

Marc Wolenik

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Marc Wolenik

Microsoft Dynamics CRM 2013

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800 East 96th Street, Indianapolis, Indiana 46240 USA

Microsoft Dynamics CRM 2013 Unleashed

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About the Author

Marc Wolenik is the CEO of Webfortis—a Microsoft Gold Certified CRM Partner headquartered in San Francisco.

As an avid believer in customer relationship management (CRM), Marc wrote a custom CRM application using only ASP 3.0 (prior to .NET) from scratch and incorporated complete back-office enterprise resource planning (ERP) functionality into it so that it could be used as the first of its type web-based CRM, point of sale (POS), and ERP. When Microsoft Dynamics CRM was released, Marc recognized the potential of both its CRM and xRM capabilities and developed a complete services offering around the product. Today, Webfortis offers complete end-to-end consulting CRM services for their customers.

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As with any project of this type, many people have provided assistance in all shapes and forms to make this book a reality. The partnerships and relationships with the folks at Microsoft and other partners continue to inspire and encourage continual improvement on a daily basis.

I want to acknowledge the team at Webfortis for their interest, participation, and overall acceptance that committing to the community of Dynamics CRM users and administrators is the strongest way to differentiate. No project of this type could be completed entirely alone and the team at Webfortis was indispensable throughout all aspects of this writing. As such, when you see text that refers to “we” or “us,” know that this book benefited significantly from the input and encouragement of many others.

Additionally, I wish to recognize the work of Microsoft MVP Damian Sinay as our technical editor. His tireless efforts, critical insight, and valuable comments (even at the last minute), made this a better technical book.

We Want to Hear from You!

As the reader of this book, *you* are our most important critic and commentator. We value your opinion and want to know what we're doing right, what we could do better, what areas you'd like to see us publish in, and any other words of wisdom you're willing to pass our way.

We welcome your comments. You can email or write to let us know what you did or didn't like about this book—as well as what we can do to make our books better.

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Introduction

It's here!

That was our first thought when Microsoft finally introduced Microsoft Dynamics CRM 2013 in late 2013.

After many months of rumors and speculation about what might be included in the final product, including several “leaked” announcements (purposefully by Microsoft at their Worldwide Partner Conference in July) showing the new interface and screens, Microsoft brought forth an iteration of Microsoft Dynamics CRM that does many things:

- ▶ Brings to parity (and in many cases surpasses) its interface and functionality with its rival, Salesforce.com, via its new flow interface
- ▶ Introduces a new flexible pricing model for organizations that want to benefit from its platform options (also known as xRM), and for those that want to use its native full-featured functions, including integration with the Office suite
- ▶ Rolls out a first of a kind mobile interface, supporting multiple device operating systems and configurations, including iOS

As a bit of background, Microsoft spent a significant amount of time retooling Dynamics CRM 2013 from its previous version, Dynamics CRM 2011. The first step was the introduction of the Polaris version, which came as an update to existing users and introduced (among other things) multibrowser support allowing users with cross-browser requirements to finally be able to access and use the system with full features. This update came in late 2012, and although the cross-browser support was heralded as a major upgrade/enhancement, the new functions

introduced with the update at the time were tepidly received. For instance, many organizations struggled with the new forms, and adoption was limited. (Many organizations turned them off completely in favor of existing or previously designed forms.)

Of course, xRM still plays a major role in the success of Microsoft Dynamics CRM. Renamed by Microsoft as Extended CRM, and carefully worded as not being a platform (so as not to be confused with its successful counterpart, SharePoint), xRM as a deployment model has been successfully deployed countless times. When asked to explain such concepts as xRM and SharePoint versus CRM, we often break them down as follows: xRM has the capability to use the application for “anything” management: grants, vendors, employees, cows, and so on. When discussing SharePoint versus CRM, we describe them as complementary and refer to SharePoint as an excellent application for unstructured data (such as documents) and CRM as an ideal application for structured data, such as transaction activity (phone calls, invoices, touchpoints, and so forth). Overall, when these concepts are tied together—something native with CRM 2013—organizations have the ability to manage and control nearly anything.

This book shows you how to work with and configure Microsoft Dynamics CRM 2013, and also includes complementary technologies such as the following:

- ▶ SharePoint
- ▶ Azure
- ▶ SQL Server Reporting Services (SSRS)
- ▶ SQL Server
- ▶ Online versus On-Premise options
- ▶ Visual Studio and .NET Framework

In addition, you’ll learn how to get the most from your CRM system. This book delves into how Microsoft Dynamics CRM works, explains why you should set up certain features, and explores advanced configuration and customization options.

