SCALE+ healthcare | AI-POWERED RCM SOLUTIONS

From Manual to Intelligent:

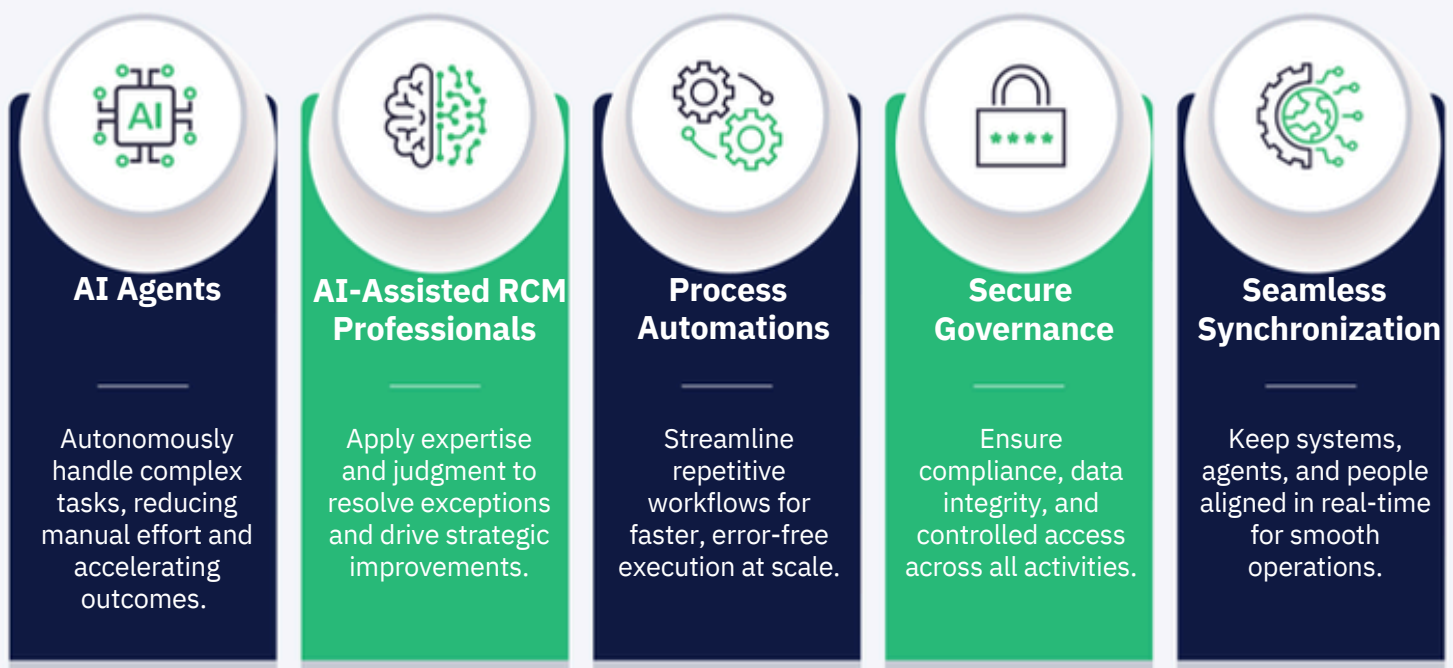# Modernizing RCM Through Technology & Digitization

Contents

Executive Summary

Healthcare leaders have embraced artificial intelligence (AI) and automation as integral to the future advancement of revenue cycle management (RCM) strategies—recognizing that these innovations are evolving rapidly and will require continuous learning and adaptation over time. In particular, agentic automation is increasingly considered mission-critical in healthcare RCM due to its ability to collaborate with human counterparts while effectively and efficiently managing error-prone manual processes. Among those processes are claim follow-ups, denial prevention, eligibility verification, data and payment reconciliation, and patient financial engagement.

The value of digital agents is derived from their ability to accelerate the completion of these tasks with greater accuracy and free their human counterparts to focus on high-value, high-complexity tasks that require nuanced human judgment. They also help ease the burden on RCM teams, which are already stretched thinly due to chronic workforce shortages.

Now, advances in AI and automation have given rise to the next generation digital workforce: Agentic AI.

Agentic automation drives and manages a more efficient, well-coordinated workforce.

AI Agents	AI-Assisted RCM Professionals	Process Automations	Secure Governance	Seamless Synchronization
Autonomously handle complex tasks, reducing manual effort and accelerating outcomes.	Apply expertise and judgment to resolve exceptions and drive strategic improvements.	Streamline repetitive workflows for faster, error-free execution at scale.	Ensure compliance, data integrity, and controlled access across all activities.	Keep systems, agents, and people aligned in real-time for smooth operations.

The term "agentic" emphasizes the digital agent's capacity for agency, specifically its ability to act purposefully and independently. AI agents exhibit autonomy, goal-driven behavior, and adaptability.i

This new class of intelligent digital agent is designed to work with, not around, RCM professionals. They understand natural language, adapt to changing rules and workflows, and make autonomous decisions to achieve tangible business outcomes, such as reducing denials and increasing clean claim rates. They learn from these outcomes to improve their capabilities and accuracy over time.

