



Microsoft Dynamics® CRM

The xRM Advantage for Solution Builders

White Paper

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Executive Summary

Solution builders—the people and organizations that use software and infrastructure to create custom solutions to business problems—face increasing expectations that they will be agents of IT savings in addition to serving as trusted, strategic partners for corporate success. Recent industry experience shows that application platforms can provide the means for solution builders to be strategic while simultaneously cutting custom solution costs. This paper will examine the ways that application platform choices can drive the success of the solution builder as a value-added strategic partner, with particular focus on the capabilities of the Microsoft Dynamics® CRM xRM application framework.

Solution builders, whether they are in-house IT departments, system integrators, or ISVs, are under pressure to deliver custom solutions with lower development costs and long-term maintenance budgets. Though IT spending is flat, or being cut, most organizations still see IT as a tool for strategic advantage. The solution builder is asked to fulfill these conflicting needs.

Traditional approaches to custom solution development, such as “best-of-breed” and custom integration of packaged applications, present numerous difficulties in terms of high up-front costs and long-term maintenance complexity and cost, as well as scarce talent resources.

Application platforms offer a solution to the problematic best-of-breed and custom development scenarios. An application platform mitigates much of the cost and complexity of traditional custom development by offering a unified stack of server, database, and applications, with common, pre-integrated elements and development tools. Some platforms are completely cloud-based. However, not all platforms are equal in the way they enable the solution builder to thrive and cultivate long-term business relationships with clients.

The Microsoft Dynamics CRM xRM application framework brings together the best aspects of the application platform approach to custom solution development, offering solution builders a strong foundation on which to build a sustainable, profitable business.

- xRM enables choice and savings for the client through dynamic, reusable application services. Flowing from the Microsoft Dynamics CRM core, the xRM services can be configured for a variety of application purposes. Non-technical end users are empowered to modify applications on their own, driving long-term savings.
- xRM applications are being developed for a multitude of purposes, ranging from client portals that surface numerous back-end applications to sophisticated task management systems for the military.
- xRM is a model-driven business application framework, a quality that connects the business owners of a custom solution with its developers in an intuitive, business-oriented fashion.
- xRM offers the highest level of scalability and performance for on-premise, cloud-based, or hybrid configurations.

xRM enables gains in the solution builder’s competitiveness and profitability through the delivery of custom solutions at a lower cost and faster time cycle than would be available with alternative technologies. The ability to deliver tightly budgeted custom solutions that empower non-technical users furthers the solution builder’s role as trusted, long term strategic partner.

Introduction: The Evolving Role of the Solution Builder

Solution builders have seen their role evolve over the last few years. Information technology (IT) has become more strategically relevant to businesses just as IT budgets are getting cut. With IT operational budgets experiencing zero percent growth in 2009 and 49 percent of executives surveyed predicting they will be spending less in the

future¹, the solution developer can no longer be viewed just as an order taker or developer for hire. Whether they are in-house or externally contracted, whether they work with packaged or custom developed software, the best solution builders consider themselves to be trusted, strategic partners. The evolution of the solution builder encompasses more than just an understanding of IT's role in overall business strategy. Today, solution builders need to be aware of the complete financial picture surrounding the creation of a custom solution. Solution builders should be able to help their business management clients think through long-term total cost of ownership (TCO) issues, as well as the costs associated with solution development.

This paper will examine how application platform choices drive the success of the solution builder as a value-added strategic partner. After exploring the challenges that solution builders face in serving business needs, the paper will review how the current "best-of-breed" and homegrown approaches to custom solutions can become costly traps for the client. The focus will then shift to the Microsoft® platform and the Microsoft Dynamics CRM xRM application framework in particular, as a means to enable the solution builder to deliver cost effective, strategic solutions. In addition, the paper will look at how the selection of xRM enables financial and operational advantages for the solution builder. Specific solution examples developed by leading Microsoft Dynamics CRM partners will highlight the potential of the technology.

The Custom Application Development Challenge

The solution builder's client is typically a business entity, either a whole organization or an operating unit of one, which has requirements that can only be met through a custom solution.* Custom solution buyers need rapid, economical delivery of business applications. The solution builder's job is to address this need by efficiently managing the design, development, and modification of those applications. Custom business solutions must be able to orchestrate distributed business workflows and integrate disparate systems. For the end user, the solution should enable increased productivity and satisfaction. From a management perspective, the solution should deliver analytics, reporting, and data visualization at an economical price.

A business might need a solution for managing its Human Resources function, for example. If that were the sole requirement, an off-the-shelf HR solution might suffice. However, a company might combine HR, training, and recruiting into one management function and expect a single solution to handle all three operations. The answer to this kind of challenge is a custom solution. In the triple-requirement, custom HR solution scenario, the solution builder has several options.

