Using Visual Classification for Merger and Acquisition (M&A) Activities

RedFile uses BeyondRecognition's proprietary technology for visual classification of documents. This technology is used today across a wide range of enterprise information governance activities and can dramatically accelerate the achievement of business and legal outcomes related to merger and acquisition activities.

Visual classification is the only technology that classifies both electronic and scanned documents regardless of the amount or quality of text associated with them. From the user perspective, visual classification is extremely easy to understand and work with. Once documents are collected, visual classification groups documents based on their appearance. This normalizes documents regardless of the types of files holding the content. For example, the content may be saved as a Microsoft Word or Adobe PDF document. Additionally, when a paper copy of this document is scanned, the image may be saved as JPEG or TIF. With visual classification, identical content will be grouped together regardless of format (Word, PDF, JPEG or TIF).

The grouping is automatic, there are no rules to write up front, no exemplars to select, and no seed sets needed for fine tuning. The image below (Figure 1) shows what a collection of documents might look like before visual classification has been applied. There is no order and no easy way to classify the collection.

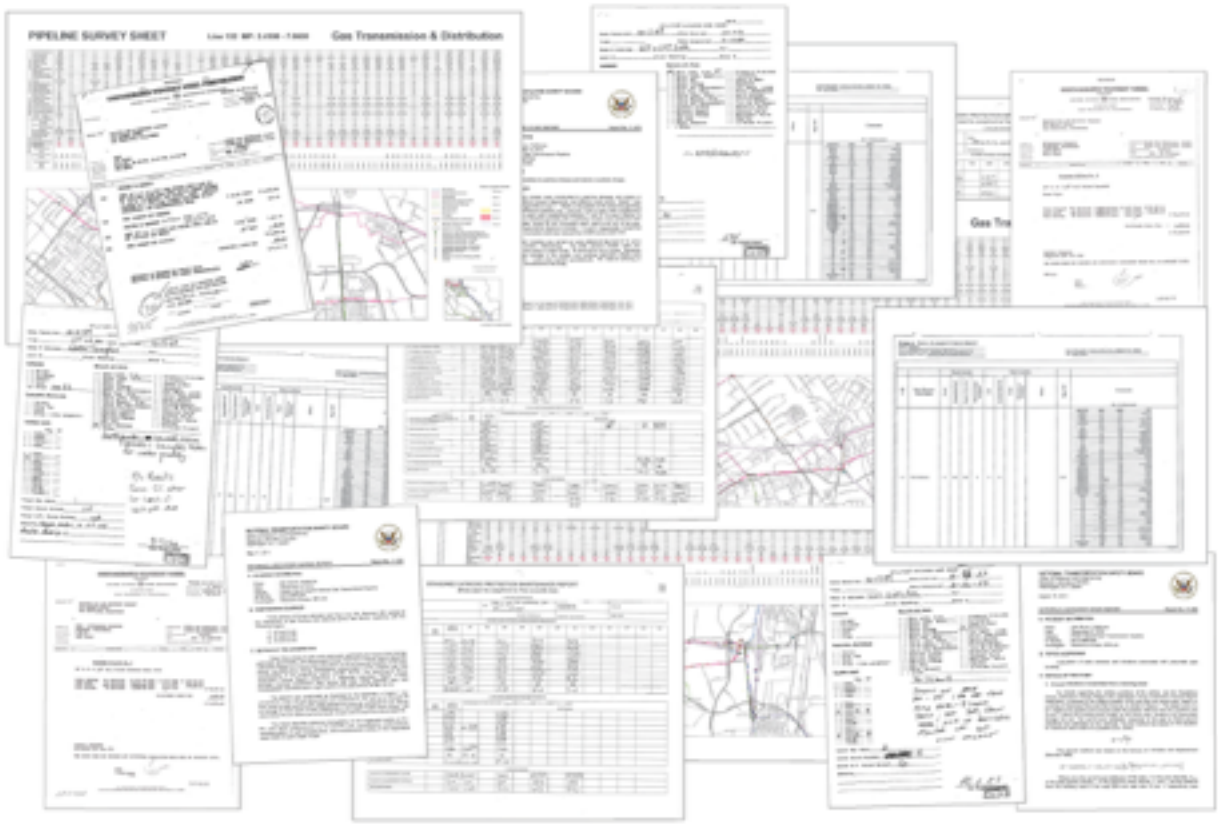


Figure 1: Example of different document types prior to visual classification with BeyondRecognition..