To be clear, this book provides an excellent overview of 99% of the application; however, your mileage may vary depending on your requirements. The 1% is often the hardest, most complex, and even the most imaginative. After working exclusively with Microsoft Dynamics CRM for more than 8 years, we still often see situations and requirements by organizations that we could never have imagined. In addition, the power of the application continues to increase, delivering options that previously existed only with extensive programming and workarounds.

NOTE

If you believe that we have omitted anything or would like to share the 1% that your requirements might fall into, write us! Our specific contact information is contained in the chapters preceding these pages, and we have set up an alias that will send any queries to the author: crmunleashed@webfortis.com. Who knows? Perhaps your story and feedback will be featured in our next book on CRM.

You can use Microsoft Dynamics CRM 2013 to manage almost anything. This book shows you how.

NOTE

The majority of this book was researched and written using the prereleased version of the Dynamics CRM 2013 software. Every attempt was made to update the contents based on the final version of the software that was released to customers. However, there may be areas that will not perform as shown because of differences in beta and final software releases.

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CHAPTER 3

xRM Explained

Microsoft has been using the xRM designation to help organizations understand one of the greatest benefits of using Microsoft Dynamics CRM. However, this question is often raised: What is xRM? Another question often follows: What does it mean to my organization?

This chapter explains the term and provides examples and a high-level overview.

What Is xRM?

The *x* in xRM is the recognition that the world is more than just relationships between customers (as the *C* in Customer Relationship Management denotes). For example, when a doctor interacts with a patient, the *C* is replaced by *P* in Patient Relationship Management (PRM). When a county sheriff's department uses it to manage their deputies, it becomes a *D*, as in Deputy Relationship Management (DRM).

How does CRM allow support for such divergent models as both medical patients and law enforcement? It is through the power of xRM. This breadth speaks to the flexibility that is limited only by an organization's imagination.

Stepping back, take a quick look at the world around you and model some of your daily relationships.

Work:

- ▶ Relationships between you and your employer
- ▶ Relationships between you and your coworkers

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School:

- ▶ Relationships between you and your schools
- ▶ Relationships between you and your teachers and other students

Personal:

- ▶ Relationships between you and the cars you have owned
- ▶ Relationships between you and your friends
- ▶ Relationships between you and your hobbies

Figure 3.1 shows a simple graphic of how your life might be arranged.



FIGURE 3.1 Relationship chart.

This list can become as diverse as the person building it can imagine, or as diverse as an organization’s requirements. We have deployed xRM applications of all sizes and have seen the deployment become a line-of-business (LOB) application countless times.

NOTE

Although there is no additional cost for xRM capabilities with Microsoft Dynamics CRM 2013, be sure to check you licensing options; some of the licensing models are restrictive with their permissions.

We don’t usually see someone build an xRM application to manage his personal life. However, the example in Figure 3.1 shows how you can extrapolate from personal relationships to professional ones.

Three Types of xRM Scenarios

You can apply xRM customization to three basic scenarios, as defined in Figure 3.2 and as explained in the following list:

Basic Customizations	Advanced Customizations	Pure xRM
<ul style="list-style-type: none"> ▪ Built on OOB CRM ▪ Mail-Merge and Email Templates ▪ Document Templates ▪ Adding Fields ▪ Renaming Fields ▪ Report Wizard Reports ▪ Dashboards 	<ul style="list-style-type: none"> ▪ Extending OOB CRM ▪ Workflow-Driven Processes ▪ New Entities ▪ New Views, Forms ▪ New Relationships ▪ Plug-Ins ▪ SSRS Reports 	<ul style="list-style-type: none"> ▪ No/little OOB CRM ▪ All new Entities ▪ All new Views, Forms, Relationships ▪ Custom UI

FIGURE 3.2 xRM defined.

- ▶ **Basic customization**—This represents the starting point for most individuals just entering the xRM world. Basic customization entails adding a few fields to the out-of-the-box (OOB) entities, such as Orders or Quotes, or maybe changing a label to match your businesses’s language. Examples of this include any of the following:
 - ▶ Changing the name of the Contact entity (people) to be Client
 - ▶ Removing a field from an entity
 - ▶ Adding a new field to an entity

The changes outlined here are fast and easy and often help drive user adoption, one of the challenges in any new system.

