INSIDE THE IPAAS

EBOOK

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Introduction

Digital transformation allows businesses and organizations to reshape their processes to promote innovation, creativity, and long-term growth. Data integrations play a bigger role in the digital transformation strategy than one may think: iPaaS is the real engine behind rapid digitalization.

In this ebook, we will share our insights on how sophisticated cloud-based integrations can best enhance an integration strategy. Integrations are often overlooked and many companies are still using traditional, on-premise integration solutions. This is not only time-consuming, but also extremely expensive.

To help you better understand how this technology can help you, we provide an overview of iPaaS that is essential for improving operational processes in a fast and cost-effective way on the long-term.

We hope that you find this ebook resourceful and informative.

Happy reading!

- The Youredi Team

CHAPTER 1

Digital Transformation

Digital transformation is strategically a top priority for all firms that want to remain competitive in a rapidly the rapidly chaning market. Emerging technologies, increasing amount of data, and cooperation with multiple partners, customers, and third parties put an emphasis on the need of digital change.

Digital transformation can be defined as a strategic process of re-engineering and radically changing all aspects of the business by utilizing modern technologies.

However, creating and executing a digital transformation strategy is easier said than done: the foundation lays in organizational change that can be followed by a series of projects that will transform all operations and processes at an enterprise.

> "Two-thirds of all business leaders believe that their companies must pick up the pace of digital transformation to remain competitive."
>
> Gartner

According to the analyst house, IDC, digital transformation could be worth $18 trillion worldwide in additional business value. Meanwhile, Gartner's CIO Agenda has forecasted that the digital business shall represent an average of 36% of a business's overall revenue by 2020.

To achieve long-term transformation goals and economical success, businesses need to be able to define an organization-wide strategy clearly stating the scope and the objectives of the project. However, these goals cannot be met without finding the right technologies and technology suppliers that will support the strategy. Modern digital emerging technologies, such as the Internet of Things (IoT), Application Programming Interfaces (APIs), or Artificial Intelligence (AI) are driving the business transformation.

Nevertheless, businesses are already harnessing a vast amount of data that is going to increase by adapting to the above mentioned technologies. To make sense of the data, an Integration Platform as a Service (iPaaS) is a necessary solution. Managing data flows, orchestrating processes across all parties, transforming data, and improving data quality are all primary issues for creating transparent, real-time digital operations.

"Digital Transformation is intensifying demands for seamless integration across application and information infrastructure."

Gartner

CHAPTER 2

What is iPaaS?

iPaaS (integration platform as a service) is a suite of cloud solutions enabling the development, execution, and governance of a wide range of integration scenarios, such as data, application, cloud, SOA, process, things, and B2B integration scenarios, connecting any combination of on-premise or cloud technologies within an organization or across multiple ones. This capability makes the perfect hybrid integration platform out of iPaaS that has been gaining popularity also during the last few years, however, very few iPaaS providers have been able to deliver genuinely hybrid integrations.

iPaaS has been designed to act as a middle layer to help connecting systems and applications to enable the real-time flow of the data. It is the ideal tool for different integration scenarios: it can be used for integrations within the same organizations, as well as across multiple organizations located disparately geographically.

Becoming well-connected is a critical requirement for organizations. The implementation, however, has been challenging due to the variety of systems and applications organizations use. Some may rely on systems built decades ago, while others may have adopted cloud-based applications. These systems and applications also operate with a variety of protocols and data formats that complicates the case even more.

An integration platform provides protocol bridging, message transmissions, translation and transformation of data formats, routing, service visualization, adapter technologies, orchestration solutions, multitenancy, and scalability for complex, challenging integration scenarios in the most secure way.

Compared to traditional integration solutions, the development, testing, deployment of the integration solutions happens a lot faster. As the number of new trading partners may increase, the time-to-deployment cycles must shorten to be able to support the connectivity needs of organizations.

Traditionally, integrations have been expensive and only affordable for large enterprises. iPaaS has been breaking the barriers and democratized integrations for any size of enterprises. As the implementation time of integrations has shortened, the costs decreased too. As there is no need to purchase software and hardware or pay for upgrades, anyone can start using an integration platform with minimal investment.

CHAPTER 3

Key Funcionalities

CONNECTIVITY MANAGEMENT

iPaaS can build connections regardless of communication protocol connectors – whether it's HTTP, SFTP, FTP, AS2, or something else, it is possible to establish connectivity. Additionally, it has ready-built connectors, for SaaS and on-premise applications. iPaaS also offers full lifecycle API management.

DATA MANAGEMENT

iPaaS can tackle any data format. Whether you are using EDIFACT, X12, JSON, XML, or proprietary formats, it can transmit it between the applications, translate if needed, so all parties receive the information in their preferred format, validate the data and enrich it if needed. The platform also takes care of the routing of the messages and orchestrates the flow of information based on preferences (data transfer can happen in real-time, batches, streaming).