RedFile is the world's foremost provider of technology consulting and services for the implementation, management, and hosting of visual classification technology in corporate and governmental information governance pilots, projects, and programs.

Visual Classification Groups Visually Similar Documents

The image below (Figure 2) shows the same documents after visual classification has been applied.

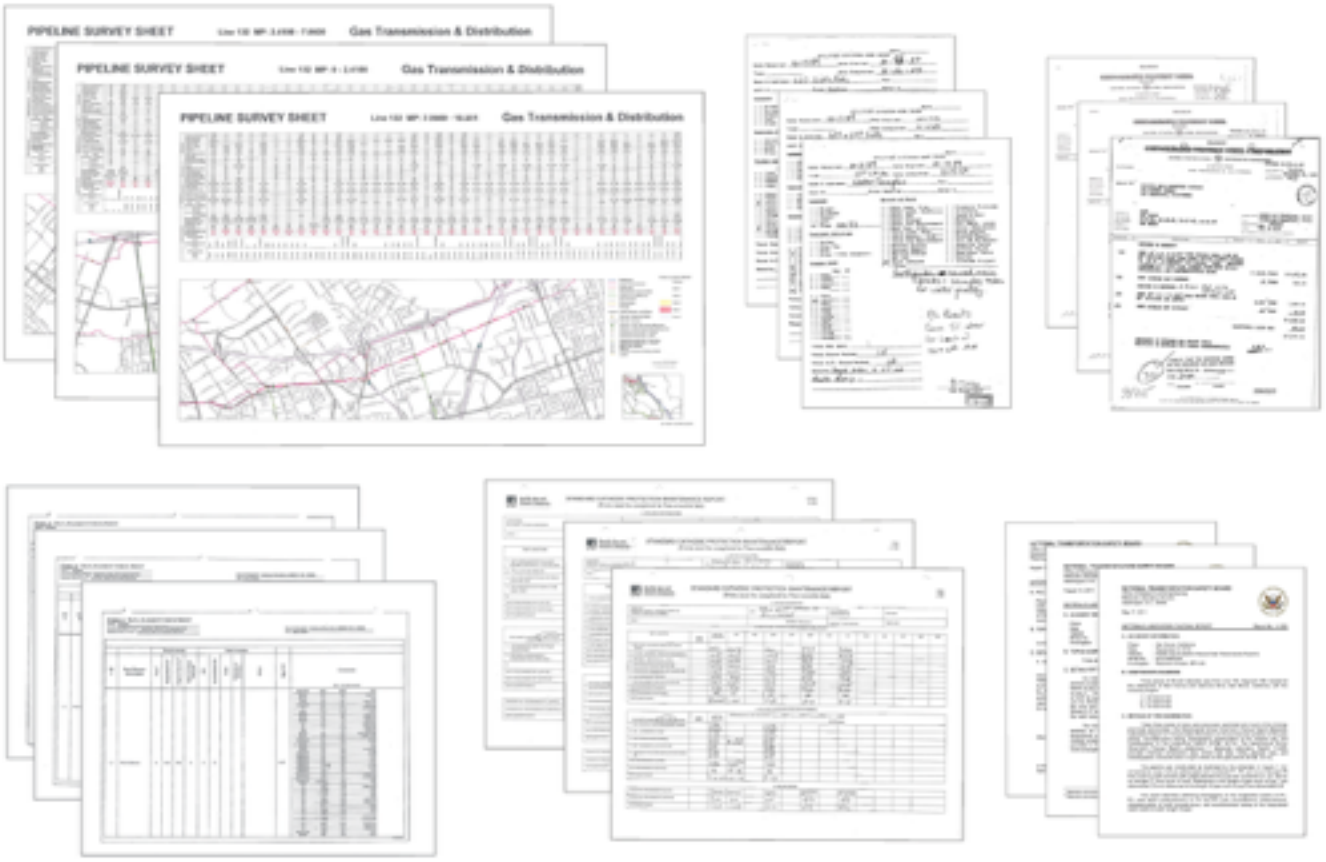


Figure 2: Example of document types organized with visual classification from BeyondRecognition.

