



Lower Cost and Increase Business Agility with Application Portfolio Management (APM)

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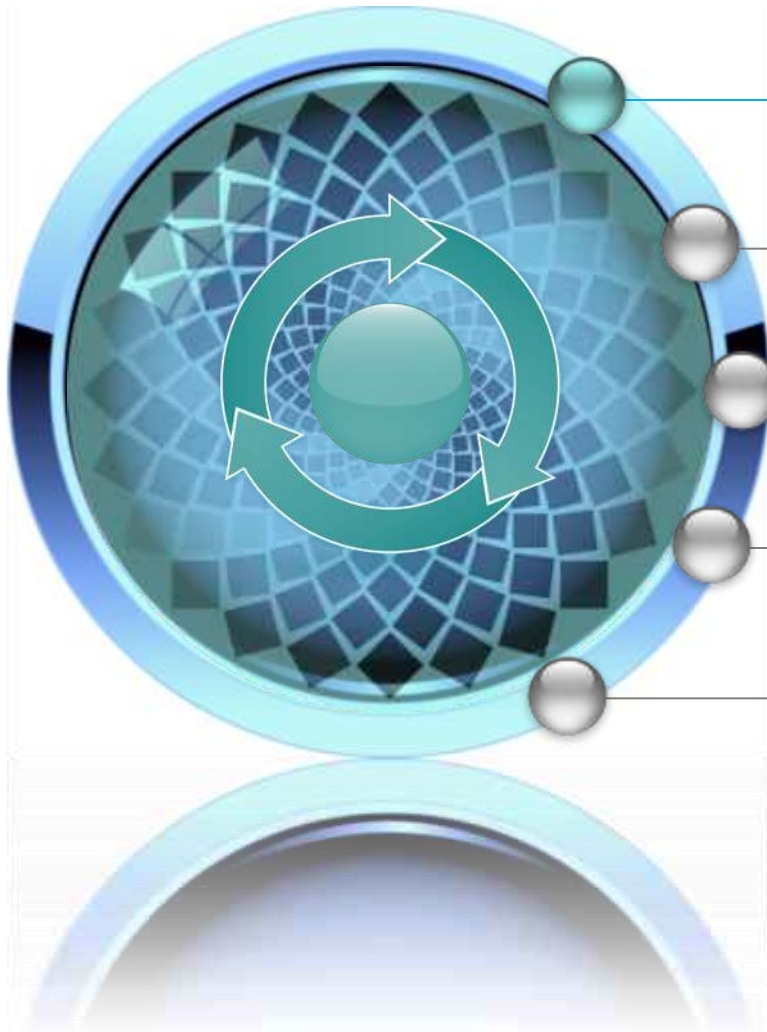
IBM Software

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Agenda



Why APM right now?

What is APM?

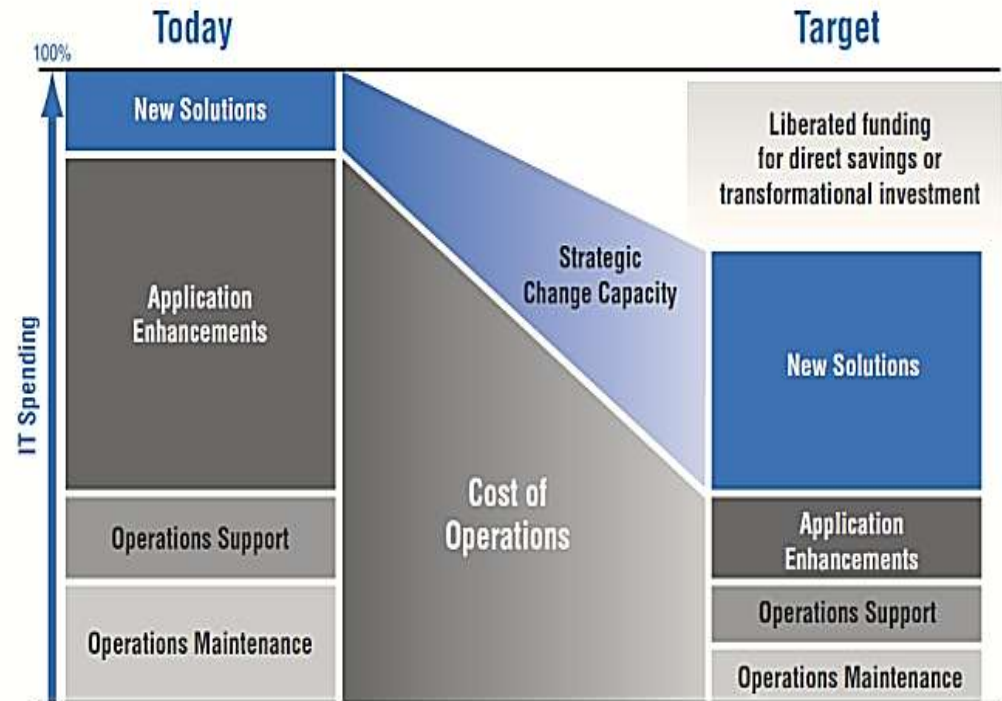
Benefits of Adoption?

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

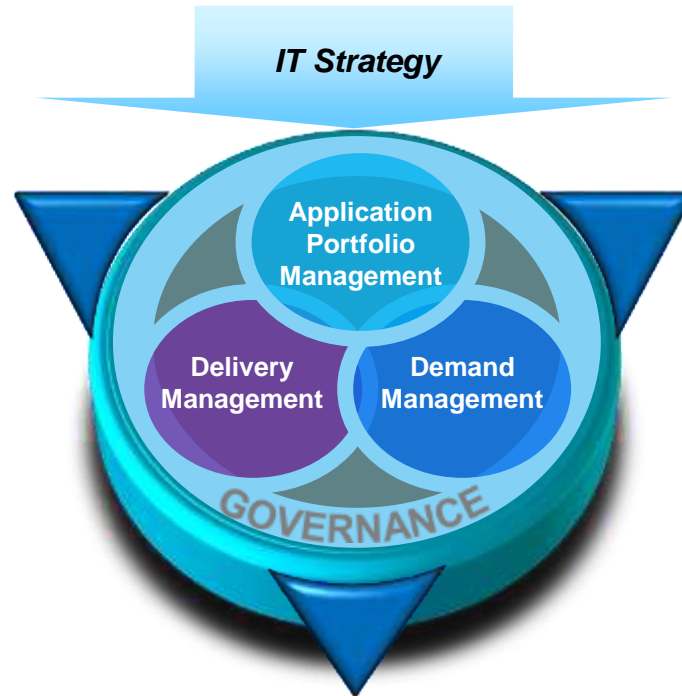
- Used effectively by only a few leaders
- Provides executives
 - Multi-year control over 80% of the budget
 - Ability to generate new project proposals such as structural changes to address problems

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

Simplify IT to drive innovation and business agility

Governance and collaborative decision making

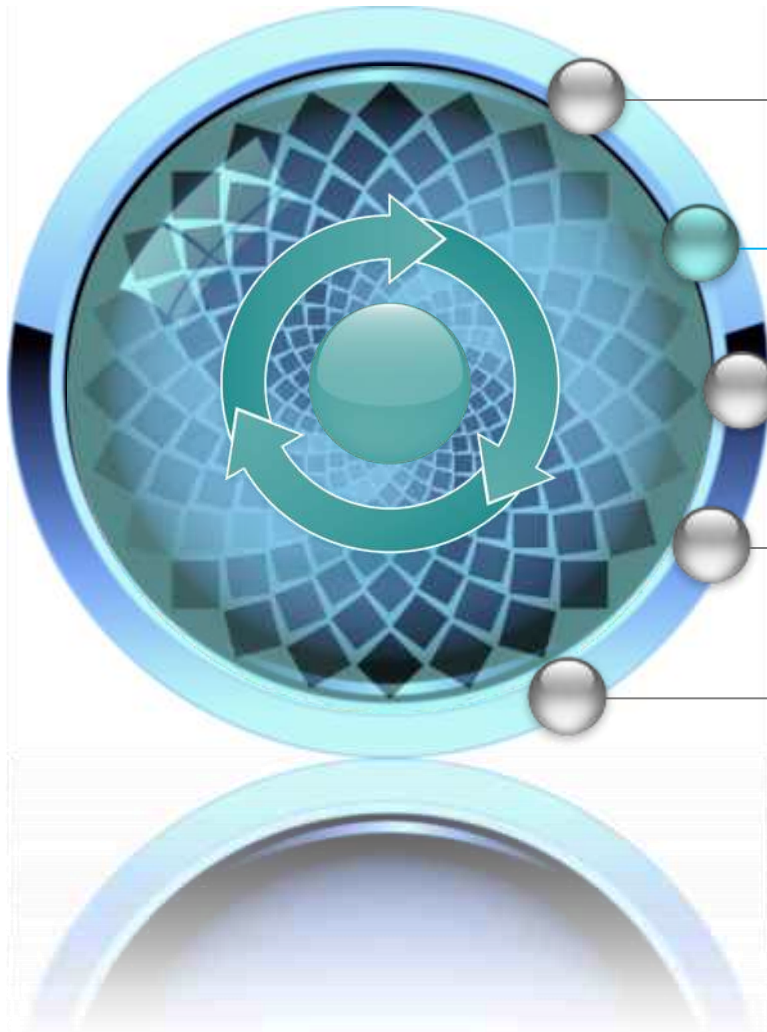
Increase strategic spend
Consolidate applications to reduce maintenance and operations cost and shift funds to innovation



