



Portfolio Management - Improving Business Agility while reducing Costs

Rick Slade

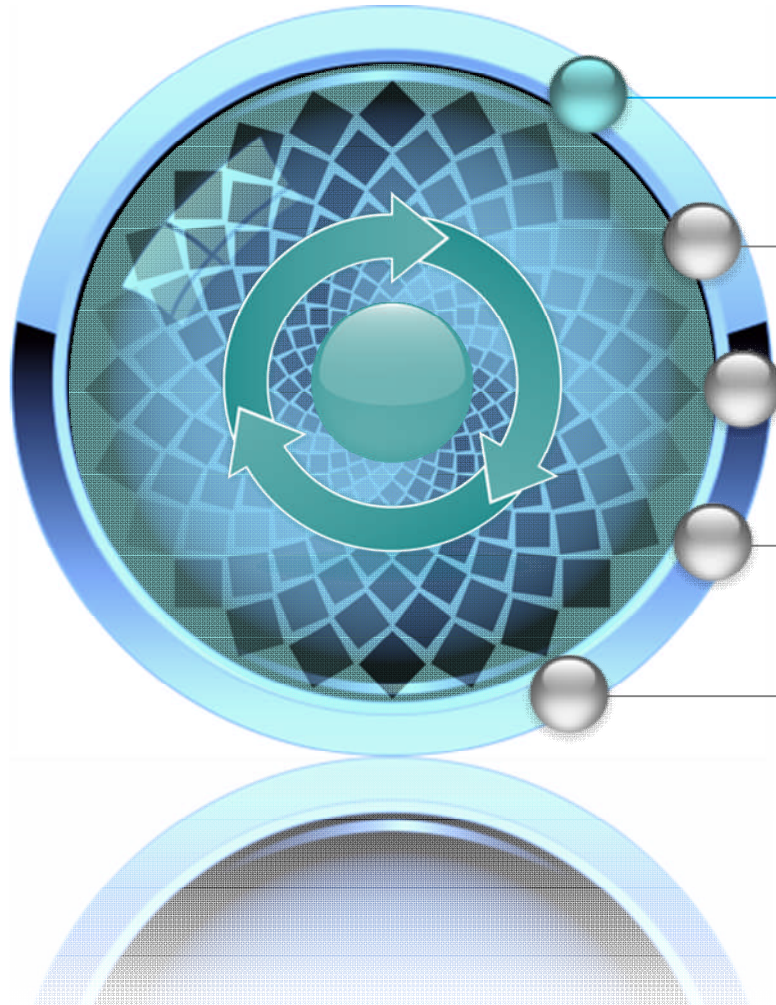
Executive Solution Architect

Rational Software





Agenda



Why APM right now?

What is APM?

How are customers adopting it?

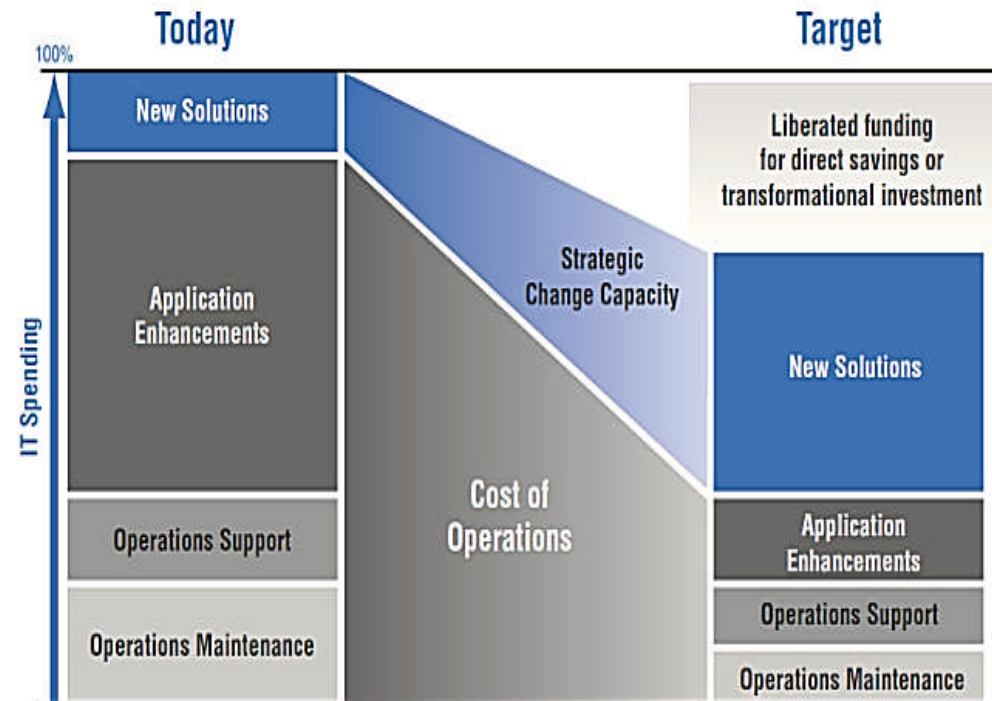
APM in action

Final thoughts



Problem: Insufficient strategic spend and lacking business agility

- **Cost – 80/20 budget trap**
 - Maintenance and operations consumes a significant % of a declining IT budget, limiting funds available for new initiatives
- **Business agility**
 - Brittle and tightly coupled architectures, unwarranted complexity, and technology proliferation
- **Risk / supportability**
 - Skills erosion, baby boomer retirements, and aging technology
- **Strategic planning**
 - Inability to actively plan strategic initiatives; Cloud, Mobile, Compliance, M&A, and Divestitures



“A large UK bank initiated its APM effort to take a 90:10 ratio for run-the-bank / grow-the-bank down to a more reasonable 40:60 ratio. Dell shifted its maintenance-to-innovation ratio from 80:20 to 50:50.”

– The Application Portfolio Management Landscape — Combine Process And Tools To Tame The Beast
Phil Murphy, Forrester Research, Inc. April 15, 2011



Solving the problems requires a different approach

“We can’t solve problems by using the same kind of thinking we used when we created them.”

– Albert Einstein

Addressing the problem requires an asset (application) portfolio approach to complement the traditional project portfolio approach

Project Portfolio Management

- Commonly used in mature companies
- Provides executives (only)
 - Control over 20% of this year’s budget
 - Ability to affect this year’s project proposals



Application Portfolio Management

- Used effectively by only a few leaders
- Provides executives
 - Multi-year control over 80% of the budget
 - Ability to generate new project proposals such as structural changes to address problems

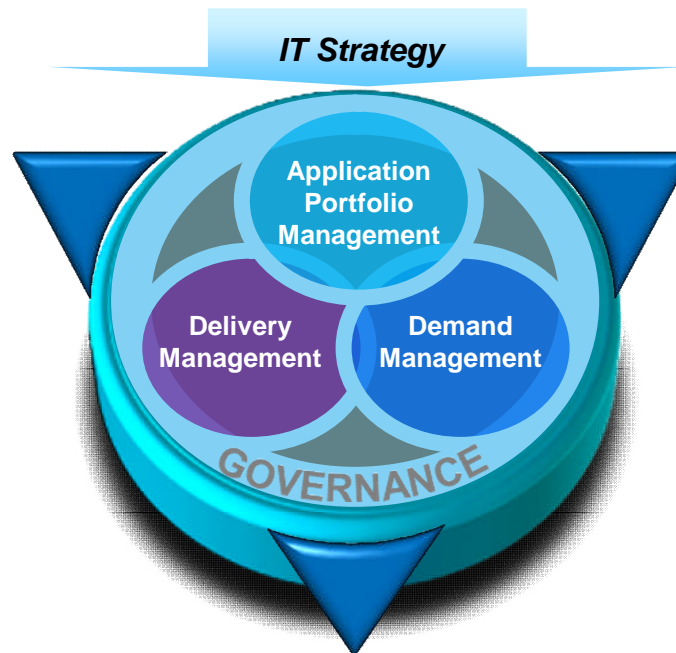
Many companies have the 80/20 rule wrong...



Simplify IT to drive innovation and business agility

Governance and collaborative decision making

Increase strategic spend
Consolidate applications to reduce maintenance and operations cost and shift funds to innovation

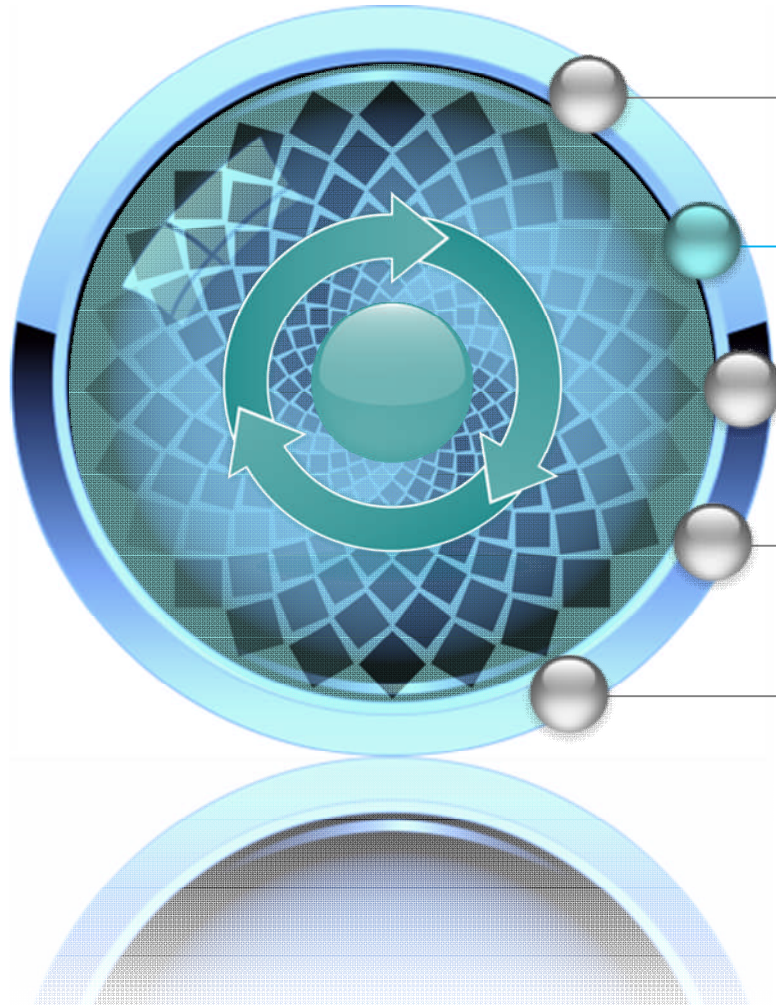


Improve business agility
Reinvest savings in application modernization and effectively manage demand

Deliver and improve
Deliver on projects and measure the result to improve future decision making



Agenda



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A definition of Application Portfolio Management



Application portfolio management (APM) is a repeating process using information and analytics that produces objective and transparent decisions around investing, consolidating, modernizing, or replacing applications.

