Application Portfolio Management: From assessment to transformation
Executive summary

This paper introduces the concept, practice and benefits of application portfolio management. The benefits of application portfolio management, including potentially significant cost-savings and operational efficiencies, are especially compelling in light of current economic challenges. Today, businesses in every sector are looking to reduce the cost of operations and, at the same time, attract, serve and satisfy valuable customers. As executives focus anew on identifying and evaluating opportunities for savings, they are examining the enterprise application portfolio.

This is a good place to start, given that in many cases, companies’ current application portfolios are aging, and the size and complexity of these assets can make them difficult and costly to maintain. Indeed, application portfolios that accrued over time may be host to countless redundant and out-of-date applications, many of which lack integration and the ability to scale or evolve. Additionally, application development is often based upon tactical considerations rather than on an enterprise’s strategic directions, making it difficult to realise both short- and long-term goals. Aligning their application portfolio with business strategies can help companies prioritise application development, reconcile requirements across the organisation and strengthen their competitive advantage.
Application portfolio management involves continuous assessment of the application portfolio in terms of business value, enhancement potential, cost and technology concerns. Such comprehensive evaluations help facilitate strategic application development, maintenance, transformation and retirement, which, in turn, can help companies:

- Reduce costs and optimise value
- Align the application portfolio with business strategies
- Standardise business practices
- Implement shared services
- Increase speed-to-deployment and speed-to-market.
Specific strategies for cost savings

When properly deployed, application portfolio management can facilitate application support, deliver marked cost savings and promote a more useful application portfolio overall. Application portfolio management drives transformation initiatives that are designed to enable organisations to:

- **Prioritise maintenance activities and approval requirements**
  - Maintenance actions should be segregated according to the importance of each application. This can help reduce maintenance spending and determine that maintenance funds contribute real value to the business.

- **Rationalise complex and/or undocumented code in critical applications**
  - To reduce maintenance problems associated with legacy applications, organisations must first identify application architectures with complex code. Steps can then be taken (via software tools) to rectify the problem, which can decrease application downtime and help determine the extendibility of specific applications.
Highlights

By retiring obsolete applications, companies across industries can achieve dramatic cost savings while:

• **Simplifying processes**
• **Reducing maintenance costs**
• **Enhancing customer service**
• **Lightening processing loads.**

• *Decrease the cost of future application maintenance through competitive outsourcing and/or the use of global resources* – Entering into a competitive, long-term maintenance and support contract, or physically consolidating operations, can significantly reduce application operating costs. Many organisations also choose to move application maintenance and support functions to less costly global sourcing regions.

• *Retiring redundant, outdated or low-value applications* – Applications with similar or overlapping functions should be consolidated. Alternatives include extending existing applications to a broader, global group of users, or developing new, standardised global solutions that are designed to eliminate regional and redundant applications.

Application portfolio management is not a static, one-time exercise; rather, it is a continual and evolutionary process involving the assessment, rationalisation, categorisation and disposition of applications to achieve better strategic alignment with the business, higher usability and lower costs. Ultimately, these activities can increase the asset value of the application portfolio and minimise business constraints.
The IBM approach

IBM understands that in almost every business, the application portfolio is fundamental to day-to-day operations, and to supporting the future aims of the corporation. IBM Application Portfolio Management Services (IBM APM) takes a proven, strategic approach to the inventory, analysis and transformation of corporate application portfolios. Using IBM APM, companies can transform their application portfolios – by activities such as upgrading, growing, retiring or consolidating those systems – with a focus on fulfilling strategic transformation initiatives. This process requires two distinct but equally critical phases of activity:

- **Portfolio assessment** – Collecting relevant application portfolio information, analysing the information in the context of business and technical objectives, and identifying transformation opportunities.
- **Portfolio transformation management** – Identifying key business drivers and monitoring their effect on the application portfolio, providing governance and sequencing over transformation projects and activities, and measuring the business value of transformation projects against identified objectives.
Assessment is the logical first step in any APM initiative. IBM consultants perform an applications inventory – reviewing applications and categorising them according to their value to the business; their complexity; their integration capability; support and maintenance costs, and other relevant data. This helps inform decision-making and identifies a logical ‘starting point’ for application portfolio transformation.

