

CA APM & Capacity Management for SOA-ESB

IEHR

for VA

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- Current Deployment of CA APM (Introscope) for SOA-ESB
- CA APM Capabilities
- CA Capacity Management

CA Wily Introscope Deployment

- Providing real time visibility into the Mirth Application layer
- Monitoring Websphere Message Broker across
 - Currently installed
 - 3 Regions - DISA DECC MGM , San Antonio, AITC
 - 2 Locals – MESA & NMCP (once version 2.x is fielded)
- Monitoring IBM Websphere MQ
- Monitoring IBM Websphere Process Server
- CA APM Management Servers
 - DISA DECC MGM– Monitoring SOA-ESB components in DISA and San Antonio Regions
 - AITC – Monitoring SOA-ESB components deployed in AITC
- Real-time dashboards and reports depicting performance and throughput of SOA-ESB components

* MESA – MHS Enclave , San Antonio

* NMCP – Navy Medical Center, Portsmouth

CA APM for SOA

– Monitors your SOA environment

- Proactively monitors SOA client and server performance, triage incidents, and analyze service-related problems.
- *Extensive ESB support for IBM Websphere ESB, IBM Business Process Manager, Oracle, TIBCO, WebMethods Broker and more*
- Provides visual representation of SOA dependencies.
- Provides correlated transaction tracing across SOA platforms.
- Provides detailed metrics that help you isolate problems to the web service, application, or back-end.
- *Monitors SOAP faults for the web service transactions*