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:

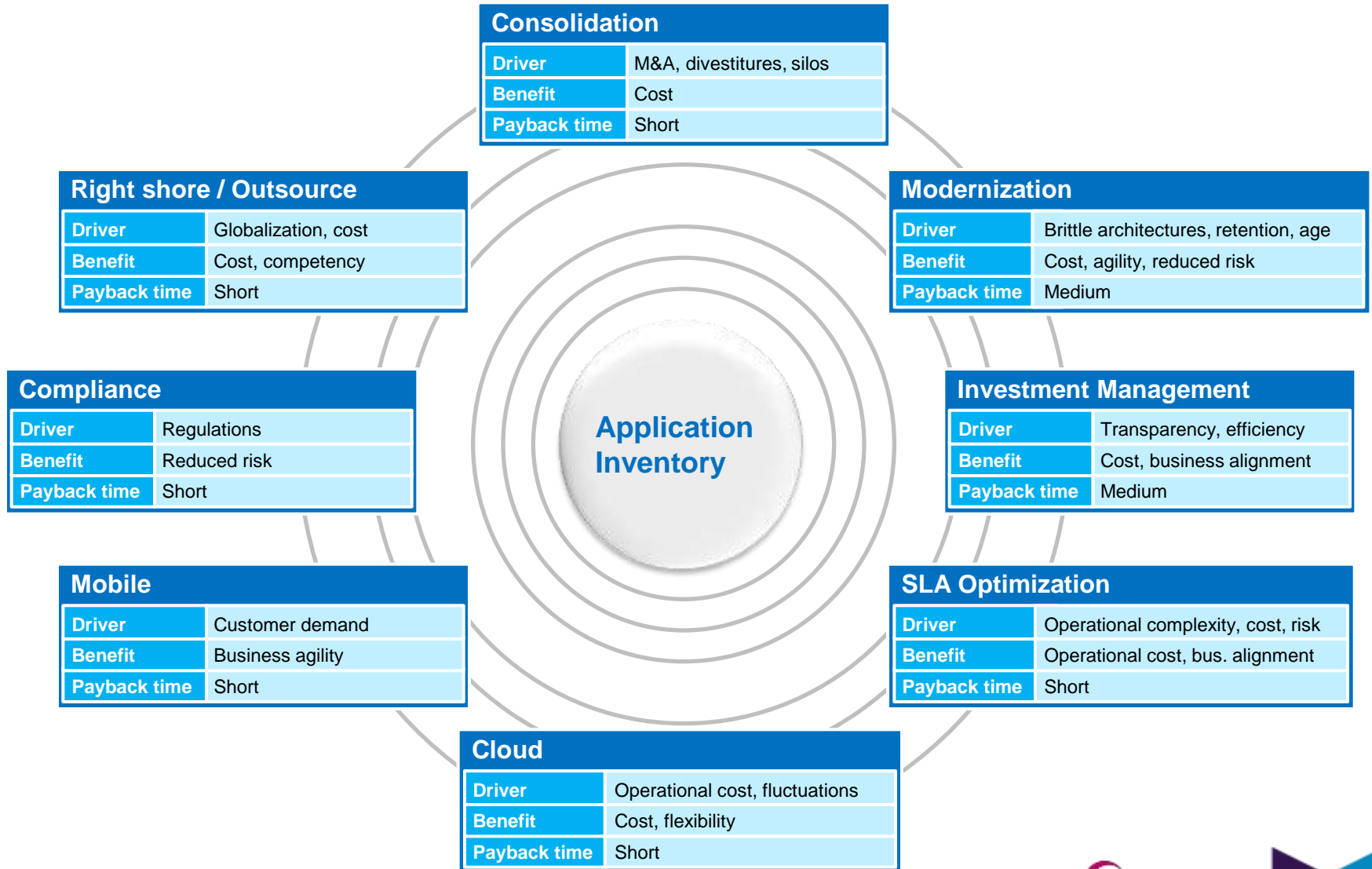
- Align the application portfolio with business strategies
- Reduce costs and optimize value
- Increase speed-to-deployment and speed-to-market
- Reduce risk associated with technology or resources
- Implement shared services

“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.”

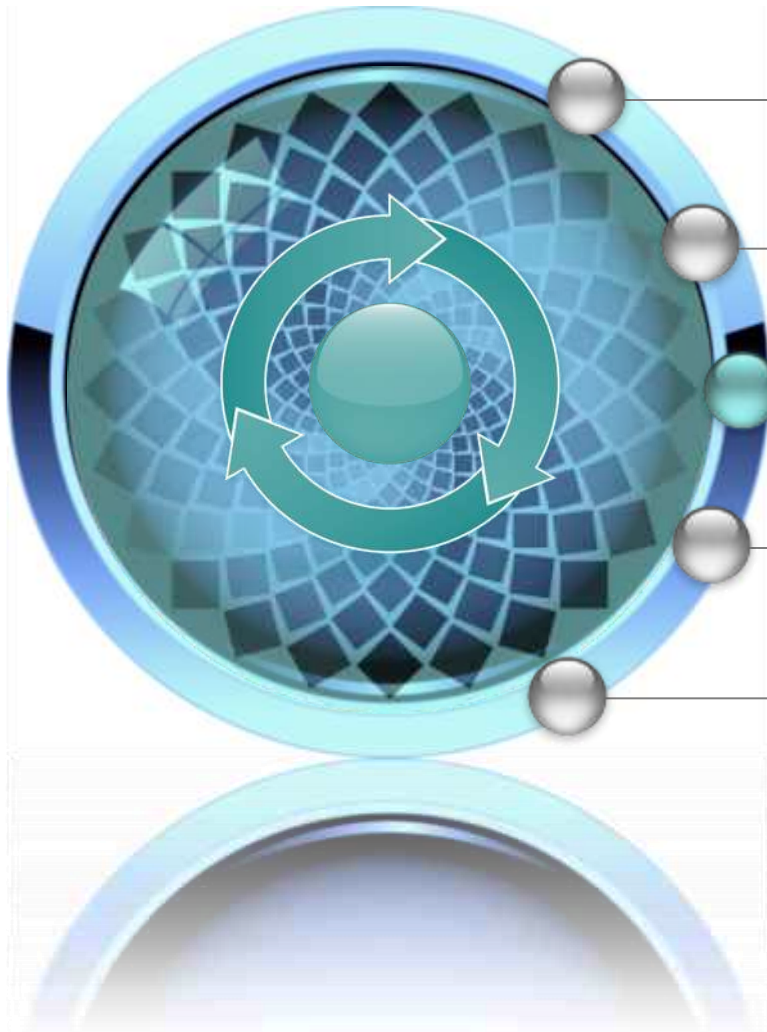
– Define “Application” Based On Your Content To Avoid False Starts In Your Rationalization Efforts, Forrester Research, Inc., January 26, 2011

IT optimization business outcomes

APM-driven scenarios



Agenda



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Measuring the Total Economic Impact

Forrester Consulting interviewed four of our clients 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.*

Simplify IT to improve business agility

A global conglomerate

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](#)