MONITORING

The platform takes care of the monitoring of the solutions and reports any errors automatically to the maintenance team. It can also offer business intelligence on the data that has moved through the platform that can provide some valuable information for decision making.

CHAPTER 4

Key Use Cases

iPaaS can be used for a variety of use cases. While we are discussing these different types of scenarios separately, these are all correlated.

DATA INTEGRATION

Data integration is one of the most typical scenarios when it comes to integration. In this case, the data needs to be transferred from System A to System B, so both systems have up-to-date information available.

How does iPaaS improve the way we do integrations? Traditionally, data transfers happened in batch processes. However, today it's crucial to have information available in real-time. iPaaS makes it possible.

Additionally, communication is a lot easier, if all stakeholders receive the data in a data format that their systems can understand. To achieve this, during the data transfer the formats can be transformed. Some information may also need to be validated which can be set up against your business rules to ensure that the data is always 100% clean. In case the solution detects errors, it can be sent back to the sender for enrichment, and once that's done, it can be resent.

APPLICATION/SYSTEM INTEGRATION

Systems and applications need to be able to communicate with each other. Previously, EAI has been used for executing integrations between systems and applications. However, iPaaS has started to replace it.

The ultimate goal of application integration that data from disparate systems and applications would be available in a single platform for all the relevant stakeholders.

System and application integration is a primary use case for iPaaS, as it can gather data from any systems – even from behind firewalls – and forward it to the end-user platform.

BUSINESS PROCESS INTEGRATION

Business process integration enables organizations to streamline their processes by creating seamless connectivity to connect systems and applications and automate the processes and workflows between them to improve communication and collaboration across teams.

Traditionally, large enterprises used an Enterprise Service Bus (ESB) for enabling business process integration. However, many have started to replace ESB with iPaaS, as it is versatile and the platform can be used for a variety of integration cases besides process integration. With iPaaS, both internal and external processes can be integrated.

B2B INTEGRATION

Business-to-business integration is often referred to as electronic data interchange (EDI). In a previous blog, we defined EDI as the following:

“Electronic data interchange enables enterprises to exchange business-critical information (e.g., purchase orders, invoices, booking requests, custom status information, etc.) with their ecosystem of trading partners electronically. Shortly, EDI is a set of protocols that empower businesses to communicate with each other, and under EDI we mean the transmission, message flow, document format, and the software that interprets the documents. The EDI message normally includes the same information, as the paper one, however, switching to electronic processes has significantly improved the way trading partners can do business with each other.”

CHAPTER 5

Hybrid Integration Platform (HIP)

Hybrid integrations are becoming increasingly relevant when businesses need to be able to connect the old world (their legacy IT systems) with the new world (cloud-based SaaS applications). Hybrid is a bridge between on-premise technologies and cloud-based applications.

The implementation is challenging because legacy systems weren't originally designed to be connected and communicate with other systems. Today, interoperability across systems is crucial, and enterprises need to break down their data silos by enabling connectivity to their on-premise legacy systems for their trading partners.

iPaaS can be considered as a hybrid integration platform (HIP). It is an ideal tool for bridging the gap between legacy and modern applications. As changing IT systems is not a sustainable option for most enterprises, there needs to be an integration layer that is capable of connecting different interfaces through different protocols. Whether the IT system needs to receive information from the cloud or things, or it should send data to business partners who have moved their operations to the cloud, iPaaS is an enabler of communication between these different architectures.

There could be other challenges during the implementation process, such as firewalls, different protocols, different standards and data formats, lack of APIs. All these can be easily tackled with iPaaS.

What makes it even more difficult to successfully execute hybrid integration scenarios is that you rarely need to connect only two systems. Typically, enterprises need to communicate with several parties (if not with hundreds), and in that case, an iPaaS comes handy with its power of tackling challenging, complex integrations.

CHAPTER 6

iPaaS vs. ESB

If you are using an Enterprise Service Bus (ESB) at the moment and you think why you should upgrade and start experiment with an iPaaS, it's good to understand the differences and what extras an integration platform provides compared to ESB.

The basic idea of ESB and iPaaS is the same. Both were developed to enable enterprises to connect systems and applications to facilitate information sharing.

With iPaaS you don't need to buy software or hardware, as it's all in the cloud. Therefore, you don't need to pay for upgrades and maintenance either. ESB has been designed for on-premise integrations, supporting older messaging standards. In comparison, with iPaaS users can deliver a wide variety of integrations whether the systems are situated on-premise or in the cloud, regardless of the data standards and formats the systems use (e.g., older ones, as EDIFACT or X12 or newer ones as JSON or XML).

Some would argue that ESB is better suited for complex integration scenarios. However, integration platforms can just as well handle challenging large-scale projects.

While ESB is an excellent tool for connecting internal systems and applications, for B2B integrations iPaaS offers a more horizontal solution.