iEHR SOA SUITE DASHBOARD

DECC MGM Data Center Components

WebSphere Message Broker

R1WMB01



R1WMB02



R1WMB03



R1WMB04



WebSphere Queue Manager

R1WMQ01



R1WMQ02



WebSphere Service Registry & Repository

R1WSRR01



R1WSRR02



WebSphere Business Monitor

R1BM01



R1BM02



WebSphere Operation Decision Manager

R1ODM01



R1ODM02



DB2 Database

R1DB201



R1DB202



HTTP Web Server

R1IBMHS01



R1IBMHS02



Metrics Collectors

R1APMCOL01



R1APMCOL02



Network Attached Storage

R1NAS01



WAS Deploy Manager



WebSphere MQ Client and Server Overview

Overview

MQ Overview Details

MQ Client Connections

MQ Server

MQ Client Operations

Put/Send



Average Response Time



Errors



Stalls

Get/Receive



Average Response Time



Errors



Stalls

MQ Client Connections



Average Response Time



Errors



Stalls

MQ Server

Queues



Current Queue Depth %



Transmission Current Queue Depth



Dead Letter Current Queue Depth

Real time MQ Queue Depth indicators

MQ Health



Cluster Work Load Management



Channel



Queue Manager

Rate Of Queuing

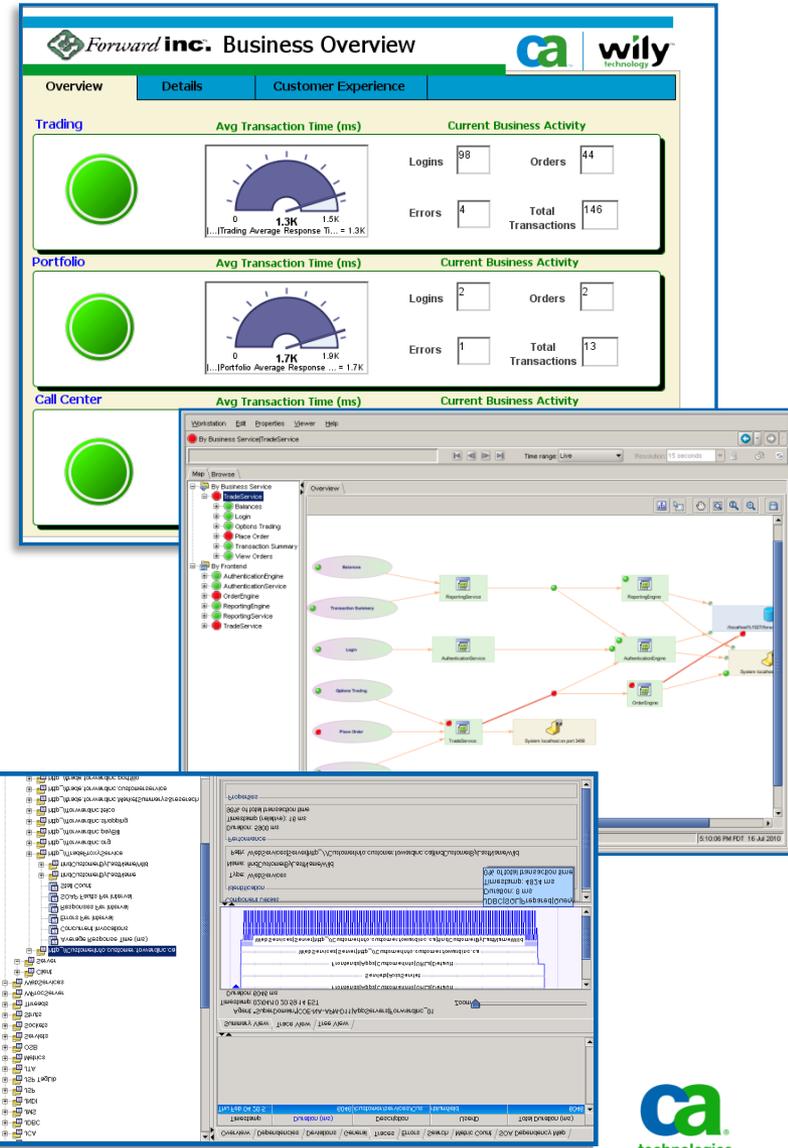
Web Application Performance Diagnostics

■ Key capabilities

- Dynamic Application Discovery and Business Process mapping
- Java/.NET Class and method performance
- Transaction tracing and Root Cause Analysis
- Detailed application performance dashboards
- SOA monitoring, memory leak, error, change detection and more

■ Designed for customer value

- Low agent overhead, monitor applications in PRODUCTION
- Visibility into back ends, Web Servers, Mainframes, etc.
- Identify mission critical application performance problems, and root cause



CA APM at Veteran Affairs

CA APM Deployment at AITC – End-to-End Transaction Visibility

Understand
End-User experience; establish SLAs

Monitor business transactions through the IT
infrastructure; measure response & SLAs

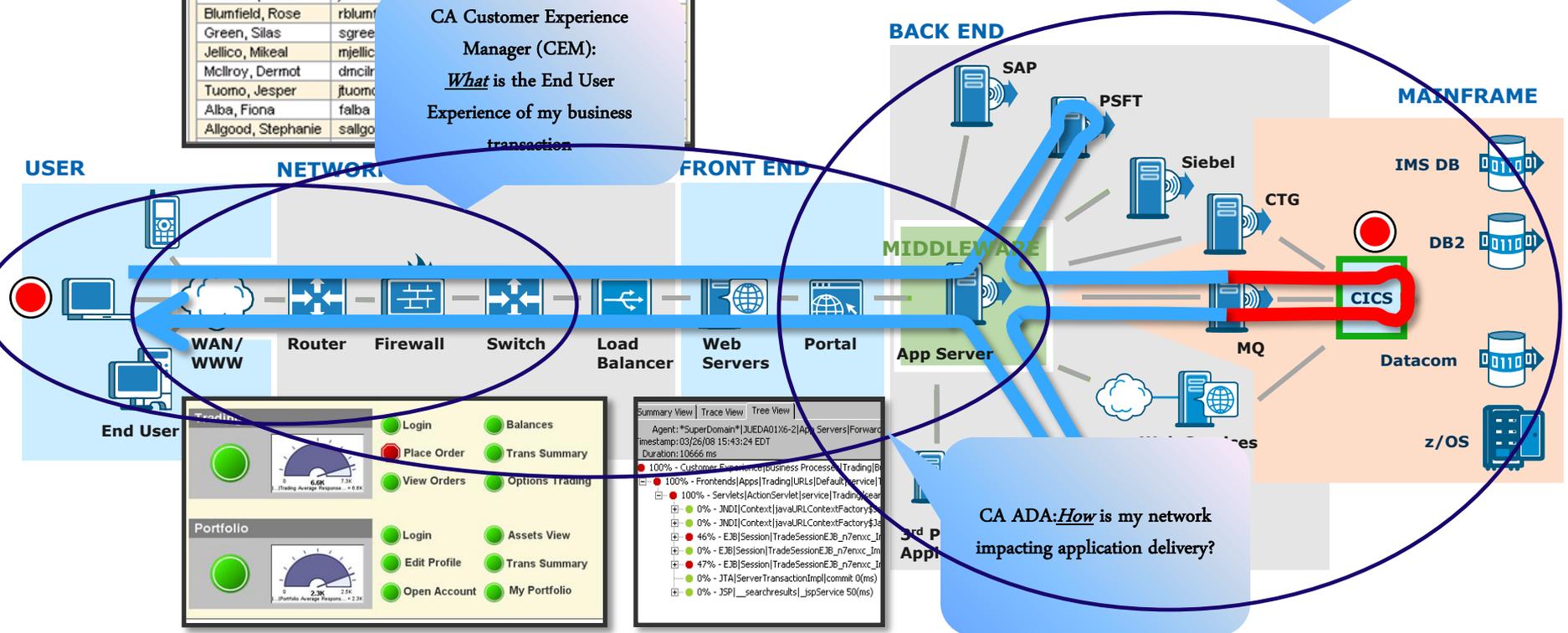
Proactively detect issues; diagnose root cause of application-based
problems

