

**Microsoft<sup>®</sup>**  
*Business*  
**Solutions**

Microsoft<sup>®</sup> Business Solutions – Great Plains<sup>®</sup>  
eConnect Whitepaper  
Release 7.5

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## eConnect Enterprise Application Integration (EAI)

eConnect is a programmable Enterprise Application Integration (EAI) solution for Microsoft Business Solutions–Great Plains. eConnect offers fast and accurate accessibility to an extensive set of Microsoft Business Solutions–Great Plains back office document transactions. The programmable document integration package permits outside data sources such as web storefronts, web services, legacy applications, point of sale systems, etc... to easily create back office transactions, select updated, inserted, and deleted back office transactions, and send back office requests to view specific documents and document lists. The utilization of eConnect allows development teams to focus on custom application development in the data source or front office with the ability to snap-in eConnect for valuable back office transactional access.

This EAI solution gives the flexibility to accept numerous data interfaces while handling multiple transactional access points to the accounting system. eConnect deployed in conjunction with existing web storefronts, web services, or other data sources, allows developers to provide cost effective solutions while reducing the cost of recoding for new environments. eConnect also provides the ability to leverage the transaction-based business logic in Microsoft Business Solutions–Great Plains. This enables the capability to extend that business logic without rewriting existing functionality. Business utilization is endless, including the ability to provide document access for service oriented front office custom applications, quick connectivity from existing data sources, and a simple cost effective method of connecting to existing storefront and service applications.

## Product Description

eConnect reduces costs by eliminating data re-entry by offering businesses with an existing online storefront, web service, or data source the ability to integrate to Microsoft Business Solutions business management solutions. Using a series of transactional business objects, eConnect offers fast and accurate integration from outside data sources to Microsoft Business Solutions–Great Plains.

eConnect improves your return on investment by drawing on existing investments. Those who invest in eConnect will also use the power of Microsoft SQL Server™ 2000 and develop other industry-standard technologies. The industry standard technologies eConnect uses to accomplish these integrations include a combination of Visual Basic objects, stored procedures, BizTalk, COM, MSMQ, SOAP (Simple Object Access Protocol) and XML. The business logic is stored in the back office allowing developers to select their tool of choice for connectivity.

eConnect, a series of programmable tools, has the ability to integrate to business objects. These business objects act as a doorway for data to be integrated from an existing application into a Customers' back office solution, specifically Microsoft Business Solutions–Great Plains. The business logic in eConnect ensures data validation and holds the capability to return well formed XML documents on demand, which display the details of an extensive set of back office documents.

eConnect contains an extensive set of sample integration components. The sample integration components consist of a BizTalk snap-in, Windows 2000 MSMQ Service to transport XML documents, and a SOAP service example. Open access to this tool kit permits developers to quickly implement eConnect and extend the business logic without starting over.

eConnect offers developers a powerful advantage. They can focus on XML and business logic development without the need to rebuild transport protocols because they have the opportunity to

customize existing infrastructure. For example create an XML document for your specific transaction that is utilized by a custom application in the back office. Then transport that document from XML to the back office using the existing eConnect connectivity tools. ISVs (Independent Software Vendors) will find eConnect valuable for rapid integration of web solutions utilizing SOAP services in conjunction with eConnect.

eConnect supports the following back office touch point integrations:

**Field Service**

- o Service call codes
- o Service call master

**Fixed Asset Management**

- o Account Group
- o Asset Class ID
- o Asset ID
- o Asset Insurance
- o Asset Lease
- o Book Class
- o Book ID
- o Insurance Class ID
- o Lease Company
- o Location ID
- o Physical Location ID
- o Retirement Code
- o Structure

**General Ledger**

- o Account Category
- o Accounts
  - ✍ Regular
  - ✍ Fixed Allocation
  - ✍ Variable Allocation
- o Buyer
- o Checkbook
- o General Ledger Transactions
  - ✍ Standard
  - ✍ Reversing