- **Merging:** Acquire three separate, best-of-breed applications and integrate them into a unified HR-Training-Recruiting solution.
- **Extending:** Acquire one application, such as an HR system, and then use its application programmer interfaces (APIs) to build out custom-coded training and recruiting modules.
- **Creating:** Develop the entire solution from scratch, leveraging a basic platform, such as the Microsoft Windows Server® operating system, Microsoft Visual Studio® .NET development software, and Microsoft SQL Server® database software.

Each approach, though it may solve immediate business functional requirements, creates IT and cost problems in the short and long term:

¹ *Computer Economics* data - 2009

* Note: Though this paper uses the terms "custom application" and "custom solution" interchangeably, the "solution" refers to complete assemblage of server, database and application code. The solution builder is typically responsible for developing the entire solution, including the application.

- Creating is usually an expensive and lengthy proposition, even if the underlying stack is sound and the end results are of good quality.
- Both the merging and creating approaches can be costly to scale and extend. Customers prefer common features that work across applications, including access controls, business-process modeling, workflow management, and business intelligence. Creating such common functions across heterogeneous applications is very challenging, especially as the need to modify individual component applications arises over time.
- Merging is a financial and strategic trap for the customer and its solution builder. The need to maintain multiple server, database, and application stacks can present a serious obstacle to organizations that place a priority on infrastructure optimization.
- Application lifecycle management, an inevitable part of the flow of IT work over time, can be hampered by differing vendor release cycles and support plans.
- The proliferation of application development toolsets and frameworks make merged best-of-breed solutions tricky to manage. Integration points between the applications may break easily, given the separate basis for each application's design. And it will likely be difficult to retain all the personnel resources needed to keep each application maintained.
- Incompatible merged solutions can undermine the efficiencies of combined on-premises and online elements. Though cloud computing is based on standards, the minutiae of actual integration between cloud-based systems and on-premises software can make it difficult to manage the subtle differences between the applications.
- From the client perspective, effective business process management, workflow, and business intelligence are difficult to achieve with heterogeneous best-of-breed merged solutions.
- Merged best-of-breed solutions may require multiple end user training courses and learning curves.
- It may be tempting to leverage an online application framework in conjunction with a best-of-breed custom-coded solution; however, the simplicity and low initial cost of these solutions can be deceptive. Functional limitations, risk of higher long-term costs, subscription dependence, and the difficulty of finding IT resources with the correct skill sets may lead solution builders to be cautious about how they use these options.

Solution builders face a serious challenge in finding an optimal way to satisfy varying custom solution needs. How can the solution builder deliver a custom solution that responds to an interlocking, conflicting set of requirements? The custom solution must be rapidly and economically developed. It must address the customer's business requirements and offer desired functionality for the end user and business manager. It must provide efficient compatibility with the overall IT infrastructure and scale, and also be reliable. It must enable cost effective modification over time and not require unnecessary investments in IT talent. These are not trivial matters, especially when taken as a whole. The answer lies in a platform approach to custom solution development. However, not all platforms are created equal.

Solving the Custom Application Development Challenge

The use of an application platform confers a number of advantages on solution builders who are trying to create custom business applications. With a platform, which has assembled a unified stack of server software, database, and programming tools, there is less friction amongst the component parts of the end solution than in a best-of-breed situation. Whether the platform is offered by a single vendor or an open source community, when common platform elements operate across multiple parts of a custom solution, there are benefits in the areas of maintenance, development cycle time, and costs.

The industry is moving towards platforms. According to Forrester Research, organizations are converging what were once disparate, standalone applications into an integrated, unified application platform. In their survey, Forrester found that approximately 75 percent of IT leaders worldwide anticipate a shift toward application

platforms. Of those surveyed, 35 percent said they wanted platforms, but had no plan in place, while 41 percent indicated they had a platform plan underway.²

However, not every platform delivers the same degree of efficacy for custom business applications. Although a dedicated team of skilled developers with enough time and money might make any platform into a superb vehicle for custom business applications, in reality one cannot assume that these kinds of resources will be available for a given project. And, if those resources are available, the financial and organizational costs inherent in retaining the unique skills and custom patterns that were used to develop the solution can become a burden for the customer.

The best platforms for custom business application development are ones that provide relevant business functionality and frameworks. In addition to containing core business features, these frameworks should include capabilities for security, authentication, business process modeling, and business intelligence. They should span on-premises and cloud deployments. And a good platform should be operable by a large pool of IT resources with broad, economically sound support from a partner ecosystem. Many platforms available for custom business application development lack some or all of these critical attributes.

Technical and Functional Advantages of xRM for Solution Builders

The xRM application framework of the Microsoft Dynamics CRM product provides a range of capabilities that enable solution builders to deliver the best of the platform approach to custom application development. xRM applications are built with reusable services that can span multiple applications on a single platform. The xRM framework can be extended to create line-of-business (LOB) applications for a wide range of business purposes. The technology is highly scalable, leveraging the combined power and breadth of the Microsoft stack.

