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One Sky SharePoint Form Flow

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One Sky SharePoint Form Flow

A Major Qualifying Project Report
Submitted to the Faculty
of the
WORCESTER POLYTECHNIC INSTITUTE
in partial fulfillment of the requirements for the
Degree of Bachelor of Science

By

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Date: March 3rd, 2016

Sponsored by:
One Sky Community Services

________________________
Professor Diane Strong,
Project Advisor
Abstract

In today’s competitive economy, organizations are reliant on technology to maximize efficiency. One method of maximizing efficiency is automation, the technique of making a system operate automatically. Through automation, manual processes can be streamlined to eliminate waste. This project outlines the automation of the Individual Service Agreement (ISA) process at One Sky Community Services. The three stages of this process, Creation, Review, and Approval, were prototyped and implemented into a digital management system, Microsoft SharePoint Online, using Agile methodologies.
Executive Summary

One Sky Community Services Inc. is a private, non-profit organization in Portsmouth, New Hampshire that provides family and residential support, and education and employment opportunities to clients with developmental and acquired brain disorders. To provide these services, One Sky enters into a contractual agreement by creating an Individual Service Agreement (ISA) with its clients. With the current manual ISA process, there have been cases of missed deadlines and issues with version control. To solve this problem, we decided to use Microsoft SharePoint functionalities to automate the ISA process.

The goal of our project was to automate the creation, review, and approval process of One Sky Community Services’ ISA packets and to introduce version control of the resulting documents. The new process increased overall timeliness and reduced errors. This project synthesized One Sky’s business requirements and collected user stories to guide development of prototypes. Then, using Agile software development methods, we prototyped and implemented functionalities in stages according to One Sky's use case. By conducting testing with users, we gauged the overall usability of our prototypes to determine the system’s suitability for the ISA process. Finally, we created documentation and training materials to ensure a smooth transition from the legacy, manual ISA process to the new automated ISA process.

Prototype Design

Our prototype is built on SharePoint 2010 Server at WPI. To simulate the implementation of the new system; we created a proof-of-concept prototype on the WPI SharePoint Server. Microsoft SharePoint Server 2010 is a collaboration platform that is closely integrated with Microsoft Office and Active Directory. Users with the appropriate permissions can quickly develop and build websites with SharePoint Server 2010. These websites can be used to manage collaboration tools such as document libraries, discussion boards, shared task lists, shared calendars, blogs, wikis and surveys.

The development of prototype was divided into three phases: ISA Creation, ISA Review, and ISA Approval. In the ISA Creation phase, we focused on creating an ISA packet in InfoPath and designing a due date reminder workflow. The creation of an ISA packet included generating fields and views of ISA forms. In the ISA Review process, we developed a management dashboard to help managers and directors track the progress of the ISA process. It consists of
two parts, ISA Dates and ISA Checklist, which display the important information of current ISA forms. In the ISA Approval phase, we designed an approval workflow which included features such as sending email notifications and assigning/reassigning tasks among service coordinators, supervisors, administrative assistants, and directors.

**Implementation of Prototype**

Ultimately, our prototype was implemented on One Sky’s Microsoft Office 365. Microsoft Office 365 is a productivity suite that includes common applications like Word and InfoPath. Office Online is an online version of the Microsoft Office suite which allows users to create and edit files using web-based versions of Word, Excel, SharePoint, and PowerPoint. Users can access Office 365 Online from any computer with internet access. In order to implement the new ISA process in One Sky’s system (Office 365, SharePoint 2013 Online), we had to account for version differences. The version differences required us to adapt our proof-of-concept prototype so that it would retain its functionality.

Using Agile software development methods, we utilized a digital management system (Office 365 SharePoint Online) to automate One Sky Community Services’ Individual Service Agreement process. We divided this process into three distinct phases; the ISA Creation, ISA Review and ISA Approval processes were implemented in succession. Our implementation allows service coordinators to fill out electronic forms using Microsoft InfoPath functionalities, managers to review individual forms progress with web parts and views, and all users to collaborate in a timely manner with approval workflows created in SharePoint Designer 2013. Ultimately, this system is in a ready-to-use state, with permanent use contingent on user training and usability testing. The new automated ISA process will enable One Sky to increase overall timeliness and productivity, and reduce errors for increased accountability.

**Recommendations**

A well-managed organization always needs to consider continuous improvement as one of the most important post-implementation activities. There are three key activities among all the post-implementation activities, which are support, maintenance, and project assessment. Support activity refers to the action of “providing assistance in the use of the system” and maintenance means “continuing to refine and improve the system”. Project assessment is to “analyze the project to understand what activities were done well and should be repeated and what activities
need improvement in the future projects” (Dennis, Wixom, & Roth, 2014). Below, we presented our recommendations for each of these activities.

**Support**

To ensure a smooth transition from current system to new system, we developed instructional videos and documentation for One Sky to conduct training if needed. To supplement this training, we recommend One Sky also identify business processes and system functions that are likely to be important to the users, so that the training focuses “on what the user needs to do, not on what the system can do” (Dennis, Wixom, & Roth, 2014). Microsoft SharePoint has innumerable features, but only a subset of the features will be utilized in the automated ISA process. Thus, training must be focused to ensure users are experts in "20% of the functions they use 80% of the time" (Dennis, Wixom, & Roth, 2014). In the case of One Sky, we recommend they employ a combination of one-on-one training and classroom training. Since this training would be given to at most 25 people, little reach is needed and costs will be limited. This training course paired with the training materials we provided will ensure all users are well versed in the use of the system.

**Maintenance**

To make sure that the system will meet the business requirements at any time, we recommended One Sky search for an operation group to handle maintenance of the automated ISA system including bug fixing and further development. Since One Sky already has an established partnership with Portsmouth Computers Group, it can be a great resource in terms of consultation. PCG’s SharePoint Specialist, John Rosset, who had been actively involved in the development stage of our automation process, can also be helpful if One Sky ever encountered any problem with utilizing SharePoint in their business processes.

**Project Assessment**

To gauge the overall usability of the new system we recommend One Sky uses parallel conversion, which means both the old and new systems are used simultaneously for a certain length of time. Parallel conversion is favorable to a direct conversion, which involves a complete abrupt switchover to the new system. For the first week, the ISA packet would need to be entered into both systems, on paper and electronically. Output from both systems must be carefully
compared to ensure that the new system is performing correctly. After 10 days, following analysis of both the old and new system by comparing the time to complete an ISA, the number of errors, associated costs, and ease of use, if the new system appears to be performing correctly, a complete switchover could then occur.

**Additional Recommendations**
To integrate this existing system with the automated ISA process in Office 365, we recommend One Sky recreate their existing sites by adding sites in the Office 365 system that correspond to the tabs in their existing system. These tabs include LEAN, PDMS, Rep Payee, Service Coordination, One Sky CHI, Family Support, Forms and Documents, and Vendors and numerous sub-tabs that correspond to different areas of the agency. Using sites and subsites, One Sky can eliminate extraneous and damaged information on the old site, move relevant materials to the new system, and combine their old familiar system with the new automated ISA process on a cloud-enabled, secure platform that will provide opportunities to automate other business processes in the future.
Acknowledgements

Our team would like to acknowledge the following individuals for their contributions to the completion and success of this Major Qualifying Project:

- Our advisor, Dr. Diane M Strong, for her guidance and support throughout the project.
- Our sponsor, One Sky Community Services CEO Chris Muns, for his assistance in coordinating the installation of our development environment (Microsoft Office 365, SharePoint Online) and continued support throughout the project.
- Director of Service Coordination Karen McLaughlin and Administrative Assistant Krista Sorel at One Sky Community Services for providing feedback and continued support to the team throughout the project.
- Content, Training, and Communications Coordinator Debra Dexter for providing us with initial training to use Microsoft SharePoint at WPI.
- Steve Ripper from Portsmouth Computer Group for his collaboration in the implementation of the automated ISA process in Microsoft Office 365, SharePoint Online.
- Independent SharePoint consultant John Rosset for his time support during the initial planning stages of our project.
Authorship Page

Philippe Kelley contributed to the writing of Abstract, writing and editing of each section of the report, the recording of the instructional videos, the design, creation, and implementation of the workflows in SharePoint Designer, and the development of the InfoPath form templates.

Nicholas Sloat contributed to the writing and editing of each section of the report, the recording of the instructional videos, the design, creation, and implementation of the workflows in SharePoint Designer, and the development of the InfoPath form templates.

Lingyi Xu contributed to the writing of Executive Summary, writing and editing of each section of the report, formatting of documents, the creation of the comprehensive Manager’s View dashboard, and the design of the poster, proposal presentation, and final presentation.

Chuankai Zhou contributed to the writing and editing of each section of the report, editing the workflows in SharePoint Designer, the creation of the comprehensive Manager’s View dashboard, and the design of the poster.
Glossary

Agile Methodology: Project development methodology where software is built incrementally. Agile methodology values; “individuals and interactions over processes and tools, working software over comprehensive documentation, customer collaboration over contract negotiation, and responding to change over following a plan” (Agile Manifesto, n.d.).

Data Flow Diagram (DFD): A graphical representation of the "flow" of data through an information system.

Health Insurance Portability and Accountability Act (HIPAA): United States legislation that provides data privacy and security provisions for safeguarding medical information.

Individual Service Agreement (ISA): A yearly agreement that specifies the contract status between One Sky Community Services Inc. and its clients or relevant parties.

Medicaid: A United States social health care program for families and individuals with low income and limited resources.

Microsoft InfoPath: A software application for designing, distributing, filling and submitting electronic forms.

Microsoft Office 365: Microsoft’s cloud and subscription based bundle of Microsoft products (includes software like Microsoft Word, Excel, and SharePoint).

Microsoft SharePoint: Microsoft’s team collaboration based software.

Microsoft SharePoint Designer: HTML editor software specializing in creating or modifying Microsoft SharePoint sites, workflows and web pages.

New Hampshire Bureau of Developmental Services (BDS): New Hampshire agency that provides community-based supports to help people with developmental disabilities and their families.

Participant Directed and Managed Services (PDMS): One of One Sky’s available services where an individual and his/her family or guardian identifies his/her needs related to the developmental disability or acquired brain disorder, designs the services and supports, selects
who will provide the supports and services, and decides how authorized funding will be spent, so long as that is in accordance with the original intent of the funding.

**Permission:** Gives a user certain authorization over a site or library in SharePoint.

**Prototype:** A preliminary model of a product.

**The New Hampshire Department of Health and Human Services (DHHS):** The largest agency in New Hampshire state government responsible for the health, safety and well-being of the citizens of New Hampshire.

**Use Case:** A list of actions or event steps in a system.

**User Story:** A tool used in Agile software development to capture a description of a software feature from an end-user perspective.

**Workflow:** A sequence of processes through which a piece of work passes from initiation to completion.
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Chapter 1: Project Overview

1.1 Summary

In today’s fast-paced competitive economy, businesses and organizations are reliant on technology to maximize efficiency. One common method of maximizing efficiency is automation, the technique of making a process or system operate automatically. Through automation, manual business processes can be streamlined to limit consumed resources and eliminate waste. In particular, this project will outline the automation of the Individual Service Agreement (ISA) Process at One Sky Community Services.

One Sky Community Services Inc. is a private, non-profit organization in Portsmouth, New Hampshire that provides family and residential support, and education and employment opportunities to clients with developmental and acquired brain disorders. To provide these services, One Sky enters into a contractual agreement by creating an ISA with its clients. It funds these services with support from The New Hampshire Department of Health and Human Services (DHHS) through Medicaid.

In 1965, the United States government instituted Medicaid, a national social healthcare program that provides benefits and services ranging from hospital services to home care to those who are eligible. Medicaid recipients are typically already receiving assistance in the form of federal assisted income, can also qualify for Medicare, and can be of any age. For One Sky to utilize this funding, they must submit documents in a specified format (the ISA packet) to the New Hampshire State offices within particular timeframes for the contract to remain valid. With the current manual ISA process, there have been cases of missed deadlines and issues with version control. To solve this problem, we researched multiple business management systems including IBM’s Connections 5, Basecamp, and Microsoft SharePoint, and after conducting a cost-benefit analysis, considering technological and organizational feasibility, and interpreting One Sky’s use case, we decided to use Microsoft SharePoint functionalities to automate the ISA process.

Therefore, this project synthesized One Sky’s business requirements and collected user stories to guide development of prototypes. Then, using Agile software development methods, we prototyped and implemented functionalities in stages according to One Sky's use case. By conducting testing with users we gauged the overall usability of our prototypes to determine the system’s suitability for the ISA process. Finally, we created documentation and performed
training to ensure a smooth transition from the legacy, manual ISA process to the new automated ISA process. Our goal was to utilize a digital management system (Office 365 SharePoint Online) to automate the preparation, review, and approval process of One Sky Community Services' Individual Service Agreement (ISA) packets and to introduce version control that will increase overall timeliness and reduce errors in the ISA process.

1.2 Feasibility Analysis

1.2.1 Cost-Benefit Analysis

A cost-benefit analysis is also known as an economic feasibility analysis. Its goal is to identify the costs and benefits associated with the proposed system or project, and then assess the economic feasibility of the project. Performing the analysis by calculating the future financial worthiness helps companies understand the financial opportunities and risks (Dennis & Wixom, 2012).

Table 1: Cost-benefit analysis.

<table>
<thead>
<tr>
<th></th>
<th>Year 0</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Benefits</strong></td>
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<tr>
<td>Savings from Service Agreement Materials:</td>
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<td></td>
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<tr>
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<td>$567.5</td>
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<tr>
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<tr>
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<tr>
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<tr>
<td><strong>Total Costs</strong></td>
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<td>$567.5</td>
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<tr>
<td><strong>Cumulative Cash Flow</strong></td>
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<td>$1135</td>
<td>$1702.5</td>
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</tr>
</tbody>
</table>
The table depicted above (Table 1) is the cost-benefit analysis of our project which highlights the costs of our project and benefits brought to One Sky. The amount of savings from service agreement materials were provided by One Sky. WPI typically charge project sponsors with a $15,000 project fee which reflects the efforts of students, advisors. This fee may also include the use of WPI resources. In our case, the project fee is waived because One Sky is a non-profit organization. Our group reached a mutual agreement with One Sky that the development cost and implementation cost were waived. All the efforts we took and actions we made in designing and implementing new automated system were voluntary. The following sections contain detailed discussion and analysis of costs and benefits incurred in the Individual Service Agreement Automation project.

**Development Costs**

Development costs indicate the tangible expenses incurred during the establishment stage of a project. It usually consists of development team salaries, consultant fees, hardware and software costs, office space and equipment costs, etc. In our project, the WPI team served as the development team and Portsmouth Computer Group served as the consultant for the process. All the fees incurred in this phase had already been accounted for under certain agreements. However, if the development process was outsourced to a SharePoint developer, the expense would need to be taken into consideration. According to Indeed.com (SharePoint Developer Salary), the average salary of hiring a SharePoint developer in New Hampshire is 92,000 USD per year. The cost is subject to change depending on the types of functions and associate tasks.

To determine the most appropriate and comprehensive SharePoint version that One Sky needs in automating the Individual Service Agreement process, the group conducted preliminary research to compare features and prices of the different versions of SharePoint. A suitable SharePoint version must have SharePoint Designer for Workflows and InfoPath Form Services. One Sky is currently using SharePoint 2010 Foundation, which allows some basic use of storing files and publishing information within the organization, but it does not include the needed workflow and form functionality required for their unique case, the ISA process. Since One Sky has an existing SharePoint system, the only thing needed is to upgrade the current system. Fees and other details will be discussed in the next section.
Operational Costs

Operational costs refer to the tangible costs required to operate the system such as software upgrades and licensing fees, operational team salaries, and user training. As we discussed in the previous section, the current SharePoint system needs to be upgraded in order to perform the required features. Table 2 below shows a detailed pricing comparison among SharePoint versions (SharePoint 2010, 2012)

<table>
<thead>
<tr>
<th>On-Premises Products</th>
<th>Estimate Pricing</th>
</tr>
</thead>
<tbody>
<tr>
<td>SharePoint Foundation 2010</td>
<td>N/A</td>
</tr>
<tr>
<td>SharePoint Server 2010</td>
<td>$4,926 USD (Licensed per server)</td>
</tr>
<tr>
<td>SharePoint Server 2010 Standard CAL</td>
<td>$95 USD (Licensed per named user or device)</td>
</tr>
<tr>
<td>SharePoint Server 2010 Enterprise CAL</td>
<td>Std CAL + $83 USD (Licensed per named user or device)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cloud Products</th>
<th>Pricing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office 365 Nonprofit</td>
<td>N/A</td>
</tr>
<tr>
<td>Office 365 Nonprofit – Business Premium</td>
<td>$2/User/Month</td>
</tr>
<tr>
<td>SharePoint Online</td>
<td>$5/User/Month</td>
</tr>
</tbody>
</table>

One Sky has acquired an Office 365 Nonprofit for all their businesses. Therefore the operation cost on software would be minimal. The final automation system would be operated by the Portsmouth Computer Group after the project finished by the WPI team. Since One Sky’s IT infrastructure has been completely outsourced to PCG, the operational team salaries would be the outsourcing fee which was determined between One Sky and PCG. The training was performed by the WPI team after the automation system had been built and it was free for all the service coordinators and employees. In terms of future development and maintenance, the fee would be included as part of service contract between One Sky and PCG.

Tangible Benefits

Automating the current ISA process can bring many benefits to the company, both tangible and intangible. Tangible benefits indicate the revenue that the organization collected and expenses saved after implementing the new system. Typical examples of tangible benefits are the increase in sales, reductions in staff, inventory, and IT costs. In this project, the new system has the potential to help One Sky reduce the office costs by saving money on office supplies and mailing expenses. The new system would also help with saving inventory cost by eliminating spaces for paper storage. Since all data and information will be stored on servers and personal
computers, One Sky does not have to consider physical storage for paper documents. Also, by implementing the new automation system, it will help reduce transfer time of files between service coordinators and supervisors significantly. Saving on time reduced can be measured by calculating the hourly salary which was originally paid to the employees at One Sky.

**Intangibles Benefits**

Intangible benefits are often measured quantitatively. It usually indicates the improvement of brand recognition and customer services. The intangible benefits brought by the automation system to One Sky would be the satisfaction of both the company and its clients. The new system would allow One Sky to provide higher quality services to its clients. It will also help reduce the complexity of revising and mailing the agreement forms back and forth between service coordinators, supervisors, and clients.

**1.2.2 Organizational Feasibility**

One Sky Community Services wanted to create a new system that automated its Individual Service Agreement process. From an organizational perspective, the system must be well aligned with business strategy, and when implemented, had to fit well with the business requirements of the company. Our clients, Karen McLaughlin and Chris Muns, had made clear the objectives of the project to automate the process of an Individual Service Agreement (ISA) for One Sky's service coordinators. Our team created a 3-stage prototype of the new system to fit the project objectives and requirements. After we created the prototypes for the creation, review, and approval phases of the ISA process, it would be shown to our clients and adjusted according to any changes in business requirements.

The users of the system, the service coordinators, were expected to use the new system to communicate with their supervisors more efficiently. Previously, the whole process between service coordinators and supervisors used paper and had redundant steps. The new system will help service coordinators reduce the hassle and unnecessary work time in each transaction. With great championing from One Sky project team, we expected that implementation would run smoothly and effectively. However, there were inherent drawbacks to the implementation of a digital management system at One Sky. In terms of strategic alignment, there was low risk considering the developed system aligned well with existing strategies since it was designed to improve efficiency, reduce the workload, and help manage the process. However, there will be an adjustment period for One Sky when parallel converting from the previous paper process to
the new automated process. Other medium-level risks involve the project stakeholders. Since One Sky Community Services Inc. is a private, non-profit organization, which has limited budget, development and maintenance costs were considered when updating their system. Furthermore, system users are a large risk because they have been less involved in the initialization of the project. This was due to the imminent possibility of state mandated ISA creation and reporting processes. Ultimately, the system users are the determinants of success for the project because they will be using it on a daily basis.

1.2.3 Technical Feasibility

Because of the technical nature our project, we also examined the feasibility of One Sky implementing the required hardware and software, as well as looking at the personnel that would undertake the continuation of our work.

As a team, we were very knowledgeable in Microsoft related products like Word, Access, and Excel, but had very little experience with SharePoint or InfoPath. Luckily, we had resources available from the WPI’s Gordon Library that could help our group learn the finer details of SharePoint. We were also lucky to have the ITS Helpdesk and Debra Dexter who were able to build us a SharePoint website that we could test on and give us basic knowledge about SharePoint. We were also lucky to have Professor Diane Strong as our MQP advisor who is very knowledgeable with Microsoft products and the healthcare industry. Another resource we utilized is One Sky’s IT provider Portsmouth Computer Group (PCG); during our project we worked closely with PCG since they are ones that will maintain the SharePoint site.

Our team also investigated the current state of One Sky’s computer and network hardware in use at their headquarters in Portsmouth, New Hampshire. One Sky’s current computer hardware included a number of desktop computers running on Microsoft operating systems for their service coordinators and other divisions in the company. The current model of SharePoint One Sky was using is the free, non-profit 2010 Foundations version. One Sky needed to upgrade all of their computers to the 2013 or 2010 SharePoint Enterprise version to utilize Office 365 SharePoint Online depending on the features we needed for this project. One Sky's version of SharePoint was perfect for One Sky as a central hub for their documents, but may not had the features needed for our project. One Sky’s entire IT infrastructure was in very capable hands of PCG. In accordance with HIPAA regulations, One Sky’s network was very secure in order to protect client data.
After our group finished with our project, we would be leaving the updated SharePoint site in the capable hands of PCG. If either PCG or One Sky wanted to replicate our SharePoint project for another business process, our paper would be sufficiently documented for them to replicate it.

A drawback to using Office 365 is that One Sky's SharePoint site is on Microsoft's cloud instead of their onsite server. The drawback to this is that they cannot control the security of the SharePoint site themselves and have to trust Microsoft that their site will be secure. Though Microsoft's does pass HIPAA's rules, so that means One Sky is not breaking any laws by using Microsoft's cloud.
Chapter 2: Literature Review

The literature review will give an introduction to Medicaid, including the services it offers and the criteria for eligibility at the federal and state level. At the state level, we will focus on New Hampshire, the site of One Sky Community Services. We follow this overview with a company profile. After introducing our problem statement, we discuss IT automation and several technologies that can execute this process. After weighing the costs and benefits of these technologies, we designate our choice to automate the ISA reporting process.

2.1 Overview of Medicaid

In 1965, the United States government instituted Medicaid, a national social healthcare program that provides resources and financial assistance to vulnerable and needy persons of any age and their families (Business Insights, 2011). Through the Social Security Act - enacted in 1935 to provide general welfare to seniors, the blind, dependent and crippled children, mothers and infants, and the unemployed (The U.S. National Archives, n.d.) - states receive grants from the federal government to provide Medicaid services to eligible families free of charge or at a small co-pay (Business Insights, 2011). The federal government mandates that a set list of Medicaid services be offered in each state. States then establish their own criteria for eligible groups, the types of services, and the levels of payment and coordination for the federally mandated services (Business Insights, 2011).

