

white paper

Overcoming the Seven Barriers to IT Modernization

Defining a Strategic Roadmap Using Application Portfolio Management and Knowledge-Based Modernization

proactive

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Executive Overview

For many the term “application modernization” raises more questions and concerns than answers and enthusiasm. And while most knowledgeable IT executives and personnel acknowledge that the instant an application is deployed, or even before going live, it’s already out of date, few have plans in place to counter this inevitable aging.

However, applications are critical business assets that must be maintained, enhanced and/or replaced like any other valuable resource. What’s more, as organizations continue to face new levels of global competition, expand into new areas, and are pressured to quickly introduce new products and services, the need to more closely align application functionality with business processes is critical.

Industry analysts such as Ovum have been clear about the issues related to poor management of application assets:

“Legacy is the problem child of IT, hampering growth, agility, and innovation; the people with the in-depth application skills and knowledge required to keep it going are nearing retirement; it soaks up the IT budget.

No one plans for legacy, it just happens and, left alone, the problems get worse. Legacy renewal is a journey that must be driven by business leaders, navigated by IT leaders, and fuelled by vendors; anything less will fail.”¹

During a series of seminars in early 2007, Unisys and its partners met with IT executives from more than 50 major US-based private, public, and government institutions. The topic was modernization and the forum an analyst-led discussion about the challenges facing IT in this area.

As a whole, these executives acknowledged the problems presented by aging platforms and systems and the need for modernization. But, they also faced very real barriers to getting such initiatives off the ground. The discussions uncovered seven common obstacles to modernization that span all types and sizes of organizations – cost, risk, inertia, time, training, balance, and quality of service. (Each area is explained in more detail in the next section of this white paper.)

While these barriers are significant, business growth, and even survival, depends on overcoming all of them. Modernization is hard work that should be viewed as an ongoing, transformational process and integral part of all IT development efforts – not a one time project. The good news is, there are specific first steps that can jumpstart the modernization process and make these endeavors more efficient, effective, and, ultimately, successful.

“There are risks and costs to a program of action. But they are far less than the long range risks and costs of comfortable *inaction*.”

-John F. Kennedy

¹ Mike Gilbert and Gary Barnett, Ovum. “Legacy Renewal Strategies” 13 September 2006

Starting Modernization Initiatives the Right Way

To some, IT modernization equates primarily to hardware infrastructure and a move from propriety mainframe platforms to open systems and commodity servers. However, lasting success comes from a more holistic approach – one that looks into all levels of business systems, from strategy to processes to applications and, finally, infrastructure.

Following such an *enterprise asset modernization* approach provides the ability for business priorities to drive the process, rather than technology.

Information is at the core of successful enterprise asset modernization initiatives. And, the best place to begin is with a comprehensive application inventory to fully document “what is” and provide an in-depth assessment of functionality across all areas of the organization.

Many IT organizations believe they have a good understanding of their application portfolios, and this may be the case for mission-critical applications. But it would be wrong to discount the value of a thorough, systematic evaluation. More often than not it reveals some unpleasant surprises, both in terms of cost and resource constraints.

That’s why the disciplines of application portfolio management (APM), including assessment, and knowledge-based modernization (KBM) are essential first steps to modernization. APM and KBM provide the information needed to gain:

- Visibility into *all* current IT assets
- Insight into what can and should be preserved and reused
- Identification of mismatches between capabilities and business processes

APM helps organizations gain a multi-dimensional view of their application portfolio at a macro level. Starting with an assessment process, the business and technical value for every application is determined, along with its cost.

APM allows organizations to:

- Systematically develop and prioritize modernization efforts
- Build a solid case for modernization that supports overall business goals and strategies
- Reduce the cycle time for decision making
- Manage applications as the valuable assets they truly are

KBM also helps overcome common barriers to modernization. Applied at the individual application level, KBM begins by extracting business rules and processes from current software solutions. This information can be then be used with new and changed business priorities to more effectively modernize existing and build new applications.