Enabling Choice through Dynamic, Reusable Application Services

xRM applications are built using reusable services, as depicted in Figure 1. The framework includes integrated business services, such as e-mail, task and activity management, and rich connectivity with Microsoft Office Outlook® messaging and collaboration client and other Microsoft Office system applications.

xRM has a multi-tenant architecture that allows organizations to build multiple LOB applications on a single platform. With multi-tenancy, the dynamic, reusable application services of xRM can be adapted and extended to many unique applications. For example, as shown in the xRM reference architecture in Figure 2, a business entity component can be reused across a number of different xRM applications as a service.

xRM application development is based on models, a capability that enables non-technical business owners of a custom solution to guide its development. xRM apps are models of ASP.NET user interfaces, Windows Workflow Foundation (WF) workflows, ADO.NET data entities, and Microsoft Active Directory® security. With these tools, xRM applications take advantage of forms to manage data. This serves to abstract complex database level “Create, Read, Update, Delete” (CRUD) functionality from the end user and solution developer.



Figure 1. xRM Service Structure

² Many Organizations Embrace Converged Applications, But Adoption Barriers Remain – A commissioned study conducted by Forrester Research on behalf of Microsoft, October 2007

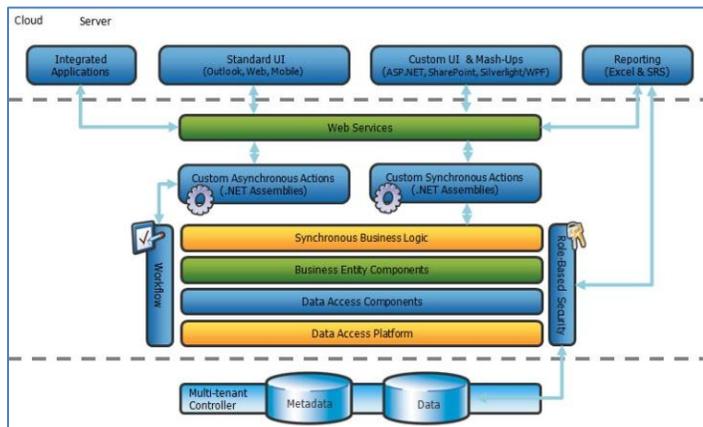


Figure 2. The xRM reference architecture

The solution builder benefits from the ability of xRM to offer choice and flexibility to the LOB client. As depicted in Figure 3, the xRM framework provides solution builders, and their customers, with choices in solution development that can fit a variety of business requirements. With xRM, the client can choose between buying software, building new solutions, customizing existing applications, or subscribing to third party software-as-a-service (SaaS) offerings. When combined with its integration with Office Outlook, other Office

applications, and the Microsoft Windows® operating systems, xRM becomes a vehicle for cost-effective custom application development. Furthermore, an xRM application’s forms, workflows, and data entities are persisted in metadata. The multi-tenant capability of xRM results in applications that are portable across on-premises and hosted deployments. This capability has important strategic implications for solution builders.

Though the concept of cloud computing is popular, many business processes span on-premises implementations and the cloud, and will continue to do so for the long term. While companies are becoming increasingly comfortable with the concept of cloud computing, industry consensus holds that security concerns are delaying, or permanently inhibiting, full migrations to cloud services. According to Gartner, less than 5 percent of companies are adopting a cloud-only model. Instead, businesses are moving to a hybrid approach where they deploy a combination of cloud and internally owned, on-premises systems. As a result, clients need a workflow and collaboration engine that supports such a hybrid approach. xRM does just that, while Force.com, in contrast, is cloud-only and has limited business process management (BPM) capabilities. As EAC Principal Analyst Josh Greenbaum puts it, “This hybrid model that Microsoft is supporting—the whatever, wherever approach to the cloud vs. on premise debate—makes a tremendous amount of sense... because choice is what it’s all about.”³

Microsoft designed the hybrid cloud/on-premises capability of xRM with solution builder competitiveness in mind. The xRM architecture, which is an articulation of Microsoft’s distinctive Software + Services strategy, provides clients with the power of choice by enabling combination on-premises and on-demand hybrid solutions. Solution builders that can offer their clients hybrid xRM applications spanning both on premises and cloud deployments have a competitive advantage.



Figure 3. xRM Delivers the Power of Choice

The choice inherent in the hybrid xRM application solves a number of client business challenges. For example, a company may want to take advantage of the economy and flexibility of the cloud while remaining compliant with international privacy laws that require certain types of data to remain within national boundaries. xRM makes this possible without exceptional expenditures or complexity. Or, an organization may not want to store selected sets of strategic data and processes in someone’s “black box” in the cloud. With xRM, the client can keep strategic data and processes on site and potentially place “commodity” data and processes in the cloud. And, xRM extends the

³ Used with permission of CNET Networks, Inc. © 2008 All Rights Reserved.

client's existing skills and investments to the cloud, while others (like Force.com) require new, specialized skills which only support their online model.

