

MICROSOFT BUSINESS SOLUTIONS—NAVISION

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COMMERCE PORTAL

This is a marketing white paper intended for Microsoft Certified Business Solutions Partners. It will give them an overview of Navision Commerce Portal - an e-commerce solution within Microsoft Business Solutions—Navision that enables Web-based trading, self-service and other forms of collaboration between a company and all its supply-chain partners. This paper discusses the opportunities that Commerce Portal offers Microsoft Navision business partners, how it fits into our overall e-business strategy, the main customer benefits and the underlying technology.

Introduction

Microsoft Business Solutions is committed to meeting the e-business needs of medium-sized companies. In order to function as an e-business, a company must manage a range of e-commerce activities, such as transacting business via the Internet, electronic collaboration with trading partners and participation in online business communities. In order to manage these e-commerce activities effectively, a company must have a flexible supporting technology infrastructure that enables business management systems to deliver improved collaboration and commerce.

Enabling a business management system to deliver improved collaboration and commerce involves providing solutions for trading, collaboration and self-service for commercial partners to access system functionality and information via the Internet. This openness allows every user to benefit from “anytime, anywhere” access. Furthermore, such a system extends its reach beyond organizational boundaries to help build closer relationships with all the participants engaging in commercial activities.

An open business management system brings a business closer to its commercial partners. Creating a closer relationship with customers, suppliers and business partners is beneficial because it can lead to lower operating costs by way of tighter and more

responsive partnerships. Providing employees who deal directly with customers and suppliers with better collaborative tools frees them to focus on more value-adding tasks and deliver better service to external commercial partners.

One way to open a business management system is through a Web-based e-commerce solution. Microsoft Business Solutions offers one such solution with Commerce Portal. Commerce Portal is an e-commerce solution that meets a company's e-business needs by providing them with solutions that help them:

- Improve their responsiveness to supplier and customer demands.
- Offer supply-chain partners self-service features by way of a personalized Web portal.
- Reduce costs by automating commercial interactions.

This paper initially provides the user with a product overview and then continues to describe Commerce Portal in terms of partner opportunities, key features and the underlying technology architecture.

[Product Overview](#)

Commerce Portal leverages the Internet allowing companies to streamline commercial interactions with partners. It improves a company's responsiveness to vendor and customer demands, allows them to serve themselves and reduces costs through automation.

Commerce Portal makes it easy for partners to access Microsoft Navision functionality and information from a Web portal. Web portals can be customized for specific partner roles to match the needs of the sales and purchase staff. Users can serve themselves through personalized information with relevant functionality on an anytime, anywhere basis through the Internet. Microsoft Navision and Commerce Portal are fully integrated so the information that the user accesses is always up-to-date.

Users can also enter information directly into Microsoft Navision through Commerce Portal. It is possible to use Microsoft Navision to provide a number of Web-based commercial services, such as order processing, self-service data access and event notification. The information that the user enters goes directly into Microsoft Navision, which saves time and reduces the possibility of human error.

Commerce Portal is based on technology from Microsoft. The use of Microsoft technology ensures that Commerce Portal is a cost-effective solution and that you will benefit from the ongoing technology improvement associated with Microsoft products.

[New Business Opportunities](#)

Commerce Portal offers a number of opportunities for you and your customers.

[Opportunities for Customers](#)

Commerce Portal serves as a catalyst for your customers to take advantage of the Internet – and thus generate cost savings as well as new product and service revenues. For example, Commerce Portal provides a way to connect businesses to trading hubs on the Internet. A trading hub is a Web site that connects a community of suppliers with a community of customers for the purpose of managing an electronic commercial relationship between them. Hubs can be horizontal or vertical in orientation and can be run by a supplier, a software vendor or a third party.

[Opportunities for Navision Microsoft Certified Business Solutions Partners](#)

For partner, Commerce Portal can be used as the starting point for an overall Web-enabling effort that generates business in high-level, business consulting services in addition to the regular implementation and customization services. Partners can help their customers in defining their e-business strategy and thereby be at the forefront of the competition when it is time for the customer to implement. In the case of the online trading hub, partners can help businesses understand how to work with sell-side and buy-side trading hubs and define how Commerce Portal interfaces with these hubs and help the customer calculate the ROI for the solution.

[Commerce Portal vs. Commerce Gateway](#)

Both Commerce Portal and Commerce Gateway are natural extensions of Microsoft Navision. They are complementary solutions for any business looking to extend the reach of their Microsoft Navision system to their business partners via the Internet. Every existing customer is potentially a Commerce Portal or Commerce Gateway prospect.

