



# iPaaS

The future of application integration

enterprise business integration



**W**hen it comes to keeping applications talking to each other, Enterprise Service Bus (ESB) has served the purpose well. It has fulfilled the need of integrating applications using standards-based services. But two technology trends are forcing organizations to rethink how they will respond to the demand for enterprise integration middleware. The first is the rapid cloud adoption and the second is the acceptance of Open Source as the favored approach to enterprise software. In this environment, legacy ESB with its limitations may not remain the technology of choice. Rising to challenge the domination of ESB is Integration Platform as a Service (iPaaS).

iPaaS addresses the cloud and Open Source combination that is defining the future. Gartner estimates that “the enterprise iPaaS market continued to expand notably during 2016, approaching \$700 million in revenue and growing around 60% in terms of providers' subscription revenue when compared to 2015”<sup>i</sup>. Fundamentally, iPaaS is set to become the preferred choice for practically all new integration projects, making traditional methodologies obsolete.

Further, Gartner in its webinar points to a rapid growth of Open Source and says, “Open-source software is everywhere. By 2020, 98% of IT organizations will leverage open-source software technology in their mission-critical IT portfolios, including many cases where they will be unaware of it”<sup>ii</sup>.

## Shortcomings of ESB

Before examining the practical reasons to embrace iPaaS, it helps to understand where ESB has faltered in meeting the needs of organizations. ESB has led to:

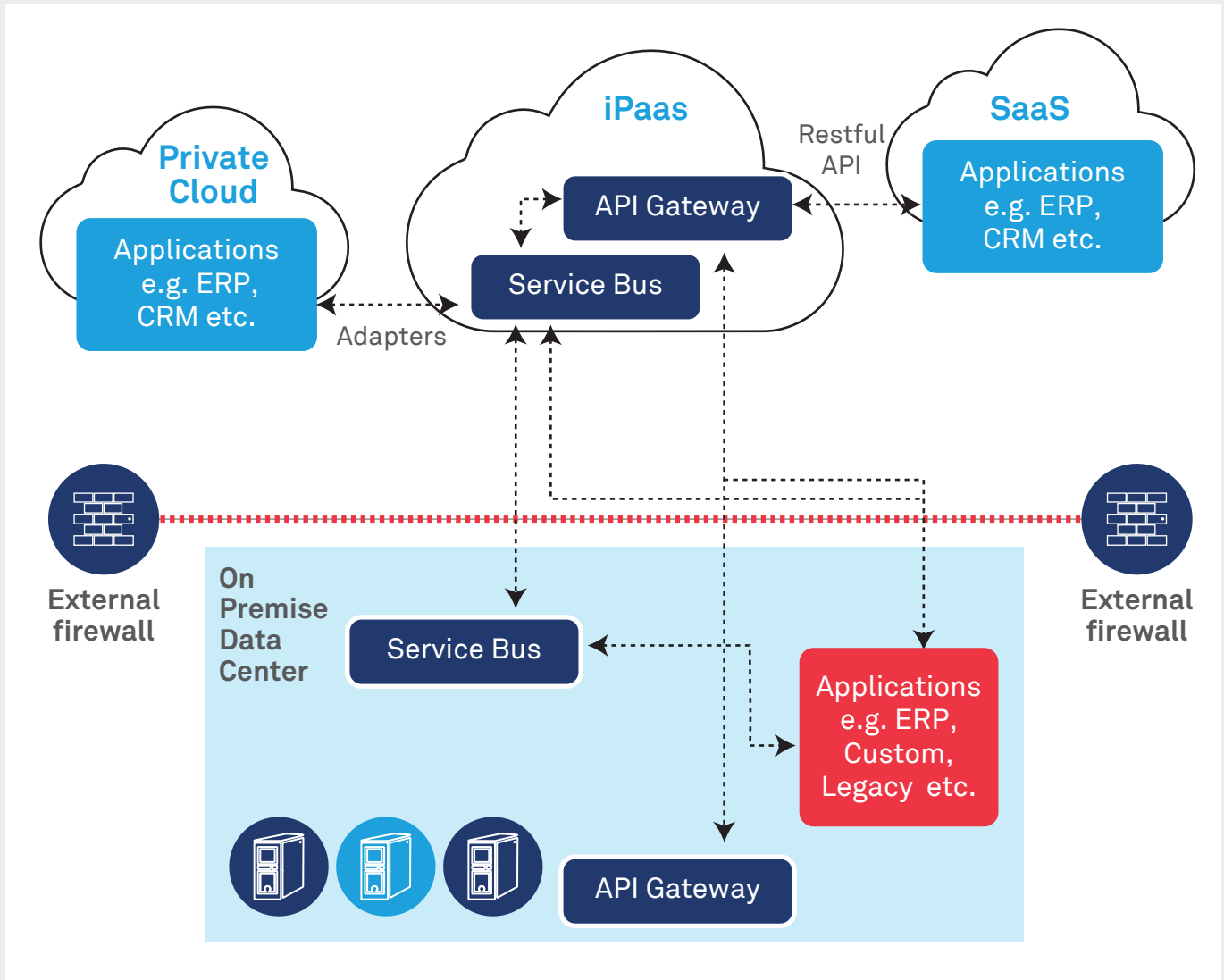
- Increased OPEX due to software license cost and server maintenance
- Customers need to buy inflexible, all-or-nothing middleware product stack despite minimal integration requirements
- Time consuming and expensive customization
- Inability to meet customer demand for combination of cloud and on-premise application integration
- Long release cycles for patches and upgrades
- A burden on resources as and when there is a change in business demands -- due to mergers, acquisitions, divestitures, etc.—leads to increased maintenance cost.

