EMERGING PLATFORM WARS IN ENTERPRISE SOFTWARE

McKinsey&Company

The Software-as-a-Service (SaaS) industry continues to grow rapidly. Over the past three years, revenues of the top 20 SaaS companies grew at close to 50 percent and 2007 saw several new IPOs in the space. The industry has also matured significantly in recent years. Both vendor offerings and business models have become more robust, while SaaS adoption has spread from small and medium businesses (SMBs) to large enterprises. Estimates indicate that the SaaS market could grow to more than $35 billion over the next five years, with significant penetration of SaaS in all major software categories.

The success of SaaS is driving broad change across the software industry. Today, customers are more aware of what SaaS has to offer, more comfortable with the reliability of SaaS solutions and keener to explore SaaS solutions for their businesses. Most SMBs and a growing proportion of enterprises use at least one SaaS application today. Software vendors, both large and small, are thinking about how to adapt to the new paradigms of the SaaS market, while a large number of developers across the world are moving to SaaS application development.

One of the most significant implications of this broad-based change is the emergence of a new kind of software platform. The increase in SaaS application consumption and development is driving the need for a new set of platform technologies built specifically to support SaaS. In this article we address some of the key questions surrounding this development, including how to define these platforms, the forces shaping this emerging marketplace and the implications for various stakeholders.

As with the evolution of technology platforms in the past, we are beginning an exciting time for the industry, as a host of mega-vendors and startups engage in the emerging SaaS platform wars.

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A new generation of software platforms

As expected with a new and dynamic technology paradigm, many definitions of this new kind of platform have emerged, along with varied interpretations of what it comprises.[1] Several vendors with widely different offerings and approaches have chosen to position their products in this space. In order to understand the market and examine its effects, we lay out some consistent definitions that categorize the types of vendor offerings in the market today.

Broadly defined, a "SaaS platform" is a set of technologies and services used to develop, deploy, integrate and deliver SaaS applications. More specifically, one can define a particular SaaS platform based on the components of a SaaS application stack. As seen in Exhibit 1, the platform for a SaaS application comprises the integration and development layers, the database, the common services layer, the run-time environment and on-demand infrastructure. Platform vendors offer some or more of these components, in varying combinations and with diverse add-on services and business models.

While we have used a traditional representation of an application stack to put SaaS platforms in a familiar context, these platforms are actually very different from traditional platforms, with most components optimized for or newly built for SaaS.

One immediate difference is that SaaS platforms contain components that simply didn't exist in traditional software platforms. These include components that were unnecessary in traditional platforms (such as SaaS-to-SaaS and SaaS-to-on-premise integration tools), components that are unique to the nature of SaaS applications (such as billing and metering applications based on factors such as users, transactions and volume) and components that were impossible in the on-premise model and represent significant SaaS innovations (such as infrastructure provided over the cloud).

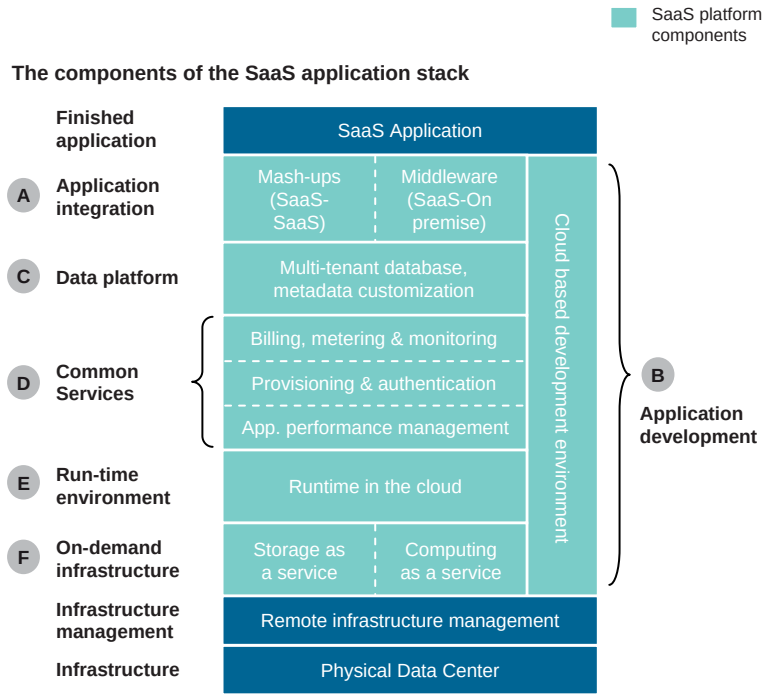
The second difference is that a SaaS platform is designed for multi-tenancy, which affects layers across the stack in many ways. For example, SaaS databases are built to handle hybrid data models and data architectures (with shared databases, separate and shared schema, global and tenant-specific fields, etc.). In the common services layer, authentication has to be built for multi-tenancy on several levels (e.g., a common delivery platform could have multiple vendors, each with multiple software applications, each with multiple customers). Further down the stack, the run-time environment and on-demand infrastructure layers use virtualization to provide multi-tenant sharing of resources and so on.

A third major difference is that SaaS platform components are often provided as a service (i.e., on-demand and over the cloud). The SaaS platforms market has seen cloud-based development tools, databases, billing and metering solutions, performance management solutions, on-demand infrastructure and more. This has led many to dub a SaaS platform as a PaaS, or Platform-as-a-

Exhibit 1: SaaS platforms consist of the technology and tools that are used to develop, deploy, integrate and host SaaS applications

What is a software platform?