Benefits:

- Align the application portfolio with business strategies
- Reduce costs and optimize value
- Increase speed-to-deployment and speed-to-market
- Reduce risk associated with technology or resources
- Implement shared services

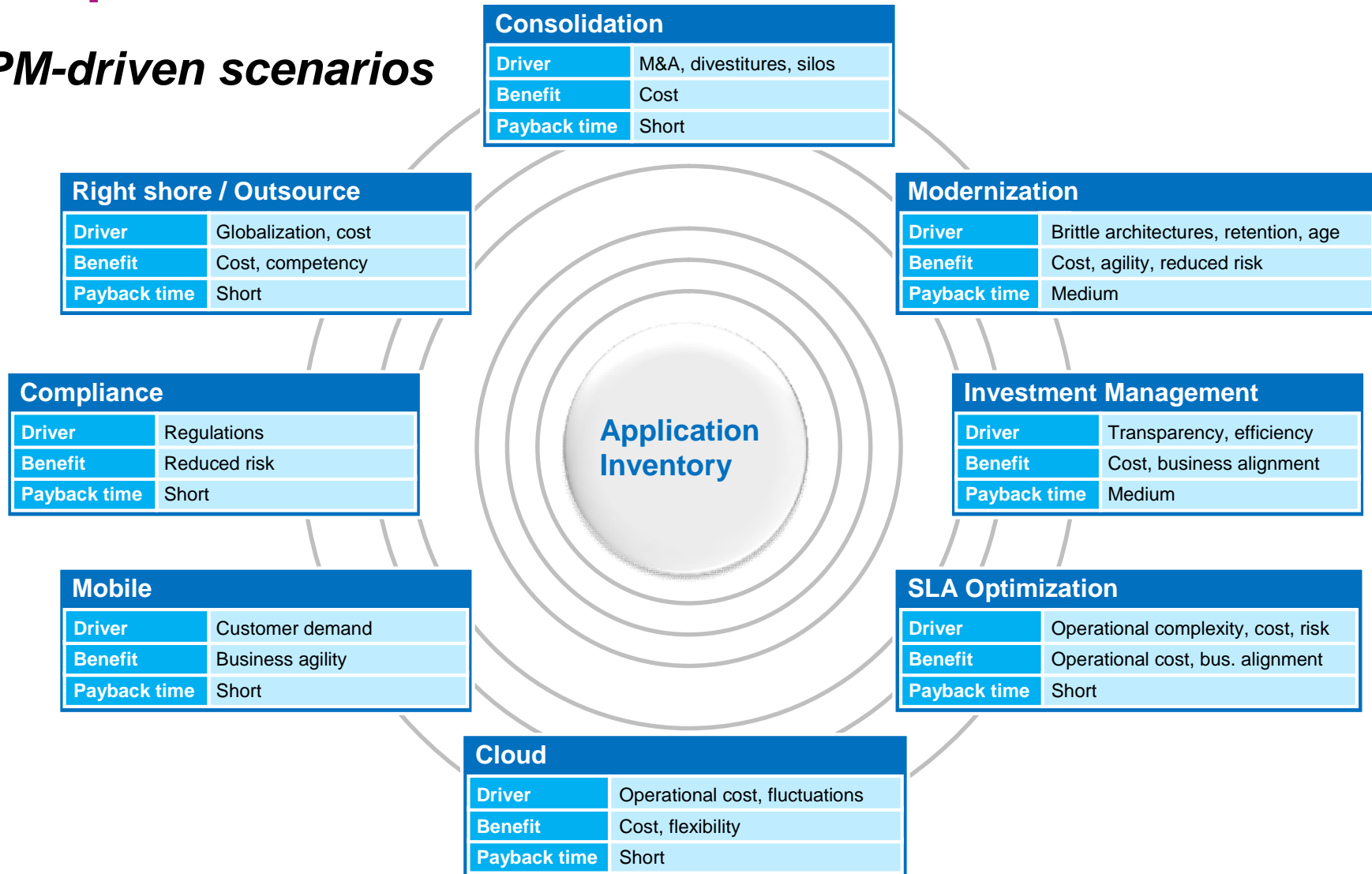
“Making IT resource consumption transparent and understandable to business leaders enables healthy business discussions around how to shift resources to where they will do the most good for the whole business.”

– Define “Application” Based On Your Content To Avoid False Starts In Your Rationalization Efforts, Forrester Research, Inc., January 26, 2011



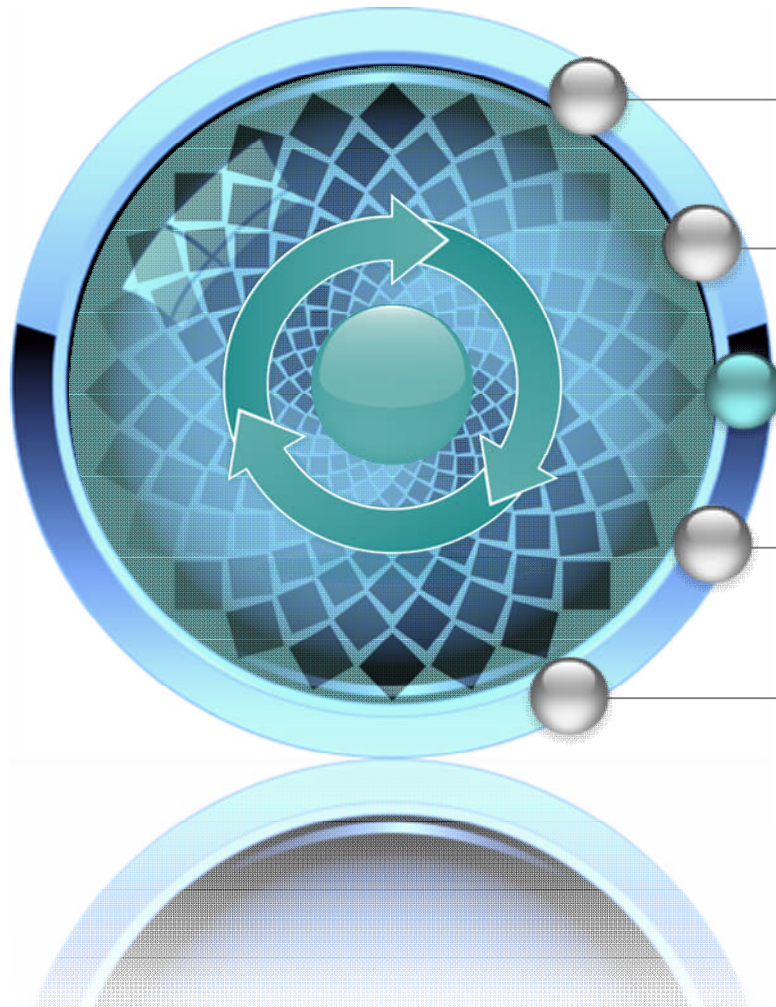
IT optimization business outcomes

APM-driven scenarios





Agenda



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Measuring the Total Economic Impact

Forrester Consulting interviewed four customers to establish a financial model (3-year, risk-adjusted ROI) for a representative organization using the IBM Rational Integrated Solution for Application Portfolio Management.

ROI	Payback period	Total costs (PV)	Total benefits (PV)	Net present value (NPV)
101%	13 months	(\$1,551,280)	\$3,507,306	\$1,956,026