KBM helps organizations:

- Reduce the effort, cost, and risk associated with modernizing legacy applications
- Discover, preserve, and reuse the intellectual property hidden in existing software assets
- Increase competitive agility by improving their ability to leverage existing assets in new ways and into modern environments

APM and KBM are essential business tools that effectively break down such modernization barriers as cost, risk, inertia, and more. Together, they help organizations establish a roadmap for an incremental, ongoing, proactive modernization program. And by doing so, APM and KBM help business and IT leaders to better manage operational risk and contribute to the longer term success of the business.

Seven Barriers to IT Modernization

IT executives live and breathe the consequences of outdated infrastructure and applications every day. These include the inability to deliver new functionality at the pace demanded by business managers, challenges finding and retaining developers with legacy skill sets, keeping a lid on maintenance costs, reducing work-request backlogs, and more.

Through a series of seminars, Unisys and its partners met with IT executives from a wide range of industries and government organizations to talk about modernization. As a result of these meetings, it's clear that IT departments are struggling to modernize – and that significant obstacles stand in the way. While every situation is unique, common barriers were highlighted over and over.

1. Cost: Finding the funds to pay for modernization projects

Modernization is rarely an IT budget item and typically requires incremental funding that must be raised from somewhere else in the organization. And, getting those monies allocated is the number one challenge facing IT managers.

In fact, many executives express frustration at their inability to show business value or return on investment (ROI) from modernization initiatives. For example, arguments related to technical capabilities and toolsets or addressing the shrinking pool of staff skills are viewed as purely IT problems, and therefore, fall on deaf ears.

What's more, in the eyes of financial types, legacy applications are "paid for" with ongoing maintenance (which is a standard IT budget line item) their only cost. Couple that with the perception that modernization projects simply maintain the status quo – and don't deliver new functionality – and it's easy to see why there's little enthusiasm for projects to upgrade legacy systems.

What's lacking are vehicles to communicate the current business value of the supporting applications and infrastructure, the future business value of modern, agile systems, and the implications of delaying modernization work. IT executives need ways to make a stronger connection between modernization and operational concerns, such as lost competitive advantage, declining revenue, and poor regulatory compliance, to get the needed funds.

2. Risk: Changes to core business applications must be carefully considered

Frequently, the very systems that are in the most need of modernization are essential to the business and, as such, are very likely running quite well. And because downtime isn't an option with such software, IT has the additional challenge of trying to modernize without jeopardizing current operations. Moreover, any change to core capabilities introduces significant business risk that can be very hard to justify. Without a sound business case for modernization, there's little reward for that risk, particularly when compared to doing nothing at all.

But, IT executives also worry that "leaving well enough alone" when it comes to core business applications simply delays the inevitable – and puts them in the uncomfortable position of having to be reactive rather than proactive. However, they need to ensure that their political capital is spent on projects that deliver maximum benefit in the shortest time possible and with minimal risk. A clearer understanding of the risks from inaction is necessary to make a good case for modernization.

3. Inertia: Why modernize when everything is working fine?

For many IT executives today, there's no clear personal reward for modernization. And, that's particularly true in situations where the end result simply maintains the status quo functionality, albeit on a more current technology platform.

In fact, there's a strong disincentive to take on projects to update legacy applications and development tools. Horror stories abound of career-killing, big-bang modernization projects that go over budget and fail to go live. This, combined with the fact that all IT departments have more than enough urgent work on their to-do lists, creates yet another barrier to modernization.

4. Time: Modernization projects take too long

Another common impediment to modernization is the perception that timelines for such projects are inordinately long. Of course, they are complex and require considerable planning and validation time, in addition to performing the actual upgrade work. However, as with any project, the longer the timeline, the more time it takes to realize the benefit – and the greater the likelihood that it will be interrupted, suspended, or even cancelled.

IT organizations need to find ways to define an overall modernization roadmap, deliver in smaller, incremental steps, update the plans as business and IT needs change, and show progress along the way.

5. Information: Where to start; what the best practices are; when to use what approach

Another common concern for IT executives is how to make the right decision about modernization tools and techniques. There are many vendors promoting many products and services – and little independent information to help organizations make the smart investment for their particular environments.

There's a real fear of being locked into an approach and technologies that don't easily adapt as the industry changes. And, that's understandable because modernization projects are hard enough to get off the ground without having to worry that they are going down the wrong path.

