

## Shifting to the Cloud – How SAP’s Partners Cope with the Change

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### Abstract<sup>1</sup>

*With the advance of cloud technology, enterprise software vendors have introduced software platforms to facilitate third-party contributions to their ecosystems. This shift towards cloud-based software platforms affects ecosystem partners who have to adopt the new technologies, rethink their business model, and change their sales strategies. To understand how partners cope with this change, we conducted an exploratory case study within SAP’s partner ecosystem after the introduction of a cloud-based software platform. By conducting 14 interviews within SAP and 10 partner companies, we identify three distinct coping strategies that partners adopt in the face of the shift to the cloud. Partners either (1) embrace, (2) slow down, or (3) repurpose the change. SAP in turn engages in mediation actions to increase the adoption of its platform and to alleviate possible negative impacts of the coping strategies. These mediation actions contribute to a continuous adjustment of SAP platform strategy. These findings contribute to literature on platform ecosystems by (1) highlighting that partners react differently to change in the ecosystem and by (2) shedding light on the interactions between platform owner and partners in the development of a platform strategy.*

### 1 Introduction

In the enterprise software industry, collaborating with partners to offer end-to-end solutions to customers is a crucial part of vendors’ competitive strategy [1, 2, 3]. With the advance of cloud technologies, the collaboration between enterprise software vendors and their partners changes. Instead of developing software extensions that are deeply intertwined with the core enterprise software, partners develop software-as-a-service (SaaS) applications that communicate with the core enterprise software through standardized application programming interfaces (APIs) [4]. Vendors transform their networks of strategic partners into platform ecosystems with a potentially unlimited number of third-party developers that

provide complementary applications. As illustrated by Salesforce, a provider of enterprise software with a focus on customer relationship management, the implementation of a cloud-based software platform can spark innovative contributions by numerous third-party developers [5] and lead to sustained success. Furthermore, cloud-based ERP solutions promise advantages such as higher speed and availability and smaller up-front investments for customer, making the solutions more attractive for small and medium-sized enterprises [6].

However, existing partners of enterprise software vendors face challenges when a cloud-based software platform is introduced and the ecosystem shifts to the cloud. Partners have to migrate their own products and services to the cloud, change the provisioning of their services, and convince their customers to adopt these cloud offerings [7]. Coping with these changes is crucial for partners to survive the paradigm shift towards cloud technology. At the same time, the enterprise software vendors that act as platform owners need to understand how they can support their existing partners to cope with the change.

IS research is of limited help to understand the partners’ challenges and coping strategies. Researchers have acknowledged the importance of partners for enterprise software vendors and have analyzed the relationship between vendors and their partners. Thereby, the focus lies on how platform owners govern the ecosystem of partners [8, 9, 10]. For the partners’ perspective, mainly reasons of partners to join a platform ecosystem have been studied [3, 11, 12]. To enhance this understanding with regard to how existing partners react to ecosystem changes, we pose the research question: *How do partners of enterprise software vendors cope with the shift to a cloud-based software platform and how can the enterprise software vendor mediate these coping strategies?*

To address this question, we analyze the partner ecosystem of SAP after the introduction of a cloud-based software platform. We conducted 14 interviews within

<sup>1</sup> This paper was supported by the Franco-Bavarian University cooperation center (BayFrance) through a mobility grant (FK01\_2018).

the partner ecosystem. We identified three distinct strategies applied by partners to cope with the shift towards a cloud-based software platform: Partners (1) embrace, (2) slow down, or (3) repurpose the change. We show that the platform owner applies mediation activities and thus adapts its platform strategy based on the partners' reactions.

These findings contribute to literature on platform ecosystems in the context of enterprise software by highlighting that third-party developers cope differently with technological changes in the ecosystem and that the platform owners need to address these differences as part of their platform governance. The results can prove helpful for both enterprise software vendors and their partners in practice. We illustrate specific measures how vendors can react to their partners' coping strategies during the introduction of a cloud-based software platform.

## 2 Theoretical Background

In this section, we describe our theoretical pre-understanding of the role of partners in the enterprise software industry and the increasing importance of platform ecosystems in that context.