CA Introscope:
Why is it happening?

Affected User List for Incident 1009

User	Login Name	Impact Level	User Group
Thorson, Jane	jthorson		
Blumfield, Rose	rblumf		
Green, Silas	sgree		
Jellico, Mikeal	mjellic		
McIlroy, Dermot	dmcilr		
Tuomo, Jesper	jtuoom		
Alba, Fiona	falba		
Allgood, Stephanie	sallgo		

CA Customer Experience
Manager (CEM):
What is the End User
Experience of my business
transaction



Trading Dashboard

- Login
- Place Order
- View Orders
- Balances
- Trans Summary
- Options Trading

Portfolio Dashboard

- Login
- Edit Profile
- Open Account
- Assets View
- Trans Summary
- My Portfolio

Summary View | Trace View | Tree View

Agent: *SuperDomain* | JUEDA01x6-2 | App Servers | Forward

Timestamp: 03/26/08 15:43:24 EDT

Duration: 10666 ms

- 100% - Customer Experience/business Process/Trading/B...
- 100% - Frontends[Apps|Trading|URLS|DefaultService|T...
- 0% - JNDI[Context|javaURLContextFactory|J3...
- 0% - JNDI[Context|javaURLContextFactory|J3...
- 46% - EJB[Session|TradeSessionEJB_n7enxc_Im...
- 47% - EJB[Session|TradeSessionEJB_n7enxc_Im...
- 0% - JTA[ServerTransactionImpl|commit 0(ms)
- 0% - JSP[_searchresults|_jspService 50(ms)

CA Application Performance Management

Real User Experience Monitoring

■ Key capabilities

- Understand transaction volumes and success rates, establish SLAs
- Identify users by name and priority
- Alert on transaction failures or performance degradations
- Trending for transaction performance and volume

■ Designed for customer value

- Measure all user transactions 24/7
- Understand REAL impact of application problems
- Establish and measure against SLAs
- End-to-end APM: Introscope integration

The screenshot displays the Wily Customer Experience Manager (CEM) interface. The top navigation bar includes tabs for Service Level Management, Incident Management, Performance Reports, Quality Reports, Analysis Graphs, and My Reports. The main content area is divided into two sections: Incident Management and Service Level Management.

Incident Management Section:

- Header: Incident Management
- Sub-header: Incidents are groups of defects that are correlated based on transaction type and defect type. Click on any link to view more incident-related information. More...
- Navigation: Incidents | Impact Leaders | Defects | Transaction Trace Sessions
- Filters: Status: Open, Business Application: All, Business Service: All, Business Transaction: All, User Group: All, Refresh
- Summary: Open Incidents for All Business Services All Business Transactions and All User Groups
- Summary: 499 Defects in 9 Incidents, 2 Critical, 3 Severe, 4 Moderate, 0 Low
- Table:

ID	Status	Impact Level	Business Impact	Business Service	Business Transaction	High Impact IP Subnet	Identified Users	User Groups	Defects	Defect Name
1009	Open	Critical	7,360	Trading	Place Order	192.168.4.0 (35%)	91	5	113	Slow Time
1005	Open	Critical	6,128	Call Center	Login	192.168.4.0 (33%)	77	5	94	Slow Time
1008	Open	Severe	4,656	Trading	Login	192.168.4.0 (36%)	54	5	72	Incomplete Transaction
1004	Open	Moderate	4,400	Call Center	View Statement / View Statement	192.168.4.0 (32%)	38	5	67	Content Error
1003	Open	Moderate	3,472	Call Center	Opportunities / Opportunities	192.168.4.0 (67%)	33	5	52	Server Response Error
1001	Open	Moderate	2,320	Portfolio	Open Account	192.168.4.0 (34%)	27	5	36	Missing Component
1007	Open	Moderate	1,632	Trading	View Orders / View Orders	192.168.4.0 (36%)	23	5	25	Client Request Error
1002	Open	Moderate	1,344	Portfolio	Assets View	192.168.4.0 (32%)	17	4	21	Low Throughput