Files to be Examined **100%**

Remove System Files & Duplicates **45%**

Grouping & Further Deduplication **25% Files Remaining (After Grouping/Deduplication)**

InfoGraph: Example initial data reduction with visual classification.

The first step in the process identifies all duplicate copies. The second step in the process results in visual classification. When the initial results of visual classification are presented to the client, the groups are arranged according to the number of documents in each grouping. Reviewing the first group impacts the most documents. Based on reviewing one or two documents per group, the reviewer is able to determine (a) should the documents in the group be retained, and (b) if they should be retained, what document-type label to associate with the group.

Visually Similar Document Groups Eliminated by Expert Review

By easily eliminating duplicates and groups that have no business or regulatory value (Figure 3), content collections can be dramatically reduced. Groups that remain can have granular retention policies applied, be kept under appropriate access restrictions, and can be assigned business unit owners. Plus of course, the document-type labels can greatly assist users trying to find specific documents.

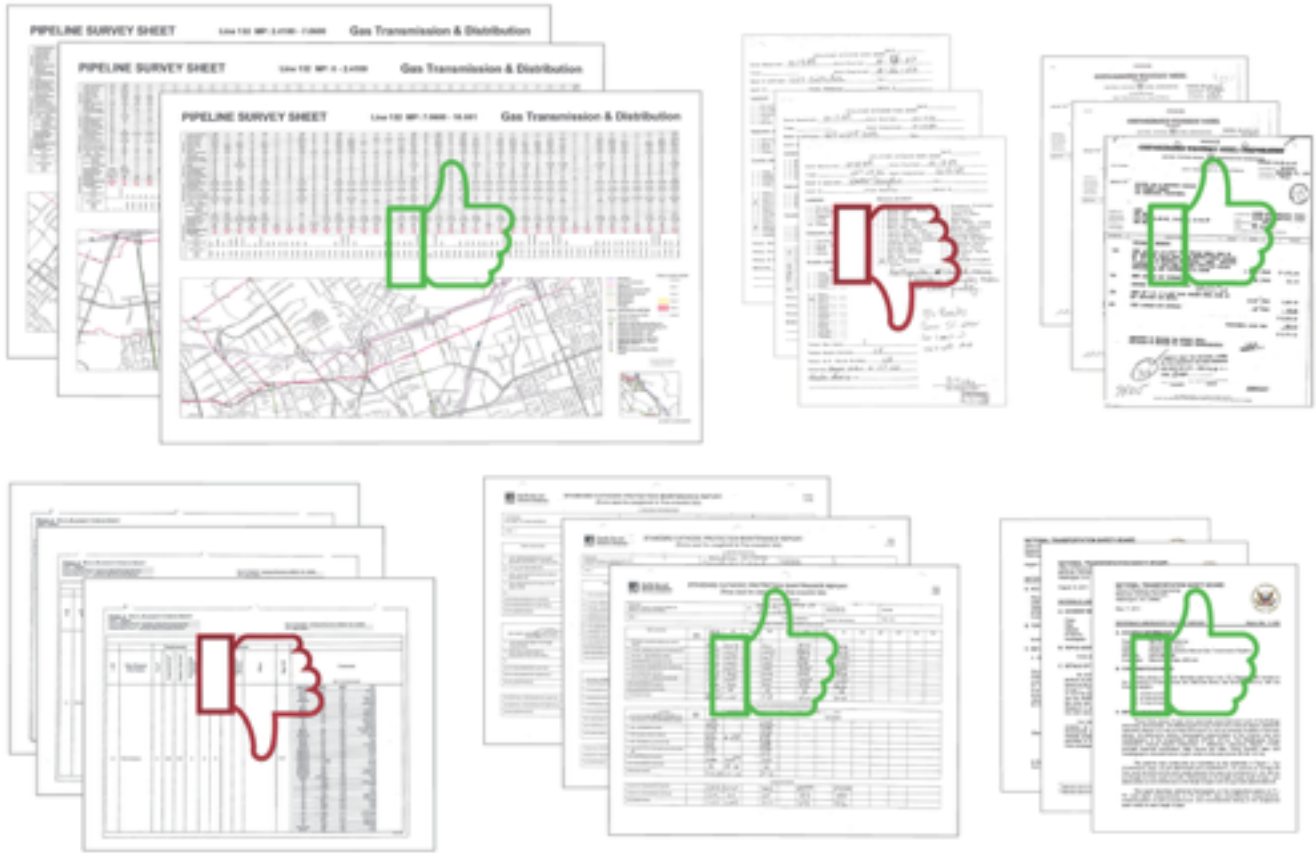
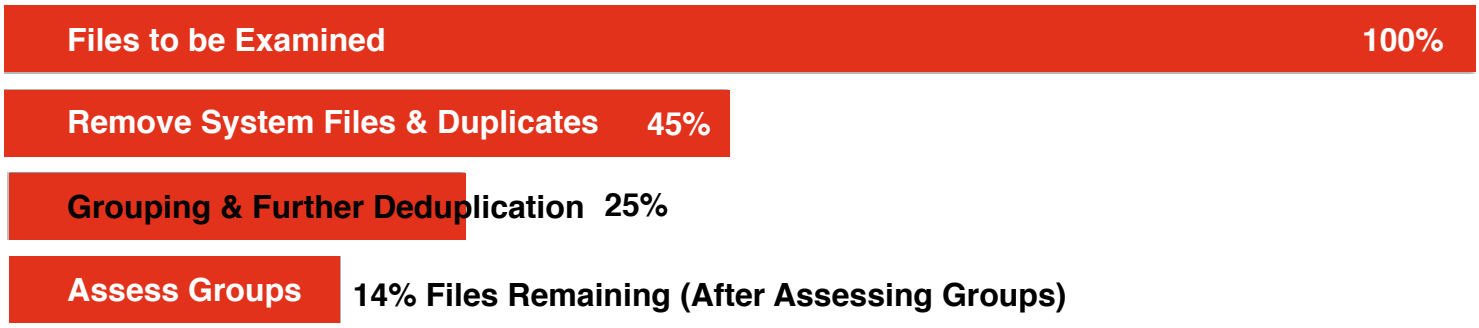