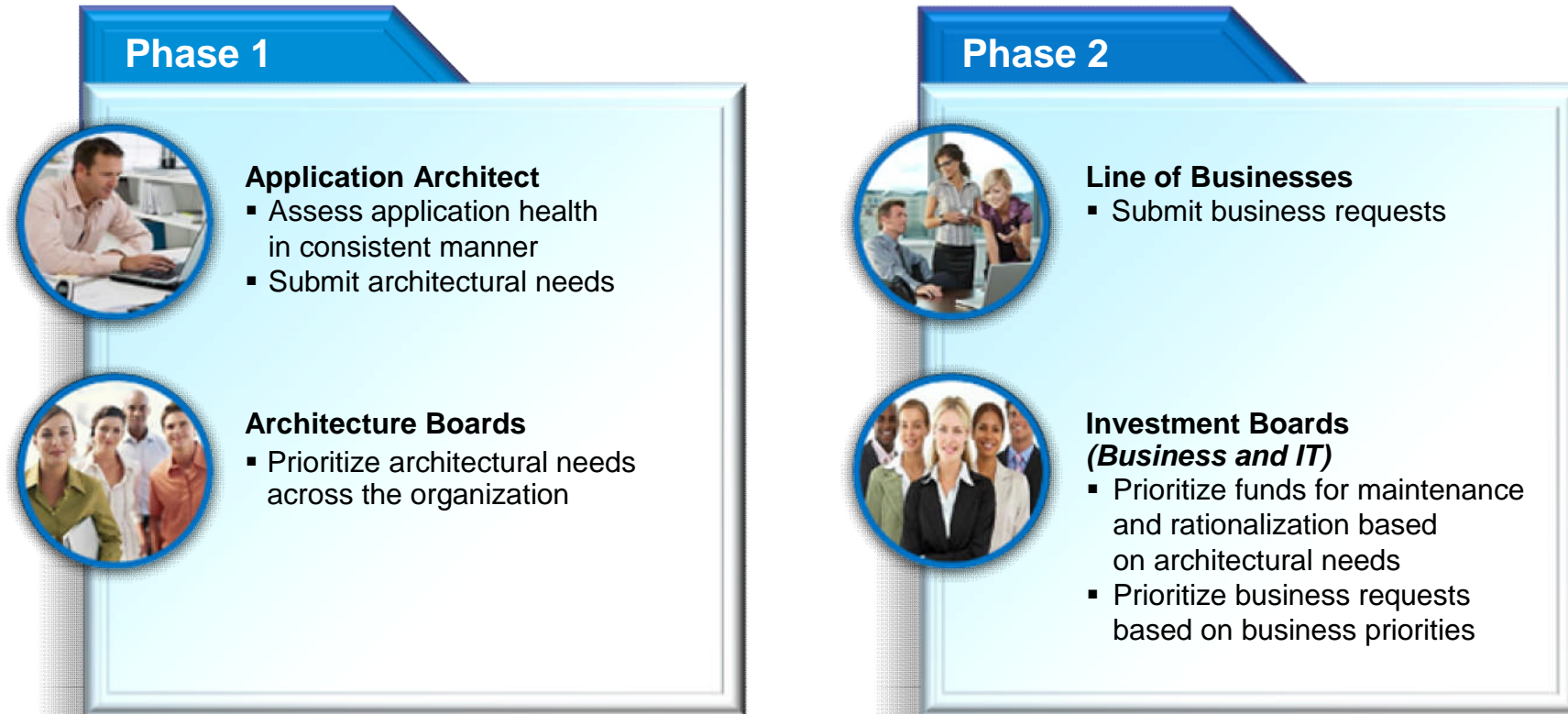
Benefits

- Improved process efficiency — business and IT. **Reduced time and effort to collect, manage, and report on the application environment.**
- Reduced risk/improved allocation of capital. **Improved transparency around the application environment, increasing the likelihood that mission-critical applications are adequately funded.**
- Improved Time-To-Delivery On Application Initiatives. **Reduced time to decide on, and implement required changes.**
- Reduced cost. **Lower maintenance and operations cost through consolidation and rationalization. (Not quantified in report, nor included in the above model.)**

Source: *Measuring The Total Economic Impact Of IBM Rational Integrated Solution for Application Portfolio Management*, a commissioned study conducted by Forrester Consulting on behalf of IBM, January 2012.



How to prioritize spend on maintenance and rationalization



Financial institution in Europe

Phased rollout of governance processes



Simplify IT to improve business agility

Challenge Cost

- Too much money spent on maintenance and operation



Solution

- Established application inventory in first month
- Assessed business value versus cost and risk
- Reduced number of local and non-strategic applications

Results

- ✓ Reduced number of applications by 45% in 18 months
- ✓ Reduced money spent on keeping lights on from 85% to 50%

Challenge Business agility

- IT not reactive to business needs
- Business had low confidence in IT's ability to add value



Solution

- Established demand management process
- Used tools for improved business and IT collaboration
- Re-invested savings from keeping lights on into innovation

Results

- ✓ Reduced response time to business change request from 200 to 14 days
- ✓ Improved trust between Business and IT
- ✓ IT is now viewed as an enabler of innovation, rather than as a cost center

[▶ Read the full case study](#)

A global conglomerate



Rationalize and optimize to align with the business

Challenge **Complexity**

- Unclear what applications exist and their value



Solution

- Built application inventory in two months, replacing previously scattered information
- Enabled portfolio management and EA teams to collaborate

Results

- ✓ Reduced number of applications by 75% in 18 months

Challenge **Business alignment**

- SLA's and application support costs not driven by business justification and priorities



Solution

- Assigned appropriate SLA level based on needs
- Streamlined organization to align with simplified SLA levels and smaller application portfolio

Results

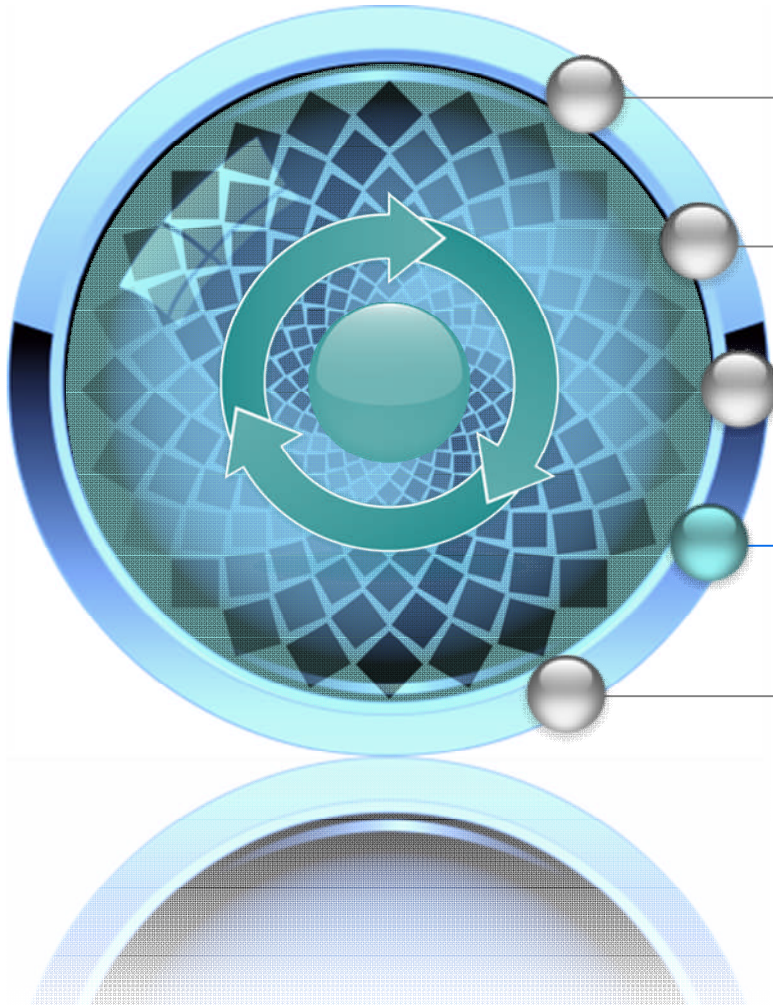
- ✓ Reduced number of SLA levels from 17 to 4
- ✓ Double digit reduction in operations cost

Financial institution in North America

[▶ Read the full case study](#)



Agenda



Why APM right now?

What is APM?

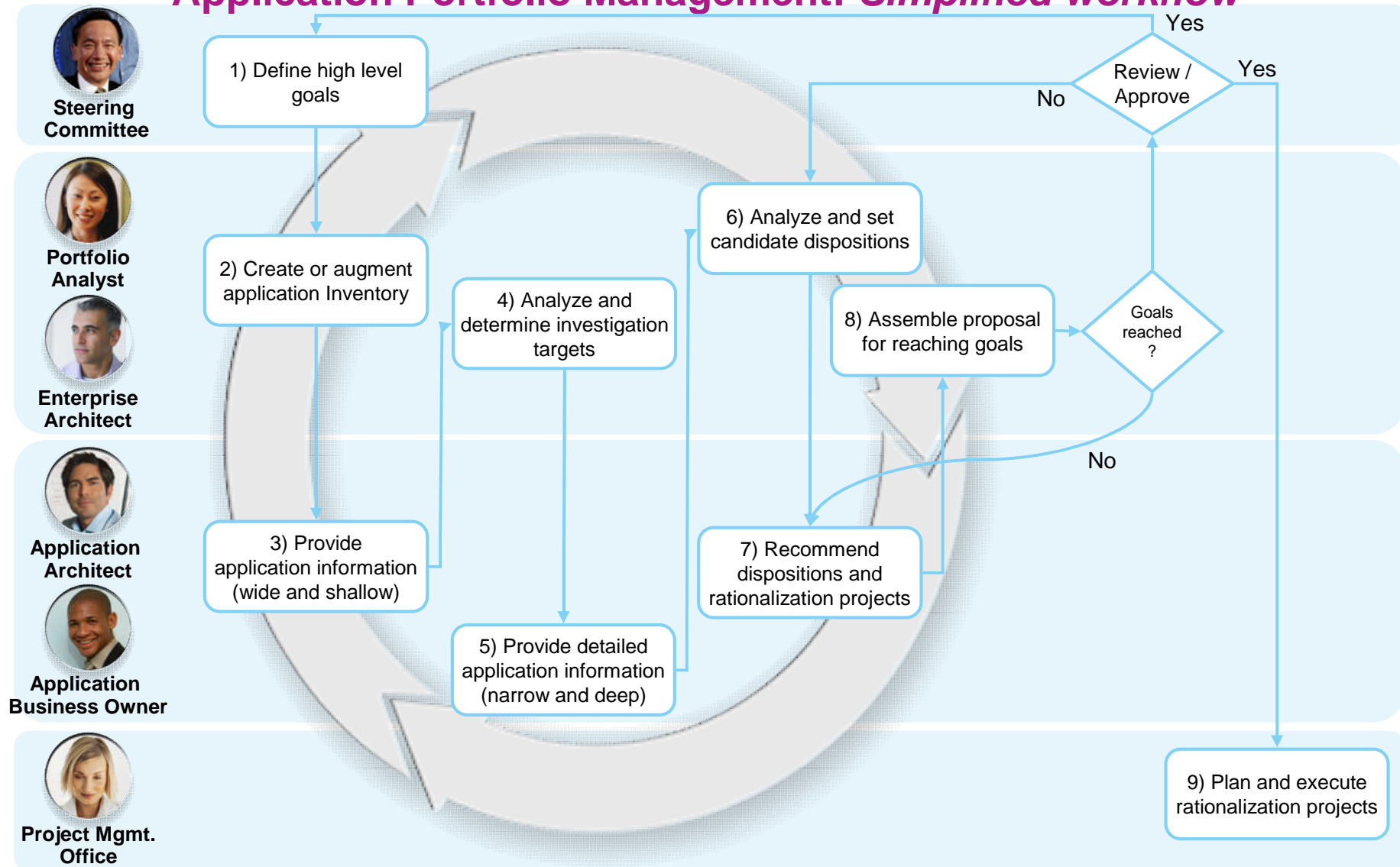
How are customers adopting it?