### 2.1 Partner Ecosystems in the Enterprise Software Industry

Partners are important for the success of enterprise software vendors. Customers of enterprise software expect end-to-end solutions across their business processes, divisions, and countries of operation. To offer these end-to-end solutions, enterprise software vendors collaborate with partners that fill white spaces in their product portfolio with specialized expertise. For example, it is usually easier for vendors to rely on a local partner to implement country-specific tax regulations in an enterprise resource planning (ERP) tool than to implement it on their own. Furthermore, partners can support global sales and support activities or provide additional services such as consulting or customization of the standard enterprise software [1, 2]. As a result, enterprise software vendors have established ecosystems of partners that enhance their core offering [3].

Analyzing how partners engage in these partner ecosystems and how they interact with the enterprise software vendor is thus important for understanding success and failure of enterprise software. While IS research has acknowledged the importance of partners for the success of enterprise software [1, 3], studies mostly focus on the partners' decision to join an enterprise software ecosystem. Factors such as a platform's resources, its market access, leadership, and reputation have been identified to positively influence the partners' decision [11, 13,

14]. Uncertainty regarding market, technology, and the behavior of the involved actors represent factors that may inhibit participation of partners [14]. Focusing on the partners themselves shows that their downstream capabilities and intellectual property rights are indicators for partnership formation [12].

Once partners have joined an ecosystem, they have entered into a relationship with the enterprise software vendor. This relationship is coined by an interplay of trust and power that evolves over time [8]. Furthermore, technological, informational, and value-based asymmetries lead to challenges for partners [15] which they address with specific response strategies. In sum, IS research has started to focus on the role of partners in the enterprise software industry and their individual strategies to become a successful ecosystem partner.

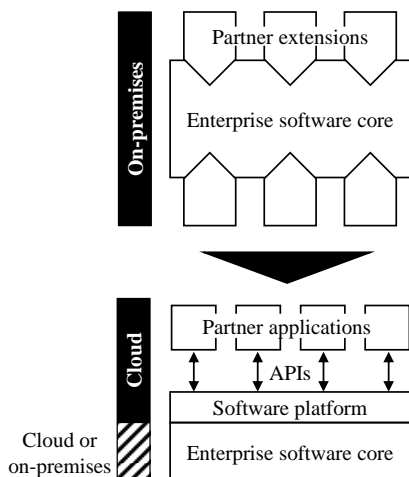
### 2.2 Platforms in the Enterprise Software Industry

The advance of cloud technologies enables digital interconnection between products and processes within and across industries [16]. In the enterprise software industry, this development has led to the emergence of cloud-based software platforms. We define software platforms as “[...] the extensible codebase of a software-based system that provides core functionality shared by the applications that interoperate with it and the interfaces through which they interoperate” [17, p. 676]. The underlying change from monolithic to modular software architectures facilitates collaboration of the platform owner with third-party developers that create complementary applications within the platform ecosystem [17]. If the complementary applications are provided as software-as-a-service via the internet, we use the term cloud-based software platform (often referred to as ‘cloud platform’) [18].

Enterprise software systems have been referred to as platforms before as also on-premises software suites are extensible with partners providing numerous extensions to the proprietary core [3]. However, by relying on cloud technologies, more scalable platform ecosystems emerge. Instead of extensions that are closely integrated in the enterprise software's core, a cloud-based software platform provides an integration layer that separates the core from modular complementary applications. Thereby, the core often remains on-premises, only few companies have recently started to move their whole ERP software to the cloud. Communication between complementary applications and the core happens via standardized APIs [17] (Figure 1).

The resulting platform ecosystem is similar to those that emerged around software platforms in the context of smartphones (e.g., Google's Android [19]), video games (e.g., Sony Playstation [20]), social networks

(e.g., Facebook Apps [21]), or smart home (e.g., Telefónica's BlueVia [22]). In all those platforms, third-party developers develop complementary applications that enhance the platforms core offering. The platform owner engages in platform governance to incentivize third-party developers to join the platform ecosystems and to control the activities within the platform ecosystem [17].



