Reduce costs and modernize IT

(translated from original article written in German)

By Thomas Ruppelt

Börsen-Zeitung, September 1st 2011

Recent years have confronted the financial industry with rising capital requirements leading to cost pressures on entire firms and especially their IT departments. A firm's IT management is usually trapped in a dilemma situation. Due to the high ratio of operational costs to total IT budget – recent studies estimate a ratio of approximately 80% for the European financial industry – there is little room for new projects to improve the competitive position, comply with new regulatory requirements, and lower structural IT costs. Hence, it is rather obvious that projects, cutting operational cost substantially, are high on any Chief Information Officer's agenda. Projects to improve the ratio will give IT more leeway to contribute to the strategic development of the entire company.

The IT-Budget-Dilemma

When discussing the "IT-Budget-Dilemma" with IT management openly, one inevitably comes across the topic "mainframe". However, management often expresses ambivalent opinions towards this large data processor and the multiple sub-systems attached to it.

On one hand, IT personnel are keen to point out advantages of well-established and optimized mainframe environments and applications. On the other hand, complaints about the high costs of operation and application development in comparison to modern open system are frequently voiced. Reasons mentioned include costly software licenses, expensive capacity extensions or complex integration of modern client/server and web architectures. Practitioners also are increasingly worried about the skill shortage they experience. The demand for expert knowledge is currently met by an over-ageing of mainframe professionals coupled with a lack of interest in the topic by the upcoming generation of IT-experts. Furthermore, companies are voicing their frustration about being at the mercy of one single provider.

However all those concerns voiced do not change the circumstance that IT experts tend to focus more on the risks associated to a potential mainframe alternative rather than the benefits resulting from it. Considering the business criticality of the mainframe applications, their perspective on risks and chances is understandable. Any failure in a re-hosting could lead to serious disruptions of the firm's entire business operations.

Against this complex mix of pros and cons, an unbiased analysis of the opportunity-risk profile should be a statutory duty of CIOs, especially since there are few comparable opportunities to massively cut costs while simultaneously modernizing the entire IT infrastructure.

There are multiple options to pursue in the modernization of mainframe applications, which may also be combined with each other. The two extreme options are to either continue operating with a mainframe (retain) or to completely re-engineer existing applications and let them run on an open platform. However, there is a range of less extreme but potentially more

…/ 2

appropriate options available (especially retire, replace, re-platform, re-host), which reduce costs and modernize IT infrastructure. A potentially attractive option for CIOs could be a re-hosting, the 1:1 transfer of an application to an open system platform. This option for instance upholds the existing application code, while drastically cutting costs and maintaining a controllable risk profile.

Simply an Engineering Task

During the last years, a re-hosting of mainframe applications has become technologically feasible and widely-practiced. Multiple providers offer various methods and tools, sporting a considerable track record. One may safely conclude that a migration of mainframe applications is purely an established engineering practice these days and not a scientific venture into the unknown, as feared by some practitioners. Other critics addressing a gap in maximum speed and maximum availability of modern client/server architectures may be reassured since the facts boldly hold the opposite. For instance, there is only one large stock exchange worldwide still operating on a mainframe.

Experiences from multiple successful re-hosting projects with a typical duration of 12-15 months show that considerable application cost reduction effects may be felt. For example, by re-hosting its clearing and settlement application, NYSE Euronext cut its operating costs by more than a half.

However, the engineering principle of a thorough analysis also applies to re-hosting, since certain exotic software products and tools used, may result in severe difficulties. In this case, the technically more appropriate solution would be a reengineering anyway.

Analysis is Paramount

A typical analysis will last between six to eight weeks, in which basic complexity drivers, such as assembler routines, exotic software products or complex job nets are examined. Furthermore, the risks will be identified and addressed, and an overall assessment conducted. Given that no significant show stoppers are observed, a brief Proof of Concept phase will ideally safeguard the suggested decisions, before entering into the implementation phase.

It will come as no surprise that the success of an extensive venture, such as a re-hosting, will also depend on the right selection of project partners, tools, and software products, especially since a re-hosting requires profound knowledge of both mainframe and open system environments. Previous experience is a must, since theoretical knowledge will not suffice for such a task. Therefore, appropriate partners must have a considerable track record in re-hosting projects.

A structured and specific Request for Proposal process is highly recommended in order to obtain a solid view on risk, approaches, and potential partners. Ideally, this phase should be part of a project, run by a Project Management Office, which understands the entire process and may engage in neutral management, safeguarding the quality of results and supporting management through valid analysis in the conduct of the project.

Due to continuously high pressure on costs, steadily rising customer and regulatory requirements, and strategic IT considerations, I believe that IT management has a statutory duty to examine the options presented by a modernization of mainframe applications.