APM in action

Final thoughts



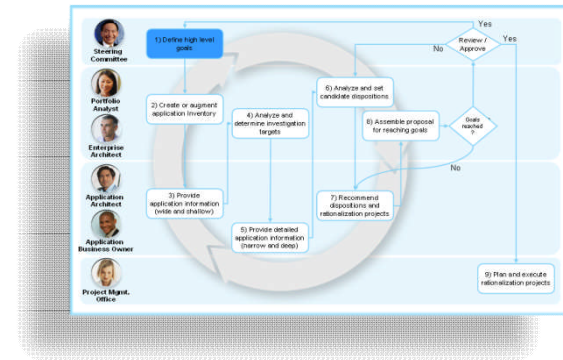
Application Portfolio Management: *Simplified workflow*





Steering Committee

1) Define High Level Goals



- **High level goals established**
 - Example: Reduce application costs by 20% by end of 2013
- **Explicit targets for accomplishing goals are established**
 - Example 1: Reduce maintenance spend by 15% by end of next quarter
 - Example 2: Establish Goals for Decommissioning Applications, with the ability to track Plans and Actuals to those goals

Display > Decommissioning Plan

Year	Quarter	Retirement Goal	Savings Goal	Retirement Plan	Planned Savings	Actual Retired	Actual Savings
2012	Q3	5	\$700,000	0	\$0	0	\$0
2012	Q4	5	\$700,000	0	\$0	0	\$0
2012	Q1	4	\$600,000	3	\$78,500	1	\$38,000
2012	Q2	6	\$800,000	0	\$0	0	\$0
2013	Q1	5	\$650,000	0	\$0	0	\$0
2013	Q2	7	\$450,000	0	\$0	0	\$0



2) Create or augment application inventory

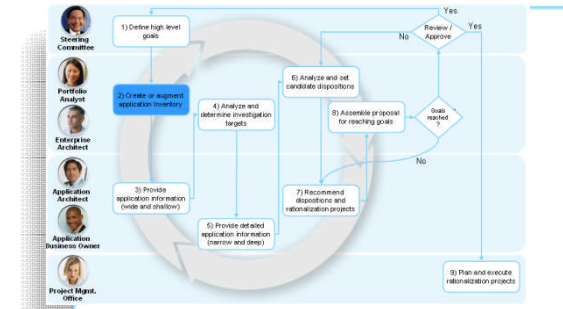


Portfolio Analyst



Enterprise Architect

Name	Description	Category	Owner	Application ID	Business Unit	Business Area	Business Process	Business Value	Business Impact	Business Risk	Business Criticality	Business Complexity	Business Interdependence	Business Integration	Business Lifecycle	Business Maturity	Business Performance	Business Reliability	Business Security	Business Usability	Business Visibility
Application 1				ID																	
Application 2				A0001																	
Application 3				A0019																	
Application 4				A0024	SCPS		SCPS is a proprietary Management system which is based on a Lotus Notes database	Sales portfolio			Tactical										
Application 5				A0029	Profile		CRM system to responsible cross-channel activity.	Sales portfolio			Strategic										
Application 6				A0040	Compass		Online investment strategy adviser and ranking engine.	Enterprise Application Portfolio			Strategic										
Application 7				A0042	FIMS		Legacy customer information system. Contains personal information covered by privacy legislation.	Enterprise Application Portfolio			Legacy										
Application 8				A0055	AutoFit		Infrastructure data management	Enterprise Application Portfolio			Tactical										
Application 9				A0056	BWL		Best Witness Leverage of insight into market data	Sales portfolio			Strategic										
Application 10				A0057	EMEA Pipeline		Creates data sets of historical implied vols and fits for EMEA underliers.	Sales portfolio			Tactical										
Application 11				A0058	Flow Risk		An event-driven real-time risk system that also includes basis P&L numbers. This is also the first application that integrates all of the risk services.	Finance Portfolio			Strategic										
Application 12				A0059	Parameter Matrix		Legacy application due for decommissioning in 2012. Parameter Matrix is a GUI which enables the comparison of volatilities across multiple underlyings. It is to be replaced by a suite of volatility management components within the Param Desktop.	Enterprise Application Portfolio			Legacy										
Application 13				A0060	Ticking Risk		Legacy application due for partial decommissioning in 2012. This application presents	Finance Portfolio			Legacy										



- Rapidly import inventory from existing spreadsheets
- Optionally leverage role-based Web interface for additional information entry

3) Provide application information (wide and shallow)



Application Architect



Application Business Owner

Rational Focal Point
Display > My Applications

Assess - Business

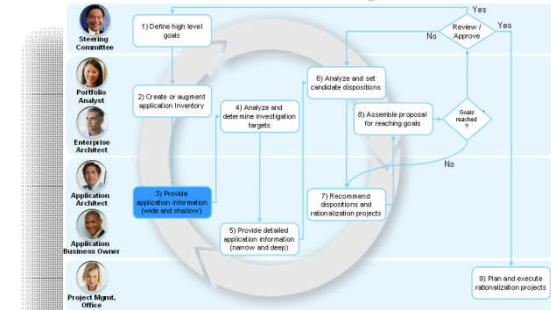
Applications (1/1)
Amdocs Billing

Assessment State
Captures the assessment workflow each application goes through.

Current State **Transitions**
Assess Info Gathered

Amdocs Billing

Name	Amdocs Billing
Portfolio	Finance Portfolio
Primary Business Strategy	Integrated CRM Systems
Projected Annual Cost	0
Total Lifetime Costs	200,000
Business Alignment	4 - High
Business Criticality	3 - Medium
Business Risk	4 - High
Total Business Alignment Score	57
Total IT Alignment Score	75
Excessive SLAs Level	
Classification	Gold
Recommendation	



- Web-based entry through role-based views
- Provide filters to make data entry trivial
- Increase data quality through choice selections and built in quality assurance steps



4) Analyze and determine investigation targets

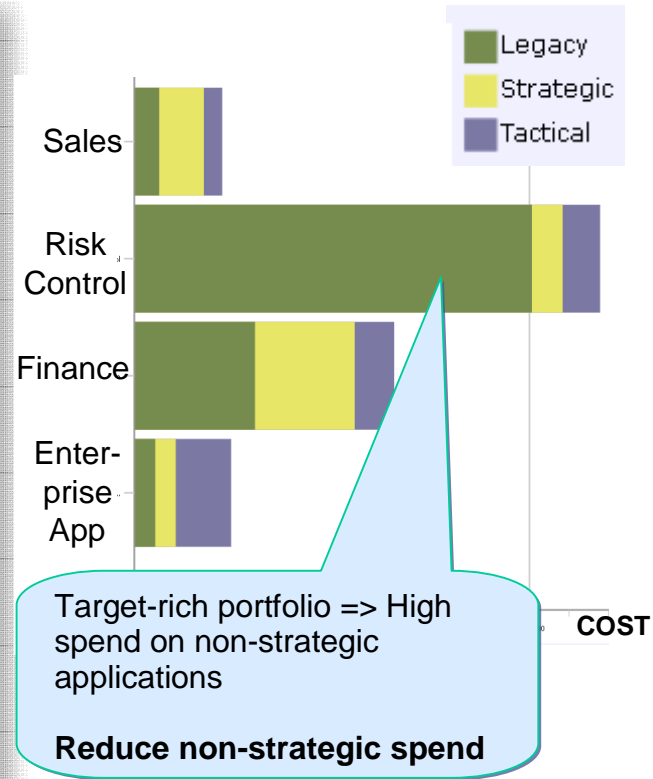
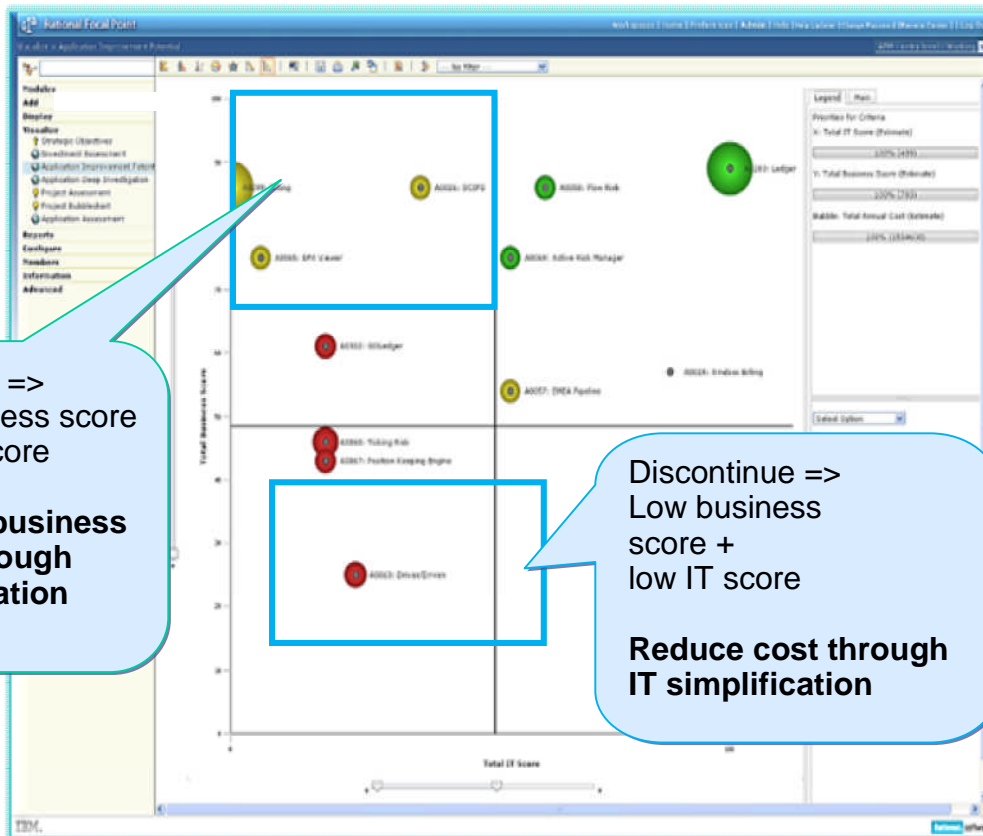
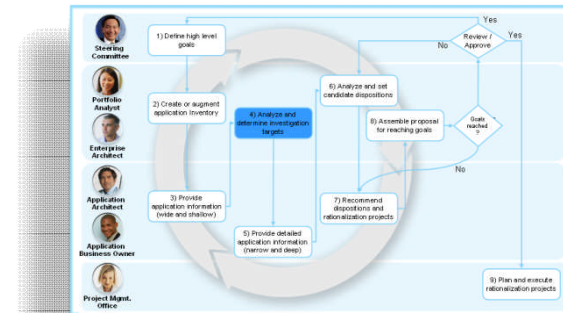
Identify applications to be further investigated