A Multitude of Potential Solutions

The “X” in xRM stands for “anything,” connoting the framework’s flexibility to accelerate the development applications for virtually any type of relationship managed by a line-of-business (LOB) application. While Microsoft Dynamics CRM is designed to manage customer relationships and their attendant processes and data, an application developed with xRM is able to help any team manage any relationship, any relevant process, and any data. Known as a relational LOB application, a custom solution developed on xRM could be used to manage vendors, assets, people, partners, licenses, or any other aspect of a business that involves relationships, which is most of what business is about.

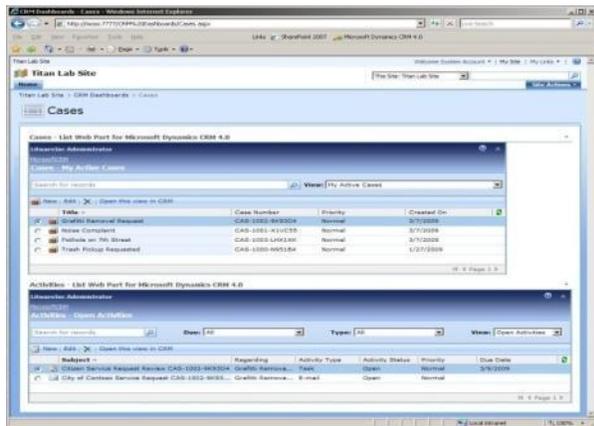


Figure 4. Example of a custom xRM application UI

grant management. Figure 4 shows a screen from a government citizen services portal built using xRM.

The Evangelical Lutheran Church of America’s (ELCA) Board of Pensions took advantage of the deep extensibility of xRM to replace a patchwork of information silos that were having a negative impact on the organization’s ability to work effectively with its 50,000 members. Working with [Sogeti USA](#), an xRM partner, ELCA’s IT staff created the Board of Pensions Service Portal. IT managers re-architected the Board of Pensions’ infrastructure, placing Microsoft Dynamics CRM at its hub to serve as an application portal for 12 business line systems. They integrated it with other key systems and used its xRM platform to develop department-specific applications. The new xRM-based applications draw upon a common database and utilize workflows to dramatically improve member service and boost staff productivity.

The ELCA solution takes advantage of the xRM entity service—there are multiple entities addressed by the solution—as well as numerous

xRM solutions are being used for a multitude of relational LOB applications. In vendor management, for example, an xRM relational LOB application might be used for the vendor certification process, purchasing management, and compliance. Project managers could use an xRM application to handle the RFP process and manage project timelines and deliverables. Uses of xRM are limited only by the imagination. For instance, a broadcasting program management application could provide structure and process for the script creation and negotiation processes. Government agencies can use xRM to develop applications for notifiable disease management, legislation management, animal management, conservation contract management, or

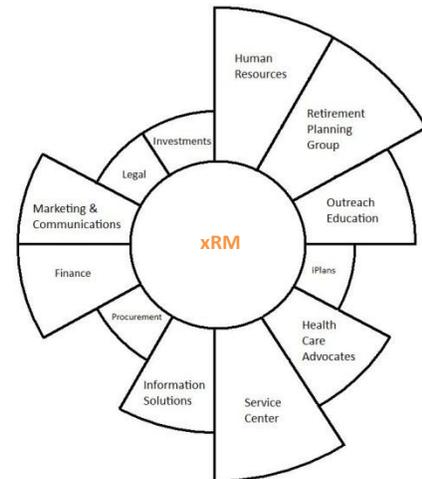


Figure 5. The ELCA Board of Pensions xRM-Based Relational Service Portal

custom workflows, print integration, and Microsoft Office Communication Server integration. Figure 5 shows how the 12 business applications surfaced in the portal connect to the core xRM application. The size of each pie slice in the diagram corresponds to the amount of development work attributable to Microsoft Dynamics xRM.⁴

The ELCA portal gives staff members a 360-degree view of members, which helps promote enterprise-wide awareness of issues that affect members and enables high-quality touches through the access of real-time member histories. In business terms, the portal has enabled ELCA to save U.S. \$250,000 per year in mailing and printing costs. ELCA also benefits from the ability of non-technical business users to create and customize workflows to optimize the alignment of xRM applications with enterprise processes and best practices. Users revise workflows without delay to continuously improve service delivery. User-configured workflows ensure that business ideas drive the development of applications, not vice-versa.

IT benefits from this capability as well, with ELCA seeing a 50 percent drop in administrative processing time compared to its earlier experience with multiple point solutions. ELCA has also benefited from the ability of xRM to integrate well with enterprise systems. The configurability and interoperability that xRM provides with Microsoft solutions, combined with its ease of integration with third-party systems, met the Board of Pensions' objective to establish an integrated portal. "Before, we had a distributed application architecture of 10 to 15 point solutions," says John Lomnicki, Enterprise Architect, ELCA Board of Pensions. "Now, we're standardizing many applications onto the platform. Not only do we get functionality but we also get automated workflows, mail-merge capabilities, and a detailed out-of-the box portfolio of other tools to work with."

