workato

The 2025 iPaaS Buying Guide

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Be sure to leverage the full Request for Proposal (RFP) template provided in this kit.

Download RFP Template

Introduction To iPaaS

What Is An iPaaS?

An Integration Platform as a Service (iPaaS) allows you to implement integrations between applications, services and data sources that can be internal or external to your organization. Typically, organizations use an iPaaS for three primary purposes:

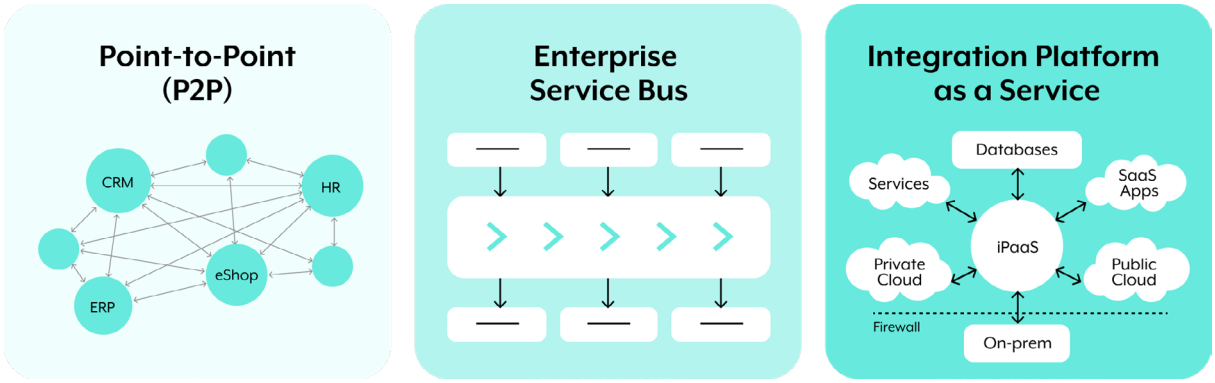
1. **Data consistency**—Ensure applications (e.g., CRM, ERP, and HRIS) operate with the correct information.
2. **Orchestration of multi-step processes and workflows** Examples include onboarding and offboarding employees, which entails many steps like creating user accounts, access permissions, and asset management.
3. **Composite services to create services exposed as APIs or events**. An example would be the end-to-end orchestration of eCommerce order fulfillment based on an online order.

Today's business processes involve multiple tools and workflows, which create complexity, fragility, and data silos. Therefore, it becomes imperative that all of your technologies work in concert.

Integrating your data and applications across your enterprise with an iPaaS allows you to remove integration bottlenecks, deliver projects quicker compared to legacy solutions, reduce costs, and deliver market-responsive innovation. Additionally, connecting data previously siloed across different systems, technologies, and departments bolsters security and governance for increased risk reduction and ensures compliance with industry standards.

Technological advancements are continually enhancing iPaaS capabilities. Older technologies like the Enterprise Service Bus (ESB) and traditional approaches with point-to-point integration work and data management leave integration and automation scattered and siloed to a few specialists. Modern iPaaS was born in the cloud and is accessible to more general technologists rather than requiring highly specialized resources.

Approaches to Integration



Significant strides in artificial intelligence, especially generative artificial intelligence (Gen AI), are rapidly expanding iPaaS use cases. AI copilots, for example, are especially promising because they assist in the building, optimization, and documentation of workflows, leading to immense time savings. Prepare to live in a future where your organization will use generative AI, large language models, and machine learning in concert to drive true innovation and impact.

> With the rise of AI, iPaaS is emerging as the go-to platform for data preparation, orchestration, and integration.

Challenges Investing In An iPaaS

There are currently over 150 iPaaS vendors, all offering similar capabilities. A closer examination of the critical challenges will help you navigate this crowded space and make an informed decision.

Most iPaaS platforms promise similar core functionalities, such as data integration, API management, and workflow automation. This vendor proliferation can lead to a significant overlap in features, leading to a risk of "feature bloat," where the chosen platform can come with additional capabilities, unnecessarily increasing the complexity and cost of your solution.

Prospective buyers often encounter hidden costs when selecting a solution for their integration needs. When making a selection, be sure to account for unexpected expenses such as dedicated development teams, advanced integrations, premium customer or technical support, and training requirements in the vendor estimates.