That adaptability sets AI agents apart from robotic process automation (RPA), which is a point solution with limited repeatability and scalability. Where RPA solutions, also commonly referred to as "bots," are rules-based and best suited for tasks that do not require complex logic or

reasoning, AI-powered digital agents incorporate various advanced AI-driven technologies and real-time analytics to manage complex RCM workflows with minimal human intervention. This enables them to replicate how humans comprehend workflows, make decisions based on context, and handle exceptions. They represent a shift in perspective from siloed parameters to integrated decision-making within a single intelligent system.

These digital agents deliver a scalable, flexible, collaborative, cost-effective, and outcomes-driven digital workforce that empowers RCM teams and transforms the revenue cycle for improved financial performance. Still, the full impact of agentic automation will be realized gradually. Success depends on a mindset of exploration that embraces pilots, refines implementations, and accepts that not every workflow is fully ready for automation today.

Bots vs. Agents

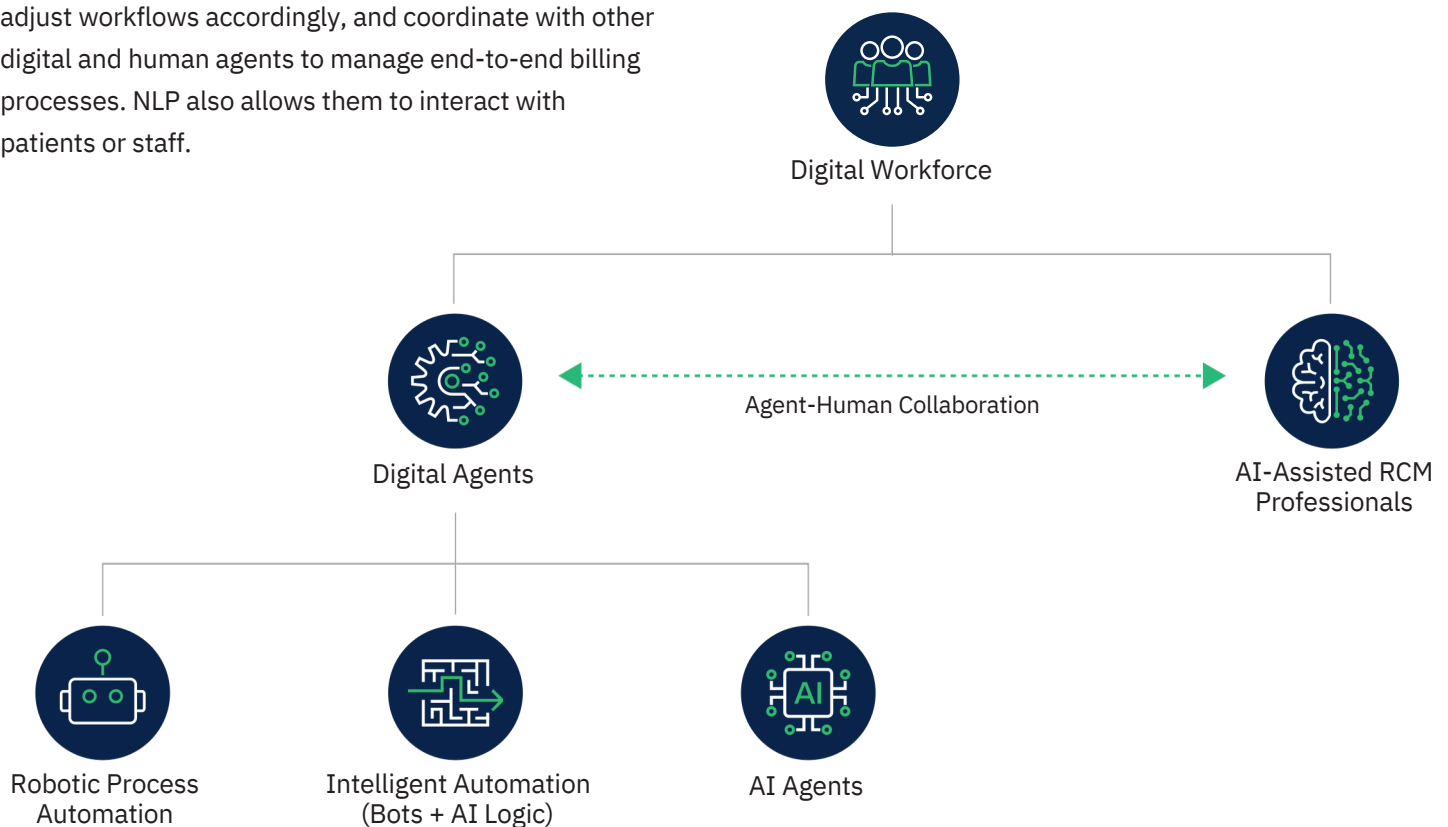|	Traditional Bots	Digital Agents	Agent Advantages
Logic	Scripted, fixed logic (if/then)	Dynamic rule evaluation + AI decisioning	Handles complexity without needing hard-coded paths
Learning	Static behavior	Continuously learns from outcomes + feedback	Gets smarter over time, adapts to changes
Workflow Scope	One task at a time	Multi-step, end-to-end process execution	Reduces handoffs and improves resolution speed
Exception Handling	Stops when rule fails	Escalates to human with context	Prevents dropped tasks and improves quality control
Interaction	One-way execution	Collaborates with systems + humans	Blends automation with human intelligence
Intelligence	Executes only what it's told	Understands context and takes next-best action	Increase automation coverage, even with exceptions
Data Handling	Handles structured inputs only	Reads PDFs, portals, documents with NLP	Automates even unstructured, document-heavy workflows
Scalability	Linear scaling	Elastic scaling via cloud-based agents	Adds 24/7 capacity without increasing headcount

