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Local Action, Global Insight — Realizing the Vision of CRM with the Avanade® Federated Architecture

The benefits of customer relationship management (CRM) software are well-documented. Organizations that use CRM effectively can retain more customers, boost satisfaction and dramatically increase revenue.

Yet not all organizations are realizing the true value of CRM, whether it's because of low user adoption, poor implementation, inadequate training or ineffective data integration. And there are added challenges for organizations that want to deploy CRM across numerous divisions or geographies.

Why? In many cases, large companies have opted for all-encompassing rollouts of CRM on a single global installation. With just one software instance to access, companies can theoretically gain good data visibility and clear insight into operations on a global level.

But that software instance may not provide the functionality required by a particular division or geographic region. And the problem with a monolithic approach is that it interferes with the autonomy a particular business, region or division may need to work effectively given local business customs, practices and conditions.

Newer CRM software packages address many of the shortcomings of earlier CRM systems, from usability to integration and cost of ownership. For example, Microsoft Dynamics™ CRM makes it as easy for people to use as other familiar applications such as Microsoft Outlook® and Office. Its .NET-based architecture lends itself to the use of Web services to integrate across systems and platform boundaries for a broad view of customers, while the software and management tools simplify maintenance and administration for lower total cost of ownership.

These advantages represent a significant step forward, but the issue of global data synchronization remains a business and technical deployment question. Fortunately, there is an alternative to both the limitations of smaller-scale CRM implementations and the constraints of a single, global installation – an alternative that affords flexibility without sacrificing insight, Federated Architecture.

A federated system architecture uses data integration to tie together multiple CRM implementations to help address these issues. Federated architecture allows companies to deploy more than one instance of CRM, while ensuring that critical data remains in-synch and up-to-date across the entire organization. With synchronization across multiple CRM instances, collaboration is possible across regions and divisions, while individual groups can maintain their independence and optimize operations where necessary.

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Using Federated Architecture for Control and Flexibility

Many large CRM implementations are still crippled by long release cycles that often stretch out over 12 months or more. By the time the software is up and running, the needs of the business often have changed. These delays can also lead to one-off development projects by impatient divisions that end up adding complexity and creating more work for the management and IT teams. The problem is compounded by the need to ensure that changes requested by one group do not adversely affect system function that's vital to another group.

This is a direct consequence of the single-instance CRM implementation in which all business units and regional divisions conform to a data structure and similar business rules that suit the majority's needs. Standardization may come at the expense of the real business value of the solution, and despite this standardization, the large number of users and sometimes-competing requirements make it hard for IT teams to react quickly to changing business needs.

In contrast, when disparate groups and regions have optimized deployments that are tied together via a federated architecture, they can quickly and independently make the changes and modifications they require to the CRM system, without impacting the rest of the organization. Multiple instances of CRM software are connected by a hub-and-spoke model that ensures data is accessible when and where it's needed by other divisions' or groups' implementations.

This kind of flexibility can actually improve the performance of business units. For example, if a particular division within an organization wanted to add functionality into the CRM system in order to fulfill a requirement that is very specific to its business, the prospect of modifying the application within a monolithic environment would be a cumbersome one, requiring input and reaction from the larger user community. However, a federated approach provides the group with the autonomy to control how it uses data, models new business entities and makes screen modifications – to advance its own productivity without isolating customer data that needs to be shared across the organization.

Empowering Departmental Deployments

In most industries, there is a need to share some customer information across multiple lines of business. However, each line of business may have data that only it should see for legal reasons, or it may have

specific data requirements that are not common with the other business units.

A federated architecture gives each department the ability to control this aspect of its operations. For example, consider the equities group within a large banking institution. Regulatory or privacy requirements may preclude this department from sharing specific customer data with the retail banking unit. By implementing a distinct instance of CRM for each department, only select, authorized data will be synchronized across the organization. Data that needs to remain within the division that owns it will stay protected within the appropriate business unit's CRM instance.

When multiple CRM instances are not integrated, the need for flexibility can undermine the ability to share information throughout the organization. Repetitive data entry is error-prone, and when mistakes are made, serious problems can occur. At the very least, a customer is inconvenienced. At the very worst, that customer defects to a competitor or an employee makes a costly decision. Out-of-date information could lead an employee to approve a \$100,000 order from a customer that has a credit hold for non-payment to another division, or decline an order from an existing, trusted customer of the parent organization.

A federated approach also allows each department's CRM instance to include forms tailored to that department's functionality, for greater responsiveness and agility. A single, monolithic implementation would require evaluation of security models across the organization, modifying access permissions and introducing increasingly complex procedures for auditing.

Putting Regional Deployments Back on the Map

Mobile sales representatives need to be able to access critical customer data quickly and easily from the road. But response time and latency are still serious issues when it comes to CRM implementations, especially when serving a global customer base. For example, a sales representative working in Europe but trying to access the CRM server back in California may be

hampered by network latency. This can be a major barrier to employees getting the data they need to work effectively.

That obstacle can be cleared by multiple CRM instances supported by a federated architecture. Servers placed in geographically strategic locations can reduce the round-trip time for each data packet, enabling quicker system response. Customer data is only synchronized to other regional instances when there is a need to share that information (for instance, for a global customer), while regional customer data remains in the local implementation – further enhancing system performance.

Making the Most of Microsoft Dynamics CRM

Architected from the ground up using today's technology and designed for the way users work, Microsoft CRM contrasts many of the characteristics of first-generation CRM software. In addition to supporting diverse divisional requirements in the nimble fashion described above, a federated deployment can be a very compelling CRM solution for global organizations that require additional, specific business and technical aspects of their CRM system.

