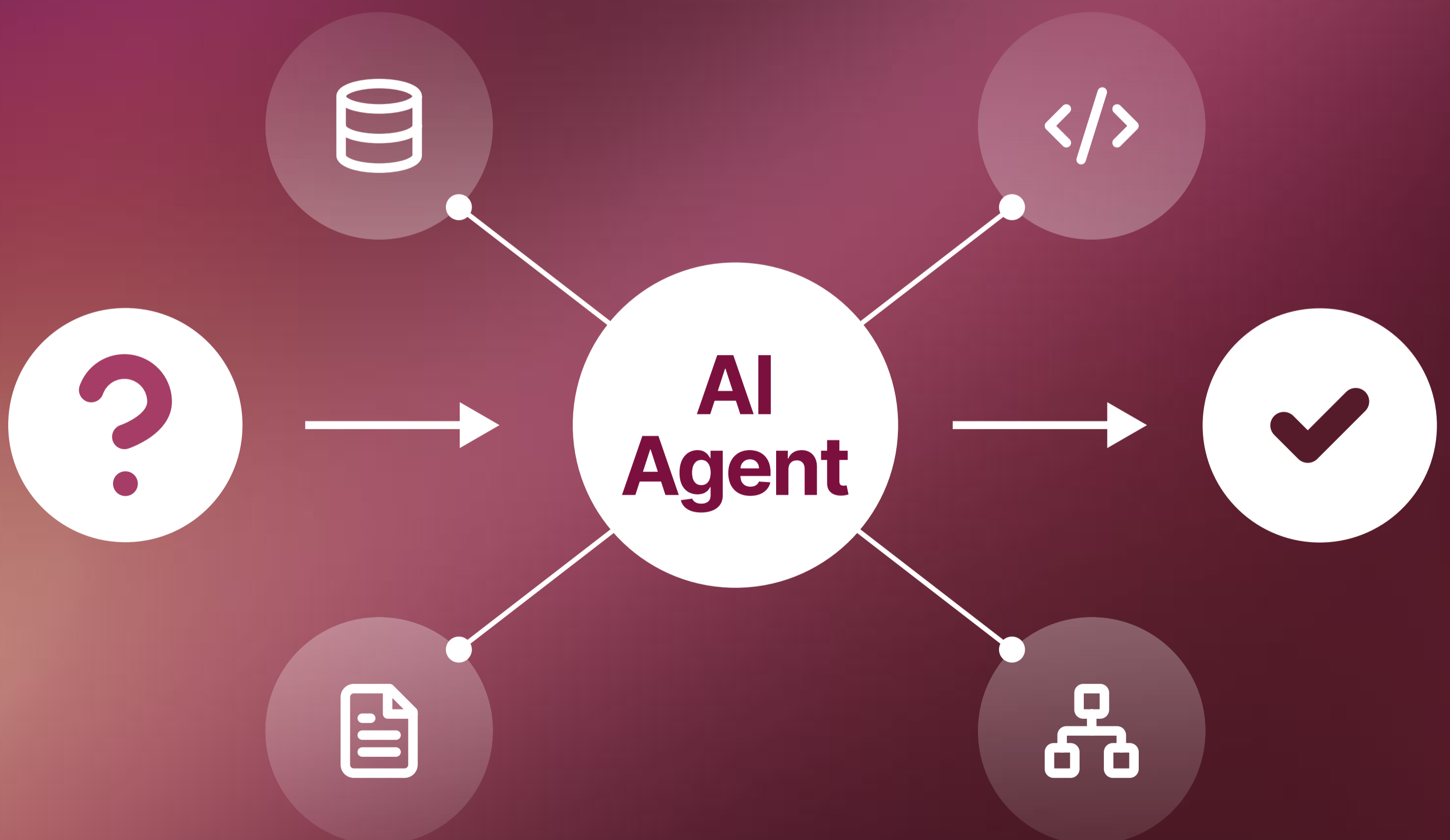


Agentic Workflow Automation

The Guide to Choosing the Right Agentic Workflow Automation Tool



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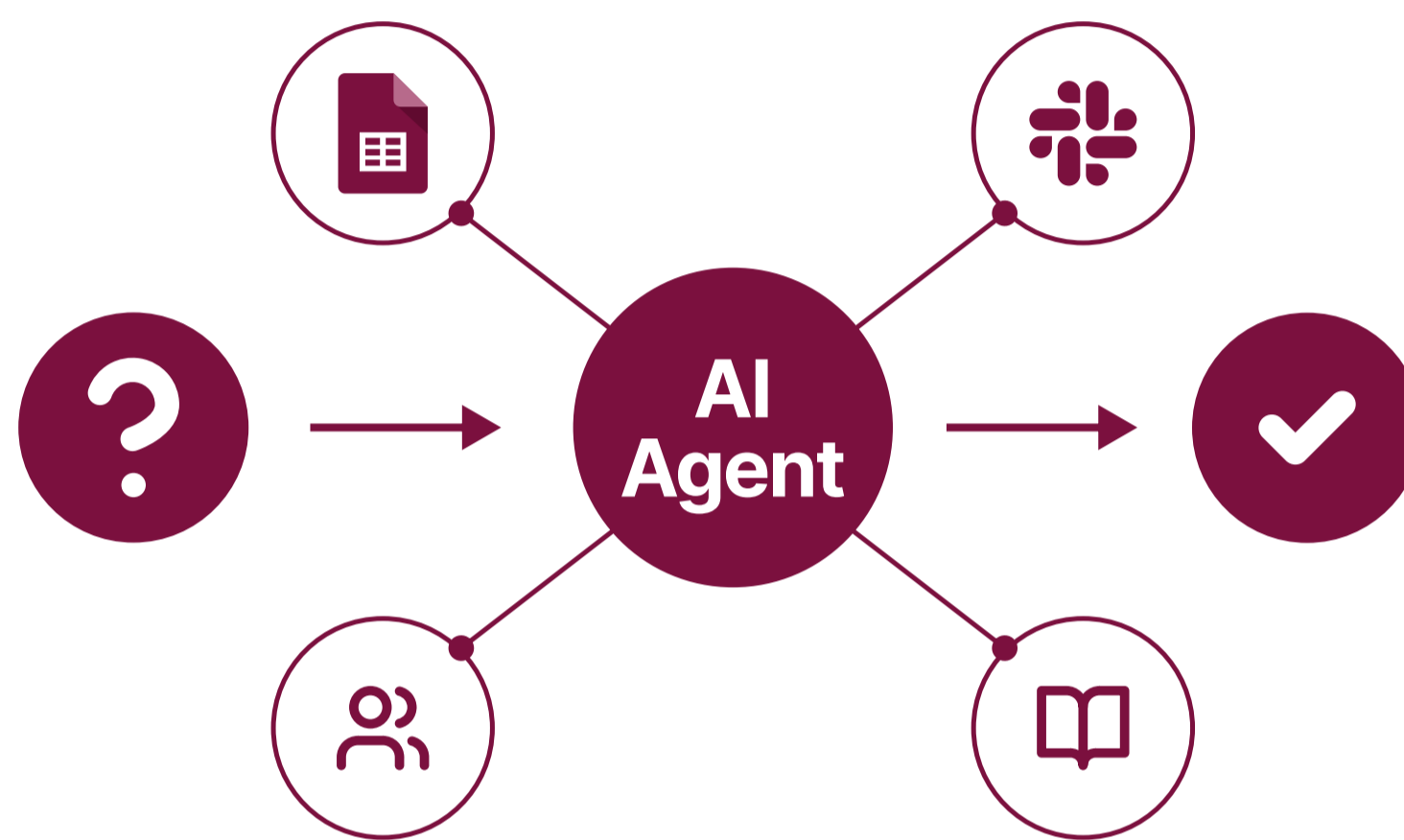
Introduction

Did you know that 62% of businesses have identified at least three bottlenecks in their processes that could potentially be solved with effective workflow automation? Automating company workflows saves time, drives efficiencies, improves data-based decisions, and minimizes the need for developer resources. For many businesses, the traditional workflow automation tools like Zapier, Make, and Workato, among others, have been playing a key role for years.