## **Inventory**

- Inventory item vendors
- Inventory items
  - ✎ Regular items
  - ✎ Kit items
- Inventory lot categories
- Inventory site bin
- Inventory sites
- Inventory transactions
- Inventory transfers
- Item currency
- Planner

## **Lockbox**

- Lockbox
- Lockbox bank details

## **Payroll**

- Benefit
- Computer check transactions
- Deductions
- Departments
- Employee
  - ✎ Address
  - ✎ Benefit
  - ✎ Deductions
  - ✎ Taxes – Federal, State, Local
- Employee Class
- Local Tax
- Location
- Manual check transactions
- Pay Code
- Position
- Shift Code
- Supervisor
- Workers Compensation

## **Project Accounting**

- Change order entry
- Employee expense entry
- Miscellaneous log entry
- Purchase order edit status transaction
- Purchase order entry
- Receiving/Invoicing entry
- Time sheet entry

### **Purchase Order Processing**

- Purchase Order Delete
- Purchase Order Receiving
- Purchase Order Transactions
- Purchase Order Void
- Remove Purchase Order Processing to Sales Order Processing link

### **Purchasing Management**

- PM Scheduled Payments
- PM Transactions
- Vendor
  - ✎ Including Project Accounting Vendors
  - ✎ Vendor Address

### **Receivables Management**

- Customer
  - ✎ Including national accounts
  - ✎ Customer address
- Customer class
- Prospect
- RM Apply
- RM Cash Receipts
- RM Scheduled Payments
- RM Transactions
- Sales Territory
- Salesperson

### **Sales Order Processing**

- SOP Delete Document
- SOP Process Holds
- SOP to POP link
- SOP Transactions\*
  - ✎ Quotes
  - ✎ Orders
  - ✎ Invoices
  - ✎ Returns
  - ✎ Back Order
  - ✎ Holds
- SOP Void Document

\*Sop transactions include the following auto creation capabilities:

- Auto Tax creation
- Auto Commission creation
- Auto assigning Lot Numbers
- Auto assigning Serial Numbers
- Auto assigning of prices

### **Shared Master**

- Bank
- Credit card
- Shipping methods

## Benefits

**eConnect reduces costs** by eliminating data re-entry through offering businesses with an existing online storefront, web solution, or other data source the ability to integrate to Microsoft Business Solutions business management solutions. Using a series of transactional business objects, eConnect offers fast and accurate integration from outside data sources to Microsoft Business Solutions–Great Plains.

