

The mission of the DODD is to continuously improve the quality of life for Ohio's citizens with developmental disabilities and their families. Ohio is one of the nation's leaders in providing various residential options and supports to its citizens with developmental disabilities. The *imagine* application enables and supports this mission through a person centered process that fosters real-time collaboration for team members using innovative technologies

imagine

Implementing Person-Centered practices through innovative technologies

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Ohio | Department of
Developmental Disabilities



2. Executive Summary

The Ohio Department of Developmental Disabilities (DODD) along with 18 county partners referred to as the “county collaborative” have embarked on a “person centered” business transformation process. Several national experts in person centered planning joined the collaborative to design and develop the new process. There are several benefits associated with the new process including, reduced administrative expense through the sharing of information and resources across counties; reduced processing time for service delivery due to the efficiency gains in the person centered approach; and the ability to standardize the Individual Service Plan process (ISP).

To understand the scope of the project, it is important first to understand Ohio’s DD system. DODD oversees a statewide system of supports and services for over 100,000 people with developmental disabilities and their families. 88 County Boards of developmental disabilities deliver programs and services to county residents. The system is county-based, meaning each of the 88 counties have largely unique business processes and service delivery systems that are tailored to the needs of their local community.

County staff manually “piloted” the person centered approach using centers of excellence to train staff and collect feedback. This feedback was shared with DODD program and IT staff. DODD IT analyzed alternatives to support the business transformation through electronic means. After fully reviewing the business case, DODD decided on a multi-faceted approach; using Microsoft Dynamics CRM® as the core platform to support the county boards. A parallel web portal was then developed to support individuals, families, guardians and providers. DODD was able to link legacy application data to both the CRM® and portal through the use of real-time and batch integration processes supported by SCRIBE® software.

The selection of MS Dynamics CRM® allowed DODD to rapidly develop a configurable yet customized application to support the individual roles in county boards. The application was developed to allow service and support administrators (SSA’s), SSA directors, finance managers and budget support specialists to interact with the application through configurable dashboards that surface alerts and notifications to assist in workflow management. Individuals, families, provider and other non-county team members access information through the tightly coupled real-time portal. The portal developed using ADX studio® allows for transparent collaboration with all team members while dramatically reducing the cost to provide this level of collaboration. Key to the success of the workflow was the SSA’s ability to link non-county team members to the individual through an electronic invitation process in the *imagine* Dynamics CRM® system. The concurrent implementation of the new CSO40 award-winning Secure Entitlements Management System (SEMS) allowed DODD to upgrade security practices, while also fostering collaboration for the person centered approach.

3. Business Problem and Solution

Given that the DD system is county-based, over the years each of the 88 counties has developed largely unique business processes and service delivery systems to meet the needs of their local community. The team identified the following items as key business processes that could be improved by adopting person centered practices supported by a new technical solution:

- Varying processes, procedures and providers across counties
- Paper-based processes, which sometimes conflict with each other and/or require a multi-step approval process
- The need for collaboration across the team (e.g., individual, guardian, case financial manager, human rights and behavior support committees, and providers) some of whom are outside of the state's offices and network
- Separate provider lists (by county), which can make it difficult to access the full scope of providers able to work with an individual
- A diverse user-base with varying needs; input was sought from 18 different counties, which was tied to more than 500 individual user stories and numerous specifications
- Required integration with multiple legacy systems
- Specific HIPAA and Section 504 guidelines have to be followed to protect the privacy of individuals' case files, which contain sensitive personal information

The newly designed *imagine* system addresses the identified business problems by:

- Making it easy to develop goals and outcomes by capturing information in eight key life areas, and sharing that information across the team. The team uses the information to develop the ISP.
- Providing complete information about each individual's ISP, including agreement and approval, goals, services, providers, funding sources and progress.
- Providing an easy method for tracking agreement and approval of the ISP.
- Tracking changes and creating snapshots of the ISP for auditing, as well as consolidating reporting for easy distribution to stakeholders.
- Leveraging dashboards to enable caseworkers to easily access the status of ISPs and high-priority tasks.
- Keeping all team members informed of all outstanding tasks and key changes.
- Replacing manual processes for tracking and calculating local services, budgeting, funding sources and approval of services.
- Integrating key data from other systems to streamline the case workers' workloads and provide a more complete view of the individual and their case.

