

The Eight Key Dimensions of Platform Product Management

Successful tech companies like Amazon, Google, and Alibaba are unleashing profound global macroeconomic changes through their platform-based business models. But this is not just a tech industry phenomenon. Industry leaders across all market segments are building platforms to seize new opportunities for growth and capital rewards. In fact, 81 percent of executives say platform-based business models will be core to their growth strategy within three years.¹

However, managing a platform is different than managing an application and the methods, techniques and skills of product management in these two environments are distinct. The two main objectives of platforms are acceleration and extended value. If an organization wants to achieve these objectives on its platform, it is critical to recognize the differences and employ the appropriate platform product management capabilities.

Successful platforms have product managers who constantly strive to shift the organization's DNA from product to "platform first."

Accenture interviewed platform product managers from successful platform companies such as Adobe, Dropbox, Salesforce and PayPal, along with our own internal platform product teams, to understand the subtle but critical nuances between platform and application product management. **Our research revealed eight key dimensions where a platform product manager needs to operate differently from a traditional product manager in order to shift to a "Platform First" approach.**

Empower the different types of personas in the ecosystem

Application product managers are highly focused on crafting the product specifically for end-user personas. Whether they are consumers, enterprise users or enterprise administrators with different usage preferences, the goal of the application product manager is to maximize the value delivered to these end users.

A platform, however, serves an ecosystem of different types of personas from end-users to developers, producers and partners and generally, the platform's end-user persona is not well known. The goal of the platform product manager is to focus on the mid-tier the developers, producers and partner personas in the platform ecosystem—so that they can, in turn, deliver optimal value and rich experiences to their end-users. The multiplier effect is successful when the platform ecosystem is larger and more powerful than the company itself. The core responsibility of the platforms is to not just be future thinking but to be velocity oriented.

Ashley Still, Vice President/General Manager, Adobe Document Cloud and Adobe Creative Cloud Enterprise, Adobe

In a complex business with multiple point products and cloud-based solutions at various stages of maturity, the key issue for us, as platform product managers, is to ensure we have "a platform first" or "API first" DNA throughout the company.

Vijay Vachani, Director, Partner Platform & Ecosystem, Adobe Creative Cloud, Adobe

Customers focus and empathy is just as important as relevant in Platform product management. Rather than building platforms because it's the next cool thing to do, Platform product managers should develop a laser focus on what problems they are looking to solve for their developers and partners.

Priya Lakshminarayanan Sr. Dir, Head of Product, PayPal Platform Services

We strive to empower the middle tier of the ecosystem (e.g. developers, partners, admins). The goal of a platform product manager is to make them as powerful as can be.

Heather Conklin, VP Product Management-AppExchange, Salesforce

Protect the core interactions and enable the rest

The platform ecosystem necessitates a key question: What are the platform features that the personas derive value from on a regular basis? These features form the core platform interaction, which is the company's key differentiation and should therefore be protected.

As an example, Dropbox's core interaction and differentiation is high performance ubiquitous collaboration. Dropbox continues to grow its users and customers while empowering its ecosystem through a suite of APIs and integrations with popular tools like Microsoft Outlook, Autodesk, Google, Salesforce, and Atlassian's JIRA Software.² There are now more than 300,000 paying Dropbox business teams³ and more than 75% have linked to one or more third-party applications.⁴

Only when the core is fully developed, and business model finalized, should the middle tier of the ecosystem—developers and partners —be empowered to develop complementary experiences on top of the core interaction. The platform approach is really an embodiment of a desire to scale and scaling can only be achieved through a clear distinction between the platform's core interaction and its enablers.

That means that platform product managers have to think about what is core and what can be shared. Making mistakes in this area can have consequences. Exposing the core creates competitors. Doing it right creates complementary experiences. Our main goal is to keep your content safe in Dropbox, while making it extremely accessible.

Doug Summe, Platform Technologist, Dropbox

If a platform product strategy does not incorporate a "Platform First approach" with core interaction APIs and enablers, it will be very difficult to scale across multiple customer segments.

Ramadurai Ramalingam, Managing Director, Platform Engineering, Accenture

Exposing the core creates competitors. Doing it right creates complementary experiences.

Scale with public APIs while providing premium or secure access through private APIs

The middle tier of the ecosystem generally consists of developers and these developers are enabled to create complementary experiences through APIs. This introduces a key dilemma for the platform product manager. Should the APIs be made public (shared with all 3rd party developers)? Should they be kept private (shared internally or with select partners)? Or, should the code be opensource?

Opening up an API externally to the public is a large commitment, and the APIs have to be treated like a product.

The platform product manager should follow a decision framework to help guide this decision, similar to the simplified decision tree in Figure 1. It is critical to consider what data should remain private, what can be exposed to partners and, if appropriate, what data can be exposed to public developers. As recent newsworthy events have demonstrated, the decision to make an API public is a significant decision that needs to comply with privacy policies and endure rigorous testing.