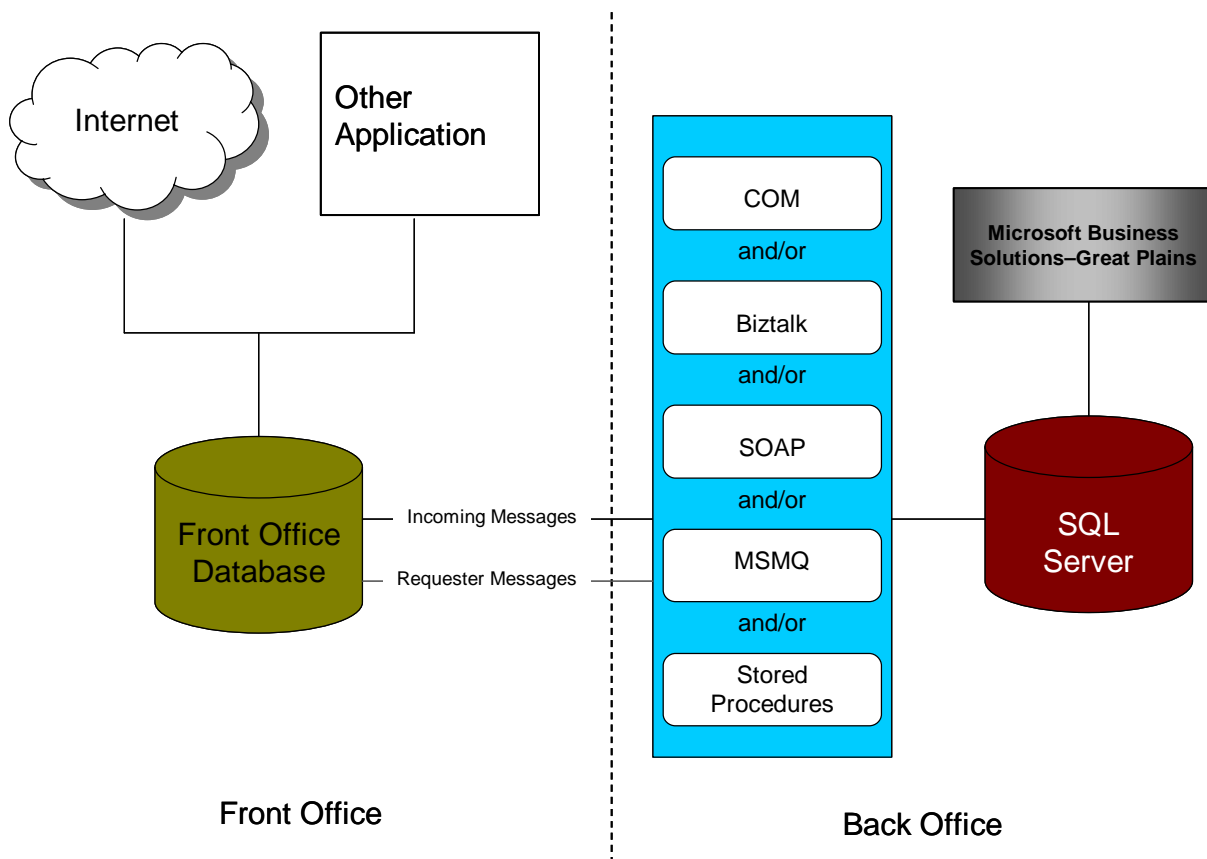
**eConnect improves return on investment** by drawing on existing investments. Those who invest in eConnect will also use the power of Microsoft SQL Server™ 2000 and develop other industry-standard technologies.

**eConnect offers developers a powerful advantage.** They can focus on XML and business logic development without the need to rebuild transport protocols because they have the opportunity to customize existing infrastructure. For example, you could create an XML document for your specific transaction that is utilized by a custom application in the back office. Then transport that document from XML to the back office using the existing eConnect connectivity tools.

ISVs (Independent Software Vendors) will find eConnect valuable for rapid integration of web solutions utilizing SOAP services in conjunction with eConnect.

The industry standard technologies eConnect uses to accomplish these integrations include a combination of Visual Basic objects, stored procedures, BizTalk, COM, MSMQ, SOAP (Simple Object Access Protocol) and XML. The business logic is stored in the back office allowing developers to select their tool of choice for connectivity.

## Configuration



## eConnect Objects

**eConnect, a series of programmable tools, has the ability to integrate to business objects.**

These business objects act as a doorway for data to be integrated from an existing application into a Customers' back office solution, specifically Microsoft Business Solutions–Great Plains. The business logic in eConnect ensures data validation and holds the capability to return well formed XML documents on demand, which display the details of an extensive set of back office documents.

**eConnect contains an extensive set of sample integration components.** The sample integration components consist of a BizTalk snap-in, Windows 2000 MSMQ Service to transport XML documents, and a SOAP service example. Open access to this tool kit permits developers to quickly implement eConnect and extend the business logic without starting over.

## Professional Services

### Support & Enhancement

Standard fees for support plans and the Enhancement Program apply to eConnect. The price of eConnect is added to the Customers' total current system list price, and the price of their service plan is calculated as a percentage of that list price.

The Microsoft Business Solutions Tools Support Team provides technical support for eConnect. eConnect is available on the list of options on the eSupport form on CustomerSource. eConnect will also be added to the list of Quick Access Codes for telephone support. New releases of eConnect will be delivered to Customers who have current Enhancement Program enrollment.