Assessment and Decision Process

With full visibility of the business challenges and clear direction on the desired end result, DODD began evaluating solution options. Given that DODD had several recent project deployments that were quite successful, including the Medicaid Service Support System (MSS) and the DODD Provider Portal, DODD strongly considered developing a

proprietary solution built on the .NET framework. This approach was tempered by the need to deliver the solution rapidly. Ultimately, DODD considered in-house development, two proprietary solutions and two commercial-off-the-shelf based solutions. The decision criteria that drove the adoption of Microsoft Dynamics CRM® were: configurability; ease of customization; time to market; out of the box functionality that addressed usability and privacy concerns; and ability to interact with legacy data stores via service layer and ETL tools. As part of the evaluation process, DODD and *imagine* project stakeholders reviewed the State of New York's Health and HHS developmental disabilities Dynamics CRM® implementation.

Elements of the Solution

Based on the noted criteria, DODD selected Microsoft Dynamics CRM® as the primary platform for the solution development for county boards. ADX Studio®, a provider of web portal solutions based on Microsoft Dynamics CRM®, and .NET platforms were selected as the development platform for the associated individual, family, guardian and provider portal. ADX Studio® was used primarily to leverage the claims based security interface with the Dynamics CRM® platform. DODD wrote custom .NET code on the ADX platform to provide individuals, families, guardians and providers a common look and feel that provides the necessary collaboration with county workers while utilizing dashboards, alerts and notifications. Additionally, to provide data integrations DODD leveraged SCRIBE® software to handle complex queue-based integrations with legacy systems. DODD development staff worked on the integrations while mastering the product and the complex integrations all within the project timelines. The data integration aspect of the project included development of over 50 on demand and batch processes using SCRIBE® to facilitate legacy application integration. DODD also leveraged the use of SharePoint® to manage document uploads. Team folders were set up to facilitate document storage and to allow SSA's to mark sensitive documents as confidential for restricted access. DODD also utilized the transformation and Dynamics CRM® implementation to move the field to industry accepted single sign-on security model using Microsoft Forefront Identity Manager and related tools. The importance of the concurrent implementation of the new CSO40 award-winning Secure Entitlements Management System (SEMS) cannot be emphasized enough. This migration allowed DODD to make all legacy .NET applications "claims aware" with minimal effort, saving the department millions of dollars in development effort. It also allowed DODD to define user personas that automated the population of security roles for entities in Dynamics CRM®. This was an important consideration since managing a security matrix of over 100,000 items would be nearly impossible to maintain.

After selecting Microsoft Dynamics CRM®, DODD developed a request for proposals (RFP) for a vendor to work with DODD staff as part of a "blended team". DODD selected McGladrey as the vendor. DODD was diligent in preparation for the solution development; training staff in the selected platform, engaging Microsoft Development subject matter experts (SME's) and completing a sizing exercise. DODD also created the appropriate pre-production environments to support the build. After training, the MS SME, worked with DODD staff for a full day to answer questions and prepare for development. Following that exercise, the in-house DODD team readied for the actual

development by implementing a prototype of phase 1 for business review. Initial development steps with the vendor included an architectural assessment that solidified the road map for development by describing tools to be used for data integrations, reporting and security approach. An architectural decision log was created to log key decisions affecting the build. With multiple DODD and vendor resources participating in the development process, code management was an important consideration. DODD utilized a “gold box” concept to integrate multiple developer code bases to support migration to production. The coding effort lasted approximately seven months. Following Agile concepts, business users had scheduled “show and tell” sessions to review development and provide feedback.

