Reengineering Prozeß

10 The IBM Legacy Transformation Offering

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In 2003, IBM has launched a new set of offerings to help customers transform their application portfolios. With the need to reduce maintenance costs and to align the IT strategy to future requirements, many companies are looking for suitable methods and tools to leverage their application portfolios.

Application Portfolio Management, Consolidation and Migration, Application Integration, Web-enablement, and Application Renovation are the major building blocks to support application evolution towards flexible, integrated, on-demand operating environments.

10.1 Why transform legacy applications?

Legacy systems typically support the core business processes of an organization. They are essential for the company's economic success. Yet, these systems often require changes, mostly due to 'external' requirements (law, busi-

ness strategy), sometimes due to 'internal', IT-initiated issues (e.g. reorganization, database migration).

In the context of mergers and acquisitions, new operational interfaces are required, resulting in integration and consolidation projects [4].

With cost pressure on one hand, and the need to reposition the IT portfolio for new requirements (e.g. on-demand business) on the other, there is a need for mature methods and tools to analyze existing portfolios, support transformation decisions and perform the transformation work.

These needs have motivated IBM to build a new, comprehensive Legacy Transformation offering, along with a related Application Portfolio Management offering.

Within IBM, these offerings are led by Application Management Services (AMS), who closely cooperate with Business Consulting Services (BCS), the Software Group and IBM Business Partners to provide the optimal solution for the respective customer.

10.2 Application Portfolio Management

Application portfolio management (APM) [2] involves a comprehensive assessment of a company's application landscape, taking into account business, industry and technology priorities. The assessment entails collecting application portfolio information, analyzing the information in the context of business and technical objectives, and identifying transformation opportunities.

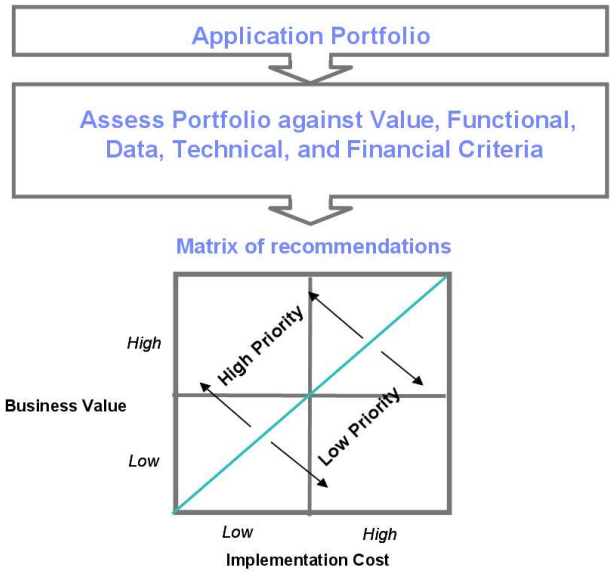

Abbildung 10.1: Application Portfolio Assessment

By using filter criteria during the portfolio assessment, the analysis of the collected data can be taken to the appropriate level of detail. These data, along with additional criteria specified by the customer, lead to target opportunities (TOs), which are then analyzed more thoroughly. Preliminary recommendations (which may include transformations) will be stated at a level that can be input to the IBM ROI (return on investment) toolkit. The estimated efforts and benefits become vital parts of the final recommendations, e.g. to retire, replace, restructure, reprioritize or relocate applications.

10.3 Legacy Transformation

The primary goal of legacy transformation (LT) is to unlock the business value in existing applications by

- supporting enterprise-wide sharing of business and customer data to ease the business/IT linkage;
- incrementally transforming legacy business logic and functionality for improved responsiveness to business change; and
- returning funding to the business through more efficient application maintenance and operation.

The LT offering [3] consists of 4 major capabilities:

Consolidation and Migration

These activities are often required when redundant or functionally overlapping products and solutions are in use, in particular after mergers or acquisitions, but also after in-house organizational changes. These may include technology changes, e.g. the move from IMS/DB to DB2 for data management.

