



THE EVOLUTION OF AUTOMATION:

How Technology Is Transforming Provider Data Management and Network Administration

Key Operational Efficiencies that Support the Financial Health of Payer Organizations

With care costs climbing, an increasingly complex regulatory environment and ever-rising consumer expectations, it's imperative for payers maintain efficient operations and high levels of member satisfaction if they're to stay competitive. Building strong relationships with providers is also important.

Optimizing provider data management and network administration is a key strategy for achieving these objectives in order to gain an edge in this market.

Network administration encompasses network development, optimization and strategy, along with provider enrollment, onboarding and credentialing. This activity ensures that a health plan can contract with the payers who are best able to deliver high-quality care at competitive rates.

Provider data management includes provider directory management, performance monitoring and compliance reporting.

These functions are essential for ensuring that members can easily find in-network providers, so that they can access the care they need in a timely fashion.

Both network administration and provider data management are core activities for payers. Doing them well can help control costs while improving the quality of care that members receive, giving them better experiences as well as improved care outcomes.

However, these activities are data-intensive by nature. They've traditionally involved managing large volumes of incoming faxes (or paper-based workflows). Many of these tasks are highly amenable to automation, since they consist of repeatable, rote processes that require lots of manual effort. Not only do the processes tend to be inefficient, but they're also error-prone. Such errors can negatively impact member experience or provider relationships, and they're costly for payers.

There's also an urgent need to simplify and consolidate workflows in these areas. For instance, many payer organizations, particularly those that have grown through acquisition, maintain multiple provider databases, different ones for different purposes. This creates duplicative data and effort. Instead, the organization should have a single source of truth that everyone can rely on. However, when it is not possible to have one single source of truth due to differing needs and multiple data sources,

automation can help organizations keep data in sync.

Payers that take advantage of automation and AI to streamline these processes whenever possible stand to realize numerous benefits. Automation can help in aligning multiple datasets and many provider data management processes to drive efficiency, accuracy and cross-dataset alignment. These technologies can make workflows much more seamless and efficient while improving accuracy. They can reduce operational costs while solving compliance and IT challenges. And they can launch the organization into a virtuous cycle in which it becomes increasingly adept at managing its provider and network data over time.

In the following sections of this white paper, we'll explore five key AI and automation capabilities. We'll break down what they are, how they differ, and how each one can help improve workflows, streamline processes, and increase efficiency in provider data management and network administration.

1. Process Automation

Among the oldest modalities of automation, process automation has played a role in data management since the 1980s. Despite its age, it still has value for reducing human error, speeding up processing times and freeing employees from repetitive manual tasks so that they can instead take on higher value work. Process automation involves automating repetitive, rule-based tasks to improve their efficiency. It's accomplished through the use of scripts to perform structured activities.

Implementing process automation does lower costs and can improve quality and accuracy of the work done. This often drives downstream efficiencies that can improve both member and provider-facing services and experience.

Several large health plans have successfully applied process automation in provider enrollment workflows, where they have been able to streamline and shorten the onboarding process and timelines through automation. This is a complex project, since it involves frequently-updated records and large numbers of business rules. Accelerating provider onboarding ensures that new providers are vetted and able to see patients as quickly as possible, expanding network access for members and enabling new providers to start helping patients as soon as possible.

2. Robotic Process Automation (RPA)

Robotic Process Automation (RPA), widely adopted in enterprise settings since the mid-2000s, is best suited for structured data and rule-based tasks. It automates repetitive processes by mimicking human actions at the user interface (UI) level, such as clicking, typing, or copying data across systems. While RPA can operate across multiple applications, it is most effective for streamlining routine, high-volume workflows.

This type of automation is particularly valuable for extracting and validating data. It can, for instance, readily extract provider data from multiple sources (such as emails and credentialing systems) and compare it

against directory data for validation. RPA can also scan and extract structured data from provider credentialing documents, replicating the information from these forms in a credential management system. In addition, RPA can be used to monitor structured sources of provider data for updates, and then automatically apply those updates in provider directories and other datasets, based on defined business rules.