Understanding the Digital Workforce

A digital workforce represents a human-in-the-loop (HITL) system design comprised of digital agents that work alongside human counterparts to perform processes, tasks, and operations. These software entities are purpose-built to execute tasks, make decisions, or interact with users and other systems autonomously or semi-autonomously through digital interfaces. Digital agents can leverage a wide variety of technologies, including generative artificial intelligence (GenAI), machine learning (ML), large language models (LLMs), natural language processing and understanding (NLP/NLU), advanced reasoning engines, and robotic process automation (RPA), to simulate human behavior and deliver services efficiently.

In healthcare RCM, digital agents are increasingly used to handle denial appeals, monitor payer rules for changes and adjust workflows accordingly, and coordinate with other digital and human agents to manage end-to-end billing processes. NLP also allows them to interact with patients or staff.

As a result, digital agents deliver significant value, including:

- Accelerated turnaround times
- Faster collections
- Reduced denial rates
- Improved accuracy
- Increased staff productivity

In short, digital agents allow healthcare organizations to operate with best-in-class margins even as market pressure—driven by rising denial rates and regulatory scrutiny—increases. This, in turn, enables healthcare teams to focus on what they do best: patient care.

Digital Workforce

Digital Agents ←-- Agent-Human Collaboration --→ AI-Assisted RCM Professionals

Robotic Process Automation

Intelligent Automation (Bots + AI Logic)

