INTEGRATION SERVICE PLATFORM

INTEGRATION PLATFORM AS A SERVICE (IPAAS)

Integration platform as a service (iPaaS) is a set of automated tools that integrate software applications that are deployed in different environments. Large businesses that run enterprise-level systems often use iPaaS to integrate applications and data that live on premises and in both public and private clouds.

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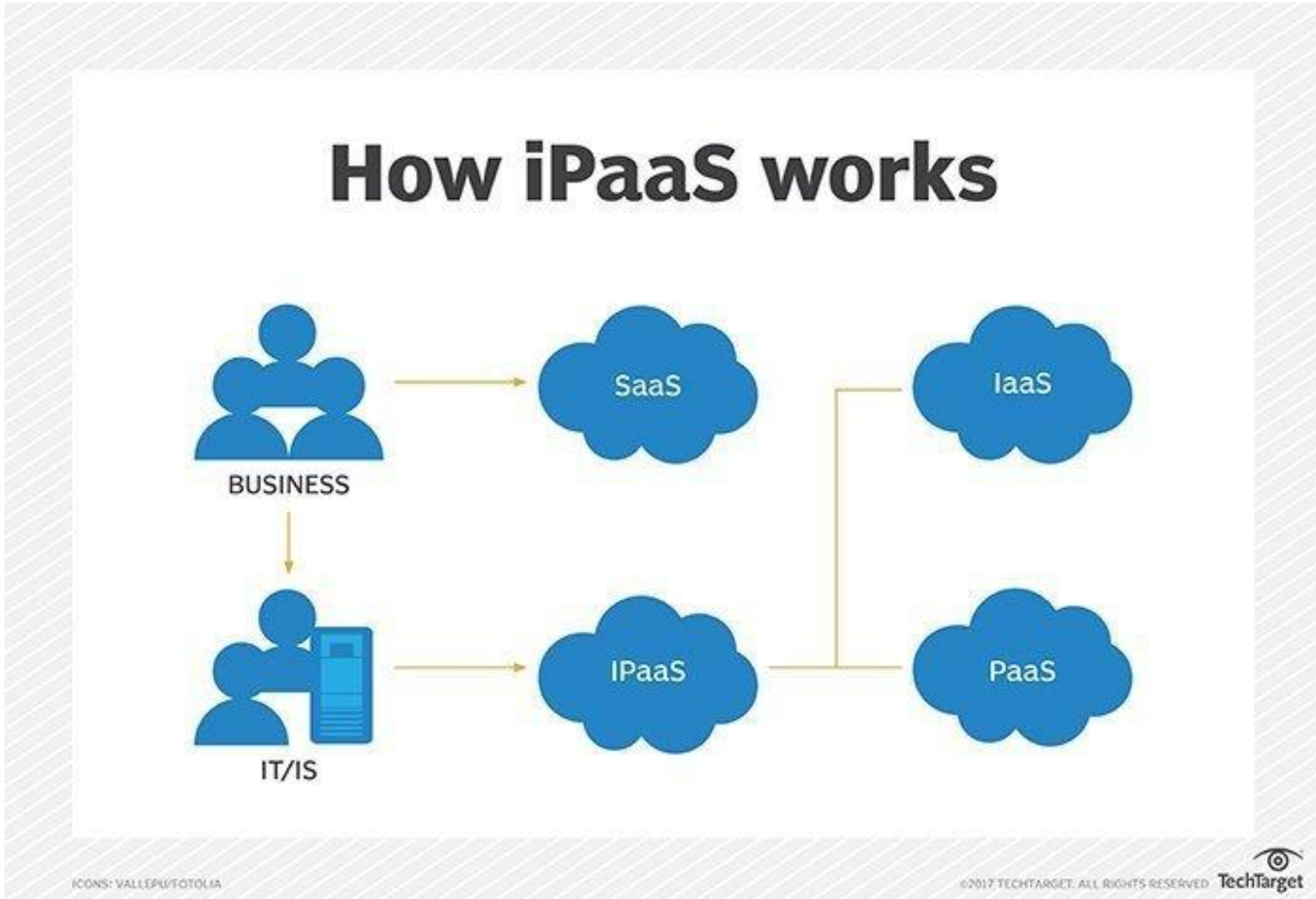
Typically, an iPaaS tool provides pre-built connectors, business rules, maps and transformations that facilitate the development of applications and orchestrate integration flows. Some iPaaS providers offer custom development kits to modernize legacy applications and add capabilities such as mobile support, integration with social platforms and business data management

WHY IS IPAAS IMPORTANT?

The concept of an integration platform seeks to overcome these application and data challenges by providing organizations with the mechanisms needed to help varied applications communicate and exchange valuable data smoothly and with a high level of automation. The platform provides the software connectors, process rules and data transformation mechanics that can all be automated to help exchange data seamlessly -- enabling disparate applications to exchange data and run together, streamlining the day-to-day operation of the enterprise.

