# Applications Services
# Best Practices for Sourcing IT Applications

Deciding on a course of action for maintaining your legacy applications is not easy, nor is making the decision to source your IT support of these legacy systems. But when you look at the alternatives of costly migrations, and you see the onset of dwindling legacy skill sets, the decision might not be as difficult as you imagine.

This white paper will help you understand the challenges and benefits of sourcing your Applications maintenance, to help you make the best choice for your business and the future state of your legacy applications. Whether you choose to stay with your legacy applications, modernize, or implement an ERP solution, this whitepaper can help eliminate concerns about dwindling staff and legacy skillsets. And as a benefit, efforts can be devoted to new technology initiatives.

**Introduction**

More and more CIOs are faced with the issue of what to do with their legacy applications and how to finally free their companies from the burden of supporting these systems. With decades of costly struggles with mainframe conversion and transformation projects behind us, you would be surprised to learn that the approach to legacy modernization has taken a new turn. Companies are rethinking their strategy on how best to advance their technology and handle their legacy applications, and it's not by eliminating or converting their critical mainframe or AS400 legacy systems. The new reality is sourcing.
IT sourcing has been a practice for decades and has evolved over the years in various and different stages. However, the underlying reasons why most companies opt for sourcing their IT departments or portions of their IT workload, remains the same. At the root of the decision to source, are factors such as:

- Budget cuts
- Cost reductions
- Specialized development projects
- Changing technologies
- Offshoring

Recently, new concerns have emerged for companies still heavily reliant upon their legacy applications to run their business. With CIOs increasingly opting to support their critical legacy systems instead of engaging in risky and extensive application transformation efforts, these new concerns have arisen:

- Shrinking mainframe or resource labor pool
- Loss of skilled legacy resources
- Feared loss of applications knowledge and business rules
- Inability to address new enhancements
- High maintenance and support costs

Companies have sought to overcome these issues and other deficiencies by utilizing staff augmentation services. This represents a good temporary solution when companies cannot hire FTEs to their staff. However, this solution can become problematic due to a lengthy hiring process in the workforce where few qualified skillsets exist, and actually add to the severity level of these same issues. Staff augmentation has none of the benefits of alternative solutions such as long-term IT sourcing or managed services. If staff augmentation is not an option, these issues will be compounded and the capability to support these critical business applications will deteriorate.

Thus, executives recognize how critical it is for a company to maintain and support their legacy applications. When exploring the need for an applications sourcing company, choose one with the expertise and skills to provide that support and the resources to resolve those pain points, especially with the concerns and experience necessary to understand the sensitivity behind losing staff and skills due to retirement.

A good managed services model will allow you to better handle these situations and have the ability to better plan, manage resources, and balance your workloads across the providers' workforce. There should be a lower cost of delivery for specific levels of expert service. And beyond just lower costs, you should be assured that the application knowledge and required skills to maintain your legacy applications portfolio, is preserved.

It is not difficult for companies to figure out the financials surrounding sourcing services both from an internal and external perspective, but more importantly it is the more the practical and technical aspects of IT sourcing that will make for a successful engagement.

In this document, we will answer some of the more frequently asked questions about IT sourcing, discussing best practices with a roadmap to attaining a successful partnership.

- Aren't these legacy skills available on the open market?
- Can I only source a certain part of my applications portfolio?
- Would any of the work be performed "off-shore"?
- How are Logistics handled? Do resources work Onsite, Remote, or is it Hybrid?
- I am concerned with transferring the business and application knowledge to a sourced IT workforce. How do you ensure that the knowledge transition is successful and that this inherent knowledge is not lost?
- How do you minimize and mitigate risk in transferring application support services to your new workforce.
- How do I get started with IT sourcing and what is involved in the process?
- How do you go about understanding our environment and creating a proposal?
- How are the relationships and functions of internal and external departments affected and resolved?
- How are the Workflow Processes affected and resolved?
- I'm concerned that communications between the Business Units and the IT Staff would be affected. How do you as- sure that this channel remains effective?
- What about the ability to react and handle Special Requests and Projects when the IT department may not be onsite or readily available. How do you address our need to react to quick hitting situations?
- How is Production Support handled when the application workforce is sourced?
- How are escalation processes affected? What will be the new responsibilities?
- How are software licenses and tool sets handled?
- What is your perspective on IT Governance and Service Level Agreements (SLAs)?