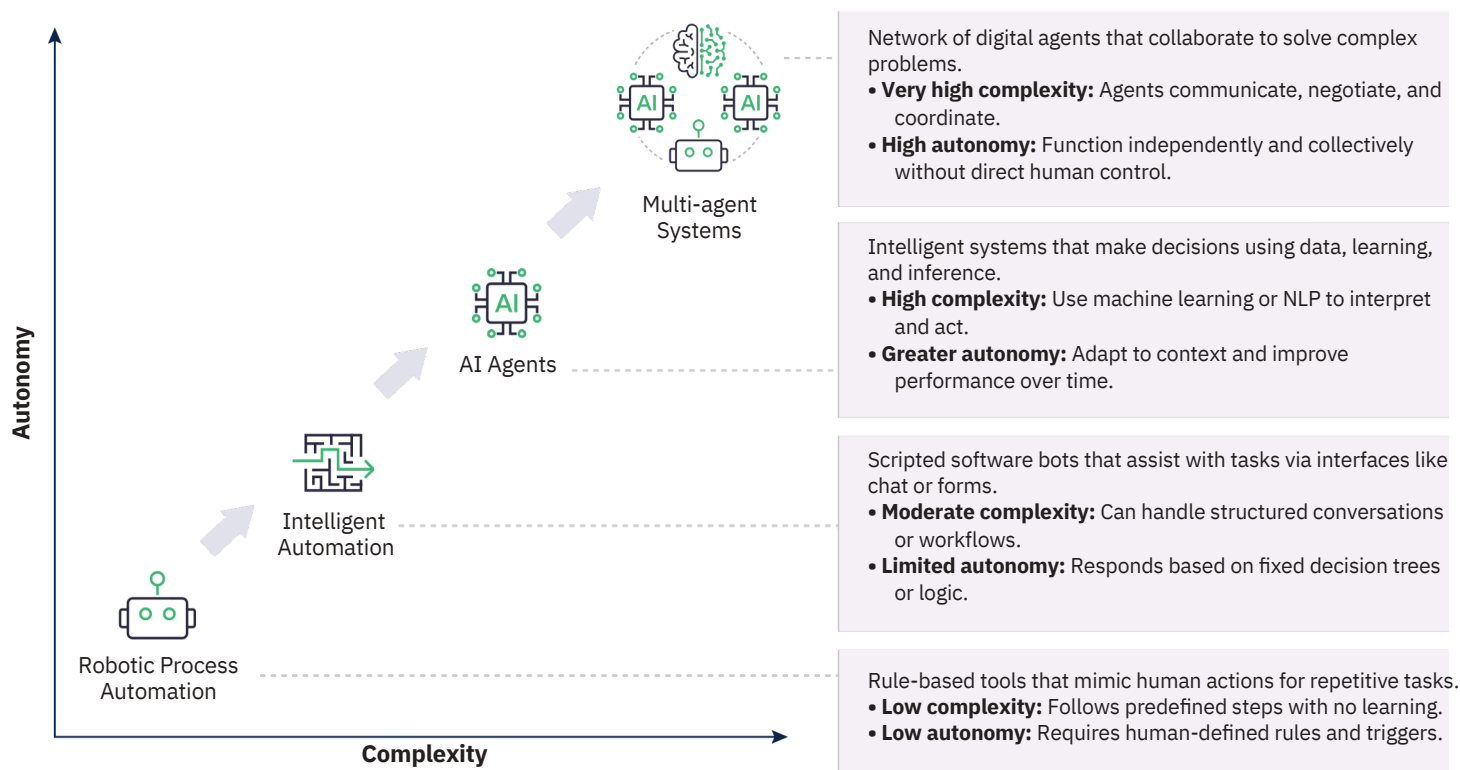AI Agents

Identifying Automation Opportunities

Technology investments are the right solutions when they translate to better financial outcomes and operational efficiency. With healthcare organizations reporting implementation of agentic AI systems driving a 63% reduction in time spent on initial claim reviews, from an average of 15 minutes to as little as five minutes, and a 30% increase in recovery rates, as well as lower administrative costs, greater claim accuracy, and lower error rates, a digital workforce passes that critical test.

Indeed, the value realized by early adopters has quickly elevated the implementation of digital agents beyond the question of whether they are right for most organizations. Instead, the question is which are the best fit for an organization's RCM workflows.ii

Determining the answer to that question begins with identifying those RCM processes that are high-volume,

time-sensitive, low-complexity, and have predictable decision trees. The initial focus of a digital workforce should center on simple tasks, such as eligibility checks, claims status, and standard denial workflows. More complex tasks and those requiring human interactions should be left to the human agents to give digital workers time to "learn" as they manage low-complexity processes.

At the same time, it is essential to have a clear vision of the future role of digital agents in the RCM workforce to ensure the necessary knowledge and experience can be acquired to enhance their capabilities. Over time, digital agents will learn to manage tasks with increased complexity successfully. They will effectively complete more expanded workflows as real-world data grow and feedback loops improve—though some processes may remain too complex for automation until capabilities advance further.

Multi-agent Systems

Network of digital agents that collaborate to solve complex problems.
- **Very high complexity:** Agents communicate, negotiate, and coordinate.
- **High autonomy:** Function independently and collectively without direct human control.

AI Agents

Intelligent systems that make decisions using data, learning, and inference.
- **High complexity:** Use machine learning or NLP to interpret and act.
- **Greater autonomy:** Adapt to context and improve performance over time.

Intelligent Automation

Scripted software bots that assist with tasks via interfaces like chat or forms.
- **Moderate complexity:** Can handle structured conversations or workflows.
- **Limited autonomy:** Responds based on fixed decision trees or logic.

Robotic Process Automation

Rule-based tools that mimic human actions for repetitive tasks.
- **Low complexity:** Follows predefined steps with no learning.
- **Low autonomy:** Requires human-defined rules and triggers.

Autonomy / Complexity

Preparing for Implementation

Once the decision to adopt an agentic digital workforce has been made, the next phase is preparing the RCM team and workflows for deployment. It starts with asking several key questions, the answers to which play a significant role in the success of an organization's digital workforce:

- What internal data do you have access to?
- What data can your development team or partner(s) access?
- Can you grant secure access to systems, documentation, or portals?

This information is crucial, as access is power. A successful implementation depends on transparent data sharing and development resources that can be trusted with the organization's system environment.

These answers will also guide the next phase, which is ensuring that data is AI-ready. Within many healthcare organizations, critical data continues to reside in silos, including electronic health records (EHRs), billing systems, analytics dashboards, and third-party providers. In this fragmented state, data is neither AI-friendly nor capable of "communicating" with digital agents. There is also rarely any form of data governance guiding its use.

Digital agents both analyze and act; therefore, data must be ready to support autonomous decision-making, real-time feedback loops, and continuous learning. Clean, contextual, and connected data is required for goal-driven AI agents to execute tasks autonomously and effectively while learning from outcomes and adapting over time.

Choosing the Right Partner: What to Look For

As noted previously, the right technology is crucial to building an effective digital RCM workforce. Along with deep industry experience in both RCM and technology, the ideal partner will also possess:

- Deep knowledge of RCM complexities
- Proven AI and automation capabilities
- A collaborative implementation model

It is essential to carefully evaluate prospective partners to avoid those that offer only siloed technology or industry knowledge. A successful digital workforce lives at the intersection of both.