Provides the Scalability and Performance to Support the Largest Organizations

In formal benchmarking tests, Avanade has verified that Microsoft CRM is capable of scaling to support 3,000 concurrent users and a medium to heavy sales force transaction load, with response times of less than 0.5 seconds. Similar testing performed with actual customer workload demonstrated that a properly deployed instance of Microsoft CRM would support 5,000 users. With a federated architecture approach to system implementation, organizations can support virtually unlimited numbers of users by connecting multiple CRM instances. Each instance adds cumulative transaction capacity and data remains synchronized across instances, for enterprise-class performance.

The division of labor across instances can be made according to the departmental or regional models already discussed. It can improve system response times by reducing network traffic and related network latency typically associated with both heavy usage and geographically dispersed offices.

Meets Regulatory Compliance Requirements

From multi-lingual capabilities to regulations regarding customer data privacy, organizations face a host of requirements for combining or keeping information

separate and secure. Federated architecture lets companies establish and enforce business rules that determine what data can be synchronized between systems and what data should remain “walled off”. Organizations can safely keep specific customer information within a separate instance of Microsoft CRM, while eliminating the risk of inadvertent exposure, for example, through errors in system security administration.

Enables Quick Consolidation of Data after Mergers and Acquisitions

In organizations that are growing via mergers and acquisitions, a federated architecture can provide a mechanism to synchronize data between the newly related businesses and subsidiaries, allowing for consolidated reporting across the combined organizations. Federated architectures can quickly and easily link systems and provide visibility into customer data needed for newly combined business initiatives, such as cross-promotions and sales prospecting.

Supports International Expansion through Multi-lingual User Interface

Many companies want to deploy CRM globally or need to provide staff with an application user interface in multiple languages. A federated deployment enables a company requiring a multi-lingual UI to implement Microsoft CRM today, synchronizing data between language-specific installations and displaying data in numerous languages.

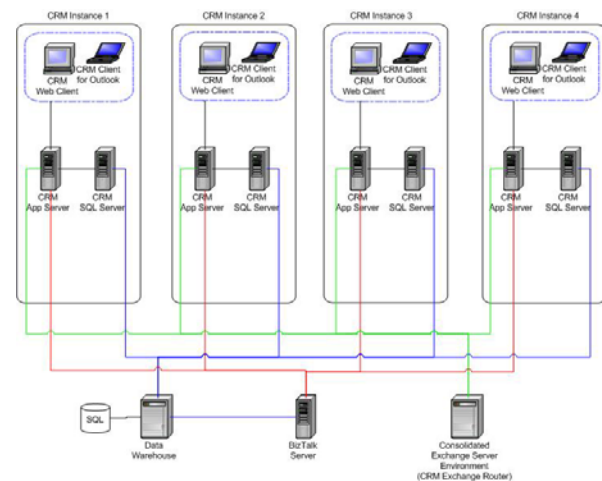


Figure 1 - Federated Architecture Approach

Getting Started

Regardless of the factors driving an organization to consider a federated approach, a few important considerations can make a federated implementation of Microsoft CRM software work best for every organization.

Develop Data Synchronization Rules

Rules for customer record synchronization need to be carefully evaluated. Erring on the side of caution and “synching everything” reduces the autonomy of each CRM software instance, not to mention placing additional strain on the integration infrastructure. Companies need to determine the most appropriate sets of synchronization rules for their organization, carefully considering regulatory requirements, privacy policies and business needs.

Determine How Users Will Work with the System

Analyze how data rules are established and how users will work with the CRM system. The system needs to account for variations in how user rights and data security parameters will impact synchronization requirements and security.

Monitor System Performance

While the federated architecture solution is designed with automated error handling and retry procedures, exceptions need to be anticipated and addressed in a timely manner to ensure data accuracy in all CRM instances.

Making a Federated Architecture Solution Work for You

Avanade is the premier Microsoft CRM solution provider, with deep expertise and hands-on experience designing and deploying Microsoft CRM systems since the very first release of the software. The combination of our insight into the needs of large organizations and our consultants’ deep architectural skills has produced the Avanade Federated Architecture for Microsoft CRM™.

Unique Delivery Model

Avanade invests heavily in building reusable components and toolsets. Avanade provides the proven tools and best practices that vastly speed the implementation process. We continually update these assets to reflect the latest insight and techniques that work for our customers.

Maximizing Existing Investments

We incorporate the existing infrastructure and investments that organizations already have made in their CRM and enterprise applications, to provide an easy-to-maintain, efficient implementation that quickly provides value. And in keeping with our long-term commitment to Microsoft CRM technology, Avanade Federated Architecture will be maintained and upgraded to support new versions of Microsoft CRM as well as the latest Microsoft platform technologies related to this architecture.

Meeting Your CRM Requirements

Avanade can help you decide if federated architecture is right for your CRM implementation. We evaluate your requirements using our methodology and planning tools in a discovery process to determine how your organization’s function can best be served by federated architecture. This assessment is generally followed by careful design and implementation of a proof-of-concept and/or pilot to refine system design before full implementation.

Avanade can help you accelerate your realization of the value of CRM. Our approach to CRM is designed to level the barriers to global deployments, increase user productivity and maximize existing technology investments as quickly as possible. Our solution delivers value today, while establishing the foundation for future expansion and more profitable long-term customer relationships.

About the Author

Matt Parks, Avanade Global CRM Solution Architect, is responsible for the development of the Avanade reusable tools that streamline the implementation of Microsoft Dynamics CRM for enterprise customers. Matt has been actively involved with Microsoft CRM since the beta for v1.0 and is a Microsoft CRM MVP. Matt has over 17 years of experience in developing custom applications for clients across a variety of technology platforms.

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