Service Level Management Section:

- Header: Service Level Management
- Sub-header: Status report showing business processes, including success rate observed / SLA, average time observed / SLA, and Six Sigma metrics
- Navigation: Transaction SLA | User SLA | Correlational SLA | Transaction Trend | User Trend | Business Value
- Filters: Application: PHINDIR, Business Process: PHINDIR, User Group: All, Time Frame: Today, View: Performance
- Section: Business Transaction SLA Report
- Table:

Business Transaction	Success Rate Status	Success Rate Observed	Success Rate SLA	Average Time Status	Average Time Observed	Average Time SLA
Search People Start	Red	0.000%	95.000%	Green	0.249s	8.000s
Open Application	Red	0.000%	95.000%	Red	24.910s	8.000s
Homepage	Red	0.000%	95.000%	Green	0.009s	8.000s
Organization	Red	0.000%	95.000%	Green	0.127s	8.000s

4 items found, displaying all items.
Start Time: 5-May-2010 00:00 End Time: 5-May-2010 12:59 Generated: 5-May-2010 13:54

CA Application Delivery Analysis

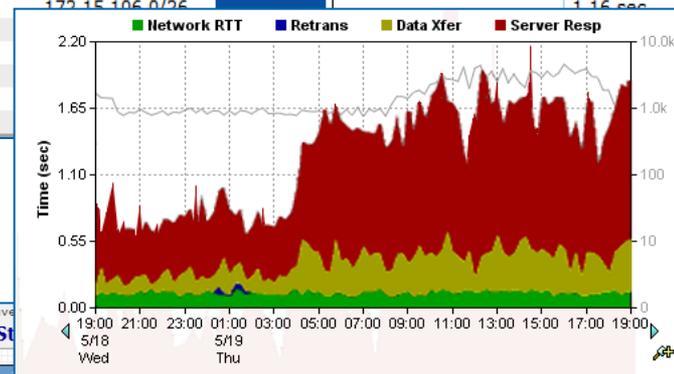
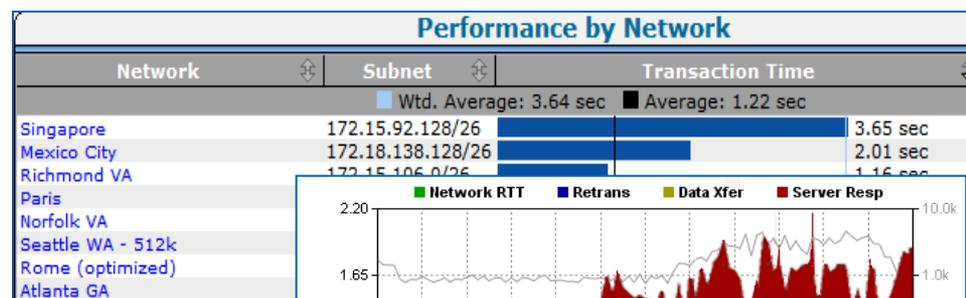
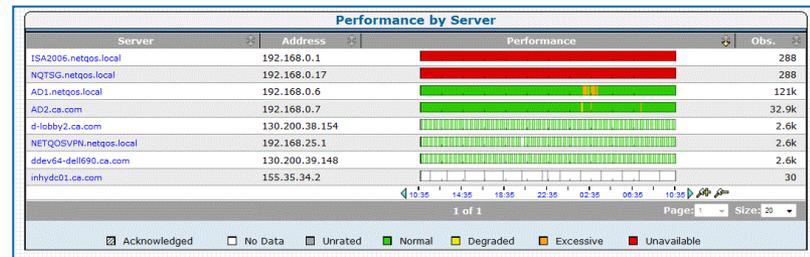
Passive Application Response Monitoring

■ Key capabilities

- Visibility into all TCP/IP application protocols
- Network, server, application response breakdown
- Auto-Baseline, understand what is normal
- Alert on abnormalities or initiate automated investigations

■ Designed for customer value

- Understand how the infrastructure is delivering applications
- Valuable data for infrastructure and application teams
- Understand current capacity to deliver applications and plan for the future
- Ensure performance hiccups don't lead to long lasting problems



Investigations: Overview > Investigations: Start

Investigation types

Launch an investigation immediately or schedule one to launch at a later time.

