**Knowledge Management:
A Service Offering Built on Microsoft® Office 2000 and the
Microsoft BackOffice® Family of Server Products**

Why Your Organization Needs Knowledge Management

The difference between Knowledge and mere information is obvious to managers facing fierce competition and rapidly changing markets. In the absence of context and experience, information can be completely worthless. Here are a few of the challenges driving the explosion of interest in Knowledge Management:

- **Organizations are experiencing personnel turnover rates of over 20%.** Losing personnel now represents more than just the loss of a human resource. It also represents the loss of information and knowledge contained within that resource. Knowledge Management helps an organization reduce the impact of escaping knowledge by capturing the "soft" knowledge in the minds of the organization's managers.

- **Information is harder to find.** The rapid evolution of computer and networking technologies has taken its toll on the knowledge worker. Information was once a single format, single location scenario – this being papers stuffed in a filing cabinet. But with the introduction of file systems, e-mail, database systems, personal information management software, intranets and the Internet, it has become increasingly difficulty for the right person to find the right information at the right time.

- **Best practices are not in effect throughout the entire enterprise.** Effective business practices developed in one part of the organization do not automatically take root in another. Knowledge Management helps organization identify, learn from and extend localized successes to increase the effectiveness of the entire enterprise.

- **Specialization breeds mutually inaccessible islands of knowledge.** The ability to take regular inventory of your organization's knowledge assets is one of the primary objectives of Knowledge Management. KM creates links between organizational units, even previously uncommunicative ones, which help break down the barriers created by specialization, increasing awareness of mutual needs and encouraging sharing of information.

- **Inadequate tools for collaboration stifle experience sharing.**
  Effective collaboration requires new channels that make reaching out to others inside and outside of the organization almost effortless. Knowledge Management considers human factors and provides incentives for participation.

- **The concept of "collective wisdom" is difficult to embrace.** Unless participants believe in their value, new channels for knowledge sharing will ultimately fall into disuse. To make Knowledge Management permanent and structural, its successes must be celebrated.

The Office 2000 Advantage

Streamlined Information Sharing and Collaboration

Collaboration and the ability to share information quickly are vital to business success. Office 2000 delivers great new tools for the Web that enhance personal productivity and the productivity of workgroups.

- **Universal Document Viewing** -- With Office 2000, users can save Office documents in HTML file format and retain the fidelity of native Office file formats. By saving as HTML, users can be assured that anyone with a Web browser can view their documents.
- **Web Publishing --** Office 2000 simplifies publishing your Office documents to an intranet. New **File Open** and **File Save** dialog boxes make saving documents to a Web server as easy as saving them to a user's hard disk.
- **Web Discussions --** With Office 2000, workgroup members can collaborate on projects across intranets in threaded discussions that users can insert in any part of a document and view in a Web browser.
- **Internet Group Scheduling** – the Outlook® 2000 messaging and collaboration client now allows users to schedule group meetings with people inside their company and over the Internet at the same time. Using the Internet, users can publish and download busy/free information for scheduling meetings and send/receive meeting requests and responses.

Ease of Use and Manageability

As with previous versions of Office, Office 2000 delivers great improvements in ease of use through enhanced intelligence features and tighter integration between individual applications.

- **Self-Repairing Applications** -- The installation process for Office 2000 has added intelligence features that can fix problems that may occur with the software.
- **Floating Tables** -- In Microsoft Word 2000, tables can be placed anywhere within a document and wrap text around it, giving users more freedom in document layout.
- **Improved Clipboard Capabilities** -- The Office 2000 Clipboard can now copy up to 12 different pieces of text or images from one or more documents, e-mail messages, Web pages, presentations, or other files simultaneously and paste them into any Office document.

- **Office E-mail** -- Office 2000 integrates e-mail into each of the applications making it easier to send Office documents electronically.

Richer Data Analysis

The ability to access relevant, timely business information is more important now than ever. Also important is the ability to view and analyze that information using familiar desktop tools. Office 2000 provides innovative new tools that allow users to use their Web browser to more easily access and work with business data.

- **PivotTable and PivotChart Dynamic Views** -- PivotTable® dynamic views provide a powerful way to manipulate data. Now, with Microsoft Excel 2000, PivotTable views can be charted. PivotTable views and PivotChart™ dynamic views provide a valuable way to view and evaluate important business data.
- **Office Web Components --** The new Spreadsheet, PivotTable, and PivotChart components tie into a variety of data sources, such as Microsoft Excel, Microsoft Access, and Microsoft SQL Server™, so users can not only access information, but also edit and manipulate that data.
- **Data Access Pages --** Data Access Pages are interactive Web pages that maintain a live link to a host database and let users view, edit, and contribute information from within their Web browser.