Custom coding with APIs one-off, purchasing third-party connectors, and professional services may seem efficient and cost-effective on the surface, but the expenses, developer resources and maintenance add up quickly. Traditional iPaaS solutions with high learning curves lead to higher costs and slower time-to-value.

Fragmented approaches to integration compound all other problems. For example, in many companies, individual departments adopt specific integration tools without signoff from IT as a workaround to avoid bottlenecks. This leads to cost inefficiencies, fragmentation, lack of governance, compliance and security. A modern, intuitive iPaaS offers a single solution to serve the integration needs of IT and business technology teams. It can address every department's use cases with total visibility.

If your enterprise is growing or preparing for future growth, it is essential to select a vendor that addresses your current needs and looks ahead to the future. Selecting an innovative iPaaS vendor will be key. Visionary companies in the space see integration and automation as the foundation for Enterprise Orchestration. A flexible, reliable, and secure approach to harmonize data, systems, applications, and processes across the entire company with agile governance to unify every aspect of the business with a single platform.

> **"Organizations that see integration and automation as interconnected disciplines achieve greater efficiency and scalability"**
>
> MASSIMO PEZZINI , HEAD OF RESEARCH AT WORKATO

Read more of Massimo's perspective here.

A flexible, reliable, and secure approach to harmonize data, systems, applications, and processes across the entire company with agile governance to unify every aspect of the business with a single platform.

Core Considerations

Operating Models

Deciding what operating model to adopt up front—whether centralized, federated, or democratized—is essential as not every iPaaS platform supports every model equally.

In the centralized model, a dedicated team—often an IT-led center of excellence with architects, engineers, and developers—handles enterprise orchestration. This approach maximizes resource efficiency, as local units (e.g., business and application teams) commission the central team to deliver the required automation. While effective at optimizing technical and human resources, centralized models can become bottlenecks as demand increases, resulting in backlogs and limiting innovation.

By contrast, the federated model allows semi-independent local units to carry out automation, often using their preferred integration tools, possibly with support from the enterprise architecture team. This model is agile and effective for local needs but lacks organization-wide governance, leading to higher costs, duplicated technology, and accumulating technical debt.

The democratized/self-service model combines agility with governance. Local units and business technologists manage automation independently, empowered by a central integration team that provides technology, training, and governance guardrails.

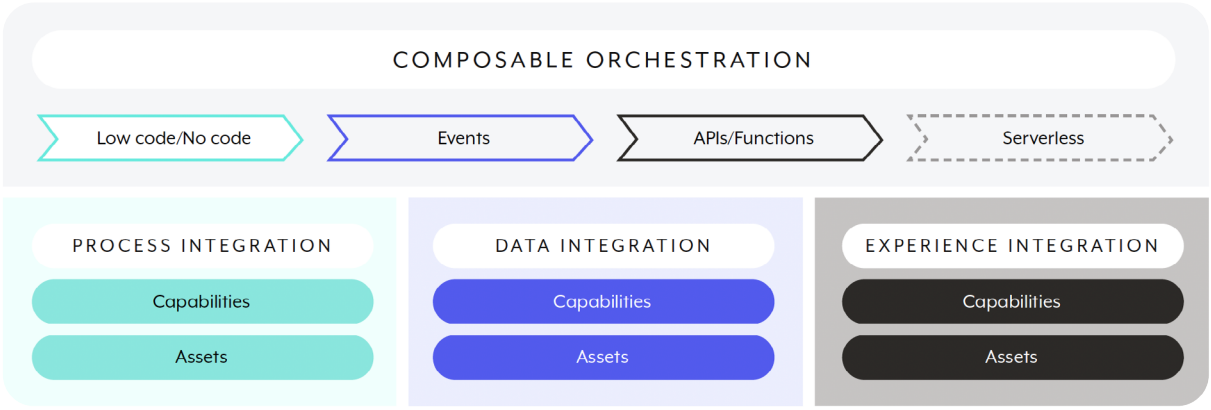
If implemented correctly, this model minimizes risk while delivering agility, security, and cost-effectiveness. It supports business technologists pursuing automation on their own, reducing duplicated efforts.