4. Significance of the Project

From a programmatic perspective, it is important to understand the direct benefits to the individuals using the system. The work process improvements for SSA directors and SSA's are significant. They are now able to manage work through dashboards, alerts and notifications. SSA directors now have automated oversight and approval over staff work. The SSA scratchpad and SharePoint® document management functionality is also key. Having the ability to restrict access to uploaded SharePoint® documents that are sensitive in nature is very important. Another game-changing benefit is the process improvements for county finance managers. They have the ability to manage local dollars, while implementing a standard local service taxonomy. For providers, the system implementation means that efforts will become less focused on a “prescription” of service and more focused on what is “important to” and “for” the individual. An outcome based approach with an emphasis on action steps and feedback through a learning log will become the new “norm”.

Individuals and families will now have awareness and approval of service delivery. This transparency gives them the ability to inform SSA's what is “important to” and “important for” them, which facilitates effective communication. In fact, pending SSA approval, the new application with SharePoint® integration allows the individual to upload pictures onto his/her page. Additionally, behavior support committees can provide feedback and agreement to individual service plans in cases of aversive supports that may be necessary in the day-to-day support of individuals.

5. Benefits of the Project

Return on Investment is very difficult to estimate in the government space. However, what is obvious is that the person centered processes will improve the lives of Ohioans with disabilities. It will provide them with a voice on how they will choose supports, interact with others and live their lives. Ohio's county based funding model leads county boards to seek voter support for levy dollars and; therefore, to be more efficient in providing the needed supports to consumers. The *imagine* application will help them achieve these efficiencies and will use electronic processes to facilitate collaboration and reduce the time needed to make decisions. Actual cost savings studies are currently being initiated but cannot yet be quantified. With regard to system development costs, DODD invested in the Dynamics platform to procure licenses to

support county workers. DODD provided a cost effective solution to link individuals, guardians and providers. The overall cost for release one development is roughly seven million dollars. The savings that will result from increased efficiencies and reduced waste is likely two to three times the cost of initial investment.

Innovation

From a business perspective, the user base is very excited by the new *imagine* system. This excitement stems from the focus on person centered planning and the ability to quickly implement the process using modern technologies such as Microsoft Dynamics CRM®. The associated portal built with claims based authentication allowed for transparent communication with the Dynamics platform. Never before in the state of Ohio have county boards of developmental disabilities had an application that used electronic processes to facilitate collaboration for team members. This system helps individuals directly—it's a story about changing people's lives! The new system helps individuals with developmental disabilities and their families/guardians create and coordinate service plans for skills development and achievement of individual life goals utilizing person centered principals. Charles O'Day, a resident of Fairfield County, Ohio, made history as the first individual to use the portal component of the *imagine* application to collaborate with his Case Manager. Viewing ["Imagine — It Begins and Ends with Charles O'Day"](#) illustrates Charles's real life experience with the *imagine* system. Charles was able to share basic information about likes and dislikes and also had the ability to upload pictures of his favorite pet. Parents/guardians were equally excited about the custom dashboards that provided alerts and notifications. These alerts facilitated timely communication to provide feedback about services received, including the ability to agree to service plans for their son or daughter. Providers were also more integrated into the process as they could now develop action plans and steps for service delivery along with sharing feedback about outcome results. The electronic collaboration across the team not only provided more focused service delivery, but also allowed county case managers and providers to focus on the individuals served rather than documenting service delivery through outdated paper forms. From a county board perspective, the new process streamlines the case management assignment process for supervisors and direct day-to-day case managers. County finance managers also benefit through the ability to approve both local and Medicaid service costs before sharing them with the rest of the team. The truly integrated solution gives a full picture of the individual to the team.