Figure 3: Example of document group assessment with visual classification and expert review.



InfoGraph: Example data reduction after visual classification and group assessment.

Visual Classification-aided Merger and Acquisitions

Pre-Acquisition

As part of planning for a series of acquisitions, the acquiring company processes its own native electronic files and scanned documents using visual similarity to group similar documents. Visual classification unifies the treatment of both native documents and scanned documents without using the text associated with them. Visual classification is, therefore, able to classify all documents (images, drawings, text) that belong to a company compared to other technologies that may classify only text documents.

The acquiring company assigns document type labels to visually-similar clusters using a three-level document type taxonomy. For example, a right-of-way might be under “Land – Agreements – Rights of Way.” For each document type there will be attributes the acquiring company would want to extract, e.g., the well number on drilling reports. Those attributes can be extracted from the groups using zonal attribution. Zonal attribution is more accurate and much faster than manual coding or data entry. These attributes can used for field-specific search terms.

The final preparatory step is to map the document type taxonomy to specific items on the M&A checklist, and ensure that any attributes that would be needed for due diligence are extracted from the appropriate documents. The acquiring company is now fully primed to make the acquisition.

Due Diligence

When a target company makes its native electronic files and scanned documents available for due diligence review they are analyzed using visual classification. Most of the documents will fall into previously established groups and document types, e.g., mineral deeds, damage release agreements, right-of-way agreements, damage release agreements, well logs, etc. Those that don’t will form new groups that can be reviewed, classified, and attributed. This enables the due diligence team to perform the review based on a full awareness of the type and number of documents held by the to-be-acquired company. By using the visual classification technology, the acquiring company is able to evaluate the entire set of target company’s documents and extract information it needs to make the acquisition. In addition, this technology enables the acquiring company to quickly gain a thorough understanding of the profitability and risks associated with the target company.