Where Commerce Portal focuses on enabling business-to-business (B2B) and business-to-consumer (B2C) via a

Web portal (that is, human-to-application communication), Commerce Gateway instead focuses on B2B enterprise application integration (that is, application-to-application communication). Commerce Gateway thus automates transactions by allowing different business systems to communicate without human intervention whereas Commerce Portal opens Microsoft Navision to allow customers and partners to serve themselves with information and functionality via the Web. Therefore, a likely scenario is that a business would use Commerce Gateway to conduct business with larger key vendors and partners and use Commerce Portal for partners representing a lower volume of transactions.

Finally, if you cannot enforce tight integration with all your partners, for example, due to a lacking IT infrastructure on their side, Commerce Portal could then compensate for this by still offering collaboration with those partners but without the same level of tight integration.

Commerce Portal Roles

With Commerce Portal, your customer provides their partners with role-based functionality and information. All portal users have their own personalized portal, which matches the needs of their particular tasks. Information accessed through the Web portal is in real time and uses the business logic of Microsoft Navision, thanks to the seamless flow of information between the back-office Microsoft Navision solution and its front-office Web portal. This reduces errors associated with manual reentering of data, and makes it easy to respond to partners' and customers' needs at anytime



Figure 1: Examples of Possible Commerce Portal Roles

Roles are predefined out-of-the-box, but can be changed or enhanced. In addition to the out-of-the-box roles in the diagram above, companies can also create their own new roles to fit the particular needs of their business partners. (See also Commerce Portal Services.)

Consumers

A company can personalize relationships and improve service for consumers via a Web portal. Consumer portals are for both prospective and existing customers. New consumers can register directly through the portal. Once registered, consumers can make orders on their portal, which are transferred automatically to the Sales & Receivables area in Microsoft Navision. Consumers can also engage in basic self-service, such as viewing their order status and account information, downloading product catalogs (in HTML or XML format) and browsing and searching the product catalog. They can also perform an advanced searches based on product properties, for example, a search for green items below 100 dollars. The level of access to information and features is determined by the company using Microsoft Navision to sell their products and services and is based on the nature of the company's relationship with the consumer.

Partners

A company can improve service by making it extremely convenient for partners to serve themselves through a portal. B2B customers and distributors are examples of partner portal users. Partner portals include the same integrated features as the consumer portal, and more. For example, a sales representative can search not only by item, but also by document type or number. Alternatively, a trusted customer can assign existing orders to a blanket order during the online order process. Typically, partners have access to much more information than consumers. Partners can view lists of:

- Previously posted sales quotes (and turn quotes into orders).
- Previously made orders, including order status and shipment status.
- Previously made blanket orders.
- Previously posted shipments including Web-based package tracking.
- Previously posted sales invoices, credit memos and ledger entries.

Partners can also appoint one employee to perform certain administrative functions, such as maintaining general customer information (like name, address, phone number, login name, e-mail and fax number and others) and adding or deleting other users or modifying their information. The changes occur instantaneously in Microsoft Navision, thus saving time by eliminating duplicate tasks.

Vendor

A company can increase efficiency and lower costs by collaborating with vendors through a portal. Ideally, the company using Microsoft Navision would have a very strong influence in the relationship with the vendor, in order to dictate collaboration by way of Commerce Portal. Vendors can manage item catalogs, perform self-service functions, enter drop shipment orders and maintain delivery dates directly through Commerce Portal. When an order delivery date is changed, the new information is entered simultaneously in Microsoft Navision. Furthermore, the order record is updated, and e-mail notification is sent automatically to the employee responsible for purchasing.

A company can also reduce purchasing costs by using reverse auctions (request for quotes) to find the vendor with the most attractive offer on given items or services. An internal purchasing employee enters details regarding the desired item, quantity and delivery time, vendors bid on the item and the chosen quote can be converted to an order at a click of a button.

As with any other portal role, the features and information accessed through the vendor portal are in real time and fully integrated enabling accurate and fast-paced collaboration.

Sales Representative

A company can increase the efficiency of its sales force by providing sales representatives with better collaborative tools that help them make better use of their time. Sales representatives have the same easy access to the critical information as their customers. They can view all their customer accounts on one screen and use the functionality in the back-office system. For example, they can access customer accounts, enter orders for customers and access information about special offers on related items.