Leverage and Transferability

The *imagine* system and associated portal will ultimately replace the DODD Individual Demographic System (IDS) as components of IDS are re-factored into the *imagine* application. The role of IDS was to manage the demographics and associated information about individuals. The information includes processes and data stores such as waiting list (WL); Acuity Assessment (AAI); Developmental Disabilities Profile (DDP) and Patient Assessment Resident Review (PASR) data. As noted, to have a smooth transition from the legacy IDS application, adopt person centered principles and speed

deployment of the *imagine* application DODD utilized SCRIBE® to facilitate real-time and batch exchange of data with the *imagine* and the legacy IDS application. DODD also used iframes within the *imagine* application to provide direct access to related legacy applications such as the DODD Waiver Management System (WMS) and the Provider Certification Wizard (PCW). Using the claims based authentication supported by the new SEMS security model, DODD was able to implement single sign-on for all applications. This allowed users of the *imagine* application to interface with legacy applications such as WMS transparently through iframes without the need to re-authenticate. Utilizing a configurable solution such as Dynamics CRM also allows DODD to leverage upgrades made by the vendor with little added cost to DODD. The upcoming CRM 2013 upgrade was well received by users; additional benefits include the same design that now ports to mobile devices using responsive design concepts. Care was taken during the configuration and customization of the Dynamics CRM solution to ensure that developers followed coding best practices to facilitate upgrades. Experience to date with CRM 2013 upgrades validate that DODD has been successful in that regard.

Communication Plan

DODD program and IT staff worked closely together to develop a communication strategy. This strategy involves identifying a communication team; identifying communication messages and a schedule for communication delivery; developing appropriate communication channels; and finally developing a branding strategy including *imagine* branded products available for sale through an online website. The communication team is a cross-functional team representing DODD, county business partners and county centers of excellence. The team meets on a regular basis to review communications and the schedule for content delivery. Communications address anticipated issues and create awareness of the *imagine* system. These communications are targeted at a cross-sectional audience of *imagine* users including county staff, providers and individuals. DODD has leveraged social media, including Facebook and YouTube videos to help support delivery of the message.

A Promising Future

Work done to date with the *imagine* application was recently recognized by Microsoft at the annual Convergence 2014 gathering in Atlanta.

<http://www.microsoft.com/dynamics/convergence/atlanta14/Customer-Excellence.aspx?p=button#fbid=PjST2D6Kd2i>

DODD looks forward to further enhancements to the application to support person centered principles and effectively deliver innovative solutions to county boards, individuals, families, guardians and providers.

Technical Errata for the DODD *imagine* Project

Imagine

Hardware

Microsoft Dynamics 2013 16 total servers

- CRM servers: 4 Front End Server + 4 Back End Servers (CRM2013)
- Scribe servers: 1 Scribe server
- Web servers that power the portal: 4 Portal Front end servers for CRM
- SQL servers that power the imagine system: 1 Sql server (SQL server 2012)
- Sharepoint servers that power imagine: 1 Share point server (Share point 2013)
- SSRS servers: 1 server

Security Project:

AD, UAG, EMS,
FIM

- Number of DODD end users (Individuals, Parents and Guardians) - Before(None) - After (150,000)
- Number of Users (Staff, County Board Users and Providers) - Before(24,000) - After(75,000)
- Average time to provision an account - Before (8 to 10 days) – After (1 to 2 hours)
- Number of Identity stores - Before (4 – AD, SunOne LDAP, SQL Server) – After (One primary AD)
- Number of Help Desk calls for password change - Before (20 man months/Year)
- – After (Self Service enabled. Expect 90% reduction on support calls)
- Number of account provisioning and service support
- - Before (12 Man Months/Year) – After (Workflow enabled approvals. Only escalation to Security Support)

Scale:

- What can we currently scale to with the above configuration (load it can handle):
(3770 CRM licenses + 50K portal users)

Why This Technology?

- DODD is a Microsoft based technology shop (SQL, SharePoint, .NET, AD etc.)
- DODD sought to leverage interoperability with existing systems and other Microsoft technologies
- DODD evaluated products and determined that speed to market (8 months) was key.
- Dynamics CRM comes with out of the box features such as workflow, security, database, common Exchange like panels, alerts and notifications, email integration, mobile
- DODD also sought to leverage this technology to build other systems and we are

For additional information about the imagine project please visit:

<http://justimagineit.me/>

A reference link to this document is available on the DODD homepage located at:

<http://dodd.ohio.gov/Pages/default.aspx>

Imagine IS Integrated Application