**Figure 1: Shift from on-premises enterprise software to cloud-based software platforms**

IS researchers have studied platform ecosystems with a focus on how platform owners set up and manage platform ecosystems. For example, researchers have analyzed the optimal degree of openness of software platforms [23], the balance of openness and control [24], or the role of boundary resources to facilitate value co-creation on software platforms [24, 25]. Fewer studies take on the perspective of third-party developers. Research focuses on third-party developers' decision to join or desert platform ecosystems [26, 27]. The situation of existing third-party developers who face a technological change in the ecosystem has not yet been analyzed. It thus remains an open question how partners of an enterprise software vendor react to the introduction of a platform and how the platform owner can address the different reactions.

### 3 Method and Case Selection

To explore how partners of an enterprise software vendor react to the introduction of a cloud-based software platform, we empirically study the case of SAP that has established a platform as extension of its ERP system.

### 3.1 Exploratory Case Study

We chose an exploratory case study approach [28] for two reasons, following Urquhart, Lehmann [29]. First, the introduction of a cloud-based software platform in the enterprise software industry is a complex and dynamic phenomenon. It is related to interactions between various stakeholders such as the platform owner and its partners. To grasp that complexity, it is helpful to study a specific occurrence of the phenomenon in its context while continuously getting back and forth between data collection and analysis. Second, theories in the context of platform ecosystems are still in an early stage [cf. 30]. Thus, it would be difficult to develop a theoretical framework and formulate hypotheses upfront, in particular in view of the heterogeneity of partners in the enterprise software context.

We chose the case of SAP because SAP is a leading provider of enterprise software who has established a cloud-based software platform in recent years. SAP has a large network of existing partners that were affected by the introduction of the platform. Thus, the case is suitable to analyze how partners reacted to the technological shift in the ecosystem.

### 3.2 Data and Analysis

For studying our case, we followed grounded theory methodology procedures for data collection and analysis [31, 32]. We collected qualitative interview data, selecting our interviewees based on theoretical sampling considerations. We started with interviewees at partner companies that had already adopted the platform. To better understand differences between partners and their strategies, we selected further interviewees at partners that had not yet implemented an offering on the platform but had evaluated doing so.

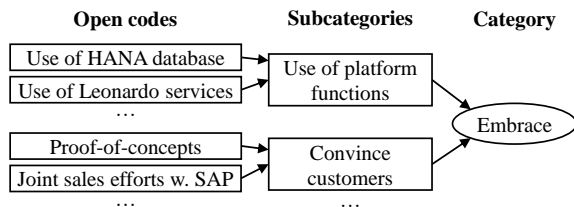
We conducted semi-structured interviews with decision makers at partner companies and with key employees of SAP in the context of its platform [33]. In total, we conducted 14 interviews within the ecosystem of the platform between October 2017 and May 2018. The interviews lasted about an hour on average. The interview questions covered the relationship between SAP and its partners, the challenges both sides faced related to the shift to the cloud along with the strategies how they faced these challenges.

In addition to interview data, we gathered rich secondary data. The first author participated in a full day workshop organized by an SAP partner association with more than 100 participants and was able to validate the results in numerous informal conversations and within a workshop session on cloud adoption. We furthermore analyzed partner agreements and videos from developer conferences. We provide details on the data sources we relied on for the exploratory case study in Table 1.

**Table 1. Overview of Data Sources**

Primary Data: Interviews		
Organization	Description	Interviewee
SAP	Multinational software company focusing on ERP software	<ul style="list-style-type: none"> <li>Product owner of SAP's platform</li> <li>Developer from the platform team</li> </ul>
Partner#1	Consultant partner with focus on ecosystem strategy and go-to-market	Founder/CEO
Partner#2	Global IT consulting company, including SAP's portfolio	Project manager
Partner#3	Consultant partner with focus on ecosystem strategy	Founder/CEO
Partner#4	SAP partner with focus on business intelligence	<ul style="list-style-type: none"> <li>CEO</li> <li>Project manager</li> </ul>
Partner#5	Multinational IT provider offering and enhancing the SAP product portfolio	<ul style="list-style-type: none"> <li>Partner manager for SAP</li> <li>Project manager</li> </ul>
Partner#6	Small partner focused on managed business applications	CEO
Partner#7	IT consultancy with focus on the insurance industry	Project manager
Partner#8	Multinational IT provider and consultancy with focus on the insurance industry	Project manager
Partner#9	Global full stack IT provider offering and enhancing SAP's portfolio	Manager for SAP service offerings
Partner#10	US-based provider of IT services, including IT consulting and operations services	SAP alliance manager
Secondary Data		
Type	Description	
Partner workshop	<ul style="list-style-type: none"> <li>Full-day workshop in May 2018 with approximately 100 participants from the partner ecosystem</li> <li>Discussion of preliminary results in a workshop session and informal conversations</li> </ul>	
Documents	<ul style="list-style-type: none"> <li>55 documents (partner agreements, guidelines, price lists)</li> <li>5 videos from developer conferences (2.5 h)</li> </ul>	