2.1.1 Medicaid Sponsored Benefits and Services

The United States federal government establishes standards that require each state to provide a particular set of benefits and services to eligible parties that include:

- Inpatient hospital services.
- Outpatient hospital services.
- Prenatal care.
- Vaccinations for children.
- Physician services.
- Nursing facility services for persons aged 21 or older.
- Family planning services and supplies.
- Rural health clinic services.
- Home healthcare for persons eligible for skilled nursing services.
• Laboratory and x-ray services.
• Pediatric and family nurse-practitioner services.
• Nurse-midwife services.
• Federally-qualified health-center (FQHC) services, and ambulatory services of an FQHC that would be available in other settings.
• Early and periodic screening, diagnostic, and treatment (EPSDT) services for children under age 21 (Business Insights, 2011).

States may opt to provide supplementary services such as prescription drugs and intermediate care facilities for the mentally disabled (Business Insights, 2011). With this much variation, individuals may receive different benefits across state borders, and in some cases different care all together. In this project, we will focus primarily on the Medicaid benefits and services offered by the state of New Hampshire, the site of our sponsor, One Sky Community Services. These services are described in more detail in Section 2.3.

2.1.2 Medicaid Eligibility

While Medicaid offers numerous benefits, people must be eligible, meeting certain requirements to receive these benefits. States have discretion in the criteria they set. Medicaid recipients are typically already receiving assistance in the form of federal assisted income (Business Insights, 2011), which can include public housing projects, cash payments, or Medicare.

Medicare is a federal health insurance program for senior citizens, young disabled persons, and individuals with End Stage Renal Disease. The benefits of this program can be divided into three categories, specifically hospital insurance, medical insurance, and Medicare Advantage Plans. Hospital and medical insurance cover hospital stays, outpatient care, and preventative medical services. Medicare Advantage Plans are managed by third parties that offer hospital and medical insurance, but can provide special need plans and allow consumers to pay for additional services such as prescription drug coverage (What’s Medicare?, n.d.).

The main difference between Medicare and Medicaid is that if someone is eligible for Medicare and Medicaid assistance, Medicare benefits are paid into monthly while Medicaid benefits are free, or come at a small co-pay at the time of service (What is the difference between Medicare and Medicaid?, 2015). Additionally, people can be eligible for both Medicare and
Medicaid. For example, an individual may qualify for medical insurance under Medicare, and also receive physician services through Medicaid. However, Medicaid will only provide compensation secondary to Medicare, to limit the amount of funds pulled from a state’s Medicaid fund. In the case of One Sky, New Hampshire allocates a yearly budget for the company to provide services to its clients. Therefore, a client’s Medicaid and Medicare eligibility determine the types of services a client will receive through contractual agreement with One Sky.

Other eligible individuals may receive Aid to Families with Dependent Children (AFDC) or receive Supplemental Security Income (SSI). According to Page and Larner (1997), AFDC provided cash to families with needy children. A needy child was defined as being “deprived of parental support or care because their father or mother is absent from the home continuously, is incapacitated, is deceased, or is unemployed” (Page & Larner, 1997). AFDC was replaced in 1996 in favor of Temporary Assistance to Needy Families (TANF). TANF is now a federal grant that is given to states that are responsible for designing their own assistance program for needy children and their families. Although AFDC was replaced by TANF, Medicaid eligibility is determined by AFDC whenever families that received AFDC assistance were and are eligible for Medicaid (Page & Larner, 1997).

In a similar vein, SSI is a disability program that is designed to support disabled persons that are living below the poverty line (U.S. Social Security Administration, n.d.). The U.S. Department of Housing and Urban Development defines a disabled person to be "any person who has a physical or mental impairment that substantially limits one or more major life activities; has a record of such impairment; or is regarded as having such an impairment" (n.d.). This definition includes both developmental and acquired brain disorders and disabilities. Also, some chronic illnesses that inhibit "walking, talking, hearing, seeing, breathing, learning, performing manual tasks, and caring for oneself" (U.S. Department of Housing, n.d.) are also considered disabilities. Individuals with these debilitating chronic illnesses are also eligible for Medicaid.

Additional parties that are eligible for Medicaid include infants that have Medicaid eligible mothers, children that have been adopted or are in foster care, and aliens or refugees (Business Insights, 2011). Additionally, people who are eligible for Medicare and fall below a particular income threshold, or 138% of the federal poverty level, are eligible for Medicaid.
(Federal Poverty Level, n.d). This income level varies according to income size as seen in Table 3.

Table 3: 2015 Federal poverty level (Foundation for Health Coverage, 2015).

<table>
<thead>
<tr>
<th>Family Size</th>
<th>138%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$16,243</td>
</tr>
<tr>
<td>2</td>
<td>$21,983</td>
</tr>
<tr>
<td>3</td>
<td>$27,724</td>
</tr>
<tr>
<td>4</td>
<td>$33,465</td>
</tr>
<tr>
<td>5</td>
<td>$39,206</td>
</tr>
<tr>
<td>6</td>
<td>$44,947</td>
</tr>
<tr>
<td>7</td>
<td>$50,687</td>
</tr>
<tr>
<td>8</td>
<td>$56,428</td>
</tr>
</tbody>
</table>

If a family is to rise above this income threshold, they retain Medicaid support for one year. States can only provide monetary assistance to people and families according to the grant money they receive from the federal government. Therefore, Medicaid beneficiaries are selected on a first-come, first-serve basis (Business Insights, 2011). Thus, the process to determine Medicaid eligibility and individual service plans must be efficient and free of error, particularly at the state level, a factor that is crucial to One Sky’s ISA process.

2.2 History of New Hampshire Disability Services

In the early twentieth century, Laconia State School was a large institution in New Hampshire that housed people with mental retardation and related disabilities. In 1981, the United States First Circuit Court ordered that Laconia State School be closed. The state then created a system of community-based services for the disabled.

“New Hampshire became the first state in the nation with no institution for people with mental retardation, intellectual disabilities and related disorders” (One Sky Community Services). Instead, the state established a system of “regional public-private agencies that contract with the state to serve individuals with developmental disabilities and their families within local cities and towns” (One Sky Community Services). Area agencies collaborate with
the New Hampshire Bureau of Developmental Services (BDS) and are subject to contractual agreements and regulations. The independently controlled agencies are supported by New Hampshire’s Medicaid fund, and “work closely with the BDS to maintain a community-based system of services” (One Sky Community Services, n.d.).

2.3 Introduction to DHHS

The New Hampshire Department of Health and Human Services (DHHS) is the largest agency in New Hampshire state government responsible for the health, safety and well-being of the citizens of New Hampshire. DHHS offers different kinds of services and programs for children, adults, seniors, and disabled people who are eligible for help. (Bureau of Developmental Services, 2010).

2.3.1 Types of Services Provided

To be responsible for their clients, the DHHS provides a number of services to children, adolescents, and adults. DHHS provides family support services to children and adolescents with chronic health conditions and their families. There is a comprehensive program called New Hampshire Partners in Health (PIH) designed to provide help for children with chronic health conditions. The program is socioeconomically based and seeks to impact both individuals and systems that influence a family’s social, educational and medical environment (Children and Adolescent Services, 2010).

The New Hampshire developmental services system offers adult individuals with developmental disabilities a wide range of services within their own communities. If a resident of New Hampshire has a developmental disability, there are some criteria that need to be met for a resident to be eligible for services:

- A disability that is attributable to mental retardation, cerebral palsy, epilepsy, autism or a specific learning disability, or any other condition of an individual found to be closely related to mental retardation as it refers to general intellectual functioning or impairment in adaptive behavior or requires treatment similar to that required for mentally retarded individuals (Medicaid for Employed Adults with Disabilities, 2010).
- A disability that originates before such individual attains age 22, has continued or can be expected to continue indefinitely, and constitutes a severe disability to such individual's
ability to function normally in society (Medicaid for Employed Adults with Disabilities, 2010).

Our project sponsor, One Sky Community Service Inc., is one of ten regional agencies of DHHS. All of the programs that the DHHS offers are provided through One Sky for its region. There is a program that DHHS offers called Medicaid for Employed Adults with Disabilities (MEAD). This program provides Medicaid coverage to adults with disabilities who are working and who would not be financially eligible for Medicaid. MEAD was designed to allow individuals with disabilities to increase their working income and have higher resource limits (Medicaid for Employed Adults with Disabilities, 2010). Following are the eligibility requirements, costs, and Medicaid coverage for MEAD program.

2.3.2 Eligibility Requirements

Since there are so many benefits included in the Medicaid program, it is necessary to set eligibility requirements to select people that qualify for this program. Below are the eligibility requirements for Medicaid program:

1. Age Requirement: 18 through 64.

2. Employment Status: Employed or self-employed.

3. Net Income limits (monthly):

   *Table 4: Monthly MEAD income requirements (Medicaid for Employed Adults with Disabilities, 2010).*

<table>
<thead>
<tr>
<th>Group Size</th>
<th>Monthly Income at 450% Federal Poverty Level (FPL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$4,376.00</td>
</tr>
<tr>
<td>2</td>
<td>$5,899.00</td>
</tr>
</tbody>
</table>

4. Countable Resources Limits:

   *Table 5: Yearly MEAD resource requirements (Medicaid for Employed Adults with Disabilities, 2010).*

<table>
<thead>
<tr>
<th>Group Size</th>
<th>Countable Resource Limit</th>
<th>Example of Resources:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$27,150.00</td>
<td>Savings, stocks, bonds, cash, real estate (not occupied by resident), life insurance</td>
</tr>
<tr>
<td>2</td>
<td>$40,733.00</td>
<td></td>
</tr>
</tbody>
</table>
5. Medical Criteria: The individual must have a documented medical impairment that is included in the Social Security Administration’s Listing of Impairments (chronic diseases, neurological diseases, and genetic diseases) and has persisted or is expected to persist for a minimum of 48 consecutive months (211.01 MEAD Medical Criteria, n.d).

2.3.3 Premium Cost

After being accepted into the program, people pay a MEAD premium only when his or her monthly “net” income reaches a certain income level. Premiums are tiered to income levels (Table 6). Premium payments are due the first day of each month. Health insurance and Medicare costs for individual and members of individual’s family may be subtracted from the premium costs.

*Table 6: MEAD premium chart (Medicaid for Employed Adults with Disabilities, 2010).*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;150%</td>
<td>$17,505</td>
<td>&lt; $1,459</td>
<td>$0</td>
</tr>
<tr>
<td>&gt; 150% &lt; 200%</td>
<td>$17,505 to $23,340</td>
<td>&gt; $1,459 to &lt; $1,945</td>
<td>$109</td>
</tr>
<tr>
<td>&gt; 200% &lt; 250%</td>
<td>$23,340 to $29,175</td>
<td>&gt; $1,945 to &lt; $2,431</td>
<td>$146</td>
</tr>
<tr>
<td>&gt; 250% &lt; 300%</td>
<td>$29,175 to $35,010</td>
<td>&gt; $2,431 to &lt; $2,918</td>
<td>$182</td>
</tr>
<tr>
<td>&gt; 300% &lt; 350%</td>
<td>$35,010 to $40,845</td>
<td>&gt; $2,918 to &lt; $3,404</td>
<td>$219</td>
</tr>
<tr>
<td>&gt; 350% &lt; 400%</td>
<td>$40,845 to $46,680</td>
<td>&gt; $3,404 to &lt; $3,890</td>
<td>$255</td>
</tr>
<tr>
<td>&gt; 400% &lt; $450%</td>
<td>$46,680 to $52,515</td>
<td>&gt; $3,890 to &lt; $4,376</td>
<td>$292</td>
</tr>
<tr>
<td>&gt; 450%</td>
<td>$52,515</td>
<td>&gt; $4,376</td>
<td>$328</td>
</tr>
</tbody>
</table>

2.3.4 New Hampshire Regional Agencies

The services provided by DHHS are assigned to ten non-profit agencies in New Hampshire, each with a fixed region to cover. They serve New Hampshire's developmentally disabled and those with acquired brain injuries, a population of approximately 6,000 individuals. All developmental services offered are through contractual agreement with the Bureau of Developmental Services. Within each region, these agencies are committed to support individuals and families so they can prosper within their communities. Services include:

- Service coordination.
• Day and vocational services.
• Personal care services.
• Community support services.
• Early Support and Services and Early Intervention.
• Assistive technology services.
• Specialty services and flexible family support including respite services and environmental modifications (Area Agencies, 2010).

Table 7 lists the area agencies, where they are located, and the agency directors.
### Table 7: Area agencies information (Area Agencies, 2010).

<table>
<thead>
<tr>
<th>REGION I</th>
<th>REGION II</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Northern Human Services</strong></td>
<td><strong>PathWays of the River Valley</strong></td>
</tr>
<tr>
<td>Eric Johnson, Executive Director</td>
<td>Mark Mills, Executive Director</td>
</tr>
<tr>
<td>87 Washington Street</td>
<td>654 Main Street</td>
</tr>
<tr>
<td>Conway, NH 03818</td>
<td>Claremont, NH 03743</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REGION III</th>
<th>REGION IV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lakes Region Community Services</strong></td>
<td><strong>Community Bridges</strong></td>
</tr>
<tr>
<td>Christine Santaniello, Executive Director</td>
<td>Roy Gerstenberger, Executive Director</td>
</tr>
<tr>
<td>719 North Main Street</td>
<td>70 Pembroke Road</td>
</tr>
<tr>
<td>PO Box 509</td>
<td>Concord, NH 03301</td>
</tr>
<tr>
<td>Laconia, NH 03247</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REGION V</th>
<th>REGION VI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monadnock Developmental Services, Inc.</strong></td>
<td><strong>Gateways Community Services</strong></td>
</tr>
<tr>
<td>Alan Greene, Executive Director</td>
<td>Sandra Pelletier, Executive Director</td>
</tr>
<tr>
<td>121 Railroad Street</td>
<td>Beth Raymond, Associate Executive Director</td>
</tr>
<tr>
<td>Keene, NH 03431</td>
<td>144 Canal Street</td>
</tr>
<tr>
<td></td>
<td>Nashua, NH 03064</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REGION VII</th>
<th>REGION VIII</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Moore Center Services, Inc.</strong></td>
<td><strong>One Sky Community Services</strong></td>
</tr>
<tr>
<td>Paul Boynton, Chief Executive Officer</td>
<td>Chris Muns, CEO</td>
</tr>
<tr>
<td>195 McGregor Street, Unit 400</td>
<td>Cathy King, Associate Executive Director</td>
</tr>
<tr>
<td>Manchester, NH 03102</td>
<td>755 Banfield Road, Suite 3</td>
</tr>
<tr>
<td></td>
<td>Portsmouth, NH 03801</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REGION IX</th>
<th>REGION X</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Community Partners</strong></td>
<td><strong>Community Crossroads</strong></td>
</tr>
<tr>
<td>Brian Collins, Executive Director</td>
<td>Dennis Powers, Chief Executive Officer</td>
</tr>
<tr>
<td>Forum Court</td>
<td>Cynthia Mahar, Executive Director</td>
</tr>
<tr>
<td>113 Crosby Road, Suite #1</td>
<td>8 Commerce Drive</td>
</tr>
<tr>
<td>Dover, NH 03820-4375</td>
<td>Atkinson, NH 03811</td>
</tr>
</tbody>
</table>
These area agencies are distributed throughout New Hampshire. People who live in Region VIII must apply for disability services through One Sky Community Services. Medicaid eligibility determines whether they will receive these services. If a client is not eligible for Medicaid, they can seek assistance through numerous private organizations, contacting each individually. The map of the distribution of the state-sponsored area agencies in New Hampshire is displayed in Figure 1.

Figure 1: Region map (Area Agencies, 2010).

One Sky community services, located in Region VIII, is the main agency in charge of the services provides in Region VIII. The main programs provided by One Sky are the Child and Family Services Early Support and Services Program and Richie McFarland Children’s Center. According to a Redesignation Review released in 2010 by the New Hampshire State Government and its affiliates, One Sky, its subcontracted agencies, and individuals receiving services believe their health needs are being met. In fact, a survey conducted in Region VIII
indicates that 95% of respondents are confident in the care they receive (The Bureau of Developmental Services Region 8, 2010). However, the employees coordinating these services (service coordinators) indicated that they needed additional support, with 33% of respondents saying “success in helping people establish relationships in the community was limited” (The Bureau of Developmental Services Region 8, 2010). As noted by the New Hampshire Government, this sentiment could be changed through ongoing training, support, and consultations, which could be achieved by streamlining and automating businesses processes such as the ISA reporting process.

2.4 One Sky Company Profile
   This section presents our company sponsor, One Sky Community Services Inc., as well as the premise of our project. This project is to automate the Individual Service Agreement preparation, review, and approval process.

2.4.1 Overview of One Sky Community Services
   One Sky Community Services Inc. is a private, non-profit organization that aims to help children and adults with developmental disabilities and acquired brain disorders to become stronger, more independent members of the society. One Sky contracts with the state of New Hampshire to provide family and residential support, community services, education and employment opportunities, among other services (One Sky Community Services, n.d.).

2.4.2 Mission Statement and Organizational Structure
   One Sky’s role is to help plan and oversee community-based services and provide support for individuals with disabilities and their families. The mission statement of the company is, “We assist people with developmental disabilities or acquired brain disorders to live as valued and participating members of their communities” (One Sky Community Services, n.d.).

   The services provided to clients are organized and conducted by different parties and persons from the company. The company is governed by a volunteer Board of Directors, which is formed of people with different backgrounds, such as clients, educators, and homemakers (One Sky Community Services, n.d.). The company’s chief executive officer, Chris Muns, oversees all activities and affairs in the company. The business office is responsible for all financial activities, especially acquiring funding from the state for Medicaid. Director of Service Coordination Karen McLaughlin, has responsibility for the Individual Service Agreement
process. Tanya Hart-Newkirk and Alicia Sherwin, are supervisors who are responsible for service agreement approvals. After the agreement form is approved and finalized, it will be sent by the administrative assistant, Krista Sorel, to the state in order to be funded. More detailed descriptions of relevant responsibilities of personnel related to the Individual Service Agreement process will be discussed in Section 2.5.5.

2.4.3 Locations and Services

One Sky’s office is located in Portsmouth, New Hampshire. At this location, about 50 employees are dedicated to providing services to individuals and their family members from 24 cities and towns of northern Rockingham County (Community Benefits Reporting Form, 2014). One Sky’s service areas can be seen in Figure 2. One Sky is now providing services to more than 385 adults (over 21) and 650 families. The number of clients is expected to grow in the future because the population of New Hampshire is growing, meaning more people will require psychiatric care and assistance. For example, between 2005 and 2015 the population in New Hampshire increased by 142,000 (New Hampshire Department of Health & Human Services et al., 2008). This population increase combined with decreased Medicaid funding for "individuals with severe and persistent mental illness" means there is less capacity in the disability services system in New Hampshire (New Hampshire Department of Health & Human Services et al., 2008). Thus, One Sky and other regional agencies are under pressure to operate efficiently, providing top-quality care at the lowest price achievable.
One Sky’s service population ranges from children 0 to 14 years old, teenagers 14 to 21 years old, adults 21 years old and above, as well as adults with Acquired Brain Disorder (ABD) (One Sky Community Services, n.d.). Several subcontracted service providers are listed on the company’s official website so that clients can select care options. According to One Sky’s official website (www.oneskyservices.org) services that One Sky offers include:

- Helping people make choices about where they live, work and spend time.
- Using existing resources when possible to create and maintain supports and services that are flexible and responsive to the circumstances of each individual.
- Assisting families in ways that they view as supportive.
- Promoting community understanding, acceptance and support of people with disabilities.
- Fostering inclusion of people in community affairs and relationships.
- Working in cooperation with local citizens and professions.
- Providing services without regard to race, gender, religion, national origin, or political belief.
One Sky offers a variety of events and activities to the local communities. There is also a monthly newsletter available online for the clients and interested parties to check the latest news and regulations.

2.4.4 Financials

According to the financial reports, which can be downloaded from the official website, One Sky’s revenue has increased by approximately 4 million from 2009 to 2013 (One Sky Community Services, n.d.). The increase indicates that more and more people are becoming clients of One Sky and seeking help from the company. Due to the increase in customer base and growth of the healthcare industry in general (Healthcare, n.d.), it is vital for companies like One Sky to automate its service processes in order to reduce the non-value added time of manually creating and revising paperwork and mailing forms to clients.

2.4.5 Individual Service Agreements (ISA)

To perform services for the clients, a document called Individual Service Agreement (ISA) must be completed yearly to specify the contract status between One Sky Community Services Inc. and its clients or relevant parties. In summary, an ISA is a packet of documents that detail both client and vendor expectations, client background information, and contractual agreements. See Appendix A for a collection of the documents contained within the ISA packet.

Currently, the ISA process is managed by using Microsoft Word/PDF based templates. The agreement forms are completely paper-based and are transferred back and forth within One Sky (among company personal, service coordinators and supervisors) and between One Sky and clients by email or fax. There are currently 17 service coordinators in the company. Service coordinators (SCs) are employees who organize services for One Sky’s clients. SCs help clients with developmental disabilities get approved for Medicaid and then help them find vendors that will provide the support they need. Their main responsibilities are:

- To work with the clients and guardians to evaluate their needs.
- To initiate service plans and negotiate with clients to reach mutual agreement.
- To monitor and document services provided (One Sky Community Services, n.d.).

In the ISA’s case, service coordinators schedule meetings with clients to initiate the ISA process and then create and revise the agreement form with supervisors to its final stage. Figure 3 provides an overview of the ISA creation, review, and approval process.
There are 9 steps for an agreement form to be created and finalized between the clients and the service coordinators, which are steps 1 through 9 in Figure 3 above. Once a service coordinator facilitates a meeting with a client, Krista Sorel, the administrative assistant, fills out preliminary information on the ISA (step 1). The agreement form is then completed in full and signed by the client and One Sky (step 2), and is reviewed by one of the two supervisors, depending on the two types of services to be performed, either Participant Directed and Managed Services (PDMS) ISAs or Traditional Directed ISAs (step 3). One of the two supervisors, Tanya Hart-Newkirk, is responsible for approving the PDMS ISAs, which are family directed ISAs. Alicia Sherwin, the other supervisor, is responsible for approving all Traditional Directed ISAs. After the reviewing process is completed between the SCs and supervisors (steps 4 through 6), the form will be sent to Karen McLaughlin, the director of service coordination, for final approval (step 7). Karen oversees the whole ISA process and makes certain all the phases are
properly handled. Finally, the approved ISA will be delivered to Krista Sorel, the administrative assistant, to be mailed to clients and their family members for final review (step 8). Clients and guardians have ten business days to review the file and send it back to One Sky for submission to the state offices (step 9).

