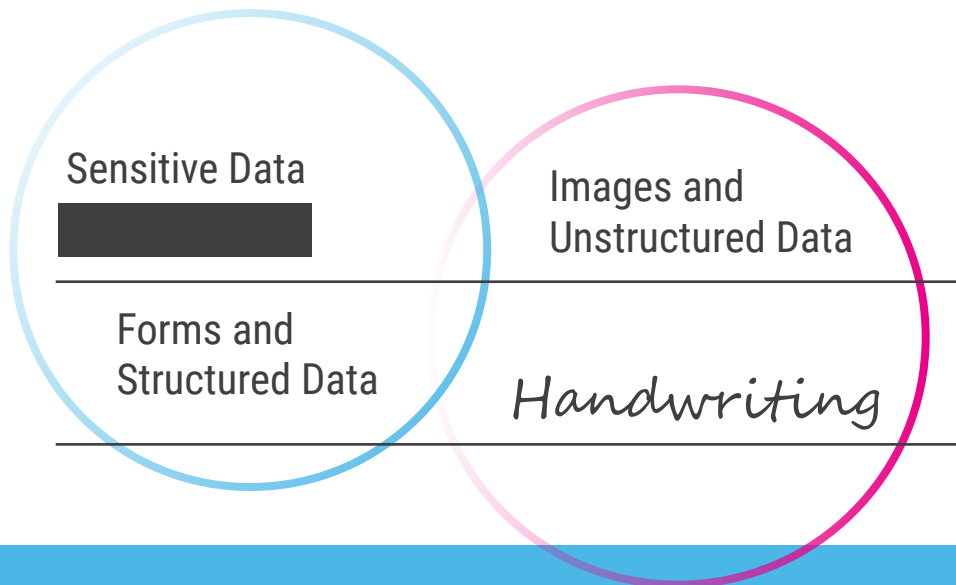


Data Privacy
and
Healthcare

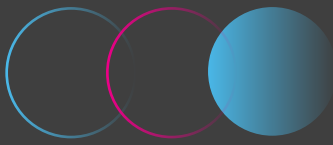
Data Automation for U.S. Government Service Treatment Records

Digitization & Misfile Remediation

Redaction for Freedom of Information Act
(FOIA) Requests & Data Sharing



How Human-Centered Automation
Speeds Throughput While Reducing
Data Privacy Risks & Costs



REDUCING HEALTHCARE PROCESSING COSTS WITH INTELLIGENT AUTOMATION

To comply with federal mandates and guidelines, U.S. government agencies must modernize digital government by **improving the customer experience and enabling timely, safe data sharing.**

However, agencies face budget constraints. The Undersecretary of Defense for Personnel and Readiness is seeking to reduce costs by \$6.5 Billion between FY 23-27.

High-quality records management is critical to these efforts. The Office of Management and Budget (OMB) and the National Archives and Records Administration (NARA) issued **Memorandums M-19-21 and M-23-07** (an unfunded mandate) requiring all federal records be created, retained, and managed in electronic formats with appropriate metadata, controls, and validation.

In a move towards digital patient care, in May 2013 the White House mandated that **all Service Treatment Records (STRs) received by the Department of Veterans Affairs must be converted to electronic format.** Paperless transfer was required as of January 2014.

Federal agencies must find ways to meet aggressive digitization goals and enhance the customer experience while also adhering to budget constraints.

Data Automation Is a Solution



Anacomp's **Intelligent Document Processing (IDP) solutions** reduce risks, costs, and error-prone manual processes for digitization, redaction, misfiled record remediation including correction of misfiled service treatment records, and data anonymization for research and analytics.

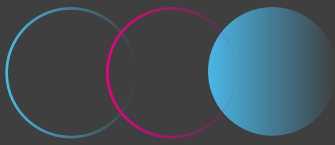
Our solutions use Artificial Intelligence (AI), Machine Learning (ML), Optical Character Recognition (OCR), and Natural Language Processing (NLP) to deliver timely results for mission goals.

ABOUT ANACOMP

Anacomp has provided advanced technology-based solutions supporting over 120 federal agencies with digital transformation to achieve compliance with federal mandates and executive orders while improving business processes, reducing costs, and enabling actionable intelligence.