To analyze our data, we first created open codes related to different activities and decisions of SAP and its partners [31, 34]. Then, we clustered open codes into subcategories. These subcategories covered different manifestations of how partners coped with the introduction of the platform and how SAP reacted.



**Figure 2: Excerpt from coding scheme**

We then grouped these subcategories to four core categories that describe distinct coping strategies of the partners and mediating activities of SAP. Finally, we conducted theoretical coding to relate the partners' cop-

ing strategies with the platform owner's mediation strategies. Excerpts from the coding scheme related to the category "enable" as a coping strategy are shown in Figure 2. Throughout the coding process, we applied the principle of constant comparison [29], that is, we confirmed relationships that emerged in the selective coding step by getting back to the data and the open codes.

#### 4 Case Description: SAP's Shift to the Cloud

SAP is a multinational software company focusing on ERP software. SAP collaborates with numerous partners to develop, run, and sell its enterprise software. As customers expect end-to-end solutions for their business processes, SAP faces a huge number of heterogeneous requirements across partners, industries, and countries. For example, SAP needs to fulfill requirements of industry-specific processes as well as country-specific regulations. Partners can help SAP to address these specific requirements, as the product owner of the platform illustrates:

*"[...] the fundamental motivation [for partnering] is that our portfolio does not cover end-to-end, thus, extending our services with partners is important. The customers want an end-to-end process. Therefore, it is necessary to integrate third parties into the process. [...]"*

In early 2013, SAP has established a cloud-based software platform for third-party applications that extends the enterprise software core provided by SAP. The platform provides APIs and a software development kit (SDK) that grant developers access to functions such as production data analysis or forecasting algorithms and support them in developing applications. As a result, an ecosystem of third-party developers has emerged on the platform:

*"Based on the [platform], new applications, apps, as well as extensions of existing applications can be built in the cloud. [...] Somewhat like an innovation layer for established, rather slowly ticking systems of SAP. [...] I think this is the benefit one could see, because we not only enable customers to do this but we also enable partners to develop such applications on the platform and this in turn creates an ecosystem."* (product owner of SAP's platform)

SAP expects its existing partners to adopt the platform by migrating their extensions to the cloud or developing new cloud applications. According to SAP, its platform has many advantages for the partners. First, it is open to various common technologies such as programming languages or database technologies. In former on-premises environments, partners mostly had to

use SAP’s proprietary technologies for developing extensions. Second, the platform comes with a plethora of services that can be used by partners, in particular in the context of business analytics, Internet of Things (IoT), and machine learning. Third, by offering applications on the platform, partners can directly reach a global customer base of SAP users.

However, shifting to the platform entails major changes for partners. From a technical perspective, partners need to work with new technologies, in many cases technologies that the current employees are not familiar with. From an organizational perspective, providing software as applications on a platform needs a reconfigured business model and sales approach. At the same time, there still is uncertainty in how far the platform is consistent with what the partners’ customers want. As a result, partners develop different strategies how to cope with the changes that the platform comes along with.

## 5 The Partners’ Coping Strategies

In our study, we identified three coping strategies that partners applied when SAP introduced its cloud-based software platform. Partners (1) embraced, (2) slowed down, or (3) repurposed the change that was triggered by the platform (Table 2).