Key Stakeholders

The primary stakeholders include IT, data, and business teams, all of which gain unique benefits from an iPaaS. IT teams gain centralized control over infrastructure and security. Data users benefit from streamlined data integration, which enables faster access to insights. Business users benefit from enhanced productivity, workflow-specific improvements, and solutions to problems specific to their business units. Make sure your iPaaS investment has buy-in from all stakeholders.

Extensibility and Composability

Extensibility and composability are key to maximizing the value of your iPaaS. Choose a solution that enables seamless process integration, data integration, and experience integration through low-code/no-code tools, events, APIs, and serverless architecture. Prioritize platforms with robust capabilities and assets that support app development and automation. Additionally, opt for an AI-enabled solution that ensures delivery times in days, not weeks, allowing you to build custom solutions efficiently without heavily relying on technical resources. This approach will empower your organization to leverage composable automation effectively.



Essential iPaaS Features

At the macro level, an iPaaS provides these functionalities at a baseline level:

Core Functionalities	
Breadth of out-of-the-box connectors for data and technology	Enterprise Applications HTTP SOAP DB Messaging
Support for connector development (SDK, library, certification)	AI-powered SDK Connector Library Vendor Certification
Data Orchestration	Validation Mapping Transformation Aggregation/Splitting Content-based Routing Workflow ETL / ELT / Reverse ELT
API Management	Cloud-Native Reliability & Scalability Performance Quotas & Rate Limits Discoverability Reusability Authentication Authorization Encryption Defense Against Threats
Event Brokering	Event Stream Processing Support for PubSub Zero Downtime For Publishers Interface for Creation, Testing, and Maintenance
Communication	Support for multiple communication styles Support for multiple communication protocols/formats Protocol/format bridging

Multiple Integration Scenarios

These functionalities specifically target a variety of enterprise automation scenarios, including application integration, data integration, process automation, B2B integration, API publishing, event-driven architecture, IoT integration, bots, AI and Machine Learning (ML).

Reusable Integration Assets

This includes integration patterns, predefined processes, connectors, and templates available on the iPaaS to accelerate time to value and formalize best practices. Vendors and third parties provide these assets, which can be customized and extended through public or private libraries and markets.

Development Experiences

These functionalities enable and assist various types of builder personas, including pro-code developers and low-code/no-code builders. They also include AI-powered assistance to builders, testing/debugging, test automation, integration processes lifecycle management, teamwork collaboration, CI/CD support, and generative AI development support.

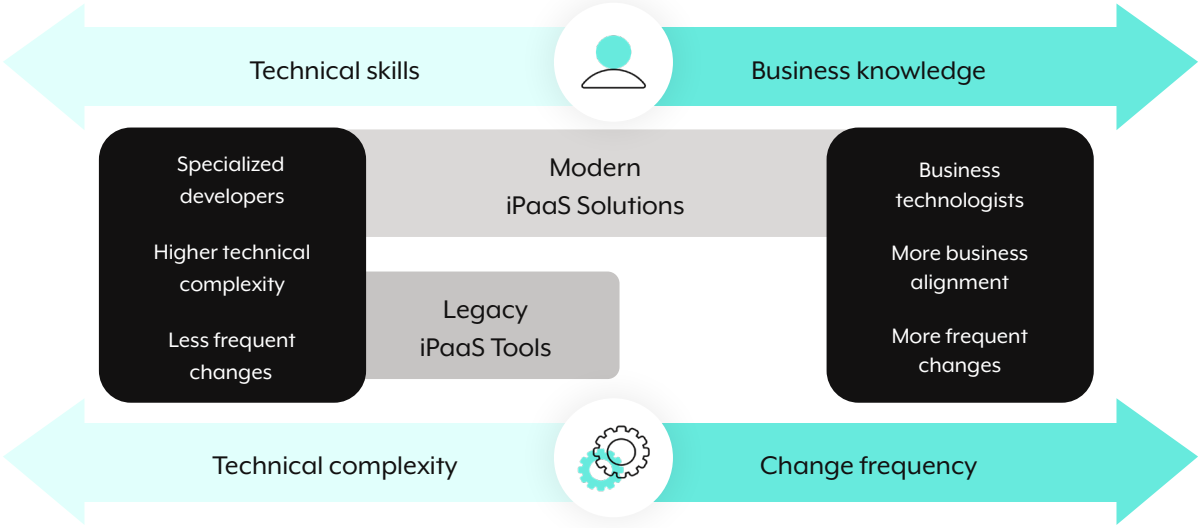
Operations

Platform administrators rely on tools for setting up, administering, monitoring, and managing iPaaS and its processes. Key features include dashboards, analytics, and upgrade management. Prioritize platforms with enterprise-grade, out-of-the-box functionality to avoid gaps in error monitoring and delivery event management.