### Consulting

Customers will likely need assistance in integrating and mapping the objects to their back office solution, along with the custom applications or storefront. If Microsoft Business Solutions provides these services, the Customer will be charged our standard consulting fee. To reserve this service, Partners should send an email on their Customers behalf to [MBSProfessionalServices@microsoft.com](mailto:MBSProfessionalServices@microsoft.com).

## System Requirements

	Minimum	Recommended
<b>Processor</b>	Dual Pentium 400 MHz or faster	Dual Xeon 500 MHz or faster
<b>RAM</b>	512 MB	1 G

## Software Requirements

### **Microsoft Windows XP or Windows 2000 Server with most recent service pack installed**

One must be familiar with how to set up and administer either Windows XP or Windows 2000 Server, including applying security to Windows directories and files.

### **Microsoft Internet Information Services 5.0 (IIS)**

Internet Information Services publishes your eCommerce web pages to the Internet. If using IIS one must know how to install, administer, and set up security. IIS is included with Windows 2000 and XP and is only required with eConnect if you plan to build your own Simple Object Access Protocol (SOAP).

### **Microsoft Message Queuing 2.0 (MSMQ)**

MSMQ is included with Windows 2000 and XP and it enables document exchange between front office and back office servers.

### **Microsoft SQL Server 2000 or SQL Server 7.0 with most recent Service Pack installed**

SQL Server is a scalable relational database management system for Windows-based systems. SQL Server 2000 is required in order to use the eConnect Requester Services.

### **Microsoft Data Access Components 2.6 (MDAC)**

Components are needed to provide the instructions to communicate with the database. These components include ActiveX Data Objects (ADO), OLE DB, and Open Database Connectivity (ODBC).

### **Microsoft Business Solutions—Great Plains 7.0 or Great Plains 7.5**

Microsoft Business Solutions—Great Plains is the financial management system used in the back office. eConnect integrates with Microsoft Business Solutions—Great Plains, so you'll need to have already installed and set up your back office system and know how to administer it. You must also register the specific modules that your integration touch points will be utilizing.

## Extending eConnect Business Logic

Developers are frequently required to add business logic in order to solve various business problems. With eConnect, a developer has multiple methods of adding the appropriate business logic.

eConnect has the capability to add additional XML Nodes to the document schema. The current nodes map directly to the SQL based business logic on the back end. As a result, eConnect middleware can be utilized to process an eConnect document. Then simply add the business logic in SQL to route the XML node that was added.

Typically, another area where business logic needs to be extended is incoming orders, invoices, or sales documents. There are Pre and Post SQL procedures embedded for each schema available that users can modify to fit their business needs.

A developer could also build additional custom middleware, which can extend the existing middleware available with eConnect.

For more information about extending business logic, please copy [MBSProfessionalServices@microsoft.com](mailto:MBSProfessionalServices@microsoft.com).

# Product Purchasing Options

There are six options available when purchasing eConnect, each described in more detail below...

## 1. Core Modules

- a. Field Service Service Call Entry
  - i. Quote
  - ii. Open
- b. Fixed Asset Management – master records included
- c. General Ledger Transactions
  - i. Regular or reversing
  - ii. Account Records
  - iii. Fixed Allocation
  - iv. Variable Allocation
- d. Inventory Transactions
  - i. Variance
  - ii. Adjustments
  - iii. Transfers
  - iv. Create Item Currency Records
- e. Payables Management Transactions
  - i. Invoices
  - ii. Returns
  - iii. Credit Memos
  - iv. Finance Charge
  - v. Miscellaneous Charge
  - vi. Scheduled Payments
- f. Receivables Management Apply
- g. Receivables Management Transactions
  - i. Cash Receipts
  - ii. Sales/Invoices
  - iii. Debit Memos
  - iv. Finance Charges
  - v. Service Repairs
  - vi. Warranties
  - vii. Credit Memos
  - viii. Returns
  - ix. Scheduled Payments
- h. All outgoing requester services
- i. The eConnect related master records and transactions that support the transactions above
- j. All Master records supported by eConnect