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Thus, preparing data for an agentic AI workforce requires data to be cleaned and normalized so it can be trusted. This includes standardizing formats across EHR, billing, and payer systems, de-duplicating patient and provider records, resolving any missing fields such as CPT codes, payer IDs, and denial reasons, and mapping legacy codes to modern taxonomies. Additionally, to help digital workers understand context and intent, healthcare organizations should work with their development team to tag data by specific RCM stages (e.g., prior authorization, coding, billing, and appeals), define decision points and outcomes, and use event logs to track actions and outcomes for feedback loops.

Because autonomous systems require oversight, build governance and guardrails by defining role-based permissions and escalation paths, and log all AI actions for auditability. Set confidence thresholds for autonomous vs. human-in-the-loop decisions and ensure compliance with HIPAA and payer-specific rules.

Finally, engage internal security teams early in the process, clearly define objectives and current processes, and take the time to identify and engage with the right technology and data partners.
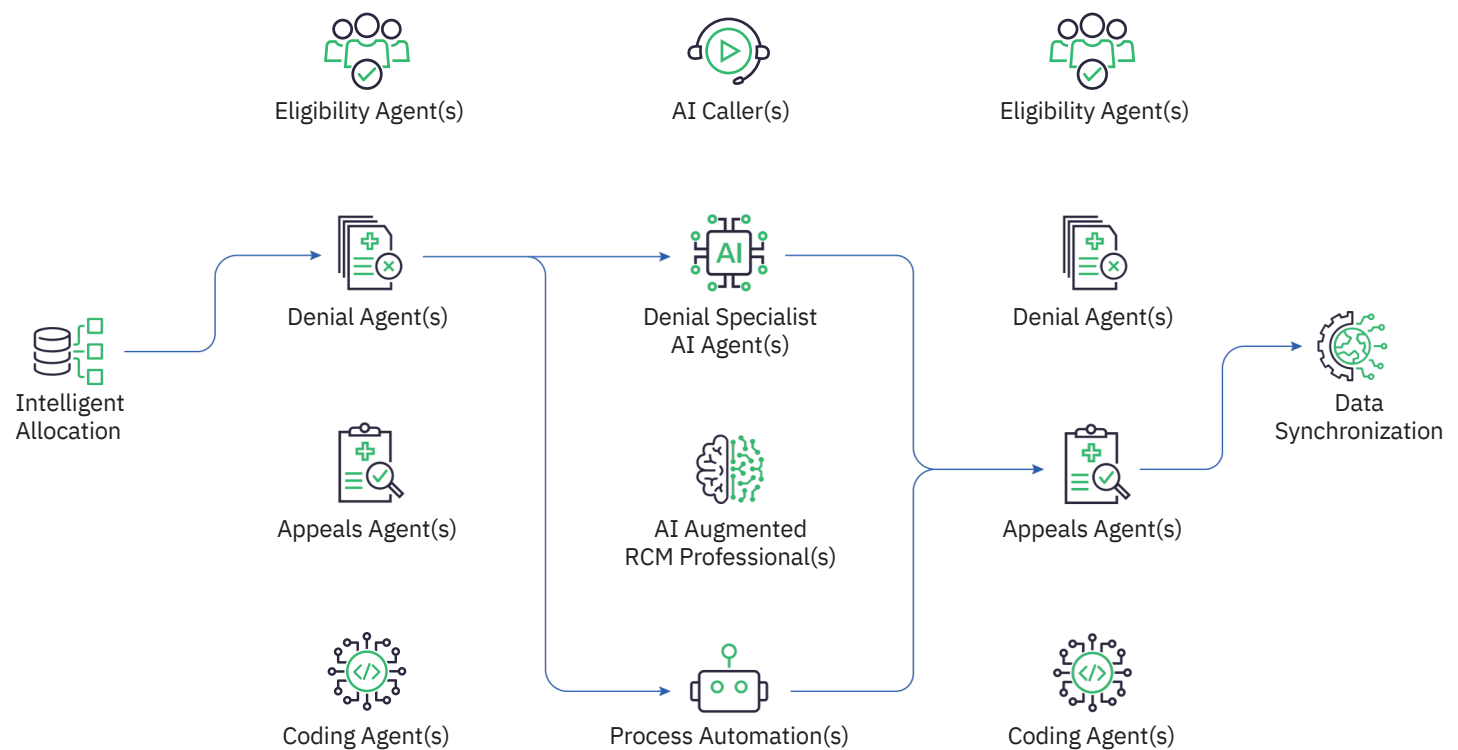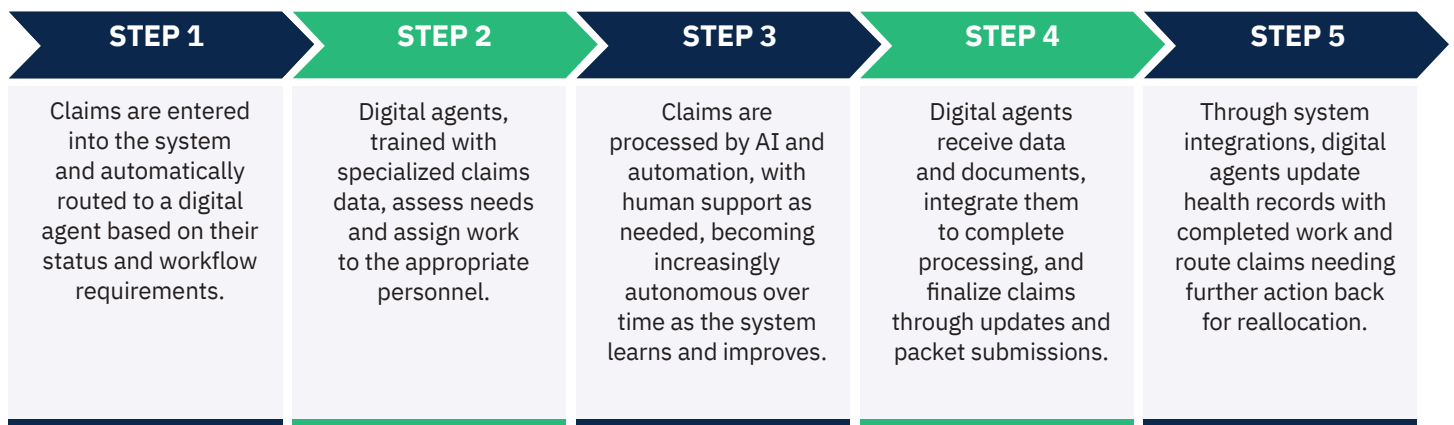
Following this phased approach, a minimum viable product use case can go live in four to eight weeks. Full deployment can scale within three to six months, depending on the complexity of the environment, the selected use case, and system integrations. Agentic systems require less rigid configuration than traditional RPA, so deployment cycles are often faster and more adaptable. Not every use case will deliver immediate ROI. Organizations should expect some experimentation, identifying where automation works well, and where human oversight must remain.
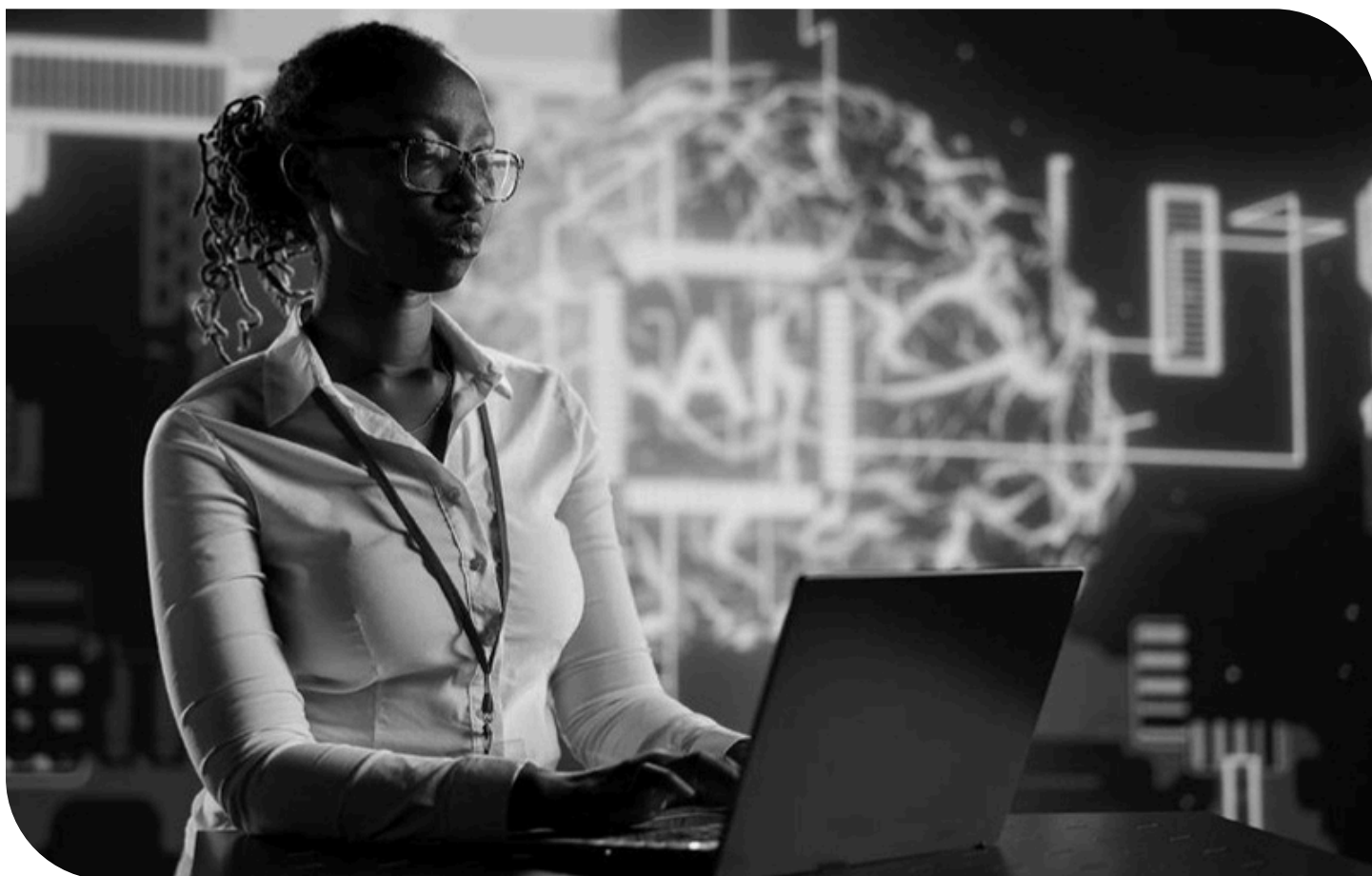
Operational Impact: Integrating with Existing Workflows