Application Connection Time	Launch	Schedule
Packet Capture	Launch	Schedule
Performance via SNMP	Launch	Schedule
Ping Response Time	Launch	Schedule
Ping Response Time vs. Packet Size	Launch	Schedule
Trace Route	Launch	Schedule

CA Executive Insight

key performance indicators for executives on the go



CA Capacity Management Solution

Predicting Impact in IT is difficult



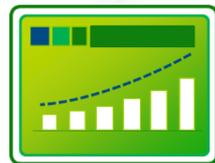
CA Predictive Reliability Provides Prescriptive Answers

Performance Data →

CMDB/CMS Config Data →

Business Plans →

CA Capacity Management



**Plan for
Success**



**Best
Actions**

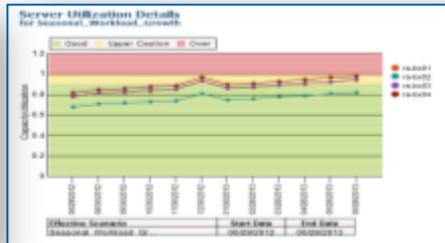
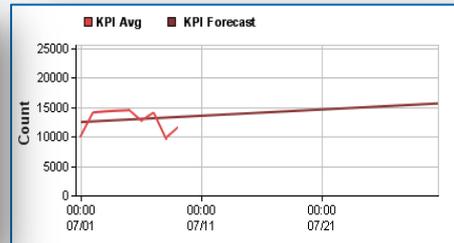
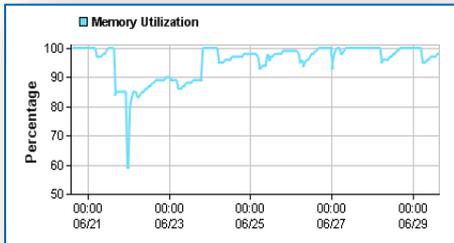
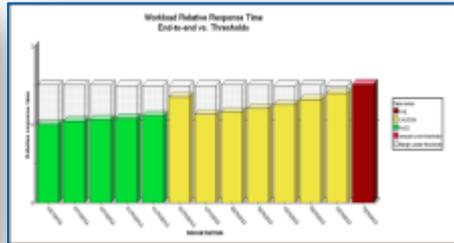
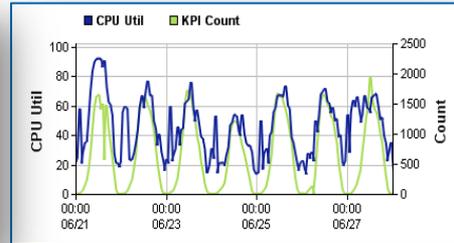
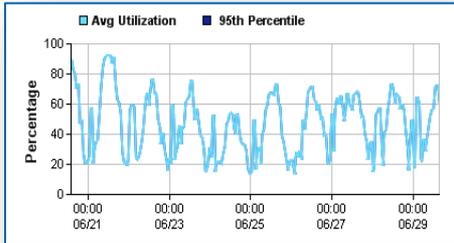
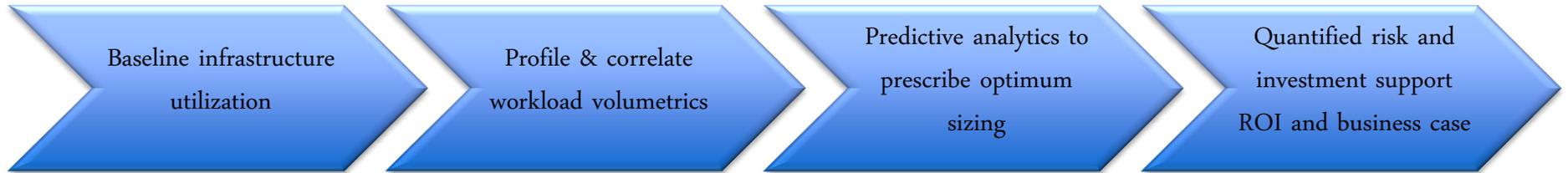


