



Program Summary

DoIT provides a set of complementary services designed around the transmission of documents. One provides for the professional design, finish, and delivery of print materials while the other seeks to modernize business processes by eliminating paper and providing electronic document workflow.

This program includes end-to-end support for both print and online document management:

- document scanning, indexing and secure data capture for easy access, intuitive content management and proper archiving;
- design, deployment and ongoing support of OnBase online forms and document workflow to aid in business process automation and improvement;
- design and production of print materials, optionally customized and personalized after free consultation and estimating;
- AnywherePrints printer and copier support for fee-based printing or management of print volume in classrooms, labs and offices; and
- implementation and support of DocuSign electronic signature software.

Criterion 1: Importance to University Mission / Operations

Importance to Mission

At the heart of the academic mission is the transfer of knowledge: from instructor to student, among students, from one researcher to another, and out to the community of scholars. Technology in the 21st-century has given us the means to move data at the speed of light but gaining knowledge and wisdom is still dependent on face-to-face communication and almost always on the recording of knowledge onto a document that can be passed from one person to another.

This program designs and implements the online document workflow and digital signatures that ensures documents which support sponsored research, admissions records, and registration forms are efficiently approved, effectively stored, and easily indexed and retrieved.

In direct support of the academic mission, this program also produces both printed course materials and digital books for academic courses as well as the print collateral used by NIU Admissions staff to attract students.

Importance to Operations

Thousands of operational documents for finance, human resources, student administration and academic affairs are generated daily at NIU. Far too many of NIU's administrative processes still depend on printed documents that are passed from office to office seeking written signatures for approvals and eventually find their way to alphabetically-filed folders in massive filing cabinets. This obsolete manner of doing business wastes both staff time and money and leaves the institution open to data loss. Moreover, this institutional data ceases to be of use. Data on paper is not easily mined and correlated to determine trends or opportunities; data on paper does not encourage or allow real-time annotation and collaboration among departments; data on paper simply cannot keep up with current demands for efficiency, security and fast turnaround of approvals.

Yet paper-based products do still provide a strong foundation for marketing and communication efforts to prospective students and our community partners. Uniformly and consistently displaying NIU's brand on advertisements, and promotional materials can reach potential faculty, staff and students in places and at times where digital information is less effective.



Program Portfolio

Document and print management provide the foundation for both academic and administrative areas at NIU. Effective management streamlines business processes and 28 departments rely on OnBase to meet their growing demand for quick turnaround of approvals and reduce the time to process new student admissions, applications for employment, requests for financial aid, and requests for transcripts. When high-quality print materials are required, DoIT staff design the materials and print nearly 9 million pages in support the information and communications needs of the institution.

Program Synergy

DoIT builds advanced custom workflow into products that support a variety of documents for certification programs, as well as student engagement and recruitment functions for Student Affairs and Enrollment Management, the Graduate School, Outreach programs, Alumni Relations, the NIU Foundation, Assessment Services, the individual Colleges, and partnership programs like the Illinois Board of Examiners. Our printer and copier program has roughly 300 multi-functional devices that support the backbone of NIU administrative units and College offices. Managed devices are in nearly every building on campus and at NIU's remote Outreach centers.

Criterion 2: Quality / Effectiveness

Functions and Services.

The core functions and services of this program are:

- Online document and process workflow using OnBase to replace paper-based filing, routing, approvals, and storage;
- Digitizing paper documents for efficient storage and retrieval;
- Design and production of high-quality print materials;
- AnywherePrints to charge students or track staff for printing;
- DocuSign electronic signatures to improve business process workflow.

OnBase can scale to manage online workflow for the entire campus, but demand for the service is still underdeveloped. Historically, the OnBase team was running too many projects simultaneously resulting in quality and timeliness problems. The program didn't reach the breadth of adoption it should have, yet the vendor recognizes NIU as a leader in higher education for our OnBase implementation and the program remains a cornerstone of our strategic plan for digital workflow on campus.