A software platform is a set of products, services, tools and packages that help users develop and deliver their applications effectively



1. Some good descriptions of the new generation of platforms include Marc Andreessen's "The three kinds of platforms you meet on the internet" (http://blog.pmarca.com/2007/09/the-three-kinds.html) and Phil Wainewright's "A plethora of PaaS options" (http://blogs.zdnet.com/SAAS/?p=472).

Service. Another accompanying capability of a SaaS platform is the ability to abstract the stack at multiple levels of aggregation and disaggregation, depending on customer needs. For instance, an independent software vendor (ISV) can consume every layer of the SaaS platform in its entirety from a vendor and solely focus on the application layer or it can consume a particular stack layer (e.g., a billing engine provided as a service from a niche vendor). In this paper, we use a broader definition of SaaS platforms to include all platform technologies used to develop, deploy and deliver SaaS applications and not only those provided as a service.

Beyond these three major areas, SaaS platforms differ from traditional software platforms along many other dimensions, such as monetization, flexibility, upgrade cycles and ecosystems. We touch upon a number of these in this report.

Archetypes of SaaS platforms

Given the number of possible combinations of SaaS platform components, platform offerings naturally take various forms in the market. Over time, however, we believe that these are likely to evolve into a few canonical types, driven by customer requirements and supply-side traction.

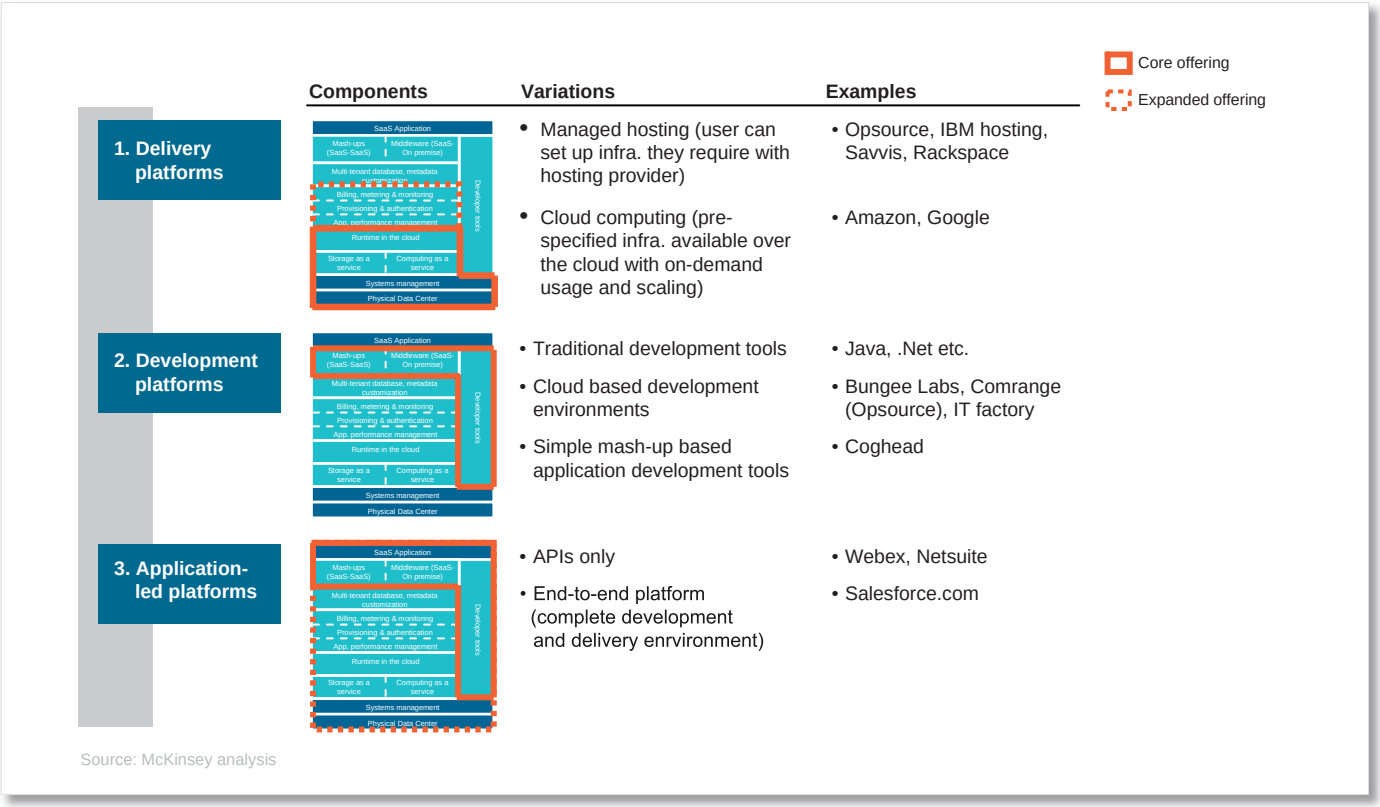
At the highest level, users look to SaaS platforms to fulfill one of three primary needs: application delivery, application development or access to a marketplace. Whether they are ISVs, IT services vendors or enterprise IT customers, users primarily need SaaS platforms to provide:

- A development environment in which to create their applications
- A run-time environment in which to deliver their applications
- An avenue to participate in a broad ecosystem and reach a new marketplace of users or developers

While there are various other ways in which SaaS platforms provide significant value to users (such as integration tools or pre-made components for common services), at the core a vendor must address one of these three needs to create a viable offering. Vendors that offer one or more components but do not completely address one of these needs can be considered niche component providers.