Once in place, digital agents can reduce the number of touchpoints and eliminate time spent on repetitive tasks, such as arbitrage between systems or staff. This enables human agents to shift their focus toward high-touch, high-complexity work, oversights, strategic escalations, and vendor collaborations.

Example Agentic Workflow:

STEP 1	STEP 2	STEP 3	STEP 4	STEP 5
Claims are entered into the system and automatically routed to a digital agent based on their status and workflow requirements.	Digital agents, trained with specialized claims data, assess needs and assign work to the appropriate personnel.	Claims are processed by AI and automation, with human support as needed, becoming increasingly autonomous over time as the system learns and improves.	Digital agents receive data and documents, integrate them to complete processing, and finalize claims through updates and packet submissions.	Through system integrations, digital agents update health records with completed work and route claims needing further action back for reallocation.

Eligibility Agent(s)

AI Caller(s)

Eligibility Agent(s)

Intelligent Allocation

Denial Agent(s)

Appeals Agent(s)

Coding Agent(s)

Denial Specialist AI Agent(s)

AI Augmented RCM Professional(s)

Process Automation(s)

Denial Agent(s)

Appeals Agent(s)

Coding Agent(s)

Data Synchronization

Applications in RCM Today

Digital agents excel across a wide variety of repeatable RCM workflows. One promising area is accounts receivable (A/R), where digital agents are already being used to triage cases, diverting the most complex, high-dollar accounts to more experienced human agents, while simpler ones are handled autonomously by agents.

AI agents are also being developed to manage phone calls with insurance payers. These digital agents can navigate phone menus, input claim identification numbers, and wait on hold until a payer representative answers. The agent can then connect to a human agent to complete the call. In some cases, especially with straightforward A/R calls involving low-dollar amounts, AI agents can handle the entire call, gathering the required answers and updating the EHR.

Additional examples of applications that are well-suited for digital agents include:

Authorization Agent
The Authorization Agent automates prior authorization by identifying payer-specific requirements, gathering supporting documentation, and submitting requests electronically or via payer portals. It tracks status updates, flags issues, and helps prevent delays and denials—improving turnaround time and workflow efficiency.

Eligibility Agent The Eligibility Agent verifies insurance coverage and benefits, including plan type, deductible, copay, coinsurance, and policy status, using electronic transactions, payer portals, or phone outreach. By flagging issues like inactive coverage or coordination of benefit (COB) conflicts before service or billing, it reduces eligibility-related denials and boosts clean claim rates.

Denials Agent
The Denials Agent automates denial intake, classification, and routing based on payer-specific rules and remittance data to determine the best resolution strategy for appeal, correction, resubmission, or write-off. It detects recurring denial trends, accelerates resolution, and helps improve recovery rates while reducing A/R days.

Appeals Agent
The Appeals Agent automates appeal packet creation and submission by compiling denial details, explanation of benefits (EOB), supporting clinical documentation, and payer-specific templates. Using the appropriate appeal template based on the specific payer and denial code, it drafts customized appeal letters, submits them through the correct channel, tracks the status, and escalates cases lacking timely responses—boosting overturn rates and ensuring timely, consistent follow-up.

Embracing a Collaborative Hybrid Intelligence Model

Human intervention is essential in a digital workforce model, the ideal version of which combines the judgment and empathy of human agents with the speed, scalability, and adaptability of digital agents. It is a synergistic model where digital agents learn from outcomes to improve future decisions, and human agents provide feedback to retrain AI models and refine workflows.

In other words, humans are not absent from the digital workforce. Rather, their roles evolve. Digital agents handle the volume while human agents handle the variance. Together, they operate in a tiered system where digital agents manage structured tasks quickly and precisely while human agents step in when nuance, judgment, or external coordination is needed. For example:

- **Claims submission:**
  Digital agents assemble clean claims, validate against payer rules, and submit electronically. Human agents review claims flagged for anomalies or high-dollar thresholds before submitting them.