REAL-WORLD USE CASES: RPA

After a network expansion, a large national health plan had to complete provider updates more frequently, creating a backlog of work.

85%

By applying RPA for >30% of updates, they cleared the backlog and accelerated turnaround time by 85% within 10 days.

A large national health plan was spending a great deal of time and effort on credentialing workflows.

50%

By applying RPA and other automation, the organization, the organization reduced the cost and effort required by 50%.

#3: Bots

In their most familiar form, bots are automated agents that interact with users, often in customer service or support roles, via voice or text. Many rely on pre-defined logic to respond to common queries, though more advanced bots can use AI and natural language processing for more dynamic interactions. Beyond user-facing roles, bots can also be programmed to perform specific, repetitive tasks within software applications or databases, streamlining operations behind the scenes.

The familiar, conversational type of bot can be applied within a provider self-service portal to help providers update their information or check the status of their applications. This type of bot can also be used to guide providers through the onboarding process, answering their questions and ensuring they have submitted all required documents.

Bots are also excellent at monitoring systems for changes. This makes them perfect for a number of network administration tasks.

They can, for instance, monitor provider databases for sanctions. Based on a rules engine, the bot can verify that the provider has passed (or failed) the requirement, and the system can route the case for manual intervention if needed. RPA can then be used to update the entry in the provider database.

Another use case for bots is in monitoring attestation dates in provider credentialing systems. Based on business rules, the bot can determine whether the attestation is recent enough to meet requirements. If so, there's no need to seek additional attestation information from the provider.

Bots have also been applied successfully in provider data management. Many provider organizations send payers faxes with updates when their office phone number changes. Bots can read these incoming faxes at scale and schedule RPA systems to revise the phone number for all providers that share that office. These automated mass updates allow for a substantial reduction in manual effort.



#4: Artificial Intelligence (AI)

While AI has received significant attention in recent years, it's not a new technology. The core concept, training machines to perform tasks that typically require human intelligence, such as learning, reasoning, or problem-solving, has been around for decades.

One of the most impactful approaches within AI is machine learning (ML), which excels at recognizing patterns in data and making accurate predictions. These capabilities make AI especially valuable in provider data management and network administration, where anticipating outcomes, filling in data gaps, and extracting actionable insights can significantly improve accuracy and efficiency.

One major national health plan was receiving large volumes of eight- to ten-page faxes requesting authorizations for durable medical equipment and other patient services. Although the information was buried in these long documents, AI was able to review the incoming faxes and highlight key data for staff to review. Because AI learns over time, the system's performance has continued to improve with use.

A strong use case for AI is in provider ranking and recommendations. AI can rank providers based on quality measures and patient outcomes. The algorithms are able to quickly navigate enormous volumes of data to help payers build better-performing networks. ML models can help payers predict which areas will have insufficient provider coverage. This network adequacy analysis tool makes it easier to target additional providers in the

right geographic location, for outreach.

Payers are also increasingly leveraging AI to optimize operational workflows through keystroke monitoring, which can help teams identify areas where it would be possible to create further efficiencies.

Plus, AI can be used to neutralize accents, especially for offshore call center staff, or eliminate background noise in call centers.

#5 Generative AI (GenAI)

Generative AI (GenAI), one of the most advanced developments in artificial intelligence, is capable of producing new content, such as text, images, and audio, based on learned patterns from existing data.

In provider data management and network administration, GenAI can be used to automatically generate concise, standardized provider profiles from credentialing data. It can draft compliance reports summarizing updates in network adequacy for review and submission to CMS. Additionally, GenAI can help create personalized messages for providers regarding onboarding status, directory updates, or network performance - enhancing communication and reducing manual effort.