These traditional low-code tools use predefined rules, sequences, and actions to link app functions together to automate a process. For example, say a company wants to streamline its Help Desk process. They can use workflow automation to connect their ticketing system, CRM, communication tool, and data analysis tool to ensure support is provided, outages are reported, and relevant data is captured.

Workflow automation tools benefit many types of users. Business users can use them to automate tasks like data entry, report generation, and customer communication. Analysts can use these tools to connect systems to initiate complex processes without much coding. Developers can build highly customized workflows using code and nodes for their data pipelines, and IoT architects can create sophisticated data flows that integrate IoT devices, APIs, and custom logic for system-wide automation. With such wide-ranging use cases, it's no wonder that the workflow automation market size is estimated at \$21.70 billion in 2024, and is projected to reach \$34.18 billion by 2029.

The New Age Of Agentic Workflow Automation



These automated workflows, which often involve repetitive and manual processes, are being transformed by intelligent automation systems – known as agentic workflows – that can learn, adapt, and make decisions autonomously. These systems use AI, machine learning, and natural language processing to automate complex tasks. Instead of using simple workflow tools to stitch apps together step by step, the nextGen of Agentic workflow tools utilize embedded AI agents to call specific functions and use external tools to provide the user with the desired result.

So using the example from above of the company looking to streamline its Support processes, they can now simply tell their chatbot what they would like to accomplish and the chatbot can execute the desired actions in their Help Desk system, CRM, Slack, and Google Sheets.

These agentic workflows are especially useful for IT teams. For example, Agentic workflows can use NLP to analyze log files, performance metrics, and user feedback to identify bottlenecks in IT processes and recommend optimizations. Machine learning models can monitor server performance, identify patterns that indicate an impending hardware failure, and notify the relevant user that preventive maintenance is required. The sky's the limit when it comes to AI-based IT workflows.

Choosing the Right Agentic Workflow Automation Solution

Despite the increasing popularity of Agentic workflow automation tools, many organizations hesitate to use them due to security concerns. They are often wary of sending their most sensitive data, like CRM or financial information, to the cloud. This cautious approach has proven to be costly, as it requires human resources to perform tedious tasks or significant development resources to create an in-house system instead of using simple drag-and-drop functionalities. However, new advancements now allow organizations to use agentic workflow automation tools within their own Virtual Private Cloud (VPC) using data and AI operating systems.

So, if you are tasked with finding the most suitable Agentic workflow solution, where should you start? There are two main categories of workflow automation solutions. The first category is traditional cloud-based workflow automation tools. The second category is data platforms, which support a variety of applications, including AI-driven workflow automation.

Which one is right for your organization? These are the main questions you should ask when choosing a workflow automation tool:

What are your security and compliance needs?

Securing your data should be at the top of your list, especially when dealing with sensitive customer information. Workflow automation SaaS solutions can introduce security risks and compliance issues, as you are allowing an unknown, untrusted third-party vendor access to your data. It also places an additional burden on your compliance posture – you will need to invest more resources into auditing the new automation flows that include cloud-based integrations.

In contrast, data platforms can be set up on your private cloud or even on-premises, giving you complete control over your data. This makes compliance easier since the data stays within your own controlled environment. Running Agentic workflow automation inside your VPC ensures that all data remains within your secure network infrastructure, greatly reducing the chances of unauthorized access and data breaches.

What are your available DevOps resources?