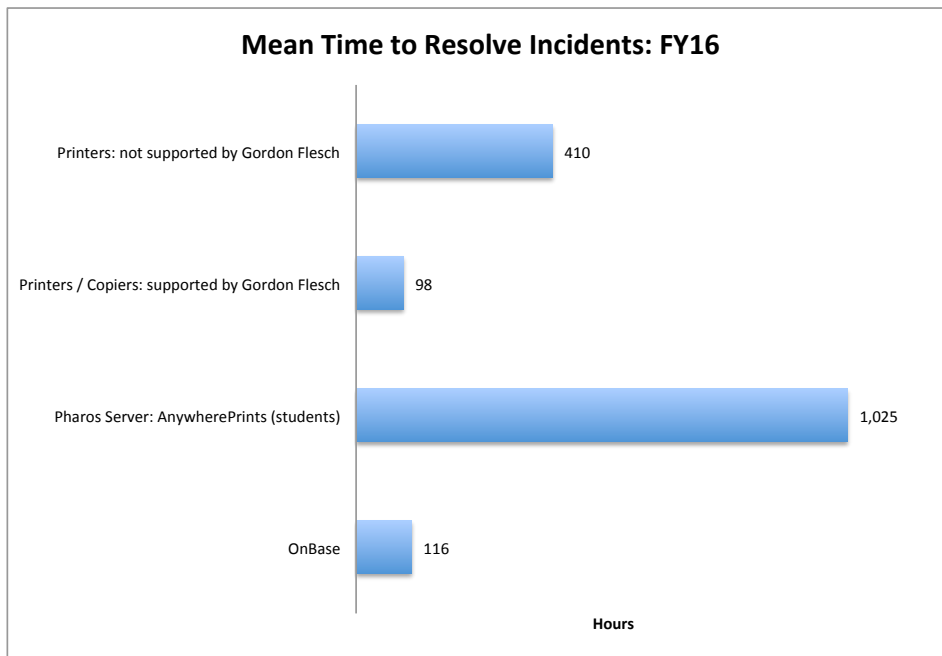
Measures of Quality

1. System availability is measured against both planned and unplanned down-time.
2. Mean Time to Resolve (MTTR) measured by the time between the reporting and the resolution of an incident
3. Mean Time to Fulfill Requests
4. Spoilage is measured by units of print production, either fully or partially completed, that do not meet customer specifications.
5. Rework is measured by units of production that do not meet customer expectations, but can be "fixed" to meet the expectations.
6. Customer satisfaction.



Evidence of Quality

1. System Availability for OnBase is 99.4%. Pharos system availability is 99.5%. Availability for individual printers is 80%.
2. Mean Time to Resolve Incidents with department-owned printers is four times higher than for devices supported by DoIT staff and our vendor.



3.
 - a. The average time to fulfill access requests for academic student documents and graduate decisions in OnBase has remained steady for the past four years at approximately 19 calendar days. Generally, two-thirds of this time is devoted to verifying required training and gaining departmental approval for the access.
 - b. DoIT's Document Services unit promises 3 business days for print delivery, but achieves an average delivery time of 14 business hours with 62% of jobs shipped ahead of scheduled, 35% shipped on time, and only 3% shipped behind schedule.
4. In FY15, DoIT's spoilage target for the print shop was 0.75% and the actual rate was 0.001%.
5. In FY15, DoIT's print shop exceeded rework industry standard target of 3% with an actual rate of 0.067%.
6. The customer satisfaction rate for Document Services was measured at 91.3%.

Quality Improvement

DoIT's print shop uses online routing and time management to forecast and ensure staffing for the seasonal nature of large print jobs.

Finally, DoIT is spearheading a campus-wide effort to achieve close to \$1M annual savings in institutional print costs. If approved and mandated by central administration, this project will achieve cost-savings by:

- a. reducing the number and types of print devices and supplies;
- b. increasing the number of OnBase electronic forms and workflow;



- c. replacing unmanaged print/copiers with managed devices that allow users to monitor their usage levels and ultimately reduce print volume.

Criterion 3: Productivity / Efficiency

Scope of Program

The program includes end-to-end support for both print and online document management:

- Design and production of nearly 9 million pages annually, optionally customized and personalized after free consultation and estimating.
- Scanning and indexing of 1.3 million pages annually for easy access, intuitive content management and proper archiving.
- Design, deployment and ongoing support of OnBase in 28 departments with 102 workflows configured to customer specification, constantly monitored, maintained and updated as requested.
- Support for more than 300 printer/copiers for classrooms, labs and offices, with nearly 3 million pages printed annually by students and another 13 million pages printed or copied by faculty and staff.
- Implementation and support of DocuSign electronic signature software as a FY16 pilot between DoIT and Procurement Services.

Productivity Comparison

Few in-house print shops are capable of producing 100% of the printing required by the university. DoIT also works with vendors to manage outsourcing when required and by leveraging volume purchasing discounts that individual departments may not be able to negotiate. In FY15, DoIT’s print shop produced 2,750 jobs per FTE, with an average of only 14 business hours of production to time of shipment.

Resource Comparison

OnBase is the industry leader in higher education for online document and process workflow. From those universities willing to share their support models, it appears that NIU has a larger installed base of OnBase workflows and scanned pages than many universities. Indeed, most universities began using OnBase in their Admissions and Registrar departments and often choose not to expand. From the data available, NIU currently supports approximately 7 departments per FTE.