## **2. Sales Order Processing**

- a. Sales Order Processing Transactions
  - i. Returns
  - ii. Orders
  - iii. Back Orders
  - iv. Quotes
  - v. Invoices
  - vi. Delete line items
  - vii. Create Process Holds
  - viii. Process hold master transactions
  - ix. Void documents
  - x. Delete documents
- b. The eConnect related master records and transaction that support the transactions above
- c. All related functions specific to SOP transactions
- d. All outgoing requester services
- e. All Master records supported by eConnect

## **3. Purchase Order Processing**

- a. Purchase Order Processing Transactions
  - i. Standard
  - ii. Drop Ship
  - iii. Remove Pop to Sop Link
  - iv. Void documents
  - v. Delete document
- b. Purchase Order Processing Receiving Transactions
  - i. Shipment
  - ii. Shipment/Invoice
- c. The eConnect related master records and transaction that support the transactions above
- d. All related functions specific to POP transactions
- e. All outgoing requester services
- f. All Master records supported by eConnect

## **4. Project Accounting**

- a. Project Accounting Transactions
  - i. Change order entry
  - ii. Employee Expense
  - iii. Miscellaneous Log
  - iv. Purchase order edit status
  - v. Purchase order receive invoice transactions
  - vi. Purchase order transactions
  - vii. Timesheet
- b. The eConnect related master records and transactions that support the transactions above
- c. All related functions specific to Project Account transactions
- d. All Master records supported by eConnect

## 5. Payroll

- a. Payroll Transactions
  - i. Computer Checks
  - ii. Manual Checks
- b. The eConnect related master records and transactions that support the transactions above
- c. All related functions specific to Payroll transactions
- d. All Master records supported by eConnect

6. **Full Suite**— includes all the functionality of 1, 2, 3, 4, and 5 above.

## Contacts at Microsoft Business Solutions

Electronic communications concerning eConnect should copy [MBSProfessionalServices@microsoft.com](mailto:MBSProfessionalServices@microsoft.com).

Pre-sales Questions      Cindy Urlaub

Technical Questions      Jon Richter

Technical Support      Kevin Kidder

## Appendix A: Product utilization example

The following utilization example presents a complex business problem and offers a method of leveraging eConnect with Microsoft Business Solutions–Great Plains to provide a solution.

### Company Background

A company in the theater business holds 5,000 dinner theaters scattered throughout the United States. They would like to utilize a web solution to provide a competitive advantage to their theaters and to provide valuable services to their customers.

### Business Problem Defined

Today, the company does not have a method of reserving seats for their valuable customers. They want to appeal to their customers by differentiating themselves from other theaters. They feel they can do this by providing an online reservation facility that would allow their customers to reserve specific theater seating. Additionally, they would like to allow their customers to view all previous functions they attended and also provide other valuable information to their customers through this custom web portal.

### Requirements

- ✍ Online reservation interface utilizing Microsoft Passport for security.
- ✍ Ability to reserve specific seats at the theater per customer – customer could reserve 10 seats in a row for all family members.
- ✍ At reservation submission, a Sales Invoice is created for the reservation.
- ✍ Need the ability to cancel Sales Invoices.
- ✍ At reservation submission, a Deposit can be recorded for the reservation fee.
- ✍ The company would also like to provide an easy method for their customers to request by reservation, their dinner of choice from a selected group of vendors.
- ✍ Ability to request specific items in the theater by utilizing a hand held device that is situated at each table.
- ✍ For non-reservation customers, a theater card is swiped at arrival and a Sales Invoice is automatically recorded.
- ✍ When requesting food and beverage items, these requests are processed as online B2B (business-to-business) transactions with their vendors.
- ✍ A Payables Transaction is generated in Microsoft Business Solutions–Great Plains at this time, and a Sales Order is submitted to the Vendor.
- ✍ At the end of the theater presentation, a receipt is automatically generated for each customer.
- ✍ Payroll transactions also need to be created for any related employee tips.
- ✍ At the end of the theater presentation, a check is automatically submitted to each vendor that consists of all transactions for that vendor for all customer activity.

