



The Institute for Johns Hopkins Nursing Uses Advanced Microsoft Information Technology to Further State-of-the-Art Nursing Practices in More than 50 Organizations Across the Country

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The Institute for Johns Hopkins Nursing (IJHN) Leadership Academy in End-of-Life Care is using Microsoft Windows SharePoint Services to galvanize the nursing profession, help a global community of more than 460,000 nurses to work in unison, and improve the quality of life for palliative care patients. By working with Dell Professional Services and taking full advantage of the rich set of out-of-the-box features provided by Windows SharePoint Services, IJHN moved the project from design to implementation in less than four weeks.

Situation

The Nursing Leadership Academy in End-of-Life Care was formed by senior educators and nursing staff of the Institute for Johns Hopkins Nursing in Baltimore, Maryland. Funded by the Open Society Institute's Project on Death in America, the Academy was created to guide and inspire nurses in their efforts to define the goals and standards of practicing end-of-life nursing care.

Beginning in September 2000, the Institute sponsored conferences attended by leaders from an estimated 50 national nursing organizations. These meetings were designed to advance the concerns and methods of nursing professionals engaged in palliative care. Conference attendees made substantial progress directly after the conferences and in follow-up meetings during the next two years. However, academy leaders found that outside of infrequent face-to-face meetings, it was difficult for Academy members to sustain group energy, creativity, and the ability to rapidly develop consensus on important issues.

"The post-conference environment really challenged us to think about how we could create a solution to sustain our efforts beyond the beginning stages," explained Dr. Cynda Rushton, Project Director for the National Nursing Leadership Academy and faculty member at the Johns Hopkins University School of Nursing. She continued, "We needed to create an infrastructure that would help nurses provide palliative care with the greatest competence. To achieve this goal, we

Solution Overview

Customer Profile

The Institute for Johns Hopkins Nursing Leadership Academy in End-of-Life Care is an innovative partnership designed to foster communication and collaboration between nursing educators and nursing practitioners.

Business Situation

The Academy needed a means to sustain the momentum gained at professional conferences after the participants returned home and a means to galvanize the global nursing community.

Solution

A collaborative online workspace based on Microsoft® Windows® SharePoint™ Services implemented on the extranet of The Institute for Johns Hopkins Nursing provided practitioners with an easily accessible, scalable, and manageable workspace that sustained a sense of community beyond face-to-face meetings.

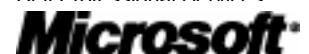
Benefits

- Enabled a collaborative online community
- Enabled sharing of best practices
- Provided a forum for chat and online discussions
- Enabled dedicated online workspaces to multiple communities of practice
- Extended services to the global nursing community
- Improved peer collaboration and communication
- Minimal administration and management
- Rapid time to use – site design and deployment in less than 4 weeks

Software and Services

Microsoft Windows Server 2003 Enterprise Edition with Active Directory® directory service
Internet Information Services 6.0
Windows SharePoint Services
Microsoft SQL Server™ 2000 Standard Edition
Microsoft FrontPage® 2003 (Beta)

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had to address their needs to connect with each other and provide access to critical resources as they dealt with challenging cases right at the bedside.”

With planning assistance provided by the Enterprise Collaboration and Content Management team at Dell Professional Services (DPS), the Institute for Johns Hopkins Nursing explored online collaboration solutions for connecting and engaging the nursing community throughout the United States. Academy leaders recognized that this approach provided the most effective way to sustain the momentum of their change efforts and ensure that they were carried through to implementation. This strategy also enabled the Academy to organize, educate, and train a large and widely dispersed network of nursing leaders and helped to transform palliative care by galvanizing the nursing profession.

Solution

The Academy chose to use a solution based on Microsoft® Windows® SharePoint™ Services, a component technology in Windows Server 2003, to create an online collaboration community that would increase the rapid exchange, accessibility, and impact of information that is available to palliative care practitioners.

“The mission of the School of Nursing, which in collaboration with the Johns Hopkins Hospital formed the Institute for Johns Hopkins Nursing in 1995, is to provide leadership within the nursing community,” said Claire Bogdanski, Associate Dean and Chief Financial Officer for the Johns Hopkins University School of Nursing. “We are using the new [Windows] SharePoint Services online community to leverage collaboration and communication between institutions and nurses around the country. Our early experience already demonstrates that this project will be a huge success.”

“Our strategy is to deploy online workspaces that are designed around the specific needs of communities of practice so that healthcare professionals can collaborate to share best practices, sustain the momentum of their face-to-face meetings, and unite the nursing profession around common goals,” explained Dr. Rushton. “By developing online communities of practice, we can help engage nurses across the country and enable them to achieve excellence in palliative care. This will help improve the quality of life for patients by advancing best practices for relief from suffering, control of symptoms, and restoration of functional capacity and encourage sensitivity to personal, cultural and religious values, beliefs, and practices.”