[Ascentium](#), a Microsoft Dynamics partner with an extensive xRM practice, has made innovation on xRM a central part of its system integrator business. The company recently developed a Tasker Management Tool ([TMT](#)) for the U.S. Department of Defense. With xRM, Ascentium was able to solve a problem that had been challenging the U.S. Air Force: how to efficiently translate high-level orders from senior officers into manageable, traceable tasks for the "taskers," the personnel responsible for carrying out those orders. Earlier attempts to connect a variety of legacy systems supporting different parts of the Air Force had failed to enable effective task management.

TMT enabled all task information to be stored in one central location, and assignments to be made and tracked. The result was the resolution of serious management issues that had affected many organizations in the Air Force. With TMT, Air Force organizations gained access to the same software tool and a common data repository managed securely through Microsoft Dynamics xRM. Air Force users can now create and manage tasks using Microsoft Dynamics CRM and Office Outlook, thus dramatically reducing user training costs and "tool" confusion. xRM has helped the Air Force realize a 60 percent reduction in contractor support, 90 percent reduction in storage requirements, and a 24-fold increase in task visibility.

Model-Driven Business Application Framework

The declarative, model-driven xRM framework allows a relatively non-technical business person to design the process steps and relational data modeling aspects of an LOB application. Developers can then take the model and rapidly develop the custom application. Subsequent customization is essentially a point-and-click, drag-and-drop process, while further extensibility is available by developers through Visual Studio and .NET. The model-driven nature of xRM benefits both customers and solution builders. From a cost and time perspective, xRM delivers faster, more economical custom solution development.

The economics and skill advantages of xRM make it an appealing offering for solution builders. Solution builders can develop long-term value-added relationships with clients by delivering consistently rapid, lower-cost custom

⁴ Microsoft Case Study: [Nonprofit Moves to Superior Customer-Centric Service Delivery Model](#)

applications that do not require costly or scarce IT resources. “The skill set we need to develop applications with xRM is not hard to find,” says Mike Rodgers, VP of [CustomerEffective](#), a Microsoft Dynamics partner with a sizeable xRM practice. “There’s not a big on-ramp for the customer or the developer. This is very helpful in securing commitment to xRM from the client.”

xRM offers customers, and the solution builders who support them, a business-facing framework that harnesses the cumulative benefits of the broader Microsoft universe for “Web-scale” user experiences. Figure 6 shows the complete xRM stack, starting with Windows Server and SQL Server, the foundational technologies that underpin xRM. Intuitive user tools such as Office Communicator and Microsoft Office SharePoint® Server help drive adoption of xRM-based LOB applications and enable the xRM application to spur individual end user productivity.

For instance, the user of an xRM application that works with Office, Office Outlook, Office SharePoint Server and Office Communicator can experience the LOB application as a seamless part of a familiar information work environment and process flow. The integration potential of xRM with Microsoft information work tools makes it simple for users to connect with other LOB application users on a real time basis, or easily locating and viewing unstructured data, such as documents. Ultimately, this connectivity can help the customer realize a tangible business benefit from the xRM application, a benefit that is not easily generated with best-of-breed or custom development alternatives. For solution builders, the ability to add productivity gains to the xRM value mix is quite advantageous. According to CustomerEffective’s Rodgers, the xRM foundation in the Microsoft stack, coupled with its integration capabilities with Office Outlook and other Office applications, also enhance customer confidence in the solution potential of the framework.

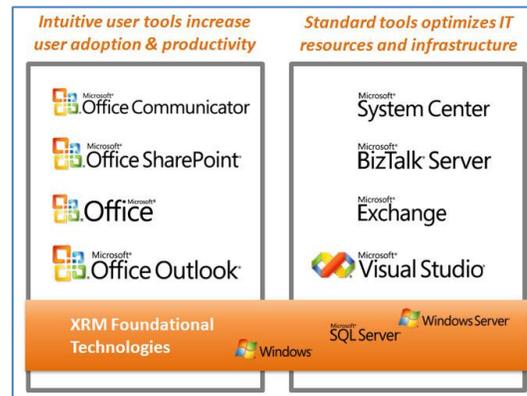


Figure 6. xRM in the Microsoft server stack

The xRM integration with Office SharePoint Server is a particularly effective driver of advantage for the solution builder. Businesses today are expected to be innovative and customer-centric, with shorter product lifecycles and customer-driven adaptations while operating increasingly lean vendor and partner networks and related back-office processes. In IT terms, solving this challenge involves improving the collaboration between people who do the “information work” and those who do “structured task work”. For instance, it means enabling more productive alignment of sales and marketing with the management of vendors, customers, and orders.