Consolidation and migration may also involve the creation of shared repositories, application analysis for (re-)documentation and/or restructuring, replacement, and major rearchitecting in order to reduce complexity and thus maintenance costs. From the experience so far in various industries, the cost savings due to consolidation and migration can be tremendous.

Application Integration

This capability generally deals with connecting various business functions from different platforms in a technically solid and secure way.

Portals may be used for integration at user interface level. However, Enterprise Application Integration (EAI) activities are largely data-centered and involve the analysis, cleansing, transformation, 'bridging' and aggregation of data. Current integration technologies mostly rely on message-queuing (MQ) technologies: MQ integration, MQ workflow.

'Hub-and-spoke' architectures and midtier applications help to implement application integration without changing the legacy applications.

Web Enablement

Moving legacy applications (or components of them) to the Internet can provide significant benefits in customer services and cost savings. Examples are well-known Web portals relying on legacy functions, e.g. for procurement services, or for insurance information and contract initiation. Other examples use XML wrappers around legacy code and provide access to underlying transactions and data by using callable APIs.

Within LT, Web enablement will also rely on portal server technology, content management, usability engineering and presentational architecture support.

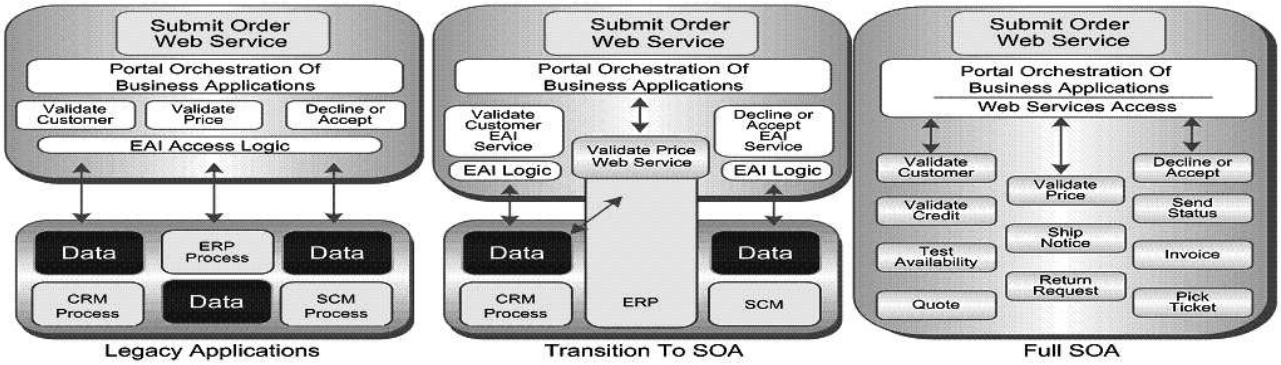

Abbildung 10.2: Logical Transition to SOA, according to [1]

Application Renovation

These are major reengineering tasks to ease application management and the reuse of application functions. Here, the well-known redocumenting, extraction and restructuring techniques merge with new approaches to 'modularize' or 'componentize' applications as a basis to achieve more flexible and maintainable software architectures.

One example [1] is the evolutionary transformation of a legacy landscape into a serviceoriented architecture (SOA) via EAI-based intermediary stages (see Fig. 10.2 below).

10.4 Summary

The Legacy Transformation offering presents a major investment in methods, architecture concepts, products and tools to support present transformation purposes. Use of the LT technology, especially in the Financial Services industry, has proved encouraging so far.

Also, IBM Corporation provides a legacy transformation reference of its own, after consolidating its data and computing centers, and transforming and reducing its 16.000 applications worldwide.

References

[1] Aberdeen Group Inc., Legacy Applications: From Cost Management to Transformation. Executive White Paper. Boston, March 2003.

[2] IBM, Application Portfolio Management Services. `http://www-1.ibm.com/services/ams/apm.html`

[3] IBM, Legacy Transformation Services. `http://www-1.ibm.com/services/ams/legtran.html`

[4] William Ulrich, Legacy Systems Transformation Strategies. Prentice-Hall PTR, Upper Saddle River, NJ, 2002.