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Claire Bogdanski
Associate Dean and Chief Financial Officer
Johns Hopkins University School of Nursing

“Collaboration solutions are more about people and process than they are about technology, so we always look for platforms that are based on established technology and that provide a lot of features and functions out of the box,” explained Susan Hanley, Practice Executive, Enterprise Collaboration and Content Management. “That way, we spend time focused on what users really need and how they can embed that technology into the way they work. We were able to map the core requirements of the Palliative Care community directly into the core features and functions of Windows SharePoint Services.”

Windows SharePoint Services met a demanding set of criteria that supported three overarching objectives of the Academy:

- **Knowledge** – Provide key information and resources for the nursing community.
- **Self-awareness** – Help users keep abreast of what is happening to nursing practitioners in the context of palliative care.
- **Support** – Enable users to reach out to one another for advice, best practices, and general support.

To achieve these goals the online collaboration solution used these key technology components:

- **Windows SharePoint Services** is a Web-based team collaboration environment built on the highly reliable, security enhanced, and manageable Windows Server 2003 platform. Windows SharePoint Services gives any workspace member with a Web browser the ability to create and access virtual workspaces, in which they can develop and share best practices documents, engage in discussions, conduct opinion surveys, and provide member profile and patient support information.
- **Windows Active Directory® directory service** provides centralized management of security policies and control over data access. It simplifies routine site administration tasks by providing role-based management, enabling project administrators to ensure the privacy of confidential medical information.
- **Enhanced file security** is enabled by Encrypted File System which help provide additional file security while laptop users are in the field. These Windows Server 2003 features are especially important to help meet the security requirements of the federal Health Insurance Portability Accountability Act of 1996 (HIPAA).

“To support more than 460,000 users from 50 nursing organizations throughout the United States the solution had to be scalable,” explained Bruce Dennett, Director of Computer Services for the Johns Hopkins University School of Nursing. “We also needed a solution that we could easily customize to suit the specific needs of best practice communities while requiring only minimal administration and management.”

Benefits

The partnership between the Institute for Johns Hopkins Nursing and Dell Professional Services, developed a collaborative workspace that helps palliative care practitioners identify the issues and develop the methods they need to improve end-of-life nursing care.

“The wide-ranging capabilities of our interactive online community provide us with everything we need to identify issues vital to palliative care practitioners and speak in one voice to promote those issues that benefit our patients.”

Dr. Cynda Rushton
Project Director for the National
Nursing Leadership Academy and
Faculty Member
John Hopkins University School of
Nursing

Online Collaboration Workspace Helps Sustain Momentum of First-of-Kind Nursing Initiative

During site development, project participants identified critical features and capabilities the site would need in order to provide an accessible, manageable and easy-to-deploy collaborative workspace. These capabilities included:

- **Accessibility and ease of use.** Low-bandwidth functionality and easy navigation on a wide variety of commonly available Internet platforms were included to maximize member participation. An easy-to-use UI optimizes site navigation for users of different technology and levels of technical experience.
- **Easy information publishing and updates.** Users can easily publish documents and other content with browser-based publishing tools and use the discussion feature to exchange ideas, survey opinions, and gather resource information.
- **Site security to prevent unauthorized access.** Community members can share case histories, memorials, and other best practices information and be assured that it is secure.
- **Site scalability with capacity to support hundreds of thousands of users.** Scalable server and information storage will accommodate rapid site deployment and consistent growth in the number of users and the volume of stored information.
- **Easy administration and management.** Centralized site administration and security helps minimize the burden on IT professionals with limited resources. In many cases, Academy members can perform routine site administration tasks without the need for assistance of a dedicated support staff.

“The collaborative workspace provides access to highly personalized content that encourages community participants to become acquainted with the human faces of the practitioners, patients, and patient caregivers who engage in and receive palliative care,” said Dr. Rushton. “The wide-ranging capabilities of our interactive online community provide us with everything we need to identify issues vital to palliative care practitioners and speak in one voice to promote those issues that benefit our patients.”

Accelerated Development of Customer Requirements Helps Enable Rapid Site Design

Dell Professional Services, (DPS), provided an experienced team from their collaboration practice to conduct a detailed analysis of the palliative care community's collaboration requirements. Their expertise in defining the business process, staffing, and technical requirements of collaboration sites, and the subsequent mapping of those requirements to the features of Windows SharePoint Services enabled them to produce a comprehensive design that featured scalability, security, and rapid deployment.

Out-of-the-Box Capabilities Aid Rapid Deployment

Using out-of-the-box functionality of Windows SharePoint Services enabled site development and deployment in less than 4 weeks.

“Right out of the box, we found much of the technology that we really needed so that we could spend our time focused on what kind of content was needed, how it should look, and how users would interact with it,” explained Dell's Susan Hanley. Instead of worrying about how many custom features we'd need to build, we were able to quickly set up the site, enabling users to spend their time on what's really important, sharing knowledge and implementing best practices for palliative care.”

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Susan Hanley
Practice Executive
Enterprise Collaboration and Content
Management
Dell Professional Services

Rapid Development Environment Helped Accelerate Time to Use

Pre-built templates in Windows SharePoint Services enabled project participants to design and lay out most of the site's structure and basic functionality in three weeks; deployment was completed in less than two weeks. Project developers used Microsoft FrontPage® 2003 (Beta) and native support for the Microsoft .NET Framework to customize site functionality with Web Parts, reusable ASP.NET-based components that provide specific programmatic functions.