2.4.6 Health Insurance Portability and Accountability Act (HIPPA)

Sensitive health information such as SSNs, addresses, health history, and provider information is disclosed in the ISA reports. Therefore, if this information is automated and transmitted between One Sky and the New Hampshire states offices, our technological solution must be HIPPA compliant. In 1996, the United States government issued the Health Insurance Portability and Accountability Act (HIPPA), which addresses the disclosure, transfer, and use of protected health information electronically under the penalty of law (U.S. Department of Health, n.d.). In the healthcare industry, information is constantly flowing between provider and patient, and between providers and other practices. This flow of information allows patients to receive relevant, high quality care. When medical records are electronic, they can be sent to each doctor belonging to a particular patient. This ensures patients’ health histories are consistent, and doctors have accurate information so they can make knowledgeable diagnoses. Furthermore, there is an increasing number of medical practices appearing in the United States due to continual growth in the healthcare industry. In fact, 2.6 million healthcare jobs have been added between 2003 and 2013 (Thompson, 2013; U.S. Department of Health, 2000). With additional practices, patients have more options from which they can receive care. With an expanding care network, healthcare providers must be equipped to transfer sensitive health information between practices on a larger scale. Additionally, not only is the use and disclosure of the information monitored, but also the confidentiality of information contained within the ISA reports, which is mandated under the Privacy Rule (U.S. Department of Health, n.d.). Since One Sky synthesizes and sorts health information into their ISA packets, any technological solution that will automate their ISA process must be HIPPA compliant and streamlined to handle health information for their clients on an individual basis, keeping the information secure and confidential.

2.4.7 Problem Statement

One Sky Community Services is required by law to create ISA packets for each client they serve. To create this packet, One Sky currently uses PDF and Microsoft Word templates, prints these templates, and then completes the necessary fields. The forms are then scanned and
emailed among One Sky, service coordinators, and clients. Automating the ISA creation, review, and approval process will increase efficiency and ensure One Sky’s clients receive high quality care in a timely manner. One Sky wishes to use its existing software (Microsoft SharePoint Foundation 2010) and IT support (Portsmouth Computer Group) to the fullest extent.

2.5 IT Automation

The automation of One Sky Community Services’ Individual Service Agreement (ISA) must support collaboration between the service coordinator and their supervisors, as well as other features that allow supervisors to view the progress of an ISA. Automation is “the linking of disparate systems and software in such a way that they become self-acting or self-regulating” (techtarget, n.d.). There are many different project management systems available for business that allows us to automate One Sky's ISA. Looking at the most suitable options, we have found three different systems that could fit One Sky’s criteria. The three different systems are Microsoft SharePoint, IBM’s Connections, and Basecamp. All three of these systems have the same purpose, that is a project collaboration tool, but have different features or costs that make them less attractive than the others.

2.5.1 Microsoft SharePoint

Microsoft SharePoint is one of the many widely available Microsoft products available on the market, many of which are used by One Sky. One Sky already uses the free Foundation 2010 version of SharePoint, but in this version of SharePoint business collaboration features are very limited. There are multiple versions of SharePoint that are available on the market at this time. There is the 2013 SharePoint Server version and the 2013 SharePoint Online version. The difference between these two versions is the server version is hosted on a company's own server while the online version is hosted by Microsoft's own server. The server version comes at a one-time fee per server, while the online version costs a certain amount per user per month. Having SharePoint on its own server means that the SharePoint website is more secure and can be maintained internally by Portsmouth Computer Group.

Looking at the SharePoint Online version, there are many different options to choose from that start at different price points and have additional features. To get the full version of SharePoint Online, One Sky can either buy the standalone offering or buy it as part of Office 365, which includes additional features like Skype for Business and Exchange. The price for SharePoint is $5 or $8 a month per a user depending on the plan (Microsoft, n.d.); with Office
365 being either $5 or $12.50 a month depending on whether or not they choose the business essential or premium plan (Microsoft, n.d.). Because One Sky is a non-profit agency, they can get a free version of Office 365 Nonprofit E1, or a paid version of Office 365 Nonprofit E3 for only $4.50 per a user (Microsoft, n.d.). Since the non-profit plans are cheaper and have more available features, only the Office 365 for non-profits will be discussed as possible SharePoint plans.

There are two different Microsoft Office 365 Nonprofits plans, the E1 and the E3. The E1 plan is a free donation for non-profit agencies from Microsoft, but has fewer features than the paid E3 plan. Both of the plans have 1TB of file storage/sharing, business class email, an Intranet site, a corporate social network, and online versions of basic Microsoft (Word, Excel, and PowerPoint). The additional features of E3 are compliance and information protection, self-service business intelligence, availability of Office applications on PC or Macs, and enterprise management of applications. Specific features that will be needed for this project are InfoPath Form Services that allow form filling from the website, and Workflow 2013, which allows for custom workflows in SharePoint. Both the E1 and E3 version support Workflow 2013, but the E3 version is the only one that supports InfoPath services. One negative of the SharePoint Online version is that there is less security with this version, because it is not hosted on One Sky's own servers.

The other version of SharePoint is the Server version. The Server version has three available options; Foundations, Standard and Enterprise. The Foundations version is the version that One Sky currently implements. The Foundations version is free to add to your server but includes fewer features than the Standard and Enterprise versions. The Standard and Enterprise versions come at a one-time flat fee per server, a couple thousand for the Standard version and $7,000 for the Enterprise version (Cromer, 2013). Some more specific features that will be needed for this project are InfoPath Form Services and Workflow 2013. Both of these versions support Workflow 2013, while only the Enterprise version supports the InfoPath Form Services.

Examining SharePoint specifically, it has various features that would help One Sky with its business collaboration and file sharing. SharePoint has the ability to share documents between employees allowing them to collaborate on documents at the same time while still keeping them sync. SharePoint also has a team site, task management, and a site mailbox allowing employees and supervisors to stay organized and prioritize tasks. It is easily adaptable allowing an
organization to setup a site to its needs. SharePoint follows HIPPA guidelines and is an approved management system by HIPPA. The versions that are most likely needed for this project to fulfill all of One Sky's requirements are the SharePoint Enterprise Server or the Office 365 Non-Profit E3 version. This is because they include InfoPath services and Workflow 2013, which are needed for this project.

2.5.2 SharePoint Case Study

SharePoint has been used by businesses before in the healthcare setting including Barking, Havering and Redbridge University Hospitals NHS Trust (BHRUT) in the United Kingdom. BHRUT manages two hospitals serving over 700,000 people. Yet they did not have a capable system to manage these patients. Due to this poorly managed system, they had 850,000 incidents and 3,500 deaths due to poor clinical handover (Microsoft, n.d.). Clinical handover refers to the transfer of patients between shifts and specialties. The hospitals previous system of patient handover was through verbal and personnel communication that was really unreliable. BHURT knew that they had a problem and had to do something before they were fined by the government or worse sued by families of patients that passed away due to negligent clinical handover.

To reconcile this problem, BHRUT decided to use a SharePoint based solution called eHandover that connects to their patient administration system. SharePoint provided the hospital with an electronic trail that allowed the hospital to view where patients were and needed to be, allowing for an easier and stress free clinical handover. Some benefits of SharePoint were improved productivity among teams that before could only communicate verbally and a site that showed a list of patients and where they needed to be. Another benefit was a transparent audit trail of handover activities so that doctors knew which patients they need to oversee, and in the case of litigation, the hospital would know who was supposed to take care of the patient's handover. Ultimately, this increased patient safety and security, which was the hospital's number one concern.

2.5.3 IBM's Connections 5

The second web management system that we considered is IBM’s Connections. “IBM’s Connections is a leading social network platform that helps get work done. Connections 5 allows organizations to engage with the right people, accelerate innovation, and deliver results. According to IBM’s website, Connections allows businesses to confidently share knowledge
beyond traditional organizational boundaries, improve decision-making, increase productivity, and accelerate time to market. Connections has many of the same features that SharePoint has with file sharing, task management, and its own email system.

There is no pricing available online for Connections but IBM has three plans, the Social, S1, and S2. Each plan has the same collaboration tools and 1 TB of file sharing. The pricier plans have email and calendar, web meetings, and document editing available between employees. Because of One Sky’s needs, the S1 plan would be necessary because it has the ability to allow users to edit documents at the same time.

There are a lot of similarities between SharePoint and Connections, including document libraries, forums, and wikis. Some differences between SharePoint and IBM Connections are that SharePoint seems to be more user friendly than Connections. SharePoint also is compatible with Microsoft products allowing for seamless transition between the two. SharePoint is more customizable than Connections allowing an organization to make a site based on its needs and requirements. Connections also cannot integrate with InfoPath or Workflow 2013. It is also unknown if IBM’s system is HIPPA compliant or not.

2.5.4 Basecamp

The last project management system to be analyzed is Basecamp. Basecamp is a smaller project management site. Its priciest plan costs only $3,000 a year for unlimited projects on the system but has only 500 GB of space but with unlimited users (Basecamp, n.d.). Basecamp does have file sharing capabilities, calendar management, and blogging ability. Basecamp also runs on its own cloud server which is a Payment Card Industry Compliant network. Basecamp is available for use on PC, MAC, IPad, IPhone, and Android. Currently, almost 6,000 companies like Nike, Twitter, and Kellogg’s have been using Basecamp for project management.

It is important to note that Basecamp is not HIPAA compliant. It has fewer features than SharePoint and Connections, including less storage capability and no capability for employees to collaborate on documents at the same time. Because of this, Basecamp is not an applicable project management system for this project because it does not include features that were specifically requested in a system by One Sky.

2.5.5 Conclusion

After looking at all three options, we decided that SharePoint is the best option. The main reason we choose this option is that SharePoint is already in use by One Sky. This also
enables an easier transition from their older version of SharePoint to a newer version if we decide to implement one of the other options. Microsoft software is already being used in the company, so there should be less of a learning curve for employees. SharePoint is also the only management system that says it is HIPPA compliant, which is a big constraint that this project needs to meet. The last reason is that SharePoint offers more features at a lower cost, if One Sky is able to get a discounted price from Microsoft for being a non-profit agency. Of the versions available, the Office 365 SharePoint Online version is the one most closely aligned with One Sky's needs. It can be easily managed by Portsmouth Computer Group, and is secured on Microsoft’s Cloud servers.
Chapter 3: Methodology

The goal of our project was to automate the preparation, review, and approval process of One Sky Community Services' Individual Service Agreement (ISA) packets and to introduce version control of the resulting documents. The new process increased overall timeliness and reduced errors.

To achieve this goal, our objectives were to:

- Synthesize business requirements and collect user stories to guide development of prototypes.
- Utilize a digital management system (Microsoft SharePoint).
- Using Agile software development methods, prototype functionalities in stages according to One Sky's use case.
- Gauge the overall usability of our prototypes by conducting testing to determine the systems suitability for the ISA process.
- Implement the system and ensure a smooth transition from the legacy, manual ISA process to the new automated ISA process.

Each of these objectives and their associated tasks are outlined in greater detail below. A schedule of when these objectives and tasks would be completed are depicted in a Gantt chart in Figure 4.

![Gantt chart with objectives and tasks](image-url)
### 3.1 User Story Gathering

The first objective of our project was to gather user stories and determine the business requirements for the project. All Agile projects start with requirements gathering from the sponsoring company or clients. The requirements gathering process is often referred to as user story gathering, or storytelling (ExtremePlanner, n.d.). A user story is a placeholder which helps establish a conversation about needed functionality between project sponsors and people who actually work on the project. It is always used for discovering initial requirements and setting project plans. There are several parts in a user story including user goals, tasks, user-valued features, user acceptance criteria, and sometimes acceptance tests (What is a User Story?, 2010). The detailed conversation is usually delayed to the beginning of the development stage to gather concise information and avoid confusion. Gathering user stories is an approach to define the business and functional requirements and understand the needs of the end-users (Keep Users at the Heart of Your Design Process, n.d.). Understanding the needs of the end clients and stakeholders is the foundation of a successful project.

There are many different ways to collect user stories. The most common way to start user story gathering is to have a user stories workshop or conduct user interviews. A face-to-face conversation can ensure that all involved parties understand the needs and constraints, and how they can collaborate and cooperate to provide the best experience for the end users. It also helps the company or project sponsor to understand which features are needed and which ones are not necessary for the final product. The other method frequently used in technical projects is prototyping, which can be done in many forms (Agile Project Requirements Gathering, n.d.). The final goal is to show the workflows of the project and ensure that the process has been properly modeled and handled. Prototyping can also reveal some of the hidden features as well as some unobvious segments (Tips for Effective User Story Gathering Meetings, 2009). Some other methods include questionnaires and observations. Questionnaires are effective in terms of prioritizing stories. Making observations on how users utilize the application can provide further insights when putting the stories together.

In our project, we collected user stories by conducting interviews with personnel who were closely involved in this project, including Chris Muns, Karen McLaughlin, and Krista Sorel. A set of interview questions included how the ISA process works, who will be using the automation system, and what functionalities are necessary to be built in system. The user stories
we collected provide us a better understanding of the whole process and enabled us to construct the user requirements document (Chapter 4).

3.2 Agile Software Development Process

For our project, our group used the Agile software development process (see Figure 5). Our group decided upon this process because it values; “individuals and interactions over processes and tools, working software over comprehensive documentation, customer collaboration over contract negotiation, and responding to change over following a plan” (Agile Manifesto, n.d.). The Agile method was best for our situation because our sponsor was very customer centered. One Sky needed this customer centered focus because it was a small company that regularly interacts with its 385 clients.

![Agile Lifecycle](Acro_Bright,n.d.)

As shown in Figure 5, in the Agile development process, the project starts by initiating the project and defining what the regular and high level requirements are. An iteration of the cycle involves developing one part of the project, adding functionality to it, then integrating that part of the project into the system, and having the company test the system. Iterations continue
until the entire system has been created. After that, the whole project is reviewed and revised as a whole until it is released into the market.

For our project we prototyped and created the creation, review, and approval parts of the ISA process in Microsoft SharePoint 2010. This was done by first creating a prototype of each part, which showed the functionality of each phase. For the creation process, we demonstrated the creation of an ISA form in Microsoft InfoPath. For the review stage, it included being able to edit the ISA, to get reminders of when an ISA is close to its due date, and for all managers to view ISA progress through a comprehensive view. Then, the approval prototype showed a workflow that passed the ISA from service coordinators to the assistant director of service coordination. Ultimately, we prototyped to simulate the three phases of the ISA process and presented the phases to the sponsoring company for feedback. Then, the group was able to make revisions and include new features based on the comments gathered.

3.3 Testing

Testing finds and fixes bugs or issues with the system prior to implementation within the company. For our project, we tested our solution in One Sky’s system after each phase: creation, review, and approval. Below was our testing plan prior to the implementation of the system.

User Interface Testing

For user interface testing, we, acting as system analysts, performed the tests. We tested as service coordinators creating an ISA packet, supervisors reviewing the ISA, and the director of service coordination approving the whole ISA packet. After our team finished building the prototype, each of our team members had assigned roles as follows:

- Service Coordinator: Philippe Kelley.
- Supervisor: Lingyi Xu
- Administrator: Chuankai Zhou
- Director of Service Coordinator: Nicholas Sloat

Additionally, we tested the navigation of the system environment, clicking through sites, subsites, views, libraries, and lists, and ensured the information captured in the electronic ISA packet template displayed properly on the Manager’s View pages and sent proper notifications to users throughout the process.
Acceptance Testing Steps

To receive user feedback, we demonstrated the prototype to One Sky’s administrative assistant, director of service coordination, and the chief executive officer of One Sky by running through use scenarios to determine potential improvements to make the system more user-friendly. After implementing user-friendly improvements, we tested functionality with One Sky’s administrative assistant and made final design changes to the system before implementing the final system and presenting the system to the client.

3.4 Implementation

Once the creation, review and approval process prototypes had been created in Microsoft SharePoint 2010, then each process was recreated in One Sky’s Office 365 system following the Agile methodology. Our group developed the creation part of the ISA process, and then integrated it into One Sky’s SharePoint site and tested for changes in functionality due to version differences. The same thing was done for the review and approval processes according to Figure 6.

<table>
<thead>
<tr>
<th>Task Name</th>
<th>Duration</th>
<th>Start</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office 365 Implementation</td>
<td>25 days</td>
<td>Mon 2/1/16</td>
<td>Fri 3/4/16</td>
</tr>
<tr>
<td>ISA Creation Process</td>
<td>5 days</td>
<td>Mon 2/1/16</td>
<td>Fri 2/5/16</td>
</tr>
<tr>
<td>Server Form Data Connections</td>
<td>1 day</td>
<td>Mon 2/1/16</td>
<td>Mon 2/1/16</td>
</tr>
<tr>
<td>Publish InfoPath Template</td>
<td>3 days</td>
<td>Tue 2/2/16</td>
<td>Thu 2/4/16</td>
</tr>
<tr>
<td>Test InfoPath Template for Version Differences</td>
<td>1 day</td>
<td>Fri 2/5/16</td>
<td>Fri 2/5/16</td>
</tr>
<tr>
<td>ISA Review Process</td>
<td>6 days</td>
<td>Sat 2/6/16</td>
<td>Fri 2/12/16</td>
</tr>
<tr>
<td>Create Wiki Page Library</td>
<td>1 day</td>
<td>Sat 2/6/16</td>
<td>Sat 2/6/16</td>
</tr>
<tr>
<td>Add Web Parts</td>
<td>1 day</td>
<td>Sun 2/7/16</td>
<td>Sun 2/7/16</td>
</tr>
<tr>
<td>Create Views with InfoPath Column Data and Populate Web</td>
<td>4 days</td>
<td>Mon 2/8/16</td>
<td>Thu 2/11/16</td>
</tr>
<tr>
<td>Test Manager’s View for Version Differences</td>
<td>1 day</td>
<td>Fri 2/12/16</td>
<td>Fri 2/12/16</td>
</tr>
<tr>
<td>ISA Approval Process</td>
<td>12 days</td>
<td>Sat 2/13/16</td>
<td>Mon 2/24/16</td>
</tr>
<tr>
<td>Connect to IS with SharePoint Designer 2013</td>
<td>2 days</td>
<td>Sat 2/13/16</td>
<td>Mon 2/15/16</td>
</tr>
<tr>
<td>Create One Hosting 2013 Workflow</td>
<td>3 days</td>
<td>Tue 2/16/16</td>
<td>Thu 2/18/16</td>
</tr>
<tr>
<td>Create Five 2013 Workflows</td>
<td>2 days</td>
<td>Fri 2/19/16</td>
<td>Mon 2/22/16</td>
</tr>
<tr>
<td>Edit Task Email Templates</td>
<td>3 days</td>
<td>Tue 2/23/16</td>
<td>Tue 2/23/16</td>
</tr>
<tr>
<td>Create Data Reminder Workflow</td>
<td>2 days</td>
<td>Wed 2/24/16</td>
<td>Thu 2/25/16</td>
</tr>
<tr>
<td>Test Approval Process with One Sky SCs</td>
<td>2 days</td>
<td>Fri 2/26/16</td>
<td>Mon 2/29/16</td>
</tr>
<tr>
<td>Training Materials</td>
<td>4 days</td>
<td>Tue 3/1/16</td>
<td>Fri 3/4/16</td>
</tr>
</tbody>
</table>

Figure 6: Office 365, SharePoint Online implementation schedule.

3.5 Transition from Legacy to New Automated Process

Our fourth objective is to ensure a smooth transition process from the legacy, manual ISA process to the new automated ISA process. Once the automated ISA process has been
successfully implemented and tested, we will create documentation detailing how to use and maintain the new system.

Although there is less emphasis on documentation in Agile development projects, according to Highsmith, "concise informative documentation aids communication, enhances knowledge transfer, preserves historical information, and fulfills governmental and legal requirements” (Highsmith and Rüping, 2003). Thus, we created “light but sufficient” documentation to complement our training efforts (Cockburn and Rüping, 2003). This documentation would be a combination of instructional videos for the service coordinators and a manual detailing development and implementation of the system for the administrative assistant. The instructional video will be published using the SharePoint wiki feature. Here, users can review the video, and add additional problems they encounter to the wiki page as needed. This will ensure the material on the wiki page is relevant and tailored to a typical user of the system, and for completely new users, is a high-level overview of the system to account for any changes in employees.
Chapter 4: Requirement Analysis

Currently, One Sky's ISA process is slow and causes a lot of hassle for all involved. For that reason we went through the process as a whole and delved deeper into the requirements for the system. Then use cases and data-flow diagrams were created to show the flow of information for the new system.

4.1 Business Requirements

4.1.1 Project Sponsors and Personnel in ISA Process

One prime project sponsor and four key individuals are involved in the ISA process, each serving a different role at the company:

- Executive Sponsor: Chris Muns – CEO.
- Project Sponsor: Karen McLaughlin – Director of Service Coordination.
- Project Manager: Krista Sorel – Service Coordination Administrative Assistant.
- Supervisor: Tanya Hart Newkirk – Supervisor of Family Directed ISA (Approves ISA).
- Supervisor: Alicia Sherwan – Supervisor of Traditional Directed ISA (Approves ISA).

Also included are the services coordinators who setup the meetings with the clients and fill out the needed information in the ISA packet.

4.1.2 Business Needs for One Sky

This project has been initiated to streamline the ISA process, by automating the entire ISA process through Microsoft SharePoint. Here are three specific business needs:

- Streamline the ISA process.
- Improve who can access the ISA documents.
- Decrease time and hassle it takes to create, review, and approve an ISA.

4.1.3 Business Requirements for One Sky

The Individual Service Agreement process can be divided into three phases: creation process, review process, and approval process. The goal is to implement a digital management system to automate the processes and reduce the complexity of printing, mailing, and sharing paper-based documents.
The Creation Process of Individual Service Agreement (ISA)

There are several steps for building a draft an Individual Service Agreement packet. The detailed steps are described below:

1. Service coordinator fills out the ISA Scheduling Form and emails the form to the administrative assistant.
2. Administrative assistant creates ISA packet and fills out the names, dates, and other required material in the packet.
3. Administrative assistant emails ISA packet back to the service coordinator and sends out invitations to clients and vendors.
4. Service coordinator prints the ISA packets.
5. Service coordinator facilitates meeting with the client.
6. Service coordinator completes a rough draft of the ISA.
7. Service coordinator prints a copy of ISA.
8. Draft ISA is sent to one of two supervisors (Tanya or Alicia) based on type of service program to be delivered.

After examining and understanding the basic steps of the preparation process, there are two needs that must be addressed in the SharePoint automation system:

- The system needs to allow complete ISA packets to be built and edited.
- The system needs to give access of the ISA to the correct supervisor depending upon the type of service program chosen.

The Review Process of Individual Service Agreement (ISA)

Steps in the review process of ISA involves three basic steps: review, revise, and resubmit:

1. Supervisors review the ISA packet and give it back to the service coordinator for edits.
2. Service coordinator will make edits and re-submit to supervisor.
3. Repeat steps 1 and 2 until ISA is in its final form.

Detailed requirements in the review process for the automation system are:

- To allow service coordinators/supervisors to view the progress of the ISA.
- To give One Sky a central hub to store all of the ISAs so that there is no need to email the ISA back and forth between the coordinator and supervisor during the editing process.
• To be able to edit forms in SharePoint to eliminate need for emails back and forth.
• To be able to send notifications according to ISA timeline.

*The Approval Process of Individual Service Agreement (ISA)*

In this phase, the ISA process is nearing an end. There are three steps in this phase, which are listed below:

1. Supervisor forwards final form to director of service coordination (Karen) for final approval.
2. Karen forwards approved ISA to the department administrative assistant (Krista).
3. Administrative assistant sends final approved ISA to client and guardian, and files copy of ISA.

In order to automate and perform the three steps, the system is required to:

- Forward ISA packets from supervisor to director of service coordination (Karen) for approval.
- Email administrative assistant (Krista) that the ISA packet is complete and ready to mailed to the client.