Rationalize and optimize to align with the business

Financial institution in North America

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

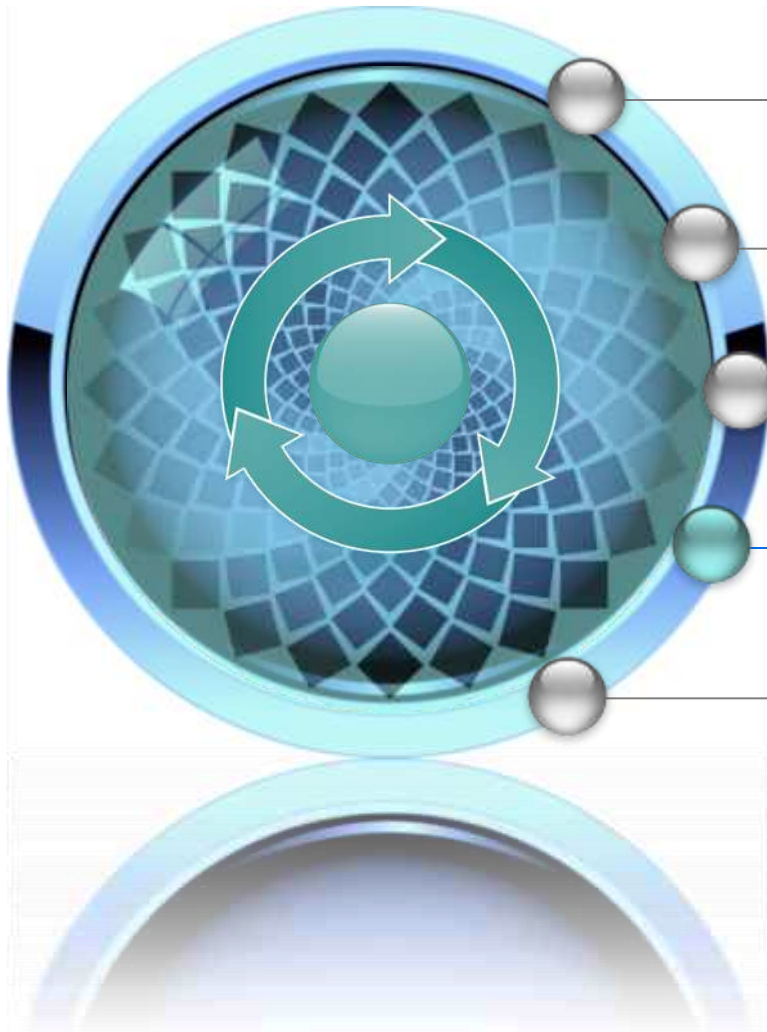
- Assigned appropriate SLA level based on needs
- Streamlined organization to align with simplified SLA levels and smaller application portfolio

Results

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

[▶ Read the full case study](#)

Agenda



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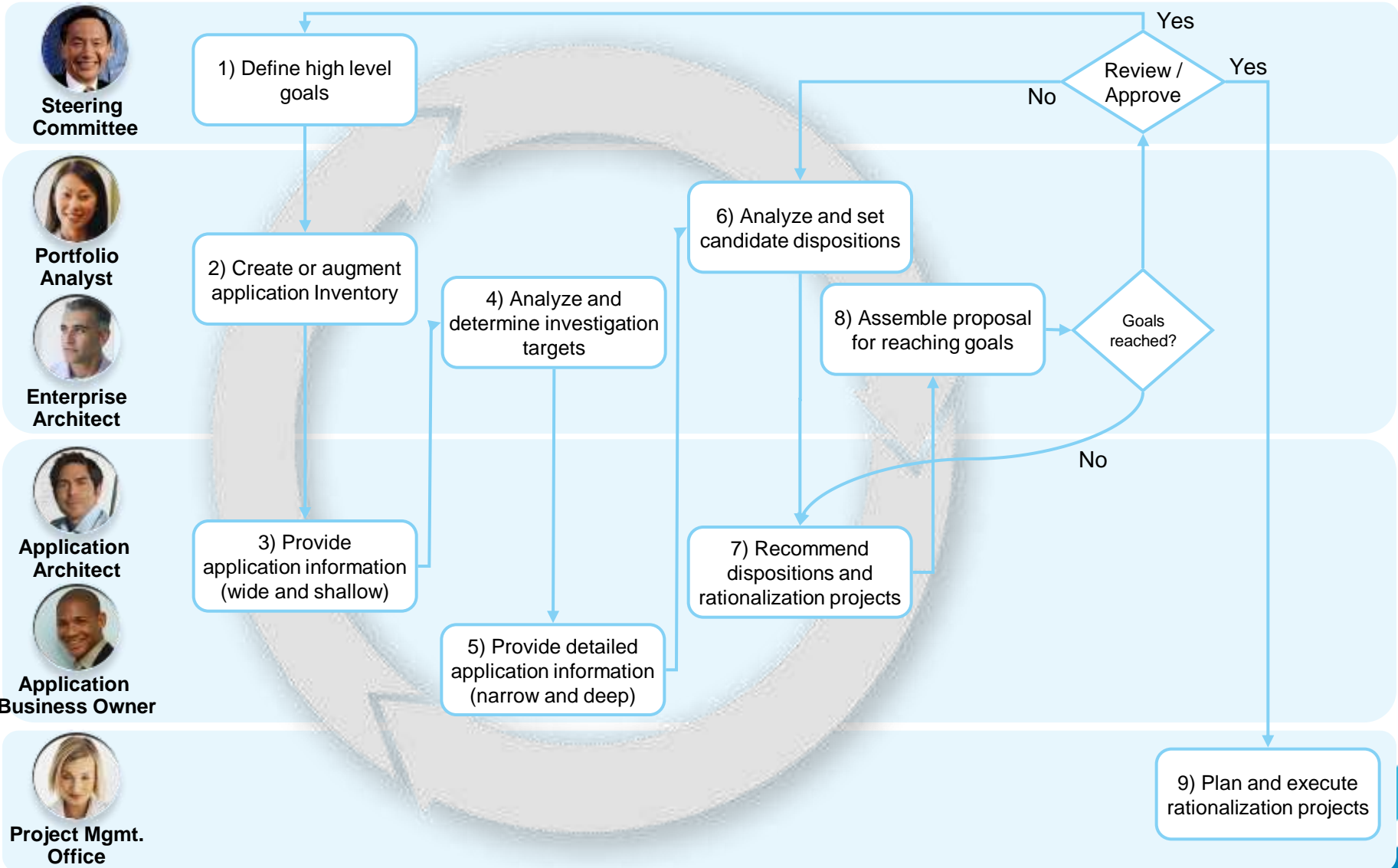
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Application Portfolio Management: *Simplified workflow*



1) Define High Level Goals



Steering Committee

- 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

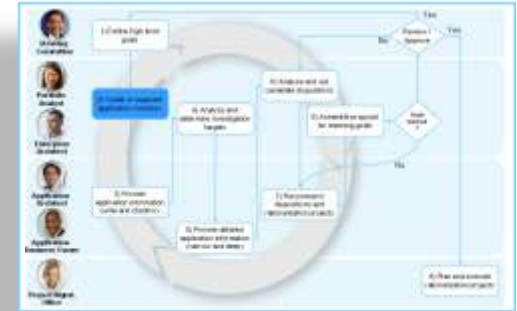
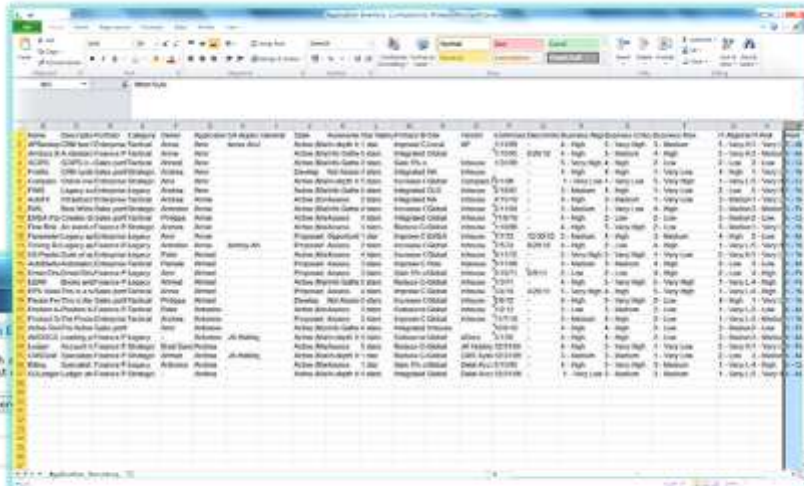
2) Create or augment application inventory