### Web Solution Details

- ✍ Web Interface: provided by web development team.
- ✍ Sales Invoice: XML document is passed to BizTalk queue and processed by eConnect Sales Invoice.

- ✍ Required back office customization – none.
- ✍ Cancel Sales Invoice: XML document passed to BizTalk queue and processed by eConnect Void Document.
- ✍ Required back office customization – none.
- ✍ Payables Transaction: XML document is passed to BizTalk queue and processed by eConnect. Receivables transaction is submitted to vendor through their BizTalk server that is also utilizing eConnect or another accounting system that contains similar functionality for document exchange.
- ✍ Required back office customization – none if using eConnect.
- ✍ Payables Check: XML document is passed to BizTalk queue and processed by eConnect custom check submission.
- ✍ Required back office customization – a stored procedure is created to handle creation of the check for all vendor transactions for the night.
- ✍ The BizTalk connectivity tools can be utilized for transport without customization.
- ✍ When the SOAP service confirms creation of the vendor check, the next request will be for an XML based document from back office detailing the check contents. This XML document can then be transformed and sent to the vendor as a cash receipt. This transaction would occur after this service makes a payment through an online credit card processing system.
- ✍ A receivables cash receipt is submitted to the vendor through their BizTalk server also utilizing eConnect.
- ✍ Sales Receipt: a document request is sent to back office for the specific Invoice and an XML document is sent to a web based SOAP service that generates a printout for the customer.
- ✍ Required back office customization – none.
- ✍ Payroll manual check for employee tips: requires additional back office transaction creation.
- ✍ Required back office customization – additional transaction is created by Microsoft Business Solutions Consulting for the payroll integration.
- ✍ The BizTalk connectivity tools can be utilized for transport without customization.
- ✍ Customization can be leveraged for future payroll integrations.

### **Web Solution Notes**

The key point in this example is that the developer can focus on development of the web solution. Also, they can utilize standard XML technology to communicate with the related businesses requiring back office transactions without human intervention. Additionally, the requirement to extend back office functionality can easily be attained with already deployed connectivity tools. A consultant can easily snap in the additional check creation business logic. The complexity of the back office document integration is removed from the developer. In the example above, the web developer would likely set up a SOAP service to handle submission of all back office transactions to a BizTalk server based on their front office data and the web

solution requests. As additional features are added, the developer can continue to leverage the available infrastructure to snap in additional integration touch points. Another key point in deployment relates to the fact that deployment of this solution would not require visiting all 5,000 sites for installation needs.

Also critical to this type of solution is the mission critical nature of transaction submission. With the utilization of standard tools that support transactional documents, developers can guarantee that their documents were submitted and completed.

# Glossary

## **Back Office**

A financial management system, in the eConnect environment, the back office is comprised of Great Plains running on SQL Server.

## **BizTalk**

A Microsoft platform for business-to-business document exchanges

## **BizTalk Editor**

Tool for creating document specifications in XML, flat files, and Electronic Data Interchange (EDI) files, as well as importing existing Document Type Definition (DTD) and XML-Data Reduced (XDR) schema

## **BizTalk Mapper**

Tool for mapping document content between different formats

## **COM+**

A group of Microsoft services and technologies that provide a multi-tiered application platform

## **Document Monitor**

A Microsoft Business Solutions – Great Plains COM+ business object that formats SQL data into an XML document and places the document in a message queue

## **Extensible Markup Language (XML)**

A tag based scripting language that uses special notation to mark sections of a document. XML is often used to structure documents.

## **Extensible Stylesheet Language (XSL)**

A high-level data manipulation language often used to manipulate XML documents.

## **Front Office**

The customer relationship management system, data warehouse, web site, or other application that communicates with the back office

## **Microsoft Message Queuing (MSMQ)**

Windows 2000 Service that enables asynchronous communication between your front and back offices

## **Schema**

The metadata used to describe the content and structure of a class of XML documents