**Two technology trends, rapid cloud adoption & acceptance of Open Source as the favoured approach to enterprise software, are forcing organisations to rethink how they will respond to the demand for enterprise integration middleware. iPaaS addresses the cloud and Open Source combination that is defining the future.**

## The Open Source advantage

By contrast, iPaaS provides integration for on premise and cloud applications across devices, channels and trading partners. It provides a multi-tenant, elastic cloud infrastructure that can scale up relatively easily. The platform comes

pre-installed with the required software and does not need any administration such as patch upgrades or log maintenance to be performed by the customer.



**Figure 1: Cloud integration architecture**

It is, however, the Open Source flavor of iPaaS that we see as becoming the most sought after. Not only can it be hosted in cloud in three different flavors -- fully on cloud, hybrid and on premise (see Figure 1: Cloud Integration Architecture) -- in a pay-per-use model but with access to the code it can be modified at will to meet business needs. Which means a competent iPaaS provider can customize it as required and host it anywhere. As an example, a major global bank has an instance of iPaaS within the organization on its own private cloud with different operating units

keep data separately and each using a different instance of the iPaaS environment. The bank used our expertise for data transformation, API management and to pick and choose components (mediation, transport, EDI transformation etc.) that address the needs of each unit. Access to the hosted platform is controlled and data secured to meet stringent compliance requirements. Being cloud and Open Source-based the platform is affordable to organizations of all sizes, provides ease of provisioning and ensures scalability.

## Partnerships matter

Organizations opting for iPaaS solutions quickly place a strong list of benefits within easy grasp, provided they pick the right products for API management, traditional B2B EDI integration, services integration within the enterprise and their emerging IoT requirements. This is aside from the generic benefits such as plug-and-play features, quick bug fixes and easy customization for Open Source platforms.

iPaaS adoption should also be on the back of a carefully considered business model. The simplest, entry-level model is a fully hosted ready-to-use platform with plug-and-play components in a pay-per-use model. More ambitious businesses will want to build iPaaS capabilities within their organization using available products and customizing them to their needs. However, our recommendation, given the rapidly changing technology environment, would be for organizations to opt for a partner who can build, own and operate the integration platform using best of breed products. Organizations should only have to click a button and – presto! – integration is complete.



<sup>i</sup>Gartner, Magic Quadrant for Enterprise Integration Platform as a Service, 30 March 2017, Keith Guttridge et al.G

<sup>ii</sup>Gartner, Webinar, Key Market Dynamics in Application Infrastructure and Middleware, "The Application Integration Middleware Market Embraces Digital Transformation", May 2 2017, Fabrizio Biscotti, Massimo Pezzini.

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Avanish has been with the IT services industry for over 18 years with expertise in application and B2B integration architecture, hybrid integration, Open Source integration product evaluation and application modernization. He has led large digital transformation engagements and has helped customers in enterprise integration architecture.

In his current role, Avanish is responsible for providing advisory, CoE setup & product implementation services for fortune 100 customers across industry verticals.



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Danesh has over 19 years of experience in consulting, architecture, implementation and development. His core expertise is on Enterprise Integration covering API Management, Open Source Middleware, Integration Platforms as a Service (iPaaS) and SOA. He has published white papers and has been a speaker on integration and architecture.

In his current role, Danesh is responsible for defining solutions to customer's requirements in the areas of Open Source middleware, cloud integration and Integration Platforms as a Service (iPaaS).

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