The Mainframe Competency Approach

Strategies and Best Practices
The Mainframe Competency Approach

Introduction

Reducing costs and streamlining the maintenance and expansion of mainframe systems and their applications has become a costly task for organizations.

Fewer and fewer educational institutes are teaching mainframe technology skills (i.e. COBOL, CICS, DB2, etc.), resulting in higher training costs for organizations and a diminishing pool of talented mainframe technicians.

More than 50% of the employees with extensive mainframe experience are over 50 years old and approaching retirement age. The employees being trained are mostly entry level with little or no business or analytical skills. These technicians can be taught to code but the inherent skills learned over years of experience cannot be acquired in the classroom.

Calling on over 300 years of collective mainframe development experience, best practices in mainframe development and project management expertise, DATA Inc. developed this mainframe competency approach. The mainframe competency approach helps organizations extend the life of their mainframe applications, allowing them to concentrate on their core business model by:

• Relinquishing the burden of a sizeable Information Technology staff
• Retaining high performers who are intimately familiar with functionality and technology
• Partner with like-minded technology organizations for application development and support to leverage their readily available resources.

About DATA Inc.

• Established in 1983.
• Offers application development and staff augmentation services.
• Services Fortune and Public Sector clients across the world.
• Global presence with offices throughout North America, Europe and Asia.
• Privately Owned – Certified Minority Business.
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The Situation
In light of current global economic conditions, all major corporations are under pressure to reduce expenditures. As corporations implement cost cutting initiatives, budget reductions have invariably fallen on Information Technology (IT) departments and the consistent message from IT managers is “we need to do more with less.”

Doing More With Less
To see this message in action, one need not look further than the array of applications still running on mainframe systems at organizations throughout the world. IT departments have done everything possible to stretch the lifespan of these applications short of total replacement. To replace a mainframe system and associated applications would ultimately mean an increase in costs, decrease in overall organizational productivity and the possible loss of critical data if the proper precautions are not in place.

Organizations will continue to rely on mainframe systems and their applications for the foreseeable future due to the costs, and risks associated with migrating away from them.

Lack of Resources and Skills
On the horizon however is another challenge facing IT departments as the personnel with the appropriate skills to develop and maintain mainframe systems and applications are becoming scarce.

Mainframe skills are no longer being taught at most educational institutions. As a result of this shift in educational priorities, organizations are forced to create and implement in-house training initiatives to teach their IT staff the necessary skills. Entry-level personnel are not motivated to acquire the necessary skills. While there is opportunity for advancement in this arena, development and maintenance of mainframe applications is not a full-time endeavor. Retaining the necessary resources ultimately has become expensive. “Our analysis of the industry has shown that finding readily accessible mainframe talent is difficult” said Jim Serton, Project Manager at DATA Inc. “Developing a competency to maintain these applications in an uninterrupted fashion is becoming more and more expensive for organizations.”
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Mainframe is here to stay

The demise of the mainframe was much overrated and manufacturers and users are realizing that this hardware is not going away in the near future. IBM is still delivering mainframes and developing new technology in its zSeries servers. Billions of lines of code are still being added annually to mainframe applications.

The Solution

With the rising costs in maintaining mainframes and their applications and the long ramp up time of off-shore captive centers, a new business model is required. Rebuilding and implementing a permanent competency of mainframe systems and applications will ultimately help reduce costs and help shift focus onto core business principles by:

• Relinquishing the burden of a sizeable Information Technology staff
• Retaining high performers who are intimately familiar with functionality and technology
• Partner with like-minded technology organizations for application development and support to leverage their readily available resources.

The mainframe competency approach is the result of a combination of in-house expertise, best practices in project management and real world experience – encompassing over 300 years of collective experience in mainframe technologies ranging across COBOL, CICS, IMS and DB2. The approach outlines the requirements for project execution, support staff roles and responsibilities and knowledge retention.
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Project Execution

The first step in the mainframe competency approach is to develop a plan that details all the responsibilities of the stakeholders involved. The resulting Project Management Plan (PMP) is developed as a collaborative effort between the vendor and the client staff as a roadmap that will guide all of the players involved throughout the life of the project (period specific or on an ongoing basis.) The documentation associated with the project is maintained on a project management repository (Microsoft Share Point or another similar system) and is available to all stakeholders and participants in the project.

