SAP’s Cloud ALM: Cloud Lifecycle Management and the Optimization of Business Success

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Introduction: Digital Transformation, Business Users, and Transformation Success

Managing a successful enterprise software implementation has never been easy. Yet that success is now more critical than ever in the midst of today’s imperative to transform old business practices and create new ones, or suffer the consequences. The current crisis surrounding the Covid-19 pandemic has added a significant catalyst to transformation efforts, joining more common factors focused on remediating cost overruns, missed deadlines, lack of alignment between IT and business users, and confusion relating to goals and tasks. Regardless of the underlying causes, the ways in which an implementation project can go off the rails are legion.

And that’s just the beginning of the lifecycle of an enterprise software implementation. A successful project is merely the start of an ongoing process of continuous operation, innovation, and renewal that extends over the useful life of the software. Extracting the maximum value from a software investment depends on renewing the interplay between technology and business requirements, and that process of renewal needs to be managed as efficiently as possible as long as the software is in use. Companies that recognize the never-ending obligation to continually monitor and improve how their enterprise software is utilized within their organization stand to gain the greatest return on that investment. A failure to see enterprise software through the lens of lifecycle management and continuous renewal is a failure to optimize an investment that is intended to impart significant operational value and competitive advantage for companies eager to digitally transform their businesses.

This lifecycle view of enterprise software is no longer just the purview of the IT department. Line of business (LOB) executives and users need to be active participants throughout the software lifecycle. This is particularly true as innovation shifts to the cloud. Much of that innovation is specifically tailored to LOB transformation, and those transformations need the active participation of the LOB user. In turn, user involvement ups the ante for effective change management, which in many cases can become one of the hardest parts of any project. The result is that more and more LOB executives and influencers are in the driver’s seat, making decisions about their company’s cloud investments in conjunction with or even in lieu of direct involvement from IT.

Indeed, direct LOB participation is required throughout the lifecycle, from the initial project scoping to ongoing operations, and then to continuous renewal. Getting the LOB requirements right in the first place, and then making sure that they have been correctly operationalized – especially as they change over time as business requirements shift – is a key long term success criterion, and that means that the LOB level of involvement in the lifecycle needs to be higher than ever before.

Against this backdrop of a need for greater attention to the full lifecycle of enterprise software and the expanded role of the user, the shift to the cloud represents a third inflection point in how to operationalize business transformation across the software lifecycle. Indeed, the move to the cloud has
transformed important aspects of this dynamic, and the notion of lifecycle management becomes very different in the cloud than it was in the on-premise world.

New tools, services, and processes are needed to manage the lifecycle of enterprise software in the cloud. Indeed, the newness of cloud software and its interaction with lines of business, the degree of change management required, the restrictions on customization, the need for embracing the “fit to standard” functionality that is baked into cloud software, and the expected speed with which customers can see value from the cloud have all made comprehensive lifecycle management an even greater imperative.

Even with “fit to standard” as a key guidepost for cloud deployment, many companies are nonetheless considering the need to build cloud-based extensions that provide specific competitive or other advantages. These extensions also crave a more comprehensive lifecycle approach that looks at not just the raw development cost but also includes the issues of change management, testing, updates, and maintenance that are needed in order to optimize value and lower cost. To do otherwise is to repeat the same mistakes that made the on-premise world so hard to maintain as well as change.

Despite this growing need, few enterprise software vendors have embraced what is admittedly a relatively “unsexy” corner of the enterprise software market. One of the very few vendors that is tackling this issue is SAP SE, which began an effort in 2017 to develop a comprehensive solution to the lifecycle management challenges of the cloud era. The result is a set of applications and services called SAP Cloud ALM (Cloud Application Lifecycle Management, or CALM) that began to roll out in 2019 and will continue to add features and functionality throughout the next several years.

SAP has asked Enterprise Applications Consulting (EAC) to review the current and planned functionality of CALM and assess its overall value to customers. To this end EAC has spoken with partners and customers that have been early users of CALM, and the initial feedback has been highly positive both in terms of the immediate value of CALM as well as its future prospects. This report is intended to describe the current and future promise of CALM and to help decision makers and influencers understand its importance in their enterprise software planning.

Importantly, CALM is included for free as part of a company’s Cloud subscription with SAP. While it supports S/4HANA Cloud and other SAP cloud products today, in the near future CALM will be available for all SAP public cloud offerings, as well as S/4HANA On-premise, and all hybrid SAP cloud/on-premise landscapes. This coverage – which will eventually include the totality of SAP’s Intelligent Enterprise concept – makes using CALM more an issue of understanding its functionality and the change management that comes with its use rather than being an issue of cost. The good news is that, even with some of the planned functionality unavailable, CALM has the potential to have a dramatic impact on enterprise software and business success, and should emerge in the coming year as a major competitive differentiator for SAP.
CALM: Theory and Practice

SAP’s overall roadmap for CALM shows a comprehensive set of products and services that span two major aspects of the lifecycle of a cloud implementation – the implementation process, and its ongoing operation. The scope of this offering can be seen in Figure 1.