6. Balance: Modernize and maintain – how do you do both?

Seventy percent or more of IT budgets is devoted to the maintenance and support activities needed to ensure that day-to-day operations run smoothly. Shifting focus and funding to modernization is a difficult balancing act and a significant barrier. With pressing business and IT issues always front and center, modernization projects quickly fall to the bottom of the list.

Many IT executives find it difficult to “keep the lights on” while simultaneously updating legacy systems. They report feeling like they need ways to change the tires on the car while it's speeding down the road at 85 miles per hour.

7. Quality of Service: Organizations are leery of changes that could compromise service levels

One significant advantage enjoyed by legacy applications is the years of careful, iterative tuning to ensure enterprise-class reliability, security, scalability, and availability. And, IT managers worry that adopting newer technologies, such as Java and .NET, may pose serious service quality problems once deployed. Even upgrades to the latest operating system levels and hardware technology can degrade the performance of aging applications, which were not designed to run in these environments or which exploit long forgotten features of the old one.

Incremental modernization approaches are needed that:

- Consider quality of service requirements
- Can model the production environment before deployment
- Help to ensure a seamless transition

The Bottom Line

In summary, the barriers to modernization are significant. And, for many organizations, it's only a fundamental change in the business model that finally forces action – and at great pain and cost.

However, a proactive approach that introduces incremental changes over time offers a much more effective roadmap forward – as well as a better chance to overcome barriers to modernization and make it an integral part of an organization's IT program.

Jumpstarting the Modernization Process

Despite the many barriers to modernization, the need to proactively upgrade and evolve infrastructure and applications is a business imperative. Many organizations see their first step forward as picking a problematic application and choosing one or more of the following fundamental modernization styles:

- Refactoring or code improvement
- Translation of applications to an equivalent form in a different language, on a different platform, or using a different data models
- Wrapping, including web service enablement, enterprise application integration (EAI), and other integration techniques,
- Replacement with newly designed or off-the-shelf software
- Orchestration of software within a service-oriented architecture (SOA)

These styles of modernization have been proven effective, but only when the proper groundwork has been done. Simply choosing one from the list and applying it to a given application almost guarantees failure. Why? For the many reasons cited by IT managers in the prior section of this white paper. Where will the funding come from to start, and sustain, the effort? How can risk be mitigated? Where is the best ROI? How can timelines be managed? Will the work have to be redone in 18 months? Can service levels be met using new technologies?

Before making any decisions about *how* to modernize, organizations must first look at the current “state of the union” when it comes to their existing IT assets. What’s more, this assessment should start with applications – not infrastructure. Why? Because it’s application software that automates and supports business processes. Therefore, it’s critical to gather information about current application capabilities and, most importantly, the value they provide to the organization today, as well as in light of future plans.

Fresh approaches are needed to help IT and business leaders make the necessary business-to-IT connections that will illuminate modernization priorities and guide investment. When the current application portfolio is clearly understood and communicated across an organization, these connections are far easier to make. Of course, this is no small task, particularly in larger, long-lived organizations whose application portfolios reflect their history, including such events as mergers and acquisitions and department-led LOB software deployments. In addition, applications very likely have grown as disparate investments to meet immediate needs rather than strategic goals.

Why modernize *applications*?

IT asset modernization can be divided into *infrastructure* modernization and *application* modernization.

Infrastructure modernization by itself *only* goes so far. For example, a single-threaded application can *still* be a bottleneck, regardless of how state-of-the-art the underlying hardware and network systems.

What’s more, modernizing the underlying infrastructure contributes little to an organization’s ability to react to changes in markets or buyer behaviors. Swift deployment of *software* functionality is essential to delivering new products and services, making application modernization important for business agility.

Application Portfolio Management

Many organizations believe they have a good handle on their software portfolios – and that’s probably true for mission-critical applications. But, those systems represent the tip of the iceberg, particularly in large, established organizations with a long legacy of mergers and acquisitions. What’s more, it is the less strategic systems that have been “running under the radar” for years that can, potentially, be costing more than the value delivered or causing undue risk.

The discipline of application portfolio management, including a comprehensive assessment of the entire application portfolio, helps build a common understanding of an organization’s current software assets, including value to the organization, areas of exposure, and business and technology interdependencies. And in doing so, it develops the information needed to overcome many of the typical obstacles to modernization.

