

Agentic orchestration

Value-adding use cases

Agentic orchestration is essential for effective agentic automation. This capability integrates AI agents, automation robots, tools, and people to achieve transformative outcomes across entire processes.

Learn why an orchestration layer is crucial for enhancing visibility, reducing complexity, and responsibly managing agentic workflows.



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What is the challenge?

Large enterprises face a rising tide of complexity. [Almost three-quarters \(72%\)](#) of organizations find that their real-world, mission-critical processes are becoming more complex to maintain. Investment has poured into siloed enterprise systems, with the average large company now using [over 230 enterprise applications](#) across their workflows. Data has become more siloed and processes more complex and fragmented.

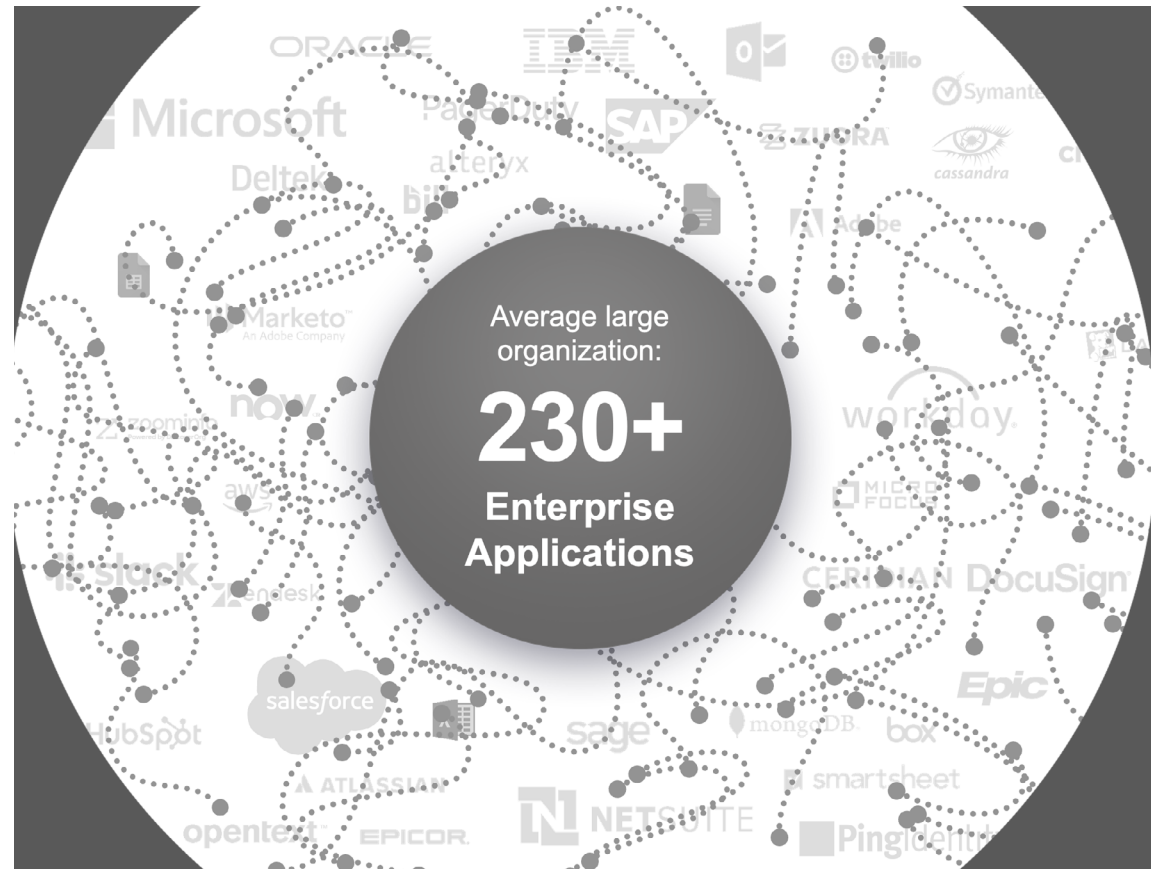
An enterprise runs on its processes – they underlie everything, from the services they provide to their customers, to ensuring their employees are paid on time and that the business is meeting regulatory requirements. Complexity has consequences: processes are moving slower, they're breaking down in unforeseen ways. This is impacting everything from the customer experience to the efficiency and profitability of enterprises.