Figure 1: Cloud ALM Overview

As a cloud-native software service, CALM has important advantages over on-premise ALM tools. CALM can make use of the wholly online nature of a cloud implementation to leverage a trove of information that is generated automatically by SAP and its partners’ cloud services throughout a project’s lifecycle. This telemetry data can show whether a project is on or off track, what the software’s usage patterns are, whether the implementation follows best practices, and other information that can help optimize the software’s lifecycle use.

In addition, when aggregated against multiple projects, telemetry data has the ability to provide customers as well as SAP and its partners with information that can assist all three stakeholders in improving functionality, methodology, testing, training, partner management, and a host of other capabilities that will allow the SAP ecosystem to continuously improve as well.

The same functionality that supports using the telemetry inside a project also serves as a means to unify and distribute the content needed to run a successful project. The quality and accessibility of centralized, standardized content in a cloud project is one of the hidden factors that determine its success. This is true for any project: data and content are needed to do things like populate tax tables,
set up rules specific to an industry or geography, and support best practices for both IT and business success, among many others.

In the cloud, the content component of a project becomes even more important. Cloud software, for the public cloud in particular, is implemented in a “fit to standard” fashion that is specifically designed to allow customers to take advantage of baked-in best practices and avoid customizations that are costly to build and even more costly to maintain, particularly in the cloud. “Fit to standard” functionality is based on a vendor’s or partner’s accumulated best practices, and that means that a large amount of the functionality that is ultimately implemented needs to be configured during the implementation process, ideally with input from business process experts, in order to fit the implementation as closely as possible to a specific business’ needs. Best practices involving a given implementation methodology is another category of content that benefits from being centralized inside CALM.

This centralizing aspect of CALM is important for decision makers and influencers to understand. Organizationally, CALM allows business process experts to participate in both the Implementation and Operations functions of CALM in a highly effective way. Without CALM, the content, processes, and methodologies that are used to implement enterprise software are scattered among an often messy collection of documents, files, and spreadsheets. And while project management and task management software such as Microsoft Project are usually in use in an implementation project, these tools are not designed to organize key aspects of the implementation, including the support of process modeling, comprehensive test and deployment management, and the critical content needed for a cloud-based “fit to standard” project. These tools are also not typically intended for use by LOB users. Task and project management tools are also unable to have an impact on the post-implementation lifecycle.

CALM, on the other hand, has specific functionality tailored for the business experts – as well as their IT counterparts – that help ensure that the business functionality needed to transform a company is front and center in the project and throughout the project’s lifecycle.

**CALM Today**

The initial focus for CALM has been on implementation processes for S/4HANA Public Cloud, SAP’s multi-tenant, public-cloud version of S/4 HANA. This spring, support for business process management and monitoring were released as part of the Operations set of applications. By 2021 the Operations side of CALM will be fully fleshed-out and will support the entire SAP Intelligent Enterprise Suite as well as supporting hybrid, cloud, and on-premise implementations.

The Implementation Portal, which currently has more than 50 organizations taking it through its paces, is where the initial concepts of CALM are brought to life. (See Figure 2.)
The functional view of Implementation Portal, above, shows a well-structured, largely self-guided process flow with role-based tasks that provide a standardized, structural framework for IT and business users to follow as they implement S/4 HANA Cloud.¹

Once the team is onboarded, they are led through a set of processes that include workshops that help business users and IT staff collaborate on the selection of specific processes needed for the customer’s implementation. These *Fit to Standard* Workshops make extensive use of information about the product’s capabilities and business processes, and are part of a process flow of tasks, made available by Implementation Portal, and that align with SAP Activate methodology. Project manager and other stakeholders can track the project’s progress through Implementation Portal’s Progress Monitor. (See Figure 3.)

¹ A presentation that provides a comprehensive overview of the Implementation Portal can be found here: https://www.youtube.com/watch?v=Wbf2v-KJkJZs&list=PLFrwZZeBUTFJyWpJ2nm0kXOFsue_z7sQ&index=3
One of the activities in a *Fit to Standard* Workshop includes an exploration of a given process to see how well it fits “out-of-the-box” and whether any aspects need to be configured to meet a company’s specific needs. Figure 4 shows an example of a business process map and its expected flow from within the Business Process Management module of CALM. As part of the workshop, a business process expert can test the process with the demo data included in the Implementation Portal to see if the process is a good fit or if it needs some adaptation. Future versions of CALM will include support for SAP’s model companies and, importantly, the management of end to end business process scenarios, as part of the Intelligent Enterprise.
SAP has been working with its lighthouse customers on expanding the business process capability found in the Operations side of CALM. The spring 2020 release of CALM includes a Business Process Monitoring module that allows business process experts to monitor and correct or improve specific business processes from within CALM during the ongoing operation of the software. The process owner is given access to a dashboard that tracks core APIs and flags processes that are problematic, such as an excess number of credit blocks on a particular customer’s sales orders. (See Figure 5, below.)