*Other Business Requirements*

Besides the requirements listed above for the three phases of ISA process, there are some other business requirements that need to be addressed in order to accommodate the needs of the company:

• The system needs to be documented and easy to use.
• The system needs to track reports of service against time benchmarks of 2 months.
• The system needs to be able to add amendments to the service agreement through an amendment form or separate section.
• Based on renewal date, the system needs to be able to send a flag to supervisor 3 months prior to the expiration date.
• Training will be needed since not all employees have experience with Microsoft SharePoint.

4.1.4 Business Value for One Sky Community Services

The final goal is to introduce version control that will increase overall timeliness and reduce errors by building an automation system in SharePoint. The business value that could potentially be brought to the company is through:
• Reducing time and hassle of preparing, reviewing, and approving the ISA documents.
• Reducing time and hassle of having to scan, fax, and print the ISA during the preparing and reviewing processes.
• Reducing the time between the service coordinator sending the ISA to the supervisor and vice versa, during the editing and approval process of the ISA.
• Reducing clutter by giving One Sky a central hub to store all of the ISAs.
• Avoiding confusion by not having to send and receive the ISA through email.
• Giving One Sky version control of ISA agreements.
• Giving One Sky a timeframe of when an ISA needs to be processed for a client.

4.1.5 Special Issues or Constraints

There are several issues and constraints that the group needs to take into consideration before and while building the system. All issues need to be addressed and constraints need to be properly handled.

• One Sky currently uses the free version of Microsoft SharePoint Foundation 2010 as a document repository. They would like to continue to utilize this technology.
• One Sky outsources its whole IT infrastructure to PCG (Portsmouth Computer Group) where documents are controlled and edited, so the group needs to work with PCG.
• The ISA process must follow the specific Medicaid guidelines for One Sky to receive funds from the government.
• The system must have security and be HIPAA compliant (there is sensitive information contained within the ISA reports such as SSNs, Health Care provider information and health histories).
• One Sky would like to automate the ISA process as soon as possible.
• One Sky is located several hours away from WPI, which means travel for onsite work and training is limited.
• New Hampshire is making a standardized form for ISA so in 1 month the forms are going to change from One Sky's to NH's.
4.2 Use Cases for To-Be System

4.2.1 Create ISA

Use Case Name: ISA Form for Client       ID: UC-1       Priority: High

Actor: Coordinator

Description: This use case describes a time where a Coordinator creates an ISA draft for the client.

Trigger: Coordinator is in meeting with client.

Type: External

Preconditions:

1. Coordinator is authenticated.
2. Administrative assistant (Krista) is authenticated.
3. ISA data store is online.

Normal Course: 

Information for Steps:

1. System displays default home page for login.
2. Coordinator enters his/her login information into the system. Username/Password
3. System checks login credentials.
4. System displays coordinator’s customized home page.
5. Coordinator requests to see blank ISA schedule form.
6. System displays blank ISA schedule form.
7. Coordinator gets the blank ISA schedule form. Blank ISA Schedule Form
8. Coordinator enters client’s info into the form. Client’s Info
9. System creates ISA Schedule Form. ISA Schedule Form
10. ISA Notice is sent to administrative assistant. ISA Notice
11. Administrative assistant enters login information into the system. Username/Password
12. System checks login credentials.
13. System displays administrative assistant’s customized home page.
14. Administrative assistant then adds all of the additional data into the ISA packet. Client Data
15. Administrative assistant then accepts that all of the data has been entered and the system notifies the service coordinator. SC Notice
16. Service coordinator then specifies the rest of the information needed while working with the client. More Client Info
17. System then notifies the supervisor that an ISA packet has been created. Review Notice
Post conditions:

1. Notification is sent to supervisor.

Exceptions:

E1: Coordinator enters wrong login parameters. (Occurs at step 2)

1. System displays message that login information is not valid.
2. System asks user to re-enter login information or contact IT for help.

Summary (Table 8):

Table 8: Summary of use case: ISA form for client.

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Source</th>
<th>Outputs</th>
<th>Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Username/Password</td>
<td>Coordinator</td>
<td>Blank ISA Schedule Form</td>
<td>Coordinator</td>
</tr>
<tr>
<td>Client Info/PDFs</td>
<td>Coordinator</td>
<td>ISA Schedule Form</td>
<td>Coordinator</td>
</tr>
<tr>
<td>Username/Password</td>
<td>Administrative assistant</td>
<td>ISA Notice</td>
<td>Administrative Assistant</td>
</tr>
<tr>
<td>Client Data</td>
<td>Administrative assistant</td>
<td>SC Notice</td>
<td>Coordinator</td>
</tr>
<tr>
<td>More Client Info</td>
<td>Coordinator</td>
<td>Review Notice</td>
<td>Supervisor</td>
</tr>
</tbody>
</table>

4.2.2 Edit ISA

Use Case Name: Edit ISA Form      ID: UC-2      Priority: High

Actor: Coordinator, supervisor

Description: This use case describes when a coordinator edits an ISA and a supervisor approves an ISA form.

Trigger: Supervisor is sent notification of completed ISA draft.

Type: External

Preconditions:

1. Coordinator is authenticated at some point.
2. Supervisor is authenticated at some point.
3. ISA data store is online.

Normal Course: 

Information for Steps:

1. Coordinator requests to see ISA draft.
2. System displays ISA draft.
3. Supervisor enters their login information into the system. Username/Password
4. System checks login credentials.
5. System displays supervisor’s customized home page
6. Supervisor gets the ISA draft. ISA Draft
7. Supervisor adds comments to what needs to be changed in the ISA form.
8. System sends notice of supervisor comments. Supervisor Notice
10. Coordinator enters their login information into the system. Username/Password
11. System checks login credentials.
12. System displays coordinator’s customized home page.
14. Coordinator gets notice of supervisor comments.
15. Coordinator edits ISA draft on form. ISA Edits
16. System sends notice of coordinator edits. Edits Notice
17. Supervisor submits completed ISA form into system. Completed ISA
18. System sends notice to director. ISA Notice

Post conditions:
1. Notification is sent to director.

Alternate Course:

A1: If the supervisor still sees errors in the ISA. (Occurs after step 16)
1. Supervisor still sees errors in the ISA.
2. Repeat steps 12-16 until supervisor is satisfied with ISA.

Exceptions:

E1: Coordinator/Supervisor enters wrong log in parameters. (Occurs at step 2)
1. System displays message that login information is not valid.
2. System asks user to re-enter login information or contact IT for help.

Summary (Table 9):

*Table 9: Use case: edit ISA form.*

<table>
<thead>
<tr>
<th><strong>Inputs</strong></th>
<th><strong>Source</strong></th>
<th><strong>Outputs</strong></th>
<th><strong>Destination</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Username/Password</td>
<td>Supervisor</td>
<td>ISA Draft</td>
<td>Supervisor</td>
</tr>
<tr>
<td>Supervisor Comments</td>
<td>Supervisor</td>
<td>Comments Notice</td>
<td>Coordinator</td>
</tr>
</tbody>
</table>
4.2.3 Approve ISA

Use Case Name: Approve ISA Form  ID: UC-3  Priority: High

Actor: Coordinator, supervisor, director

Description: This use case describes when a supervisor and director approves and ISA.

Trigger: Director is sent notification of completed ISA.

Type: External

 Preconditions:

1. Coordinator is authenticated at some point.
2. Supervisor is authenticated at some point.
3. Director is authenticated at some point.
4. ISA data store is online.

Normal Course:

1. System displays coordinator’s customized home page.
2. System displays default home page for login.
3. Director enters their login information into the system. Username/Password
4. System checks login credentials.
5. System displays director’s customized home page.
6. Director requests to see ISA.
7. System displays ISA.
8. Director gets the ISA. Completed ISA
9. Supervisor enters their login information into the system. Username/Password
10. System checks login credentials.
11. System displays supervisor’s customized home page.
12. Supervisor approves of ISA. Supervisor Approval
13. Director approves of ISA. Director Approval
14. System sends notice to assistant director. Approval Notice

Post conditions:

1. Notification is sent to assistant director.

Alternate Course:

A1: If the director sees errors in the ISA. (Occurs after step 14)
1. Director adds comments to what needs to be changed in the ISA form.
2. System sends out notice of director’s comments. Director Notice
4. Coordinator enters their login information into the system. Username/Password
5. System checks login credentials.
6. Coordinator gets notice of director’s comments.
7. Coordinator edits ISA draft on form. ISA Edits
8. System sends out notice of coordinator edits.

Exceptions:

E1: Coordinator/Supervisor/Director enters wrong login parameters (occurs at step 2)
1. System displays message that login information is not valid.
2. System asks user to re-enter login information or contact IT for help.

Summary (Table 10):

Table 10: Use case: approve ISA form.

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Source</th>
<th>Outputs</th>
<th>Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Username/Password</td>
<td>Director</td>
<td>Completed ISA</td>
<td>Director</td>
</tr>
<tr>
<td>Director Comments</td>
<td>Director</td>
<td>Comments Notice</td>
<td>Coordinator</td>
</tr>
<tr>
<td>ISA Edits</td>
<td>Coordinator</td>
<td>Edits Notice</td>
<td>Director</td>
</tr>
<tr>
<td>Approval</td>
<td>System</td>
<td>Approval Notice</td>
<td>Administrative Assistant</td>
</tr>
</tbody>
</table>

4.3 Data-Flow Diagrams for To-Be System

4.3.1 Content Diagram

The Content Diagram (Figure 7) shows the passing of data to and from the actors in the process as a whole. The three actors in this diagram are the service coordinator, the supervisor, and the director of service coordination. The service coordinator is the one who creates the ISA draft and sends it to the supervisor for approval. If the ISA does not get approved, then it is sent back to the service coordinator for edits. The supervisor is the actor who will be accepting the ISA after it has been drafted and will either send it back for edits or will forward it to the director of service coordination. The director of service coordination is the one that approves of the final draft of the ISA or sends it back to the service coordinator for edits.
4.3.2 Level 0 DFD

The data flow diagram in Figure 8 shows the main processes that the automated system will provide for One Sky. The system is expected to create the ISA, edit the ISA, and accept approval of the ISA. To provide this functionality, three use cases were developed of creation, editing and approval of the ISA which are accurately reflected in this DFD as processes. The ISA data store is also represented. This DFD shows how the different pieces of data flow throughout the system, focusing on the source and the destination. The Level 0 DFD was built based on the context diagram and the existing use cases.
4.3.3 Level 1 DFD

Create and ISA Document

The DFD in Figure 9 describes how the service coordinator creates an ISA in SharePoint. The service coordinator first logs into the system with their given credentials, then the coordinator retrieves any empty ISA forms, then adds the client's information to the form and produces a draft of the form, which is then stored in the ISA data store. A notice is then sent to the supervisor letting him/her know the ISA draft is complete.
Edit an ISA Document

The DFD in Figure 10 describes how the service coordinator and supervisor edit an ISA in SharePoint. The supervisor first logs into the system with given credentials, then retrieves the ISA draft from the data store. From there a supervisor will comment on what needs to be added/edited to the ISA agreement, and a notification will be sent to the coordinator letting him/her know about these changes. From there the coordinator logs into the system and changes what needs to be edited, and a notification is sent to the supervisor letting him/her know about these changes. This is continued until the supervisor is satisfied with the state of the ISA and then sends the completed ISA to the ISA data store.
Approval of an ISA Document

Figure 11 describes how the service coordinator, supervisor, and director approve an ISA in SharePoint. The coordinator, supervisor, and director first logs into the system with their given credentials when needed to perform their tasks, then the supervisor approves of the ISA. From there the director retrieves the ISA draft from the data store. From there, a director will comment on what needs to be added/edited (if needed) to the ISA agreement, and a notification will be sent to the coordinator letting him/her know about these changes. From there the coordinator changes what needs to be edited, and a notification is sent to the director letting him/her know about these changes. This is continued until the director is satisfied with the state of the ISA, and then sends the completed ISA to the ISA data store. From there the supervisor and director send their approval of the ISA.
Figure 11: Level 1 DFD – ISA approval.
Chapter 5: Prototype Design

In Chapter 5 we discuss the detailed information about how we built the prototype environment and designed the ISA Creation, ISA Review, ISA Approval process on WPI’s SharePoint Server 2010 using Agile methodology. Our prototype is built on SharePoint 2010 Server at WPI. To simulate the implementation of the new system; we created a proof-of-concept prototype on the WPI SharePoint Server. Microsoft SharePoint Server 2010 is a collaboration platform that is closely integrated with Microsoft Office and Active Directory. Users with the appropriate permissions can quickly develop and build websites with SharePoint Server 2010. These websites can be used to manage collaboration tools such as document libraries, discussion boards, shared task lists, shared calendars, blogs, wikis and surveys.

5.1 Subsite Environment

Beneath the Service Coordination tab as seen on Figure 12 (One Sky's SharePoint site) there is an ISA subsite. A subsite is a site within another site, which can help segregate the flow of information within a site. The ISA subsite contains all of the materials associated with the ISA from creation to review to approval, plus a comprehensive Manager's View. This comprehensive view used web part functionality to pull attributes (lists, libraries, tasks) from the ISA subsite.

![Figure 12: Prototype site – Service Coordination site.](image)

To create the ISA subsite we went to the Service Coordination site, and clicked on Site Settings. Under Administration, we clicked on Manage sites and workspaces and then clicked Create. In the Title and Description section, we typed ISA and inputted an appropriate description for the site. In the User Permissions section, we selected to use same permissions as
the parent site. A permission tells the site what a user is allowed to do (for example create, edit, view delete documents). This ensured that all service coordinators would have access to both the Service Coordination parent site and the ISA subsite.

After the ISA subsite was created, a new Form Library and wiki page were created within the ISA subsite. The form library holds the template for the Microsoft InfoPath ISA form. The wiki page holds the different web parts for the Manager's View. A web part for this project shows different parts of the InfoPath ISA form, to give the manager a sense of how the completion of an ISA is progressing. After this we added a new form library/wiki page by selecting More Options (while on the ISA site) and then selecting the library to be created. From there, we named the libraries - for our prototype we used Full ISA Form for the form library and Manager's View for the wiki page. In the end, the sites structure looked like Figure 13.

![Figure 13: Prototype site - ISA subsite.](image)

### 5.2 Permissions

For each site specific permission levels were needed for each user. A permission gives a user certain authorization over a site or library. This authorization might include permission to edit, to create, delete, or view an item. Permissions can be easily given to a site upon creation as seen in the Subsite Environment section. Nevertheless, permissions for a site will need to change over time because of employee turnover and promotions. This section shows how we changed,
added, and deleted the site’s permission for a user and how we created a new permission level for the site.

To change, add, or delete Site Permissions, we went to the Site Actions tab (top left corner of site) on the site we wanted to change permissions of, we selected Site Permissions (Figure 14 shows the Site Permission page as reference). To add a new user/group, we clicked on Grant Permission in the Edit Permission Tools bar at the top. From there, we added the users/groups to the form by either entering their account name or by clicking on the Address Book to look up a user. A user will most likely add a user into the ISA site if they are a new service coordinator or manager for One Sky.

For our prototype, we gave permissions to each of the groups of the ISA process. Figure 14 below shows the different permission levels that Microsoft SharePoint gives you to use, although new levels can be created. For our project we gave the director, administrative assistant, and supervisors full control permissions. This allows them to basically do anything on the site. This includes approving other users’ tasks, creating ISA documents, editing documents and viewing the Manager’s View page. While we gave service coordinators limited access and edit rights. This permission level includes creating ISAs, editing ISAs, and approving their own tasks.

![Permission levels within Microsoft SharePoint.](image)

*Figure 14: Permission levels within Microsoft SharePoint.*
5.3 ISA Creation

5.3.1 ISA Packet

To centralize all of the information collected during the ISA process, we created an electronic file template in Microsoft InfoPath Designer 2010. This template contained each form from the existing ISA packet (Appendix B) with fields to capture client information, enforce deadlines, assign tasks, and execute workflows. In other words, once a service coordinator has scheduled a meeting a client, they would enter the Service Coordination, ISA site and create a new document. Each document created would be an instance of this template and would be saved as an .xml file titled after the clients name, ensuring version control and consistency.

5.3.2 Types of Fields

The ISA InfoPath packet was created using various types of fields to capture the appropriate information. As seen in Figure 15, the ISA Meeting Scheduling Form has many different types of fields. The month, name, and client code fields were created using text boxes, which require users to enter a string of characters into the box. The comments section was created using a rich text box. This is similar to a regular text box, but allows users to enter as much information as they desire including pictures, hyperlinks, and tables. The date of ISA, day, and date submitted fields were created using date picker fields. This allows users to either enter their own date in the text box or pick the date by selecting the calendar button and selecting the date from there. Lastly is the service coordinator field which is made using the drop-down list box. The drop down list box allows users to select one of the already pre-defined choices in the list.
In Figure 16 is the file attachment object, which allows users to upload a document onto the InfoPath form.

In Figure 17 is an example of a checkbox object. This allows users to select the checkbox for true, or keep the box unchecked for false.
The Date of ISA is calculated by automatically adding 15 days to the original meeting date. To enforce this rule, in Microsoft InfoPath Designer 2010 we selected Text Box Properties in the popup menu and changed the Default Value to what is seen in Figure 18.

Figure 17: Checkbox example.
A pre-existing directory of names and email addresses should be added, when setting up the system, to the service coordinator drop-down box to include the names and email addresses of OneSky’s 17 service coordinators. This is field is called by the workflows to email the service coordinators. The directory can be added from an external data source and then selecting Add as seen in Figure 19. This should open up a Wizard that will direct the user through the process of selecting the directory.
5.3.3 Create Additional Views

To create additional views for forms that need signatures or need to be printed separately, we created and named a new view. By copying the existing forms into the new view, all of the functionality from the selected form was pasted into this form, which means that on either form something could be filled in for a box and show up on both forms.

After completing the design of the ISA InfoPath form, we published the Full ISA to the Form Library so it would apply to every new document created. To publish the ISA template, we specified the ISA Packets library URL as the location for the form (found under Site Settings in Site Actions). We then added columns to the Full ISA Form library corresponding to fields in ISA packet; this would allow users to get a quick glance of the values of the completed fields in each form. In other words, users could see the value of the service coordinator drop-down field.
in the InfoPath form directly in the Full ISA Form library without opening the form to see who created the packet. We then added the same columns to be usable by SharePoint’s web parts functionality (both will discussed in the review step later in the guide in the Manager’s View site).

5.3.4 ISA Initiation Due Date Reminder

Once an ISA Meeting Scheduling Form has been created by the service coordinator, the ISA Initiation Due Date Reminder workflow executes automatically. The ISA Initiation Due Date Reminder workflow uses the Due Date from the ISA Meeting Scheduling Form and sends an email reminder to the director of service coordination and the appropriate service coordinator (specified by the administrator when the ISA was created) to notify them 10 days before the ISA packet is due. If the task is not completed within the specified time limit, another email is sent to the service coordinator and director of service coordination for further action.

To create the workflow, we connected to the service coordination site by entering the URL from SharePoint and navigated to the ISA subsite. By selecting to create a new list workflow we used conditions, actions, steps, etc. to create the workflow in the workflow editor as seen in Figure 20.

**Stage: Stage 1**

Add 0 months, -10 days, 0 hours, 0 minutes to ISA InfoPath Form:Date ISA Due (Output to Variable: date)

then Pause until Variable: date

then Email [Current Item:Service coordinator%]

then Pause until Current Item:Date ISA Due

then Email Current Item:Service Coordinator

*Figure 20: Reminder’s code.*

On the workflow summary page (Figure 21) we selected "start workflow automatically when an item is created" in the Start Options group, so that when an ISA is created, email reminders are automatically generated and sent on the appropriate date.
The ISA Initiation Due Date Reminder workflow was assigned to the Full ISA Form library by publishing it through SharePoint Designer so the workflow would execute automatically when an ISA is created.

5.4 ISA Review

5.4.1 Manager’s View Wiki Page Library

The manager’s view page serves as a dashboard for managers and directors to track the progress of the ISA process. It consists of two parts, ISA Dates and ISA Checklist, which display the important information of current ISA forms. The information displayed by ISA Dates includes: ISA creation date, creator, ISA meeting date, ISA due date, and ISA submit date, while ISA Checklist displays information of whether a certain part of ISA document has been completed or not.

A view in SharePoint is a useful way to show the information that exists in SharePoint libraries or lists. In SharePoint, a view can be either public for anyone to use, or private, which is only for the user who created the private view. There are several types of views, each serving a different purpose with various grouping and displaying methods. A standard view is the most commonly used type of view, which shows all information with column headers and information in rows. A similar way of displaying data is the datasheet view, which displays information in a datasheet and enables users to edit data directly. Other types of views include the calendar view,
which shows items in a list based on the dates, and the Gantt view, which shows information based on dates in items’ properties. Users will also be able to create custom views in SharePoint Designer. In our prototype, a standard view is used and the view is displayed on a SharePoint wiki page library. A wiki page library is a document library that holds information. The purpose of wiki page is to quickly create and access information.

To create the Manager’s View wiki page library, we navigated to Site Actions (Figure 22). Under Library, we clicked Wiki Page Library and assigned a name, an appropriate description, and a Navigation type of Wiki Page Library.

5.4.2 Manager’s View – ISA Dates

After the Manager’s View wiki page library has been created, the page will show in the Libraries area. To display information to help managers track the progress of ISA process, we utilized the web parts feature. Web parts are building blocks of pages that appear on SharePoint sites. They can be added and customized according to users’ needs. By using web parts, users will be able to modify content and behavior of a page on SharePoint site.

To create a web part that shows related dates of ISA, we inserted the Full ISA Form library into the web part, as shown in Figure 23.

Figure 22: ISA site and drop-down menu.
To show the purposes of appropriate web parts, we changed the name of each web part by selecting the web part (indicated by the orange box in Figure 24).

To change the columns displayed in this web part, we selected the area again and clicked Library under Library Tools. On the top ribbon, in Manage Views, we clicked Modify View. Then we selected the needed columns in the first section, Columns. The columns needed in this view were included to allow the director of service coordination to track the progress and due dates of ISA’s for each client, and were the following:

- Name (linked to document with edit menu) – ISA document name.
- Created – form creation date and time.
- Service Coordinator – service coordinator who created the form.
- Date ISA Due – the due date of ISA Packet.
- Date Submitted – date that ISA Packet has been submitted.
The next step was to position the columns from the left in a specific order. We designated this order by assigning numbers after the column names such that after Name, we selected 1. Then, we selected 2 for Created, 3 for Service Coordinator, 4 for Due Date, and 5 for Date Submitted. In the second section of the Modify View options, Sort determined the appropriate display order. In the third section, Filter, we selected “Show all items in this view” in order to display ISA forms created by all service coordinators, rather than restricting a service coordinator's view to only see the ISA forms they created individually.