Portfolio Analyst



Enterprise Architect



5) Provide detailed application information

Focus on four dimensions



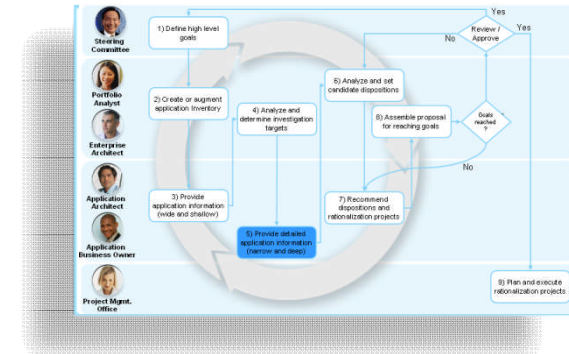
Application Architect



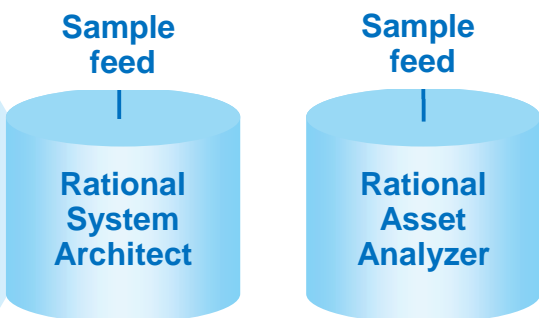
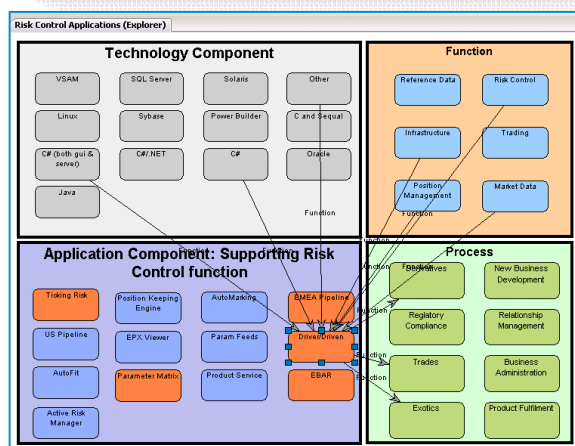
Application Business Owner

Business Value
Functional Quality
Strategic Value
Technical Quality

	Size	Defect Rate	Defect Density	Dependency Fact	Meet SLAs	Skills Risk	Code Complexity	Maintainability	Score
My Applications	182,000	184	1.011	3 - Medium	2 - Almost	3 - Medium	3		2.8
Application Roadmap	32,000	188	5.875	4 - High	5 - Critical brt	5 - Very high	1.9		1.8
Project Roadmap	44,000	19	0.432	1 - None	3 - Partially	4 - High	1.4		2.2



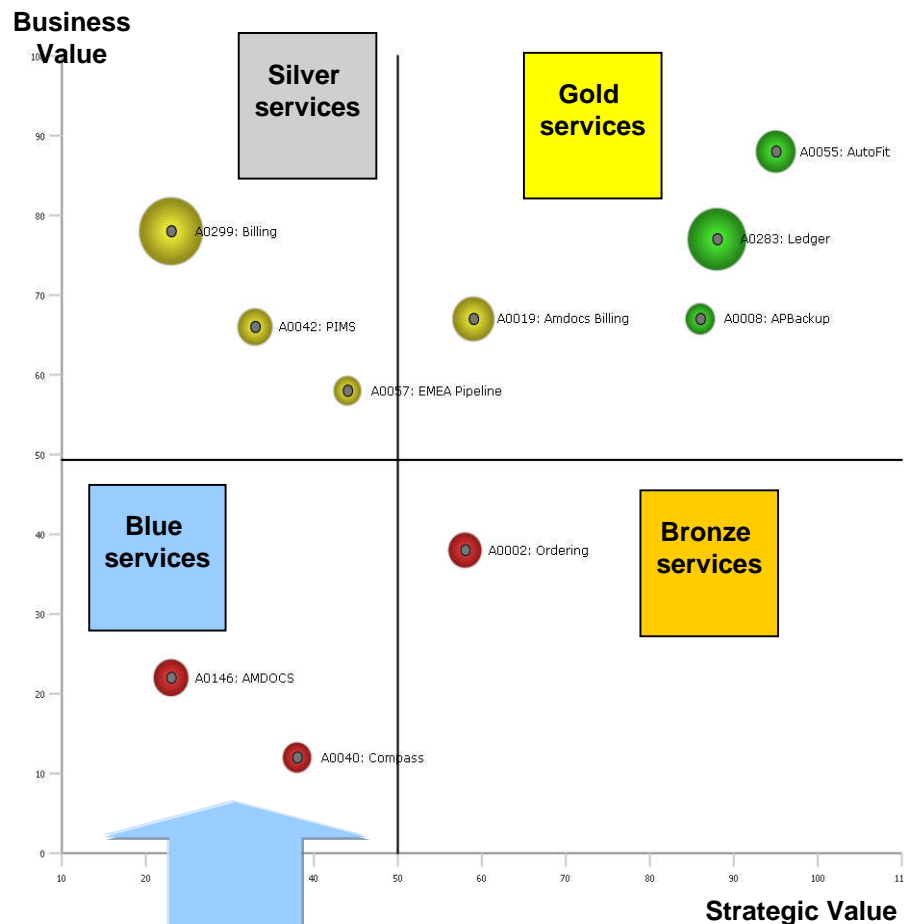
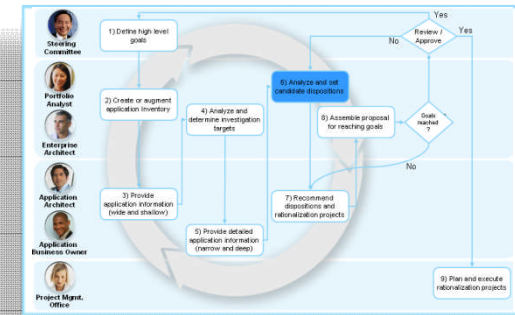
- Web-based and role based information gathering
- May optionally be informed by application analysis tools, such as IBM Rational Asset Analyzer or CAST Application Intelligence Platform
- May optionally be informed by an Enterprise Architecture tool, such as IBM Rational System Architect





6) Analyze and set candidate dispositions

Assess *Business Value* vs. *Strategic Value* to guide maintenance spend and dispositions



IBM Example

	Application maintenance	Application enhancements
Gold services	All errors	All enhancements
Silver services	Severity 1 and 2 errors only	Enhancements which impact revenue, profitability, customer satisfaction, or a demonstrable return on investment
Bronze services	Severity 1 errors only	
Blue services	No error corrections	Only enhancements bringing significant longterm value
		No enhancements

Apply Portfolio Value Management approach

Apply affordability driven demand management



6) Analyze and set candidate dispositions

Assess *Technical and Functional Quality* to guide investments and dispositions



Portfolio Analyst

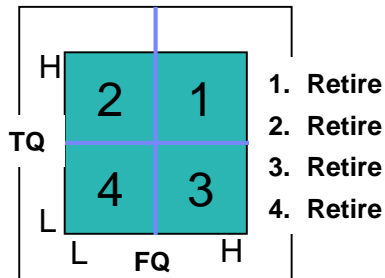


Enterprise Architect

Low Business Value
Low Strategic Value

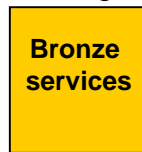


Technical & Functional Quality

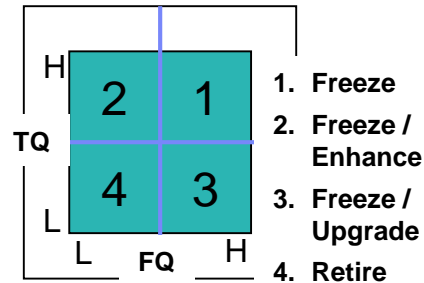


Most applications are candidates for retirements and should be frozen immediately.