- ▶ **Advanced customization/hybrid**—During their system design and deployment, most organizations eventually end up recognizing that each business is unique, even within the same industry. Encompassing what is outlined in basic customization, this level also includes morphing Microsoft Dynamics CRM to meet the needs of the organization. Examples of this include many of the following:
 - ▶ Adding new custom relationships between existing entities
 - ▶ Adding new entities and associated entities
 - ▶ Creating new versions of existing forms

The changes outlined here are more complex and require the customizer to understand both CRM/xRM and the business process. Customizations include both OOB

entities and new entities, a hybrid between basic customization of CRM and a pure xRM solution.

- ▶ **Pure xRM customization**—This is the far end of customization, where the entire solution (or a majority of the solution) consists of custom entities, and no or very few OOB entities are used in the final solution. This approach is using CRM as a custom development platform to rapidly develop solutions tailored to an industry or organization. The builder has cast off the constraints of the existing entities to architect and build the system using Microsoft Dynamics CRM as a development platform.

The next logical question is this: What approach should I use? This question is difficult to answer, and the answer may depend on whom you ask. The answer depends, to a large extent, on the ultimate goal, the builder's experiences, and where the solution is going to be 2 to 3 years from today.

Some CRM consultants always start with the base OOB entities and stick with them as long as they can, depending on Microsoft to provide enhancements to these entities. Others take the other approach, looking to use CRM only as a development platform.

The next section covers a few examples of CRM/xRM solutions, the approaches taken, and the benefits and drawbacks of each.

Examples of xRM Solutions

Now that you have a basic understanding of what xRM is, here are a few real-world examples.

Example One—Drug Lab Testing

- ▶ **Application Type** — Drug lab testing
- ▶ **xRM Solution Type** — Pure xRM solution
- ▶ **Description**

This xRM solution is used by a drug testing lab to manage the business process associated with receiving samples from doctors to be tested. Each sample is associated with a doctor, a patient, and one or more testing machines.

This system was developed as a pure xRM solution with custom entities for all parts. No existing entities were used.

- ▶ **Benefits**
 - ▶ Not using the Contacts entity allows for custom security to apply to each type of individual used (patients, doctors, lab technicians).
 - ▶ Highly tailored to the lab business processes.

► Drawbacks

- Extra effort associated with building the entire solution from scratch.
- Redundant construction is required for overlapping fields between entities.
- Billing is conducted from a different system.
- When you don't use the native Contact entity, you do not get the benefit of the new composite controls used by the Contact full name and address, as well as the native Bing map control.

Example Two—Animal Research Lab

► Application Type — Animal research lab

► xRM Solution Type — Advanced customizations xRM solution

► Description

- This xRM solution is used by an animal testing lab to manage the business process associated with receiving samples from researchers to be tested. Each sample is associated with a researcher, a species, and one or more testing machines.

This system is in contrast to the similar drug testing application discussed previously, which made use of many OOB entities, such as Sales Orders, Invoices, and Contacts. Because it did not have the same security standards as a system containing medical information about humans, the complexity was greatly reduced.

► Benefits

- Using the Sales Order entity allowed the owner to treat the process as a traditional sales process. Each test requested is a product.
- Relationships between Sales Orders and Contacts are already built.
- Sales amount calculations and invoices are already supplied by Microsoft.
- The new composite controls for Contact full name and address can be used.

► Drawbacks

- The complex relationships increase the complexity of the security model.
- The process must follow the CRM Sales process.

Example Three—Law Enforcement Management

► Application Type — Law enforcement management

► xRM Solution Type — Pure xRM solution

▶ **Description**

- ▶ A law enforcement organization uses this xRM solution to track critical information about their staff. The 360-degree aspects give a rich view of the officers, including where they are stationed and major events in their employment, and serve as an early-warning system for management to address risk issues.

This system was developed as a pure xRM solution with custom entities for all parts. Custom entities include Employees, Jails, Vehicles, Buildings, and Inmates.

▶ **Benefits**

- ▶ The highly complex relational data was mapped to existing processes.
- ▶ Highly tailored to the organization's processes.
- ▶ Not impacted by process changes in upcoming releases of CRM.

▶ **Drawbacks**

- ▶ Extra costs associated with building more than 100 custom entities and relationships.