5.4.3 Manager’s View – ISA Checklist

To display checklist information on the Manager’s View, we edited the page and inserted a new web part for the Full ISA Form library. Following similar steps mentioned in the ISA Dates web part, we created the ISA Checklist web part to indicate whether individual forms within the ISA packet are completed. The value of these columns are defined by ISA documents created in the Full ISA Form library. As service coordinators fill out the form and select Yes/No/N/A to indicate the completion status of particular forms in the ISA Packet, the values displayed on this web part view will change accordingly. We set the order of these columns within Modify View and arranged the columns by assigning Positions from Left as follows:

- Name (linked to document with edit menu) – assigned position 1.
- Service Coordinator – assigned position 2.
- Sign In – assigned position 4.
- Personal Profile – assigned position 5.
- Service Summary – assigned position 6.
- Agree Implementation – assigned position 7.
- He M 1001 – assigned position 10.
- Community Summary – assigned position 11.
- Community Goals – assigned position 12.
- Resume – assigned position 14.
- Guard Rights – assigned position 15.
- Participant Directed – assigned position 16.
- Complaint Form – assigned position 17.
- Consent Medi – assigned position 18.
- Social Media – assigned position 19.
- Service Approval – assigned position 20.
- Health History – assigned position 21.

Since there will be a number of ISA packets shown on the Manager’s View, a well-organized user interface is necessary. To achieve this goal, we decided to group ISAs by corresponding service coordinators. After changing the positions in last step, we filtered the view to “Show all items in this view” grouped the items by the service coordinator's name seen in Figure 25.

![ISA Checklists table](image)

**Figure 25: ISA Checklist Web Part.**

After saving all the settings, the Manager’s View was successfully created and ready to be used by managers and directors.
5.5 ISA Approval

5.5.1 Summary of Process

Following from the creation process, an ISA can be created by a service coordinator. This new ISA is an instance of an InfoPath template that can be populated, saved, viewed and edited at a later date. According to One Sky Community Services’ business requirements, an ISA is successfully approved after it is reviewed by multiple parties. The flow of information through this process is depicted below in Figure 26.

Once a new document has been added to the Full ISA Form library and the ISA Meeting Scheduling Form has been filled out by the service coordinator, the Approve Full ISA Form workflow executes automatically. The Approve Full ISA Form workflow assigns a task to the administrator who fills out the appropriate fields in the ISA packet. A task is a work item that can be approved, rejected, and reassigned to another user. Tasks are used to execute workflows, and can be assigned deadlines that may be synced with Microsoft Outlook. All assigned tasks are

Figure 26: Approval process.
stored on the SharePoint site in the Tasks list and were filtered by client name as seen in Figure 27.

<table>
<thead>
<tr>
<th>Type</th>
<th>Title</th>
<th>Assigned To</th>
<th>Status</th>
<th>Priority</th>
<th>Due Date</th>
<th>% Complete</th>
<th>Predecessors</th>
<th>Outcome</th>
<th>Related Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
<td>ISA Packet Initiated</td>
<td>Zhou, Chuan</td>
<td>Not Started</td>
<td>Normal</td>
<td></td>
<td></td>
<td></td>
<td>Doe, Jane</td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>Complete ISA Packet</td>
<td>Kelley, Phil</td>
<td>Completed</td>
<td>Normal</td>
<td>2/12/2016</td>
<td>100 %</td>
<td>Approved</td>
<td>Doe, John</td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>ISA Packet Final Draft</td>
<td>Xu, Lingyi</td>
<td>Not Started</td>
<td>Normal</td>
<td></td>
<td></td>
<td></td>
<td>Doe, John</td>
<td></td>
</tr>
</tbody>
</table>

Figure 27: All assigned tasks.

After the task assignment, the administrator receives an email notification about this assignment as seen in Figure 28 Below.

Kristain hit started by Kelley, Philippe W on 2/2/2016 7:38 PM
Comment: Hello Krista,

Kelley, Philippe W has created an Individual Service Agreement Packet for Doe, John with a due date of 2/23/2016 12:00:00 AM. Please complete the appropriate information and complete this task to allow Kelley, Philippe W to complete the packet.

Approved by Zhou, Chuan on 2/2/2016 7:44 PM
Comment:

Figure 28: Email notification to administrator.

Upon completion of this task, a new task is assigned to the service coordinator specified in the ISA Meeting Scheduling Form. The service coordinator receives an email notification about this assignment. Upon completion of this task, a new task is assigned to the supervisor. The supervisor receives an email notification about this assignment. Upon completion of this task, a new task is assigned to the director of service coordination. Upon approval, and the completion of the task, an email notification is sent to the administrator to print the full ISA Form. As the ISA form progresses through the workflow, each approval is time stamped and logged into the workflow history list affiliated with the Approve Full ISA Form workflow. This log is accessible by clicking on the workflow’s assigned column in the Full ISA Form library and is pictured in Figure 29 Below.
Figure 29: Workflow history list.

A workflow history list is populated during each instance of a workflow and contains the date, the event type, who completed the task, a description, and the outcome of the step in the workflow. The workflow history list allows One Sky to keep electronic signatures and increase accountability in the ISA process. To achieve this process in our prototype, we used SharePoint Designer, specifically workflow variables and parameters, tasks, and conditions to create the Approve Full ISA Form workflow.

5.5.2 SharePoint Designer 2010 Workflow Editor

The Approve Full ISA Form workflow was created in Microsoft SharePoint Designer 2010. To create the workflow we connected to the Service Coordination site by entering the URL from our SharePoint site, allowing us to open our site and make edits through SharePoint Designer’s interface as seen in Figure 30.
In SharePoint Designer, we navigated to the ISA subsite and applied a list workflow to the Full ISA Form library that was established in the creation process to hold the ISA Packets. To ensure this workflow executed automatically when a new ISA document is created by a service coordinator, we checked the “start workflow automatically when an item is created” in the Start Options group selected in green in Figure 30. We also checked the “allow this workflow to be manually started” to allow service coordinators to make updates to client’s service agreements on a yearly basis, edits that must also be approved by supervisors and the director of service coordination.

To create the Approve Full ISA Form workflow we used the workflow editor, including conditions, actions, and steps, to develop the logic in Figure 31.

Figure 30: SharePoint designer’s interface.
Figure 31: Approval workflow in SharePoint Designer.
In SharePoint Designer, conditions include if-statements and the ability to pause the workflow. Only if-statements were used to create the Approve Full ISA Form workflow and are highlighted in green in Figure 31. The rest of the logic of the Approve Full ISA Form workflow was created using actions. Actions include items that directly affect aspects of the associated SharePoint site, library, list, etc. Actions can also start instances of pre-built workflows, including the approval process, the custom task process, and the collect data from user process. All of these processes are classified as task processes and are essentially used to capture multiple events at one step in the workflow. In other words, each event is a set of tasks that must all be completed in order for the entire task process to be completed. Once the task process is completed, the workflow progresses. To create the Approve Full ISA Form workflow, 5 approval processes were linked in succession to correctly model the process depicted in Figure 31.

Since an approval process is also an editable workflow, we made each approval process a consequence of the previous approval process by setting the IsItemApproved workflow variable, which is automatically generated for each instance of an approval process, to a value of yes or no to indicate approved or rejected respectively as seen in Figure 32. The IsItemApproved workflow variable is modified by navigating to the “change the behavior of a single task” option on the approval process’s workflow editor page.

![Figure 32: Approval process in workflow editor.](image-url)
In addition to marking a task as approved or rejected, a user can reassign a task to another user, allowing One Sky employees to make comments and edits on ISA drafts before the packet is in its final form as seen in Figure 33.

![Workflow Task](image)

*Figure 33: Workflow task page.*

When a task is reassigned the workflow does not rollback or terminate. Instead; the workflow retains its progress and tasks are reassigned until they are reassigned back to the original approver, who is responsible for approving or rejecting the task. Therefore, the workflow does not have to restart every time there are errors in the ISA packet. To conclude development of the approval process, the Approve Full ISA Form workflow was assigned to the Full ISA Form library by publishing it through SharePoint Designer, thus completing development of the approval process.

Ultimately, this prototype was implemented on One Sky’s Microsoft Office 365. Microsoft Office 365 is a productivity suite that includes common applications like Word and InfoPath. Office Online is an online version of the Microsoft Office suite which allows users to create and edit files using web-based versions of Word, Excel, SharePoint, and PowerPoint. Users can access Office 365 Online from any computer with internet access.
Chapter 6 Implementation of Prototype

6.1 Brief Summary of Office 365 SharePoint Online

SharePoint Online is essentially SharePoint Server hosted as a cloud service. It allows businesses to create sites, share documents, model business processes while encouraging collaboration in a virtual space. In SharePoint Online, all of these features are hosted externally by Microsoft in secure datacenters, rather than on an organization’s own server. Furthermore, since Microsoft Office 365, SharePoint Online is certified for HIPPA compliance with proper employee training and business certifications, this model allows One Sky to utilize the opportunity for uninterrupted availability and security to manage the ISA process in an environment that protects its client’s information.

As discussed in Chapter 5, we developed our prototype in SharePoint Server 2010 at WPI. In order to implement the new ISA process in One Sky’s system (Office 365, SharePoint 2013 Online) we had to account for version differences. Table 11 compares the different features of SharePoint 2010 on-premises and SharePoint Online within Office 365.
Table 11 Comparison between SharePoint 2010 and Office 365 SharePoint Online (as cited in Microsoft SharePoint Online for Enterprises: Service Description, 2011).

<table>
<thead>
<tr>
<th>Feature</th>
<th>SharePoint 2010 Server</th>
<th>SharePoint Online</th>
</tr>
</thead>
<tbody>
<tr>
<td>SharePoint Lists</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Web Parts</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Improved Governance</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Large List Scalability and Management</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Multi-Lingual User Interface (MUI)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Permissions Management</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Quota Templates</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Secure Store Service</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Connections to Microsoft Office Clients</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Web Analytics</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Audience Targeting</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Cross-Browser Support</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>External sharing</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>SharePoint Ribbon</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Mobile Connectivity</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Office Web Apps integration</td>
<td>Yes-separate installation</td>
<td>Yes-comes preconfigured</td>
</tr>
<tr>
<td>SharePoint Workspace 2010</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Out-of-the-Box Web Parts</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Scalability</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Templates</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Accessibility</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Configuration Wizards</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Of the services available in SharePoint 2010, Secure Store Service was a service that allowed users to connect to external software, services, and storage, while Web Analytics allowed SharePoint users with administrator-level permissions to gauge the use of the site, including storage use and site traffic. Web Analytics also had corresponding web parts that displayed this information to help managers understand what users were doing and what information they required from a site. While these features were eliminated in SharePoint 2013, the new version allowed for external sharing. External sharing has services that give users
control over the documents that are shared with authenticated and non-authenticated users who do not have a Microsoft account. Furthermore, Workflow functionality remained the same between versions; however, it is hosted on an entirely new platform with different development requirements and features. Ultimately, the version differences required us to adapt our proof-of-concept prototype so that it would retain its functionality. This required us to adapt the ISA Creation, ISA Review, and ISA Approval process of our prototype, which are presented in this chapter.

6.2 ISA Creation

Overall the user interface of Form Libraries and InfoPath forms in Office 365's SharePoint Online is very similar to SharePoint 2010’s interface. The Form Library pages have the same general theme of being able to add InfoPath forms and get a general view of dates, names, and other information of the form. The biggest difference, as seen in Figure 34, is that the user interface is more simplified for creating new InfoPath Filler forms and uploading new form templates. The new interface allows the user to click the New button above the forms to create a new form, and click Upload to upload a new form template.

![Image of ISA InfoPath Form]

**Figure 34: Simplified user interface for creating new InfoPath Filler forms.**

That being said, being able to fill out InfoPath forms in the browser is not at all different from its 2010 counterpart, retaining all previous functionality described in Chapter 5. As seen in Figure 35, the InfoPath form looks almost exactly the same except for some color scheme differences.
In order to transition the Individual Service Agreement template form from our prototype in SharePoint 2010 to Office 365, we had to sever data connections from the prototype hosted on the SharePoint 2010 server. In other words, we changed all fields in the forms that required user directories so that they would reflect One Sky’s staff, including all 17 service coordinators, the 2 supervisors, administrative assistant, and the director of service coordination. In this way, all the resultant tasks and emails of the system’s workflows would be dispersed among the One Sky staff’s existing accounts on the company’s domain.

The ISA Initiation Due Date Reminder workflow was published to Office 365 using the same methods described in Section 5.3.2. The new 2013 version of the workflow (Figure 36) operates the same at the prototype’s 2010 workflow, using the Due Date from the ISA Meeting Scheduling Form and sending an email reminder to the director of service coordination and the appropriate service coordinator (specified by the administrator when the ISA was created) to notify them 10 days before the ISA packet is due.
6.3 ISA Review: Manager’s View

As we mentioned in the previous section, the user interface of the Form Library pages of Office 365 SharePoint Online is similar to SharePoint 2010’s interface. However, navigating to Sites and Libraries is very different. The newly implemented Manager’s View has a new user interface but the features are the same as our prototype presented in Chapter 5.

In the previous chapter, we introduced views, a wiki page library, and web parts. The implementation of Manager’s View on Office 365 SharePoint Online used exactly the same functionalities. Once logged in to Office 365, we selected Sites and navigated to our implementation site. To create the Manager’s View wiki page library, we navigated to Site Contents on the left hand side of the home page. On the Site Contents page, we selected Add An App (Figure 37).

Figure 36: 2013 ISA Initiation Due Date Reminder workflow.

Figure 37: Adding Wiki Page library to SharePoint site.
Under Your Apps, we clicked Wiki Page Library (Figure 38) and assigned a name to it.

![Image](https://example.com/image.png)

**Figure 38:** Adding a new app in Office 365, SharePoint Online.

After the Manager’s View wiki page library was created, we clicked on Page on the top ribbon and selected Edit. Next, we created an ISA Dates and ISA Checklist web parts. We navigated to the black space boxed by gray border, and clicked Insert, Web Part on the top ribbon. From this point forward, the implementation of the new Manager’s View followed exactly the same steps as described in chapter 5. One thing to notice is that in Office 365 SharePoint Online, the Save button is moved to the upper right corner on the page, as referred to Figure 39.

![Image](https://example.com/image.png)

**Figure 39:** “Save” button location in Office 365, SharePoint Online.
A fully constructed Manager’s View is shown below in Figure 40. To view all items in ISA Checklist, users can navigate to view more columns by dragging the scroll bar at the bottom of the web part.

![Figure 40: Fully constructed Manager's View.](image-url)

6.4 ISA Approval

There are several version differences between SharePoint 2010 and SharePoint 2013 that impacted the implementation of our prototype. While SharePoint 2010 and SharePoint 2013 both provide the framework to model business processes using workflows and activities that interact with various document types, users, and lists, the workflow functionality in SharePoint 2010 is hosted and managed by Windows Workflow Foundation 3.0 (an API service that manages instances of workflows at runtime, executing tasks over the day, week, and month spans) while SharePoint 2013 is hosted and managed by Windows Workflow Foundation 4.0. According to Microsoft, Windows Workflow Foundation 4.0 is improved from the initial Windows Workflow Foundation 3.0, having an improved interface that allows users to link workflow actions together in groups of activities that are executed chronologically. This allows for an improved modeling of business processes, while limiting the extent to which users have to store and read metadata (decreasing file size and the number of workflow variables) to move from one activity to the next activity. Furthermore, according to Microsoft, Windows Workflow Foundation 4.0 runs on Microsoft Azure (Workflow Manager), a cloud-computing platform in Microsoft datacenters.
This service enables workflows to be executed externally from SharePoint, increasing speed compared to the internal execution in Microsoft SharePoint 2010.

Furthermore, on this new platform (Windows Workflow Foundation 4.0) several workflow features were eliminated from SharePoint 2010 including: (What’s Changed in SharePoint Designer 2013, n.d.)

**Actions:**

- Stop Workflow.
- Capture a Version of the Document Set.
- Send Document Set to Repository.
- Set Content Approval Status for the Document Set.
- Declare Record.
- Set Content Approval Status.
- Undeclare Record.
- Add List Item.
- Inherit List Item Parent Permissions.
- Remove List Item Permissions.
- Replace List Item Permissions.
- Lookup Manager of a User.
- Assign a Form to a Group.
- Assign a To-Do Item.
- Collect Data from a User.
- Start Approval Process.
- Start Custom Task Process.
- Start Feedback Process.
- Copy List Item (SharePoint Designer 2013 supports only the document-copying action).

**Conditions:**

- If current item field equals value.
- Check list item permission levels.
- Check list item permissions.

**Steps:**

- Impersonation Step.

**Data sources:**

- User Profile lookup.
Other features:

- Visio integration.
- Association Column.
- Content Type Association for reusable workflow.
- Require Manage List/Web Permission feature for list/site workflow.
- Globally reusable workflow type.
- Workflow visualization option.

Of the eliminated features, the start approval process action was central to our prototype discussed in Chapter 5. Despite this, it is possible to execute SharePoint 2010 workflow functionality in SharePoint 2013 using the SharePoint workflow interop. The SharePoint workflow interop uses the SharePoint 2013 “start workflow” method to host and execute SharePoint 2010 workflows in the Workflow Manager using Windows Workflow Foundation 3.5. Therefore, we adapted our initial prototype using one SharePoint 2013 workflow to host five SharePoint 2010 workflows (total six workflows). These workflows were developed in SharePoint Designer 2013, and the SharePoint 2013 workflow is depicted in Figure 41 while an example of the SharePoint 2010 workflows is depicted in Figure 42.
<table>
<thead>
<tr>
<th>Stage: KristaFillsOutISA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start KristaApprove with no parameters on Current Item (Output to Data source)</td>
</tr>
<tr>
<td>Transition to stage</td>
</tr>
<tr>
<td>Go to SCFillsOutISA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage: SCFillsOutISA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start Approval ISA SC with no parameters on Current Item (Output to Data source)</td>
</tr>
<tr>
<td>Transition to stage</td>
</tr>
<tr>
<td>Go to SupervisorApproves</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage: SupervisorApproves</th>
</tr>
</thead>
<tbody>
<tr>
<td>If Current Item:ISAType equals Traditional</td>
</tr>
<tr>
<td>Start TradApproval with no parameters on Current Item (Output to Data source)</td>
</tr>
<tr>
<td>Else</td>
</tr>
<tr>
<td>Start PDMSApproval with no parameters on Current Item (Output to Data source)</td>
</tr>
<tr>
<td>Transition to stage</td>
</tr>
<tr>
<td>Go to AdminApproval</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage: AdminApproval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start AdminApproval with no parameters on Current Item (Output to Data source)</td>
</tr>
<tr>
<td>Transition to stage</td>
</tr>
<tr>
<td>Go to Email</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage: Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email sharepoint</td>
</tr>
<tr>
<td>Transition to stage</td>
</tr>
<tr>
<td>Go to End of Workflow</td>
</tr>
</tbody>
</table>

Figure 41: SharePoint 2013 workflow.
Additionally, in our prototype the workflow history list is populated during each instance of a workflow and contains the date, the event type, who completed the task, a description, and the outcome of the step in the workflow. Essentially, this history list served as a log of electronic signatures. However, when we implemented the six workflows on One Sky’s Office 365 system, the workflow history list was broken up according to each step of the approval process. In other words, each SharePoint 2010 workflow has an individual, corresponding workflow history list as seen in Figure 43 below.

**Figure 42: SharePoint 2010 workflow.**

**Figure 43: Workflow history list**
The workflow history lists can be accessed from the Form Library that contains the ISA packets. Each step in the workflow has a corresponding column, where the statuses of the workflow steps are also displayed.

### 6.5 Conclusion

Using Agile software development methods, we utilized a digital management system (Office 365 SharePoint Online) to automate One Sky Community Services’ Individual Service Agreement process. We divided this process into three distinct phases; the ISA Creation, ISA Review and ISA Approval processes were implemented in succession allowing service coordinators to fill out electronic forms using Microsoft InfoPath functionalities, managers to review individual forms progress with web parts and views, and all users to collaborate in a timely manner with approval workflows created in SharePoint Designer 2013. Ultimately, this system is in a ready-to-use state, with permanent use contingent on user training and usability testing as discussed in Chapter 7. The new automated ISA process will enable One Sky to increase overall timeliness and productivity, and reduce errors for increased accountability.
Chapter 7: Recommendations

A well-managed organization always needs to consider continuous improvement as one of the most important post-implementation activities. Continuous improvement can be done if businesses “continuously seek to refine and enhance business processes” (Dennis, Wixom, & Roth, 2014). Making improvements on current processes should always be the focus of companies or organizations because of the ever-changing needs for enhanced business processes and the advancement of technology. The goals of post-implementation activities are to ensure a smooth transition from the current process to an enhanced process, handle unexpected bugs, and consider use of the enhanced process in other business sectors of the company. There are three key activities among all the post-implementation activities, which are support, maintenance, and project assessment. Support activity refers to the action of “providing assistance in the use of the system” and maintenance means “continuing to refine and improve the system”. Project assessment is to “analyze the project to understand what activities were done well - and should be repeated - and what activities need improvement in the future projects” (Dennis, Wixom, & Roth, 2014). This chapter will discuss our recommendations for these post-implementation activities and our additional recommendations.

7.1 Support and User Training

Initially, we aimed to conclude our project by conducting user training with service coordinators and supervisors and in-depth training geared towards maintenance and development with the administrative assistant and director of service coordination. However, near the end of our development schedule we were notified that the New Hampshire Department of Health and Human Services (DHHS) had begun piloting an automated system for reporting ISAs. Since all developmental services in New Hampshire are offered through contractual agreement with the Bureau of Developmental Services by ten regional state agencies, as one of the state agencies, One Sky would be required to use this state developed system. Therefore to reduce unnecessary training, we developed instructional videos and documentation for One Sky to conduct training if needed. To supplement this training, we recommend One Sky also identify business processes and system functions that are likely to be important to the users, so that the training focuses “on what the user needs to do, not on what the system can do” (Dennis, Wixom, & Roth, 2014). Microsoft SharePoint has innumerable features, but only a subset of the features will be utilized
in the automated ISA process. Thus, training must be focused to ensure users are experts in "20% of the functions they use 80% of the time" (Dennis, Wixom, & Roth, 2014).

According to Dennis, Wixom, and Roth, there are three ways IT training is typically administered, as shown in Table 12.

### Table 12: Training methods (Dennis, Wixom, & Roth, 2014).

<table>
<thead>
<tr>
<th></th>
<th>One-on-One Training</th>
<th>Classroom Training</th>
<th>Computer-Based Training</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost to Develop</strong></td>
<td>Low-Medium</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td><strong>Cost to Deliver</strong></td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td><strong>Impact</strong></td>
<td>High</td>
<td>Medium-High</td>
<td>Low-Medium</td>
</tr>
<tr>
<td><strong>Reach</strong></td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
</tr>
</tbody>
</table>

In the case of One Sky, we recommend they employ a combination of one-on-one training and classroom training. Since this training would be given to at most 25 people, little reach is needed and costs will be limited. This training course paired with the training materials we provided will ensure all users are well versed in the use of the system.