Given this context, we believe the market will ultimately consist of three broad SaaS platform archetypes—delivery platforms, development platforms and application-led platforms. Exhibit 2 shows the components of the stack included in each of these archetypes as well as their subarchetypes (diverse forms that address the same broad need) and examples among vendor offerings today.

Exhibit 2: SaaS platforms will have three broad archetypes in the steady state



Source: McKinsey analysis

Delivery platforms

Delivery platforms essentially provide a run-time environment, removing the need for developers to invest in their own infrastructure in order to host their applications. The core platform offering includes the physical infrastructure, storage and processing capacity as a service and a run-time "in the cloud." Expanded offerings could include elements of the common services layer, such as provisioning and authentication, billing and metering, and application performance management.

There are two subarchetypes of delivery platforms:

- **Managed hosting:** Similar to traditional hosting, but tailored to SaaS, managed hosting is perhaps the most mature platform type in the market. In this model, developers set up or obtain their infrastructure from a hosting provider, which manages it for them. This is one of the most popular models in the market today as it allows developers to build and customize the infrastructure that is right for their applications and get superior service levels and support. Examples of vendors include OpSource, IBM and Rackspace.
- **Cloud computing:** A much newer model pioneered by Amazon, cloud computing refers to a delivery environment in the cloud. In this model, vendors provide on-demand storage and processing capacity over the cloud. Major advantages of this model include increased convenience and faster speed to market, along with typically lower costs. In addition, this model also allows resources to be scaled up and down on the fly based on customer requirements. On the downside, customers don't get to choose or customize their infrastructure and need to be comfortable with sharing resources and potentially lower service levels and support.

Development platforms

Development platforms provide the development and integration layers of the platform stack, offering a variety of tools to create new SaaS applications or integrate with existing applications. These platforms can also be bundled with an integrated delivery platform to provide a complete development and delivery environment.

Development platforms are a relatively nascent platform model and come in three flavors—traditional integrated development environments (i.e., IDEs such as .NET, Java), new cloud-based integrated development environments (e.g., Bungee Labs, Comrange, etc.) and mash-up based application development tools (e.g., Coghead). As the market matures, we expect to see not only new tools across the lifecycle of software development but also more mature best practices for SaaS application development. In addition, these platform flavors are likely to converge, with future platforms offering cloud-based development environments based on traditional programming languages with built-in tools for mash-up based development for basic users.

Application-led platforms

An application-led platform is essentially a development platform offered by a vendor that uses the same platform for its core SaaS application. These platforms provide development and integration tools (ranging from APIs to full-fledged programming languages) for users to do one of two things—(i) integrate, customize and extend the vendor's core offering or (ii) build entirely new applications on the platform.

The main difference between this type of platform and development platforms is that application-led platforms offer developers the added incentive of reaching the vendor's core application customer base. In turn, the platform vendor is able to offer a host of add-on applications built on its platform to its core application customers, thereby enhancing its value proposition to both groups. In the past, these platforms emerged as leading SaaS vendors exposed their underlying platforms to their customers and partners to facilitate integration and customization. These vendors subsequently extended their offerings to more complete SaaS platforms.

Two types of application-led platforms are on the market today —API-only platforms (e.g., WebEx, Netsuite, etc.) and end-to-end platforms that bundle a delivery platform to provide a complete development and delivery environment (e.g., Salesforce.com).

The emerging platform wars

Perhaps the most interesting question for the SaaS platforms marketplace is how it will evolve. The past few months have seen mega-vendors pushing forward new platform strategies and several new startups entering the market as well. What are the battlegrounds for these new platform wars? What are the forces shaping the evolution of SaaS platforms? What is the end state going to look like? While it is always difficult to predict the future, these are some of the major questions that we explored in this study to develop a perspective on the future of this nascent market.

First of all, it is important to understand the economic value at stake. Let us consider two application lifecycle scenarios — from development to deployment and integration to delivery. The first is the traditional do-it-yourself model; the second is the new SaaS-enabled model.

In the former, an ISV develops an on-premise application (e.g., a simple CRM application module) using a development environment (e.g., .NET, J2EE) and a database platform; the customer then deploys and integrates the application using a set of software components (e.g., application servers, integration technologies) and then hosts the application itself or using a managed services provider (MSP).

In the latter scenario, an end-to-end application-led platform vendor (archetype 3 mentioned above) with massive scale (e.g., 1 million users on its delivery platform) is used by an ISV to develop, pre-integrate and deploy the same CRM application module, which is then hosted on the vendor's delivery platform.

Let us now consider the productivity of each platform, which we will define here as the total platform spend per dollar of application software spend. The platform spend includes all software components used to develop, deploy and integrate the application, as well as the hardware, software and labor spend to host the application. The traditional do-it-yourself model has a productivity of 60-70 cents to the dollar, while the SaaS-enabled model has a productivity of 20-30 cents to the dollar — a 50 percent to 70 percent improvement.

In addition, the SaaS-enabled model enables significantly accelerated time-to-value by compressing the cycle time between when an application begins to be developed to when it is available for use by customers and end users. Put differently, the significant economic advantage provided by SaaS platforms over traditional ones enables the same output (i.e., feature and function) for much lower platform spend, or generates higher output (i.e., new applications, features and functions) for the same spend. This is one of the key factors driving the growth of SaaS application platforms.

The size of the SaaS platform market will be determined by the underlying SaaS application market. Our estimates indicate that the SaaS applications market could grow to between $22 billion and $37 billion by 2012, consisting not only of applications that replicate existing on-premise application functionality but also fundamentally new classes of applications that did not exist in the on-premise world. Given the productivity value described above, we estimate that the total opportunity in SaaS platforms will grow to between roughly $5 billion and $11 billion by 2012.