Support for IT and Business Stakeholders

> A modern iPaaS enables stakeholders with varying levels of technical and functional knowledge.

Users may include integration specialists, developers, data administrators, SaaS/enterprise application admins, business process analysts, business technologists, and iPaaS administrators.



Governance

iPaaS administrators use these functionalities to define and enforce governance policies, thus establishing guardrails to prevent builders from - inadvertently or maliciously - compromising the organization's security, compliance and quality of service. They include role-based access control (RBAC), an integration assets repository, assets life-cycle management, API and event management, data quality, as well as iPaaS activity monitoring, tracking, reporting and analytics.

Governance is also essential for fostering innovation within a controlled environment. Through clear boundaries and robust oversight, administrators can empower teams to explore and experiment with building integrations confidently, knowing the system is protected against errors and vulnerabilities. Strong governance will allow you to scale your operations with trust and efficiency, maintaining the balance between flexibility for builders and control for administrators. This balance is essential for growth without compromising security and performance.

iPaaS Evaluation Framework: Common Criteria and Key Technical Capabilities

This next section will elaborate further on the high-level decision-making criteria and key technical capabilities you should be aware of in your buying journey.

Common Criteria

Flexibility and Scalability

With a cloud-native iPaaS solution, integrating new services is faster than ever, eliminating infrastructure costs, scalability concerns, and lengthy implementations. iPaaS also offers the flexibility to support changing workloads based on ever increasing business demands.

Total Cost of Ownership (TCO)

Evaluating TCO is essential when selecting an iPaaS. TCO includes expenses beyond initial license fees, like setup, ongoing development resources, professional services, training, support, maintenance and operational costs. Overlooking total costs drains efficiency and impacts the long-term return on investment (ROI) of your iPaaS.

When assessing TCO, consider the immense return on investment (ROI) potential offered by leading platforms like Workato. According to the 2022 Forrester Total Economic Impact study, companies achieved a 283% ROI and recouped costs in under 6 months, with a net present value of $20.68M over three years. Carefully considering TCO and ROI can make informed decisions that drive immediate impact and sustained value for your organization.

Click here to download the study.

Partnerships & Support

Look for solutions offering highly rated support options from self-service to packages with 24/7 response times, case escalation, and access to designated technical consultants. Additionally, partnerships with industry-leading platforms (Workday, AWS, Salesforce) can drive the success of your iPaaS investment.

Core Capabilities



Application Integration

Application integration supports seamless data transfers between cloud and on-premise applications through APIs, events, or batch processes while supporting real-time, near real-time, and batch integrations for flexibility. It's the flexibility that ensures smooth communication between your systems.



Support for Multiple Data Types and Sources

A robust iPaaS must support seamless integration across multiple data types—structured, semi-structured, and unstructured—to enable a unified data strategy. Structured data, typically in relational databases, supports core operations, while semi-structured data (e.g., JSON, XML) offers flexibility with a looser schema. Unstructured data—such as text, voice, and images—holds immense potential for AI-driven insights.

> By integrating these data types, an iPaaS can help build a unified data warehouse, unlocking advanced analytics for data-driven decision-making.



Orchestration and Workflow Automation

An Enterprise Orchestration platform is the next generation of iPaaS. It excels at automating processes and managing event-based triggers across integrated systems. It enables seamless integration, workflow automation, data synchronization, and scalable process management, helping businesses streamline operations, boost productivity, and drive digital transformation.



Event Streams

Event streams enhance integration through an event-driven architecture that decouples publishers and consumers, ensuring reliable and persistent message delivery. They also simplify workflow management, as consumers can be added or modified without impacting publishers. Event streams offer support for sequential processing, which triggers workflows across multiple systems while minimizing downtime. Event streams streamline message processing and workflow control with public APIs, using unique identifiers for topic management.