### 7.2 Maintenance

Maintenance is an important aspect of post-implementation activities. Once the development group finished installation of the new system, an operation group will take over and be in charge of fixing bugs and adding additional functionalities if needed. The operation team needs to make sure that the system will meet the business requirements at any time. As the development group, we recommended One Sky to take effort and search for an operation group to handle maintenance of the automated ISA system. Since One Sky already has an established partnership with Portsmouth Computers Group, they can be a great resource in terms of consultation. PCG’s SharePoint Specialist, John Rosset, who had been actively involved in the development stage of our automation process, can also be helpful if One Sky ever encountered any problem with utilizing SharePoint in their business processes. There are five common types of changes that could potentially be identified in the use of the new system and would need to be handled by the operation group. The most common change is to identify and fix bugs in the system. The second one being enhancements to the system from users, for instance, a requirement of modifying views on SharePoint site from the director. The third source of change
request is integration with other system development projects. If the ISA process needs to be combined with any other processes in the future, the operation group will be in charge of the integration of the two systems. A fourth source change requests is “those that occur when underlying software or network change”, for example, upgrading SharePoint to a new version. The last change will occur when there are adjustments on senior management, which refers to major changes in the organizational level, such as strategy or operation changes (Dennis, Wixom, & Roth, 2014).

7.3 Project Assessment
To gauge the overall usability of the new system we recommend One Sky uses parallel conversion, which means both the old and new systems are used simultaneously for a certain length of time. Parallel conversion is favorable to a direct conversion, which involves a complete abrupt switchover to the new system. For the first week, the ISA packet would need to be entered into both systems, on paper and electronically. Output from both systems must be carefully compared to ensure that the new system is performing correctly. After 10 days, following analysis of both the old and new system by comparing the time to complete an ISA, the number of errors, associated costs, and ease of use, if the new system appears to be performing correctly, a complete switchover could then occur.

7.4 Additional Recommendations
One Sky has an existing site hosted by SharePoint Foundation that is primarily used as a document repository (Figure 44).
Figure 44: One Sky’s existing SharePoint Foundation site.

To integrate this existing system with the automated ISA process in Office 365, we recommend One Sky recreate their existing sites by adding sites in the Office 365 system that correspond to the tabs in their existing system. These tabs include LEAN, PDMS, Rep Payee, Service Coordination, One Sky CHI, Family Support, Forms and Documents, and Vendors and numerous sub-tabs that correspond to different areas of the agency. Using sites and subsites, One Sky can eliminate extraneous and damaged information on the old site, move relevant materials to the new system, and combine their old familiar system with the new automated ISA process on a cloud-enabled, secure platform that will provide opportunities to automate other business processes in the future.
Chapter 8: Conclusion

The goal of our project was to automate the creation, review, and approval process of One Sky Community Services' Individual Service Agreement (ISA) packets and to introduce version control of the resulting documents. To automate the manual process, we utilized a digital management system (Office 365, Microsoft SharePoint Online) to increase overall timeliness and reduce errors, ensuring One Sky clients would receive the highest quality care possible.

In order to set the groundwork for our solution, we delved into the technological, organizational, and financial feasibility of automating the ISA process in Microsoft SharePoint. We then conducted research to gain a thorough understanding of the problem at hand, synthesizing information about Medicare, Medicaid, New Hampshire Disability Services, competing digital management systems, and IT automation case studies. Working in collaboration with One Sky during this process allowed us to synthesize business requirements and collect user stories to define our problem and guide the development of our initial prototype. To develop our prototype we used Agile software methodologies to implement user-required functionalities in three stages (creation, review, and approval). We then gauged the overall usability of our prototypes by conducting testing as system analysts and with a select group of users from One Sky to determine the systems suitability for the ISA process. The feedback from this testing allowed us to improve our prototype to more closely suit One Sky’s needs. We then implemented the system in One Sky’s Office 365 service and developed training materials to ensure One Sky could smoothly transition from the legacy, manual ISA process to the new automated ISA process in the future.
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Appendices

Appendix A: ISA Packet Documents

Complete Packet
Authorization and Agreement to Implement Service Agreement Goals & Services or
Addendum to Service Agreement

Consumer: 

I hereby give authorization for service providers to begin implementation of goals and services for residential and/or day programs as drafted at the individual service agreement meeting/Team Meeting, which was held on .

I understand that I will receive a complete Service Agreement/ Addendum upon completion of review and either approval or disapproval. If disapproval of this plan at this time, I will formulate a strategy to resolution of issues with the Service Coordinator.

______________________________
Consumer or Guardian Signature

Date

We agree to implement goals and services for residential and/or day programs as drafted at the individual service agreement meeting/Team Meeting reference above.

______________________________
Community Participation Services Provider Signature

Date

______________________________
Residential Services Provider Signature

Date

residential service coordinator signature

Date
<table>
<thead>
<tr>
<th>GUARDIANSHIP RECOMMENDATIONS</th>
</tr>
</thead>
</table>

**CONSUMER NAME:** [Redacted]  
**ISA MEETING DATE:** [Redacted]

1. Recommend administrator seek to establish guardianship because this individual is considered incapable of managing his/her own affairs or property using the definition of incapacity in RSA 462 A:2, XI.

2. Do not recommend administrator seek to establish guardianship because this individual is not considered incapable of managing his/her own affairs or property using the definition of incapacity in RSA 464 A:2, XI.

3. Recommend administrator seek to modify parameters of current guardianship because of change in level of incapacity or functional limitations of the individual.

4. Recommend administrator seek to remove current guardianship because of change in level of incapacity or functional limitations of the individual.

5. Individual has a guardian or is under the age of 18 and has a legally responsible parent, and there is no recommendation to change current status.

6. Other: [Redacted]

**REMARKS:** As described in our Notice of Privacy Practices and permitted by HIPAA, information will be used within the [Redacted] Community and/or obtained from and disclosed to those providing service/treatment as well as potential service providers. Written authorization will be obtained where state or federal law has more stringent requirements. Another copy of this Notice of Privacy Practices will be provided at your request.

- [ ] I have been informed of the choice of receiving services through the appropriate Medicaid home and community-based waiver as an alternative to institutional services.
- [ ] I have been informed of and offered a choice of service providers.
- [ ] I have been informed of the choice of community-based waivered services which include residential, community participation, employment, community support, and participant directed managed services.
- [ ] I confirm that I wish to continue with my current Service Coordinator. If [ ] I wish to choose an alternative.
- [ ] I have received a copy of this pamphlet “Your Rights.” I have read the information contained within and know that I can contact the Service Coordinator or Director of Service Coordination with any questions that I might have at any time.

<table>
<thead>
<tr>
<th>Guardian/Co-Guardian Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Redacted]</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Address</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Redacted]</td>
<td></td>
</tr>
</tbody>
</table>
Consent for Medical Care When Guardian Not Available

(For guardians for whom there is not alternate on-call coverage at all times)

I am the legal guardian for ________________________________.

In the event that I cannot be reached and a new medication or change in medication is ordered, or medical treatment is needed (choose one):

________________ I give permission to One Sky Community Services, or any agency providing services under contract with One Sky Community Services, to proceed with changes in medications, to start new medications, and to initiate appropriate necessary medical treatments recommended by licensed medical personnel. If care is given under this arrangement, I understand that in an effort to keep me fully informed, ongoing efforts to reach me will be attempted and documented.

________________ I give consent for the above with the Exception of ________________________________.

________________ I do NOT give permission to One Sky Community Services or any agency providing services under contract with One Sky Community Services to proceed with changes in medications, to start new medications, and to initiate appropriate necessary medical treatments recommended by licensed medical personnel. If I have chosen this option, I understand that I am responsible to develop an alternative plan for consent, and am responsible to inform those providing services of the plan. I know I will be unavailable.

________________ Guardian Signature
________________ Printed name
________________ Date signed
________________ Phone number
________________ Printed email

________________ Coguardian Signature (if applicable)
________________ Printed name
________________ Date signed
________________ Phone number
________________ Printed email

________________ Service Coordinator Signature
________________ Date signed

(Consent developed in response to request of Medication Committee, and incorporated into annual SA process by OVP)
One Sky Community Services Providers

Community Strategies of NH 3480 Elm Street Unit 2, Manchester, NH 03104 Phone: 603-777-2212
Catahoula Mountain Residential Services 5922 September Place, Orangeville, NH 03688 Phone: 603-777-2212

tobacco of New Hampshire, 1177 Market Street, Manchester, NH 03101 Phone: 603-777-2212
Granite Bay Connections 54 Old South Road, Concord, NH 03301 Phone: 603-777-2212

Great Bay Services 2000 Canal Street, Portsmouth, NH 03801 Phone: 603-777-2212

Hammocks Health Services 211 Boscawen Road, North Hampton, NH 03862 Phone: 603-777-2212
Institute of Professional Practice 5325 Market Street, Manchester, NH 03101 Phone: 603-777-2212

Kimi Nichols Center 17 East Road, Rochester, NH 03867 Phone: 603-777-2212

LifeShare, Inc. 100 International Drive Suite 300 West Wing, Portsmouth, NH 03801 Phone: 603-777-2212

Life Violence II Highland Street, Newton, NH 03801 Phone: 603-777-2212

Living Innovations 350-0 Lafayette Road, Portsmouth, NH 03801 Phone: 603-777-2212

The May Institute 450 Meadow Lane, Manchester, NH 03104 Phone: 603-777-2212

North Country Independent Living 3 Stafford Road, Berlin, NH 03570 Phone: 603-777-2212

One Sky Services 41 Bedford Road Suite B, Rochester, NH 03867 Phone: 603-777-2212

Residential Resources, Inc. 54 South Commercial Street, Manchester, NH 03104 Phone: 603-777-2212

Twin River Associates, a Subsidiary of PP 1011 Market Street, Manchester, NH 03101 Phone: 603-777-2212

Work Opportunities Unlimited 114 Local Street Suite 2, Dover, NH 03820 Phone: 603-777-2212
Participant Directed and Managed Services Overview

Individuals with disabilities who receive services through the New Hampshire Bureau of Developmental Services (BDS) have the option of using Participant Directed and Managed Services (PDMS). In PDMS, the individual and their family or guardian identifies the needs related to the developmental disability or acquired brain disorder, designs the services and supports needed to meet those needs, and determines how and when funding will be spent, as well as the amount of the funding (for example, federal allowable expenses). PDMS is an option for participants who wish to have more choice and control of and responsibility for their BDS-funded services.

Participant Directed and Managed Services provide participants the opportunity and responsibility to choose and manage supports and services that are meaningful to them. Working within funding guidelines, participants determine the cost of these supports and services and authorize the payment using their allocated Medicaid dollars.

Services that can be provided:
- Personal care, employment supports, adult education, vocational, and leisure activities;
- Adaptations through environmental and vehicle modifications and assistive technology;
- Services that assist the individual to acquire and maintain life skills in such areas as personal safety, meal preparation, and budgeting;
- Services that, based on the individual’s performance, broaden his or her life experiences through social, artistic, and spiritual expression;
- Special and family support services that meet the needs of individuals living with their families.

Non-Covered Services: The following services are not funded under PDMS:
- Custodial care provided only to maintain the individual’s basic welfare;
- Shelters, workshops, and
- Services not related to supports required because of an individual’s developmental disability or acquired brain disorder.

I acknowledge that I have been informed about Participant Directed and Managed Services as service provision details.

Individual’s Signature ___________________________ Date ______________

Guardian’s Signature ___________________________ Date ______________

Service Coordinator’s Signature ___________________________ Date ______________
ANNUAL INDIVIDUAL NOTIFICATION OF DEVELOPMENTAL SERVICES COMPLAINT PROCESS,
INCLUDING HOW TO REPORT ABUSE AND NEGLECT
(Revised by MDHSS 04-87 AD)

WHO AND WHAT DO I FILE A COMPLAINT ABOUT?
If you or someone you know has been abused, you should report it. If you feel that an agency has harmed your rights or has failed to fulfill its responsibilities, you should report it. It is your right to file a complaint if you believe that your rights have been violated or if you believe that your rights are being violated.

WHAT HAPPENS AFTER I FILE A COMPLAINT?
A formal investigation will be conducted in response to your complaint. The investigation will be conducted by an independent agency. The results of the investigation will be made available to you in writing.

WHO IS THE COMPLAINT INVESTIGATOR?
An independent agency will conduct the investigation. The investigation will be conducted by an independent agency.

WHAT WILL HAPPEN DURING THE COMPLAINT INVESTIGATION?
The investigation will be conducted in the following manner: The investigator will conduct an interview with the person or persons who filed the complaint. The investigator will also conduct an interview with the person or persons who are the subject of the complaint. The investigator will then conduct an interview with the person or persons who are the subject of the complaint.

WHERE DOES THE REPORT GO?
The report will be filed with the person or persons who filed the complaint. The report will also be filed with the person or persons who are the subject of the complaint.

CAN THE FINAL REPORT BE APPEALED?
Yes, the report can be appealed. Appeals must be filed within 30 days of the date of the report.

Did you have a complaint or a question about the Developmental Services complaint process? You should contact the Bureau of Developmental Services at 1-800-285-4867.

I acknowledge that the Bureau of Developmental Services complaint process has been explained to me and I have been given a written summary of the process.

[Signature]
[Date]

[Signature]
[Date]

[Signature]
[Date]
SERVICE APPROVAL FORM

CONSUMER: 
CONTACT PERSON: 
SERVICE COORDINATOR: 
ADDRESS OF CONTACT PERSON: See above

DATE OF IIA MEETING: 

APPROVAL:
/ / /I have reviewed the attached Service Agreement and approve its implementation according to Item 103.

/ / /I request a team meeting to discuss my disapproval of the Service Agreement.

______________________________
One Sky Executive Director or Designee
Date

PLEASE CHECK ONE:

______ I have reviewed the attached Service Agreement and program[s] described above and AGREE with the implementation of the proposed goals, implementation strategies or program[s] as specified in the plan. I understand that minor modifications and deletions will be made. Any major changes will necessitate a team meeting.

______ I have reviewed the Service Agreement and program[s] described above and DO NOT AGREE with the implementation of the proposed goals, implementation strategies or program[s] as specified in the plan. I hereby request a team meeting to discuss my objectives.

REASON:

______________________________
CONSUMER OR GUARDIAN SIGNATURE
DATE

______________________________
COGUARDIAN OR WITNESS SIGNATURE
DATE
ISA Personal Profile Guideline

PERSONAL PROFILE

Personal profile requires the following information:

1. Personal history and significant life events; Personal achievements and personal hopes and dreams

2. Communication skills and choice-making abilities [SIS - Supplemental and Protection and Advocacy Scale]

3. Current living [SIS Home Living activities section]

4. Degree of involvement in community life [SIS - Community Living Activities Section]

5. Employment Discussion [SIS - Employment Activities discussion section and utilize Employment Planning guidelines]

6. Significant relationships [SIS Social Activities section]

7. Personal competencies and learning style [SIS Lifelong Learning Activities section]

8. Current health and safety considerations [SIS - Health and Safety Activities section and include service and training considerations from updated HIST]

9. Significant and/or challenging issues/behaviors of concern, if applicable [SIS Section 3 Exceptional Medical and Behavioral Support Needs. Also reference behavior plan or preventative services plan, if applicable]

10. Discuss the need for assistive technology [ATTACH]

11. Overall satisfaction with services

12. Status of previous year's goals
13. Sources of relevant evaluations and assessment reviewed for this annual service agreement include the following:

- Support Intensity Scale Report dated:
- Health Risk Screening Tool dated:
- ____________________dated:
- ____________________dated

DATE OF NEXT ISA MEETING:
# Medication List

**Date:**

**Client Name:**

**Guardian Name:**

**DOB:**

<table>
<thead>
<tr>
<th>Name of Medication</th>
<th>Start Prescribed</th>
<th>Date/Start</th>
<th>Reason for Being Prescribed</th>
<th>Prescribing Doctor</th>
</tr>
</thead>
<tbody>
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</table>

Date Created: June 21, 2015.
Photo/Media Release Form

Photo/Media Release Authorization

I agree to provide One Sky Community Services Inc. and its employees, agents, partners and sub-contractors permission to publish, for the limited purpose of publicity and promotion, the following:

<table>
<thead>
<tr>
<th>Name</th>
<th>Yr/No</th>
<th>Yr/No</th>
</tr>
</thead>
<tbody>
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</table>

Affiliation: Provide information about the affiliation of the individual.

I authorize the use of the above materials in the following media:

- Print
- Social Media
- Advertising
- Webinars
- Publicity

I have read and understood the above and authorize the use of the above materials as described.

Signature:

Date:

Email Address:

FOR OFFICE USE ONLY

Department:

Project Name:

Project Manager/Creator: [Full Name]

Date:

Photo Credit:

2.1. HDR ATTEM
Day-Community Participation SA Goals

Region 8 One Sky Community Services
SA Goals-Community Participation Services

Name: ___________________________ ISA Date: __________

Provider Agency: ___________________________

Day Goal #1: ___________________________
Implementation Strategies: ___________________________

Day Goal #2: ___________________________
Implementation Strategies: ___________________________

Documentation: ___________________________
Day-Community Participation He-M 507 Services Description

Description of He-M 507 Community Participation Services

Individual Receiving Services: ________________________ Date: ________________________
Provider Agency: ________________________ Hours of Services per week: ________________________

Amount of Alone Time, if applicable and supported by self-supervision assessment: ________________________

<table>
<thead>
<tr>
<th>Covered Services (507.04)</th>
<th>Frequency</th>
<th>Description of Individualized Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Instruction and assistance to learn, improve, or maintain:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Social and safety skills in different community settings:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Decision-making regarding choice of and participation in community activities:</td>
<td></td>
<td></td>
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<tr>
<td>c. Life skills as applied to community-based activities, such as purchasing items and managing personal funds:</td>
<td></td>
<td></td>
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<tr>
<td>d. Good nutrition and healthy lifestyle:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Self-advocacy and rights and responsibilities as a citizen:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Any other skills identified by the individual guardian during service planning and related to the individual's participation in &amp; contribution to his/her community:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Supports to identify and develop interests and capacities related to securing employment, including internships:</td>
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<tr>
<td>3. Service related to job development and on-the-job training</td>
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<td></td>
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<tr>
<td>4. Assistance in finding and maintaining volunteer positions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Supports related to enabling the individual to explore, and participate in, a wide variety of community activities and experiences in settings that are available to the general public.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Consultation services as specified in the service agreement to improve or maintain the individual's communication, mobility, and physical and psychological health &amp; well-being.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Transportation that is related to community participation services, including travel from the individual's residence to locations where community activities are taking place &amp;/or employment or volunteer positions.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(a) Covered services shall be reimbursed based on the provision of services at a quarter hour rate. Quarter hours of service shall not include time spent traveling to and from a centralized service site at the beginning and end of services each day.

Completed by: ___________________________ Date: ___________
Health History

HEALTH HISTORY INFORMATION
New Hampshire Bureau of Developmental Services

To be completed at the Service Agreement and updated annually, as well as after any major illnesses, surgeries, or changes.

Name: 
Date of Birth: 
Address: 
Tel: A 
Sec. Sec. A 

Allergies: 

Medications: 

Emergency Contacts: 

Consent Status: 
A. Can give own consent
B. Consent from guardian(s)
Name: 
Tel: A

Advanced Directives: 
A. Yes 
B. No
Name: 
Tel: A

Funding Status: 
A. Full Funding 
B. DMA

Medication Administration: 

Pharmacy: 
Name: 
Tel: A 
Address: 

HEALTH HISTORY INFORMATION Version 2020, Page 1 of 5
## Health History Information

### Communication:
- [ ] Able to communicate
- [ ] Communication difficulty/loss of speech
- [ ] Unable to communicate
- [ ] Unable to communicate due to illness
- [ ] Needs assistance in communicating - Type:

### Medication Administration:
- [ ] Independent/self-administering
- [ ] Medication administered by RN/1201 authorized staff

### Ambulation:
- [ ] Independent
- [ ] Steady
- [ ] Unsteady
- [ ] Needs assistance
- [ ] Wheelchair
- [ ] walker
- [ ] Canes
- [ ] Ostomy
- [ ] Amputation

### Walking/Taking:
- [ ] Independent
- [ ] Needs assistance
- [ ] Must be supervised for fall risk for choking
- [ ] Totally dependent
- [ ] Fall through a laber: Yes
- [ ] Other:

### Diet Texture:
- [ ] Regular
- [ ] Chopped
- [ ] Soft
- [ ] Puree
- [ ] Thickened liquid - Consistency:
- [ ] Diet type:

### Personal Hygiene:
- [ ] Independent
- [ ] Special needs

### Oral Hygiene:
- [ ] Independent
- [ ] Special needs

### Vision:
- [ ] Normal
- [ ] Poor vision
- [ ] Blind
- [ ] Wear glasses

### Hearing:
- [ ] Normal
- [ ] Hard of hearing
- [ ] Deaf
- [ ] Hearing aid

### Cognitive Abilities:
- [ ] Confused
- [ ] Needs Assistance
- [ ] Incontinent
- [ ] Cued/boosted
- [ ] Other:

### Supportive Devices:
- [ ] Pedestal side rails
- [ ] Railings
- [ ] Chair
- [ ] Blanket
- [ ] Other:

### Head of Bed Elevated:
- [ ] Yes
- [ ] No

### Adaptive Equipment:
- [ ] Yes
- [ ] No
- [ ] If yes, describe:

---

Version 2006. Page 2 of 5
### Special Needs

- Local reaction to medical status
- Painful
- Partially cooperative
- Cooperative
- Uncooperative
- Isolation for clinical visits (patient)
- Double talking required for assistance with patient (patient)
- Requires limited waiting periods for patient
- Prefers early day appointments
- Prefers end of day appointments
- Recent communication during clinical examination (patient)

### Medical Providers

#### Primary Care
- Name: [ ]
- Address: [ ]
- Data Last seen: [ ]
- Tel: [ ]

#### Dental Care
- Name: [ ]
- Address: [ ]
- Data Last seen: [ ]
- Tel: [ ]

#### Eye Care
- Name: [ ]
- Address: [ ]
- Data Last seen: [ ]
- Tel: [ ]

#### Subspecialist Type
- Name: [ ]
- Address: [ ]
- Data Last seen: [ ]
- Tel: [ ]
Living Status: [ ] Group Home [ ] Own Family [ ] Independent [ ] Home Sharing/Shared Home [ ] Other [ ]

Contact name/number of application of home care provider/group home manager [ ]

Name [ ]

Mental Status: [ ] Single [ ] Married [ ] Other [ ]

Work/Day Program Status: [ ] Community day support [ ] Home day support [ ] Employment [ ] Other [ ]

Nursing Support: [ ] On Piano [ ] On Piano 24 Hr [ ] Nursing Coordination [ ] LNA [ ] No Nursing Support [ ]

IMMUNIZATIONS:

- Data of last TETANUS [ ] Unknown [ ] Allergy [ ] Never [ ]
- Data of last POLIO [ ] Unknown [ ] Allergy [ ] Never [ ]
- Data of last PNEUMOVAX [ ] Unknown [ ] Allergy [ ] Never [ ]
- Data of last HEPATITIS B [ ] Unknown [ ] Allergy [ ] Never [ ]
- Data of last MMR [ ] Unknown [ ] Allergy [ ] Never [ ]
- List other vaccinations and dose (e.g., typhoid, Hepatitis A, Varicella, etc.) [ ]

TUBERCULOSIS SKIN TEST (PPD), has had a positive skin test for tuberculosis [ ] Yes [ ] No [ ] Unsure [ ]

- Date of last skin test [ ]

Medical History:

- List all serious medical illnesses (e.g., pneumonia, heart disease) and medical problems (e.g., diabetes, high blood pressure, asthma) and dates diagnosed (if known) [ ]

Surgical History:

- List all previous surgical procedures [ ]

- List any serious surgery or broken bone with date [ ]

HEALTH HISTORY INFORMATION
Psychiatric History:

List all mental health and psychiatric diagnoses (e.g., depression, schizophrenia, self-injurious behavior):

Previous Medications:

- Date of last AUDIOLOGICAL EXAM:
  - Unknown
  - Other

- Date of last ECHO CARDIOGRAM:
  - Unknown
  - Other

- Date of last COLONOSCOPY:
  - Unknown
  - Other

- Date of last PSA:
  - [ ] prostate cancer status: [ ] only: [ ]
  - [ ] unknown
  - [ ] other

Gynecologic (female only):

- Age menstruation started:
  - [ ] still menstruating
  - [ ] history of abnormal PAP smear:
    - [ ] Yes
    - [ ] No
    - [ ] no data

- Date of last MAMMOGRAPH:
  - [ ] unknown
  - [ ] other

Family History:

- Father: [ ] alive
  - [ ] Yes Age at death:
    - [ ] unknown
  - [ ] No Current age:

- Mother: [ ] alive
  - [ ] Yes Age at death:
    - [ ] unknown
  - [ ] No Current age:

List all brothers and sisters with information about their age and health:

Is there any family history of:

- Diabetes:
  - [ ] Yes
  - [ ] No
  - [ ] unknown

- High Blood Pressure:
  - [ ] Yes
  - [ ] No
  - [ ] unknown

- High Cholesterol:
  - [ ] Yes
  - [ ] No
  - [ ] unknown

- Heart Disease:
  - [ ] Yes
  - [ ] No
  - [ ] unknown

- Congenital:
  - [ ] Yes
  - [ ] No
  - [ ] unknown

- Colon Polyps:
  - [ ] Yes
  - [ ] No
  - [ ] unknown

- Cancer:
  - [ ] Yes
  - [ ] No
  - [ ] unknown

Any other diseases that run in the family:

Has there been any genetic counseling in the family:

Habits:

- Smoking:
  - [ ] Yes
  - [ ] No
  - [ ] Amount

- [ ] other

- [ ] other

- [ ] other

- [ ] other

- [ ] other
CURRENT MEDICAL PROBLEMS AND DIAGNOSES (include dates):

Weight: [ ] Compared to previous year: [ ]
Major illness, injuries, surgeries, or changes in past year: [ ]

[ ] Medical information not released by parent/guardian. For information, contact:
Name: [ ]
Address: [ ]
Tel.: [ ]
Residential ISA Goals

Region S OneSky Community Services
ISA Goals: Residential

Name: ___________________________ ISA Date: ____________
Provider Agency: ___________________________

Residential Goal #1: ___________________________
Implementation Strategies: ___________________________

Residential Goal #2: ___________________________
Implementation Strategies: ___________________________

Documentation: ___________________________
Residential He-M 1001 Services Description

Description of He-M 1001 Community Residential Services

| Individual Receiving Services: | | | | | | Date: | | | |
| Provider Agency: | | | | | | Amount of Alone Time, if applicable and supported by self-supervision assessment: | | | |

**Description of assistance and instruction to be provided to improve and/or maintain individual skills related to:**

<table>
<thead>
<tr>
<th>Covered Services (1001.5)</th>
<th>Frequency</th>
<th>Description of Individualized Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Decision Making:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothing, food, interests, hobbies:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awareness of own appearance:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication: Type of style/assistance:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skill Level:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Care/Safety Skills:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bathing/Shampooing; Dental; Dressing; Undressing;</td>
<td></td>
<td></td>
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<tr>
<td>Toileting/Menstrual Care; Shaving; Hair Care;</td>
<td></td>
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<tr>
<td>Fire Evacuation; Pedestrian Skills;</td>
<td></td>
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<tr>
<td>Injury/Disease Notification; Basic First Aid Skills;</td>
<td></td>
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<tr>
<td>Diet/Nutrition;</td>
<td></td>
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<tr>
<td>Improving/maintaining mobility and physical functioning skills;</td>
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<tr>
<td>Household Management:</td>
<td></td>
<td></td>
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<tr>
<td>Banking; Budgeting; Shopping;</td>
<td></td>
<td></td>
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<tr>
<td>Other Functional Skills;</td>
<td></td>
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<tr>
<td>Household Chores and Responsibilities:</td>
<td></td>
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<tr>
<td>Table Setting/Clearing; Washing/Drying Dishes;</td>
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<td></td>
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<tr>
<td>Meal Preparation; Sweeping/Mopping/Vacuuming;</td>
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<tr>
<td>Table/Counter Dusting/Wiping;</td>
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<tr>
<td>Mirrors/Window Cleaning; Laundry; Phone Skills;</td>
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<tr>
<td>Bed Making; Room Organizing;</td>
<td></td>
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<tr>
<td>Participating in Community Activities:</td>
<td></td>
<td></td>
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<tr>
<td>Variety offered; Participation of Social Skills;</td>
<td></td>
<td></td>
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<tr>
<td>Religious services; Transportation access and skills;</td>
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<tr>
<td>Developing/Maintaining Relationships:</td>
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<tr>
<td>Other:</td>
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<tr>
<td>Self medications candidate</td>
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<tr>
<td>Home alone</td>
<td></td>
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<tr>
<td>Assistive Technology</td>
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</tbody>
</table>

Completed by: _______________________________ Date: _______________________________
Appendix B: ISA InfoPath Forms

ISA Meeting Scheduling Form

Service Agreement Checklist
Extension Letter

At this request the current Service Agreement and goals date will remain in effect until the team is able to meet to discuss the renewal of the Service Agreement including new goals.

The SQA planning meeting has been delayed for the following reason:

Service Agreement Due Date:

Proposed Meeting Date:

Guardian Signature: Date

Service Coordinator Signature: Date

Personal Profile

PERSONAL PROFILE

Personal profile requires the following information:

1. Personal history and significant life events: Personal achievements and personal hopes and dreams

2. Communication skills and choice-making abilities (SIS - Supplemental and Protection and Advocacy Scales)

3. Current being (SIS Home Living activities section)

4. Degree of involvement in community life (SIS - Community Living Activities Section)

5. Employment Discussion (SIS - Employment Activities discussion section and utilize Employment Planning guidelines)

6. Significant relationships (SIS Social Activities section)

7. Personal competencies and learning style (SIS Lifelong learning Activities section)
ISA Services Summary

Region 8 One Sky Community Services
ISA Services Summary

Name:

Community Participation Services: CPS Funded: CPS to be provided through/by
Services to include:

See attached He-M 507 Community Participation Services
Level of Supervision:

Residential (Personal Care) Services: Funded: Residential Services to be provided through/by
Services to include:

See attached description of He-M 1001 Community Residential Services
Level of Supervision:

Service Coordination Services: Provided by
Services include:

- Monthly contacts with individual or service providers. Documentation of the contacts.
- Quarterly face-to-face contacts with individual and documentation.
- Quarterly contacts to assess satisfaction with services with individual/guardian.
- Visit to home (if residential program) at least twice a year.
- Coordinate team meetings as needed.
- Supports Intensity Scale (SIS) completed every 5 years. Most recent SIS was completed on
- Health Risk Screening Tool (HRST) completed annually. Most recent HRST was completed on

Addendum to Service Agreement

One Sky Community Services, Inc.
755 Barrfield Road, Suite 3 | Portsmouth | New Hampshire | 03801
Phone: (603) 436-6111 | Voice/TDD: (603) 660-4003
Fax: (603) 436-4602 | Visit us online: www.oneskycomm.org

Authorization and Agreement to Implement Service Agreement Goals & Services or Addendum to Service Agreement

Consumer:

I hereby give authorization for services providers to begin implementation of goals and services for residential and/or day programs as drafted at the Individual Service Agreement Meeting/Team Meeting, which was held on.

Understand that I will receive the complete Service Agreement or Addendum upon completion of review and either approval or disapproval. If I disapprove of this plan at that time, I will formulate a strategy for resolution of issues with the Service Coordinator.

Consumer or Guardian Signature:

We agree to implement goals and services for residential and/or day programs as drafted at the Individual Service Agreement Meeting/Team Meeting reference above.

Community Participation Services Provider Signature:

One Sky Community Services
ISA Goals-Residential

Region 8 One Sky Community Services
ISA Goals-Residential

Name: [ ]
Provider Agency: [ ]
Residential Goal #1:
Implementation Strategies:

Residential Goal #2:
Implementation Strategies:

Documentation:

Description of He-M 1001 Community Residential Services

Description of assistance and instruction to be provided to improve and/or maintain individual skills related to:

Covered Services (1001.5)
- Covered Services
  - Personal Decision Making:
    - Clothing; Food; Interests/hobbies;
    - Communication: Type of
      - Style/assistance
  - Personal Care/Safety Skills:
    - Bathing/shampooing; Dental;
    - Toileting/Personal Care
  - Keeping/How Care:
    - Fire Evacuation; Pedestrian Skills;
    - Injury/Illness Notification; Basic
    - First Aid Skills:
      - Diet/Nutrition: Improving/maintaining mobility
        and physical
        - functioning skills
    - Household Management:

Frequency
Description of Individualized Services
ISA Goals - Community Participation Services

Region 8 One Sky Community Services
ISA Goals - Community Participation Services

Name: [ ] ISA Date: [ ]

Provider Agency: [ ]

Day Goal #1:
Implementation Strategies: [ ]

Day Goal #2:
Implementation Strategies: [ ]

Documentation: [ ]

Description of He_M 507 Community Participation Services

Individual Receiving Services: [ ] Date: [ ]

Provider Agency: [ ] Hours of Services per week: [ ]

Amount of Alone Time, if applicable and supported by self-supervision assessment: [ ]

Covered Services (507.04) Frequency Description of Individualized Services

1. Instruction and assistance to learn, improve, or maintain:
   a. Social and safety skills in different community settings.
   b. Decision-making regarding choice of and participation in community activities.
   c. Life skills as applied to community-based activities, such as purchasing items and managing personal funds.
   d. Good nutrition and healthy lifestyle.
   e. Self-advocacy and rights, next responsibilities, etc.

2. Other services specified by the person receiving services.
Annual Summary

Please attach the consumer’s relevant Annual Summary below:

- Click here to attach a file

Client’s Resume

Please attach consumer’s relevant resume below:

- Click here to attach a file

Guardianship Recommendations

<table>
<thead>
<tr>
<th>CONSUMER NAME:</th>
<th>ISA MEETING DATE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rec 1. Recommend administrator seek to establish guardianship because this individual is considered incapable of managing his/her own affairs or property using the definition of Incapacity in RSA 462 A:2, XI.</td>
<td></td>
</tr>
<tr>
<td>Rec 2. Do not recommend administrator seek to establish guardianship because this individual is not considered incapable of managing his/her own affairs or property using the definition of incapacity in RSA 464 A:2, XI.</td>
<td></td>
</tr>
<tr>
<td>Rec 3. Recommend administrator seek to modify parameters of current guardianship because of change in level of incapacity or functional limitations of the individual.</td>
<td></td>
</tr>
<tr>
<td>Rec 4. Recommend administrator seek to remove current guardianship because of change in level of incapacity or functional limitations of the individual.</td>
<td></td>
</tr>
<tr>
<td>Rec 5. Individual has a guardian or is under the age of 18 and has a legally responsible parent, and there is no recommendation to change current status.</td>
<td></td>
</tr>
<tr>
<td>Rec 6. Other:</td>
<td></td>
</tr>
</tbody>
</table>

PLEASE NOTE: As described in our Notice of Privacy Practices and permitted by HIPAA, information will be used within One Sky Community Services and/or obtained from and disclosed to those providing services/treatment as well as potential service providers. Written authorization will be obtained when applicable.
Consent for Medical Care When Guardian Not Available

I, the legal guardian for [guardian's name], consent to the following:

In the event that I cannot be reached and a new medication or change in medication is ordered or medical treatment is needed, I give permission to One Sky Community Services, or any agency providing services under contract with One Sky Community Services, to proceed with changes in medications, to start new medications, and to initiate appropriate necessary medical treatments recommended by licensed medical personnel. If care is given under this arrangement, I understand that in effort to keep me fully informed, ongoing efforts to reach me will be attempted and documented.

[Consent options]

I give consent for the above with the Exception of

One Sky Community Services Providers

Community Strategies of NH 1490 Elm Street Unit 1, Manchester NH 03101-1894 Phone 603-772-7672
Crotched Mountain Residential Services 233 Verney Drive, Greenfield NH 03747 Phone 603-841-1229
Easter Seals of NH 57 Portsmouth Avenue Suite 5, Stratham NH 03885 Phone 603-773-8335
Farmsteads of New England, Inc. 213 Center Road, Hillsborough NH 03244 Phone 603-251-0478
Granite Bay Connections 54 Old Suncook Road, Concord NH 03301 Phone 603-558-88
Great Bay Services 2001 Woodbury Avenue, Newington NH 03801 Phone 603-2014
The Homemakers Health Services 225 Rochester Hill Road, Rochester NH 03867-1721 Phone 603-1770
Institute of Professional Practice 39 Portsmouth Avenue Suite D, Stratham NH 03885 Phone 772-5599
Kink Nurses Center 17 East Road, Plaistow NH 03865 Phone 562-5586
Lilacare, Inc. 100 International Drive Suite 558 West Wing, Portsmouth NH 03801 Phone 603-866-1233
Lilacare, Inc. 40 Highland Street, Newmarket NH 03888 Phone 603-5586
Living Innovations 6100 Lafayette Road, Portsmouth NH 03801 Phone 603-5480
Participant Directed and Managed Services Overview

Individuals with disabilities who receive services through the New Hampshire Bureau of Developmental Services (BDS) have the option of using Participant Directed and Managed Services (PDMS). In PDMS Program, the Individual, and his/her family or guardian identifies his/her needs related to the developmental disability or acquired brain disorder, designs the services and supports, selects who will provide the supports and services, and decides how authorized funding will be spent, so long as that in accordance with the original intent of the funding (for example, Medicaid allowable expenses). The PDMS is an option for participants who wish to have more choice and control of and responsibility for their BDS funded services.

Participant Directed and Managed Services provide participants the opportunity and responsibility to choose and manage supports and services that are meaningful to them. Working within funding guidelines, participants determine the cost of those supports and services and authorize the payment using their allocated Medicaid dollars.

**Scope of Services that can be provided:**

- Personal care, employment supports, adult education, vocational and leisure activities;
- Adaptations through environmental and vehicle modifications and assistive technology;
- Services that assist the individual to acquire and maintain life skills in such areas as personal safety, meal preparation, and budgeting;
- Services that, based on the individual's preferences, broaden his or her life experiences through social, artistic, and spiritual expression;
- Respite and family support services that meet the needs of individuals living with their families.
Complaint Process

N.J. BUREAU OF DEVELOPMENTAL SERVICES
ANNUAL INDIVIDUAL NOTIFICATION OF DEVELOPMENTAL SERVICES COMPLAINT PROCESS,
INCLUDING HOW TO REPORT ABUSE AND NEGLECT
(Required by He-M 202.07 (e))

WHEN AND WHAT CAN I FILE A COMPLAINT ABOUT?
If you feel one of your rights has been violated, you can complain. You can complain if you don’t like an action an agency has taken regarding your services or service agreement or, if you’re not happy with what an agency or provider is doing for you. You should complain if you feel someone has abused or neglected you or hurt you in some way, or you don’t feel safe.

You can also complain about the quality of your services, housing and residential issues, or if someone has restricted your other rights such as your right to self-determination, privacy, dignity, confidentiality, or to be informed about the benefits and risks of treatment, such as medication.

Many of the rights you have are contained in rules He-M 305 and He-M 310.

WHO CAN COMPLAIN?
You, your family member, your guardian, or anyone else may complain.

WHERE DO I GO IF I HAVE A COMPLAINT?
You may file a complaint either verbally or in writing. You may give the complaint to any employee of an area agency or program or the Bureau of Developmental Services. Any person may file the complaint for you.

To file a complaint directly with the Bureau of Developmental Services, you may call:
1-859-399-9099
To report any suspected abuse or neglect, you may also call the Bureau of Adult and Elderly Services at
(800) 649-0470 during business hours, call 911, or call the local police.

WHAT WILL HAPPEN AFTER I FILE A COMPLAINT?
A complaint investigator will be assigned to your case. If the complaint involves abuse, neglect, or exploitation, an investigation will be conducted. For other complaints, you may try to settle the issues informally by talking with the
Photo/Media Release Authorization

I, [print name], give One Sky Community Services Inc. and its employees, agents, partners and advertisers permission to publish, for the limited purposes of publicity and promotion, the following:

<table>
<thead>
<tr>
<th>Field</th>
<th>Yes/No</th>
<th>Voice</th>
<th>Statements/Writings</th>
<th>Select...</th>
<th>Photograph/Still Images</th>
<th>Select...</th>
<th>Video Recordings</th>
<th>Select...</th>
<th>Audio Recordings</th>
<th>Select...</th>
</tr>
</thead>
</table>

I voluntarily waive any right to inspect/approve the finished photographs, likenesses, writings or electronic matter that may be used in conjunction with them now or in the future, whether that use is known or unknown to me. I approve use of the above materials in the following media (please check approved choices):

- [ ] Print
- [ ] Social Media
- [ ] Websites
- [ ] Publicity/Promotional Campaigns

I am [number] years of age or older, or I am the parent/legal guardian for the minor child or adult listed below, and I am

I am [number] years of age and I am [relationship] to the following minor child or adult:

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Relationship</th>
</tr>
</thead>
</table>

Date of Birth: [date]
Service Agreement Approval Form

One Sky Community Services, Inc.
755 Banfield Road, Suite 3, Portsmouth, New Hampshire 03801
Phone: (603) 436-6111 | Voice/TDD: (800) 660-4163
Fax: (603) 436-4622 | Visit us online: www.oneskyservices.org

TO:

RE:

The attached seeks your approval of the decisions reached at the INDIVIDUAL SERVICE PLANNING OR SUPPORT STATUS PLAN MEETING dated [ ] . Please note that the approval form is in two parts. The first part seeks approval of the goals and implementation strategies discussed at the meeting. The second part seeks approval of the programs or service placements to be made in which the goals and services will be implemented. If you agree or disagree with either or both parts, if you have any questions that need to be answered prior to making a decision on either or both parts, please contact [ ], Service Coordinator, at One Sky Community Services, the Region VIII Area Agency at 436-6111 or 1-800-660-4163.

In addition, you have a right to know the following information and procedures as they relate to the proposed agreement and services:

CRITERIA FOR SERVICE AGREEMENT GOALS AND SERVICES: Agreement goals shall reflect the goals and services requested by the consumer and/or guardian, the implementation strategies and timelines for achieving the goals, shall describe the consumer's current level or status, shall specify the person/agency responsible for implementing the goals and services, and shall state the frequency of reviewing the progress toward achieving the goals. This agreement also reflects the services needed, but not currently available.

CRITERIA FOR SERVICES: Services shall be voluntary, individualized, and provide opportunity for inclusion in the community, and suitable residential or day program environments for the consumer. Services shall be as close as practicable to the consumer's area of origin, unless the consumer or guardian recommends some other area.

APPROVAL OF THE SERVICE AGREEMENT GOALS AND FOR SERVICES PROGRAMS. You may indicate your agreement with

SERVICE APPROVAL FORM

CONSUMER: [ ]

CONTACT PERSON: [ ] SERVICE COORDINATOR

ADDRESS OF CONTACT PERSON: See above

DATE OF ISA MEETING: [ ]

APPROVAL:

☐ I have reviewed the attached Service Agreement and approve of its implementation according to HCMA 503.

☐ I request a team meeting to discuss my disapproval of the Service Agreement.

One Sky Executive Director or Designee Date
PROCESS OF RESOLVING DISAGREEMENT WITH THE SERVICE AGREEMENT/SERVICE PROVIDER(S), SUPPORT STATUS PLAN OR ADDENDUM

If you choose to challenge the Service Agreement, Service Provider(s), Support Status Plan or Addendum hereinafter referred to as the "Agreement," a conference may be called by the Area Agency Director, Robert James, or Darlene Ferguson, Program Specialist at the Division of Developmental Services (1-800-852-3545 x5032) to attempt to resolve your disagreement with the proposed Agreement. The Area Agency Director or Program Specialist will notify the Division Director that your appeal has been received. If the conference cannot resolve the disagreement over the proposed Agreement and/or service provider, your appeal will be decided by the Director of the Division of Developmental Services.

The Director shall investigate the circumstances of the disagreement and render a decision that may uphold, reverse or amend the appealed decision. Or the Director may, with the consent of, or shall at your request, conduct a hearing in lieu of the review procedure. Whichever procedure is used, the decision of the Director will be sent to you in writing.

ASSISTANCE WITH APPEALS OF THE AGREEMENT AND/OR SERVICE PROVIDER(S)

If you choose to challenge the Agreement and/or service provider(s), you should know that you may receive assistance by contacting one or more of the following organizations. In the case of residential service providers, you have the right to legal counsel as specified in RSA 171-A:10,1.

<table>
<thead>
<tr>
<th>Client &amp; Legal Services</th>
<th>Parental Information Center</th>
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<tbody>
<tr>
<td>NH Division of Developmental Services</td>
<td>(for school aged children 3-21 years)</td>
</tr>
<tr>
<td>Health &amp; Welfare Building</td>
<td>PO Box 1422</td>
</tr>
<tr>
<td>State Office Park, 105 Pleasant Street</td>
<td>Concord NH 03302</td>
</tr>
<tr>
<td>Concord, NH 03301</td>
<td>Telephone 603-224-7005</td>
</tr>
<tr>
<td>Telephone 1-800-852-3345 x5073</td>
<td></td>
</tr>
<tr>
<td>Disabilities Rights Center - NH</td>
<td>NH Legal Assistance</td>
</tr>
<tr>
<td>64 N Main Street, Suite 2, 3rd Floor</td>
<td>136 North Main Street</td>
</tr>
<tr>
<td>Concord NH 03301-4913</td>
<td>Concord NH 03301</td>
</tr>
<tr>
<td>Telephone 1-800-834-1721 (v/tty)</td>
<td>Telephone 603-224-3333</td>
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</tbody>
</table>

ACCESS TO INFORMATION:
Health History Information

To be completed at the Service Agreement and updated annually, as well as after any major illnesses, surgeries or changes.