- **Denial management:** Digital agents analyze denial trends, draft appeal letters, and resubmit corrected claims. Humans tackle complex appeals, negotiate with payers, and escalate systemic issues.

- **Payments and collections:**
  Digital agents match remits to claims, post payments, and initiate patient billing workflows. Human agents work with patients on payment plans, resolve disputes, and manage charity care cases.

Other processes where digital and human agents collaborate include payer phone calls, escalations, or ambiguous documentation or data.

This human-technology collaboration improves throughput without sacrificing quality. Digital agents prep the work, flag exceptions, surface insights, and suggest potential next-best actions so humans can make smarter, faster decisions.

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Change Management Best Practices

Integrating a digital workforce into RCM won't succeed based solely on technology. Success requires team buy-in, planning, and communication. The following best practices will drive adoption and long-term success:

- **Early stakeholder engagement:**
  Include operations, IT, and compliance teams from the start.

- **Clear communication:**
  Explain what is changing and why automation is being implemented.

- **Incremental rollout:**
  Start small, show wins, and scale with confidence.

- **Training and support:**
  Prepare teams for their evolving roles, especially in quality assurance, exception handling, and oversight.

- **Feedback loops:**
  Establish regular forums to share results, surface concerns, and refine agent behavior based on real-world outcomes.

- **Link to ROI:**
  Tie initiatives to ROI, because without it, buy-in, technology, and solutions don't matter.

Finally, have shorter innovation paths and proceed with humility. Agentic automation is a powerful yet continuously evolving form of workforce innovation. Expect missteps, embrace iteration, and continuously refine based on real-world feedback. Focus on the art of the possible with practical, attainable solutions. If something doesn't work, move on and revisit later when AI capabilities have further matured.

Ensuring Long-Term Success

Measuring the success of a digital RCM workforce is crucial, not only for performance tracking but also for fostering trust, ensuring safety, and driving continuous improvement. Unlike traditional automation, agentic AI systems make autonomous decisions, adapt to feedback, and operate in complex, high-stakes environments like RCM, meaning success must be measured based on outcomes and processes.

Healthcare organizations must trust that digital agents can make safe, compliant decisions, acting within defined boundaries, and providing clear, explainable reasoning for audits and oversight.

Furthermore, some digital agents not only complete tasks but also reason, plan, and adapt. Thus, it is essential to evaluate:

- **Task Adherence:** Did the agent fulfill the user's intent?
- **Tool Use Accuracy:** Did it use the right systems (e.g., payer portals, EHR)?
- **Intent Resolution:** Did it understand and act on the correct goal?

While traditional RCM metrics—appeal success rate, denial rate, time-to-collect, cost-to-collect, and dollars recovered or protected—remain relevant with a digital workforce, an added layer is required to measure autonomy, accuracy, and robustness. This includes the percentage of tasks completed without human intervention, correct code selection, valid tool utilization, and performance under exceptions.

It is also crucial to measure the performance of the feedback loops that are essential for model retraining and prompt refinement. Metrics that measure how well these performance loops help digital agents to learn over time include:

- **What worked** (e.g., successful appeal language)
- **What failed** (e.g., incorrect denial categorization)
- **Why it failed** (e.g., outdated payer rule, missing data)

Leveraging these KPIs will help ensure continuous improvement of the digital workforce by providing outcomes data to refine agent rules and identify and prioritize new automation opportunities. They also set the stage for using AI-generated insights to refine workflows and training data, including regularly retraining models with new payer rules and outcomes.

Conclusion: The Future of Agentic Automation in Healthcare

The future of agentic automation is intelligent, adaptive, and deeply integrated. Agents won't just follow rules; they will evolve with the business, learning from outcomes, aligning with payer changes, and adapting to new workflows in near-real time.

Provider organizations will realize numerous benefits when their financial leaders embrace the shift to properly designed and deployed agentic digital workforces. In addition to unlocking scalable, round-the-clock operations, a digital workforce can reduce cost pressures without sacrificing quality, reassigning human talent to higher-value work. This enables the creation of a future-ready infrastructure that is primed for innovation.

Waiting means falling behind. Agentic automation is already here. The leaders who adopt it today and remain committed to continuous improvement will be best positioned to shape how care gets paid for tomorrow.

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SCALE Healthcare is a technology-enabled healthcare services and solutions company focused on modernizing Revenue Cycle Management (RCM) and improving financial performance for provider organizations, MSOs, and healthcare services platforms.

SCALE partners with healthcare leaders to move from fragmented, labor-intensive revenue operations toward intelligent, scalable, and outcome-driven RCM models. Our approach combines AI-powered technology with experienced operational services to help organizations protect revenue, reduce administrative burden, and improve predictability across complex payer and operating environments.

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