HOW DOES IPAAS WORK?

iPaaS provider hosts application servers and infrastructure data and provisions the integration tooling and middleware that help developers build, test, deploy and manage software that lives in the cloud. Most iPaaS offerings also speed up the development of integration flows across a business by using pre-built connectors and business rules to define interactions in multi-tenant environments.


How iPaaS works
SaaS
IaaS
BUSINESS
IPaaS
PaaS
IT/IS
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WHAT ARE THE CAPABILITIES AND FUNCTIONALITIES OF IPAAS?

- Ease of use for platform deployment, data integration and app management processes.
- Comprehensiveness of integration tool sets and pre-built data connectors for important data standards, such as Electronic Data Interchange for Administration, Commerce and Transport or Health Level Seven.
- Level of support for public cloud, SaaS and locally hosted applications.
- Readiness to support protocols such as HTTP, FTP, Open Data Protocol and Advanced Messaging Queuing Protocol.
- Flexibility to build custom connectors and modify access mechanisms.
- Ability to process, clean and transform data in formats like Abstract Syntax Notation One, XML and JSON.
- Predictable performance when handling large-scale data operations and concurrent executions.
- Support for real-time processing, data transformation and batch data integration.
- Integration lifecycle management and monitoring for failures, latency, resource utilization and workflow performance.
- Security mechanisms for access control, data encryption and single sign-on integrations.

WHAT ARE THE BENEFITS OF IPAAS?

Faster and better data accessibility. At its best, iPaaS assembles an organization's unique needs into a cloud-based tool set, designed to handle the increased data volume associated with cloud environments, mobile device support, accelerated application development cycles and complex B2B transactions. This often includes real-time integration, where the goal is to minimize disruptions caused by application interaction incompatibilities and diverse data formats.

WHAT ARE THE BENEFITS OF IPAAS?

Flexibility and self-service. IPaaS can also simplify an organization's overall technology infrastructure by creating a virtual platform that connects applications and resources to create a consistent structure. The iPaaS framework seamlessly integrates resources across multiple clouds and between cloud and legacy applications.

WHAT ARE THE BENEFITS OF IPAAS?

Better data security. IPaaS can bolster security by placing security responsibilities on the vendor and providing built-in monitoring, threat detection and observability tools.

WHAT ARE THE BENEFITS OF IPAAS?

Better error detection and troubleshooting. The monitoring information delivered from iPaaS providers can help IT and business teams identify and resolve problems with data integrations and workflows.

WHAT ARE THE BENEFITS OF IPAAS?

Centralized integration efforts and erasure of data silos. IPaaS can help IT teams navigate the expanding integration requirements of a business without adding additional resource drain and management overhead. This is often achieved using powerful integrations and data connectors available right out of the box, as well as an expansive ecosystem of connectors and tools that integrate with the iPaaS platform.

WHAT ARE THE BENEFITS OF IPAAS?

Better cost management. IPaaS streamlines data integration for a regular monthly fee, easing much of the cost and troubleshooting involved with in-house data integration development and deployment.

WHAT ARE THE CHALLENGES OF IPAAS?

One size does not fit all. Every iPaaS is different and is built to address differing business environments and needs. Many iPaaS offerings work better in certain circumstances and use cases than others, which can make it difficult for organizations to choose the right vendor.

WHAT ARE THE CHALLENGES OF IPAAS?

Added complexity. IPaaS is designed to help ease the technical and time demands of complex enterprise data integrations, but there is only so much that iPaaS can simplify. A business with complexity high enough to justify an iPaaS commitment must still invest considerable time and in-house talent to set up and maintain the iPaaS for the business and its workflows -- both upfront and into the future as integrations needs evolve.

WHAT ARE THE CHALLENGES OF IPAAS?

Security concerns. IPaaS offerings can manage security, but the organization is still ultimately responsible and liable for any breaches or data loss that occur. This can be particularly problematic when integrating varied third-party systems, including cloud and SaaS workloads.

WHAT ARE THE CHALLENGES OF IPAAS?

Scalability limitations. IPaaS promises scalability, but scalability has limits. Many iPaaS systems require some level of user intervention to scale the platform; even automation requires orchestration. Businesses must consider limitations to the iPaaS, such as the maximum allowable size and rate of transactions. There might be conditions that an iPaaS simply cannot handle.

WHAT ARE THE CHALLENGES OF IPAAS?

Expert staff is essential. While iPaaS assumes responsibility for a large amount of management concerns, an enterprise must dedicate staff to supervise the platform's operations and regularly evaluate its impact on business processes.

WHAT ARE THE CHALLENGES OF IPAAS?

Risk of service disruption. There is risk any time that a business relies on a third party. Basic disruptions, such as network failures, can result in integration performance problems and business disruption. Perhaps even more concerning is that increasing rates of iPaaS vendor consolidation might mean some vendors and services become discontinued, forcing businesses to change service offering or providers. This can ultimately lead to undesirable integration outcomes.