**Table 2: Partner Coping Strategies**

Coping strategy	Description
Embrace	Partners adopt the platform early and create innovative partner solutions on the platform. <i>Manifestations:</i> <ul style="list-style-type: none"> <li>Partners offer applications in the platform’s app store and leverage state-of-the art technology provided by the platform</li> <li>Partners promote and sell the platform to their customers by demonstrating use cases</li> <li>Partners actively provide feedback to improve the platform</li> </ul>
Slow down	Partners hesitate to adopt the platform and try to slow down the change. <i>Manifestations:</i> <ul style="list-style-type: none"> <li>Partners promote the advantages of the existing, non-platform solution that is still used by the majority of their customers</li> <li>Customers hesitate to adopt the platform, leading to a chicken-egg-problem</li> </ul>
Repurpose	Partners use the platform for purposes that are not core of SAP’s platform strategy. <i>Manifestations:</i> <ul style="list-style-type: none"> <li>Partners use the platform as toolbox for customer-specific developments instead of modular cloud apps</li> <li>Partners engage in consulting to facilitate onboarding in the platform ecosystem</li> </ul>

### 5.1 Embracing the Change

A group of partners embraced the introduction of the platform as a long overdue move to increase the competitiveness of SAP and its partner network as a whole. Those partners value the opportunity to use state-of-the-art technologies to provide innovative solutions to their customers. As a result, these partners were the first of the existing partners to develop applications for the platform. We observe different manifestations of activities and decisions that are part of the embrace strategy.

First, partners adopting the embrace strategy generally have already provided an innovative application in the platform’s app store. To do so, they often use the innovative services available on the platform as out-of-the-box tools. A global IT provider that offers and enhances SAP’s portfolio illustrates:

*“In digital transformation projects with our customers, we are working intensively on what we call “Innovation by add”. In these projects, the core process is still mostly running in the standard systems and the “Innovation by add” runs on the [platform]. [...] As an example, when it comes to monitoring vibration of machines, we attach vibration sensors to machines, record the vibration pattern, transmit them to the [platform], and learn from them with machine learning. We also have the opportunity to monitor the machines and make a maintenance order if something has to be changed on these machines. It’s actually these cloud extensions that help the customers to transform.”*

Second, partners actively promote the platform to their customers. By preparing and demonstrating use cases that the customers can relate to, the partners can illustrate the value of the platform. The above quote shows that the partner presents “Innovation by add” cloud applications to the customer who then decides whether that use case is beneficial for them. If so, the implementation of the use case comes along with an implementation of SAP’s platform, sold by the partner acting as SAP’s reseller. Thus, partners that embrace the change directly contribute to the sales of the platform.

Third, we observed that partners who adopt the platform early also actively engaged in a dialogue with SAP to improve the platform. According to some partners, the platform was launched at a rather early stage and benefitted a lot from the feedback the partners provided:

*“Well the technical maturity of the [platform] is a matter of debate [...]. We developed on the [platform] from the very beginning [...] and obviously, a lot was still missing, we don’t need to sugarcoat that. [...] But, we generally collaborate closely with SAP, we have weekly sync calls and we discuss these issues.”* (project manager of a large IT consulting firm)

## 5.2 Slowing Down the Change

A second group of partners hesitated to adopt the platform and even engaged in activities to slow down the change. A paradigm shift such as the shift to the cloud is a longsome endeavor in the enterprise software industry because many customers have legacy enterprise software and follow a “never change a running system” strategy. Furthermore, still many companies fear losing control over their data when using cloud software. As a result, according to a survey of a large user group, only 9 % of the surveyed companies plan to invest in SAP’s cloud-based enterprise software suite in 2018.

Partners who currently are successful by customizing the SAP on-premises products and developing extensions for them thus have little incentive to switch to the cloud-based software platform as long as enough customers stick to the on-premises solution. The CEO of a consultancy with focus on ecosystem strategy highlights:

*“After all, many customers have a bit of skepticism about the cloud, they see data loss and consider the whole thing from a risk perspective – especially SMEs [small and middle-sized enterprises], which are widespread in Germany. Usually their IT department wants to keep sovereignty over their data and processes. That’s why, of course, partners slowed down a bit because when their customers are not asking for a cloud, it’s hard to tell them that cloud is the right answer for the use case and the problem.”*