When sales representatives logon to the portal they have access to a range of information, such as customer balances, order history and comments for

both customers and contact persons. Furthermore they have access to To-do's and interactions supporting, for example, preparation for a sales meeting.

Commerce Portal Services

This section describes the six main services that the Commerce Portal offers. These services are:

- Catalog Management
- Sales Management
- Purchase Management
- Content Management
- Self-service Management
- Role and activity Management

These services are additions to the existing Microsoft Business Solutions offerings and may be used either to support or complement.

Catalog Management

Catalogs are maintained within Microsoft Navision. They act as the basis for dynamically generated catalog pages that can be viewed through the Web portal. The information that the Web user views is always up-to-date because of the integration between the Microsoft Navision and the portal. When a price is calculated through the portal, the customer's specific conditions and business rules within Microsoft Navision are used. The seamless flow of information between the Microsoft Navision back-office and Commerce Portal is especially important when price conditions vary per user, as is typically the case in a B2B environment.



The catalog administrator can assign one or more item groups to a particular catalog. It is also possible to group items into categories with variable qualities, such as color, size and weight. Furthermore, the administrator can create a number of catalogs for each business partner and even for each user. The catalogs can consist of several levels.

For example, one could define a number of catalogs for the different managers of a B2B customer. Each catalog would differ depending on the department the

manager is responsible for. Another scenario would be a number of different catalogs for B2C customers based on the demographics of different target groups.

The portal user views some or all of the following information in his portal depending on his role and personalization options:

- Item name, number and description
- Inventory and availability information
- Unit price, discount information, your price (the actual invoice price for the user)
- A link to the vendor's Web site

Sales Management

Commerce Portal automates the order process making it more efficient and convenient for partners and customers. It provides Web-based access to Microsoft Navision for the purpose of order entry using the existing order processing business logic contained in Microsoft Navision. The sales order functionality is based on the concept of an online shopping cart, which can be used by B2C or B2B customers, other partners and salespeople, to create and submit orders to Microsoft Navision. It also calculates sales tax (for example VAT) for customers or partners.

There are various ways to create an order, depending on the user's needs. Consumers who are not familiar with the company's offering can browse through the product catalog. If they are looking for a particular item, then the search feature can help. However, partners, such as resellers, know what they need and do not want to waste time browsing an entire catalog. This type of customer easily reorders based on a dynamically generated list of their order history, or based on previously created documents.

On the back-office side, companies save time by eliminating duplicate tasks. When they make a change in Microsoft Navision, the same change happens instantaneously at the portal interface. For example, if they change an item price, set up a tax calculation method or create a discount in Microsoft Navision, they only enter it once. Their partners' Internet orders are entered directly into Microsoft Navision. They don't have to waste time reentering them. And, they eliminate the risk of human error as well as the need to learn another order-entry process.

Purchase Management

Commerce Portal offers great potential for reducing purchasing costs (either services or items) by conducting auctions (that is, request for quotes) that a number of vendors can participate in. A company presents the needed quantity for a given period of time and the vendor can react with an offer. A suggestion appears as a quote stating the delivery time, as well as a listing of the product and the quantity.

A Microsoft Navision wizard collects information about the items, quantity and which vendors should participate in the auctions. The system then creates purchase quotes for items for all selected vendors and sends e-mail notification to them about these created purchase quotes. The notification invites them to view the quote through the portal and make their bids. In this way, each vendor creates purchase quotes indirectly, and the company with Microsoft Navision can then confirm or decline each bid.

Content Management

Commerce Portal offers a fast and efficient way to maintain Web pages because portals are based on templates that companies maintain from within Microsoft Navision. Information on the Web site pages comes directly from Microsoft Navision. The business logic used in Microsoft Navision is respected by Commerce Portal, so any changes made in the system are immediately reflected through the portal.

All relevant data in the Commerce Portal is synchronized with Microsoft SQL Server so that the data is actually stored in both Navision Database Server and the Microsoft SQL Server database. The system automatically synchronizes the Microsoft SQL Server database, and subsequently the Web pages on a storefront, with the Microsoft Navision database.

Authorized Microsoft Navision users can also easily change other types of less dynamic information, such as welcome text. They do not have to change the text in the HTML code or get the assistance of an ASP programmer. The users simply change the text as you would change the text in any other application area of Microsoft Navision.

Self-Service Management

With Commerce Portal, customers and partners can serve themselves with comprehensive functions. They

can maintain and query data and documents across the range of functions found in Microsoft Navision, depending on their particular role and the access rights that have been defined.