Low Business Value
High Strategic Value



Technical & Functional Quality

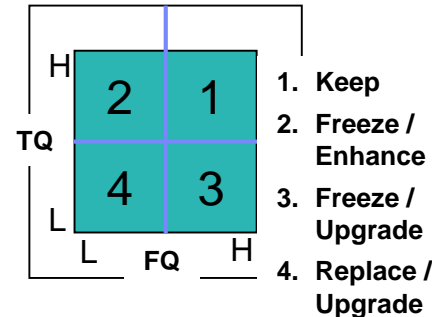


Most applications should be frozen. Consider replacement to more strategic applications. Newly introduced applications could be revalidated to stay as a target application.

High Business Value
Low Strategic Value

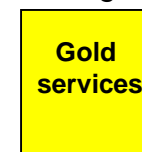


Technical & Functional Quality

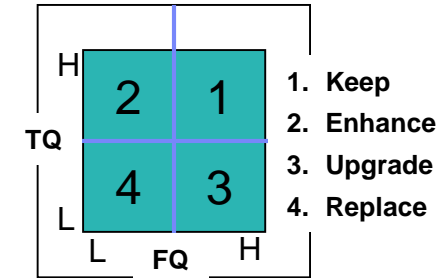


Most applications could be frozen temporarily - until a need to Upgrade or Enhance has been aggregated.

High Business Value
High Strategic Value



Technical & Functional Quality



Many applications are likely to be in your wanted portfolio and part of your target solution.



6) Analyze and set candidate dispositions

Propose disposition and understand savings potential

Disposition	Description	Potential % Savings based on industry benchmarks
Decommission (a.k.a. Retire)	Discontinue the application.	70% of maintenance and production infrastructure cost
Relocate	Evaluate and select alternate sourcing for application hosting, maintenance and/or development.	40% of labor (enhancement and maintenance) + 3% of production infrastructure cost
Reprioritize	Reduce spend on maintenance or operations costs.	15% of maintenance labor
Replace	Replace current application(s) with new application / packaged application.	25% of total cost
Reduce (a.k.a. Consolidate)	Rationalize multiple applications with similar function into a single application.	60% of total cost
Enhance	Add additional functionality. Improve flexibility by using new principles, e.g. SOA, Web Services.	No change -????
Modernize (a.k.a. Rustproof)	Modernize application by upgrading technology and improving architecture.	15% of labor (enhancement and maintenance)
Retain	Keep as-is.	No change



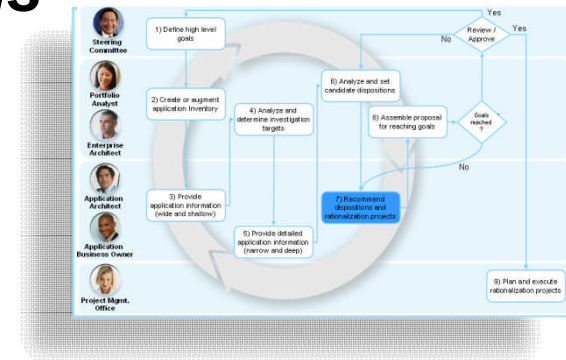
7) Recommend dispositions and projects *Review and harden proposed dispositions*



Application Architect



Application Business Owner



- **Bring together key stakeholders of this applications, and review impact of proposed disposition**
 - What is impact of a freeze?
 - If we replace the application with an ERP, what is the business impact?
 - What risks are associated with relocating this application?
 - Knowing the details about the application and business context, is there a more sensible disposition?
- **For upgrades / modernizations => Conduct Feasibility Study**
 - Drill down into details of the architecture and code base
 - Determine the appropriate modernization approach (re-factor, migrate, wrap, ...)
 - Understand costs, benefits, and risks



7) Recommend dispositions and rationalization projects

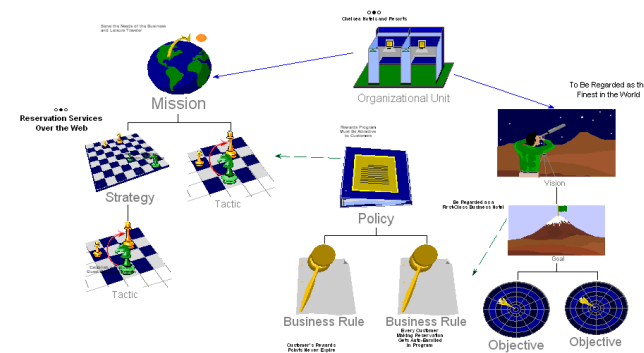
Conduct feasibility study

1 Defect and Enhancement request Analysis

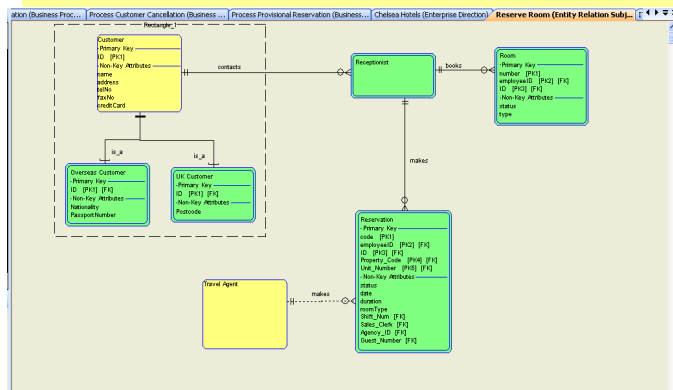


3 Business Processes and IT alignment Analysis

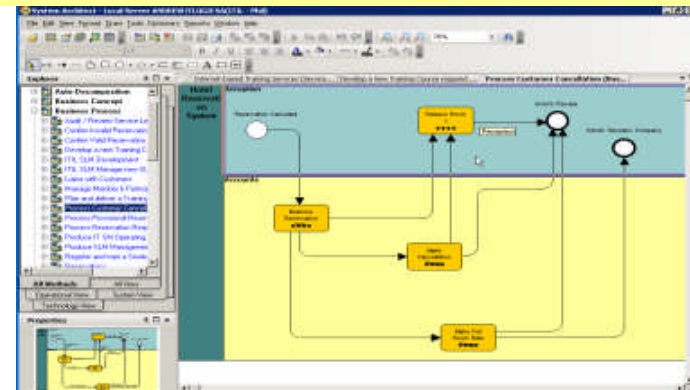
Business Strategy - Enterprise Direction Diagram



2 Application Complexity Analysis



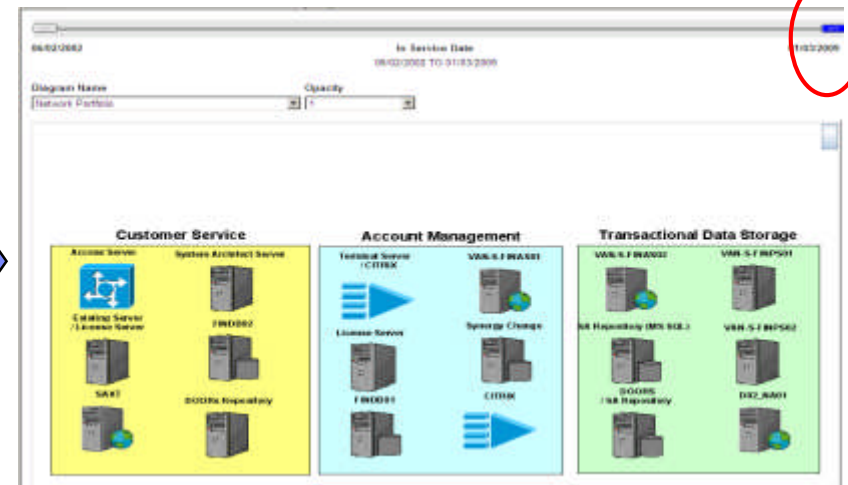
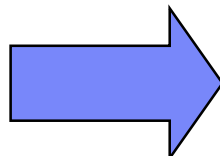
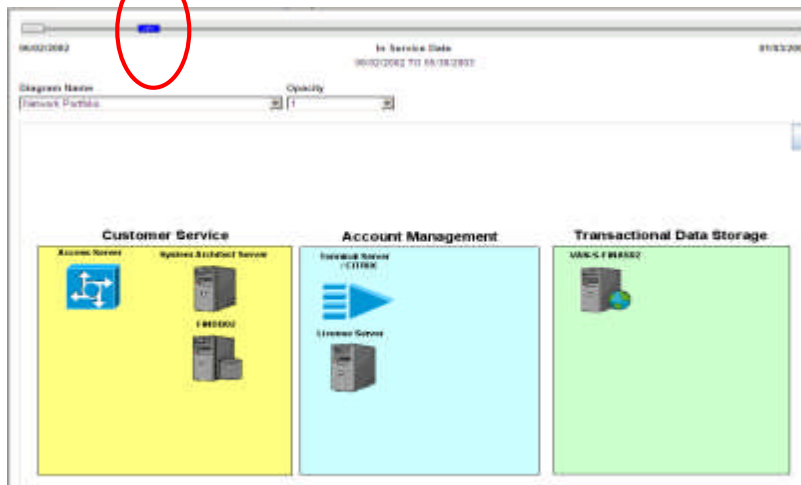
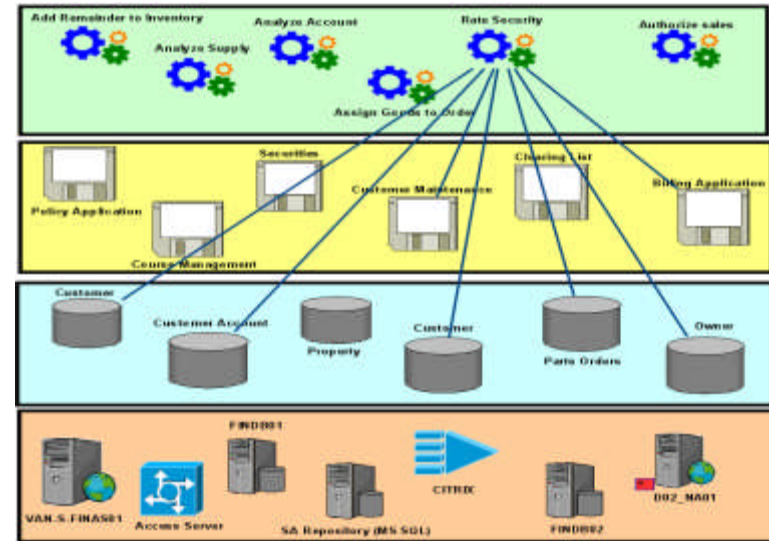
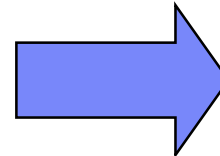
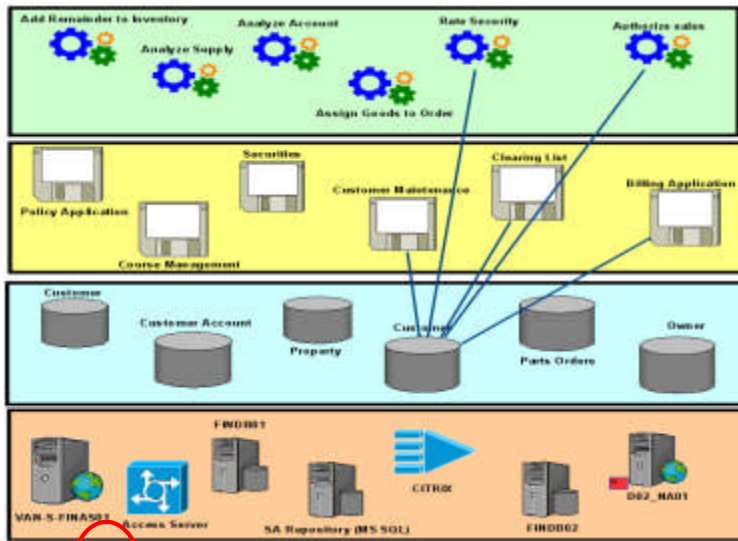
4 Application Refactoring and Enhancement