Partners even go further by promoting the benefits of the older non-platform solution to their customers while keeping quiet about the potential of the cloud solutions. In particular, small and middle-sized customers do not have direct communication with SAP but rely on partners to suggest and implement solutions. This creates trade-offs:

*“There are many add-ons that are out-of-date but the customer is still happy with them. In some cases, the functionality now is part of the standard SAP platform offering, meaning the customer would not need the add-on any more. But the customer has to realize that and then still has to implement the new cloud-based solution. This would be probably done by the same partner who developed the old add-on in the first place – but this partner is still earning money with the add-on. The partner won’t say ‘trash the add-on and switch to cloud component X’. You can see the conflicts created here.”* (CEO of consultancy for SAP partners and customers)

This leads to a chicken-egg-problem: small and medium-sized companies hesitate to adopt cloud solutions, thus the SAP partners they work with do not promote

cloud solutions to them. As it is mostly the partners who have the voice towards the small and medium-sized customers, it is hard for SAP to break that cycle.

## 5.3 Repurposing the Change

A third group of partners used the platform but did not implement complementary applications, which is the main purpose of the platform according to SAP. We observed two manifestations of how partner repurposed the introduction of the platform to benefit from it. First, partners used the platform as a toolbox for customer-specific developments instead of developing applications and offering them in the platform’s app store. Partners emphasized that cloud applications are not suitable to implement processes related to a customer’s competitive advantage:

*“With software-as-a-service offerings, what use cases can you cover? Those that are not unique selling points of companies. [...] there is a gap between core processes and what really is the unique selling point of a company. And for this gap, I see custom development happening also in the long run, that interacts with software-as-a-service products.”* (project manager of a large IT consulting firm)

Furthermore, sales of customer-specific projects on the platform is easier for partners because it is similar to the sales approach the partners used for on-premises projects. Selling cloud applications through the platform’s app store would ultimately require changes to the partners’ business models. Therefore, some partners use small cloud applications that are listed in the app store as way to attract customers for customer-specific projects but not as a scalable sales channel for a generic app.

A second manifestation of the repurposing strategy refers to partners that offer consulting services for other partners that want to onboard the platform. According to SAP, onboarding has become much easier with the platform because applications can be implemented and marketed faster. However, the ecosystem around the platform is complex due to its history of technological changes and acquisitions and makes it difficult for partners to find the best strategy. One partner summarizes:

*“Then, the cloud products came but unfortunately they were rather complex. First there was the [1<sup>st</sup> generation platform], then the [ERP in the cloud] and now the [2<sup>nd</sup> generation platform]. And that is confusing because those are not the only cloud products of SAP as SAP by now has acquired several firms such as [cloud solution for procurement], which also is a cloud platform, [cloud application for travel management] which is a software-as-a-service offering and [cloud-based ERP for SMEs] which is also marketed as cloud solution.”*

Consequently, consultancies have specialized in supporting partners to develop a cloud offering based on SAP’s platform. For example, they provide frameworks and boilerplates based on the platform’s boundary resources to develop applications more quickly. The CEO of such a consultancy summarizes:

*“We have created a ‘mini ecosystem’ to enable SAP’s partners to develop native apps for the cloud platform. We take care of the onboarding, legal implications, licensing issues, and the choice of an operating mode.”*

Such ‘mini ecosystems’ are inconsistent with SAP’s effort to create a harmonized ecosystem on its platform. They create additional dependencies for partners, making the ecosystem more complex – which in turn can increase the perceived need of partners for additional consulting services.

## 6 The Platform Owner’s Mediation Activities

In an ideal situation, all partners would adopt an embracing strategy with regard to SAP’s platform. However, impressions from our interviews as well as from a partner workshop with more than 100 participants show that many partners slow down or repurpose the change introduced by the platform. SAP thus tries to identify mediation activities to also benefit from partners that embrace the platform and to help partners that do not use the potential of the platform (Table 3).