University IT Division	OnBase FTE	Departments Supported
Bryn Mawr (vendor-hosted)	1.0	5
Columbia College (Missouri)	5.5	<i>unavailable</i>
Emory	2.0	6
NIU	7.0 (3.0 FTE in vacant positions)	28
Syracuse	4.0	<i>unavailable</i>
University of Texas	4.0	<i>unavailable</i>

DoIT’s print shop equals the size of printing facilities in the surrounding area, including Rockford and a large part of Chicago suburbs. In 20 years, DoIT has reduced staff by 61% (from 47 to 17 FTE) while production jobs have grown 3.7 times, from 15,000 to 55,000 per year.



Cost and Revenues

In FY15, DoIT saved the university \$246,000 in postage due to mail management automation, but DoIT’s print shop continues to absorb the escalating cost of goods sold: an increase of 34% annually for the past 6 years. DoIT has diligently introduced automation techniques to lower internal costs in order to offset these external costs and stabilize print pricing to the campus units. DoIT leverages our proximity to Chicago to purchase paper at 18% under wholesale, considerably lower than IPEC pricing. Sales revenue has decreased by 7% in the last five years, from \$2.6M in FY11 to \$2.4M in FY15.

Annual Sales: DoIT Document Services	
FY11	\$2,600,000
FY12	\$2,750,000
FY13	\$2,875,000
FY14	\$2,700,000
FY15	\$2,400,000

The recharged rate for OnBase has been primarily flat over the past three years, though the actual amount paid by departments has been variable due to an hourly recharge rate for any development work. Over this time period, NIU has operated this service at a deficit due to the lack of a well-constructed cost model. Through restructuring, careful cost modeling, and a rate change approved through the Provost and CFO, both the hourly recharge and the deficit situation have been eliminated.

Criterion 4: Internal & External Demand

External Demand

The DoIT print shop has embedded postal address verifications into its print management software and processes to comply with the U.S. Postal Service delivery and automation requirements. These requirements are constantly being updated and DoIT stays aware of impending changes in order to modify processes and meet compliance.

DoIT built and manages the automated system at NIU used for copyright clearance. The self-service portal automates information delivery to the University Bookstore and forms part of the approval process for managing copyrighted materials, building the royalties that need to be established, and ensuring delivery is on target for classroom schedules.

Internal Demand

NIU lacks a dedicated workflow tool that can orchestrate information flow between different applications and multiple departments. Where PeopleSoft forms the majority of the workflow, as in the hiring or payroll process, an all-digital workflow inside PeopleSoft is possible. There are dozens, perhaps hundreds, of valid business and academic processes that do not live inside PeopleSoft and they need a way to avoid or escape paper forms. OnBase is the hub of DoIT's strategic plan to address this need and as such, the focal point for all paper based processes on campus that need to go digital. Existing examples already in flight include the transportation request form, the Graduate School admission form, but should also include, for example, promotion and tenure review, and Human Resource files.

Finally, there is growing internal demand for online NIU course materials to accompany printed course packs as well as auto-generated eBooks that can be customized for an individual student’s interest in academic programs, sports, or extracurricular activities.



Criterion 5: Opportunity Analysis

Cost Savings Opportunities

Many cost-savings opportunities have already been realized in this program by combining high-labor or segmented projects into single projects and by implementing an online storefront for initial customer contact, orders, and reminders.

The ongoing scanning into electronic format of archive documents and records continues to diminish and will eventually meet the retention requirements. That would conclude this function and staff currently occupied with this could be trained and moved to more meaningful work such as supporting OnBase application development.

Future Revenue / Resources

NIU should consider selling both print and creative design services for high-quality printing to local and regional K-12 schools, community colleges and businesses. This would leverage our high-end print presses and use the excess capacity that has been built into the print shop in order to meet NIU's peak seasonal demands.

Improvement Opportunities

DoIT has employed several operational improvements over the years in its print shop including adopting lean manufacturing principles, committing to just-in-time delivery to eliminate need for large inventory stores; and on-demand order fulfillment to avoid large-volume print jobs that become outdated or irrelevant before they can be used.

Document scanning is a labor-intensive process that should be streamlined through development and automation of existing software features in OnBase. Moreover, the underlying technical architecture of the OnBase application suite must be re-engineered and reimplemented.

At the same time, DoIT will revalidate existing OnBase workflows and ensure they are not enabling the creation of shadow systems across NIU. Finally, user training should be expanded to make use of existing vendor materials and modern training methods that include just-in-time, online training and support. Currently, the number of FTE supporting OnBase has shrunk from 7 FTE to 3 FTE: none of these improvements can be implemented without replacing at least 1 FTE.

Opportunities in the Field

- Replace expensive legacy print shop equipment with high-tech easy-to-use solutions to reduce annual expenses by an estimated 6%.
- Centralize funding for OnBase to remove the annual fees which now stand in the way of large-scale adoption. In turn, a larger user base would drive time and materials efficiencies and simply license management.