Information work is essentially collaborative and unstructured, while structured task work has been fairly regimented, with a focus on efficient and precise management of key business relationships. Information workers use productivity tools and collaboration solutions, such as online team workspaces, while structured task work is performed on relational LOB applications. In many cases, the relational LOB application grows out of a core customer relationship management (CRM) application, with the goal of extending customer management functions or managing customer-like relationships, such as vendors or partners.

As the two types of work are increasingly blended in business processes that combine structured and unstructured steps, there is a need for a blended relational productivity application (RPA) that spans these two essential modes of work and brings out the best business result from the combination. The RPA combines the process-oriented, structured line-of-business application with collaborative, socially-based information work tools. The RPA enables information workers to have awareness of transactions and detailed specifics of operations that have an impact on their work. Conversely, the RPA gives structured task workers exposure to the subjective, document-based information that the information workers use to manage accounts and the business overall.

As an architecture, the RPA is an integration between the relational LOB application and the collaboration environment, with standards-based messaging connecting the two. The respective data sets of the two applications are connected through metadata, aligning structured business data with unstructured documents and collaboration data.

The RPA is best realized by integrating xRM, which is used to build relational LOB applications for structured task work, and Office SharePoint Server, the collaboration and document management platform used in information work. xRM and Office SharePoint Server merge into a “better together” scenario, where the complete spectrum of workers involved in a business can access the information they need to work more productively and intelligently. The Microsoft-based RPA can be realized in several different modes depending on the specific needs of a business. In an information work intensive environment, it may be optimal to present the RPA through Web parts in a SharePoint portal interface, through Office Outlook, or in a combination. Microsoft Dynamics CRM ASPX is preferable to create the RPA interface in situations where task work is more dominant.

The xRM stack’s alignment and integration with Microsoft’s standard IT infrastructure and service-oriented architecture (SOA) tools, such as Microsoft System Center and Microsoft BizTalk® Server, make xRM applications cost-effective to maintain and integrate across a heterogeneous application ecosystem. xRM provides a practical, economical solution for SOA, an IT paradigm that can be quite challenging to realize despite vast potential. An SOA is based on the notion that virtually any application in the world can be made to interoperate with any other application through the use of standards-based communication protocols and message formats. Using XML, such SOAP XML, and HTTP as the communication protocol, an application can function as a “service,” able to exchange data and procedures with another similarly-equipped application. This capability can result in significant IT cost savings and gains in flexibility. In the last few years, great strides have been made in turning this breakthrough technology into a reality. However, what has typically been lacking in the SOA revolution is the simple, economical front end—the LOB application that serves the specific needs of the end user while taking advantage of SOA infrastructure benefits. xRM closes this gap.

By establishing reusable business services that are compatible with an SOA approach to computing, xRM delivers the critical last mile of an SOA. When connected with BizTalk Server, for example, an xRM application can share data and processes with a huge variety of applications, including mainframe COBOL transactional programs and midrange systems. What makes xRM special in this regard is its ability to offer this capability without creating a problem elsewhere in terms of cost, flexibility, or skill requirements. BizTalk Server takes care of the complex message handling aspects of the integration. An xRM-based SOA lets customers leverage previous investments in legacy systems while advancing current user productivity and business process management with an up-to-date LOB application. Solution builders that can deliver this level of economic performance will cultivate long term trust and sustainable business from their clients.

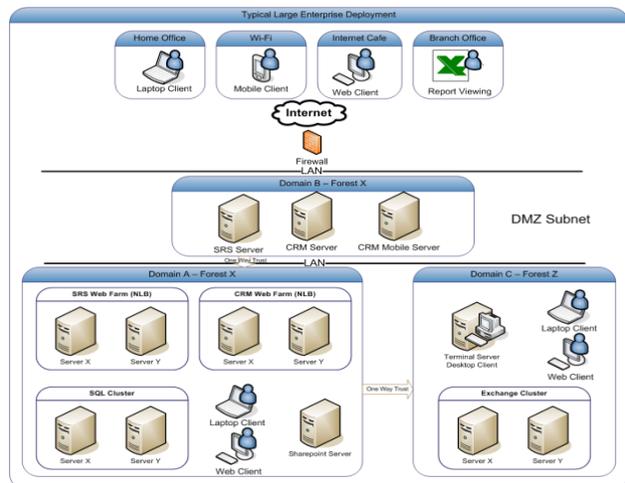


Figure 7. The scalable architecture of xRM

The Highest Level of Scalability

The xRM architecture provides the highest level of scalability and availability at the lowest costs, either on premises or through online services. Figure 7 shows a typical highly scalable, highly available server architecture for an xRM deployment. xRM applications are able to support high scalability and availability through a number of

essential qualities and capabilities found throughout the broader Microsoft server environment. For example, xRM applications can be deployed on Microsoft’s Service Grid Architecture, with WAN performance optimization, load balance clustering, Web farm clustering, SQL Server clustering, and SQL mirroring. The ability to have the choice between on-premises or cloud/hosted deployment gives infrastructure specialists even more flexibility and depth in assuring high scalability and availability for xRM.