Figure 1: Framework for determining API strategy



Most public APIs are initially introduced as private APIs to ensure they are tested thoroughly before their broader release. They are initially released as "private internal" for internal teams to use to create connectors with third party apps. This helps test functionality, performance and security. If the APIs pass the internal scrutiny, they are published as "private APIs" or "beta APIs" and released to select ecosystem partners. Once the APIs perform with no issues at external partner sites, the APIs are released as "public APIs."

Some companies choose to open source internal platforms to showcase the interesting work they are doing internally which can serve as a recruiting tool.

Influence the microservices architecture

Whether monolithic or microservices, the architecture of an application is designed and managed entirely by engineering teams. In contrast, platforms are predominantly built using microservices architecture so that business capabilities can be exposed through APIs and apps can be built on top of the platform. This distributed microservices architecture can quickly become tangled and impede scaling if the platform product manager does not get involved.

The platform product manager will need to have enough technical skills to ensure the architecture is truly a microservices architecture. He or she will also need to understand the data and interdependencies and delineate the micro services based on business capabilities. Additionally, each user story can span multiple services, which requires careful dependency mapping between the different microservices.

A platform product manager has to check the microservices support structure. There is a need to get down to the weeds of system architecture in order to understand the DB table(s) and what is exposed to the service.

Doug Summe, Platform Technologist, Dropbox



E-commerce platform example

Dependencies between Order, Shipping & Payment Service will have to be considered for any new use case

Each microservice can build on their own tech stack and there is no need to get locked into a database. However, in reality maintaining multiple versions of the tech stack or database will be cumbersome and expensive. As a result, the Platform Product Manager will be required to influence a standard - e.g. all microservices need to adopt ASP.NET & OracleDB back-end Additionally, the key platform success metrics are similar metrics used to monitor microservices. Common platform metrics are:

- Platform availability SLAs measured as 99.95% / 99.99% / 99.999%
- Usage metrics measured as #API calls/day
- **Performance metrics** measured through Read/Write/ Query latencies in mico/milli seconds
- Scale metrics measured as #Events ingested per day, #of queries per second, #of notifications sent per day etc.

Application product managers measure success of their product using engagement and retention metrics such as DAU/ MAU. Success of a platform should also be deliberate about the metrics they choose to define success. Eg: API calls/day, #Events ingested per day etc.

Priya Lakshminarayanan Sr. Dir, Head of Product, PayPal Platform Services

A platform product manager should be deliberate about the metrics they choose to define the success of their platform and understand the impact that the microservices architcture can have on their success metrics.

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Strive for long-term sustainability versus short-term trade-offs

In traditional application product management, the features prioritized for development are determined using a matrix of business value versus effort. Generally, the highest priority is according to features that provide quick wins. However, a platform serves as a foundation on which many businesses develop their applications and sustain their business model. Hence, the prioritization of features for a platform requires long-term planning to ensure sustainability, performance and scalability over time.

The platform product manager needs to understand the long-term strategic vision well enough to decide on short- and long-term trade-offs. Focusing only on the short-term quick wins may not encompass requirements specifically for performance at scale and extension of the APIs for different market segments, which could be disastrous for partners and for platform growth. There is always a need to appropriately balance quick wins versus long-term platform investments. Many times, unpopular decisions that hurt the short-term wins are made to make the platform better over time.

Consider Adobe, where the average platform strategy spans at least 10 years. Adobe's transition from packaged software to subscription-based cloud services began in 2013. Eighteen months ago, Adobe began investment in building support for artificial intelligence (AI) and the company is currently thinking long-term about the next generation platform that includes AI, voice, augmented and virtual reality technologies. This approach does not come easily. As Adobe CTO Abhay Parasnis commented, "When we first started thinking about the next generation platform, we had to think about what do we want to build for. It's a massive lift and we have to architect to last a decade."⁸ A platform product manager is different. There is no instant gratification for the platform product manager. They need to be patient. Long-term requirements are a tough sell and can be influenced by discussing potential total addressable market (TAM) expansion and growth in product lines.

Doug Summe, Platform Technologist, Dropbox

Emphasize future-proofing during platform updates

Traditional packaged software has a very clear upgrade path and is managed by the engineering or support teams. The new releases only impact the end-user in terms of usage. However, a platform product manager has to be involved in the upgrade strategy in order to drive long-term performance of the platform.

The platform product manager has to have enough technical knowledge to develop a meticulous upgrade strategy since there will be developers and partners that base their businesses on the different versions of the platform. When the version is changed, the platform product manager has to think through the support of all the applications based on previous versions and how to ensure older APIs remain intact so that ecosystem developers are not impacted by changes to the platform's underlying code or architecture. For example, Salesforce ensures futureproofing by making sure that no application written on the Salesforce platform is rendered obsolete by an upgrade. When Salesforce upgraded from Salesforce (classic) to Salesforce1 (lightning), the company supported Salesforce classic console API methods in the lightning console API to enable customers to transition.9 Also consider the simple email protocol -POP3, IMAP, SMTP. These haven't changed in decades and, because of that, there is now a rich ecosystem of email access methods, apps, tools and services.