APM helps organizations tie applications to business needs and, thereby, determine which ones are core, where overlaps exist, and what is obsolete. This information is needed to help them make sound, business-driven decisions about how modernization should be approached for a given organization.

The first step in APM is the application assessment, which inventories and analyzes current software assets. The inventory is developed with the help of a knowledgeable service partner and involves a series of structured interviews with key members of the business units and IT. During the inventory process, the business value of each application is evaluated via questions like:

- Is the application strategic to the organization’s vision?
- Does it provide competitive advantage?
- What is the total cost to maintain the solution?
- How do customers interact with the software?
- What is its financial impact?

Technical value is also considered, including performance, scalability, availability, ease of maintenance/enhancement, level of modularity, availability of skill sets and documentation, and more.

This information helps organizations understand the total scope of application functionality, interdependencies, and cost – as well as the business services supported.

Using the inventory data, APM creates a model or dashboard of an organization’s application assets that addresses three perspectives:

- Business value, which ranges from commodity to strategic
- Technical value, which ranges from constraint to leverage
- Total cost to maintain the application

It is through this model that the vital connection between business and IT is made clear – and a sound foundation for modernization built. First, it clearly shows which applications are most strategic to the business. Moreover, adding technical and cost factors into the mix provides deeper insight into areas of greatest risk and opportunity.

For example, if an application provides only commodity services, is expensive to maintain, and constraining from a technical perspective, then perhaps it should be outsourced or replaced with an off-the-shelf solution. On the other hand, a highly strategic application that is expensive to support and written with outdated tools is a likely candidate for replacement or, perhaps, modernization.

Application portfolio management enables organizations to understand the value of individual application assets at a macro level – within the context of all software. It also allows them to see this value within the larger context of business strategy and a longer-range roadmap. And as the table in Figure 1 illustrates, APM proves invaluable in helping organizations overcome many of the seven barriers to modernization.

Figure 1: This table identifies the ways that Application Portfolio Management provides insight and information to help organizations move forward with application modernization efforts.

Overcoming Seven Common Barriers to Modernization Using Application Portfolio Management	
<p>Cost: Finding the funds to pay for modernization projects.</p>	<ul style="list-style-type: none"> • Identifies strategic investment options based on a factual understanding of business and technical value, as well as cost • Ties modernization investments to business strategies and objectives • Establishes applications as business assets • Unearths conflicts, overlaps, and worthless applications
<p>Risk: Changes to core business applications must be carefully considered.</p>	<ul style="list-style-type: none"> • Identifies and quantifies areas of <i>business exposure</i> so that the risk of inaction can be weighed against the threats associated with change or inaction • Reduces the risk of investing in out-dated or under-utilized applications • Provides a long-term plan for controlled, incremental modernization
<p>Inertia: Why modernize when everything is working fine?</p>	<ul style="list-style-type: none"> • Shows where business-critical, revenue-producing activities are supported by applications built with outdated/unsupported technology • Identifies opportunities for right-sourcing applications to free up internal resources to work on strategic initiatives
<p>Time: Modernization projects take too long.</p>	<ul style="list-style-type: none"> • Creates a clear vision and proactive plan for modernization tied to business goals • Identifies “biggest bang for the buck” areas to show quick success and build momentum • Helps to prioritize modernization efforts in sync with business needs
<p>Information: Where to start; what the best practices are; when to use what approach.</p>	<ul style="list-style-type: none"> • Highlights areas of strategic business value where modernization efforts can return the most benefit • Provides a future roadmap that enables a long-term transformational process in sync with strategic business objectives
<p>Balance: Modernize and maintain – how do you do both?</p>	<ul style="list-style-type: none"> • Creates visibility (by mapping business needs to applications) so that modernization becomes an ongoing, incremental process rather than a separate, once-and-done activity • Helps organizations prioritize candidates for modernization over a multi-year horizon
<p>Quality of Service: Organizations are leery of changes that could compromise service levels.</p>	<ul style="list-style-type: none"> • Helps organizations understand which applications provide the most business value and, therefore, where service levels must be carefully considered

Knowledge-Based Modernization

Once a macro-level understanding of the overall application portfolio and priorities has been established using APM, the next step is to begin the modernization process. Again, discovery of business knowledge within existing assets is an important activity – *this time at a micro level that provides an in-depth analysis of individual applications*. The goal of KBM is to expose and identify ways to transform existing functionality for reuse during modernization projects.