Portfolio Analyst



Enterprise Architect



Application ID	Name	Description	Business Area	Category
application 1	SCPS	SCPS is a opportunity management system which is based on a Lotus Notes database	Sales portfolio	Tactical
application 3	Profiic	CRM system to reconcile cross-channel activity	Sales portfolio	Strategic
application 6	Compass	Online investment strategy adviser and pricing engine	Enterprise Application Portfolio	Strategic
application 7	FMS	Legacy customer information system. Contains personal information covered by privacy legislation.	Enterprise Application Portfolio	Legacy
application 8	AutoFit	Infrastructure data management	Enterprise Application Portfolio	Tactical
application 9	BWL	Best Witness Leverage of insight into market data	Sales portfolio	Strategic
application 10	EMEA Pipeline	Creates data sets of historical insured risks and fits for EMEA underliers.	Sales portfolio	Tactical
application 11	Risk Risk	An event-driven real-time risk system that also includes basic P&L numbers. This is also the first application that integrates all of the risk services.	Finance Portfolio	Strategic
application 12	Parameter Matrix	Legacy Application due for decommissioning in 2012. Parameter Matrix is a GUI which enables the comparison of volatility scores multiple underliers. It is to be replaced by a suite of volatility management components within the Paramo Desktop.	Enterprise Application Portfolio	Legacy
application 13	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	3
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

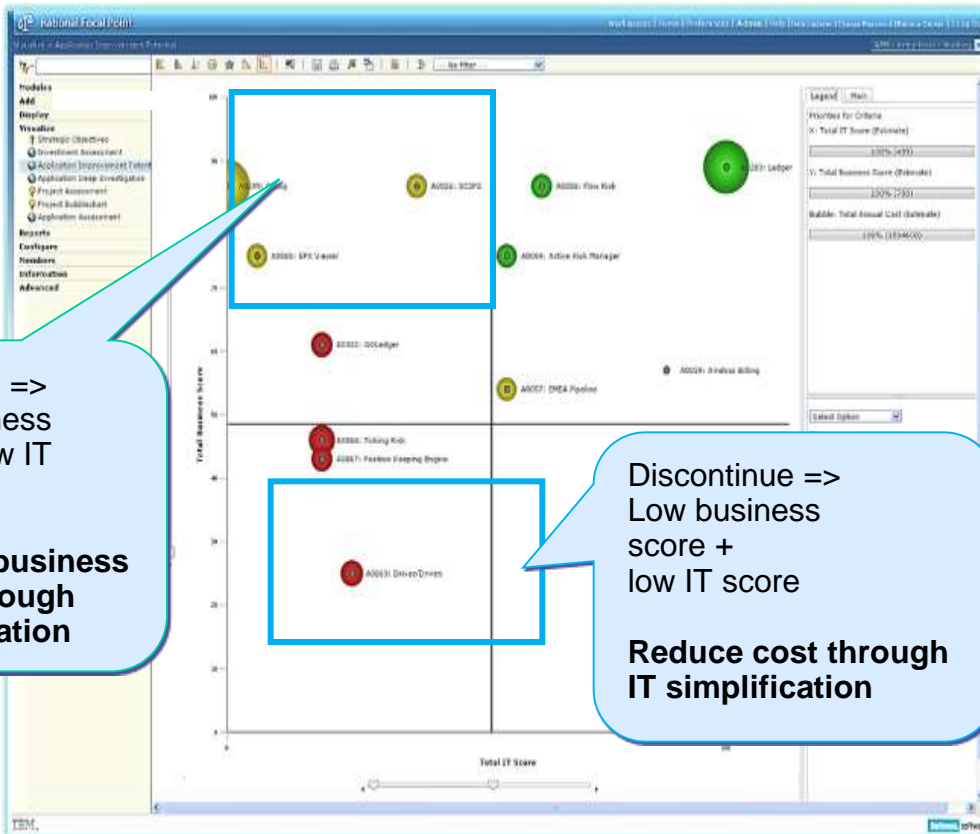
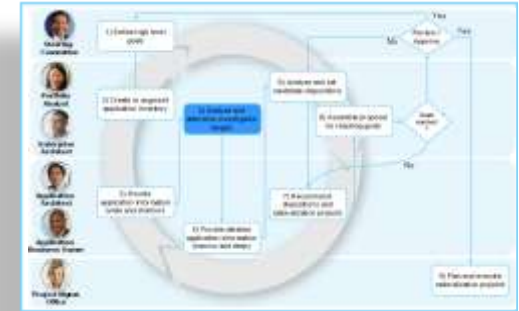
Identify applications to be further investigated



Portfolio Analyst



Enterprise Architect

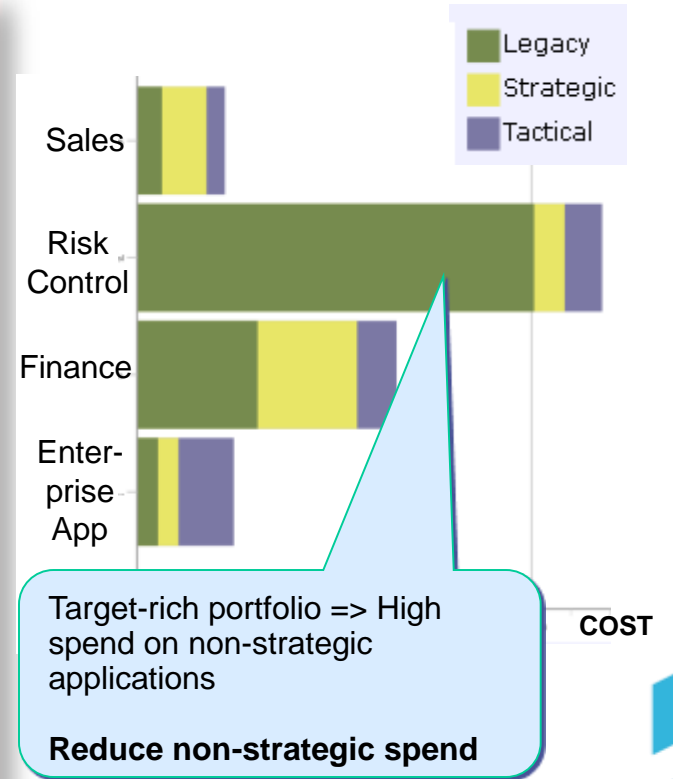


Modernize => High business score + low IT score

Increase business agility through modernization

Discontinue => Low business score + low IT score

Reduce cost through IT simplification



5) Provide detailed application information

Focus on four dimensions



Application Architect



Application Business Owner

Business Value
Functional Quality
Strategic Value
Technical Quality



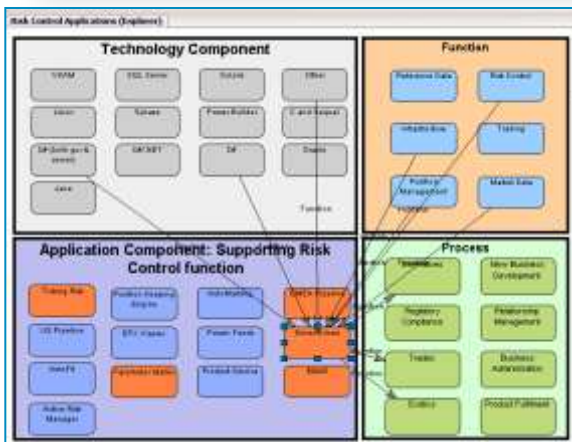
Rational Focal Point

workspaces | Home | Preferences

Display > My Applications

Investigate - Technical

	Size	Defect Rate	Defect Density	Dependency Facts	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 bre	5 - Very high	1.9	1.8
Projects I submitted	44,000	19	0.432	1 - None	3 - Partially	4 - High	1.4	2.2



