Iyka
Case Study

Project Round-Up
A Sampling of Industry-Specific Projects

Healthcare

Cook County Health and Hospital Systems (CCHHS)

Project 1: IT Infrastructure consulting services

Iyka provided IT Infrastructure consulting services to CCHHS. CCHHS implemented new technology and has upgraded their existing Microsoft domain network. Under the new implementation, Windows 2008 R2 Domain Services have been installed on Cisco UCS servers.

   CCHHS had a Citrix XenApp environment. Iyka provided assistance in deploying a Proof of Concept for application utilizing the last version of XenApp, running on Windows 20008 Servers. The new XenApp environment was integrated with existing ESX 4.1 infrastructure. Iyka built the entire XenApp environment, consisting of four (4) Virtual machines (VM) that includes XenApp Server, License Server, SQL Server and Web interface Server.

   Iyka provided full support for new Citrix implementation. Iyka supported move of large groups of users to the new environment and XenApp applications such as Cerner Millennium, Microsoft Office, Adobe and all other published applications. Various other components included remote access via SSL VPN and Client Access Gateway as well as profiles, printers and general Citrix infrastructure supports.

Project 2: Migrating Cloud Based Exchange Back to Local Exchange Servers

Over 5000 of CCHHS users were using MS Exchange in the Office 365 Cloud. In the recent past, CCHHS had two major instances of cloud unavailability which has resulted in serious scheduling issues--the users were unable to access email or their calendars. It resulted in loss of productivity for thousands of users and impacted customer services.

   Iyka provided complete study and analysis of the cloud environment at CCHHS, then infrastructure for migrating the cloud Exchange services to onsite based Exchange servers. Office 360 services from Microsoft were used to provide email, calendar and other exchange server services to CCHHS. Iyka provided services that included but were not limited to cloud integration offering the same services with onsite Exchange server.

Project 3: Microsoft Active Directory Optimization and Services

CCHHS had implemented new technology and has upgraded their existing Microsoft domain network. Under the new implementation, Windows 2008 R2 Domain Services have been installed on Cisco UCS servers. The current implementation is an upgrade to the old active domain network running on Windows 2000 servers. With the design, implementation of the new Windows 2008 R2 servers, several transition and technology challenges were raised.

   Also with any new network, there is a need for the availability of application and product experts to optimize, integrate, and ensure smooth operation of the network and services. CCHHS required an onsite expert with knowledge of Cisco UCS products, Microsoft Active Directory, Windows 2008 R2 Servers, System Center Components (Configuration, Operation, Data Protection, virtualization, service manager).

   Iyka was responsible for managing, integrating, optimizing and assisting the CCHHS IT team with services to its end customers.

Cook County: Q-Series Integrator Implementation
Iyka transferred the county's payroll system PTL to PTQ migration for "Enhanced Integration," in collaboration with Spinnaker Corporation. Services included:

- Restore/extract Q series integrator package
- Verify test environment - source and data
- Verify authorities for development and testing purposes
- Development - perform changes to JDE core object (programs, CL's, etc.)
- Unit and QA test all changes
- Fixed issues found while testing
- Moved changes to Cook County test env. (coordinate w/Cook County)
- Customer acceptance testing
- Move changes to Cook County production env. (coordinate w/Cook County)
- Provide complete documentation (net change and JIRA)
- Provide on-going maintenance

NDA Controlled Employee Benefit Management Company

Iyka was contracted by leading third-party employee benefits management company to provide a team of software development and integration professionals for the architectural design, development, integration, testing and implementation of a highly regulated healthcare data exchange system for the company's core business processes.

Iyka's lead architect and developers, using agile development built a secure, highly expandable feature-rich system to support the integration and administration of eligibility and employee benefits.

The team built a system to extract, translate and load eligibility, employee benefit information (healthcare, workers comp, long-term, short term, disability, etc.) into a database from an external payroll processing system.

Other information that needed to be integrated with this information included client billing, management, and compliance reporting data. Backend interfaces were designed, tested with trading partners, and implemented to provide a highly secure data network exchanging data with healthcare carriers, insurance companies, and human resource systems.

Implementation was architected on the SQL Server platform, with heavy utilization of integration services. Web and Windows .NET technologies, including ASP.NET 3.5 and Windows Presentation Foundation (WPF) were employed for configuration tasks and workflow management.

The software development team designed, developed and deployed additional application features to support new business processes and changes in federal regulations. The team implemented best practices for addressing compliance with federal regulations and guidelines. Over time, the system was expanded with the integration of a Premium Billing System (PBS) component that greatly simplifies the monthly generation of premium bills and accounts receivables

Education

Iyka was contracted by a national online education company to employ a team of project managers, technology architects, developers, and subject matter experts to create a learning environment. This system was built to integrate backend systems with online interaction to support highly scalable collaborative e-learning solutions for both K-12 and higher education programs. This system is capable of supporting thousands of students and teachers with almost instantaneous collaboration response time.