Data Orchestration

Data Orchestration capabilities streamline and scale data pipelines, providing data teams with the speed, control, and flexibility to move and transform data from any source to destinations like data lakes or cloud data warehouses such as Snowflake, BigQuery, and Databricks.

> The platform offers observability tools for seamless operations, enabling sustainable building, management, and collaboration on data projects.

By unifying the entire pipeline process—from ingestion to transformation and activation—an iPaaS should ensure data reliability, accelerate insights, and enhance transparency. Key features include an extensive connectivity library, data movement (e.g., ETL/ELT), transformations, simplified DataOps, enhanced observability, and real-time data activation (e.g., Reverse ETL), maximizing productivity and minimizing risks in data initiatives.



API Management

API management accelerates the process of creating, publishing, securing, and managing APIs without code. Users can easily set up REST endpoints and securely share data. It offers strong security options, including OAuth2 and JWT and industry standards such as OpenAPI. The platform scales elastically for bursty workloads and ensures performance and security with tools like rate limits, concurrency, quotas, API proxy, and IP blocking. For Administration, it gives detailed logs, automatic documentation, dashboards for monitoring health, and analytics.



Enterprise Data Management

It is imperative that you address how you store your data. An enterprise data hub is a modern solution and architecture for centralizing and standardizing your master data records so that you have a common and trusted golden record for use across your systems, and is often seen as a lightweight version of traditional Master Data Management (MDM) tools. The benefits are many: near real-time distribution of your data, clean and reliable master records, built-in validation and auditing. If you do require a full fledged MDM, however, look for partnerships with MDM providers.



AI Vision and Innovation

Now more than ever, you must ensure that your data is ready for it in order to reap all of its transformational benefits. AI innovation in iPaaS transforms automation processes by making them more intuitive and accessible. Many platforms now offer AI-driven tools, or "Copilots," that assist users in building, managing, and documenting automation workflows with greater efficiency. These tools often include specialized aids for tasks like mapping data, creating connectors, and managing workflows, each designed to simplify complex automation processes. Additionally, some iPaaS solutions are integrating generative AI and large language models (LLMs) to create seamless, user-friendly experiences that support both technical and non-technical users. This shift toward AI-enhanced automation empowers organizations to improve efficiency, reduce manual effort, and scale operations effectively across the business.

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Low Code Applications

Low-code apps support businesses in building robust, customizable solutions with minimal coding. These apps integrate seamlessly with iPaaS platforms, allowing users to create workflows and collaborate effectively. Low-code apps empower teams to address specific business needs quickly, such as employee onboarding and request management, while maintaining flexibility and scalability.



Cloud-Native Platform

A cloud-native iPaaS offers significant advantages over traditional or "cloud-optimized" platforms, making it an ideal choice for organizations with diverse infrastructure needs. Unlike cloud-optimized solutions that often simply lift and shift on-premise architectures to the cloud, a cloud-native iPaaS is designed to fully leverage cloud capabilities, supporting both multi-cloud and on-premises environments seamlessly. This architecture enables flexibility, scalability, and high availability, allowing for automatic scaling to handle peak loads and efficient resource utilization without downtime. Additionally, a serverless runtime model eliminates server affinity, meaning applications can be upgraded with zero downtime and minimal operational burden, as runtime environments are decoupled and dynamically allocated as needed.

For organizations looking to future-proof their integration strategies, choosing a cloud-native iPaaS ensures compatibility with emerging technologies and minimizes the maintenance demands on IT teams, allowing them to focus on delivering business value.



Agile Governance and Compliance Features

Agile governance capabilities provide robust tools for managing and securing automated workflows while maintaining flexibility and speed. Key features you should look out for include:

- Centralized control for monitoring and managing integrations
- Fine-grained access controls and role-based permissions
- Comprehensive audit logs for tracking changes and ensuring compliance
- Automated compliance checks and enforcement
- Lifecycle management for integration and automation, testing and production environments, CI/CD automation for deployment
- Real-time visibility into workflow performance and data usage

These capabilities ensure that organizations can quickly adapt and scale their automation efforts while maintaining stringent security and compliance standards, enhancing overall operational efficiency and governance.