Fortunately, agentic automation is tackling business complexity.

Combining AI agents, robots, and people, agentic automation can automate even the longest, most complex processes end to end. Working effortlessly across disparate systems, it's delivering transformational outcomes across the enterprise, making businesses more autonomous and productive while enhancing the experiences of customers and employees.

Agentic automation provides process owners and transformation leaders a huge opportunity to drive efficiency across the enterprise.

[Over three-quarters \(77%\) of IT leaders](#) will invest in agentic automation this year, expecting benefits such as automating complex processes (52%), improved workflow oversight (58%), and increased integration among applications (53%).



However, agentic automation needs an orchestration layer to achieve its full potential. This paper will explore the concept of agentic orchestration and show how it unlocks transformational value across a sample of horizontal and vertical use cases.

What is agentic orchestration?

Agentic automation can revolutionize efficiency and deliver transformational outcomes.

Process owners, IT executives, automation and AI leaders could unlock enormous value and efficiencies if they simplify and consolidate their processes through agentic automation. However, implementing AI agents into existing processes, and creating new agentic workflows, can raise several technical challenges.

Agentic workflow obstacles

Integration and interoperability

Business leaders face uncertainty in how to integrate native and third-party agents within cross-system, end-to-end processes. Enterprises often operate with varied systems, each with unique data formats, APIs, and protocols. Agentic automation requires sophisticated interoperability solutions for seamless AI agent integration. Ensuring consistent data interpretation and transfer between agents and systems is crucial to preventing decision-making errors and bad outcomes in agentic workflows.

Control and compliance

Enterprises must ensure people, robots, and AI agents perform well together in critical processes without leading to unwanted results. This is challenging in a dynamic business environment, coupled with complex regulatory requirements and the unpredictable nature of autonomous AI agents. Businesses often struggle to balance the need for AI agent autonomy with maintaining the level of control necessary for compliance and risk management.

Monitoring and improvement

The enterprise is a complex and 'messy' environment. A complex patchwork of structured and unstructured processes is difficult to model, resulting in limited insight into how critical processes are executed. This makes it even harder to monitor and optimize the automations and agents that underly them. It is also more difficult to measure and improve the return on investment (ROI) of your agentic automation approach. Evaluating agent performance requires sophisticated feedback loops and adaptive AI models that can evolve with changing business conditions.



Agentic automation is incomplete without agentic orchestration.

Agentic workflows depend on a range of different tools and components working together in order to run smoothly. An orchestration layer must be present to ensure that AI agents can call on the tools they need to perform automations, access relevant systems as needed, and interface with an employee when they encounter an exception. Embedded process intelligence and monitoring are integral to understanding agentic workflows, demonstrating their value, and improving them over time. Agentic orchestration delivers these capabilities.

Agentic orchestration enables the **modeling, implementation, operation, monitoring, and optimization** of complex business processes from start to finish. It gives enterprises the ability to orchestrate robots, agents, and people across end-to-end agentic workflows.