**Table 3: Mediation Activities**

Coping strategy	Related mediation activities
Embrace	<ul style="list-style-type: none"> <li>Evaluate and implement suggestions for improvement</li> <li>Leverage as use cases to illustrate benefits of the platform to other partners</li> </ul>
Slow down	<ul style="list-style-type: none"> <li>Build illustrative use cases with partners and end-users</li> <li>Engage in dialogue with partners to understand adoption barriers</li> <li>Increase pressure for adoption</li> </ul>
Repurpose	<ul style="list-style-type: none"> <li>Adapt the platform strategy to provide enhanced support and tools for customer-specific development</li> <li>Reduce complexity of cloud offering, particularly regarding licensing and resource provision</li> </ul>

To benefit from partners that embrace the implementation of its platform, SAP engaged in two main activities. First, SAP evaluated the partners’ feedback on the platform and implemented some of their suggestions. Thereby, SAP focused on large partners as they have direct communication channels. Asked about whether

SAP incorporated their feedback, a project manager of one partner stated:

*“You just need to look into the release notes. One example: We built a micro-service landscape and one specific issue was the versioning of micro-services, how can you do that and how does that work well with continuous delivery. We discussed that with SAP and then they wanted our feedback on their proposed solution and now, since a few weeks ago, there is an out-of-the-box versioning of artefacts built in the platform SDK’s [software development kit] delivery pipeline.”*

Second, SAP leveraged use cases of partners that established an innovative cloud application as success story to incentivize other partners. These success stories are then shared on the website, at developer conferences, or directly with partners. For example, at the developer conference in 2017, an on-stage interview with a provider of solutions for human resource management showcased the success of the cloud application the provider had launched.

Partners that adopted a slow down strategy with regard to the platform required more of SAP’s attention. To convince those partners to adopt or at least try out the platform, SAP built illustrative use cases with those partners that were already on the platform. Thereby, SAP could demonstrate that the platform enables new business models for partners. Furthermore, SAP engaged in a continuous dialogue with partners through various feedback channels such as developer conferences and partner events and direct exchange with partner managers. But SAP also increased the pressure on its partners to adopt the platform for example by announcing discontinuation of support for certain on-premises solutions.

For partners that repurpose the shift towards the platform, SAP has engaged in two mediating activities. On the one hand, SAP has acknowledged the role of the platform for customer-specific developments and has adapted the platform strategy to provide more support and tools for customer-specific development. For example, by continuously increasing the technological openness of its platform, SAP has made it easier for partners to use the platform as a toolbox. A developer from SAP’s platform team summarizes:

*“[...] we are more open with the [platform] because [we] know we cannot deliver top of the breed in every aspect and there are a lot of strong open source communities developing simple things like a syntax highlighted editor [...] but also complex things that allow you to do machine learning and NLP [non-linear programming] [...]. And [the platform] really offers you the capability to deploy such modules – sometimes written in node [node.js; JavaScript], sometimes written in*

Java. [...] [the platform] is really opening up and moving away from the trend of just allowing [proprietary languages] [...] and that is the openness we provide.”

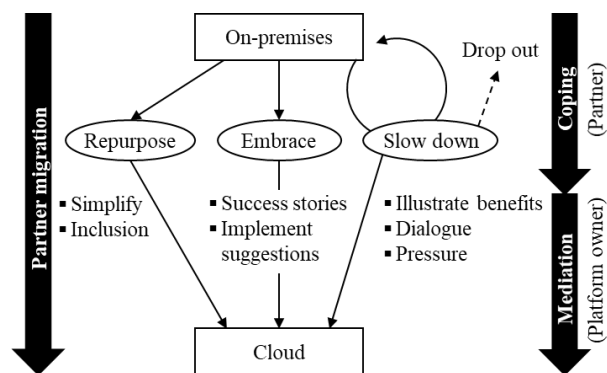
On the other hand, SAP is trying to reduce the complexity of its platform ecosystem. For example, SAP rebranded the platform in 2017 to harmonize the ecosystem, from the nomenclature of services to pricing for resources. In this process, SAP can benefit from the experiences of the consulting firms that currently help partners to onboard the platform.

## 7 Discussion

The insights of our case study show that partners of enterprise software vendors adopt different coping strategies with regard to the shift to the cloud. Partners embrace, slow down, or repurpose the implementation of a cloud-based software platform. The platform owner then can engage in mediation activities to address these reactions. These findings contribute to IS literature on platform ecosystems, in particular to recent work on the emergence of platform ecosystems and the role of partners for platform strategy in the enterprise software industry.