Contact Us For More Information

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Service Treatment Record Digitization

TWO DECADES OF AI/ML DATA AUTOMATION

Anacomp has been a leader in data innovation and digital transformation for over 50 years, digitizing millions of records for large federal agencies and Fortune 500 companies. We advanced our solutions over decades and pioneered the use of AI/ML-based automated document classification and metadata extraction for official government records in 2004.

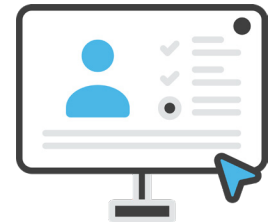
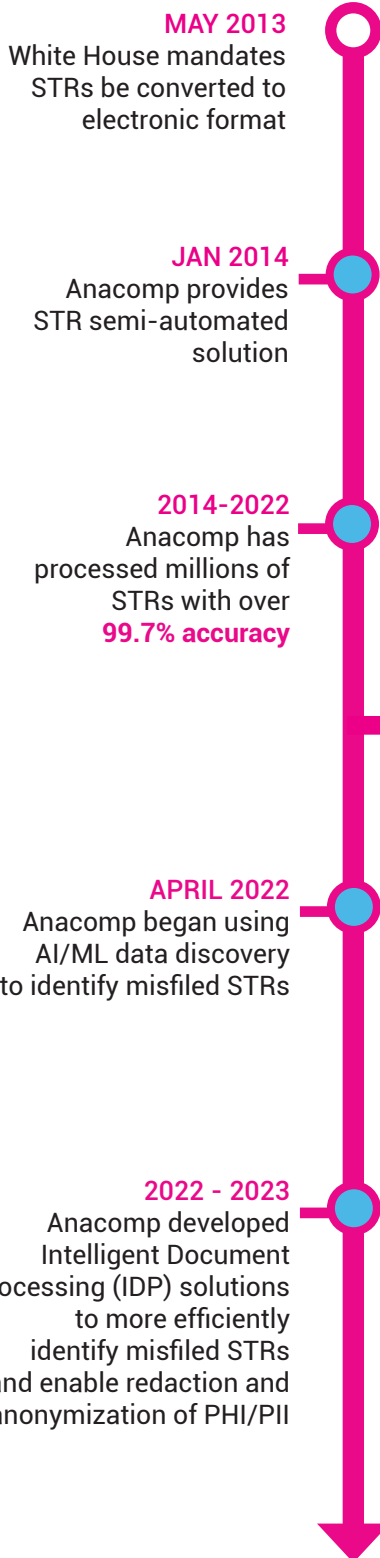
As a result of the May 2013 White House order requiring that all Service Treatment Records (STRs) received by the VA be digitized, agencies sought solutions to meet this challenge.

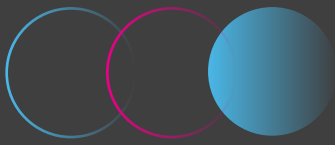
Anacomp has been processing STRs for federal agencies since 2014 and we have made improvements to the digitization workflow incorporating new technologies to meet evolving demand and requirements.

By incorporating advanced technologies like AI/ML Data Discovery and Intelligent Document Processing (IDP), we achieved increased throughput with minimal staffing, while **reducing risks due to manual processes.**

We also developed new human-supervised **Intelligent Document Processing automation solutions** to improve several manual processes. These solutions include detection and correction of misfiled patient records, as well as redaction automation capabilities for Freedom of Information Act (FOIA) requests, release of information requests, and other data sharing requests.

Anacomp can also provide IDP for data anonymization and data extraction for research and analytics projects.





IMPROPER DIGITIZATION CREATES COSTLY RISKS AND IMPACTS PATIENT CARE

Undetected digitization errors can lead to violations and an expensive process to go back and fix improperly digitized files.

In addition, NARA issued its **final rule on digitization and accessioning of U.S. government permanent records for M-19-21** on May 4, 2023. This [final rule](#) specifies stringent requirements for quality control, validation, and metadata assignment, stating that:

“agencies that do not meet these standards do not have the authority to dispose of the source records”

“Agencies must not dispose of the source records until they validate that they have followed the requirements in other sections of the regulation for digitization and quality control (among other required assessments during a given digitization project)”



Anacomp published an article on our website [Blog](#) on the importance of safe digital transformation for healthcare:

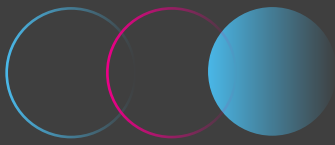
[Healthcare Data Privacy, Security, and Accuracy Are Dependent on Safe and Successful Digital Transformation](#)

Avoiding Costly Manpower Additions & Manual Errors

Our advanced automation solutions result in fast accurate results while delivering lower data extraction and document processing costs, reduction in manual errors, as well as optimized human resource needs. These capabilities also allow organizations to reduce seasonal hiring and overall staff while allowing existing staff members to focus on higher-value work.