Agentic orchestration benefits

Seamlessly adopt agents in enterprise processes	Orchestrate agents, robots, tools, and people	Reduce process complexity and boost ROI	Scale AI transformation enterprise-wide
Design and model agnostic, agentic processes across systems with industry-standard business process and decision management capabilities. This means that enterprises can integrate AI agents into their existing workflows without disrupting current operations. By using familiar business process management tools—like Business Process Model & Notation (BPMN 2.0) and Decision Model Notation (DMN)—companies can more easily transition to agentic workflows, reducing the learning curve and increasing adoption.	Orchestrate all components across well-defined processes to achieve business outcomes, with clear guardrails that comply with your policies and build trust. Combining AI agents, automation robots, various tools, and people, agentic orchestration creates an efficient, transparent ecosystem where each component plays to its strengths.	Agentic orchestration leverages process intelligence to monitor robots, agents, and people in enterprise workflows. By providing visibility into entire E2E workflows, orchestration helps identify bottlenecks, inefficiencies, and areas for improvement. Process and transformation leaders are also given the tools and visibility to track and measure AI agent performance in real time. This monitoring capability enables organizations to demonstrate ROI and continuously improve their processes.	Agentic orchestration is key for deploying, scaling, and improving agentic workflows across the enterprise. It enables seamless integration of AI agents into existing workflows, coordinates execution across various components, and provides intelligence for continuous optimization. This approach empowers business leaders to fully leverage AI and automation while maintaining control, compliance, and confidence.



Agentic orchestration use cases

The value of agentic orchestration is applicable across large organizations and industries – anywhere there are complex processes that are mission-critical. Enterprises typically achieve quick value when applying agentic automation and orchestration to pervasive, complex, and critical enterprise processes.

The following examples are ideal use cases for agentic automation and orchestration. They combine rules-based automation (whether UI-based, API-based, or both), AI-enabled automation (utilizing AI models for tasks like intelligent document processing), and

distinct steps requiring human in the loop evaluation. These processes also span across multiple IT systems and all benefit from the presence of a monitoring layer for driving continuous improvement.

“With agentic orchestration, we can seamlessly integrate our standard automations covering A-C, F-H, and S-Y tasks into a comprehensive automated process. The approach represents a significant evolution in our workflow.”

Chris Engel, Automation Center of Excellence - Global Discovery Lead, Johnson Controls Inc.



Vertical use cases



Finance & Procurement

Procure-to-pay, accounts payable, know-your-customer (KYC) & customer due diligence.



Insurance & Healthcare

Claims processing, pre-authorization, multilingual claims validation.



Manufacturing & Supply Chain

Product lifecycle management, predictive maintenance, production line monitoring, procurement optimization.



Telecom & IT Services

Network fault detection & resolution, customer support, IT system provisioning.



Public Sector & Compliance

Document processing & services for citizens, regulatory compliance auditing, integrated government services.



HR & Workforce Management

Employee onboarding, recruitment screening, performance management, resource scheduling.

Agents think

AI agents analyze invoices, detect compliance risks, and flag anomalies.

AI agents interpret claim data or medical records, recommend next steps, and highlight potential

AI agents forecast demand, spot machine performance issues, and suggest supply chain adjustments.

AI agents detect anomalies, predict capacity, and perform root-cause analysis.

AI agents interpret regulations, flag non-compliance, and classify documents.

AI agents scan resumes, predict workforce gaps, and recommend development plans.

Robots do

Robots enter invoice data, reconcile accounts, and handle routine approvals.

Robots route documents, populate claim forms, and trigger standard approvals.

Robots update orders, track shipments, and schedule production tasks.

Robots open tickets, provision new services, and handle repetitive back-office tasks.

Robots handle form intake, perform ID checks, and route cases for review.

Robots generate offer letters, schedule interviews, and update HR systems.

People lead

Finance managers and compliance teams provide strategic oversight, making final judgment calls on exceptions.

Adjusters and healthcare professionals review agent recommendations, ensuring ethical and policy-driven