Your goal is to find a service provider who understands your concerns about trusting the support of your legacy applications to an outside vendor and transitioning the inherent business knowledge outside of your department. This document has been prepared to provide an insightful and informative guide that will help you decide on the best course of action for maintaining your legacy systems.

## Best Practices Guide for Sourcing Applications

### 1. Availability of Legacy skills on the open market

In the late 90's, IT's leading information technology research and advisory companies estimated that 80% of the world's businesses ran on COBOL. Recent studies (including one by Gartner) have put the figure at between 62 and 70%. If we accept the lower of the figures it points to the startling fact that in 17 years, business dependence on these systems and skills has only fallen by 18%.

Today the way forward continues to be hazy with estimates as to how long these skills will be needed in the marketplace ranging from 5 to 20 years. Given the spread in the estimates, the one conclusion we can draw is that these legacy systems will be around for some time to come.

So, what's the problem? In a recent study meant to gauge the availability of manpower over the next 5 to 20 years, nearly 50% of the respondents indicated that they were experiencing a shortage of legacy skills, while another 28% indicated they expected to experience a shortage within the next 5 years.

This skills shortage can be attributed to four main issues:

- Due to market conditions such as a slowing economy, tight budgets, etc., the decommissioning rate for legacy systems has not been as quick as had been predicted.
- Many workers with the necessary legacy skills are leaving the market due to retirement, health issues, etc., so the available pool is shrinking.
- Today less than 20% of universities offer legacy skills such as COBOL as part of their core curriculum, and that number is shrinking. Students are not keen on taking courses that most think are "uncool" and "outdated". So, while the number of workers with legacy skills dwindles, few recent university graduates have been trained in these skills as part of their coursework. This fact has prompted some larger providers to offer courses in such "uncool" skills as COBOL programming.
- Only about 18% of companies consider sourcing their legacy applications support.

Clearly, many organizations continue to rely on these legacy systems for supporting their critical processes, and while the rate of decommissioning is slower than was predicted, the market is not keeping up with the demand for workers having the requisite skills to keep them running.

## 2. Sourcing only certain parts of applications portfolio

Some vendors provide selective sourcing which enables clients of all sizes to only source the systems, applications and functions (such as application maintenance) that meet their specific requirements. A client may wish to source all legacy applications, a portion of their portfolio, a particular function such as program maintenance and enhancements, or applications that have become too costly to maintain or can no longer be supported in-house. This client may also choose to keep certain functions in-house, for continuity purposes, while sourcing other functions. Flexible arrangements may be critical to allow the client to reap the greatest benefit from the engagement.

## 3. On-shore vs. off-shoring the workload requirements

Is it important that all of your hosting services are provided “on-shore”, thereby mitigating such risk factors as security, stability, currency fluctuations, etc., that may be inherent in using “off-shore” resources? Many legacy applications are critical to your business and represent valuable “intellectual property” to your organization. It may also be critical for your company to maintain, support and protect these applications.

## 4. Logistics: Onsite, Remote, Hybrid

Initially and dependent upon the desired service model, it is a common practice to have the IT staff remain at the client’s facility until such a time as a transition of the workforce or the application knowledge occurs. In all cases, a subject matter expert, or experts, should be onsite or will be responsible for communications and interaction between the IT staff, the client service teams, and the business units.

It therefore becomes necessary for the service provider to have the space and equipment to house the entire application staff required to support you as a client. Individual client’s requirements or preferences may differ regarding resources being onsite and offsite. The goal is to have the service provider’s IT workforce support each client from the service provider’s facilities to the maximum extent feasible, and in most cases, a hybrid situation is the most desirable solution.