About 70 percent of this value is expected to be concentrated in the delivery layers of the platform (including infrastructure, infrastructure management, on-demand infrastructure, run-time environment and common services), and roughly $1.5 billion to $3 billion will be in the database, development and integration layers. Of course, this will depend on maturing of monetization models, which seem to be in a state of flux today. While this is a significant market opportunity for platform vendors in itself, SaaS platforms are an even more critical battleground since they represent the fastest growth area of platform software and erosion of traditional platform technologies.

Second, we note that there are a unique set of forces affecting the evolution of this market. Apart from traditional factors such as innovation and industry consolidation, there are three major factors shaping the market that are different from the on-premise world and traditional platform wars.

Competition: The SaaS platforms market has an especially intense competitive landscape given the number of mega-vendors and startups that have entered or are likely to enter the space and the fact that each group has unique competitive advantages. While traditional mega-vendors such as Microsoft, Oracle, IBM and SAP have a significant advantage with their existing ecosystems and customer bases, SaaS incumbents such as Salesforce.com, WebEx and many others are further ahead in developing mature offerings, and several startups have emerged to supply specific layers of the SaaS platform stack. In addition, user preferences are also evenly distributed; a recent survey of 857 corporate users, conducted by McKinsey in collaboration with the Sand Hill group and the Software and Interop conferences, indicates that one-third of respondents would prefer to obtain a SaaS platform from SaaS incumbents, while another third turn to traditional mega-players. This sums up the nature of the battleground ahead between the established mega-vendors and pure play SaaS vendors.

Customer needs: The unique nature of SaaS applications translates to unique customer needs from SaaS platforms. For example, the rapid application development and deployment cycles in SaaS have led to a much greater emphasis on speed to market. Security, which has been a critical issue with SaaS applications in the past, will be hugely important for SaaS platform vendors because they effectively assume the security burden otherwise held by ISVs. Another significant difference is the importance of service level agreements (SLAs). While SLAs were irrelevant for traditional software platform vendors, they are a core part of a SaaS platform vendor's value proposition and will be a major success factor in the market.

Industry flux: Both technology and business models are very nascent in the SaaS platforms market, and innovation levels are high. While this is an opportunity for platform vendors to shape the market, it is a major issue for stakeholders that are struggling to identify the market's direction. In addition, due to the extensive use of open source technologies and Web services by platform vendors, SaaS platforms are far more disaggregated and open compared with traditional software platforms.

Multiple new battlegrounds

There are two types of wars emerging among SaaS platforms. The first is the war between the established mega-vendors and pure play SaaS vendors, as mentioned in the previous section. The second is the war between the different archetypes of SaaS platforms themselves, since they address different customer needs and target distinct customer segments. Exhibit 3 illustrates the major battles and alliances we expect to occur across archetypes.

The delivery platforms battle

First of all, delivery platforms will remain an independent battleground and will largely complement, rather than compete with, development and application-led platforms. This is because some customers will prefer to access lower layers of the stack (to define specific infrastructure or for complex application development) or simply prefer independent development environments and will therefore opt for one of the delivery platforms. These customers may use tools from development platform vendors or APIs from application-led platform vendors but will not use a bundled development and delivery platform as they need these pieces to be separate.

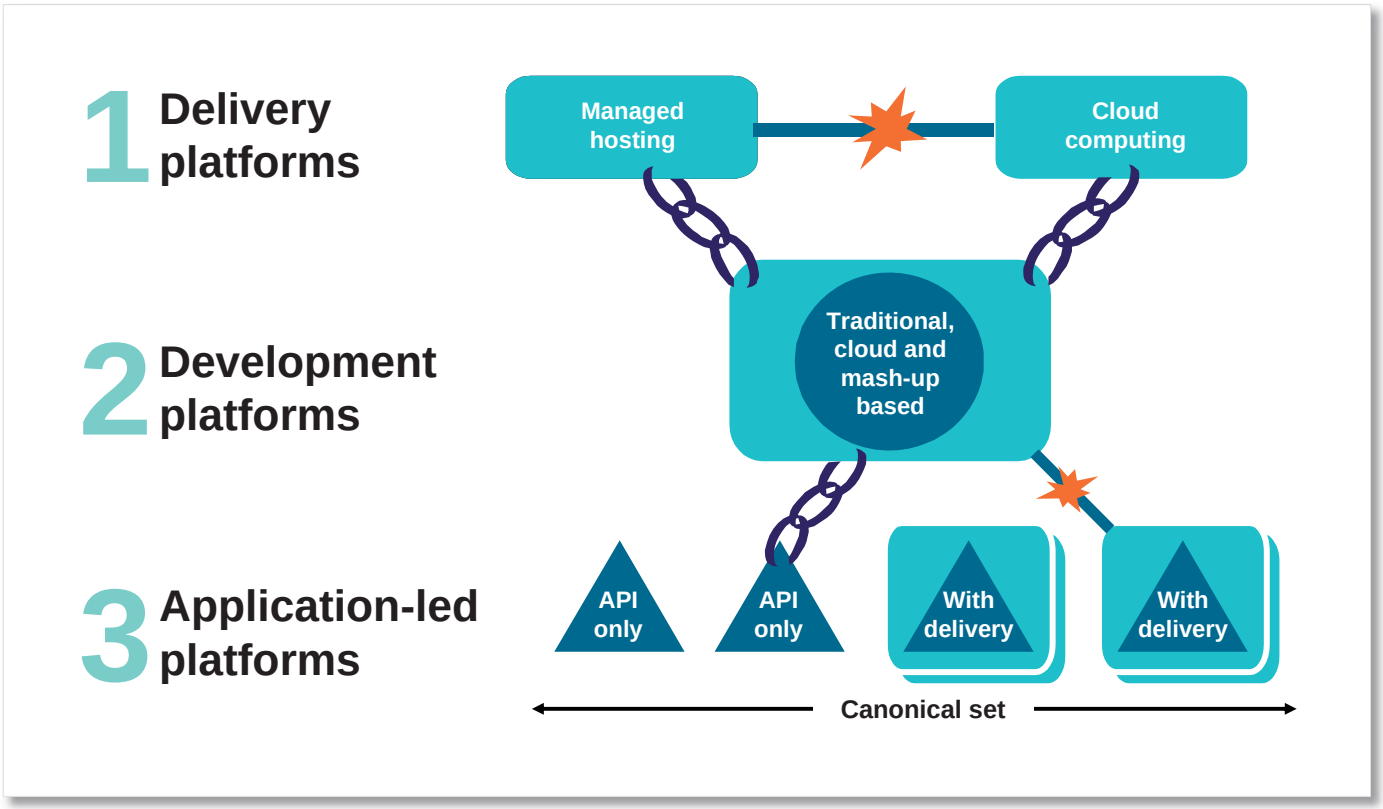
Among the delivery platforms, we expect managed hosting and cloud computing to grow into independent, large markets before they begin to compete with each other. Today, both models have significant room for growth and very different value propositions and will persist as independent markets for some time. In the future, however, as the market becomes more saturated, vendors across the two models are likely to develop overlapping value propositions and begin to compete for every new gigabyte or clock cycle needed in the cloud.