7) Recommend dispositions and rationalization projects

Define Future State architecture(s) Current to Proposed



7) Recommend dispositions and rationalization projects

Produce project proposals for rationalization projects



Application Architect



Application Business Owner

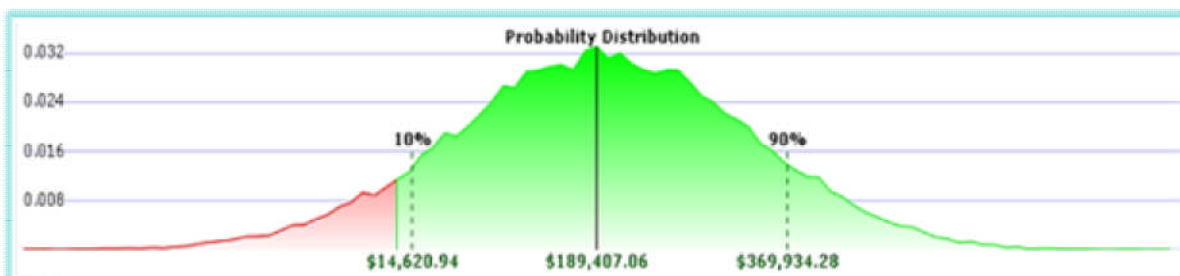
Planning Data	
Start Date	6/1/11
End Date	8/30/12
Benefits End Date	10/1/13
Primary Business Objective	↑ Reduce Costs by 10% over the next 2 years
Supported Business Objectives	↑ Gain 5% organic growth by Dec 2011
Related Applications	<ul style="list-style-type: none"> ✔ A0299: Billing ✔ A0302: GOLedger

Scorecard	
Architectural Fit	5 - Very High
Strategic Alignment	4 - High
Business Value	5 - Very High
Competitive Advantage	4 - High
Total Business Value Score	1,129
Total Risks Score	71

Expected Cost: \$1.4 M

Expected Benefits (accrued over 13 months after project completion): \$1.9 M

Net Present Value (28 months)



- Link Future State architectures to project proposals
- Propose and establish business case for projects



8) Assemble proposal for reaching goals Evaluate and prioritize rationalization projects



Steering Committee

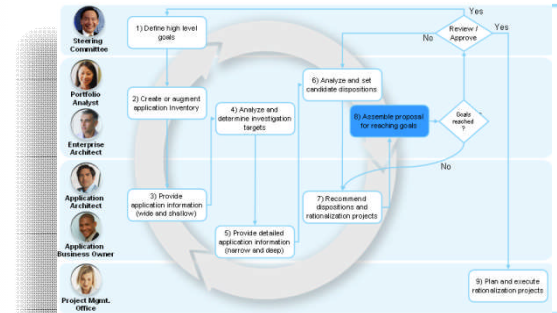


Project Mgmt. Office

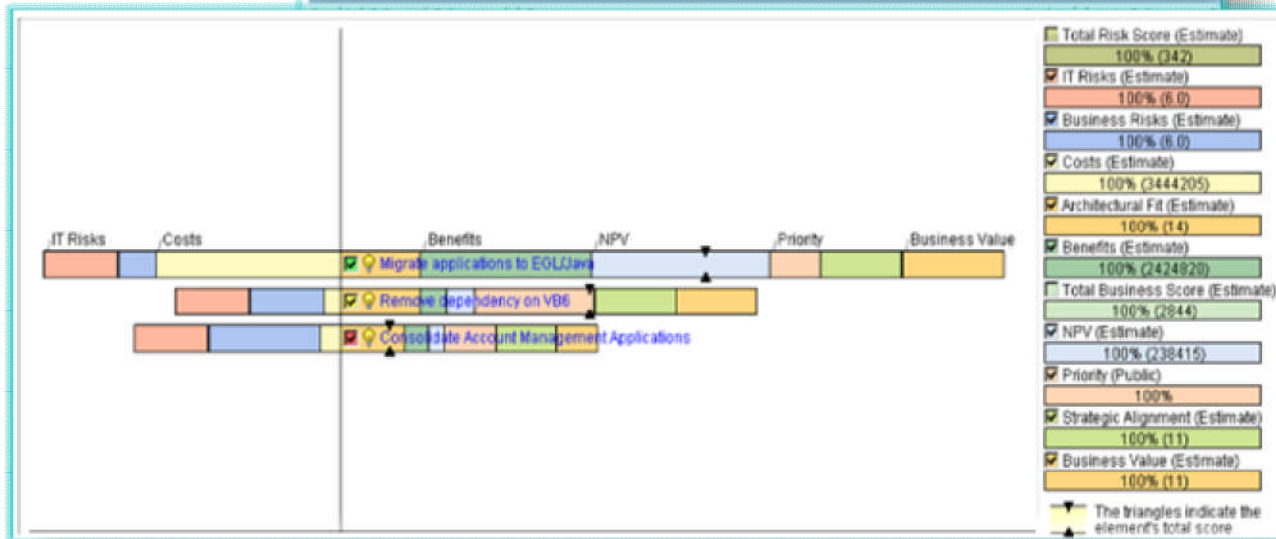
Which Project has higher "Priority"?

Migrate applications to EGL/Java		Consolidate Account Management Applications	
ID	010	ID	004
Priority	0	Priority	0
Name	Migrate applications to EGL/Java	Name	Consolidate Account Management Applications
Description	This opportunity covers migrating applications from Natural / Adabas to EGL.	Description	Support arrangements for these applications are unclear - as these have been excluded from the scope of any current / future plans. Tactical rationalization is required to resolve support issues as it is unclear whether they have adequate support arrangements given their importance to the business. It is recommended that in the longer term they are strategically Replaced by industry standard applications.
State	Q Assess	State	Q Assess
Alternates		Alternates	
Group		Group	
Owner		Owner	
Architect		Architect	

Planning Data
Scorecard



- Compare projects side by side using pair-wise comparison
- Visualize project priority base on defined project criteria





8) Assemble proposal for reaching goals

***Establish roadmap that enables goals to be met.
Plan and approve for execution.***

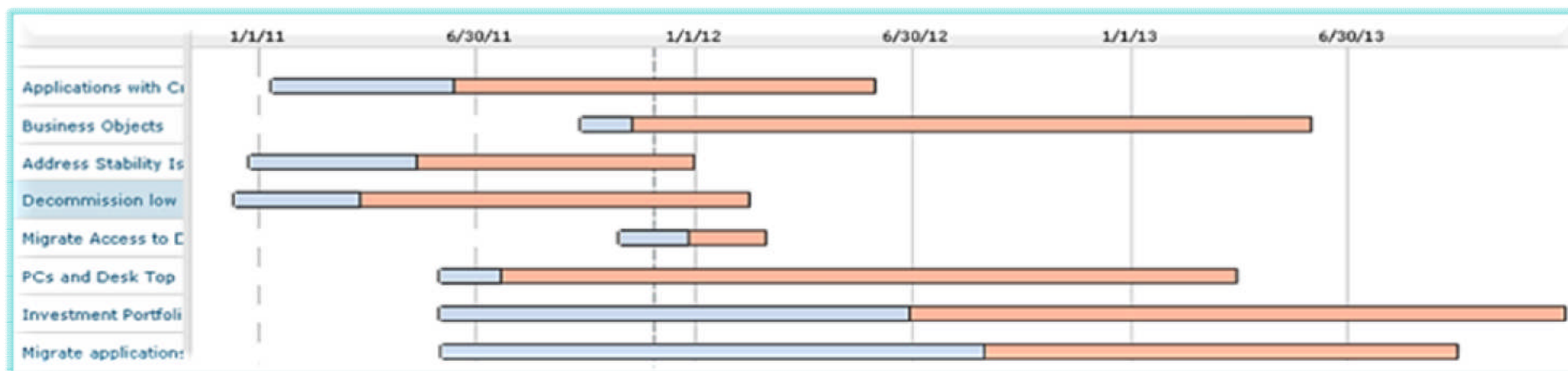


Steering
Committee



Project Mgmt.
Office

- Freeze 23 applications
 - Quarterly savings of \$870K
- 18 rationalization projects to be carried out over next 2 years
 - Modernization of 4 applications deemed critical
 - Consolidating 12 applications
 - Decommissioning 6 applications
- Transaction cost of \$6.8M
- Expected savings by end of 2013: 22%
 - Beats goal of 20%