It's important to note that KBM is not an all-or-nothing endeavor. Organizations typically focus their initial efforts on a subset of applications based on internal priorities. For example, KBM can be applied to high-value, core business applications or those with the highest maintenance cost or software developed using technology that is no longer supported.

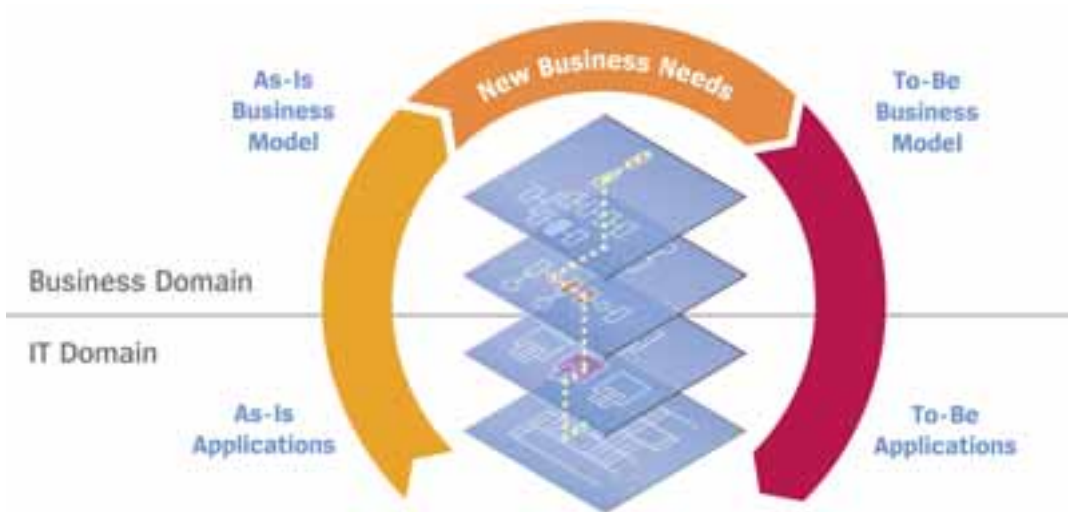
Mining information from individual applications provides opportunities to:

- *Improve efficiency and maintainability.* Legacy applications have evolved over a period of time, perhaps as long as 10 to 40 years. Therefore, while end users may find the output to be of value, it's often the case that no one understands how those results are computed. The cumulative impact of many modifications over time can result in applications that are difficult to understand and with large amounts of “dead” code that is no longer executed or needed. A thorough analysis via KBM identifies opportunities to deliver the same results more efficiently or restructure the application to make it more maintainable and understandable
- *Reduce redundancy and complexity.* Older applications often exhibit redundancy of functionality and data. Unnecessary functionality adds needless complexity and makes maintenance difficult. And, applications that use multiple legacy databases frequently house redundant data that – with the proper analysis – could be rationalized into fewer, more compact databases based on modern technologies. Again, such efforts require a more in-depth review of functionality that KBM provides
- *Preserve intellectual property.* Applications frequently contain low-level code holding business knowledge and functionality that cannot easily be identified, reused, or modified to meet new requirements or attain a competitive edge. By mining information, this intellectual property knowledge can be documented and leveraged for business advantage

KBM extracts business vocabulary, rules, and processes from production applications and surrounding business operations. In this way, it helps organizations take the knowledge that's “locked away” in a technology-specific implementation, such as a COBOL program or hierarchical database, and restate it in a technology-independent, business-level form.

As illustrated in Figure 2, this form of reverse engineering does two things. First, it creates a model of the “as is” application for comparison with the “as is” business model to reveal gaps in functionality. Second, it exposes application capabilities for possible reuse in future optimization efforts.

