



Microsoft BizTalk Server and Microsoft Dynamics AX: Integration Solutions for the Extended Enterprise

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Abstract

Large organizations struggle to maintain a balance between *centralization* in order to control system and information complexity across the extended enterprise and *decentralization* in order to encourage flexibility and agility among local subsidiaries or divisions. Through deployment of Microsoft Dynamics™ AX and Microsoft® BizTalk Server, enterprises can realize not only a simple, high-value solution that offers visibility, insight and control of information across the entire organization, but also the flexibility and agility that branch offices and subsidiaries require in order to innovate, grow, and compete effectively.

This white paper will be of interest to the business decision maker who is looking to find a robust, high value solution that provides cross-functional integration and coordination of business applications and supply chain management applications across the extended enterprise.

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Introduction

Large organizations struggle to maintain a balance between *centralization*—a management approach which seeks to control proliferation of systems and duplication of information across the extended enterprise—and *decentralization*—a management approach which encourages flexibility and agility among branch offices or local subsidiaries that are often characterized by divergent IT needs from the core organization.

In the past, these conflicting organizational needs have been poorly reconciled. While it is possible to integrate, unify and control information across various core business divisions such as financial services, operations, and human resources, the integration has primarily been accomplished through the deployment of monolithic software solutions that are often complex and costly. Moreover, it is all too common that the integration has been achieved at the cost of sacrificing agility and flexibility at the periphery of the organization. The alternative solution—seen in more decentralized organizations—has been to allow divisions and subsidiaries to deploy the software and system solutions that best meet their specific needs. While this enables divisions to retain agility and responsiveness in the face of their particular market demands, the drawback is limited visibility and insight across the organization as a whole—which, in the long run, can be very costly.

The necessity of managing resources across the extended enterprise raises specific challenges, including:

- **Lack of Integration.** The larger the organization, the more challenging it is to connect systems, processes and people. Rapid growth or a business acquisition can transform a midsize organization into a large organization overnight. Without effective connectivity across departments, efficient work processes are compromised. Poorly integrated business processes and limited visibility into workflow are not only costly, but they have a considerable negative impact on organizational agility and competitiveness.
- **Outdated or Inflexible Integrated Solutions.** Most enterprise organizations already have an integration solution in place. These Enterprise Resource Planning (ERP) solutions, until very recently, have been monolithic, proprietary (non-standards based), and difficult to customize or add new functionality to in response to changing business needs.
- **Efficiency Tradeoffs in the Extended Enterprise.** The argument for greater central control of branch and subsidiary resources is fairly clear—alignment of business goals can more readily be accomplished by standardizing business processes across the organization. Yet despite this, many organizations maintain decentralized business practices—and for good reason as well: customer needs are often better supported by local adaptation rather than central standardization. The net result, unfortunately, is that many large organizations have systems in place that were intended to be monolithic centralized systems but instead have been deployed in a decentralized fashion, reducing the level of integration and increasing costs—precisely what ERP systems were designed to control.
- **Inefficiencies beyond the Extended Enterprise Boundaries.** Effective interactions both with trading partners and end-customers require a new approach. More and more large organizations are demanding that their supply chain partners be compliant with their own technology and regulatory needs. And end-customers are demanding a more seamless customer experience. Effective integration of both groups requires greater visibility into the key trading partner and customer service processes.

The Microsoft Solution for the Extended Enterprise

Microsoft Dynamics AX is a global, adaptable, business management solution that automates and streamlines financial, human resource, supply chain and customer relationship management processes in a way that helps drive business success.

Microsoft BizTalk Server, a business process management server, helps organizations efficiently connect people, processes, and information across the extended enterprise. BizTalk Server enables organizations to automate and optimize business processes, thereby helping to grow their business.

The combination of Microsoft BizTalk Server and Microsoft Dynamics AX provides a solution for the extended enterprise that offers both standardization and visibility into information resources, while at the same time enabling branch offices or subsidiaries to maintain their flexibility and agility. The Microsoft BizTalk Server and Microsoft Dynamics AX solution for the extended enterprise provides:

- **Agile Integration**, conferring the business advantages of both centralization and decentralization. The joint solution offers:
 - **Real-time visibility across the extended organization:** Microsoft Dynamics AX integrates and automates critical business processes, providing organizations with a unified and integrated view of financials, human resources, supply chain, and customer relationship management. Microsoft BizTalk Server not only extends that visibility across business units and the supply chain, but also provides real-time insight into critical business processes, helping businesses to respond to problems before they escalate.
 - **Flexibility:** The combination of Microsoft Dynamics AX and BizTalk enables companies to integrate and standardize where it serves business needs to do so. At the same time the combination serves to support flexible, adaptive business processes in those areas where it promotes competitive agility.
 - **Efficient collaboration with trading partners:** Using BizTalk Server to connect to your supply chain enables effective collaboration, without the need for trading partners to change or disrupt their key business applications in order to integrate.
- **Simplicity.** Providing a single, integrated view across the extended organization and supply chain is simplified, as is business process management. The joint solution offers:
- **Ease of deployment:** Both Microsoft Dynamics AX and BizTalk Server fit easily into any organization's existing infrastructure, simplifying deployment and delivering integrated applications out to branch offices and subsidiaries faster than other solutions.
 - **Ease of use:** Microsoft Dynamics AX and Microsoft BizTalk Server work like commonly used Microsoft Office products that are already familiar to many organizations, eliminating the need for lengthy training and ensuring faster time to value.
 - **Effective tools to gain business process insight:** The combination of Microsoft Dynamics AX and BizTalk Server enables organizations to integrate and automate critical financial and CRM processes, not only throughout the central organization but also across the extended organization and the supply chain.

- **Best value.** Providing the best value for integrating line of business applications across the extended enterprise and the supply chain.
- **Increase ROI:** Microsoft Dynamics AX and BizTalk Server not only integrate with existing organizational technologies, and with technologies in common use across the partner supply chain; they also leverage those technologies to provide deep business insights. The joint deployment provides a substantial return on investment because:
 - Ease of deployment, use and maintenance, making additional expenses such as lengthy outside training unnecessary.
 - Integration of multiple business management solutions across the extended organization promotes the organizational flexibility and insight necessary to grow and compete more effectively.

Microsoft Dynamics AX

Microsoft Dynamics AX is a global, adaptable business management solution that enables organizations to make business decisions with greater confidence. By automating and streamlining financial, customer relationship and supply chain processes, Microsoft Dynamics AX brings together people, processes and technologies, increasing the productivity and effectiveness of the business and helping to drive business success. Microsoft Dynamics AX works like familiar Microsoft software such as Microsoft Office, decreasing the need for extensive staff learning. Because it is from Microsoft, the software easily works with the systems already implemented in the organization.

Microsoft BizTalk Server

BizTalk Server 2006 is a business process management server that enables companies to integrate, automate, and manage business processes. Enabling businesses to expose processes and data in real-time, BizTalk Server helps organizations to optimize business processes, decreasing costs and eliminating inefficiencies. By providing simple yet powerful tools to gain a real-time understanding of business processes, BizTalk enables organizations to grow their business.

Business Scenarios

Microsoft BizTalk and Microsoft Dynamics AX are designed for the extended enterprise, and are a compelling option for those organizations that want:

- **To replace an outdated business management solution.** Many of the older ERP solutions are very difficult to integrate, and, in those cases where the organization has deployed multiple ERP instances, difficult to consolidate. In addition, older ERP systems do not support the sophisticated real-time analytics that many of the more recent business management solutions support.
- **To integrate their current Microsoft Dynamics AX solution.** Some Microsoft Dynamics AX customers are looking to integrate their business management solution across the branch offices or subsidiaries of the extended enterprise.
- **A less costly or complex business management solution.** As previously mentioned, many large organizations have multiple ERP instances in which the same solution is deployed at both the central (hub) and branch office sites. For organizations that operate within the borders of a single country or regional area, the central site connects directly to multiple branch offices in a two-tier network. For larger or international organizations, a central site attaches to regional sites, which in turn connect to branch offices, forming a three-tier network. Many organizations that want an integration solution throughout the enterprise do not require highly complex and costly ERP solutions at the lower tiers, and instead seek business management solution alternatives that offer a better return on investment.

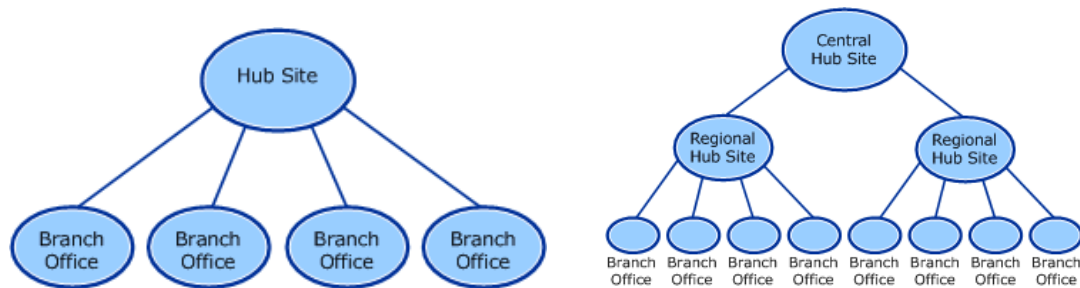


Figure 1. Two- and three-tier organizations.

To help make clear how Microsoft BizTalk Server and Microsoft Dynamics AX can work together to solve many of the problems of the extended enterprise, three common integration scenarios are presented below.