During the initial four months, our project management team worked with stakeholders to define and validate system requirements for replacing and enhancing the current administrative and learning environments. Our architects collaborated with the team to design and develop both the client-side as well as the collaboration server (public facing) and worked in conjunction with the client team from: system requirements through development, integration, testing, production release, and support. Iyka also architected and led the integration of a VOIP vendor product seamlessly built into the solution.

The solution was constructed with customer's ease of use and development maintenance in mind and also provides numerous support and troubleshooting utilities. Iyka also designed and developed an automated configurable performance testing harness tool that could run on multiple platforms to help identify production platform issues with the lowest cost and highest performance at the forefront.

The Iyka solution included:

- A solid and experienced project management team with strong subject matter expertise in education systems.
- The JET (Just Enough Technology) – whereby the appropriate technologies were chosen with the customer's needs in mind.
- The latest in Java-based and Microsoft technologies integrated with COTS and VOIP technologies
- A dynamic, interactive, collaborative, configuration-driven client graphical GUI
- A highly-scalable collaboration server which could process more than 1000 message per second for thousands of simultaneous users

In creating the administrative and e-Learning solution, the following benefits were immediately realized:
- Established the client as the leader in e-Learning systems
- Requirements to initial release accomplished in 4 months allowing quick revenue generation
- Higher margins due to low production costs
- The bottom line is that through the JET principle, the solution was delivered on time, within budget and with the features requested

With Iyka's extensive experience with software-as- a-service (SAAS) architecture and the business model of the Learning Systems through our ongoing relationship with the client, we were able to partner with this client to further architect, design, and develop other core systems including:

- The Learning Environment
- The Curriculum Server Software
- Enterprise Learning Management System (ELMS)
- eSAAS
- And others

Insurance

Blue Cross Blue Shield

Iyka was hired as a sub-contractor by a software consortium for the largest Blue Cross Blue Shield (BCBS) plan in the Mid-Atlantic region to lead the technical solution integration and development of the Blue Exchange Network project organized in 10 delivery release phases.

This project was to integrate, develop and enhance the features and capability of the Blue Exchange network and online websites along with business system that handles information inquiries and responses between the local BCBS Plan, the Blue Cross and Blue Shield Association (BCBSA) and other BCBSA member Plans. The Blue Exchange architecture was developed and implemented as a service oriented architecture, with most of the services supporting business-to-business transactions.

BCBSA's Policy requires that all Blue Cross Blue Shield plans participate in the global certification program. Current eligibility inter-plan programs policies require that home licensees respond to providers' host plans' eligibility inquiries through the Blue Exchange network with

information such as eligibility, co-payments, co-insurance, and static deductibles. The COBOL-based backend systems were interfaced to the integration engines built on the frontend.

Iyka played an integral role in the enhancements necessary to have these new integration requirements implemented. This complex system that Blue Exchange Iteration 4 (BXI4) tools planned to support included deductible, benefit accumulators information and provider taxonomy within the backend COBOL systems.

Additionally, federal mandates (HIPAA) requires utilization of standard inquiry transactions used to exchange inquiries where trading partners wish to exchange these transactions.   BCBSA member plans must comply with these newly enhanced integration requirements in order to become certified and keep up with industry expectations.

The BXI4 project leveraged our team's expertise to architect, design and develop these new features. Iyka consultants fulfilled the technical lead and senior developer roles on the project, and assumed responsibilities including the following:

- Led the architectural design and integration planning of this 6-year initiative
- Designed, coded, debugged, unit tested, and documented the core system changes as well as the business web services that reconciled local and out-of-area member enrollment and eligibility to be used by multiple mission critical, customer service applications for a healthcare insurance company.
- Designed and coded a DB2 data dictionary database system for business web services to use for populating object model descriptions and mapping data elements to other data elements.
- Designed, coded, debugged, unit tested, and documented an e-business application for business to update data dictionary elements and mappings using JAVA.
- Designed a DB2 preference database for use in the customer service web application for assigning favorites.
- Led conversion of legacy systems into JAVA components.
- Led JAVA and legacy developers in their assignments.

JAVA Tools and technologies that were incorporated and planned into the technical design included:

- WebSphere and z/OS Mainframe client platforms
- COBOL, CICS, DB2
- IBM/Rational Application Developer and ClearQuest
- JAVA Web Service Technology
- J2EE, Spring/Hibernate, JSP, JavaScript
- CVS
- XML Spy
- JAXB XML Binding

About Iyka

Headquartered in Greater Chicago, multiple award-winning Iyka is the leading expert on analytic optimization and the comprehensive utilization of all data. Its primary product is Iyka dataSpryng, the only Big Data analytics platform able to read unstructured data and provide an instantaneous unified view. It is as straightforward to deploy as Microsoft Outlook and user friendly--clients get the answers they need without technical translation or dependencies. Value add solutions include Iyka Team Consulting Services, which is staffed with highly experienced, experts that are closely monitored and held accountable to Iyka's own exacting performance standards. Master Contracts include: University of Illinois Systems, Cook County, State of Illinois, CDW, Federal Aviation Administration (eFAST), 8(a) STARS, and GSA 70 (pending). For more information on Iyka dataSpryng and Iyka visit www.iyka.com or call 630-372-3900.

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