Name:

Date of Birth:

Tel #: Soc. Sec #: Religon:

Persons to be Called: Relationship to Individual:

Agency for Providing Services: Agency Contact Person:

Health Insurance: (type and numbers)

Primary:

Secondary:

Consent Status: 
- Can give own consent
- Unable to give own consent and no guardian
- Consent from guardian(s)

Communication:
- Able to Communicate
- Communication Difficulties/Uses Verbalizations
- Not Able to Communicate Needs
- Unable to Use Cell Phone
- Needs Assistance to Communicate Type:

Medication Administration:
- Independent/Self-Medicating
- Medication Administered by Home 1201 authorized staff

Ambulation:
- Independent
- Steady
- Unsteady
- Needs Assistance
- 1 Person
- 2 Person

- Needs aids
- Walker
- Cane
- Crutches
- Wheelchair

Non-ambulatory

Dressing/Taloring:
- Independent
- Needs Assistance
- Must be supervised/risk for choking

- Totally Dependent
- Fed Through a Tube-Type:
- Other:

Fields:
- HealthHistoryGroup
- HealthHistoryDate
- TelephoneNumber
- SocialSecurity
- LikelyToGoCalled
- Religion
- Complications
- Relationship
- AgencyName
- AgencyContact
- PrimaryHealth
- SecondaryHealth
- OwnConsentCheck1
- OwnConsentCheck2
- GuardianCheck1
- GuardianCheck2
- GuardianConsentName1
- GuardianConsentName2
- ADYes
- ADNo
- ADName1
- ADName2

Show details
Actions
Add Field
Manage Data Connections...
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<tr>
<th>Name of Medication</th>
<th>Date Prescribed</th>
<th>Dose/Route</th>
<th>Reason for Being Prescribed</th>
<th>Prescribing Doctor</th>
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Appendix C: Development Documentation

One Sky Community Services Inc. : ISA Automation

The following document serves as both a reference and a guide to automate the ISA process at One Sky Community Services. This is to ensure the new system developed in Microsoft SharePoint Online may be maintained in the future by One Sky Community Services. At One Sky Community Services, the employees involved in the ISA process have four different roles including, Service Coordinator, Supervisor, Administrator, and Director of Service Coordination, which are determined as follows:

- Service Coordinator – Field selected in ISA InfoPath Form
- Supervisor – Tanya Hart-Newkirk (PDMS ISA) and Alicia Sherwin (Traditional ISA)
- Administrative Assistant – Krista Sorel
- Director of Service Coordination – Karen McLaughlin

The team employed Agile methodology to automate the ISA Process, which has three unique phases, Creation, Review, and Approval. This guide is organized according to these three phases.

Creating a Site

As seen in Figure 1 a site can be made in SharePoint easily. To make a new site click on the new button, and then add a title to it.

![Create new site in SharePoint](image)

*Figure 1: Office 365, SharePoint Online Site.*

Permissions

For each site specific permission levels are needed for each user. Permissions tell what a user can and cannot due on the site. Permissions can be easily given to a site upon creation as seen in the Subsite Environment section. Nevertheless permissions for a site will change as time progresses. This section shows how to change/add/delete a site’s permission for a user and how to create a new permission level for a site.
To change/add/delete **Site Permissions**:

1. Click on the **Settings** tab (top right corner of site) on the site and click on **Site Settings**.
2. To go into permissions, click on **Site Permissions** (Figure 2) under the **Users and Permissions** list.
3. To add a new user/group to the site click on **Grant Permission** in the **Permission Tools** bar at the top.
4. From there add the users/groups to the form by either entering their account name or to give a specific permission level you can either add the user to an already predefined group or grant permissions directly.
5. A welcome message may be added to the permission grant email, when finished click **OK**.
6. To change a user’s/groups site permissions, check the box corresponding to the user and then click on **Edit User Permissions** in the **Permission Tools** bar at the top.
7. From there, choose a new permission level for a user and click **OK**.
8. To delete a user/group’s permission, check the box corresponding to the user and then click on **Remove User Permissions** in the **Permission Tools** bar at the top.
9. Click **OK** to confirm.

**Figure 2**: Where a user is able to look at other user’s permissions.

To create your own **Permission Level**:

1. Click on the **Settings** tab (top right corner of site) on the site and click on **Site Settings**.
2. To go into permissions, click on **Site Permissions** under the **Users and Permissions** list.
3. Click on **Permission Levels** (Figure 3) in the **Permission Tools** bar at the top.
4. Then click on **Manage Permission Levels on Parent Web Site** to access the parent level site.
5. To Add a Permission Level, click on **Add a Permission Level** (Figure 4) text above the already given permission levels and descriptions.
6. From there you can give a permission level a name, description, and check off which permissions you want at that level (e.g. edit level, manage lists, approve items, and etc.).

7. Click **Create**.

![Figure 3](image_url)  
*Figure 3: Where a user can view/add/delete permission levels for a site.*

![Figure 4](image_url)  
*Figure 4: The form to create a new permission level for a site.*

To change a library's specific permission, it is very similar to what is done for site level permissions:

1. Click on the specific library for which you want to change the permissions.
2. Next click on the **Library** tab, under the **Library Tools** banner which should be on the top left of the screen.
3. From there, look to your right under the Library banner and the second one in should be called **Library Permissions**, click it to continue.
4. You should be on the site permission screen for that library you were on. To change a specific user’s permission, first you need to stop inheriting permissions from the site the library is under. Click on the **Stop Inheriting Permissions** button on the top left of the screen to do that.

5. From here it is very similar to assigning permissions for sites, with the exception that you cannot create your own permissions (that can only be done for site permissions, but can be used for library’s once permissions).

6. To **add a new user/group** to the site click on **Grant Permission** in the **Edit Permission Tools** bar at the top.

7. From there add the users/groups to the form by either entering their account name or through clicking on the **Address Book** to look up a user.

8. To give a specific permission level you can either add the user to an already predefined group or grant permissions directly.

9. A welcome message may be added to the permission grant email, when finished click **OK**.

10. To **change a user’s/group’s** site permissions, check the box corresponding to the user and then click on **Edit User Permissions** in the **Edit Permission Tools** bar at the top.

11. From there, choose a new permission level for a user and click **OK**.

12. To **delete a user’s/group’s** site permission, check the corresponding box to the user and then click on **Remove User Permissions** in the **Edit Permission Tools** bar at the top.

13. Click **OK** to confirm.

### ISA Initiation and Creation

**ISA Packet**

After the administrator has organized a meeting between a client and One Sky, the administrator is responsible for creating the ISA packet of type Traditional or PDMS, and a Service Coordinator is responsible for filling out the entirety of the packet within 10 days. To capture this information, enforce deadlines, assign tasks, and execute workflows, the ISA Packet was created in **Microsoft InfoPath Designer 2010** and is displayed in Figures 5-32.
Figure 5: ISA Meeting Scheduling Form.

Figure 6: Service Agreement Checklist.
Figure 7: Extension Letter.

Figure 8: Personal Profile.
Figure 9: ISA Services Summary
Figure 10: Addendum to Service Agreement.

Figure 11: Annual Summary.
Figure 12: ISA Goals-Residential.
Figure 13: Description of He-M 1001 Community Residential Services.

Figure 14: ISA Goals-Community Participation Services.
Figure 15: Description of He_M 507 Community Participation Services.

Figure 16: Client's Resume.
Figure 17: Guardianship Recommendations.

Figure 18: Consent for Medical Care When Guardian Not Available.
Figure 19: One Sky Community Services Providers.
Participants Directed and Managed Services Overview

Individuals with disabilities who receive services through the New Hampshire Bureau of Developmental Services (BDS) have the option of using Participant Directed and Managed Services (PDMS). In PDMS Program, the individual, and his/her family or guardian identifies his/her needs related to the developmental disability or acquired brain disorder, designs the services and supports, selects who will provide the supports and services, and decides how authorized funding will be spent, so long as that in accordance with the original intent of the funding (for example, Medicaid allowable expenses). The PDMS is an option for participants who wish to have more choice and control of and responsibility for their BDS funded services.

Participant Directed and Managed Services provide participants the opportunity and responsibility to choose and manage supports and services that are meaningful to them. Working within funding guidelines, participants determine the cost of those supports and services and authorize the payment using their allocated Medicaid dollars.

Scope of Services that can be provided:

- Personal care, employment supports, adult education, vocational and leisure activities;
- Adaptations through environmental and vehicle modifications and assistive technology;
- Services that assist the individual to acquire and maintain life skills in such areas as personal safety, meal preparation, and budgeting;
- Services that, based on the individual's preferences, broaden his or her life experiences through social, artistic, and spiritual expression;
- Respite and family support services that meet the needs of individuals living with their families.

Figure 20: Participant Directed and Managed Services Overview.
Figure 21: Complaint Process.
Figure 22: Photo/Media Release Authorization.

Figure 23: Service Agreement Approval Form page 1.
Figure 24: Service Agreement Approval Form page 2.
Figure 25: Service Agreement Approval Form page 3.
Figure 26: Health History Information page 1.

Figure 27: Health History Information page 2.
Figure 28: Health History Information page 3.

Figure 29: Health History Information page 4.
Figure 30: Health History Information page 5.

Figure 31: Health History Information page 6.
Figure 32: Medication List.

Types of Fields
The ISA Packet was created in Microsoft InfoPath 2010 using various types of fields to capture the appropriate information. The types of fields used are discussed in Figure 33.
The Date Due is calculated by automatically adding 10 days to the original meeting date. To enforce this rule, in Microsoft InfoPath Designer 2010 select the datedue field and under Control Tools, select Properties. Then select Control Properties and change the Default Value to the following in Figure 34.
A pre-existing directory of names and email addresses should be added to the Service Coordinator combo box to include the names and email addresses of OneSky’s 17 Service Coordinators. To add this directory select the servicecoordinator field and under Control Tools select Properties. Then select Control Properties and select Get choices from an external data source as seen in Figure 35. An external data source comes from the list of users on a SharePoint site.

**Note:** You will have to locate the existing directory stored on your computer.
Figure 35: Setting an external data source in Combo Box Properties.

As seen in the form below (Figure 36), it has a field for attaching a file (only used here and one other ISA form page).
As seen in the form below (Figure 37) there are check boxes that are used throughout the ISA form.
To publish a form to the Service Coordination site so it can be used as a template, select **File**, **Publish** and a **Publishing Wizard** will appear through which we:

1. Specify the **ISA Packets** library URL as the location for the form.
2. Add columns to the **ISA Packets** library according to fields in ISA Meeting Scheduling Form.
3. Add columns to be usable by SharePoint’s Web Parts functionality (discussed in the Review process later in the guide in the **Manager’s View** site).

The form is now usable in the ISA InfoPath Form library on the Office 365 site as seen in Figure 38.
Create Additional Views

To create additional views for forms because they need signatures or need to be printed out, follow the process as described below:

1. Under the **Page Design** heading in SharePoint Designer, click on **New View** and then **New View** again.
2. Then insert a name for the new view.
3. To copy an existing form to your new form, go to the form you are looking to copy and press on the square that should appear on the top left hand corner of the form. From there the whole form should be highlighted.
4. Right click the form now and press **copy**.
5. Go to your new view, and first delete the heading of your new form by highlighting it and pressing delete. This will not be needed as the copied form already has a heading.
6. Right click the new form and select paste, this will paste the whole selected form onto your new form (Figure 39). All of the functionality from the selected form will be pasted onto this form, which means that on either form something could be filled in for a box and show up on both forms. (As a warning if one thing is changed design wise on the form, the other form will not be changed. That means copy and pasting will have to been done over again to get forms that are exact copies of each other.)
ISA Review

Manager’s View Wiki Page Library

The Manager’s View page serves as a dashboard for managers and directors to track the progress of the ISA process. It consists of two parts which will display the important information about current ISA forms. The information displayed will include: ISA creation date, creator, ISA meeting date, ISA due date, and ISA submit date. It will also display information indicating whether a certain part of ISA document has been completed or not.

To create the Manager’s View Wiki Page Library:

1. Once logged in to Office 365, click Sites and navigate to the implementation site.
2. Clicking Site Contents.
3. **Under Site Contents** (Figure 40), click **Add An App**.

![Figure 40: Site Contents page.](image)

4. **Under Your Apps** (Figure 41), click **Wiki Page Library** and assign a name to it.
5. **Click Create**.

![Figure 41: Your Apps page.](image)
Manager’s View – ISA Dates

After the Manager’s View Wiki Page Library has been created, the page will show in the Libraries area.

To create the ISA Dates web part:
1. On the top ribbon, click **Page**, then click **Edit**.
2. Delete content on the current page.
3. On the top ribbon, click **Insert**, then click **Web Part**.
4. Now a panel with different web parts will display, select document library called **ISA InfoPath Form**.
5. Click **Add**.
6. Now all the documents in ISA InfoPathForm will be displayed on this Wiki Page. At the upper right corner of the top ribbon, click **Save** (Figure 42).

![Figure 42: Edit page window.](image)

Changing names of the Web Parts can help managers and directors better understand the functionalities of specific Web Part. To change the name of this web part:

1. On the top ribbon, click **Page**, then click **Edit**.
2. Select **Full ISA Form** web part. An blue highlight box indicates this web part has been selected (Figure 43).
3. On the top ribbon, click **Options** under Web Part Tools, then click **Web Part Properties**.
4. A tool panel will display on the right of the screen. Click **Appearance**.
5. Change the **Title** to “ISA Dates” or any appropriate names. Then click Ok.
6. On the top ribbon, click **Format Text**, then click **Save & Close**.

To change column displayed in this web part:

1. Select the area again, click **Library** under Library Tools.
2. On the top ribbon, in Manage Views, click **Modify View** (Figure 44).

![Figure 44: Modify view button.](image)

3. In the first section, **Columns**, select check box next to needed columns. In our case, check the following:
   - **Name (linked to document with edit menu)** – ISA Document name
   - **Created** – Form creation date and time
   - **Service Coordinator** – Service Coordinator who created the form
   - **Due Date of Packet** – the due date of ISA Packet
   - **Date Submitted** – Date that ISA Packet has been submitted
4. Next Step is to **Position** columns **from Left**. After **Name**, select 1. Then select 2 for **Created**, 3 for **Service Coordinator**, 4 for **Due Date**, and 5 for **Date Submitted**.
5. In the second section, **Sort**, determine the appropriate display order.
6. In the third section, **Filter**, make sure “**Show all items in this view**” is selected in order to display ISA forms created by all service coordinators.
7. Scroll down to the end of the page, click **OK**.

---

*Manager’s View – ISA Checklist*

To display checklist information on manager’s view:
1. On the top ribbon, click **Page**, then click **Edit**.
2. Select any blank space, click **Insert**, and then click **Web Part**.
3. Select **Full ISA Form** and click **Add**.
4. Select the area, click **Library** under Library Tools.
5. On the top ribbon, click **Options** under Web Part Tools, then click **Web Part Properties**.
6. A tool panel will display on the right of the screen. Click **Appearance**.
7. Change the **Title** to “ISA Checklist” or any appropriate names. Then click **Ok**.
8. On the top ribbon, click **Format Text**, then click **Save & Close**.
9. Select **ISA Checklists** web part. An orange highlight box indicates this web part has been selected.
10. On the top ribbon, in Manage Views, click **Modify View**.
11. In the first section, **Columns**, select check box next to needed columns and assign **Positions from Left** as we go. In our case, check the following:
   - **Name** (linked to document with edit menu) – assign position **1**
   - **Service Coordinator** – assign position **2**
   - **Extension Letter** – assign position **3**
   - **Sign In** – assign position **4**
   - **Personal Profile** – assign position **5**
   - **Service Summary** – assign position **6**
   - **Agree Implementation** – assign position **7**
   - **Res. Summary** – assign position **8**
   - **Res. Goals** – assign position **9**
   - **He M 1001** – assign position **10**
   - **Community Summary** – assign position **11**
   - **Community Goals** – assign position **12**
   - **He M 507** – assign position **13**
   - **Resume** – assign position **14**
   - **Guard Rights** – assign position **15**
   - **Participant Directed** – assign position **16**
   - **Compliant Form** – assign position **17**
   - **Consent Medi** – assign position **18**
   - **Social Media** – assign position **19**
   - **Service Approval** – assign position **20**
   - **Health History** – assign position **21**
   - **Medi. List** – assign position **22**
12. In the third section, **Filter**, make sure “Show all items in this view” is selected in order to display ISA forms created by all service coordinators.
13. In section **Group By**, select **Service Coordinator** in the drop down menu for **First group by**, and select None for **Then group by**.
14. Scroll down to the end of the page, click OK.
15. The final web part view for ISA Checklists is displayed in Figure 45.

![Figure 45: ISA Checklist Web Part.](image)

NOTE: The value of these columns are defined by ISA documents created in the Full ISA Form library. As service coordinators fill out the form and select Yes/No/N/A to indicate the completion status of particular forms in the ISA Packet, the values displayed on this web part view will change accordingly.

After creating the second web part (ISA Checklists) displaying the completion status of the ISA Packets contents, you may find the width of the first web part (ISA Dates) increases. To reshape this web part and change its size:

1. On the top ribbon, click Page, then click Edit.
2. Click Options under Web Part Tools, then click Web Part Properties.
3. A tool panel will display on the right of the screen. Click Appearance.
4. Change the Width to “Yes” and 30 Centimeters or any appropriate number.
5. Then click Ok.
6. On the top ribbon, click Format Text, then click Save & Close.

ISA Approval

Approve Full ISA Form

Once an ISA Meeting Scheduling Form has been filled out by the Service Coordinator, the ISA Approval 2010 workflow executes automatically. The ISA Approval 2010 is a workflow designed in SharePoint Designer 2013 that executes five approval workflows (Assistant Approve, Approval ISA SC, TradApproval, PDMSApproval, Admin Approval). This is necessary because several workflow features were eliminated from SharePoint 2010 when
SharePoint 2013 was released. Of the eliminated features, the start approval process action is central to ISA process. Despite this, it is possible to execute SharePoint 2010 workflow functionality in SharePoint 2013 using the SharePoint workflow interop. The SharePoint workflow interop uses the SharePoint 2013 “Start workflow” method to host and execute SharePoint 2010 workflows.

Ultimately the ISA Approval 2010 hosts the five distinct approval processes which assigns a task to the administrator who fills out the appropriate fields in the ISA packet. The administrator receives an email notification about this assignment. Upon completion of this task, a new task is assigned to the Service Coordinator specified in the ISA Meeting Scheduling Form. The Service Coordinator receives an email notification about this assignment. Upon completion of this task, a new task is assigned to the supervisor. The supervisor receives an email notification about this assignment. Upon completion of this task, a new task is assigned to the Director of Service Coordination. Upon approval, and the completion of the task, an email notification is sent to the administrator to print the full ISA Form.

The ISA Approval 2010 Workflow is created in Microsoft SharePoint Designer 2013. To create the workflow:

1. Connect to the WPI Test Site site by entering the URL from SharePoint.
2. Now that you have opened the editor for the WPI Test Site site, go to the Navigation pane again and select Workflows.
3. On the top ribbon, select List Workflow select ISA InfoPath Form (the library we created earlier)
   a. NOTE: A library is also a list
4. Enter the name ISA Approval 2010 to the workflow and give it an appropriate description.
5. First, to create the 2013 workflow, under Platform Type select SharePoint 2013 Workflow as seen in Figure 46 and click OK.
6. The Workflow editor will appear, in which you must use the ribbon (containing **Conditions**, **Actions**, **Steps**, etc.) to create the workflow.
7. Using the editor ribbon, recreate the following logic in Figure 47.
Figure 47: SharePoint 2013 hosting workflow.

8. Finally, navigate back to the Workflow summary page by selecting **ISA Approval 2010**, you will be directed to the following page in Figure 48.
9. In this window, in the **Start Options** group select **Start workflow automatically when an item is created**.

To publish the **ISA Approval 2010** workflow to the ISA site, in the **Save** category select **Publish** on the tool ribbon. The workflow will now execute automatically when a service coordinator creates a new ISA packet by adding a new document in the **ISA InfoPath Form** library.

The **ISA Approval 2010** workflow is a SharePoint 2013 workflow that hosts SharePoint 2010 workflows to create a 4-tier approval process. The flow of information through this approval process is modeled graphically below in Figure 49.
As seen in Figure 49, after a service coordinator has initiated a packet, each person is represented by an approval workflow. This 4-tier approval process is created by stringing 5 SharePoint 2010 workflows together so that the type of ISA (PDMS or Traditional) determines who will approve the packet. To create and tie the approval processes together ensure you are connected to the **WPI Test Site**:

1. Now that you have opened the editor for the **WPI Test Site** site, go to the **Navigation** pane again and select **Workflows**.
2. On the top ribbon, select **List Workflow** select **ISA InfoPath Form** (the library we created earlier).
3. Enter the name AssistantApprove to the workflow and give it an appropriate description.
4. To create the first 2010 workflow, under **Platform Type** select SharePoint 2010 Workflow and click **OK**.
5. The Workflow editor will appear, in which you must use the ribbon (containing **Conditions, Actions, Steps**, etc.) to create the workflow.
6. Repeat steps 1-5 for each workflow and using the editor ribbon, recreate the following pieces of logic in Figures 50 – 54.
Figure 50: Administrative assistant approval process.

Figure 51: Service coordinator completes ISA packet.

Figure 52: Traditional supervisor approves ISA packet.

Figure 53: PDMS supervisor approves ISA packet.

Figure 54: Director of service coordination approves final ISA packet.

To publish the 5 SharePoint 2010 workflows to the ISA site, for each workflow in the Save category select Publish on the tool ribbon. All of the workflows are now linked and will now execute automatically when a service coordinator creates a new ISA packet by adding a new document in the ISA InfoPath Form library.
**Task List**

When a workflow is executed, a task will be executed at the same time. To view all tasks and their status:

1. Look at the navigation on the left, under Lists, click on **Tasks**.
2. All tasks will be displayed with their current status and progresses as seen in Figure 55.

![Task List](image)

*Figure 55: Task list.*

**ISA Initiation Due Date Reminder**

Once an ISA has been created by a service coordinator, the **ISA Initiation Due Date Reminder** workflow executes automatically. The **ISA Initiation Due Date Reminder** workflow uses the Due Date from the ISA Meeting Scheduling form and sends an email reminder to the director of service coordination and the appropriate service coordinator (specified by the administrator when the ISA was created) to notify them 10 days before the ISA packet is due. If the task is not completed within 10 days (the specified time limit), another email is sent to the Service Coordinator and Director of Service Coordination for further action.

To create the workflow:

1. Connect to the **WPI Test Site** site by entering the URL from SharePoint.
2. Now that you have opened the editor for the **ISA** site, go to the **Navigation** pane again and select **Workflows**.
3. On the top ribbon, select **List Workflow** select **ISA InfoPath Form** (the library we created earlier)
4. Enter the name ISA Initiation Due Date Reminder to the workflow and give it an appropriate description.
5. To create the 2013 workflow, under **Platform Type** select SharePoint 2013 Workflow as seen and click **OK**.
6. The Workflow editor will appear, in which you must use the ribbon (containing **Conditions, Actions, Steps**, etc.) to create the workflow.
7. Using the editor ribbon, recreate the following logic:

```
Stage: Email Notice

Add 0 months, -10 days, 0 hours, 0 minutes to ISA InfoPath Form:Date ISA Due (Output to Variable: date)
then Pause until Variable: date
then Email [%Current Item:ServiceCoordinator%]

Transition to stage:
Go to End of Workflow
```

**Figure 56: Email sends to Service Coordinators.**

8. Navigate back to the Workflow summary page by selecting ISA Initiation Due Date Reminder, you will be directed to the following page as seen in Figure 57:

**Figure 57: Due Date Reminder Workflow Editor.**

9. In this window, in the Start Options group select Start workflow automatically when an item is created.

To publish the ISA Initiation Due Date Reminder workflow to the WPI Test Site site, in the Save category select Publish on the tool ribbon. The workflow will now execute automatically when an ISA is created by a service coordinator.