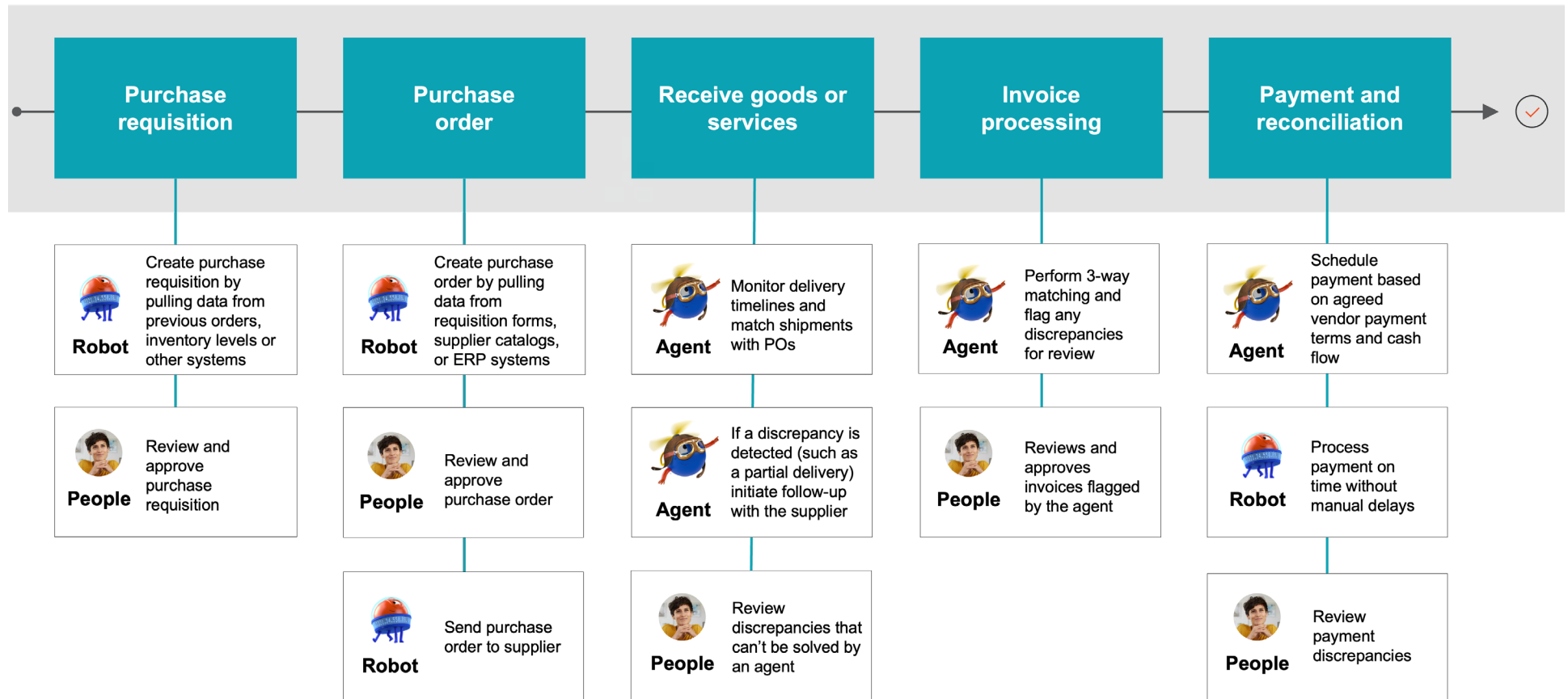
Supply chain managers evaluate agent insights and guide major operational decisions.

IT teams oversee escalations, prioritize infrastructure investments, and ensure service-level agreements are