In the case of processing STRs and rapidly identifying misfiles:

Anacomp's IDP solutions have proven to reduce manual review time by up to 80%.



MISFILED STRS ARE A HIPAA VIOLATION

Misfiled records can become a Health Insurance and Portability and Accountability Act (HIPAA) violation. In addition, legislation, such as the [21st Century Cures Act](#) signed into law on December 13, 2016, includes a provision requiring that patients can electronically access all of their electronic health information (EHI), structured and/or unstructured, at no cost.

Typically manual processes have been used to correct misfiled patient records, however with the increase in digitized records and the patient direct access requirements, a new policy in 2022 prioritized timely remediation of any misfiles in digitized records.

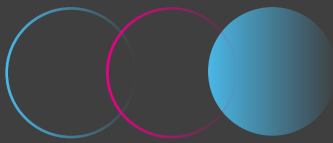
High volumes of digital records with patient access rights requires fast remediation of misfiled records

Misfiled Service Treatment Records are a HIPAA violation and can impact patient care, veteran status, and disability benefits



As a result of the new policy aimed at speedy remediation of misfiled records, Anacomp deployed an artificial intelligence data discovery solution to quickly and efficiently detect misfiled service treatment records and flag them for correction.

This solution greatly reduces the need to add costly personnel to meet the audit requirements.