Post-Acquisition Assimilation

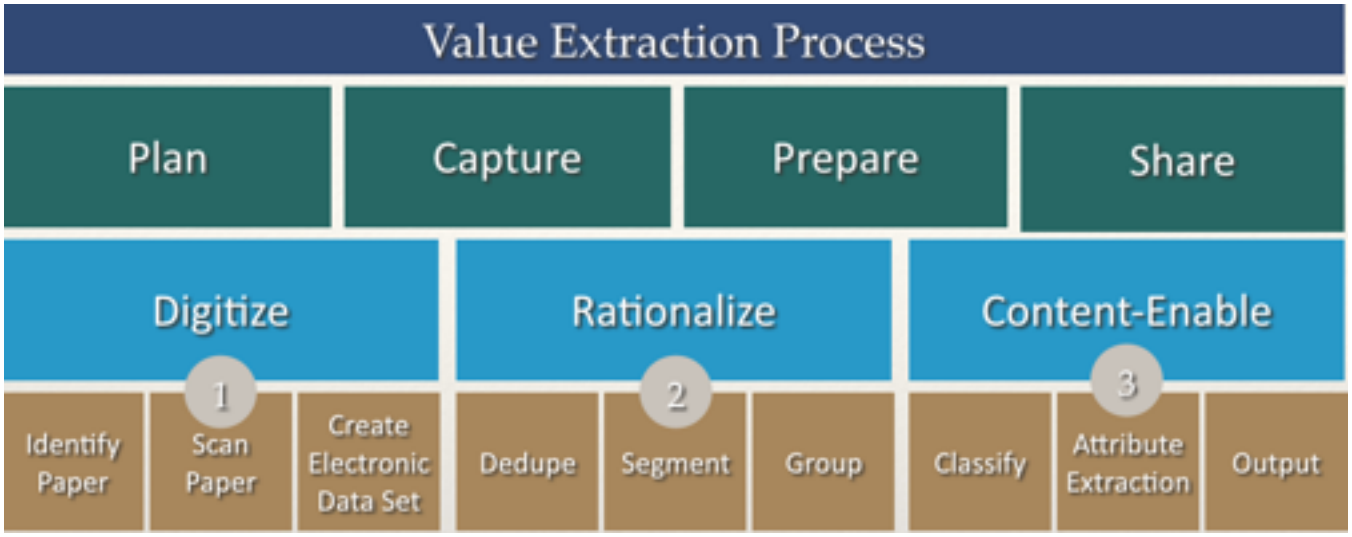
Once the target company has been acquired, visual classification can be used to identify and classify the documents that need to be carried forward. Exact duplicates, visual duplicates, and document groups that have no business or regulatory use can be safely discarded. When used for remediating file shares, BeyondRecognition’s visual classification process has been able to achieve 50% to 80% reductions in file shares. This level of volume reduction enables makes document assimilation and content migration quicker and more cost effective

Note: the visual classification process can be used to great advantage during the M&A process even if the acquiring company hasn’t first used it on its own documents, but there can be even more impressive gains in speed and thoroughness if it has first processed its own documents.