Sample feed

Rational System Architect

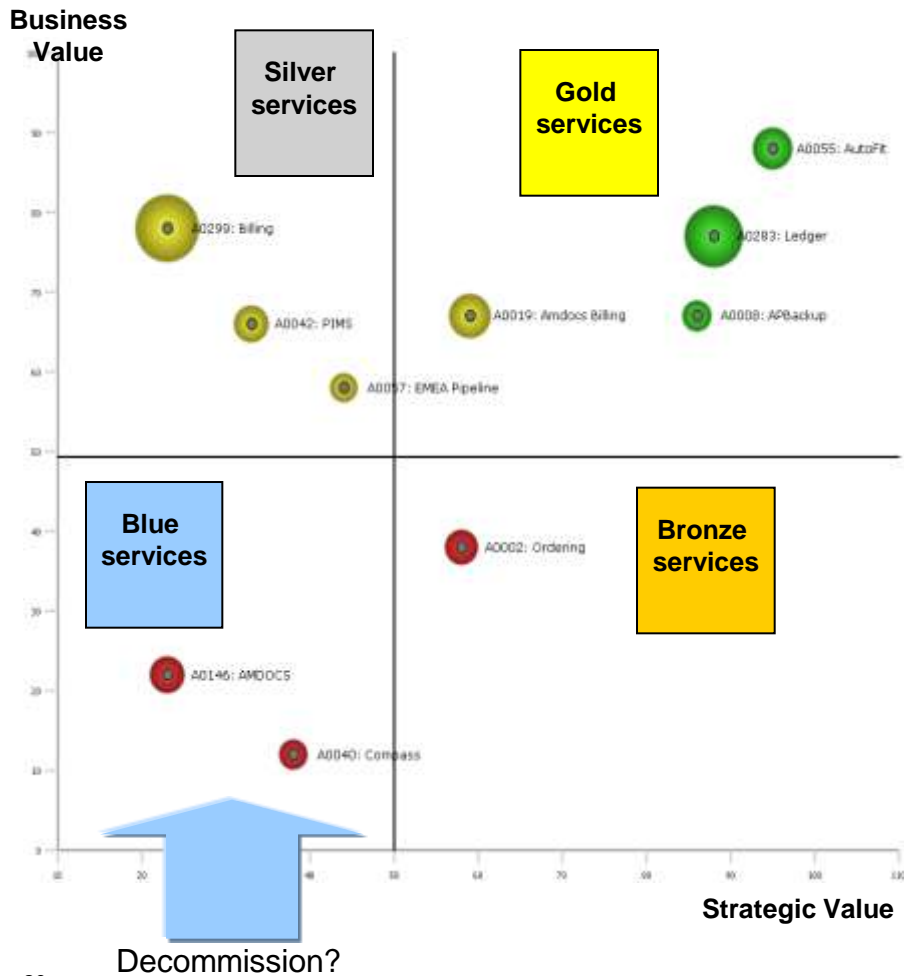
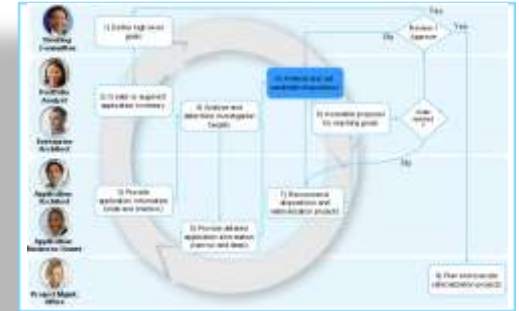
Sample feed

Rational Asset Analyzer

- 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

Service Level	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

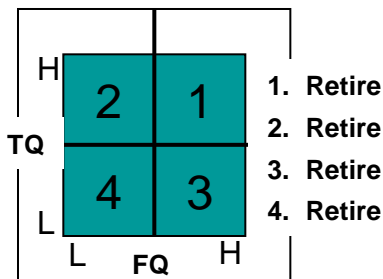


Enterprise Architect

Low Business Value
Low Strategic Value



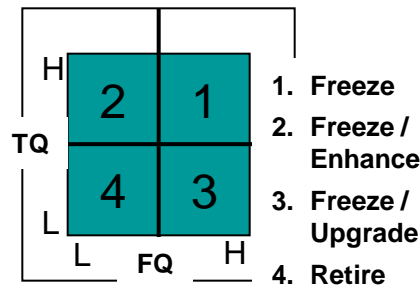
Technical & Functional Quality



Low Business Value
High Strategic Value



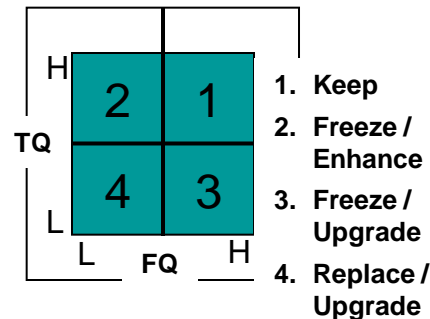
Technical & Functional Quality



High Business Value
Low Strategic Value



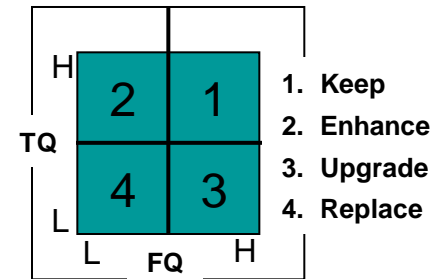
Technical & Functional Quality



High Business Value
High Strategic Value



Technical & Functional Quality



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

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

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

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

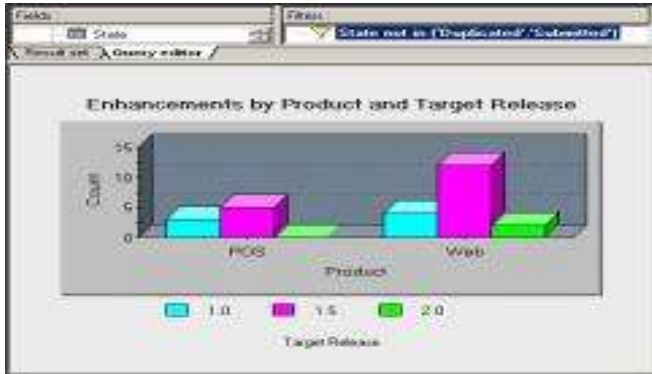


- Bring together key stakeholders of this applications, and review impact of proposed disposition
 - What is impact of a freeze?
 - If we replace the application with an ERP, what is the business impact?
 - What risks are associated with relocating this application?
 - Knowing the details about the application 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

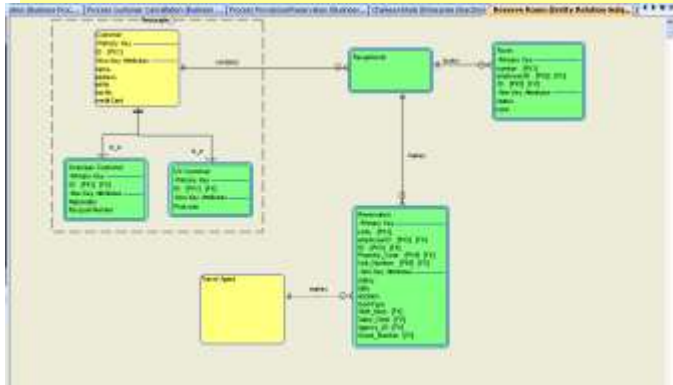
1 Defect and Enhancement request Analysis



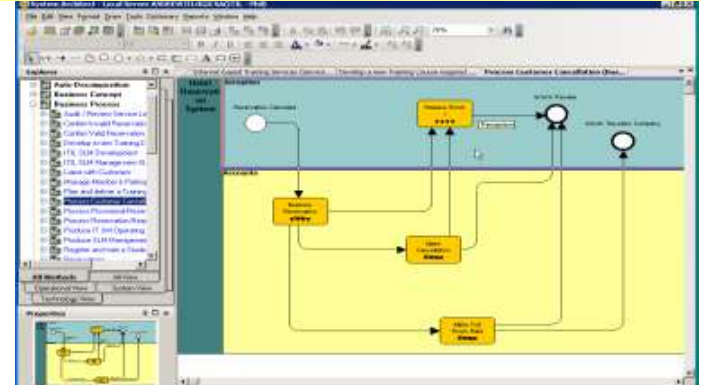
3 Business Processes and IT alignment Analysis