Business Advantages for Solution Builders Using xRM

The xRM benefits that accrue to the client also reward the solution builder that delivers them. Whether the solution builder is an in-house department that is evaluated through budget performance or a system integrator or ISV that seeks profitability and growth, the solution building organization can find a path to sustainable success through xRM. With its capacity to deliver custom business applications with low up-front costs, low maintenance requirements, and empowered business users, xRM enables solution builders to be the kind of long-term strategic partner that business customers want. The business advantages break out into four core benefits areas: reduce development costs, focus on industry functionality, decrease labor and training costs, and deliver more projects.

Reduce Development Cost and Project Risk

The solution builder that can facilitate substantial development cost reductions is likely to become a deeply valued partner for the IT organization. An example of the kind of development cost savings that xRM can deliver comes from Mitsubishi Caterpillar Forklift Europe (MCFE). MCFE used xRM to build LOB applications for order entry, dealer management and support, IT project management, and knowledge management. “Using xRM has reduced our development costs by 60 percent,” says Robert Vleeschouwer, General Manager of Information Systems at MCFE.⁵ From the solution builder perspective, that level of customer value creation drives strong customer loyalty. Table 1 illustrates how xRM can drive development cost reductions in a hypothetical project example.

Complexity and risk, two enduring causes of high development costs, are reduced by the links in xRM to the proven Microsoft stack. The xRM design reduces project risk and speeds up time to delivery by drawing on established functionality, such as integration with e-mail and other systems, as well as security, administration, and workflow. Cutting risk and complexity are strong value points for a solution builder and help build long-term, trusted customer relationships.

Solution Element	xRM	Time Required	Custom Development/Best-of-Breed on Open Source Platform	Time Required
Access control	built-in	1 week	\$ 5,000	1 week
Administration interfaces	built-in	Concurrent	\$ 2,500	1 week
Office Outlook integration	built-in	Concurrent	\$ 2,500	1 week
Cloud/on premises integration	built-in	Concurrent	\$ 7,500	2 weeks
UI development	built-in	Concurrent	\$ 12,000	2 weeks
BI and Analytics	built-in	Concurrent	\$ 7,500	1 week
Custom functionality	\$ 50,000	8 weeks	\$ 75,000	10 weeks
License cost	\$ 5,000		\$ -	

⁵ Microsoft Case Study: [Forklift Manufacturer Improves Business Processes, Reduces Costs with xRM](#)

Total project budget	\$ 55,000	9 weeks	\$ 112,000	18 weeks
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Table 1. Comparison of a custom solution project using xRM and custom development of best-of-breed open source components (data is meant for illustrative purposes only)

Focus on Industry Functionality

Solution builders often grapple with customization of packaged software that is overly horizontal in its industry focus. The software market rewards packaged applications with the greatest potential breadth, but this tendency can shortchange industries with specific needs. For example, a packaged HR application may not allow for detailed functionality to handle the nuances of union issues in a given industry. As a result, the solution builder might have to do extensive customization on the packaged application, resulting in high costs and long term maintenance of a unique solution. Neither of these outcomes is desirable from an IT department perspective. xRM has the potential to bridge the gap, enabling the creation of highly customized LOB applications for specific industries that still retain core systemic functionality that reduces development cycle times, operational costs, and maintenance.

For example, after deploying the system, MCFE and its Microsoft Dynamics integrator, [@work Management Associates](#), began looking at ways to use the xRM development framework to build and integrate customized solutions to support its business processes. Part of this process involved @work integrating the Experlogix Parametric Configurator—a solution that was developed using the Microsoft .NET toolset—so the dealer order-entry interface and integration become virtually seamless. With this integration, MCFE dealers can use a self-service Web portal to configure products to fit their customers’ needs. The configurator guides the dealer through the steps needed to build a forklift order and prevents incompatible builds. Once the dealer submits a configuration, the system automatically generates a quote. When the dealer accepts the quote, it automatically becomes an order in the existing ERP system. The system also generates a promise date, which is then shared through the dealer portal.

For @work, the MCFE engagement provided an opportunity to elevate its value-added relationship with the client. As Ryan Martin, @work’s Services Manager, put it, “Whereas previously we spent much of our time fixing bugs and managing ad-hoc requests, now we have the time to give valuable insight into the business.”⁶

Another Microsoft Dynamics client, Captrust Financial Advisers, used xRM to develop more than 20 applications that were uniquely tailored to its financial industry operational needs. These included LOB applications for portfolio management, billing systems, investment research, revenue-projection tools, and online fiduciary management, all of which ran off the same core xRM services. The project earned praise from Captrust LOB users. As Patricia Picquet, Captrust’s Managing Director for Marketing, stated, “With xRM, we are able to build unique advisory tools that are very proprietary in functionality and in terms of look and feel.”