RedFile Workflow for Paper and Electronic Documents

Value Extraction Process for Paper Documents

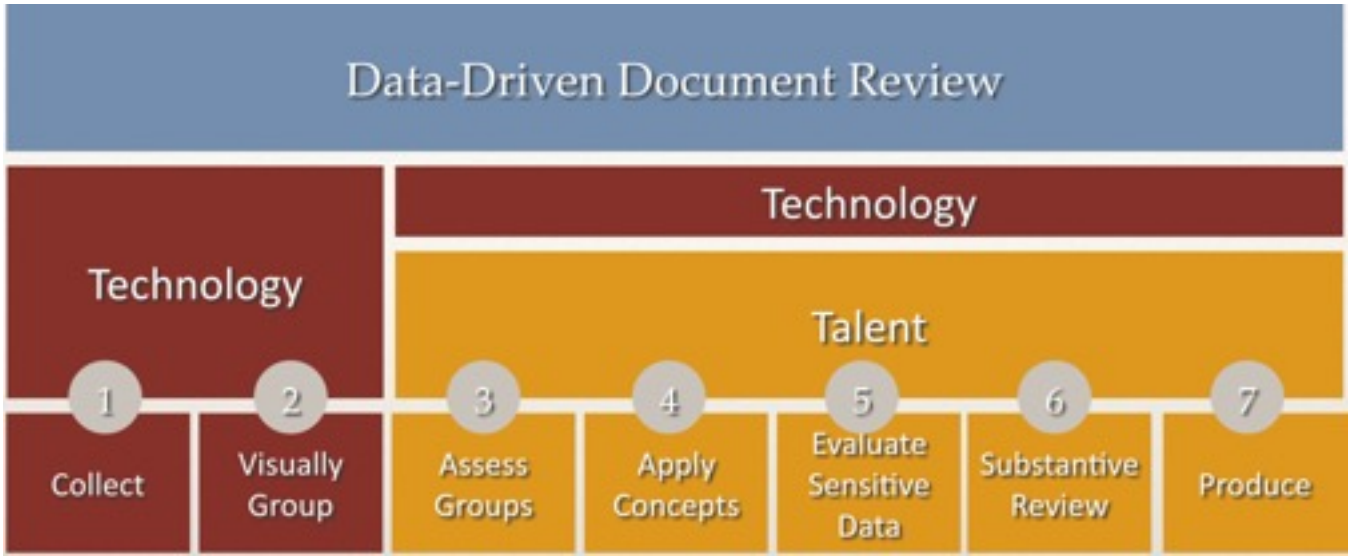
The following image represents the workflow associated with paper documents:



Workflow Graph: Example Value Extraction Process

Document Review Process for Electronic Documents

The following image represents the workflow associated with electronic and scanned paper documents:



Workflow Graph: Example Data-Driven Review Process

Visual Classification Persistence

Visual classification is persistent. This means that as new documents are processed, the same decisions that were made about the initial documents are extended to the new documents. At some point the process reaches convergence and the documents being processed all fall into groups that have been previously examined.

Typical Use Cases for Visual Classification

Data identification and remediation are one of the largest use cases for visual classification. Working with BeyondRecognition analysts, data is identified as a record or not a record. By digitizing paper, de-duplication against any electronic files occurs and saves storage space physically and electronically by identifying the actual record that will be moved into a business unit.

BeyondRecognition technology is also able to extract attributes from processed documents and export to content management systems of record.

Key Engagement Takeaways

1. **De-duplication Processing:** Client is charged for the net collection of files and a minimal fee for duplicates-identification. *Typical results have been 50% to 80% data reduction from de-duplication process.*

2. **A BeyondRecognition Analyst** will use criteria that is established in discussion with the client to identify records and non-records. This process will ensure single instance records to be uploaded to an ECM system of choice. *This will result in reduced storage requirement in ECM system and enable correct assignment of retention schedules.*

3. **Single Instance Power to Convergence** allows *users to make one decision for a single record* and that intelligence will roll forward for all similar records.

4. **Speeds up Merger Review by Months** and *closes the "time and effort" gap associated with producing pertinent documents.*

In one recent engagement, the BeyondRecognition Analyst spent 90 minutes classifying documents and made 73 decisions in one group that resulted in 327,497 documents that were identified as a record or non-record.

Proven Security

RedFile works with one of the world's leading software and technology services companies, Sungard Availability Services, to deliver secure capabilities for electronic discovery processing, review and hosting services from its Houston, Texas data center location.

RedFile's data center operations ensure the highest levels of enterprise facility (***physical***), ***applications***, ***network*** and ***storage*** security. Certification and compliance achievements for data center operations include:

1) **ISO-20000-1**: This certification reinforces the best practices of ITIL and demonstrate to our customers that we are process focused and dedicated to delivering world class IT services.

2) **ISO-27001**: This certification is the first international standard for IT information security management and is a security and risk based set of standards.

3) **SSAE-16 SOC 1**: This examination replaces SAS70 and is an assessment of controls applicable to financial services.