2 Application Complexity Analysis



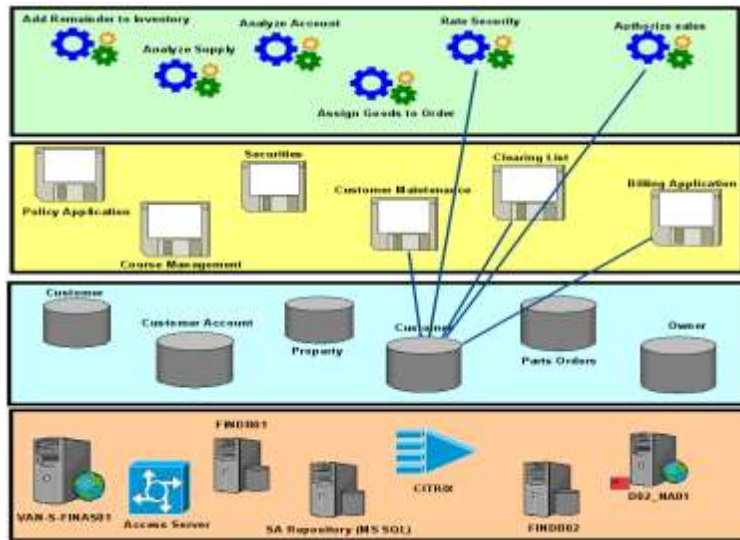
4 Application Refactoring and Enhancement



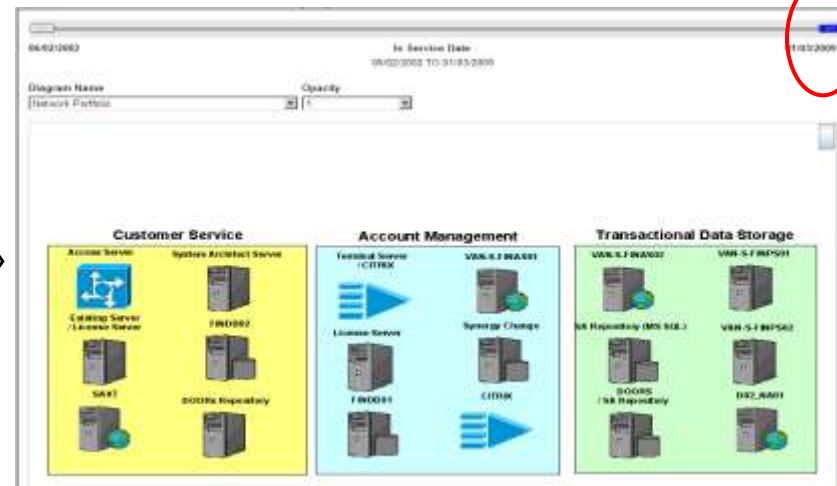
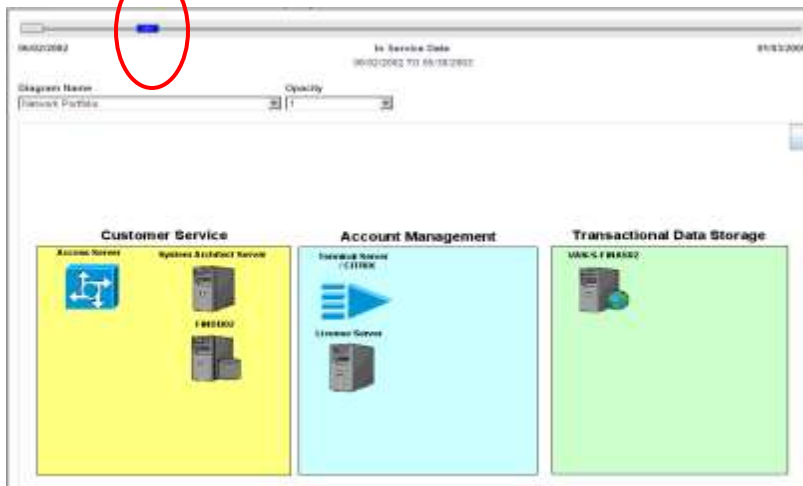
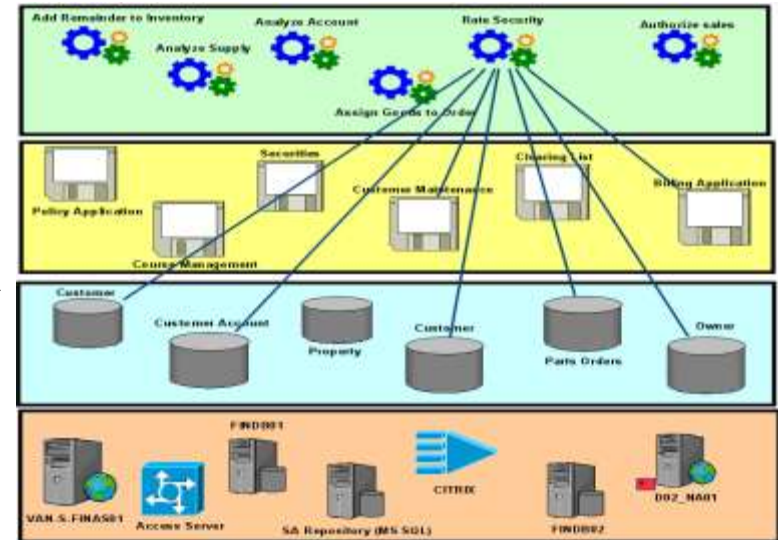
7) Recommend dispositions and rationalization projects

Define Future State architecture (s)

Current



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



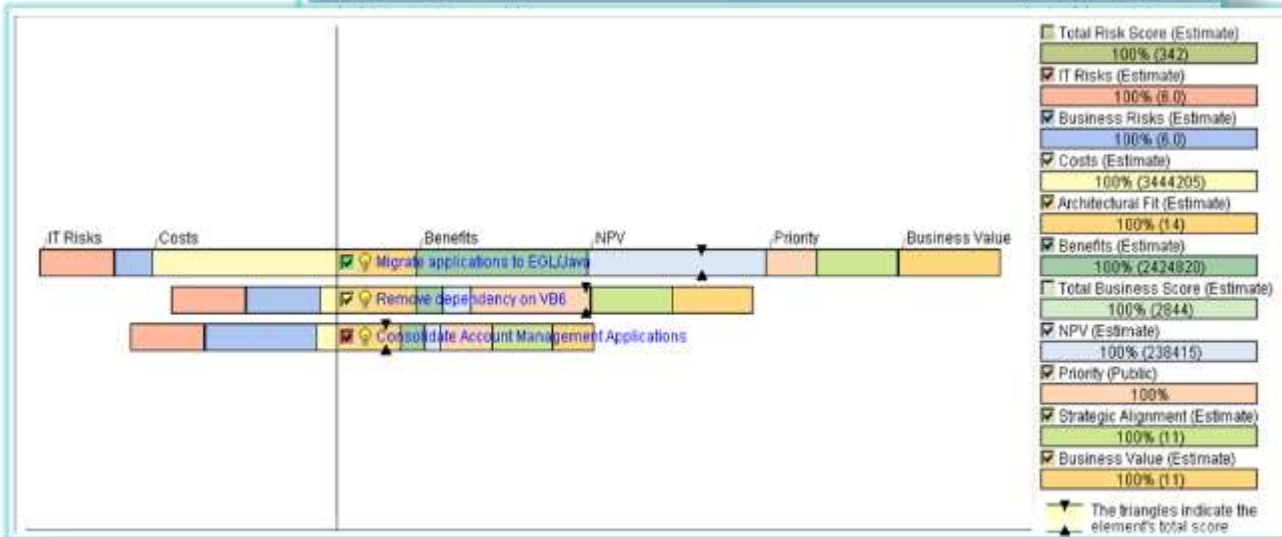
Steering Committee



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 Netanel / Adafes to EGL.	Description	Support arrangements for these applications are unclear - as these have been excluded from the scope of any current / future plans. Tactical Replatforming 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	Assess	State	Assess
Alternates Group		Alternates Group	
Owner		Owner	
Archived		Archived	
Planning Data		Planning Data	
Scorecard		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.