Working with [CustomerEffective](#), its Microsoft Dynamics partner, Captrust gained efficiencies by developing many industry-specific applications on a common platform. Garrett Klas, Application Development Manager for Captrust, describes the xRM advantage. “xRM features an excellent software development kit to help development teams quickly and efficiently create new business applications while taking advantage of core technology components... Now, we realize value from our IT efforts sooner. xRM is flexible and lets us get new ideas to market quickly.”⁷ From the solution builder’s point of view, a project like the Captrust LOB applications shows how xRM enables a focus on value-added, high-margin industry functionality rather than application infrastructure work.

6 Microsoft Case Study: [Forklift Manufacturer Improves Business Processes, Reduces Costs with xRM](#)

7 Microsoft Case Study: [Financial Advisory Firm Uses xRM to Speed New Services to Market](#)

Decrease Labor and Training Costs

The perennial solution builder's challenge of staffing custom application projects is lessened with xRM. Because xRM uses widely adopted Microsoft developer tools and the overall Microsoft server stack, it is not difficult to find people who can master xRM and quickly generate income as billable resources. In contrast, a number of competing platforms, such as Force.com, can create talent voids that are costly to fill at the development phase and post deployment.

The Pennsylvania Office of the Attorney General, for example, used xRM to develop more than 12 applications, including intelligence auditing, education and outreach, a contractor registry, case-expense tracking, and coroner management. Ordinarily, development of such a broad portfolio of applications would exert pressure on development resources and drive up delivery times. However, thanks to the easy availability of Microsoft developer skills relevant to xRM, the Attorney General's Office actually realized a 75 percent reduction in development time. According to Tron Keefer, the Office's Business Integration Group Manager, "On average, we're able to develop applications at least four times faster, and we get so much more functionality out of the xRM applications than we do with custom applications."⁸

xRM integration with the overall Microsoft stack and Office system enables efficiencies in user on-boarding and training. This proved especially relevant at MCFE. According to Robert Vleeschhouwer, MCFE's General Manager of Information Systems, "Everyone already knows how to use Microsoft Office, so the seamless integration was key to our decision. Giving users solutions that have an interface they're already familiar with means less training time and more productive work."⁹

Deliver More Projects and Improve Internal Operations

Though these budget savings factors drive revenue per project down, xRM makes the solution builder a great deal more competitive in the marketplace. The customer will appreciate the savings, and likely reward the solution builder with follow-on work that adds to the core of xRM services. Ultimately, xRM enables the solution builder to deliver many repeatable projects over time and increase margins through economies of scale.

xRM can also drive business gains for the solution builder's internal operations. xRM enables the solution builder to shift expensive custom development labor costs into software costs. The framework's built-in capabilities for access control, administration, BI, and so forth give the solution builder using xRM an advantage in both budget and time over alternatives. On a long-term TCO basis, xRM again aids the solution builder. Simple customization can be done by the customer, while the solution builder can focus on complex, high-margin work.

Some Microsoft xRM partners are taking the xRM advantage to the next level in their businesses, developing repeatable application patterns and customized components that drive sales growth. For example, [ADX Studio](#), an xRM partner, has developed several software development kits (SDKs) and extensions that offer deep data integration capabilities for xRM, enabling rich interoperation across the Microsoft server and database environment and non-Microsoft technologies. For ADX Studio, these pieces of intellectual property are key elements of the company's growth strategy and sources of value to their clients. ADX Studio is continually building its portfolio of xRM extensions as its xRM practice grows.

8 Microsoft Case Study: [Government Agency Cuts Development Time by 75 Percent with xRM Platform](#)

9 Microsoft Case Study: [Forklift Manufacturer Improves Business Processes, Reduces Costs with xRM](#)

Conclusion

xRM can be much more than just a toolset that solution builders use to develop custom business applications. It is that, of course, but the technology has the potential to enable the solution builder to improve the operating performance of its business, enjoy newfound competitive advantage, and cultivate long-term strategic relationships with clients. The truth is that today, solution builders may not have much choice but to do just that. The stakes are too high.

The decision to move away from best-of-breed and custom-coded application integration is long past for most IT organizations. The platform approach is what clients want, and they are considering a variety of options, ranging from open source platforms to completely cloud-based alternatives. While some of these options have strengths, none of them can truly compete with xRM, which delivers a powerful value package of features, scalability, extensibility, end-user empowerment, and hybrid cloud/on-premises configurations along with a large pool of developer talent. xRM is a clear winner for an IT organization seeking a platform approach to their custom solution development needs. Solution builders that embrace xRM and the Microsoft platform for custom solution development can position themselves as the ultimate partner for strategic success.

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