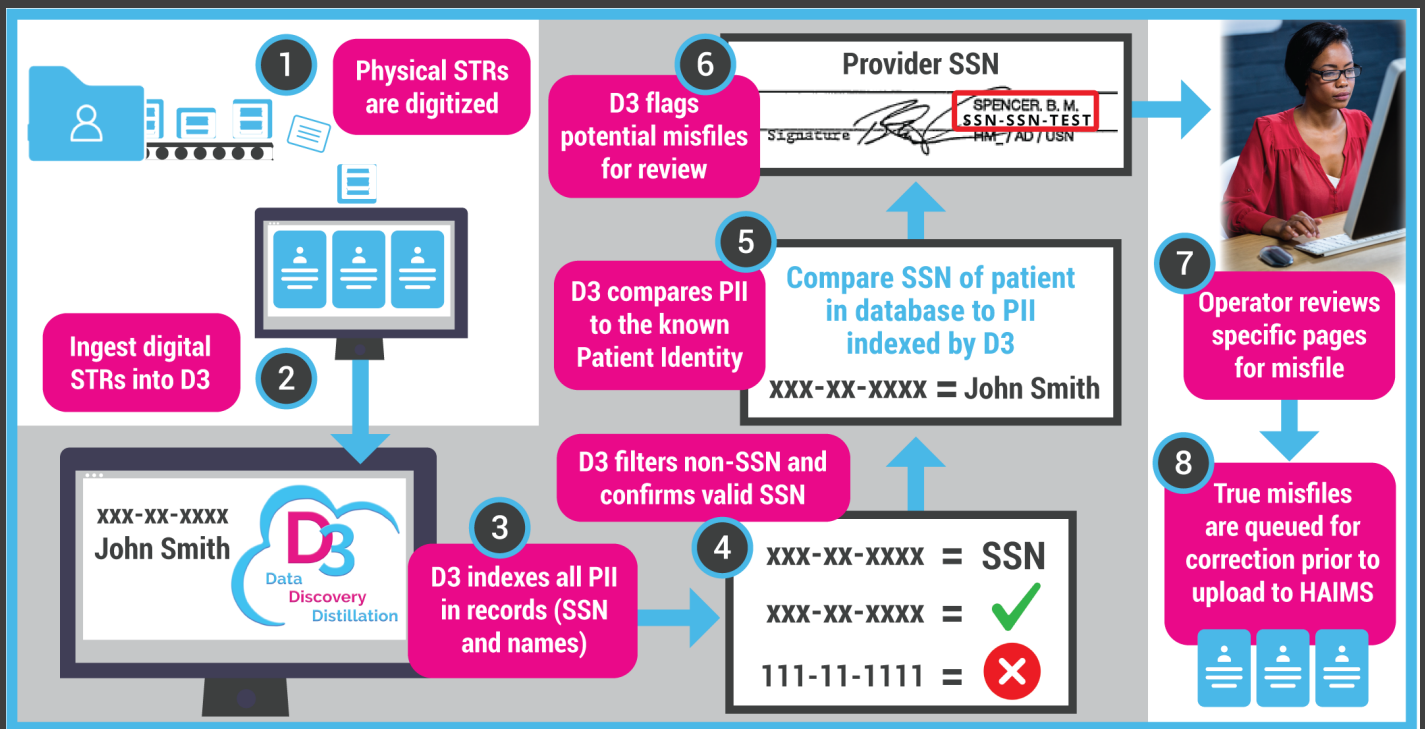
MISFILE CORRECTION IMPLEMENTATION

D3TECT HUMAN-IN-THE-LOOP SEMI-AUTOMATED MISFILE CORRECTION



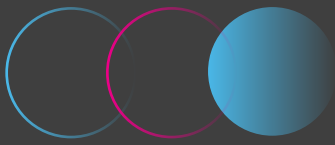
Anacomp developed the **D3 D3TECT** solution to support HIPAA data privacy and the safe electronic exchange of patient records via a semi-automated, efficient quality control OCR extraction and validation system that detects patient record misfiles and restores them to their correct patient file with minimal operator assistance.

The figure below illustrates how the technology identifies Social Security Numbers (SSNs) that did not match the service member's SSN.



Solving OCR Challenges

Anacomp further developed our Intelligent Document Processing (IDP) solution to eliminate common issues including bad OCR and extraction of handwritten information, while also resolving a primary misfiling culprit, the provider stamp.



HOW DOES IDP TECHNOLOGY WORK?

Intelligent Document Processing (IDP) helps transform structured (forms), semi-structured (checks, paystubs, invoices, etc.) and unstructured data (deeds, medical records, emails, contracts, etc.) from a variety of document formats into digitized and actionable information.

It uses a combination of technologies, such as **optical character recognition (OCR)**, **natural language processing (NLP)**, **computer vision**, **machine learning (ML)** and **artificial intelligence (AI)** to scan, classify, identify, and extract data.

IDP overcomes the limitations of simple template-based document capture tools and streamlines the document processing activities **using human-in-the-loop (HITL) capabilities to handle exceptions and to train and improve its capabilities over time.**

IDP SUCCESS

50% IDP reduced false positives by 50%

66% IDP reduced false negatives by 66%

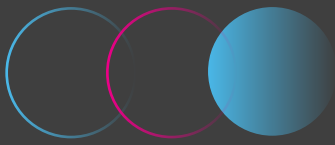
80% IDP supervision eliminates over 80% of manual review time

IDP Is Fast & Accurate

Anacomp built a custom workflow using IDP technology, which enabled an accurate identification of true misfiled content in the record and automated the review of all other pieces of data that could potentially contain a misfiling in a service member's record.

The major takeaway from our research is that IDP eliminated over 80% of manual review time while more accurately flagging records for review.

As you can see, there were significant workflow improvements as a result of the technology, people, and processes we used.



THE BUSINESS, PERSONAL & LEGAL BENEFITS OF IDP AUTOMATION

Across organizations today and the U.S. federal government, leaders are recognizing automation holds the promise of focusing the workforce on more strategic tasks. Automation will also help to reduce costs related to human errors, fines, and storage.



Personnel Savings

Below is a representative example of cost avoidance purely from a personnel perspective. Organizations can realize significant cost savings and improved records management fidelity through the Anacomp D3TECT solution.

In the case of STRs audit requirements, we project a large federal agency can avoid over \$2.5MM annually in personnel costs.

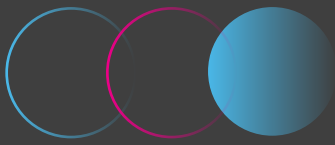
	Current Manual Processes with Zero STR Audits	Future Manual Process for Conducting STR Audits
# Personnel	30	60
Fully Burdened Cost Per Hour/Individual	\$45.00	\$45.00
Annual Cost (1,980 hours per individual)	\$2,673,000.00	\$5,346,000.00

Vital Medical Information



Each misfile that occurs must be corrected to ensure that vital medical information is available for determination of disability or other veterans' benefits.