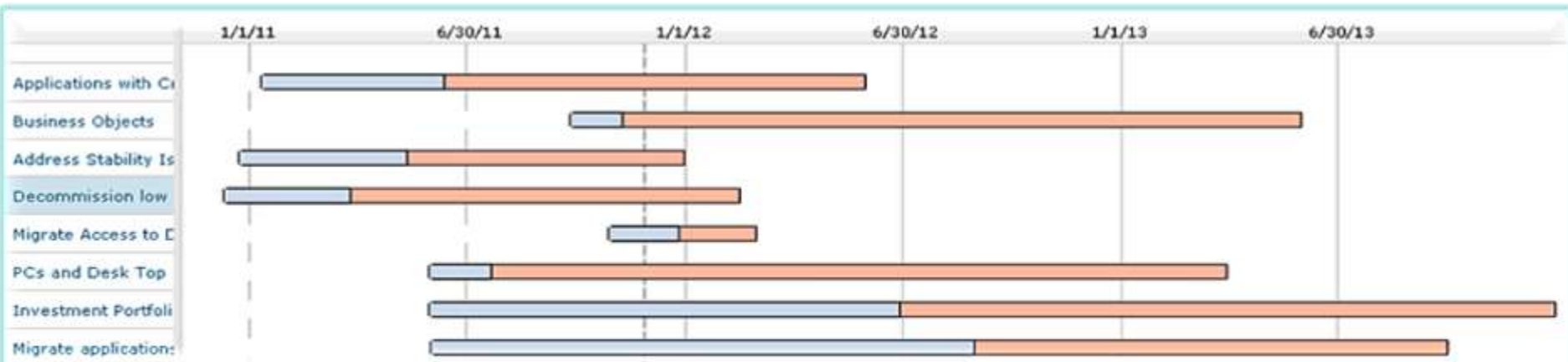


Steering Committee



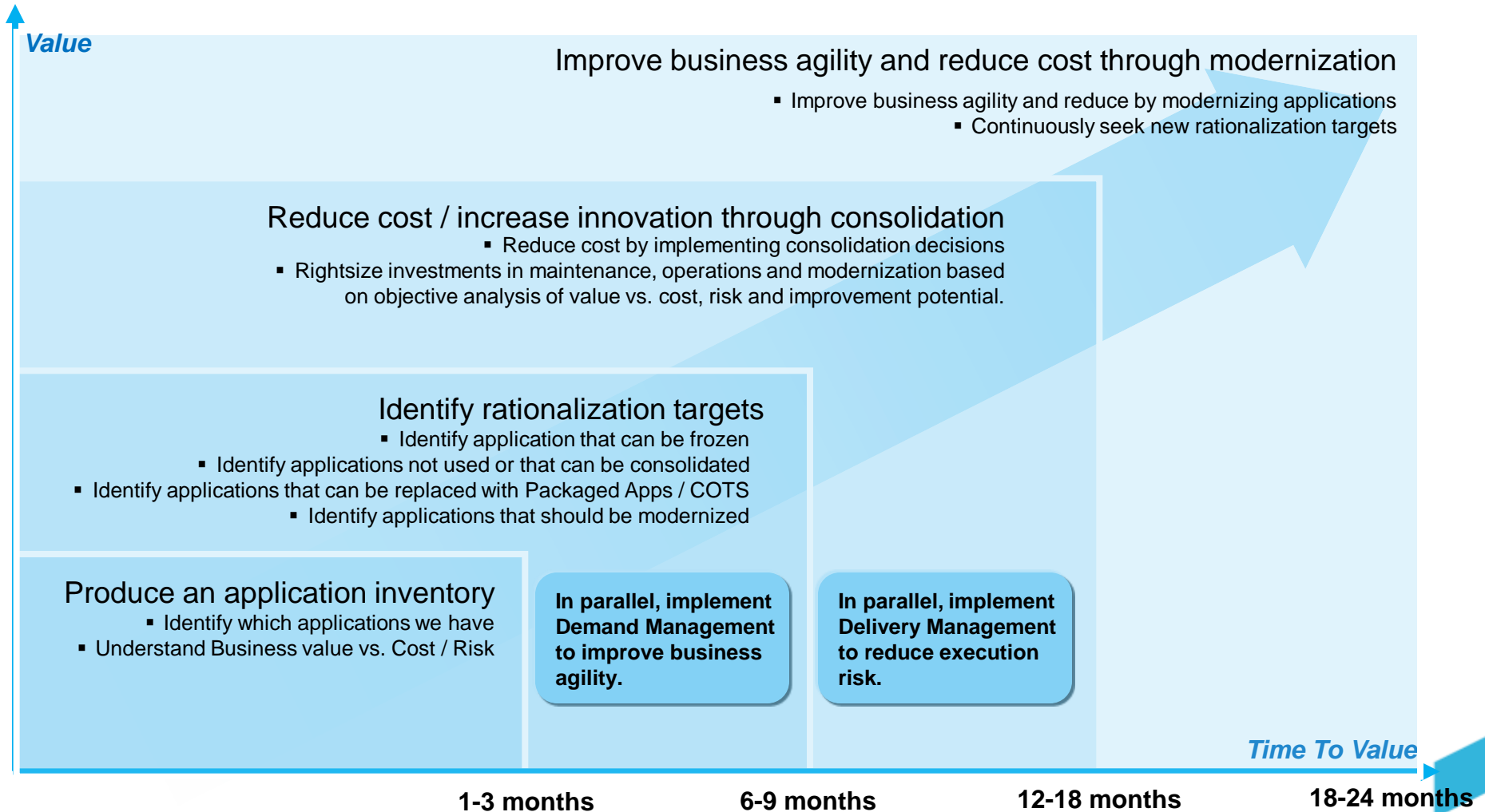
Project Mgmt. Office

- 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%



Adopting APM: Shortest Route to Value

Incremental adoption with incremental value delivery



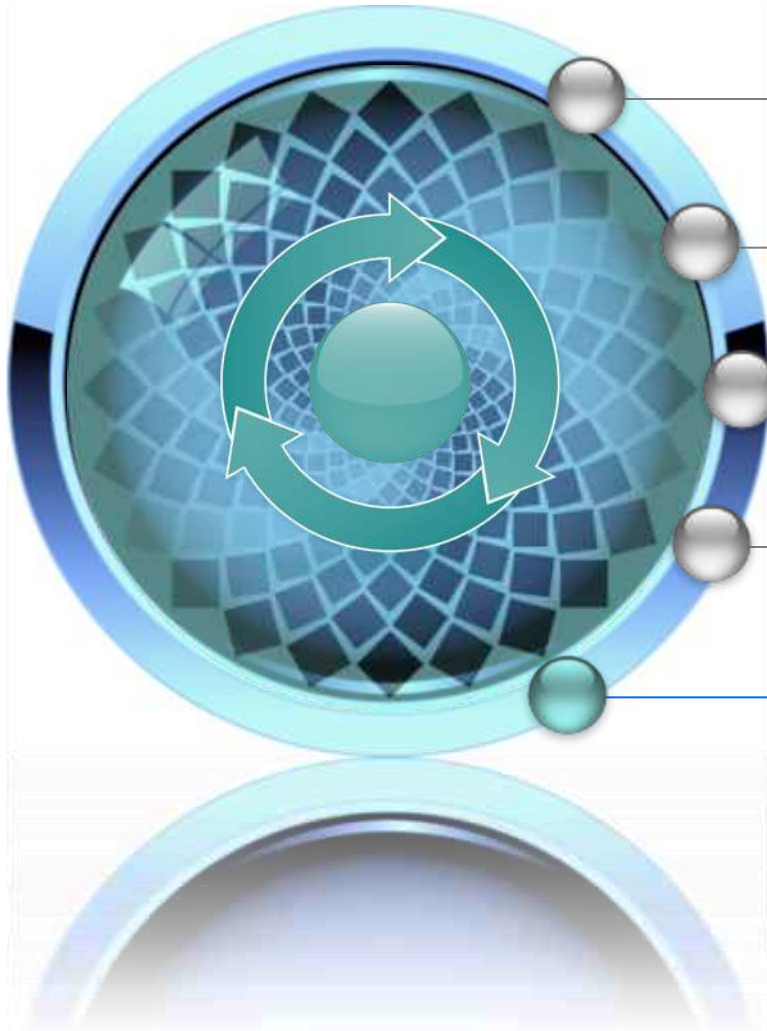
IBM's Global integration drives benefits across all areas