In terms of fragmentation, we expect the delivery platforms battle to be a "tale of two worlds." The success of vendors providing the core infrastructure layer will depend on scale, as larger vendors will be able to offer services at much lower costs and will drive out smaller, high-cost players. On the other hand, we expect significant innovation and continued fragmentation in the common services layer, with multiple vendors offering niche products that integrate with the leading delivery platforms to provide a complete solution to customers.

The development platforms battle

Among the development platforms, we expect the three variations that exist today—traditional, cloud-based and mash-up-based—to merge into a single battleground rather than persist as independent markets. In the coming years, we expect vendors to offer more powerful and sophisticated cloud-based IDEs that not only incorporate traditional programming languages but include tools for mash-up-based development. SaaS application development practices are far from mature, and we expect the next few years to see significant innovation in the market, with

Exhibit 3: Multiple new battlegrounds and alliances are emerging across archetypes



new tools across the software development lifecycle and vendors leveraging the SaaS model in new ways to deliver value to the application development process.

Given their complementary propositions, development platform vendors will find a lot of value in partnerships with delivery platforms. Over the next few years, we can expect development and delivery platform vendors to form multiple alliances that give customers the choice to select their development environment and delivery partner and obtain an integrated solution from both vendors. While some development vendors will prefer to create the delivery platforms themselves, partnerships will allow vendors to focus on their core expertise and will likely result in higher quality offerings in the marketplace.

The development platforms battle will, however, be a "winner takes all" market as development platforms will need a critical mass of developers, and scale will drive their success. Developers will not be in a position to invest in learning multiple environments or programming languages, which will lead to only a few major platforms persisting in the long term.

The application-led platforms battle

The application-led platforms war is likely to result in a canonical set of submarkets in the future, each its own battleground. These submarkets are likely to evolve around different kinds of application categories and assets. For example, interaction-based applications (e.g., collaboration) may have an independent market from "compute-heavy"-based applications (e.g., capital markets transaction processing), which may be an entirely different market from applications that leverage large amounts of information across a global network (e.g., supply chain applications). These submarkets are yet to evolve and will depend on supply-side traction, but it is inevitable that a set of unique canonical forms will emerge that are process-based, user- or role-based or information-based. Another unique trait of this market is that the APIs offered by application-led platform vendors will always be attractive to developers as they don't need to be used exclusively. Developers using other SaaS platforms or even those not using platforms at all can use these APIs to integrate their applications with the platform vendor's core application and participate in their ecosystem.

API-only and end-to-end application-led development platforms will both exist in the same submarkets and compete for mindshare among developers. However, they will have very different relationships with general development platform vendors, especially those that offer a delivery environment as well. While API-only platform vendors will have the opportunity to partner with such vendors (providing ready-made integrations), end-to-end development platforms will compete with these vendors to attract the same developers. In fact, end-to-end application-led platforms may compete in a broader battleground across submarkets as platform vendors that offer both a development and delivery environment all attempt to position themselves as the best complete platform.

In terms of fragmentation, this war is likely to be a "winner takes all" scenario, but separately in each canonical submarket. Both the scale effect on cost of service delivery as well as on development environments and ecosystems will drive consolidation and the creation of a few major vendors in each submarket.

Implications for stakeholders

Overall the SaaS platform wars will see multiple battles and alliances taking place simultaneously and the emergence of new submarkets and innovative vendor offerings. These developments are likely to have significant impact on all stakeholders in the industry, including both new and existing ISVs that are transitioning to a SaaS model, IT services vendors and enterprise leaders (IT and business). While market evolution will affect each of these groups in diverse ways, there are three key questions that are relevant for all stakeholders participating in the marketplace (Exhibit 4).

1. Do SaaS platforms offer me value?
2. Which platforms should I invest in?
3. How do I extract the maximum value from SaaS platforms?

Stakeholders will need to address each of these questions carefully and in the context of their own specific situations as they evaluate SaaS platforms for their application development and delivery needs.