Assessing the application portfolio: Identifying gaps, risks and redundancies

The IBM APM assessment and planning process provides a tailored, methods-based approach for evaluating a company’s application assets – identifying systems that should be upgraded, expanded, retired or integrated in order to better serve a company’s business objectives. This process takes place via interviews by IBM consultants, along with a direct analysis of the application portfolio. The resulting data, along with information regarding the organisation’s business objectives, can then be used to align the application portfolio in a manner that is designed to provide direct business value. In this way, IBM is strategically helping companies:

• Gain greater control over – and reduce the costs associated with – the maintenance and management of the application portfolio
• Focus application spending on supporting overall business strategies
• Create a customised application portfolio strategy designed to drive business value
• Access industry and business best practices, leading-edge technologies and expertise beyond what is available in-house.
Toward these ends, IBM provides end-to-end skills, best-practices project management and a framework for planning, assessment and transformation activities. More specifically, our consultants will:

• **Amass an in-depth understanding of a company’s business direction and strategy** through customised, high-level interviews designed to inform strategic data collection enterprise-wide.

• **Inventory and review applications** – Identify and define major application groups and systems, associated technologies, application size, support resources and volatility factors.

• **Review financial information** – Summarise current support costs and staffing levels by major application groups, as well as collect and analyse financial data and conduct interviews to confirm findings.

• **Perform the application portfolio assessment** including a portfolio value analysis from a business and organisational perspective; a financial analysis from a business case perspective; a functional analysis from a delivery perspective; a technical analysis from an applications perspective, and a data analysis from a business information perspective.

• **Draw up application portfolio management recommendations** – Assess business strategies, financial considerations, organisational structure and review the application portfolio inventory, value and architecture in order to plan for, categorise and select transformation initiatives that will improve alignment with business objectives. These may include legacy transformation initiatives that focus on consolidating or sunsetting applications, for example. IBM consultants also map recommendations to a company’s business objectives and prepare estimates for transformation opportunities and activities.
At the conclusion of the assessment phase, IBM APM consultants will have compiled and delivered interview findings, an application portfolio management assessment and transformation assessment recommendations. Comprehensive financial, functional, technical and timing information will be included in the recommendations for transformation, as will additional opportunities for leveraging the value of application transformation. From here, IBM can be employed to implement transformation activities and help companies fully realise an application portfolio that supports both the business and the budget.

Transforming the application portfolio: Responding to recommendations
Many companies engage IBM’s Application Management Services group to implement transformation initiatives. In support of these initiatives, IBM Application Portfolio Management Services provides transformation management services – the final key component of application portfolio management. Using the information gathered during the APM assessment phase, IBM consultants work closely with a company to move the organisation toward true and seamless transformation, customised according to particular business and IT objectives.

IBM has developed a sophisticated Return On Investment (ROI) toolkit to help businesses gain a more reliable expectation of concrete returns from transformation initiatives. Our ROI scenarios can inform decision-making up front and be leveraged during transformation activities to track actual results. More specifically, the ROI Toolkit enables companies to:

- Collect application, financial, management and benefit-realisation data
- Select relevant service objectives
- Establish calculations for predefined value drivers
• Document additional quantitative and qualitative value drivers linked to metrics for this effort
• Identify costs for application transformation components
• Produce a trackable cash flow summary in order to evaluate an initiative’s effect on ROI, NPV and other measures.

IBM continues to provide the same comprehensive project management skills and oversight during APM transformation management as were established during the assessment effort. Our team oversees the application portfolio transformation initiatives in terms of both process and IT considerations. Transformation management activities comprise process-oriented tasks to help ensure the appropriate and successful deployment of application activities such as expansions, consolidations, retirements and transformations. Specific transformation management activities include:

• **Transformation projects oversight** – Oversees individual transformation project plans in terms of resource requirements, timing and budget needs. Individual plans are also coordinated within the overall transformation management plan to help avoid conflicts, manage resource demands and determine adequate staging and change management. This is accomplished through more granular application portfolio oversight, which entails creating a customised framework for gauging progress and addressing issues; maintaining change management, configuration management and risk management; and assisting in prioritisation and resolution for critical path issues.
• **Maintaining visibility to applicable triggers** – Involves reviewing identified assessment ‘triggers’ – such as mergers, divestitures or other significant reorganisations; technology developments; competitor innovations, and regulatory changes – to determine whether relevant events have occurred.