	From		To
Supply Chain	<ul style="list-style-type: none"> • 300 local procurement centers 		<ul style="list-style-type: none"> • 3 global procurement centers
Finance	<ul style="list-style-type: none"> • Multiple local organizations • Non-integrated decision support 		<ul style="list-style-type: none"> • Outsourced non-core processes reduced costs 25-35% • Integrated decision-support
HR	<ul style="list-style-type: none"> • Local systems and management • Local resource skill-set definition 		<ul style="list-style-type: none"> • Global HR planning • Standardization
Marketing	<ul style="list-style-type: none"> • Product- and geo-specific marketing 		<ul style="list-style-type: none"> • 13 global standardized marketing programs leveraged locally
IT	<ul style="list-style-type: none"> • 128 Local CIOs • 155 local data centers • 16,000 applications 		<ul style="list-style-type: none"> • 1 global CIO • 6 global data centers • 4,500 applications
R&D	<ul style="list-style-type: none"> • Multiple international R&D centers • Local specialization with duplication 		<ul style="list-style-type: none"> • Fully integrated R&D • Collaboration with 50 organizations to build IP marketplace

IBM CIO Office APM Experiences

- Application reduction
 - From 16,000 to 4500
 - Targeting another 50% reduction by 2015
 - Cost reductions
 - \$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)
 - Ongoing process
 - APM never ends, this is the 3rd time we cut the 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



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Benefits of Adoption?

APM in action

Final thoughts

Simplify IT to drive innovation and business agility

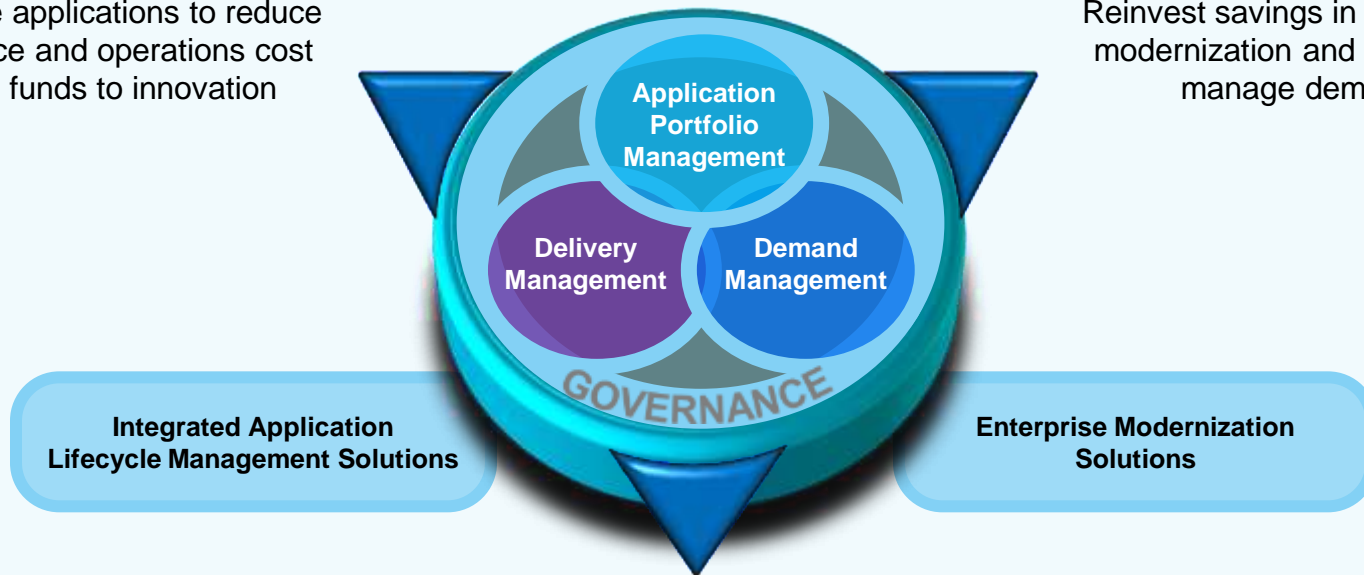
Governance and collaborative decision making

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

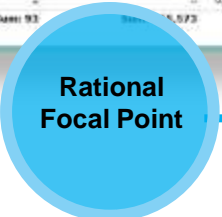
Deliver on projects and measure the result to improve future decision making

Open platform for data and tools integration and automation

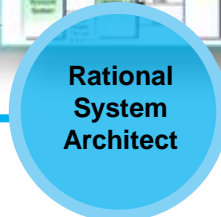
Full Solution architecture overview



Analysis, decisions, execution roadmaps



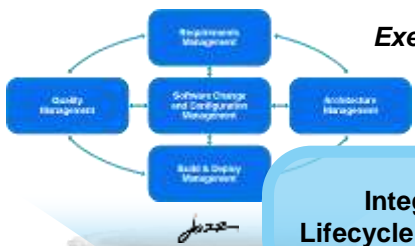
Architectural Context



Impact analysis, architectural roadmaps, future visioning

- Solution Support Services**
- Quick Starts
 - Report Templates
 - Best Practices
 - Configurations

Execution status
Execution roadmap



Integrated Application Lifecycle Management Solutions
Project execution in collaborative team environment

Execution Tracked

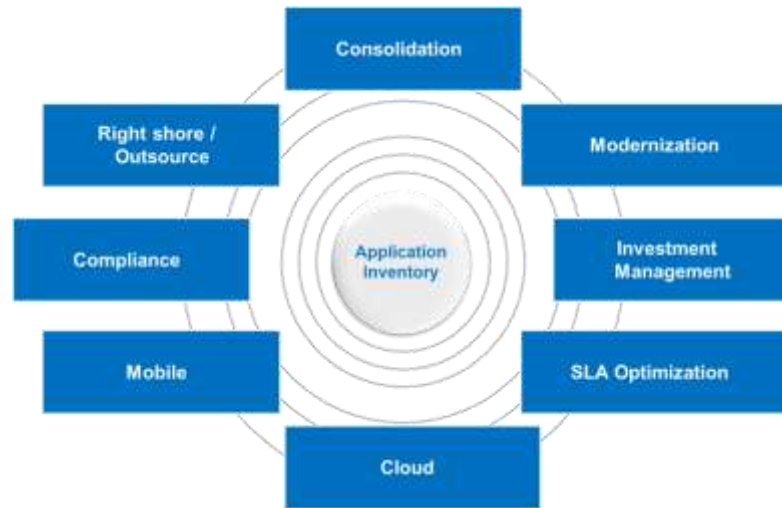


Application flexibility, individual and team productivity, and system utilization



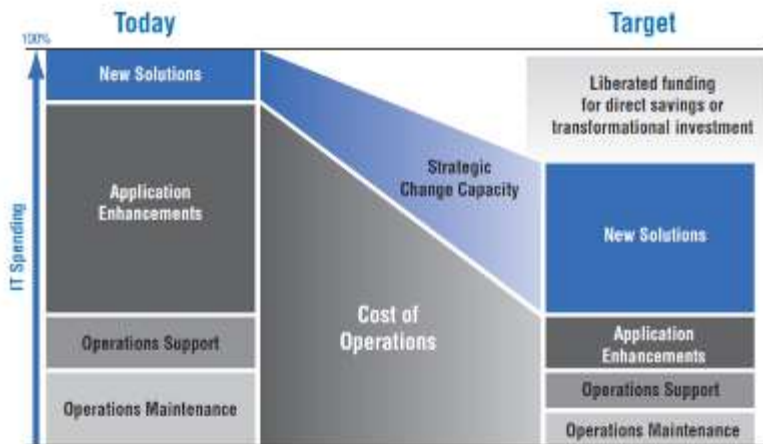
APM decisions and plans are executed and tracked in solutions for Application Lifecycle Management and Enterprise Modernization

In summary



Gather info, analyze, make smart decisions

DRIVES



Increase in strategic spend



Strengthened business and IT collaboration

Find out more

- POT – Brussels 19th October, Amsterdam 13th November
- 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
- APM whitepaper: [Empowering the CIO](#)
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