ISVs

Of all the stakeholders, SaaS platforms provide maximum value to ISVs. This group includes both ISVs developing new SaaS applications as well as those transitioning their existing applications to SaaS. SaaS platforms provide four sources of value:

- **Low upfront costs:** SaaS platforms that provide hosting or a cloud-based delivery environment help ISVs avoid large infrastructure investments to deliver their SaaS applications. These platforms are useful not only for startup SaaS ISVs but for all sizes of traditional ISVs developing new SaaS applications.
- **Time to market:** Perhaps the biggest benefit of SaaS platforms is that they give ISVs rapid speed to market. Delivery environments, SaaS development tools, pre-made platform components (e.g., metering and billing) and, in some cases, access to a customer base all help to dramatically shorten the time required to develop and bring to market new SaaS applications. Combined with low upfront costs, this is boosting innovation across the industry as ISVs leverage platforms to quickly and cheaply develop and sell new kinds of SaaS applications.
- **High quality service delivery:** High-quality service delivery is a critical requirement for anyone hosting software applications as customers increasingly demand stronger SLAs. However, service delivery is traditionally outside the core skill set of ISVs, whose business focus is application development. SaaS platforms address this crucial gap and help ISVs fulfill industry standard service level requirements.

Exhibit 4: The evolution of SaaS platforms has significant implications across stakeholder groups

Key stakeholders

- ISVs
  - New ISVs (or ISVs developing new SaaS applications)
  - Transitioning ISVs (ISVs migrating their existing apps to SaaS)
- IT Services players
- Enterprises
  - IT leaders
  - Business leaders

Key questions for stakeholders

1. **Do SaaS platforms offer me value?**
   - *Do they provide functionality that better match my needs?*
   - *Can they improve my productivity?*
   - *Can they give me greater speed-to-value?*
   - *Can they help me access new markets?*
   - *Do they make my IT architecture more flexible or reusable?*
2. **Which platforms should I invest in?**
   - *How do I select the right platform for my business?*
   - *What are the factors that I need to consider while selecting a platform (costs, risks, quality, speed-to-value)?*
   - *How much should I invest in these platforms?*
   - *How difficult will it be to switch platforms?*
3. **How do I extract the maximum value from SaaS platforms?**
   - *What services does my platform vendor provide that could be useful for me?*
   - *Can the platform help me develop a distinctive value proposition for my customers?*
   - *How do I maximize the return on investments on the platform that I choose?*

- **Deployment and integration tools:** In particular for transitioning ISVs, SaaS platforms provide several tools that can help simplify the migration of on-premise applications to SaaS. In addition, several platforms provide the APIs and tools to integrate with other SaaS applications.

While platforms undoubtedly offer ISVs significant value, the more crucial question for this stakeholder group is how to select the right platform archetype and vendor. The various platform archetypes vary in attractiveness, depending on whether an ISV is looking to develop a new SaaS application or modify an existing on-premise application to SaaS (see Exhibit 5).

For new SaaS ISVs, all three broad archetypes will be very attractive since they will have minimal legacy systems or organizational skills that constrain their choices. Existing ISVs developing new SaaS applications may need to factor in their existing skills with specific technologies, but even then most archetypes will be very attractive. Transitioning ISVs, on the other hand, will find maximum value from delivery platforms. Since they have existing applications, they will not need development environments provided by other archetypes and will, at best, use some tools for migration and integration.

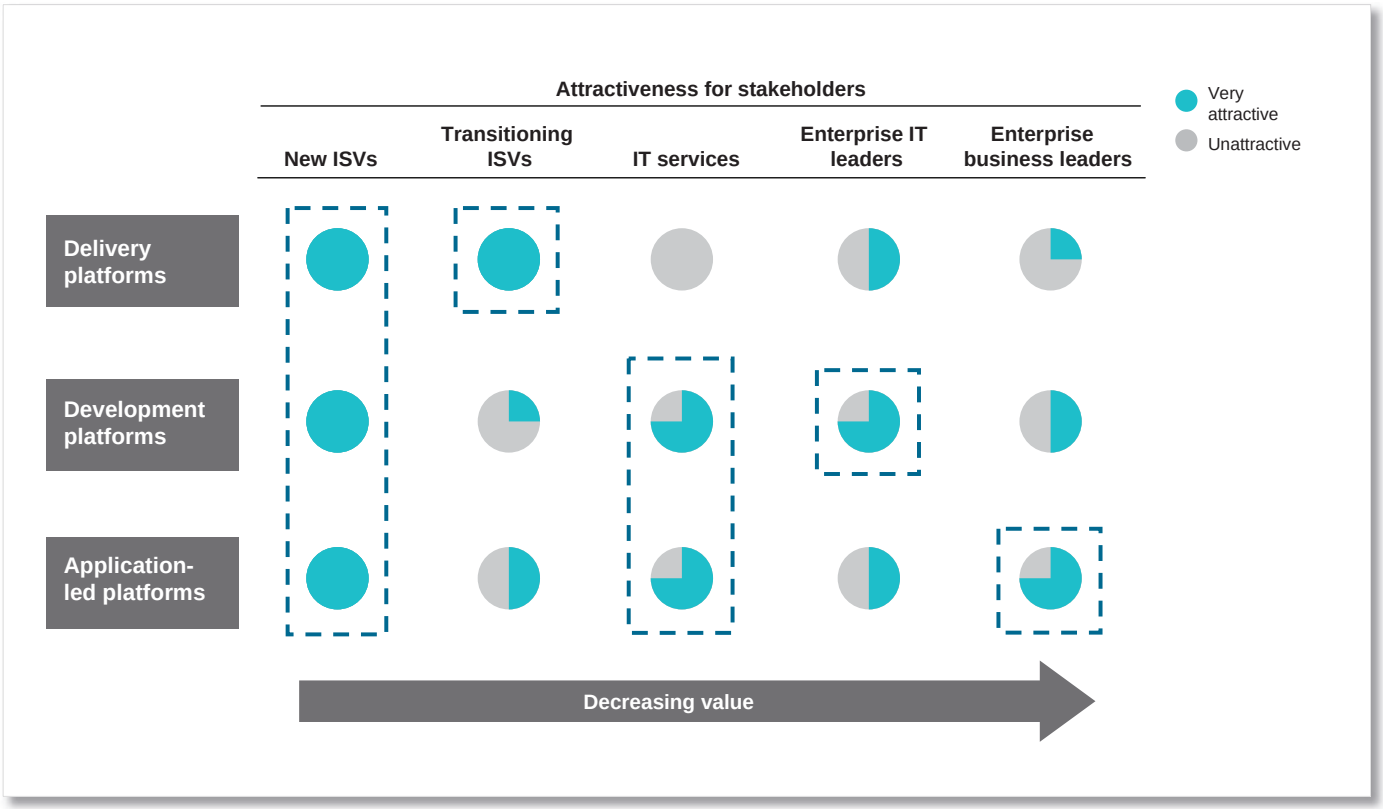
When selecting the archetype, ISVs will first need to identify whether they are looking for an integrated development and delivery platform or separate platforms. For separate delivery platforms, control over infrastructure design, SLAs, costs, automatic scaling and need for on-demand, cloud-based infrastructure resources will determine the choice between managed hosting and cloud computing. For integrated development and delivery environments, existing skills (in specific programming languages and technologies), ecosystems, market access and delivery environment requirements will be the important selection criteria. In addition, irrespective of the primary archetype chosen, ISVs may benefit significantly from APIs offered by application-led platforms to access to new customers, if such platforms are available for the right application category and market segments.

