NextGen M&A
The future of banking data conversions
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According to Thomson Reuters data from 2012 to February 2017, the volume of M&A transactions in the banking and securities industry increased by 40 percent in the United States. Despite organizations’ significant experiences, these transactions continue to be lengthy, complex, and costly. Based on Deloitte’s recent experience with more than 20 bank integrations, the average duration from announcement to full operational integration is typically 15 to 20 months, primarily driven by regulatory requirements and complex technology conversions.

The value of an M&A deal hinges partly on the quick and efficient consolidation of systems and processes to capitalize on cross-selling, synergistic opportunities, and cost efficiencies. As with most anything else, time is money.

While setting out to understand what makes conversions lengthy and complex, we uncovered the following trends:

- Data mapping from the original sources to the new systems is time consuming and nuanced
- Extracting data from various original sources (custom or standard, electronic or manual) is challenging
- Increased regulation and reporting standards require data remediation
- The manual nature of data entry and management often results in human errors
- New required functionality and system enhancements are difficult to prioritize and build
- Business processes aren’t aligned and products aren’t rationalized
- Extensive testing is required to determine conversion readiness

The introduction of next-generation tools, specifically cognitive intelligence and robotic process automation (RPA), can help to combat these issues and create an opportunity to reduce risk and accelerate the M&A life cycle.

1. Thomson Reuters’ SDC Platinum database, accessed April 2017
2. Deloitte Consulting LLP
Cognitive intelligence versus RPA
Next-generation tools increase the level of automation and efficiency across the following three components of a conversion:
1. Data sourcing and extraction
2. Data remediation and transformation
3. Data entry and staging

Cognitive intelligence is used for processes that require judgment, such as contract or loan reviews. Cognitive intelligence, leveraging tools like Deloitte’s proprietary technology D-ICE, can be used for predictive decision making. Meanwhile, RPA is used for automating rules-based and operational processes, such as data entry or exception processing (see graphic below).

RPA versus cognitive intelligence

“Mimics human actions”
- Rules-based tasks
- Operational processes
- Rules engines
- Event stream / complex event processing
- Human-in-the-loop process automation

“Augments human intelligence”
- Cognitive analytics
- Decision making
- Deep learning
- Supervised machine learning
- Integrated cognitive computing platforms

For each of the three data-conversion components, the explanations and case studies that follow will reveal how cognitive intelligence and RPA can enhance:

Speed:
Reduce the amount of time required for conversion activities

Accuracy:
Improve the accuracy of data and remediate gaps

Cost:
Reduce cost depending on the functions selected for automation

Flexibility:
Reuse tools to automate ongoing processes, rapidly scale
1. Data sourcing and extraction

**The challenge**

Sourcing and extracting key data elements creates several challenges:

**Inconsistent data:**
Datasets are often dissimilar given varying levels of institutional maturity and regulatory scrutiny. Furthermore, data needs to be sourced across multiple systems, resulting in varying data types and definitions.

**Data mapping:**
High levels of product customization makes data mapping challenging.

**Accessibility:**
Critical data types are often not easily accessible or extractable, with key elements only captured in unreadable formats.

These challenges have traditionally demanded excessive manual data collection, validation, and aggregation, often expending valuable time and money while potentially exposing the organization to a higher risk of human error.

**The solution**

In the face of these growing challenges, a new suite of next-generation tools have created significant opportunity to streamline and standardize the sourcing and extraction process.

Cognitive intelligence tools bring unmatched speed and delivery to the processing of large batches of documents. After initial data mapping, when speed and quality are critical and hinge on multiple data sources, these tools are designed to facilitate extraction in a fast, consistent manner. In one of our client experiences, data was extracted from 1,500 product documents and saved an estimated 3,500 hours of manual review.

Enhanced searching capabilities intelligently identify data elements that are often hidden within product agreements, such as amendments, reporting requirements, and legal addresses, helping to improve the efficiency of sourcing data. All in all, these tools can help to reduce risk and streamline early conversion activities.

D-ICE, an example of these types of software tools, leverages optical character recognition software and pre-trained data fields to streamline the capturing of data fields and help reduce error. D-ICE allows for rapid scaling depending on portfolio volume.

The graphic below shows the steps required when implementing D-ICE:

**5X Faster:** D-ICE provides a faster turnaround compared to the traditional, manual process

- **Upload documents:** Documents are uploaded and processed via web interface (easy “drag and drop”)
- **Review documents:** Application identifies, highlights, and extracts relevant text in real-time
- **Identify relevant information:** Users can quickly validate and export results
- **Extract to Excel:**
- **Interpret findings:**
2. Data remediation and transformation

The challenge

Data remediation and transformation efforts are complex given:

⚠️ Missing data:
Resources must sift through extensive datasets to identify, define, and remediate missing data fields.

❌ Data defects:
Duplicate records, invalid values, incorrect calculations, and inconsistent levels of detail are commonplace and require correction.

⚠️ Reconciliation:
Datasets are often inconsistent, resulting in the need for third parties—such as legal counsel or the customer—to help remediate the data, increasing costs and influencing perceptions of the organization’s inability to manage and maintain accurate datasets.

The solution

Cognitive intelligence, including tools like D-ICE described earlier, employs algorithms to automatically seek outliers in large datasets. Once gaps are identified, cognitive intelligence tools intelligently manipulate data from other sources to fill the gap, learning from data patterns and prior experience. The beauty of cognitive intelligence is that as a user accepts or denies the changes, the algorithm improves or “learns,” further reducing the need for human intervention.

Another approach uses RPA to create structured rules that evaluate the consistency and usability of large datasets. RPA helps organizations more quickly identify the data fields that fail to meet an established ruleset and often require the most time to remediate earlier in the process.

Once a dataset is cleansed and validated, there is often a transformation effort required to supplement the dataset. RPA can be used for this transformation by opening emails/documents with current data to populate missing fields, making calculations, and updating underlying databases.

Cognitive intelligence and RPA can enhance conversions by increasing the speed of data preparation, identifying discrepancies, and remediating those discrepancies. Employing automation tools and fixing data pre-conversion is critical as it frees up time and resources normally spent on arduous data “cleanup” efforts post-conversion.
3. Data entry and staging

The RPA solution

RPA provides an attractive solution by mimicking human interaction with technology. The “robot” moves the mouse, clicks, and enters text without requiring back-end access to business process management software. It achieves this by extracting data from the source file and following a script of predefined actions prescribed by the functional business users:

Human error:
The high likelihood of human error when transposing large volumes of information.

Scripts:
The development of scripts can be cost-prohibitive and, in many instances, not reusable.

Data format:
Manual effort may be required if data needs to be aggregated into a single format from multiple sources.

Automation can reduce the burden of hiring temporary resources and/or reallocation current conversion resources for manual entry and staging. From a technology perspective, automation reduces processing time, allowing for a higher volume to be completed in a shorter period of time. In one client experience, RPA expedited the conversion process by an estimated 600 hours and allowed the organization to test, remediate, and validate 100% of the data in a test environment prior to the conversion, greatly reducing the amount of data remediation required after the conversion.
Maximizing transaction value

Next generation tools can reduce costs, increase speed, and improve data accuracy, while serving as the foundation to automate ongoing business processes. The application of these technologies can improve the quality of the conversion, but also has the potential to reduce timelines, including the post-conversion stabilization period.

Furthermore, next generation tools allow organizations to refocus attention on core applications, business processes, and products to create a better experience for customers and associates.

Overall, continuing efforts should be made to leverage next-generation tools throughout the M&A life cycle to help maximize transaction value.

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