Example Four—Agile Project Management

▶ **Application Type — Agile project management**

▶ **xRM Solution Type — Hybrid xRM solution**

▶ **Description**

- ▶ This solution is an advanced customizations solution with a large number of custom entities, but based on the OOB Contact and Account entities to track people and organizations. Each organization can have one or more projects stored in a project entity, and work items have a custom entity that is tied to the project and the contact (person) that requested the work item.

This system was developed as an advanced customization because it extends the base CRM solution with new entities and fields. The existing Quote, Order, and Opportunity entities are used to manage the sales process and the project components to manage delivery.

▶ **Benefits**

- ▶ Building on the existing sales force automation (SFA) within CRM allows the users to leverage their system across both the sales and delivery parts of the business process.
- ▶ Built to the custom agile processes demanded by the client.
- ▶ Leveraged an existing investment in CRM and consolidated the department's technology stack.

▶ **Drawbacks**

- ▶ Extra costs associated with building custom entities.

Example Five—Airline Grievance Tracking

▶ **Application Type** – Airline grievance tracking

▶ **xRM Solution Type** – Hybrid xRM solution

▶ **Description**

- ▶ An international airline uses this CRM solution to service travel agents and large groups. This company used it as a customer service tool to allow groups in different countries to share update statuses.

This system leveraged a large part of the OOB case management in CRM and only added additional fields and renamed some labels; otherwise this system, used by 500 users, is almost vanilla CRM.

▶ **Benefits**

- ▶ Not using the Contacts entity allows for custom security to apply to each type of individual used (travel agents, travelers, and so on).
- ▶ Highly tailored to the airline customer service process.

▶ **Drawbacks**

- ▶ Extra costs associated with building everything from scratch.
- ▶ Redundant construction required for overlapping fields between entities.

These are just a few examples of the types of solutions that can be built with Microsoft Dynamics CRM using the xRM components. As shown, a similar process can sometimes take a completely different approach based on one or two specific requirements. For example, the drug testing solution and the lab management solution are very close, but the need to keep patient information confidential guided the solution architecture down a different path.

Why Use Microsoft Dynamics CRM for xRM Application Development?

With early versions of Microsoft Dynamics CRM, system administrators could make simple configuration changes to CRM, and the amount of customization allowed increased with each new release. As adoption of Microsoft Dynamics CRM grew, so did the needs of the businesses using the xRM components. With each new release came a greater level of customization options, to the point where many organizations view Microsoft Dynamics CRM as more than just a CRM platform, but instead as a rapid application development platform, or a “framework” by which these custom/specific applications could be developed.

Why would someone want to use Microsoft Dynamics CRM as a framework for development? Well, here are just a few of the reasons:

- ▶ Native integration with Outlook for tracking features
- ▶ Exposed web services for easy programmatic manipulation of data
- ▶ Structured framework, providing standardized approach to data
- ▶ Native integration to the rest of the Microsoft stack (Excel, Word, and so on) as well as SharePoint
- ▶ Highly scalable architecture
- ▶ Delegation of user interface development by business analysts
- ▶ Built-in business process automation via the workflow engine
- ▶ Multiple deployment options, including On-Premise, Online, and Partner Hosted
- ▶ Robust security model
- ▶ Large number of third-party components available for advanced customizations

Benefits of xRM

One of the biggest benefits in using Microsoft Dynamics CRM as an xRM application for development is that you can still leverage the native features of CRM (something that every organization needs).

An example of this is the drug testing solution explained earlier. Yes, they received exactly what they wanted with an application, but they can also use the features delivered by CRM (managing Leads, Opportunities, and so on) if they want to.

Given the flexibility of CRM and the rapid ideation to delivery cycle, IT departments are able to meet the growing demands overwhelming their limited resources. Microsoft Dynamics CRM provides a solid starting point to extend and automate a greater part of the business process. Extending CRM is easy to do and when properly deployed, works in a natural method, allowing business analysts or power users an ever-increasing potential for customizations.

Business analysts are the bridge between traditional IT development teams and the business. Acting as a functional consultant, the business analyst can prototype changes directly with the business process owners and achieve faster time to production.

Using Microsoft Dynamics CRM 2013 as an organization-wide development platform consolidates the silos of information found in many organizations today. Along with this, consolidation of applications into a single platform drives down adoption costs as the users have a consistent process not found in many internally developed applications.