Figure 2: The Modernization Horseshoe Model



With this understanding of the current application and business capabilities, organizations can then add in new requirements and move forward to modernize applications using any of the approaches mentioned earlier in this paper (re-factoring, translation, wrapping, replacement, and orchestration). Whatever the chosen method, KBM provides a jumpstart by preserving intellectual capital – thereby reducing cost and minimizing risk.

In addition to its ability to fulfill modernization objectives identified via APM, KBM offers insight in other areas, including:²

- *Software assurance.* KBM helps organizations verify that a legacy application does what it is supposed to do and, of equal importance, doesn't perform functions outside its charter. Such information is particularly valuable in light of security and privacy concerns and regulations
- *Ongoing maintenance.* Coding mining and inventory tools used in KBM can reduce maintenance costs by providing more complete and updated documentation for older applications
- *Business process reengineering.* A limited business process analysis is typically performed to provide context for a rules mining effort. This data can be used to help organizations improve and extend existing rules and develop new ones
- *IT and business alignment.* KBM helps organizations connect existing application functionality to current business processes, identify mismatches, and implement new services leveraging current capabilities

Like application portfolio management, knowledge-based modernization provides much needed help for organizations that want to move beyond many of the obstacles to modernization. The table in Figure 3 summarizes how KBM can help.

² Unisys. "Knowledge Mining and Abstraction (KMA) for Business Rules." February 2007.

Figure 3: This table identifies the ways that Knowledge-Based Modernization helps organizations move forward with application modernization efforts.

Overcoming Seven Common Barriers to Modernization Using Knowledge-Based Modernization	
<p>Cost: Finding the funds to pay for modernization projects.</p>	<ul style="list-style-type: none"> • Preserves current investments in application assets by discovering and documenting the business processes they support and leveraging that information in modernization projects • Provides a framework to add new needs into the “as is” business model, thereby adding incremental value to modernization efforts • Documents application processes, which creates critical business case support for ongoing strategic direction
<p>Risk: Changes to core business applications must be carefully considered.</p>	<ul style="list-style-type: none"> • Supports incremental change by leveraging proven application functionality forward into new applications • Minimizes end-user impact by providing a level of consistency to application functionality and process flow that’s not available using other techniques • Reduces risk of missing requirements when replacing applications
<p>Inertia: Why modernize when everything is working fine?</p>	<ul style="list-style-type: none"> • Allows organizations to take an evolutionary approach to modernization by reusing existing application functionality where appropriate • Allows for proactive IT transformation, which lowers risk and takes advantage of the latest technological advancements
<p>Time: Modernization projects take too long.</p>	<ul style="list-style-type: none"> • Reduces development and testing time and effort by reusing already proven application functionality • Provides an incremental framework for application revitalization either quickly via SOA or re-platforming or more deliberately through incremental, phased approaches
<p>Information: Where to start; what the best practices are; when to use what approach.</p>	<ul style="list-style-type: none"> • Creates technology-independent models, including business rules and vocabulary, that can be used by a choice of tools that adhere to industry standards • Uncovers current applications capabilities for reuse within a SOA and other modernization scenarios
<p>Balance: Modernize and maintain – how do you do both?</p>	<ul style="list-style-type: none"> • Enables piece-by-piece modernization along with development of new functionality • Provides knowledge about existing applications that can potentially reduce maintenance costs • Helps organizations create an architecture and process models that allow for easier, faster, plug-and-play replacement of underlying technology
<p>Quality of Service: Organizations are leery of changes that could compromise service levels.</p>	<ul style="list-style-type: none"> • Ensures greater consistency of services, processes, and rules, which leads to a reduction in interruptions • Faster chip speeds and advanced hardware and software architectures improve performance

Partnering for Success

To get the maximum value in the shortest period of time, many organizations find it very helpful to partner with a knowledgeable third party for APM and KBM services. Beyond the benefit of having an independent advisor to help broker discussions between IT and business leaders, consultants can provide invaluable expertise in asking the right questions, probing for further data, and traversing a complex business and IT infrastructure – and also offer specialized tools to help collect, manage, and analyze information.