Self-service includes a document-tracking function via a Web browser. Document tracking lets users search for documents, sort the results of a search and output the results as HTML pages.

Other examples of self-service in Commerce Portal include:

- Sales representatives can initiate various reports in Microsoft Navision relevant to their customers' use of the storefront.
- Customers can track item serial numbers, for example, to check if the warranty for a spare part is still valid.
- Vendors can maintain the delivery date of orders. When a vendor updates a delivery date, the system automatically sends e-mail to the purchaser of the company.
- Customers and sales representatives can access account information and track order status and deliveries.

Role and Activity Management

Role and activity management allows an administrator to manage role, activity and personalization settings through the use of a profile manager as well as manage dynamic content and message management tools.

Commerce Portal uses a profile manager to handle the customization and linking of activities to a specific role. This restricts what functions and content are available on a specific portal page. Advanced personalization functions determine what users can view when they accesses their personalized version of a portal page. The activities are based on the business logic of existing Microsoft Navision business processes, such as creating a quote for a new customer.

Although the out-of-the-box Role & Activity Management feature only includes commercial activities, it serves as an extendable model for adding new activities.

Adding new activities is different than adding roles. Each activity is defined by adding C/AL code that defines how to access the existing business logic as well as instructions about how to process that activity.

One activity can be assigned to a number of roles. One user can have one login ID and password. However, it is possible to assign more than one user for each customer or vendor role. Once this structure is in place, it is possible to add an unlimited number of roles per portal.

Architecture

This section describes the underlying technology of Commerce Portal. The architecture consists of Microsoft .NET technology as well as Microsoft Navision technology.

Microsoft .NET

The Microsoft-centric approach ensures a low cost of ownership and compatibility with the existing technology infrastructures found at customer sites. Moreover, continued commitment to the Microsoft platform protects current Microsoft Navision customers' long-term technology investment.

As you can see in Table 1, Commerce Portal uses many of the latest Microsoft Products.

Product	Purpose
Microsoft Windows 2000 Server	Provides a scalable and reliable operating system. Windows 2000 Server includes the Internet Information Server and Message Queue.
Microsoft Internet Information Server (IIS)	Provides a reliable and scalable HTTP portal through which Web sites and Web applications communicate with the outside world. IIS 5.0 provides an environment and services that application developers need to quickly create sophisticated Web-enabled applications. One of the most significant development technologies included in IIS 5.0 is Active Server Pages, which are described below.
Active Server Pages	Provides a server-side scripting environment for creating and running dynamic, interactive Web-server pages and applications. With Active Server Pages, you can combine HTML pages, script commands, and COM components to create interactive Web pages or Web-based applications with access to databases, which are easy to develop and modify.
Microsoft Message Queue Server	Manages the messaging API between the storefront pages and the Navision Application Server for the transfer of business logic and data between the two.
Microsoft Commerce Server 2002	<p>Provides the e-commerce infrastructure needed to build an effective online business. User profiling and management, product and service management, transaction processing, and targeted marketing and merchandising are all integrated to create a comprehensive system customizable to a company's specific needs.</p> <p>Functionality is combined to manage product and client information, and to streamline and refine online business processes. The Profile, Targeting, Product Catalog and Business Process Pipelines systems work together to enhance the user experience by delivering one-to-one marketing capabilities.</p>
Microsoft SQL Server	Provides the database for storing temporary session data extracted from the Navision Database Server, and session-specific activity and state data for each storefront user.

Table 1: Overview of Microsoft Products and Their Purpose

The following sections further elaborate on the purpose of the following: Microsoft Commerce Server 2002, the order pipeline, Microsoft SQL Server and the Message Queue.

Microsoft Commerce Server 2002

Microsoft Commerce Server 2002 comes with a range of analysis reports and activity-tracking functions that are also available to Commerce Portal system administrators to manage the storefront. Another advantage of Commerce Server is its use of an open order pipeline. The pipeline provides a complete order processing workflow. This pipeline enable vendors or even end users, to call a program script or a thirdparty component object model (COM) business object to deliver additional solution-specific functionality to the order workflow.