Security

When evaluating an iPaaS platform, robust security features like Bring Your Own Key (BYOK) and Enterprise Key Management (EKM) are crucial for safeguarding sensitive data. BYOK allows organizations to maintain control over encryption by using their own encryption software and managing keys externally. This setup provides added security, as companies can use services like Amazon Key Management Service (KMS) to manage the Customer Master Key (CMK) used in data encryption, ensuring tighter control over access.

Additionally, advanced iPaaS solutions may offer EKM with Hourly Key Rotation. In this approach, encryption keys are refreshed every hour, reducing the risk associated with potential key compromise by limiting data exposure to a single hour's worth of transactions. Together, BYOK and hourly key rotation capabilities provide a high level of data security and compliance, which are essential considerations in selecting an iPaaS platform.

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Key Questions to Ask During Vendor Evaluation

When you evaluate an iPaaS vendor, it's imperative to prepare a list of technical and business-facing questions that will help you make sure that the platform will align with your business objectives. Here are some questions to help guide your decision-making process:

TECHNICAL QUESTIONS

- What measures are used to secure data transfer (in-transit) and storage (at-rest)?
- What is the uptime SLA (Service-Level Agreement)?
- Is the platform highly available across multiple data centers?
- How does it support hybrid architectures and multi-cloud environments?
- What monitoring and observability tools are included?
- Does the platform offer automated scaling capabilities?
- What is available for API management and API lifecycle support?
- What are the platform's disaster recovery and data backup protocols?
- Are there built-in compliance features to support regulatory standards?
- How customizable are workflows and data mappings?
- Does the platform support AI-driven capabilities, such as workflow optimization, LLM connectivity, document processing and generation?

BUSINESS QUESTIONS

- Can you elaborate on your customer success program?
- How are updates, maintenance, and new features managed?
- If there is a major runtime version upgrade, what's the level of impact on your existing implementations?
- Does the vendor provide relevant customer references and case studies?
- How frequently is the vendor's product roadmap updated?
- Which training and onboarding resources are available?
- Are there flexible options for long-term contracts?
- What level of technical support is included, and what are the support options?
- How does the vendor handle data ownership and portability?
- What is the typical developer profile needed to support the platform?
- Can the vendor demonstrate a history of responsiveness to market trends?
- Are there any additional fees for advanced features, integrations, or support?

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Download RFP Template

Planning and Executing a Proof of Value

A “proof of value” is essential to vetting your needs with iPaaS vendors. It will help you make the best selection for your organization while gaining a sense of how the platform performs in the real world.

These may include testing and validating:

- If the learning curve is conducive to developer productivity, testing effectively and managing the integration process and lifecycle.
- Your most critical use cases and scenarios
- End-to-end lifecycle management.
- What real life (Production) will look like in terms of operations, monitoring and troubleshooting.
- High availability and recovery functionalities.
- Security, governance, and operation capabilities.

A Proof of Value (POV) goes beyond the technical validation of a POC to affirm business value validation. A strong vendor will partner with you to define, quantify, and agree on the following:

- What is the expected business outcome?
- What are the critical KPIs that must be measured?
- How quickly and effectively can the POV be turned into a real project?

Choosing between a POC or a POV depends on a number of factors, including:

- The strategic or tactical focus for adopting an iPaaS.
- The complexity of the scenarios the buyer wishes to implement.
- The buyer company's level of trust in the provider.
- The decision maker's familiarity with iPaaS.
- Available budget, among other financial considerations.

Conclusion

This guide has outlined essential features, evaluation criteria, and considerations, from understanding core capabilities to addressing total cost of ownership and aligning with long-term goals. Through careful evaluation, considering technical and business questions, and learning from real-world case studies, you'll be well-equipped to make an informed choice. In a landscape where complexity and the demand for agility continue to grow, investing in an adaptable and robust iPaaS solution can empower your business to innovate, scale efficiently, and maintain a competitive edge.

Take the Next Step in Your iPaaS Journey

Leverage the insights from this guide to choose the right iPaaS solution for your organization. See how a modern, flexible platform can transform your integration and automation efforts. Schedule a demo today to explore real-world use cases and discover how an iPaaS can help your business scale and innovate.

Schedule a Demo