### 7.1 The Process of Partner Migration to the Cloud

The findings of our case study show that not all existing partners of a company adopt a newly introduced platform in a straightforward way. Instead, migration of partners onto the platform is a process that includes partners’ coping strategies and the platform owner’s mediation activities, in some cases leading to a partner dropping out of the ecosystem (Figure 3).



**Figure 3: Process of partner migration to the cloud**

Partners are important for companies in the enterprise software industry [1, 2], thus it is important to keep existing partners during the shift to the cloud. Existing partners can be of more value than new partners because they have their own customer networks and know-how

to best combine their solutions with the offering of the enterprise software vendor. It is thus not only important to understand how new partners can be incentivized to join the platform ecosystem [11, 13, 14] but also to understand how existing partners can successfully migrate. Yet, there might be partners who are so reluctant to adopt the platform that their slow down strategy negatively affects the growth of the ecosystem. In those cases, it is best for the platform owner to let them go.

The process of partner migration to the cloud represents an aspect of platform governance that companies such as enterprise software vendors need to incorporate in their governance strategy when implementing cloud-based software platforms. We thereby enhance literature on platform governance [e.g., 17, 35] that mainly focus on established platform ecosystems.

In practice, this process view on partner migration helps enterprise software vendors to increase the adoption of a platform among its existing partners. The first step is to acknowledge that partners react differently to the change and that the platform owner needs to take different actions to support them. In a second step, the enterprise software vendor can improve the platform by carefully observing why partners want to slow down the change or how they repurpose the platform.

### 7.2 The Impact of Repurposing on Platform Strategy

Another finding of our study is that a large share of the partners repurposed the platform and used it for customer-specific developments instead of implementing software-as-a-service applications. This had an impact on the platform owner’s platform strategy and its platform governance.

Customer-specific development decreases the scalability of the platform ecosystem, as it does not trigger network effects. While cross-side network effects are typical for software platforms and a key to their success [36], customer specific projects usually are not visible to other ecosystem participants, thus they do not incentivize other customers to join the platform. As a result, despite a high number of partners using SAP’s platform, the number of applications available in the app store is still lower than in other competing platform ecosystems.

It became clear that partners who repurposed the platform still contributed to an increased adoption of the platform and were of significant value for the platform owner. SAP thus adapted its platform strategy to incorporate customer-specific development on the platform. For example, SAP increased the compatibility of the platform with the company’s proprietary programming language used typically used for on-premises projects. However, SAP still struggled to find an approach to platform governance that incorporates both partners that



develop software-as-a-service applications and partners that develop customer-specific solutions.

First, the two groups of partners require different boundary resources. Partners that develop customer-specific solutions need more support for different programming languages and frameworks to integrate heterogeneous legacy systems. For partners that develop software-as-a-service application, leaner, more standardized boundary resources can prove more useful [37].

Second, customer-specific developments are not subject to output-oriented control mechanisms such as quality checks as they are not submitted to the app store [38]. In order to not jeopardize the platform's reputation, the platform owner needs to identify other means to ensure quality, for example through mandatory participation in partner programs.

## 8 Limitations and Future Research

Our study is subject to limitations. First, generalizing results from single case studies is challenging. We have studied an enterprise software vendor with a focus on enterprise resource planning. In other context such as the industrial Internet of Things [39] or the banking industry [40], relationships between partners and platform owners could have different characteristics. Second, our study covers a relatively short period. While interviewees mostly have shared insights into partner's coping strategies, a longitudinal perspective could help to carve out more details of a migration process and to understand how partners adjust and adapt their coping strategies.

We suggest two avenues for future research. First, it would be worthwhile to analyze what characteristics of partners are linked to different coping strategies. This could help platform owners to apply mediation activities precautionary and to increase platform adoption. A second research theme relates to how platforms need to be designed and governed to enable both software-as-a-service applications and customer-specific development [35]. Tradeoffs regarding boundary resources or control mechanisms arise that platform owners, particularly in business-to-business context, need to consider.

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