Challenges with xRM

Nothing comes for free, and building solutions with Microsoft Dynamics CRM has its own set of challenges. The ability to rapidly build solutions in Microsoft Dynamics CRM can

lead customizers to skip the traditional analysis phase and start making changes quickly, leading the solution to miss important design gotchas. Care must be taken to avoid falling into this trap, which could lead to a potentially flawed implementation.

Another challenge with xRM is the sometimes-difficult decision of how much of the OOB entities to use in a new project. Does your process closely align with the OOB process flows and forms? How will changes with the next release impact your customizations? This issue is explained more fully in the next section.

Microsoft Dynamics CRM has a distinct process and design model; screens and forms work in a specific manner. If the user community has different expectations, that can lead to extensive customizations, reducing the value of the xRM platform choice or making user adoption difficult.

Finally, one of the dangers we see is when customizers decide to use unsupported customizations, which may break when a new release comes out. Customizers should be aware of the impact of supported customizations and avoid them if at all possible.

- ▶ For details on supported versus unsupported customizations, see Chapter 21, “Customizing Entities.”

WHEN TO USE OOB FEATURES

Before beginning to build an application with xRM, you need to understand a few basic constructs of Microsoft Dynamics CRM, such as the following:

- ▶ When you should use the Account entity and just rename, for example
- ▶ Benefits of using OOB include some native Outlook features you lose (such as Convert inline or add Sales Literature in Outlook)
- ▶ Affect of changes on the organization’s ability to use it as a basic CRM system, including support requirements and necessary documentation, upgrade supportability/path, and so on. In other words, the organization is so customized that it *cannot* use it for basic CRM, perhaps because of permissions, customizations, and so on.

Licensing Considerations

Licensing options for Microsoft Dynamics CRM impact the building of xRM solutions, and the new lowest cost license is a great option for a pure xRM solution. However, this licensing model does not provide access to the native entities, and therefore forces you down an all-or-nothing path.

- ▶ For details on licensing of Microsoft Dynamics CRM, along with the implications for building xRM solutions, see Chapter 4, “CRM Online.”

Customization in the Wild

Now that you have a basic understanding of how to extend Microsoft Dynamics CRM, here are a few examples of customizations “in the wild.”

Let’s first start with a simple customization: The organization needs to track one additional piece of information for every product sold. This is the Order Product entity and represents a detail line item for the order. The organization needs an effective date for each individual product, as shown in Figure 3.3.



FIGURE 3.3 Order Product entity.

The customization shown in Figure 3.3 includes more than just adding the field. We also updated the views within their solution to display this on each order.

Moving to the far end of the xRM spectrum, we have a solution that is highly customized. The first screen is from the drug testing application described earlier. Figure 3.4 shows the screen from within the Microsoft Outlook client showing the custom entities built for this solution.



FIGURE 3.4 Custom entities displayed in Outlook.

Drilling down on the Samples entity, Figure 3.5 shows the screen capture of the custom entity and some of the fields on the main form. This entity is the core of their system and links via relationships to every other item listed in Figure 3.4. The links to Requestors and Patients are further down on the screen, and a grid displays the many test results associated with this test sample.

SAMPLE : INFORMATION
1000

Registration (Active) → Assignment → Screening → Confirmation → Certification → Next Stage

Accession Number *click to enter* | ✓ Sample Type **Urine**
 Claim # *click to enter*
 ✓ Sample ID* **1000**

General

Sample ID*	1000	Assigned Lab Tech	--
Priority	Normal	Certification Date	--
Accession Number	--	Collection Date	--
Sample Type	Urine	Provider	--
Group Name	--	Patient #	--
Patient #	--	Claim #	--
Patient Name	--	Date of Injury	--
Patient Type	Workers Comp		

FIGURE 3.5 The custom Samples entity.

Summary

This chapter provided an overview of the exciting opportunities presented by xRM and how it can be leveraged by businesses building LOB applications. As you now understand, xRM allows that relationships in business are more than just Customers and can include a wide range of things, including internal management. You can take CRM and use it to manage employees (Employee Risk Management [ERM]) or physical assets (Asset Risk Management [ARM]).

This introduction should get your “brain juices flowing” as to how Microsoft Dynamics can be more than just a CRM solution and how the xRM services provided by the platform can help you map your organization’s relationships.

As we continue with the book, you’ll notice specific examples where we call out xRM customizations. Because every deployment is different and there is no specific way to do an xRM deployment, pay close attention to the examples prior to making changes.

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