Advanced Data Security Protects Confidential Medical Information

"Meeting the HIPAA security requirements and enabling easy site access are crucial requirements for enabling our online community," said Bruce Dennett, Director of Computer Services for the Johns Hopkins University School of Nursing. "We look forward to improving security, not only by using Active Directory, but also by using enhanced file storage technologies such as Encrypting File System to ensure confidentiality. We're also depending on the ease of centralized administration and features such as automatic site provisioning and expiration so that our limited IT staff doesn't need to spend too much time supporting the online community."

SharePoint Extensibility Provides a Solid Foundation for Expanded Community

As the number of site visitors grows, and the field of palliative care matures, the scalable architecture of Windows SharePoint Services will enable the Palliative Care Nursing Community site to accommodate higher site traffic, increased volume of stored data resources, and increased database-intensive search operations.

Since the architecture of the Palliative Care Project uses Microsoft SQL Server™, network administrators can easily add server capacity as well as storage. They can also use Windows Active Directory directory service to simplify management and security for the growing base of community participants. And, by adding Microsoft SharePoint Portal Server in the future, the Academy and Johns Hopkins University School of Nursing can organize thousands of specialized team sites to deliver value that reaches far beyond the 460,000 Academy members in North America to help improve worldwide healthcare.

Claire Bogdanski, Associate Dean and Chief Financial Officer for the Johns Hopkins University School of Nursing summed up the Institute experience by saying "It is our hope that partnering with organizations such as Dell and Microsoft will help us to produce a better program for our practitioners and provide improved healthcare across a larger area than would have been possible in a classroom setting. SharePoint Services could be used in multiple types of practice or technology spreading across any of the fields that we study here at the School of Nursing."

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Claire Bogdanski
Associate Dean and CFO
Johns Hopkins University School of
Nursing

Summary

The following table describes key objectives, the technology used to achieve them, and the benefits each will have to the palliative care community project.

Business Goal	Technology Solution	Strategy	Anticipated Benefits
Create a collaborative workspace that encourages members to: <ul style="list-style-type: none"> ▪ Find and make connections with one another ▪ Share best practices ▪ Solve problems ▪ Create enhanced meaning from their work ▪ Provide support for the care giver ▪ Find key resources 	<ul style="list-style-type: none"> ▪ Windows SharePoint Services ▪ Active Directory directory service ▪ Group Policy ▪ Microsoft SQL Server ▪ Web services 	<ul style="list-style-type: none"> ▪ Use easy-to-use interface and common Web technology to make information more available. ▪ Create interactive content to encourage group identity and maximize participation ▪ Use centralized role-based management to ensure security and simplify administration ▪ Helps secure data to comply with federal HIPAA regulations 	<ul style="list-style-type: none"> ▪ Global community ▪ Easy site access and navigation maximizes group participation ▪ Rapid document exchange and management ▪ Participants enabled to exchange a broader range of ideas, issues, and information ▪ Reduced administrative effort ▪ Helps meets HIPAA requirements
Expedite site development and deployment to sustain project momentum and keep project costs low	<ul style="list-style-type: none"> ▪ Windows SharePoint Templates ▪ Analysis by Dell Professional Services ▪ Microsoft .NET Framework ▪ Web Parts ▪ Microsoft FrontPage 	<ul style="list-style-type: none"> ▪ Use established best practices to quickly define customer requirements. ▪ Deploy out-of-the-box template-based solution rather than develop a solution from scratch. 	<ul style="list-style-type: none"> ▪ Total project development time of less than four weeks ▪ Costs of extended site development effort avoided
Use collaborative technology to extend project gains	<ul style="list-style-type: none"> ▪ Microsoft SQL Server 	<ul style="list-style-type: none"> ▪ Use SQL Server scalability to accommodate 460,000 users ▪ Use community portal to extend project reach 	<ul style="list-style-type: none"> ▪ Future site growth can be accommodated with modest investment of software and administrative effort

Microsoft Windows Server 2003 helps you to create a highly productive platform for powering connected applications, networks, and Web services. Windows Server 2003:

- Helps you to deliver a reliable, secure, scalable platform for applications and network services
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For more information about Windows Server 2003, please visit:

<http://www.microsoft.com/windows/netserver/>

For more information about Windows SharePoint Services 2003, please visit:

<http://www.microsoft.com/sharepoint/teamservices/>

About the Partner

Dell Professional Services (DPS) helps businesses to optimize technology, enhance productivity, reduce business risk and maximize return on investment. Our Collaboration solutions are designed to help customers leverage enterprise knowledge to improve organizational responsiveness, increase worker productivity, foster greater innovation and optimize collaboration across the enterprise.

For more information on Dell Professional Services, please call 1-800-WWW-DELL (1-800-999-3355) or visit their Web site at: <http://www.dell.com/dps>

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For more information about the Institute at Johns Hopkins Nursing, visit the Web site at:
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