It therefore may be to your best advantage to have your current IT staff transitioned to the sourcing provider’s facility, or transition the application knowledge to the sourcing provider, to gain the benefits of having additional resources via resource leveraging. Cross training the workforce instills a better support process and alleviates concerns about diminishing staff and skill sets, and a loss of application knowledge.

Also, all necessary communication links and processes are then created between facilities and between the associated company teams. These processes include proper access to conference rooms, phones, networks, laptops or workstations, and personnel. All necessary physical and logical security processes are established and then put in place.

## 5. IT Transition Management and Risk Mitigation

Business knowledge transfer, transitioning of IT services, and possibly transitioning people in a sourcing engagement, can be a complex process. It is important to understand whether a proven methodology is utilized to ensure the applications transition process is smooth and implemented in a seamless manner without effecting business continuity or application availability.

You want to make sure the integrity and stability of the applications environment is maintained, while the teams work with you in supporting the day-to-day applications processes. A detailed transition plan should be provided, as preparations are made to staff appropriately to meet the required effective date to ensure a smooth transition. The project management team and account managers should develop a project plan to successfully complete the detailed tasks and meet the critical milestones necessary for a successful transition. The following items are critical to a successful transition:

- Assigning experienced account managers and analysts to develop and implement the transition plans
- Constructing and implementing a project plan with clearly defined timelines and measurable milestones, with a focus on ensuring business continuity success
- Establishing a joint task force process with our client, to ensure we understand and implement the IT governance processes as required by the client
- Implementing a communications and escalation process to address all issues and challenges in a timely manner

## 6. Business and Operational Knowledge Transfer

Knowledge transfer is fundamental to the quality and efficiency of services to be delivered. Ensure that the service provider's processes validate that all knowledge is fully and reliably transferred from the client to the entire team. Look for a nurturing approach for working jointly with you as the client, to develop the appropriate IT Applications team in order to gain the knowledge necessary for a smooth transition.

- Retaining and "Re-Badging" selected client FTEs: Key resources with extensive applications knowledge can be re-badged to the sourcing provider as FTEs and remain at the client site. These resources remain in direct contact with the client's business leaders and client services team while providing the same quality of work and acting as men- tors to the newer team resources.
- Retaining SMEs (Subject Matter Experts): Additional key resources such as business or technical analysts may be retained as SMEs, and be part of the client's team or the service provider's team.
- Core Shadow Team: A core team is assigned to shadow the client's resources to transfer and secure knowledge to support and maintain all services required.
- Evaluation of the client's resources: Skills sets for each resource are reviewed in depth with the client, and joint decision-making is fostered.

Additionally, operational knowledge for the IT services is transferred utilizing the following procedures:

- Review of existing documentation
- Interviews and shadowing
- Creation of supporting documents
- Hands-on maintenance
- Implementation of change control procedures

## 7. Getting Started

Look for a service provider with experience, one who will guide you through every step of the process from getting started to the cutover. A detailed project plan and timeline is created expanding on these high level tasks:

- Client review process:
    - Initial presentment of Applications and scope
    - Existing total cost of ownership (TCO)
    - Client goals:
        - Desired costs and support staff
        - Desired Service Model (Usage Based, Managed services, Staff Augmentation)
        - Desired timeframes for business knowledge transfer and cutover
- Environmental Discovery and Assessment – timeframe and process for in depth analysis
- The 6-month plan
    - This timeframe is a reasonable planning horizon used as a critical milestone
- Contracts, SLAs, and Professional Services Agreements
- Internal and external processes and workflows
- Logistics, network, and communications requirements
- Help Desk procedures
    - Reporting and Escalation processes
    - Ticketing system
- Software and Tools requirements: Project Management, SharePoint, Problem trackers, etc.
- Define Knowledge Transfer: Time and Process
- Resources & Requirements
    - Kick-Off/Day One
    - Ramp up of appropriate support team
    - Establish functions based on processes and workflows
- Knowledge Transfer
- Implementation and cutover to sourcing provider

## 8. Applications Services Assessment

A high level estimate and guidelines for application sourcing solutions should be made at the onset of discussions; however, a detailed assessment is required to fully understand the client's environment and to create an accurate proposal.

