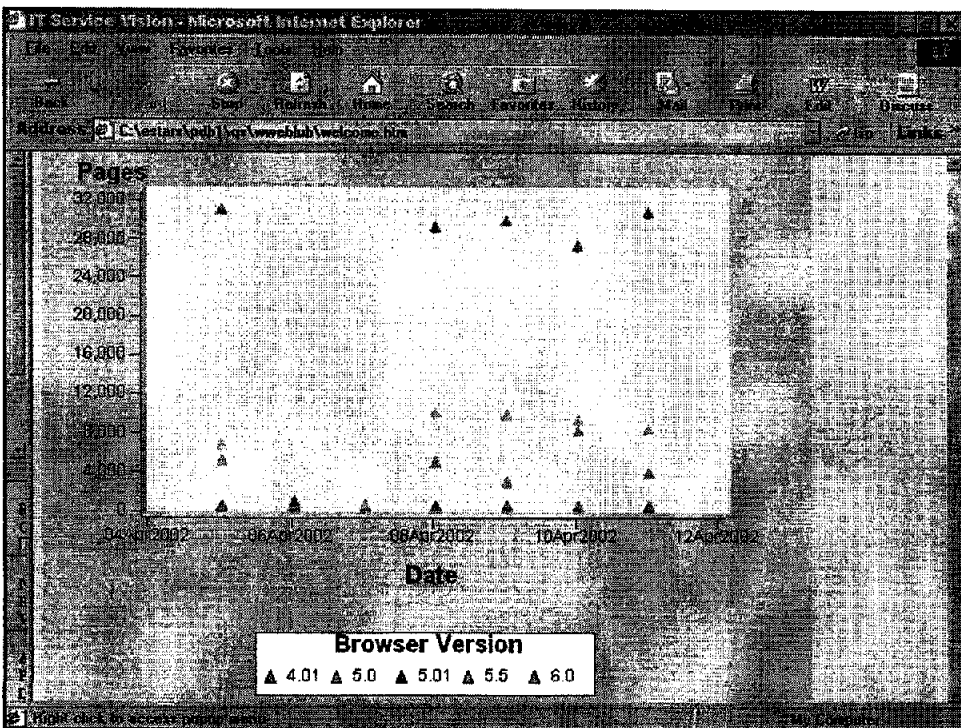
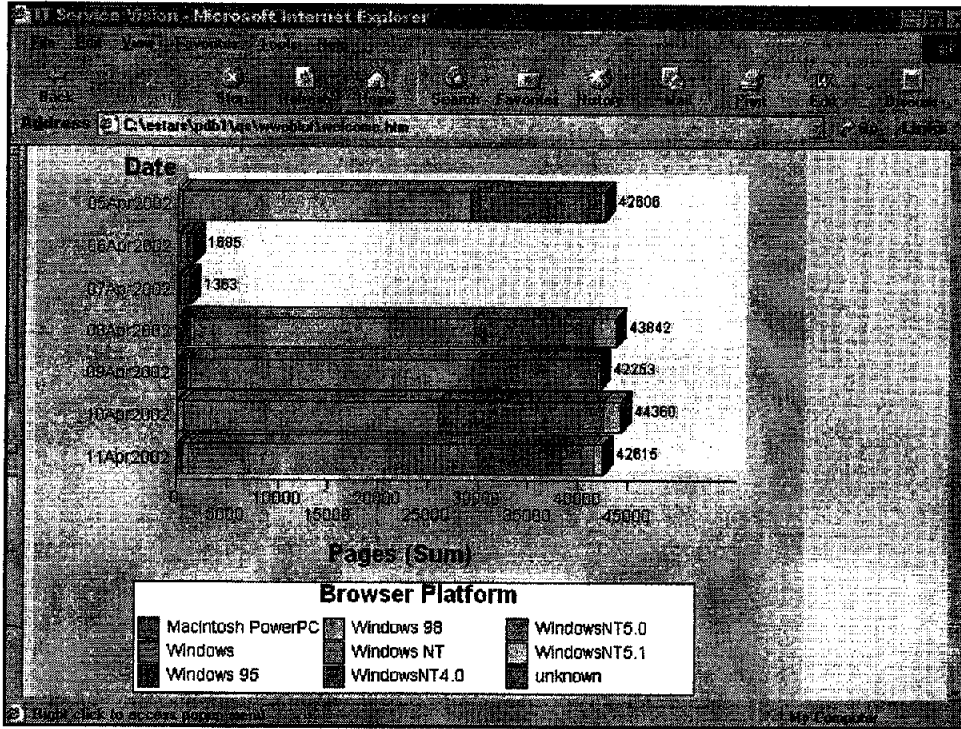
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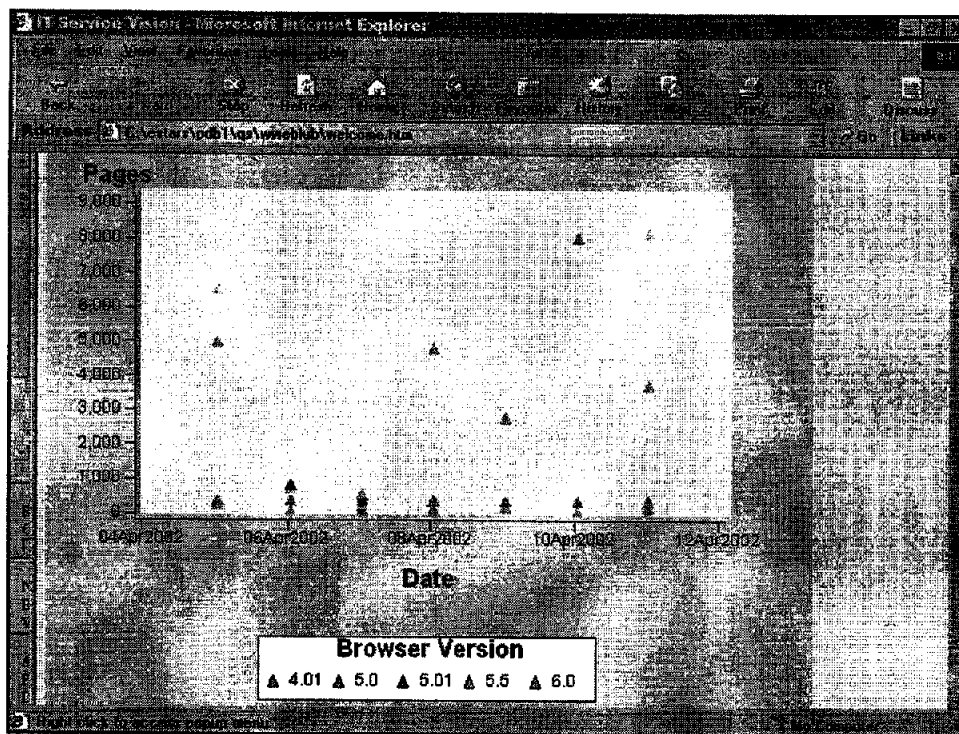
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Next Steps.....

Gather growth estimates from users in business process, transaction, or other business terms. Or estimate with trending.

Form transaction resource usage profile by measurement or by multi-variate analysis

Apply growth estimates to resource profiles.

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