Technology for Managing the Order Pipeline

Scripts developed by Microsoft Business Solutions are used to manage much of the order pipeline in Commerce Portal where interaction is required with Navision Database Server or other components of the Commerce Portal technology infrastructure. Third-party COM objects are used to enable payment processing for Commerce Portal, and the range of these objects is growing constantly. (You can find a list of COM objects at <http://www.microsoft.com>)

Microsoft SQL Server

The use of Microsoft SQL Server offers Commerce Portal users a number of advantages. SQL Server ensures that Commerce Portal is a scalable solution that is able to reliably handle high numbers of customer connections. For users of the Microsoft SQL Server Option for Navision, Commerce Portal leverages their existing database infrastructure, which in turn minimizes platform complexity and the learning curve for system administrators.

Message Queue Server

Message Queue Server provides essential middleware components for Commerce Portal that would otherwise have to be written and maintained by Microsoft Business Solutions. Using Message Queue Server to manage the interaction between Commerce Portal and Navision Application Server provides the application program interface API that isolates the Commerce Portal user from full access to the business logic and data. It also provides message queues that can be

prioritized, thereby enabling better quality of service to important customers.

Microsoft Business Solutions Technology

Navision Application Server powers Commerce Portal. All messages exchanged with the backend database are XML-based, and Navision Application Server handles the integration of business logic between the Navision Database Server and the message queues.

Commerce Portal draws on the features and functionality of Microsoft Navision. While no new features have been added, existing features have been leveraged and brought to the Web front end.

Commerce Portal comes with two sites available out-of-the-box. One site is fully operational with demo data intended for demonstration purposes. The other site contains the basic functionality of Commerce Portal and is intended for installation at the customer site. Customers can then add their own Web design to customize the appearance of their portal.

The Evolution of Navision Web Shop

Commerce Portal is the natural evolution of Navision Web Shop. Currently, Navision Web Shop is helping hundreds of Microsoft Business Solutions customers cash in on the promises of e-commerce. Commerce Portal continues the same principles that Navision Web Shop is based on: real time integration, reuse of business logic and Microsoft technology. This protects our customers' investment in Navision Web Shop and allows them to add new roles to their e-commerce solution when convenient.

Table 2 summarizes the Microsoft technology used in Navision Web Shop and Commerce Portal. You can see that the Microsoft platform is largely the same and that differences are mainly due to new versions of Microsoft products.

Table 2: Summary of Microsoft Technology Used in Web Shop and Commerce Portal

	Web Shop	Commerce Portal
Operating System	Windows NT 4.0	Windows 2000, XP, 2003
Commerce Server	Site Server 3.0, Commerce Edition	Commerce Server 2000/2002
Web Server	Internet Information Server 4.0	Internet Information Server 5.0
Routing	Message Queue 1.0	Message Queue 2.0
Web Pages	Active Server Pages	Active Server Pages

Conclusion

The e-business strategy of Microsoft Navision calls for helping our customers compete with solutions that capitalize on the Internet to improve business. In order to get the most out of the Internet, our customers need a flexible supporting technology infrastructure that opens up business for improved collaboration leading to cost savings and revenue generation.

However, providing the technology infrastructure is not enough. This is why business solutions from Microsoft Business Solutions include the support and service necessary to implement the technology to meet a customer's specific needs and expectations. Commerce Portal offers opportunities for Microsoft Business Solutions business partners in the form of the sales and consultancy associated with implementing the vital e-commerce strategy and the business solutions.

Commerce Portal leverages the Internet allowing companies to streamline commercial interactions with

suppliers and customers. It is fully integrated into Microsoft Navision and complements other e-commerce solutions, such as Commerce Gateway. It improves a company's responsiveness to supplier and customer demands, allows partners to serve themselves and reduces costs through automation.

Commerce Portal brings all of a company's interactive business together in one application. Every user – whether it's a customer, a vendor or a sales representative – can serve themselves from a personalized user interface with rich functionality and relevant, up-to-date information using the business logic of Microsoft Navision.

Complete integration of Commerce Portal and Microsoft Navision allows partners, customers and vendors to access information and features, serve themselves and conduct commercial activities efficiently.

About Microsoft Business Solutions

Microsoft Business Solutions, a division of Microsoft, offers a wide range of integrated, end-to-end business applications and services designed to help small, midmarket and corporate businesses become more connected with customers, employees, partners and suppliers. Microsoft Business Solutions' applications optimize strategic business processes across financial management, analytics, human resources management, project management, customer relationship management, field service management, supply chain management, e-commerce, manufacturing and retail management. The applications are designed to provide insight to help customers achieve business success. More information about Microsoft Business Solutions can be found at www.microsoft.com/BusinessSolutions.

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