When selecting the platform vendor, ISVs will need to evaluate offerings along four major dimensions—costs, quality, risks and speed to value. Each has several questions to be addressed.

Costs

- What are the total costs (for development/migration and delivery) over a five- to ten-year period?
- Are platform costs aligned with desired economics and pricing model?
- How do costs compare with other alternatives?

Exhibit 5: Platform archetypes have very different value propositions for the various stakeholder groups



Quality

- Does the vendor provide cutting-edge technology and tools and drive innovation in the industry?
- Does the platform provide wide interoperability?
- Does the vendor provide comprehensive support and value-added services?
- Does the vendor have a large ecosystem?

Risks

- What are the lock-in risks, exit costs or switching costs involved?
- Are there any risks to long-term strategic goals (e.g., global footprint)?
- How will the choice affect existing on-premise products (short- and long-term)?
- Does the vendor provide adequate business continuity?

Speed to value

- Does the vendor provide access to customers?
- How much time and effort will the migration effort take?
- What is the impact on time taken to onboard new customers?

Once the right platform archetype and vendor have been selected, ISVs should also aim to maximize the value they extract from their platforms over time. Platform vendors often offer various products and services outside of their core offering that can be very valuable to ISVs. These include pre-made platform components, development and integration tools or go-to-market programs. In particular for new ISVs, such services can be very useful and further accelerate their speed to market.

IT services vendors

Traditional IT services vendors have largely been slow to adapt to the rapidly growing SaaS marketplace and many are unsure whether SaaS platforms offer them any value. We believe that SaaS platforms are increasingly relevant for IT services vendors and that these vendors will build expertise around some of these platforms to serve their customers. There are three reasons why SaaS platforms are important for IT services vendors.

- **Customer needs:** Several enterprises are beginning to adopt SaaS solutions and have a growing need for service providers to help them with integration and customization of these applications. Vendors will need to address this demand to maintain their customer relationships.
- **Competitive pressure:** Given the demand from customers, there is a growing breed of new services players in the market that focus on SaaS. These players are growing rapidly, benefiting from the high-growth SaaS services market and leaving traditional services players far behind on the learning curve. In this context, IT services vendors will be forced to adapt or will risk being sidelined by new players within their leading customer accounts.
- **Revenue opportunity:** While customer demand and competitive threat are reason enough for IT services vendors to invest in SaaS platforms, this would by no means be a loss-making venture. SaaS platforms provide a significant revenue opportunity to IT services players.

In terms of platform archetypes, delivery platforms are less meaningful for IT services vendors as they will not be looking for independent infrastructure to host their applications. However, development and application-led platforms will be much more meaningful. Development platforms promise to replace traditional development tools for all SaaS application development and will be important for services players that want to speed custom application development work. Similarly, application-led platforms will also be important for IT services vendors looking to build add-on functionality to the core application provided by platform vendors.

Selecting the right vendor to invest in, however, will be more difficult. Providers will need to adopt a strategic posture based on their risk profile. The least risky course of action is to wait and see which platforms become popular with their customers before investing in a few select vendors. Further along the risk spectrum, they could choose to stay abreast of the market, focusing on the top three to five SaaS platforms of the day and maintaining skills on all of them. At the highest risk level, vendors could choose to play a market-shaping role by selecting a few platform vendors and investing heavily in them to shape their success. The major global services providers that choose this path will play a very important role in deciding the outcome of the platform wars.

In fact, IT services vendors play a dual role in their platform relationships—investing to build the ecosystem and tapping the ecosystem for value. Strong ecosystems can be very valuable to IT services vendors, helping them find new customers, establish partnerships to enhance their market position and identify new revenue streams. Successful vendors will be those that are able to find the right balance to maximize their returns from the platform.