The Knowledge Management Service Offering

As a Microsoft Certified Solution Provider, we are recognized for our expertise in developing custom solutions using Microsoft tools. As one of our service offerings, we will work with you to provide a custom Knowledge Management solution, built on Microsoft Office 2000 and the Microsoft BackOffice family of server products. In building a tailored solution to meet your specific needs, we will recommend leveraging the Office 2000 and BackOffice products to achieve the following results:

Harnessing the Web as a Vehicle for Collaboration

The support for Web technologies in Microsoft Office 2000 makes available the powerful web metaphor as a front end for Knowledge Management information and collaboration. For example, data residing in Excel format can easily be made available through a Web browser in a form that still allows for pivoting a PivotTable, or sorting a list. This collaboration support is enriched by full support for HTML based scripting in all of the Office 2000 applications, which allows developers to build solutions starting with Office 2000's easy-to-use creation tools.

The Transfer of Individual Knowledge to Institutional Knowledge via Collaboration

Microsoft Word 2000, Excel 2000 and the Microsoft PowerPoint 2000 presentation graphics program provide new ways for members of a team to collaborate on proposals and other documents. With improved revisioning features and support for in-line discussion threads, collaborating on documents has never been easier. With Microsoft Exchange Server as the central repository, you can build a rich library of materials with consistent review and approval processes.

Using Indexing and Profiling to Make Information Easier to Find

Office 2000 alone can be an extremely powerful personal productivity suite, and most Knowledge in organizations today resides in Office file formats. But couple Office 2000 applications with Microsoft Site Server, part of Microsoft BackOffice, and Knowledge Management is taken to another level. This is because of Site Server's indexing and profiling features. Site Server's indexing capability allows users to search for information from a single point, while Site Server permeates throughout the enterprise for the information. The indexing capability includes the ability to search Office files in file systems, databases, web pages, public folders, even attachments, for specific knowledge bits. Site Server's profiling capability coupled with its Site

Analysis tool allows applications to act intelligently, delivering customized, targeted information to users based upon an analysis of their work patterns.

Allowing easier access to specialists via Mobile and Offline Usage

Mobile knowledge workers can represent a vitally important pool of knowledge in your organization, since these employees often experience the greatest level of exposure with changing customer needs and market conditions. Strong support for mobile users is therefore important to the success of any Knowledge Management solution, and Microsoft Outlook 2000 provides it. Public folders in Exchange Server are easily transferred to local Offline Folders for constant accessibility. Any changes to the content of these folders are automatically synchronized the next time the network becomes available. And with the new local replication capabilities of Microsoft SQL Server 7.0, even applications that interface with relational back-end databases can be used offline. As a result, remote and mobile workers don't face compromises – they have access to the same knowledge resources as connected users.

Outlook has several features, which amplify the effectiveness of your Knowledge Management solution. The Remote Outlook client shared the same design as the standard Outlook client. In addition, Outlook integrates with PDAs such as the Windows® CE operating system and the PalmPilot to provide offline mail, calendaring and contact management. Finally, Exchange's offline address book supports a large number of objects, which means that the global corporate directory can be used offline.

Consistent workflow support for document routing

Microsoft Exchange Server is the ideal platform for supporting both structured and ad-hoc workflow. For proposal generation and presentation preparation, Exchange can be exploited for review cycle, approval routing, and document management capabilities.

Interactive reporting capabilities

Microsoft Access 2000 and Microsoft Excel 2000, with back-end support from Microsoft SQL Server 7.0, allow everyone in your organization to have fully dynamic, multi-dimensional reporting capabilities. Reports can be tied directly to back-end relational database systems, permitting instant update and distribution of reports. With the PivotTable and PivotChart components included in Microsoft Excel 2000, users can filter and arrange reports to their liking, to answer specific questions and gain insight into trends.

More efficient time and meeting management

Unified, Global Individual and Group Calendaring enables teams to more efficiently manage their time and book meetings with other teams and partners. Key features include the ability to:

- Schedule group meetings with multiple associates regardless of location to easily and quickly find the optimal time to meet. Ability for the system to automatically suggest a meeting time if desired
- Schedule calendars and resources (conference rooms, equipment, etc.)
- Lookup external LDAP standards-based addresses
- Automatically schedule meetings in multiple time zones and view meetings in two time zones simultaneously
- Delegate calendar management to administrative assistants

Three things to look for in a Knowledge Management solution:

- **Does it make information accessible to the people who are closest to the action?** Those on the front lines, such as mobile sales representatives and customer service personnel, are a vital source of knowledge about the customer. Knowledge must flow freely to and from these workers.

- **Does it make provisions for human imagination and creativity?** A Knowledge Management solution should be a lot of things your current Information management isn't. It should be more transparent, social, flexible, and intuitive to involve the widest possible range of participants. It should focus on problem solving and experience sharing, rather than output and transactions.