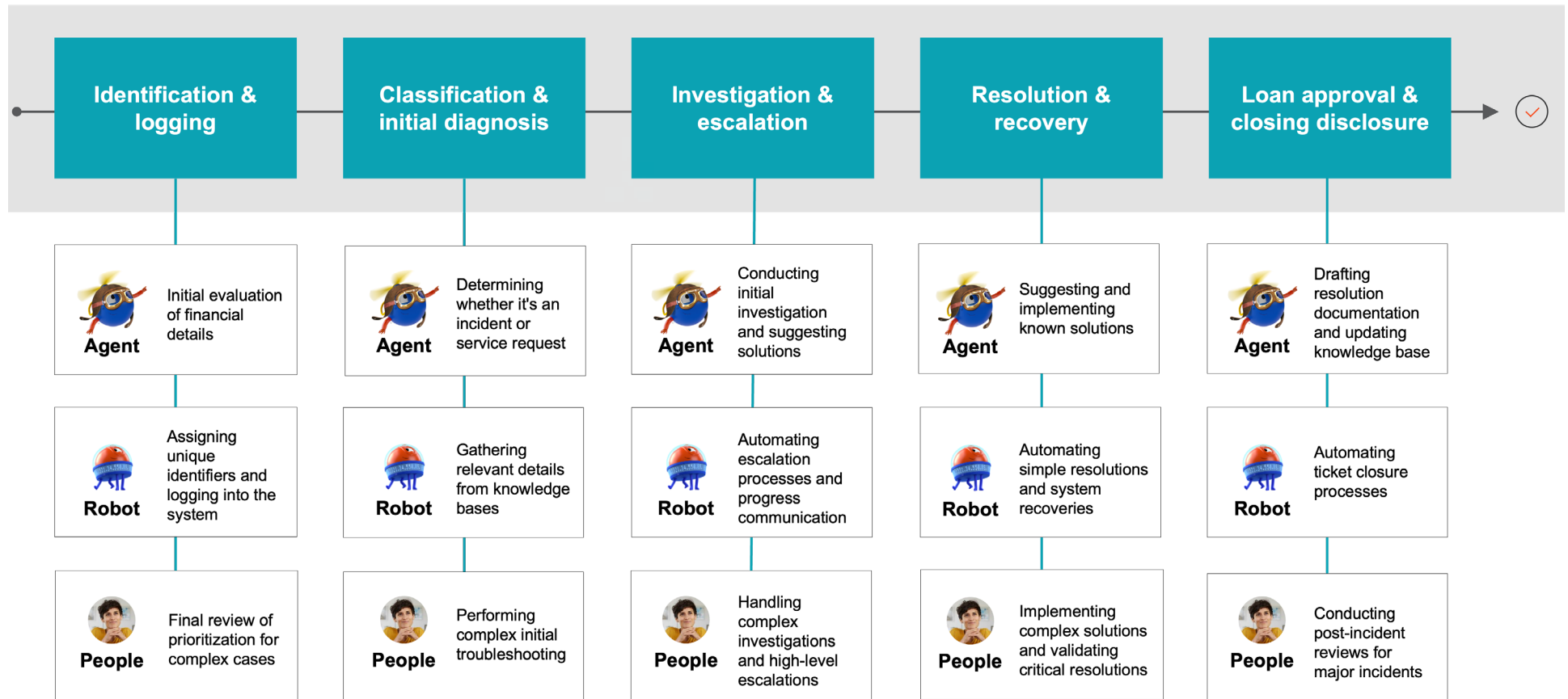
Government officials validate complex policy decisions, ensuring fairness and transparency.

HR managers shape the final hiring decisions, drive employee engagement, and ensure a positive workforce culture.