The PMP consists of

- Project Definition
- Project Organization
- Management Control
- Environment Control
- Design Control
- Testing Control
- Project Plan

Support Staff Roles & Responsibilities

The next step is to develop a structure of roles and responsibilities for a support staff. The mainframe competency approach provides the client with the capability of engaging worldwide resources to realize overall cost savings while keeping a regional approach, taking into account the necessary organizations corporate culture and attention to detail. The model below demonstrates the structure of a possible hybrid mainframe competency solution consisting of on-site management engaging off-site, and off-shore, personnel.
The development of a customized knowledge retention system consisting of a portal services system and a project server is the final step and is at the core of the mainframe competency approach. Such a knowledge solution will help to facilitate proper project management, project collaboration, knowledge retention/business intelligence and ultimately will help increase productivity.

An approach based on best practices is utilized during all project development cycles and can be shared by the vendor with clients to facilitate teamwork, improve efficiency and ensure product quality.

“Key to the process of ensuring that mainframe systems and their applications are properly maintained is keeping a repository of up-to-date knowledge of the system, its processes, scheduled enhancements and pending issues that need to be addressed” said Charles Rich, Chief Technology Officer and Director of Client Projects for DATA Inc. “This repository also allows us to keep a world-wide development and maintenance lifecycle in place that will ultimately result in major cost-savings for clients.”
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Costs

The mainframe competency approach provides three options, each with its own cost savings. Displayed below and on the next page is a cost estimate example based on the following team location, size and composition scenarios:

<table>
<thead>
<tr>
<th>Location and Size</th>
<th>Small Scale (20 Total resource)</th>
<th>Mid Scale (50 Total Resource)</th>
<th>Large Scale (100 Total Resources)</th>
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<tbody>
<tr>
<td>Off-Shore based Team</td>
<td>-1 On-site Coordinator</td>
<td>-2 On-site Coordinator</td>
<td>-1 Engagement Dir</td>
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<td>-90 P/A (Off-shore)</td>
</tr>
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<td>-34 P/A (On-shore)</td>
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<table>
<thead>
<tr>
<th>Location and Size</th>
<th>Small 240 Man-Mths</th>
<th>Medium 600 Man-Mths</th>
<th>Large 1200 Man-Mths</th>
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<td>$2,931,812</td>
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<td>Onshore</td>
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<td>$6,545,900</td>
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<td>Off-Site / Onshore (Hybrid)</td>
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<td>$3,566,942</td>
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<td>Client—Internal</td>
<td>$3,370,838</td>
<td>$7,994,250</td>
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</table>

Above: Cost information for deploying resources on a variety of conditions

In reviewing the associated costs, it is clear that the mainframe competency approach is scalable in cost and flexible in deployment; with options that include off-shore, on-shore and hybrid deployment. If an organization undertakes an initiative of this sort, costs would exceed anywhere from $2.6 million to $13.6 million depending on the size and scale (Source: Internal Reports and Client Analysis.)
Conclusion

With costs rising, budget restrictions and the overall requirement of stretching the IT dollar, the benefits of the mainframe competency approach are clear. And engaging in the model for the future will help organizations realize cost savings in maintaining their legacy systems, helping to improve the outlook of IT budgeting and creating a catalyst to introduce sweeping changes within an organization.

“Experience, best practices and the knowledge of mainframe systems and applications is what makes the difference with the mainframe competency approach” said Jim. “Such a globally-distributed delivery model can be engaged by organizations to ensure that costs remain low, delivery time to market is reduced and client needs are met.”

Consistently Delivering, Cost Effective, Quality and Timely IT Solutions

DATA Inc's expertise in providing a range of IT solutions, enterprise and infrastructure solutions and general technology consulting centered around a mix of the right technology with the right 'people' allows clients to improve the way they conduct their business globally.

Our Services and Solutions

- Technical and Management Staffing
- Migration and Re-engineering
- Global Custom Solutions Development
- E-Learning
- Testing and Quality Assurance
- Global Project Management

For more information, please visit our website at www.datainc.biz or call (201) 802-9800 to speak to a DATA Inc. Sales Associate.

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