It is critical that any misfiled documents are inserted into their proper patient records in a timely manner for accurate adjudication of benefits.



Preventing HIPAA Violations & 100-Year Retention Refiles



Misfiled records that are not caught due to inefficient manual processes can also constitute a HIPAA violation, and for federal agencies, result in a 100-year retention schedule adding significantly to storage costs.

According to an article in the [HIPAA journal](#), the global average cost of a HIPAA violation has increased. The article states, "the average cost of a healthcare data breach jumped almost \$1 million to a record high of \$10.1 million, which is 9.4% more than in 2021 and 41.6% more than in 2020."

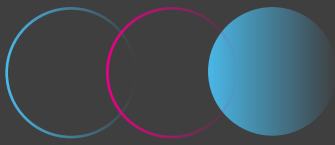
The average cost per record is now at \$164.00, however, HIPAA violations do vary and depending on the severity of the breach organizations can expect fines even as high as \$50,000.00 per violation.

For each HIPAA violation, the current policy requires the agency/contractor to physically retain all records from that batch for one hundred years.

This is problematic due to the fact that physical space is limited, and the cost exponentially grows with each violation.

As the National Archives and Records Administration (NARA) outlined in their [FY21 Congressional Designation](#), they are approaching maximum limits in archival storage capacity. Avoiding the 100-year retention schedule will further support efforts to digitize records and eliminate the costly burdens associated with physical records.





REDACTION OF SENSITIVE DATA

In order to achieve economies of scale, organizations must find technologies that support multiple capabilities. In addition to STRs misfile correction, Anacomp provides the ability to also automate the redaction of PHI and PII information with human-supervised workflows. This automated capability will support local Information Offices when approached for a release of information request.

Anacomp's **D3 R3DACT** solution allows for flexibility when searching for PII and PHI that has to be redacted from documents. To find PII and PHI in these documents, we implemented **advancements in natural language processing and machine learning** using techniques including Named Entity Recognition (NER), Regex Search, and Keyword Search.

Our machine learning model enables automatic detection and redaction of PII such as names, dates of birth, social security number, and more. We offer predefined entity types and the ability to automatically tag redaction with exemption codes to speed user redaction. User-friendly tools enable human adjudication workflows to add or remove redaction.

Speed Redaction & Reduce Manual Review

With R3DACT from Anacomp, the automated redaction capabilities accelerate the identification of items that must be redacted when responding to a release of information request while greatly reducing manual review time by an estimated 40%.

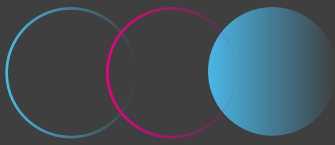
Additionally, our redaction capability **prevents the ability to restore original content**. Our IDP technology will preserve the original document while creating a new redacted version of the original document.



SSN-XXX-XXXX
[Redacted]

Reduce manual review time by 40%





CONCLUSION & RECOMMENDATIONS



A HUMAN-CENTERED APPROACH POWERED BY IDP

Potential cost savings of \$2.5MM - \$4MM annually per service branch

To comply with recent policy and directives while avoiding costly services - or worse yet - the costs and impact associated with HIPAA violations, federal agencies should adopt human-centered automation that is powered by IDP.

Ensuring that your contractor has the proper certifications, secure facilities and protocols, and personnel trained in IDP will also be crucial for success.

By implementing Intelligent Document Processing into STR Processing Center workflows, the government can achieve cost reductions through the avoidance of additional contractor labor as well as the avoidance of costly HIPAA violations.

Based on the research provided above, this could arrive at a cost-savings figure of \$2.5MM - \$4MM annually per service branch.

Please contact Anacomp for more information on how our IDP solutions and services will help your organization **save time, human resources, storage costs, and eliminate HIPAA violations.**

CONTACT ANACOMP FOR A FREE CONSULTATION ON IDP SOLUTIONS FOR DOCUMENT & DATA PROCESSING



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Anacomp has helped over 120 federal agencies and dozens of Fortune 500 companies gain data visibility and insight for over 50 years