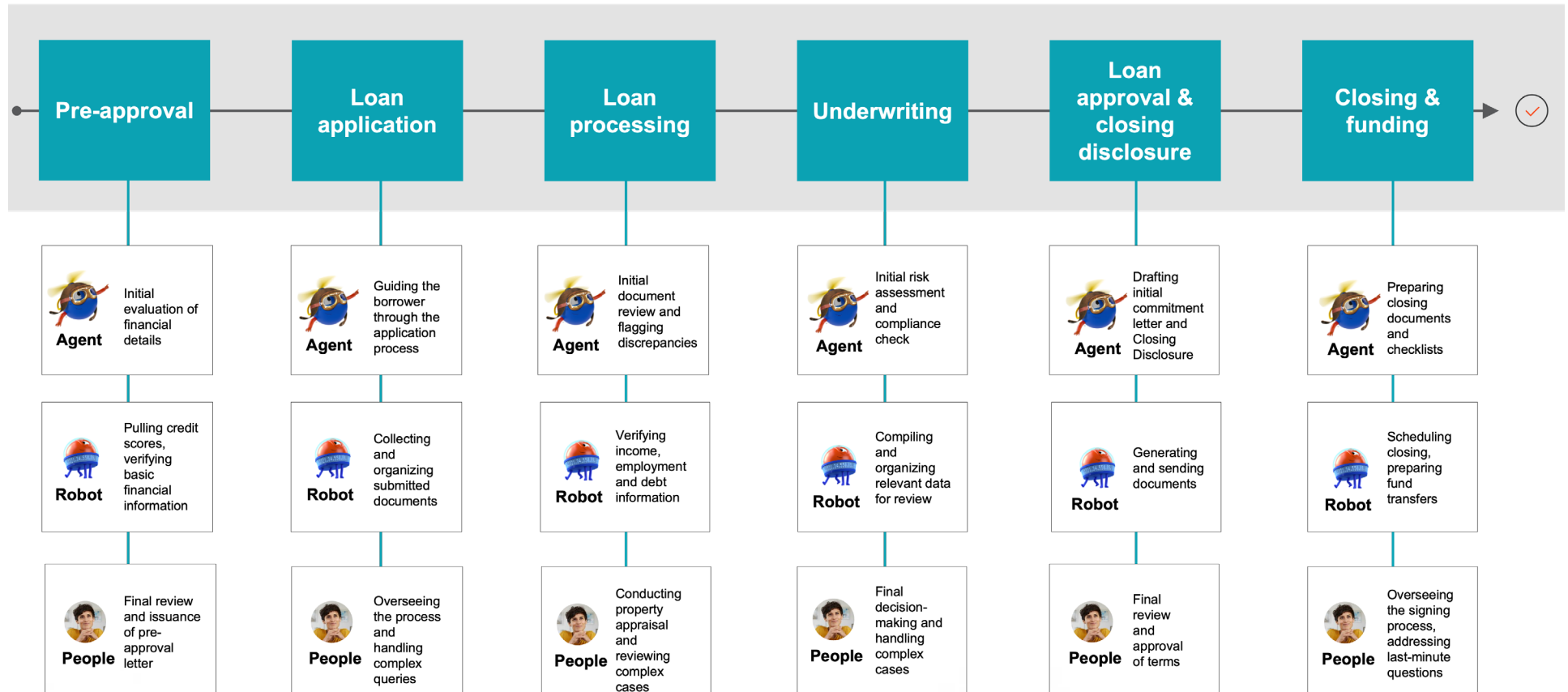
Example: purchase-to-pay (P2P)



Example: service ticket management



Example: mortgage applications



Agentic orchestration and transformation

Agentic orchestration is required for the successful scaling of agentic automation throughout an enterprise. It enables businesses to model, implement, operate, monitor, and optimize their most complex, long-running processes all from one place. At the same time, it provides the infrastructure to optimize agentic workflows continuously, and with trust, at scale.

UiPath is a leader in agentic orchestration. The UiPath Platform™ has the unique ability to orchestrate agents, robots, people, and APIs across end-to-end agentic workflows. We support full process instance management, complete process lifecycle management, and analytics. This empowers our customers to automate, model, and monitor complex business

processes from start to finish. We do all of this within a single platform that's system-agnostic and flexible.

The UiPath Platform is a nexus for agents, whether they are proprietary, first- or third-party, enabled by our first-class access to most business systems. While many business systems offer in-app agents, UiPath is built for cross-system use cases. Simultaneously, we offer first-class UiPath Agents, capitalizing on our platform's integration with other ecosystems, access control, and governance.

Our strategic focus involves the full observation and context of agentic workflows. This guarantees both compliant execution and autonomous decision making, delivering trusted agents that are governed and secured. Our approach includes technical architecture and opinionated design templates to deliver on this vision of 'controlled agency'. Our governance and scalability are crucial for delivering agentic automation and orchestration at scale.



[Click here to learn more about how UiPath reduces process complexity and automates enterprise processes end to end with agentic orchestration.](#)