- **Does it recognize tacit as well as structured knowledge?** People, not electronic databases, are the most valuable sources of knowledge in any organization. Transforming informal, tacit knowledge into knowledge that can be used by the entire organization should be a primary objective of any Knowledge Management solution.

Outline of System Capabilities

- Knowledge Management modeling diagrams that illustrate knowledge repositories within the organization and user relationship diagrams. These reports provide a bird's eye view of the flow of knowledge through the organization as well as the interactions that take place with the knowledge.

- Site analysis report to find areas of your infrastructure that are tapped into most by knowledge workers for information.
- Security scheme to find an optimal fit between the Windows NT® infrastructure and enterprise knowledge.

Stakeholder perspectives on this Office 2000 Knowledge Management solution:

Knowledge workers…
Knowledge Management enhances the ability of knowledge workers to interpret situations, solve problems, and make decisions. Through Knowledge management, operators, technicians, managers, sales representatives and many others who use Knowledge on a day-to-day basis are able to tap the stored experience of their colleagues.

Information Experts…
Records managers, archivists, and other information specialists who organize knowledge into systems to support knowledge workers are among the major beneficiaries of Knowledge Management. An effective KM solution places them at the hub of a vital, productive resource that simultaneously increases the visibility of their knowledge and reduces the amount of time spent dispensing that knowledge to the enterprise.

Information Technology Experts
System analysts, system designers, software engineers, programmers, data administrators, network managers, and other IT specialists have a lot to gain from a successful Knowledge Management initiative. Rather than working on the technical fringe, Knowledge Management makes them important contributors to the mainstream objectives of the organization. KM helps make the systems they design, create and manage better able to satisfy the information needs of corporate decision makers.

The Organization…

Where computer-based information systems are limited to formal, structured, internal data, a Knowledge Management solution allows the incorporation of the informal, unstructured, external information so critical to informed decision making. Knowledge Management helps unlock the valuable information hidden in sales reports, memos, studies, project documents, audio recordings, photographs, etc.

Deliverables

At the completion of our Knowledge Management service offering, we will have delivered the following system components and/or capabilities to your company:

Installations

- Installation and configuration of all necessary BackOffice servers, including some of the following: Microsoft SQL Server, Microsoft Internet Information Server (IIS), Microsoft Transaction Server (MTS) with Microsoft Message Queue Server (MSMQ), Collaboration Data Objects (CDO), and Active Data Objects (ADO), Site Server, Index Server
- Installation and configuration of Office 2000 and Office Web Components on pilot machines
- Installation and configuration of custom-developed components on pilot machines.

Documentation

- Documentation of functional and technical requirements
- Documentation of first, second, and third tier system designs

Testing

- Testing of all end-user documents, components, and relevant system features on pilot machines

Training

- Training of Knowledge Management pilot users (before the pilot)
- Training of all Knowledge Management users (after the pilot)

Knowledge Management Service Offering Methodology

For our Knowledge Management service offering, we have developed a custom-tailored methodology that builds upon our proven approach to software development:

1. Understand the Problem (Analysis)
   1.1.   Interview users and key personnel
   1.2.   Review existing forms and documents
   1.3.   Document current business rules and workflow
   1.4.   Identify limitations of the existing process
   1.5.   Identify unsolved business problems
   1.6.   Determine all functional and technical requirements
   1.7.   Scope the key requirements for a pilot Knowledge Management application

2. Architect a Solution (Design)
   2.1.   Apply Office 2000 components to meet requirements (First Tier)
   2.2.   Design business rule components (Second Tier)
   2.3.   Apply BackOffice for deployment, scalability, and workflow (Third Tier)
   2.4.   Determine appropriate network topology

3. Build the Solution (Development)
   3.1.   Develop Office documents and user interface (First Tier)
   3.2.   Develop business rule components (Second Tier)
   3.3.   Develop back-end repositories (Third Tier)

4. Test
   4.1.   Unit testing
   4.2.   System testing

5. Conduct the Pilot (Initial Rollout)
   5.1.   Training of pilot users
   5.2.   Evaluation of pilot
   5.3.   Act on feedback from pilot

6. Framework to Develop the Production Application
   6.1.   Training of all users
   6.2.   Handoff of deliverables
   6.3.   Final evaluation and review

About Communication Technology for Business

As a recognized specialist in Knowledge Management, CTB provides custom-tailored, fully integrated KM solutions that fit your organization like a glove, leveraging your strengths and improving every aspect of your business processes.

Our status as a Partner Level - Certified Microsoft Solution Provider is your guarantee of our skill and experience in Knowledge Management, and of our ability to successfully implement Microsoft Office 2000 for your organization. We look forward to working with you to develop a KM solution that is precisely tailored to meet the specific needs of your organization and the unique challenges of your business.

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