Sometimes connecting two systems is simple. You can integrate PDFs into vector databases easily, right? Well, yes, but only certain vector databases. And PDFs can only be inserted in specific ways. Whenever there isn't a direct integration between two tools, or if you need any level of customization, you will need to secure DevOps resources on top of these workflow tools to help you make the connection. For example, if you are building a chatbot, automation is only one piece of the puzzle. You must connect the vector database, LLM, chat interface, ETL tools, and authentication mechanisms to ensure your chatbot runs efficiently. And for that, you will need DevOps – an expense that is often the hardest to prioritize, especially beyond the PoC stage.

If you go with a data platform, you will have access to the full spectrum of Agentic workflow automation tools and Open Source apps, pre-integrated and ready to deploy with a single click from your dashboard. You can build your workflow in minutes, and fast-track deployment with no additional DevOps resources needed.

What are your latency reduction needs?

In industries where time is of the essence and milliseconds matter, latency can have a substantial impact. A data platform that runs on a private cloud/on prem – meaning the system is located physically close to the data source – brings the Agentic workflow automation action closer to home and enables the real-time processing so critical for many applications. It also cuts the latency costs associated with delayed data analysis, providing a crucial competitive advantage in time-sensitive markets.

For example, in the financial services industry, known as High-Frequency Trading (HFT), traders use sophisticated algorithms to execute trades in fractions of a second. Even microseconds of latency can make a difference, as the key is to move faster than the competition. In cases like these, workflow automation tools located in your own VPC can make all the difference to profitability.

What is your budget?

When it comes to automating simple business processes - cost is not a main consideration. But when the automation includes several steps, and requires complex integrations or AI analysis, the cost is just the starting point. Setting up a SaaS-based workflow automation tool could mean hiring multiple DevOps engineers, costing you hundreds of thousands in salaries alone. But if you choose a data platform instead, you can significantly reduce those hefty startup costs. These platforms are pre-built and ready to go, allowing your team to focus on what they do best—creating value—without the heavy DevOps expenses.

Don't forget about maintenance costs, too. SaaS-based tools might need frequent updates, which can get pricey if you need new skills or personnel. Data platforms make things easier with adaptable, user-friendly environments that avoid costly restarts when new engineers come on board. Plus, switching to a data platform with predictable fees can cut ongoing costs by up to 90%, freeing up resources for more strategic projects.

Your Choice At-A-Glance

Choosing between SaaS workflow automation tools and a robust data and AI operating system depends on your organization's specific needs and resources.

Go with a SaaS-based workflow automation tool if:

- You have straightforward processes that need simple automations
- Your primary goal is to save time on repetitive tasks
- You want a low-cost, easy-to-implement solution with minimal setup and maintenance
- Your data security and compliance requirements are manageable within a SaaS environment

Go with a data and AI operating system if:

- You require robust security and full control over your data, especially if dealing with Agentic workflows or sensitive information
- You operate in an industry where latency matters
- Your processes involve complex external integrations, multiple steps, or advanced AI analysis
- You have the DevOps resources for a higher initial investment but want to reduce long-term costs and maintenance efforts
- You need a scalable, adaptable solution that can support diverse applications and sophisticated AI-based workflows within your own controlled environment

By carefully assessing your security needs, available resources, and budget, you can make an informed decision that aligns with your organization's requirements and strategic roadmap.

Ready to get started with an enterprise Agentic workflow automation solution? With Shakudo's Data and AI OS, you'll transform how you connect with your data.



ABOUT SHAKUDO

Shakudo creates compatibility across the best-of-breed data tools for a more reliable, performant, and cost effective data and AI operating system. As an operating layer on top of your cloud Shakudo allows you to pick the best-of-breed data tools for your needs, while providing a platform with fully automated DevOps experience. This combines the best of both worlds in data stack practices so you can focus on delivering business value with data.

Shakudo is the most **easy, secure, cost-effective, scalable** way to bring the most advanced data and AI tools to your data. Find out more at **shakudo.io**.