The following table contains the tasks required for a full assessment. Some of the tasks may not be applicable and the assessment will be tailored to conform to the client's requirements. The Applications Questionnaire and assessment is a time consuming process. The assessment effort can be reduced if the client provides a higher level of support in obtaining the required statistics and information by using our detailed questionnaire provided separately.

| P-Primary Responsibility | S-Secondary Responsibility | |
|---|---|---|
| **Service Description** | **Client** | **Service Provider** |
| **Applications Services – Assessment Tasks** | | |
| **Questionnaire:** | | |
| Service Models and Current Staffing | | |
| Platform and Software analysis (extensive) | | |
| **Staff Assessment:** | | |
| Skills, Performance, Levels | | |
| Salary Reviews | | |
| SME (Subject Matter Experts) Assessment | | |
| **Staff Scenarios:** | | |
| Onsite, Remote | | |
| Re-badging | | |
| Programmers/Analysts | | |
| **Processes:** | | |
| Account Management Process | | |
| Client Services Process | | |
| Project Management Software (Task Control) | | |
| | | |
| Workflow Process:<br>From incoming request to assignment and tracking | | |
| **Workload:** | | |
| Job Ticket Review | | |
| Job Tracking and Reporting Review | | |
| **Expectations:** | | |
| Service Level Agreements | | |

## 9. Personnel and Functions

Sourcing the IT department or portions of the workload, assuredly affects the relationships and functionality between various departments and teams in the business workflow process. The service provider should work with you to implement or modify processes to fit your unique organizational structures.

Always look for flexibility. Depending upon the desired structure, the personnel and functionalities described below may remain the responsibility of the client or become the responsibility of the service provider as part of a new arrangement. In some cases, the functionality may exist at both companies. It is critical to develop a Roles and Responsibilities matrix to ensure that from the outset of the engagement, both client and service provider are in agreement with their respective primary and secondary responsibilities for each of the functions of the client's workflow process.

The clients' environment and internal processes dictate the number of resources required and types of resources required. Depending upon the circumstances, all of these functions or a subset of these functions may be necessary, and at times, a combination of functions might be combined under one resource type. The types of resources and their respective functions which might be deployed are listed below. During the assessment phase, a complete description of these functions is provided, and the responsibilities are determined.

- Strategic Account Managers (SAM):
- Client Services Representatives (CSR):
- Project Managers (PM):
- Business / Technical Analysts (BA):
- IT Project/Team Leaders (PL):
- IT Developers (IT):
- QA Analysts and Testers (QA):
- Implementations and Gatekeepers (IP)

## 10. Workflow Processes

Look for a service provider who will work with you to define the workflow process and ensure all assignments are handled effectively and efficiently. Depending upon the existing infrastructure processes, the personnel involved, and the established functions, new processes are defined and approved for deployment. All necessary meetings with effected areas and teams are scheduled and the processes are reviewed and deployed.

The workflow process which gets established may be more than simply a redistribution of responsibilities. At times, new procedures or software may be required. In many instances, we will continue with the use of our clients' software, however, it may be more beneficial for us to utilize our own in-house software where applicable and where it makes more sense. We will work with our clients should a new software product or process be required to better serve our clients and ensure success. Critical processes include but are not limited to:

- SharePoint processes
- Project Management (Software and Resources)
- Project scheduling and tracking software
- New or updated forms
- Manual procedures
- Change Control
- Production Software Implementation
- Quality Assurance and Testing
- Help Desk

## 11. Communications: The Business Units and the IT Staff

Paramount to the success of the engagement is the ability to provide the same or better responsiveness to tasks and assignments, and production support issues in cases where the service provider is responsible. Once the personnel and their functions are clearly defined (See Personnel and Functions) and the Workflow Processes are established and documented, the processes should be reviewed, and the policies are published within both companies.