**Assessment
of Efficiency**

- **Automate**
- **Maintain Service Levels**
- **Manage capacity**
 - **Hardware refresh**
 - **Virtualization initiatives**
 - **Cloud initiatives**

CA APM & Capacity Management

Predictive Application Performance Management



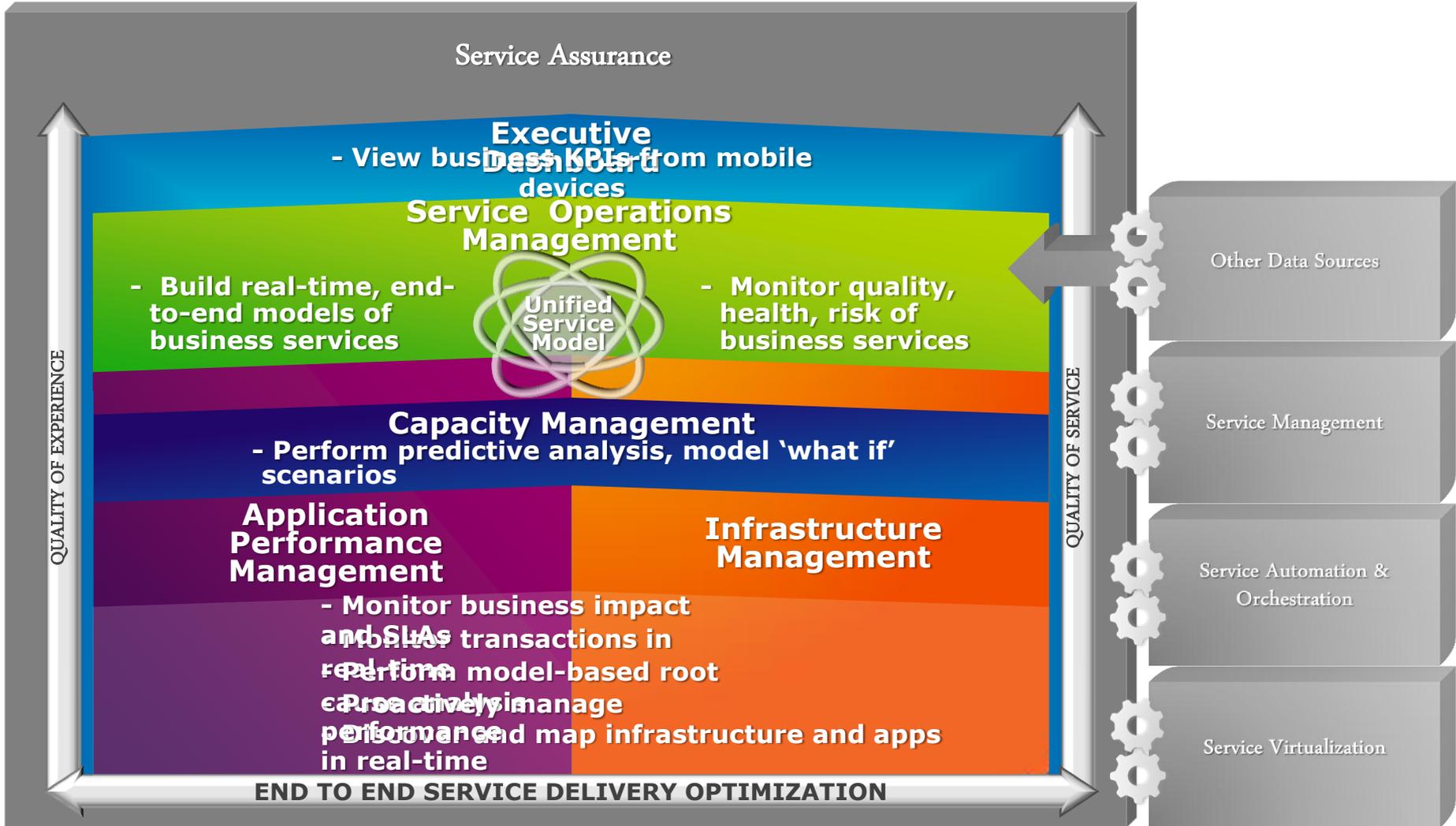
Net Benefit Report

Customer Savings \$4.8M

Contributing

- Workload Migration (\$2.8M)
- Process Automation (\$1.8M)
- Workload Consolidation (\$0.8M)
- Operational Support (\$0.4M)

CA Service Assurance Solution Strategy



Backup slides