Divisional or Branch Office Solution

The central site of the extended enterprise needs to integrate with branch offices or subsidiaries so that IT solutions work together to support organization-wide business goals. The Microsoft BizTalk and Microsoft Dynamics AX offer standard functionality while also providing the flexibility to meet local needs, regardless of the size, location, or type of business that the organization provides.

CarboGen, part of the larger company Solutia Pharmaceuticals, is an award-winning example¹ of the effectiveness of BizTalk-Dynamics AX synergy. Although the parent company uses SAP as its ERP solution, CarboGen was looking for a business management solution that would support their mission of helping clients obtain pre-clinical and clinical batches of pharmaceutical ingredients as fast as possible. They needed a solution that integrated “islands of customized applications,” was easily customizable, and had lower maintenance and per user costs than the SAP solution. They selected Microsoft Dynamics AX business management solution to provide customizable databases, customer order and tracking functionality, and sophisticated project management capabilities. BizTalk Server provided the integration backbone connecting Microsoft Dynamics AX with the Solutia-wide CRM solution, allowing information to flow readily between the parent company and the CarboGen division. The combined result is a customizable solution that improved planning, project tracking, reporting, and divisional efficiencies. For the complete details, see the customer evidence at

<http://members.microsoft.com/CustomerEvidence/Search/EvidenceDetails.aspx?EvidenceID=2490&LanguageID=1>

Supply Chain

Adding value to goods and services as they move through the supply chain requires effective transfer of information among both suppliers and customers. This means connecting line of business applications both within the organization and among supply chain partners, as well as providing the core infrastructure for automating and managing business processes across the supply chain.

Microsoft Corporation, a worldwide leader in software, services and internet solutions, wanted to improve delivery speed and cut inventory costs for the production of Xbox360™. Managing its suppliers and its outsourced semiconductor manufacturing needs required an effective way to gain tight control over manufacturing, as well an easier way to bring on new contractors—neither of which was supported by its original system of electronic data interchange (EDI). The company decided to adopt its own Microsoft BizTalk Server, which provided a standards-based means of integrating shop floor manufacturing systems with its ERP application, as well supporting integration with its critical manufacturing planning system, its work-in-progress tracking and yield system, and Microsoft Dynamics AX. BizTalk also supported integration across the supply chain, increasing efficiencies and on-time deliveries. As a result, Microsoft expects to realize a significant reduction in inventory carrying costs. Go to the link below for full case study details.

<http://members.microsoft.com/CustomerEvidence/Search/EvidenceDetails.aspx?EvidenceID=13511&LanguageID=1>

Single Customer View

The customer relationship management solutions and capabilities within Microsoft Dynamics CRM connect to other Microsoft technologies to bring together disparate sources of data. This connectivity helps organizations increase their customer responsiveness, gain faster marketing insights, and enhance customer relationships. Microsoft BizTalk takes this one step further, integrating distributed CRM solutions across the extended organization, providing both staff and customers with a single view of customer activities even across branch offices and subsidiaries.

McKinstry Company, an engineering, mechanical construction and facilities management company in the Pacific Northwest, processed its different services in separate divisions throughout the region. While

¹ The solution won the 2005 BIO IT award for innovative use of IT in the life science area.

these separate divisions supported the ability to tailor projects to local customer needs, because each group used its own software applications to manage its business services, the result was a series of unconnected IT systems across the enterprise. These systems included division-specific customer databases, which, because they were not connected, failed to provide an integrated view of customers, resulting in duplicate sales efforts and lost sales opportunities. To address this problem, the company decided to implement the Microsoft CRM solution, which provides a sales tracking system that stores all customer information in a single location. To connect the disparate systems and software across the company, McKinstry chose Microsoft BizTalk Server, which also provides the rule-based messaging system to automatically and correctly route sales information throughout the organization. The net result of these deployments is increased workflow efficiencies, more sales opportunities, and decreased administrative costs. For full details of the case study, go to

<http://members.microsoft.com/CustomerEvidence/Search/EvidenceDetails.aspx?EvidenceID=4003&LanguageID=1>.

Summary

Large and midsize organizations that manage regional divisions, branch offices or subsidiaries face a number of IT integration and management challenges that are unique to the extended enterprise. Microsoft BizTalk Server and Microsoft Dynamics AX provide a simple, high value and agile solution to such challenges both within the enterprise and across the supply chain.

Related Links

See the following resources for further information:

- Microsoft BizTalk Server at <http://www.microsoft.com/biztalk/default.mspx>
- Microsoft Dynamics AX at <http://www.microsoft.com/dynamics/ax/default.mspx>

For the latest information about Windows Server System, see the Windows Server System Web site at <http://www.microsoft.com/windowsserversystem>



Windows Server System is comprehensive, integrated, and interoperable server infrastructure that simplifies the development, deployment, and management of flexible business solutions.
www.microsoft.com/windowsserversystem