• **Determining reassessment needs** – Gauges the need for reassessment of the application portfolio, or specific portions thereof, based upon relevant events identified through trigger monitoring. A subsequent assessment may be required to continue to ensure an optimised portfolio.

• **Key stakeholder communication and involvement** – Promotes the involvement of key stakeholders associated with or dependent upon the transformation activities by way of a customised communications plan, as well as a governance structure outlining stakeholder participation, change and risk management procedures, and other appropriate details.

• **Return effectiveness measurement** – Developing and conducting a measurement of ROI progress and other established metrics to determine overall effectiveness of application portfolio transformation. It measures against the original baseline by developing, deploying and consolidating customised metrics and measurement data.
Application portfolio assessment and transformation are key preparatory measures toward successful implementation of ‘e-business on demand’ – a next-generation business model characterised by fully integrated and highly responsive systems, realtime communications and dynamic, reactive service, support and collaboration. The application portfolio is an e-business building block, and application portfolio management can help assure that the foundation is well-set.

The IBM story: An enterprisewide cost-reduction initiative

In 1999, IBM Corporation set stringent new guidelines for reducing the high costs associated with its internal application maintenance. The strategy mandated that IBM business units enterprisewide work to streamline and optimise their application portfolios through systematic applications retirement, reprioritising, ‘rustproofing’ and relocation. Together, these measures have cut application maintenance costs and delivered significant improvements in business process efficiencies throughout the company.

Indeed, business units across IBM have moved to proactive assessment and optimisation of their application portfolios. IBM now classifies all of its applications by business value, and restricts or targets maintenance of these applications accordingly. The benefits are tangible:

• IBM reduced its applications portfolio from a high of 15,000 systems in 1998 to 6,800 in 2000.
• IBM proactively re-engineers its applications to reduce the possibility of maintenance problems. Consequently, the defect rates of the company’s applications have declined by 58 percent; maintenance costs for these applications have been reduced by 20 percent.
• IBM currently sources 40 percent of its maintenance work to lower-cost regions and sees savings of 60 to 70 percent.

Overall, IBM has achieved a significant reduction in its application maintenance spending. Today, just 22 percent of the company’s IT budget is devoted to maintenance – down from 40 percent in 1990.
IBM Global Services
IBM Application Portfolio Management Services is fortified by support of virtually unparalleled breadth and depth from IBM Global Services, including:

IBM Application Management Services
IBM Application Management Services (AMS) offers a truly comprehensive set of services designed to help companies achieve their business objectives while reducing operational costs. IBM AMS can support and extend IBM application portfolio management capabilities through full lifecycle attention to development, management, support and governance of the application portfolio. These offerings include custom and packaged application services, legacy transformation support, application management resource services and application outsourcing.

Global outsourcing
The availability of an increasingly skilled global IT labour pool – enabled by global communications, the adoption of quality management processes and the availability of online collaboration tools – has made global sourcing an increasingly popular choice when cost reduction is the primary objective. Depending on the type of project and taking into account knowledge transfer costs and management overhead, companies can save as much as 45 percent through application outsourcing, especially in an global sourcing context.
Further fortifying our worldwide reach, the IBM global sourcing model provides flexible access to a global resource delivery base that includes new and emerging delivery centres in geographically dispersed locations. These global hubs utilize a comprehensive, consistent and streamlined set of delivery processes, methods and tools – designed to support leading-edge solutions while insulating our customers from geopolitical risk.

IBM Business Consulting Services
With 60,000 business and industry-focused consultants in 160 countries around the globe, IBM Business Consulting Services is the world’s largest consulting organisation. Our business process expertise and thought leadership are being applied by leading enterprises around the globe, and can be leveraged effectively in support of any application portfolio transformation efforts.
Conclusion

In light of the current economic climate, companies across industries and around the globe must prioritise and optimise spending effectiveness, achieve rapid and reliable ROI and otherwise streamline the enterprise. Toward these ends, application portfolio management involves a comprehensive assessment of – and transformation framework for – a company's application portfolio systems, taking into account business, industry and technology priorities. The result? An application portfolio that can help reduce management costs and overall spending...meet the strategic needs of an ever-changing business environment...deliver process efficiencies enterprisewide...contribute directly to business objectives...reallocate money for reinvestment...and potentially increase profitability and drive revenue – all with limited risk.

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