In a sourcing arrangement, many clients are concerned with the ability to react quickly to problems or hot requests, and to "shift gears" in a dynamic environment. These age old situations have been a part of the IT landscape and have been concerns of the business units for decades. Traditionally, companies have defined and redefined procedures to prevent

interruptions and disruptions amongst the IT staff which could lead to project delays and software errors, yet still address the business unit's concerns for quick and decisive actions when necessary. Usually there are designated people who relate critical and time sensitive requests to the IT department heads and not directly to each IT individual, thus following a chain of command process.

The communications process is no different with an IT sourcing arrangement. There should always be a resource or resources on site that would receive requests personally from other units thus maintaining that chain of command process. The responsible and designated resource or resources immediately place the required calls and also communicate with the responsible IT Leads using workflow processes and software. In a fully onsite or hybrid engagement, the processes remain the same. Where the IT workforce may be more resident at the service providers' facilities, there should be designated re- sources onsite or specific processes in place to effectively handle all communications.

## 12. IT Governance and Service Level Agreements

The idea of IT sourcing has long been part of the strategic thought process within organizations and lately has come to the forefront of senior level strategic meetings for a growing number of companies. Organizations have long been evaluating what is core to their business in many areas and making decisions to source non-core functions to strengthen their businesses and become more competitive. However, there have always been higher levels of trepidation with regards to sourcing IT departments. IT Management has always raised the specter of putting key decisions in the hands of a service provider as the formidable reason to maintain the IT department within the confines of their legacy environment.

Strong IT Governance models that clearly define policies, roles and responsibilities, and processes, are essential to establishing and maintaining an effective IT environment. And it is the absence of good IT Governance policies and agreements that have resulted in contributing to failures of company and service provider relationships. When appropriate IT Governance models are developed and deployed, the service level agreements between client and provider are architected better and clearly define the metrics for success.

IT Governance policies should cover these four areas to ensure that the service level agreements contain the necessary stipulations that will result in client satisfaction and service provider success.

- Roles and Responsibilities
- Defined Processes
- Management Structure
- Reporting

Service Level Agreements (SLAs) provide assurance to the client that the service levels required and agreed to are measured, monitored and delivered at an acceptable level. This is the client's assurance that the provider is living up to their end of the bargain. Clients have service levels that are important to them based on their business, and the same diligence should be applied by the service provider to develop measurable and effective SLAs to ensure the relationship and the business is successful.

## 13. Special Requests and Projects

Special requests and projects are standard occurrences within all IT departments and companies. The most structured of processes and businesses remain affected by ad hoc requests and unforeseen circumstances. It is simply a way of life in the IT environment.

The ability to respond to special requests is directly relational to the size of the IT department and the inherent flexibility or limits defined in company policies. In all circumstances, work will suffer somewhere along the line when programmers are required to shift gears and divert their attention elsewhere, unless there is a glut of resources which does not exist in today's world.

These situations are no different in a sourced arrangement. Your provider should respond to the needs of the client and the special requests just the same as before. Decisions will need to be made by the responsible business units regarding prioritization of tasks and the business units will need to cope with the resulting effects on other tasks that will be delayed.

Make sure that the service provider is ready to deploy additional resources to handle special projects under separate agreements when the base IT resources cannot be diverted. Look for flexibility and the service provider having the capability to tap into their resource pool for additional support when needed. This is also the benefit derived by having the IT workforce situated at the service provider's facilities, especially where cross training is part of their procedures.

## 14. Production Support

In a sourcing arrangement, all services are clearly defined and measurable. At a high level, the IT services might consist of development, maintenance, and support of application code. Production Support as a function and in this case is defined as a separate departmental service associated with a help desk process. As is the case in most companies, the Production Support department exists within the Computer Operations area, and responds to problems defined by severity levels.

When production issues arise that reach beyond the skills of this technical support arm and require Applications personnel to research applications and software code, there need so be an escalation process within each organization to reach the respective application resource for problem remediation.

## 15. Escalation

Escalation processes for production issues most likely exist within all companies. These processes should be reviewed by the services provider to ensure they are sufficient and will effectively transition the processes. The processes may need adjustments based on the personnel functions deployed (Refer to Personnel and Functions).

Reasonable response times are developed in conjunction with the client and are based on the existing processes.