4) **SOC 2** (Service Organization Control) Examination: This examination reports on the controls at a service organization relevant to security, availability, processing, integrity confidentiality or privacy.

5) **HIPAA** (Health Insurance Portability and Accountability Act): Compliance ensures implementation of physical, technical and administrative safeguards to deliver services in accordance with HIPAA/HITECH obligations.

6) **U.S. -EU Safe Harbor**: The U.S.-EU Safe Harbor Framework provides guidance for U.S. organizations on how to provide adequate protection for personal data from the EU as required by the European Union's Directive on Data Protection.

7) **FFIEC** (Federal Financial Institutions Examination Council): This 18-month rotational basis audit covers data center availability services.

RedFile Data Center Compliance and Certification Overview

ISO-20000 is an international standard that is based on the best practices of ITIL. The ISO 20000-1 standard promotes the adoption of an integrated process approach to effectively deliver managed services to meet business and customer requirements. This standard provides a consistent approach by all service providers in a supply chain, benchmarks IT service management, is a basis for an independent assessment, demonstrates the ability to meet customer requirements, and is a framework to improve service. Our ISO policies and procedures are audited annually by our Service Improvement Team, and the ISO Certification Audit is performed by SRI Quality System Registrar every three years, with surveillance audits performed at 12-month intervals between re-certifications.

The **ISO 27000** family of standards helps organizations keep information assets secure. Using this family of standards helps organizations manage the security of assets such as financial information, intellectual property, employee details or information entrusted to them by third parties. ISO/IEC 27001 is the best-known standard in the family providing requirements for an information security management system (ISMS).

The **SSAE-16 SOC 1** examination is designed to validate establishment and adherence to defined control environments and is conducted by an external CPA firm. This report is typically required customers' financial auditors as part of their year-end financial reporting. The SSAE-16 report alleviates the need for a customer's auditor to perform redundant testing for data center operations.

SOC 2 (Service Organization Control 2) Examinations are intended to meet the needs of a broad range of users that need to understand internal control at a service organization as it relates to security, availability, processing integrity, confidentiality and privacy. These examinations are performed using the AICPA Guide: Reporting onControls at a Service Organizations Relevant to Security, Availability, Processing Integrity, Confidentiality, or Privacy and are intended for use by stakeholders (e.g., customers, regulators, business partners, suppliers, directors) of the service organization that have a thorough understanding of the service organization and its internal controls.

Similar to SOC 1 there are two types of reports: Type 2, report on management's description of a service organization's system and the suitability of the design and operating effectiveness of controls; and Type 1, report on management's description of a service organization's system and the suitability of the design of controls.

HIPAA (Health Insurance Portability and Accountability Act) Compliance (HIPAA Security Rule) is a national standard for the security of electronic protected health information, passed in 1996.

The HITECH Act was passed in 2009 which extended the HIPAA requirements to 'business associates', made the HIPAA requirements legally enforceable, added a notification of breach section, and added further access for the public to protected health information.

U.S. -EU Safe Harbor Certification is an important way for U.S. companies to avoid experiencing interruptions in their business dealings with the EU or facing prosecution by European authorities under European privacy laws. Certifying to the safe harbor assures that EU organizations know that "adequate" privacy protection, as defined by the Directive, has been provided.

FFIEC (Federal Financial Institutions Examination Council) Audit is an 18-month rotational basis audit that overs data center availability services. The FFIEC publishes reports by each of its member agencies and each of them controls the distribution of their report.

RedFile use of visual classification technology from BeyondRecognition can significantly accelerate merger and acquisition activities resulting in faster achievement of desired business and legal outcomes.

Learn More. Today.

Founded in 2014 and based in Houston, TX, RedFile is the world's foremost provider of technology consulting and services for the implementation, management, and hosting of visual classification technology in corporate and governmental information governance pilots, projects, and programs.

To learn more about RedFile, visit RedFile.com and connect with us on Twitter (@RedFile) and LinkedIn.

Contact Greg Strake, your dedicated account representative, directly at 512.589.5564 (phone) or greg.strake@redfile.com (email).

RedFileInfoGov
Implement. Manage. Host.