Optimize by exploring the distinct platform monetization models

In packaged software products the monetization flow is generally one-way. End users pay for the product directly or through advertisements. This is not the case with platforms where the monetization flow is complex across the ecosystem of developers, partners and end-users. Platform product managers need to be able to drive long term sustainability, scalability & performance for "future "proofing the platform.

Heather Conklin, VP Product Management – AppExchange, Salesforce

Older technology still has to work – the developer eco-system will get disengaged if backward compatibility is not thought through when defining the platform.

Robert Hiss, Managing Director Products & Platform, Accenture

Companies like Adobe & Netflix currently do not directly monetize the platforms. Platforms support experiences – features are developed to enable experiences. So, monetization is still through the application.

Ashley Still, Vice President/General Manager, Adobe Document Cloud and Adobe Creative Cloud Enterprise, Adobe Companies like Adobe & Netflix do not directly monetize their platforms. They use the platforms to enhance experiences on their applications that improves customer loyalty and enables new customer acquisitions.



Sometimes partners or developers can also be paid to use the platform to amplify the network effect – growing the developer ecosystem to grow the platform. For instance, Slack has set up an \$80 million fund to seed development of the Slack platform.¹⁰ There are also instances where the success of the platform is based on growing user adoption of the core product. (See Figure 2.) Platform product managers and their organizations must give careful consideration to adopting the right monetization model to achieve the best return on investment.

API revenue share	Products built on Salesforce platform pay out around 15 - 25% of revenues as royalty. ¹¹ Currently 50% of Salesforce revenues are through APIs. ¹²
API subscription	Docusign the #1 e-signature platform prices its APIs based on a monthly subscription plan with tiering based on document volume. Docusign's revenue was \$518M this year at IPO and nearly 60% of the transactions are through APIs. ¹³
API call volume	Twilio, a real time communication platform charges per API call or per user. ¹⁴ Twilio's revenues are in the range of ~ \$400M with an average YoY growth rate of 50%. ¹⁵
Premium API access	Twitter offers APIs for premium access for elevated access. ¹⁶
Strategic API partnerships	Salesforce has an AppExchange Partner Program that ISV partners can take advantage of: ISVforce allowing developers to build, market, and sell apps only to salesforce.com customers at 15% reduction. ¹⁷
Data monetization	Twitter has started allowing enterprises to access APIs that directly provide data insights. ¹⁸ Data licensing now accounts for 15% of Twitter revenues. ¹⁹

Figure 2: Sample platform monetization models

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Inspire the shift to a "platform first" culture

Companies undergoing a transformation to a platform have to be very purposeful in the architectural decisions that are made and the order in which the platform is built. Every single decision needs to encompass a mindset of building for flexibility – this is the core of the platform DNA or platform culture.

Traditionally product managers provide supervisory leadership with tight control over features delivered by each scrum team. This approach is sustainable with a monolithic architecture and internal developers. However, a platform product is comprised of multiple microservices with each microservice engineering team operating independently. The approach of decoupling releases introduced by the platform microservices architecture is only successful with highly aligned and empowered autonomous teams.

A platform product manager needs to work with internal developers as well as external developers in the platform ecosystem. While in application product management the product manager controls backlog, product approval and releases, in platforms, there are multiple dependencies and decisions controlled by autonomous teams. Platform product managers must collaborate, justify objectives through a strong business case and lead through influence. He or she is a key influencer in setting the order and speed of releases so that the platform foundation remains strong.

Some organizations allow time for "spiking," or time to research and think through architecture in advance of sprints. This is more common in platform product development. Having good working relationships with developers & a deep understanding of the breadth of business and what the customers do is very important for platform product managers.

Ashley Still, Vice President/General Manager, Adobe Document Cloud and Adobe Creative Cloud Enterprise, Adobe

In platform engineering, we allow time for spiking - researching and investigating architecture options before beginning development sprints.

Heather Conklin, VP Product Management – AppExchange, Salesforce In addition, general product management principles of continuous improvement and agile development apply (Figure 3).

Figure 3: The culture of a successful platform engineering team



A platform first DNA

The movement from a product approach to a platform approach is a complete organizational transformation, inclusive of product management. An organization that does not embed the necessary platform product management capabilities into its DNA can make poor strategic decisions about the platform's evolution that have unintentional and potentially devastating effects.

By following the above eight guiding principles, organizations can ensure they have the best platform product management capabilities in place to guide their future, monetize their investment and capitalize on the multiplier effect of having many thriving businesses whose livelihood sits on top of their platform.



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