“Don’t do it alone, get some experienced help. Teaching migration skills to your people only assures that you will do it badly, and they will learn a useless skill. Successful migrations need a healthy mix of business knowledge from internal staff, good project management and system test planning and execution by your staff, and deep arcane migration knowledge and tooling. You can and should rent the latter – it is of no further use to you unless you are going into the migration business.”³

Phil Murphy
Forrester Research

The ideal modernization service provider:

- Understands the demands of large organizations and the risks associated with changes to mission-critical IT assets
- Has the ability to create visibility across all levels of the organization (from strategy to processes to applications to infrastructure) that reveals the cause and effect of decisions before they are made
- Offers an independent perspective and willingness to create the right solution for each organization and every asset based on a wide range of modernization approaches, technology platforms, and development toolsets
- Recognizes the importance of creating long-term IT agility to supporting dynamic organizational change, which requires a mindset that IT should be a living, constantly evolving asset in order to respond to whatever the future holds
- Possesses deep industry, business, process, and architecture expertise
- Does more than plan; can help execute and even manage once deployed

³ Forrester Research. “Got Legacy? Migration Options for Applications.” September 12, 2006.

Conclusion

Cost, risk, inertia, time, information, balance, and quality of service. While these barriers to application modernization are significant, the consequences of inaction are even more so. A skills challenge is looming as baby boomers with mainframe and COBOL skills near retirement. Moreover, today's patchwork of finely tuned, yet highly brittle, legacy applications prevents organizations from quickly capitalizing on new opportunities and winning in a global marketplace. Many organizations have been feeling the negative impact of inaction for years – but have lacked the ability to make a compelling argument for change.

Now is the time to invest in modernization. And, finally, there *is* a way to make a business case for such efforts using application portfolio management. APM creates a common understanding between business and IT leaders about the strategic value of applications, the technological constraints, and the exposures associated with maintaining the status quo. And in doing so, it helps clarify where modernization investments are most needed and can have the maximum impact. By adopting APM, organizations establish a disciplined approach to managing valuable application assets now – and in the years to come.

Knowledge-based modernization is a natural, and effective, next step. By extracting business rules and processes from current applications using KBM, organizations can reuse functionality that is working while evolving software solutions to new technologies and platforms. KBM helps organizations reduce the cost and risk associated with modernization while improving time-to-deployment.

Together, APM and KBM are essential business tools that enable organizations to understand and manage operational risk. And, it is only by effectively overseeing such risk that enterprises can secure their operations and provide for the short- and long-term health and success of the business.

Every organization must create its own, individual roadmap to modernization – one that's based on current operations, as well as future strategies and objectives. An experienced third-party provider of modernization services can be the ideal partner to help ensure success, bringing invaluable industry and line-of-business expertise, methodologies, tools, and an independent view to the process.

“Is it not the strongest of the species that survive, not the most intelligent, but the one most responsive to change.”

Charles Darwin

Unisys Modernization Services

Unisys has championed the formalization of business rules for many years and is an active leader in the development of standards in this area. We have long recognized the need to elevate the modernization discussion above technology and implementation to a business level. To that end, Unisys consultants use a formal grammar that helps create a common understanding between business and IT leaders and the ability to develop a rational strategy for a common way forward. What's more, Unisys has built a wide partner ecosystem to leverage a range of best-of-breed automation tools and domain-specific capabilities.

To help organizations get started with modernization, Unisys has developed two key service offerings:

- Unisys Application Portfolio Management services help organizations gain a multi-dimensional view of their application portfolios and develop technology strategies that make sound business sense. Using a collaborative approach, Unisys experts measure the business and technical value of applications, along with cost implications. The resulting assessment provides a detailed analysis and management dashboard, as well as recommendations for future investments
- Unisys Knowledge Mining and Abstraction services help organizations uncover the value in existing applications, identify areas of misalignment between current systems and business processes, and move forward to construct applications that meet current and new needs. These services leverage Unisys developed, specialized tooling – Unisys Rules Modeler and Knowledge Modeler – along with the Relativity Modeling Workbench to extract business rules and processes from existing applications, model today's business processes, and create a “to be” model to support modernization

For more information, contact your Unisys representative.

Or call Unisys today at:

1-800-874-8647 ext 795 (U.S. and Canada)

00-1-585-487-2430 ext 795 (Other countries)

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