GENAI IN ACTION: HOW THIS TECHNOLOGY IS ACCELERATING PAYER OPERATIONAL WORKFLOWS

Sutherland has developed HelpTree, an award-winning generative AI-powered knowledge platform designed to elevate operational efficiency for health plans.

Leveraging a blend of decision-tree logic and augmented knowledge intelligence, HelpTree empowers employees across diverse roles to work with greater speed and accuracy.

By ingesting and analyzing comprehensive standard operating procedures, HelpTree distills complex information into clear, context-specific next-best actions, often in the form of concise, single-sentence guidance for frontline operational teams and client support representatives.

The platform actively streamlines workflows in credentialing, member services, call center operations, and other critical functions, delivering measurable impact across Sutherland's healthcare clients and select engagements in other industries.

Better Together: Advanced Use Cases

The use cases described so far represent only a fraction of what's possible. Payers can unlock even greater value by building integrated, end-to-end solutions that span multiple systems and functions.

In provider directory maintenance, for example, robotic process automation (RPA) and task bots can be used to gather data from disparate sources. Generative AI can then help fill in missing fields or recommend corrections, such as incomplete addresses by identifying patterns and inconsistencies across datasets. The system can also monitor for ongoing updates, automatically flagging anomalies for manual review to ensure accuracy and compliance.

A similar approach can enhance network gap analysis. Here, bots and RPA tools collect provider location data and patient demographics from various systems. GenAI models then analyze the combined dataset to pinpoint regions with inadequate provider coverage, enabling more proactive network planning.

These combined capabilities also streamline CMS compliance reporting. RPA gathers and organizes the necessary data, while GenAI drafts detailed, CMS-aligned reports summarizing network adequacy and key updates, reducing manual effort and increasing reporting accuracy.

WHERE CAN MY ORGANIZATION APPLY AUTOMATION AND AI?

Here are six steps you can take to get started with these transformative technologies:

- 1 Identify and prioritize areas where automation can be applied.**
ex. Infrastructure, Intake, Outreach, Enrichment
- 2 Review your data inputs and workflows for automation opportunities.**
ex. Data duplication, Data maintenance that's happening in multiple places, Lifecycle management redundancies
- 3 Review KPIs to identify where improvements are most needed.**
ex. Directory quality, Update turnover time, Appointment availability
- 4 Call on internal experts to generate a list of possibilities and next steps.**
ex. Barriers, Duplication of effort, Overlapping activities, Low-value manual work, Inefficient workflows
- 5 Understand what you already have: which tools are in use in your organization today?**
ex. Automation, Bots and RPA, AI tools
- 6 Reach out to an expert partner for help.**

Conclusion

Driving operational efficiencies and improving services for both providers and members is critical in today's highly competitive market environment. Because of the ongoing flow and changing nature of provider data and the criticality of provider administrative functions, this area is highly amenable to automation.

Turning to a trusted partner like Sutherland can put this transformation within reach for payer organizations of all types and sizes. Sutherland is an experience-led digital

transformation company with deep domain knowledge in healthcare and a strong customer focus. With extensive experience driving innovation and transformation for healthcare clients, Sutherland can execute entire business processes on their behalf with their deep solutions based in provider data management and network administration, and can even supplement internal teams with right-sized digital engineering services, technology and platforms.

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At Sutherland, we are a leading global business and digital transformation partner. We work with iconic brands worldwide in Healthcare, Insurance, Banking & Financial Services, Communications, Media & Entertainment, Technology, Travel & Hospitality, Logistics, Retail, Energy & Utilities industries. We bring our clients a unique value proposition through market-leading technology and business process excellence. Leveraging our advanced products and platforms, we drive digital transformation, optimize critical business operations, reinvent experiences, and pioneer new solutions, all provided through a seamless "as a service" model. For each company, we tailor proven and rapid formulas to fit their unique DNA. We bring together human expertise and artificial intelligence. In short, we do digital chemistry. It unlocks new possibilities, great client partnerships, and transformative outcomes.

This content was commissioned by Sutherland, and produced by



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White Paper