IBM CIO Office APM Experiences

■ Application reduction

- From 16,000 to 4500
- Targeting another 50% reduction by 2015

■ Benefits

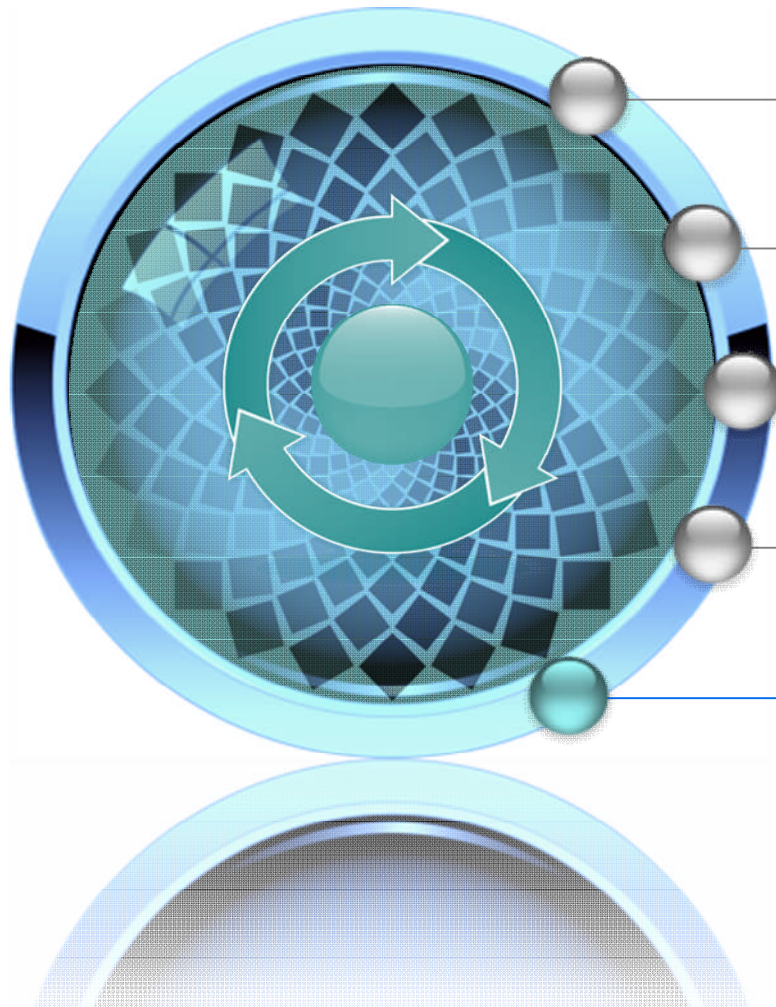
- \$1,5 Billion dollar estimated savings as a result of application and data center consolidation
- Of applications classified as “Blue”, an estimated 95% savings in maintenance (due to consolidation and freeze of maintenance dollars)
- SLAs now vary based on objective business criteria
- Re-engineered applications - defects down 58% and maintenance costs down 20%
- Separated low value work and applied strict governance and controls

■ Ongoing process

- APM never ends, this is the 3rd time we cut application count by 50% or more....
- Many other improvements besides IT cost reduction, such as business process efficiencies gained from global processes for a global company
- For more info, see Computerworld article:
http://www.computerworld.com/s/article/9226430/IBM_on_path_to_cut_internal_apps_by_85



Agenda



Why APM right now?

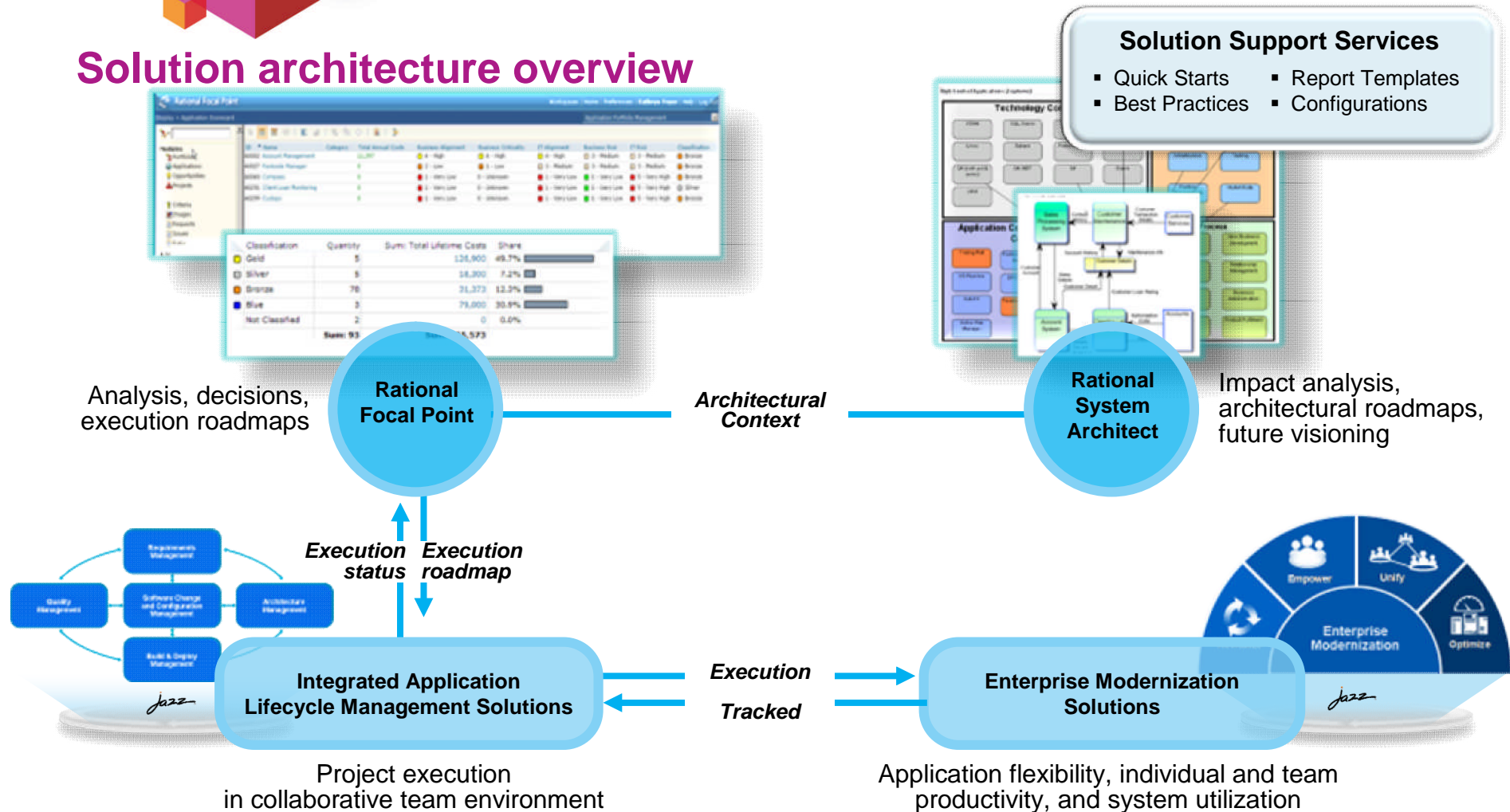
What is APM?

How are customers adopting it?

APM in action

Final thoughts

Solution architecture overview



APM decisions and plans are executed and tracked in solutions for Application Lifecycle Management and Enterprise Modernization



Usage scenarios across multiple adoption paths

Portfolio-lead APM

- Focus areas:
 - APM as a governance process supported by analytics
 - Collaborative decision making
 - Establishing project roadmaps
- Solution:
 - **Rational Focal Point:** Analyze application portfolio, identify candidate decisions, prioritize options, and propose and plan projects
 - **Rational System Architect:** Optionally use to investigate candidate decisions identified in Rational Focal Point
- When appropriate:
 - Currently using spreadsheets or initiative driven without mandating the rigor of a mature enterprise architecture practice

Enterprise Architecture-lead APM

- Focus areas:
 - Understanding the enterprise context of applications
 - Evaluating architectural alternatives
 - Establishing architectural roadmaps
- Solution:
 - **Rational System Architect:** Understand the enterprise architecture, define solution alternatives, and produce architectural roadmaps
 - **Rational Focal Point:** Prioritize solution alternatives identified in System Architect and propose and plan projects
- When appropriate:
 - Mature enterprise architecture practice in place or is being established

These two starting points often evolve to a model benefiting from both perspectives



How to get started: Two options

Moving towards increased strategic spend and improved business agility

1/2-day APM Executive Workshop

- What are your desired outcomes from the APM effort?
- What decisions do you need to support?
- What information and analytics are needed to support those decisions?
- What roles are involved in the information gathering and decision making?

1-day Proof of Technology

- Instructor-led lab exercises
- Hands-on walkthrough leveraging sample application inventory
- Walk through several end-to-end Application Portfolio Management scenarios



Resources

- **APM content on ibm.com (ibm.co/apmsolution)**
–whitepapers, demo, podcast, video etc.

- **APM reference stories: [North American Bank](#) , [Global Conglomerate](#)**

- **APM Forrester Consulting commissioned report on Total Economic Impact of the IBM Rational Integrated Solution for APM**
–Provided on request



QUESTIONS

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