Enterprise leaders

There are two groups of stakeholders among enterprise leaders—IT leaders and business leaders. SaaS platforms primarily provide value to enterprises by allowing them to develop new SaaS applications quickly and cheaply and to extend existing SaaS applications. This gives businesses the opportunity to develop all kinds of custom applications without large, upfront investments in infrastructure or lengthy approval, development and deployment processes.

This is especially useful for smaller, non-critical applications, which, in the past, were de-prioritized by internal IT groups due to lack of resources or because they did not justify the required investments. In contrast to the traditional model, the rapid deployment of applications on SaaS platforms helps enterprise leaders realize value quickly and, therefore, justify investments.

In addition, being able to develop and deploy the right applications rapidly can provide huge value to enterprise business leaders by:

- Delivering more value to customers (through innovation, incorporating feedback into customer-facing applications, new applications, etc.)

- Improving organizational efficiency (with the right productivity, collaboration and content management applications)
- Keeping up with and staying ahead of competition (with matching and better functionality in customer-facing applications, by addressing current needs of the market, etc.).

Despite this, however, enterprise leaders are likely to find SaaS platforms only moderately attractive.

First, SaaS platforms only affect non-core application categories. Most large enterprises still do not prefer SaaS applications for mission-critical applications such as ERP and will not likely use SaaS platforms in these areas for several more years. In addition, with the proliferation of SaaS applications, enterprises face a larger issue of adapting their service-oriented architectures (SOAs) to seamlessly integrate across existing "siloed" SOA implementations, external Web services and SaaS applications. SaaS platforms don't address this issue at this time. In that context, SaaS platforms don't impact the issues that are most important for CIOs and, therefore, remain only moderately significant.

Second, while SaaS platforms could provide huge value to business leaders by enabling faster technology innovation, this proposition is not well understood by users or delivered by platform vendors. Moreover, platforms do not directly deliver this value to businesses but only enable it. Business leaders are still left with the burden of figuring out which applications would best benefit their businesses and then finding vendors that are able to design these applications well.

In terms of archetypes, as shown in Exhibit 5, application-led platforms are most attractive to business leaders, whereas development platforms are more attractive to IT leaders. In addition, given the escalating costs of building new data centers, IT leaders may also find a significant proposition from delivery platform vendors, especially managed hosting providers. Similar to ISVs, enterprises will need to evaluate lifecycle costs, short-term and long-term risks, platform services, support quality and actual speed to value to identify the vendors that best suit their needs.

Once SaaS platforms are adopted, enterprises will benefit greatly from IT services vendors and broader platform ecosystems. Enterprise leaders should aim to develop broad-based plans to leverage their platforms and aggressively tap these market players to deliver value on top of their platforms. Early adopting enterprises are in the position to develop competitive advantages if they are able to use their platforms effectively.

What should platform vendors do to succeed?

The SaaS platforms market will be shaped as much by the demands of stakeholders as by platform vendor actions. Given the number of players that have entered this market in recent months, winning the platform wars in the long term will be a very challenging task. Industry research highlights various important factors driving the success of platforms[2], which vendors must incorporate into their business models and strategies. We believe that platform vendors will need to focus on four critical elements of their businesses to succeed.

1. **Build a robust offering:** First and foremost, vendors will need to create a robust offering that offers real value to SaaS developers. They must offer technology and services that address SaaS-specific needs and are at the cutting edge of industry innovation. In addition, reliability of services and quality of support will play a critical role in separating the winners from the losers
2. **Monetize effectively:** Monetization will be the most important success factor for platforms. Vendor offerings must deliver significant value to users compared with their alternatives (e.g., do-it-yourself, on-premise, etc.). Platform leaders will be those that are not only able to truly share economic value across their ecosystems but also create significant economic value for the ecosystem.
3. **Deliver extensive value-added services:** Apart from the core offering, value-added services that extend the value of a platform (e.g., go-to-market benefits for ISVs, access to customers, etc.) will play a significant role in the market. Addressing customer pain points will be key to creating "sticky," successful platforms.
4. **Drive ecosystem growth:** Driving growth of ecosystems with extensive distribution and partnerships (often possible only for first-movers) will be critical for platform vendors to capture share. Vendors will need to build a community that adds value to all its members through collaboration and sharing of tools and best practices.

Apart from these four elements, platform vendors will also need to hone specific skills based on their market focus. In particular, delivery platform vendors must aim to offer distinctive service and support and build the most cost advantaged scale infrastructure; development platform vendors must create extensive tools and pre-made modules and packages; and application-led platform vendors will need to find innovative ways of enabling access to new customers and vendors for all their ecosystem players.

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The rapid growth and adoption of SaaS applications is driving a new generation of SaaS platforms. These platforms are fundamentally different from traditional platforms and also are economically more attractive to develop, deploy, integrate and deliver SaaS applications. A battlefield is emerging between the established mega-vendors and pure play SaaS vendors and also between the different platform archetypes that will shape the future evolution of these platforms. Amid this uncertainty, all customer types—ranging from new ISVs, transitioning ISVs, IT services vendors, enterprise IT and business leaders—need to determine which platforms, if any, will be of value to them, which archetype and vendor to invest in and how to ensure maximum value capture from the platform. At the same time, there will be a clear set of winners and losers among platform vendors. It is imperative for both customers and platform vendors to understand the extent of this paradigm shift as the stakes of getting this right are high.

2. Significant research includes "How companies become platform leaders," Annabelle Gawer and Michael A. Cusumano, *MIT Sloan Management Review*, Nov. 2007.

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