CHAPTER 7

iPaaS Benefits

Those who have already started to include iPaaS in their integration strategy have seen the benefits it brings to the business both concerning decreased costs and improved efficiency. Many have been using iPaaS to gain a competitive advantage over the competition: digitalization allowed them to offer better digital services to their customers and improve the overall customer satisfaction and retention.

HOSTED IN THE CLOUD

This is probably the coolest part of iPaaS. Companies do not need to purchase hardware or software, they don't have to buy licenses to use all the features of the platform, neither they need to pay for upgrades and new features. All iPaaS customers and users are entitled to enjoy all the features that the platform offers. Another great benefit is that it's continually evolving. As new customers need new features for their specific integration cases, the R&D team is working on the implementation – and once it's done, it will be available for all other customers too.

MANAGED SERVICE

Integration skills are still scarce, therefore, having an iPaaS vendor that will implement your integration solutions on top of an integration platform is a great benefit. The solution can be developed and deployed a lot faster, and you only need to provide an IT person that will help with the specifications and end-to-end testing.

SHORT TIME-TO-DEPLOYMENT

The faster the solution is deployed, the sooner you can start realizing the added value that iPaaS has brought to your business. Short development and deployment cycles are especially vital when you have to connect with an extensive ecosystem – the implementation of your project shouldn't take years.

SCALABILITY

As integration needs may evolve rapidly, the platform needs to be able to follow the changing requirements of the users. Sometimes, new connections need to be added to already existing solutions. With iPaaS, it can be rapidly added.

HYBRID INTEGRATIONS

As discussed above, iPaaS is probably the best tool for implementing hybrid integrations. If you need to connect on-premise and cloud technologies, iPaaS is something that you should consider as a tool.

REAL-TIME DATA

Timeliness of the data is critical for businesses. All the information needs to be available for all the right stakeholders at the right time and the right place.

DATA ENRICHMENT AND VALIDATION

It is not enough that the information is available to all parties, but the data has to be correct, too. To eliminate manual processes in the validation and enrichment of the data, iPaaS can automate it to reduce handling times.

LOWER INTEGRATION COSTS

No hardware, no software, no upgrades, shorter development times ultimately convert to significant overhead savings. After all, who wants to pay too much for integrations?

In complicated cases, the investment may sound like a big chunk of money. Leaders have started to see integrations as a strategic investment opportunity. For the record a simple dummy example: if you pay a million dollars for integrations in 5 years (which is significantly lower than if you'd have done it by yourself), but you can improve your efficiency and services, and that boosts your revenue by 5 million dollars, was it worth the investment?

CHAPTER 8

iPaaS Pricing

WHAT ARE YOU PAYING FOR?

DEPLOYMENT SERVICES

A one-time upfront fee for deploying the service.

SERVICE SUBSCRIPTION

It's based on data volumes or number of integrations. The more data you share through our service, the more the unit cost decreases.

SUPPORT SERVICES

We offer 4 different levels for support to ensure to find the right one for your organization.

HOW MUCH WILL THE DEPLOYMENT COST?

Our aim is always to rapidly deploy your solution. Depending on the complexity on the project the first integration can be deployed in under a few hours. More complex one can last anywhere between a few days or a few weeks. This obviously has an effect on the price. We usually cap the costs for deployments. Our business is to provide an agile manage service to our customers for a reasonable price.

WHAT DO YOU MEAN UNDER THE SERVICE SUBSCRIPTION?

We base the service subscription pricing on the event volumes or the number of integrations. The more data you are transferring through the connections built on top of Youredi iPaaS, the more favorable the pricing gets. Cost-efficiency and attractive service scaling are guaranteed. The platform and product upgrades are included, you won't be charged for upgrades.

HOW DOES THE SUPPORT WORK?

You shouldn't spend time with maintaining the integrations, so we will do it for you! As the complexity of the different solutions may vary wildly, we offer five levels of support: Standard, Bronze, Silver, Gold, and Platinum. We'll help you to choose the one that's best suiting your needs.

CHAPTER 10

iPaaS Adoption

As Gartner has been forecasting, that the adoption of iPaaS would significantly grow by 2022 and the market would be accounted for 4 billion dollars.

There is no doubt in it: during the last few years, we have seen an accelerated speed in adoption to iPaaS. Those that want to stay ahead of the curve are evaluating the platform and implementing their first integrations with iPaaS so that they can initiate digitalization at a faster rate.

If you need help with accelerating your integration strategy with the help of an integration platform, do not hesitate to get in touch with us. You can send us a message to talktous@youredi.com describing your integration plans and our team will shortly get in touch with you.

About Youredi

Youredi is a leading global provider of a cloud-based Integration Platform as a Service (iPaaS) solution with a focus on global supply chain management and logistics.

Youredi enables quick connections and message translations between supply chain partners and customers. Integrating with communities, carriers, shippers, consignees and the systems that they use, Youredi provides global scale, speed, and agility. This seamless real-time flow of 100% accurate data, provides organizations the ability to analyze and optimize all supply chain processes.

Youredi provides a range of solutions related to big data, IoT, and analytics.