Figure 5: Business Process Monitoring  
– Flagging a Threshold Violation Relating to Blocked Customer Credit

Using this Business Process Monitoring view, the process owner can see what is causing the bottleneck, and, importantly, work to remediate the problem without IT intervention.

This operational lifecycle support is critical for allowing companies to maximize their return on their S/4 HANA Cloud investments. Tools like Business Process Monitoring can not only identify anomalies in day to day operations, but they can also help pinpoint areas in which it may be necessary to take a completely new approach to a business problem. The output from the Business Process Monitoring tool can in those cases serve as valuable input into a process of reevaluation and process improvement. Taken together, Implementation and Operations in CALM provides a unique capability for supporting continuous improvement and return on investment throughout a product’s lifecycle at the customer.
The Business Process Monitoring capabilities of CALM will also be an important area for innovation moving forward. As CALM advances, its abilities to include in its analysis and monitoring capabilities a broad range of data sources such as telemetry data, information on the deployment methodology, vertical industry, and geography-based information, among others, will greatly extend the value of CALM. This rich set of resources, which is available for analysis by Business Process Monitoring, further extends the data-centric approach of CALM.

Another recently released component of CALM is Integration Monitoring which, as the name implies, allows customers to manage the integration between different components of the SAP Intelligent Enterprise offering. The current version includes support for Ariba, SuccessFactors, Cloud for Customer (C4C), and Marketing Cloud, in addition to S/4HANA. As SAP moves to fully integrate the Intelligent Enterprise Suite, the issue of how well individual components of the suite work with other components will be an important part of managing and optimizing day to day operations. Integration Monitoring will serve an important role in helping customers maximize the return on their investment in the Intelligent Enterprise.

CALM Today: Customer and Partner Viewpoints

EAC’s interviews with customers and partners show the promise of Implementation Portal and by extension, the long term promise of CALM and its roadmap. While CALM is relatively new in the market, EAC was able to interview two partners – one who uses CALM for both an internal implementation and for a customer – as well as an SAP customer that has been using Implementation Portal for its S/4 HANA Cloud implementation.

The interviews reveal pent-up demand for the services that Implementation Portal can provide in terms of efficiently organizing a project. According to the customers, that demand can be realized in CALM in line with best practices and the “fit to standard” requirements of S/4 HANA Cloud.

Partner and Customer Camelot ITLab

For Heike Newinger, Head of the S/4 HANA Cloud Competence Center at Camelot ITLab in Mannheim, Germany, Implementation Portal provides an “excellent guide for a project,” she told EAC. Camelot uses Implementation Portal to implement S/4 HANA Cloud for its services business, as well as on a new S/4 HANA Cloud implementation for a customer. “In the Portal, you have the right sequence of all the steps, and you have a direct link to the documents you need,” Newinger added.

Customer reaction to CALM has been good, said Newinger, in part because a public cloud implementation project is so different than the on-premise projects most customers are used to. In this regard, having CALM has become a strategic selling point for Camelot, Newinger added. “It helps us tell the customer that we know CALM and that we’ve used it before. We can tell the customer how it makes life easier in a project.”
The organization of tasks and documents is a welcome change from the status quo of most IT projects, Newinger explained. Without Implementation Portal, “every step along the way you have to find the documents you need, but they aren’t necessarily in the right sequence, so you have to search for them,” Newinger said. The organization of these assets is an important tool for greater efficiency in project realization, she added.

The self-service aspects of Implementation Portal are another key value-add for Newinger. “The tasks are created automatically for you, and depending on the scope you may have additional tasks and process flows.” This helps make CALM and Implementation Portal an important part of Camelot’s SAP practice. “You have everything you need in this tool.”

**Partner Acclimation Pty Ltd.**

Andrew Long, General Manager and Cloud ERP Practice Manager at Melbourne-based Acclimation Pty Ltd, sees CALM as an important methodology for his company’s SAP practice for all their global implementations, because of its focus on processes and the access that CALM and the Implementation Portal provide to information on project tasks, content, and milestones. CALM is a key differentiator from most standard project management tools, Long added. “The Implementation Portal deals with the relationship between software systems, administration, and tasks,” said Long. “I look at the Implementation Portal as a fundamental apex entry point for the management of a project.” It’s also a single point of entry that allows access to the entire framework, and a coordination point for project resources and administration, he added.

The standardized content and process views that the Implementation Portal provides are important for delivering a high level of consistency and quality in a project, according to Long. That repeatability “improves the delivery cycle and provides usable information that can be shared across projects,” said Long. “Time to outcome is shortened because of the robust and familiar deployment modeling.”

The use of the Implementation Portal also helps align the customer, Acclimation, and SAP towards a common set of goals. “From a value-assurance standpoint, you have a common understanding between the customer and the service provider of the goals for the project and the rules of engagement,” said Long.

This common understanding will grow as CALM’s feature set is filled out in the coming months, Long believes, and the prospect of CALM working with the rest of SAP’s Intelligent Enterprise suite is enticing. “The value of CALM should be spread across the entire product suite,” said Long. “SAP should incorporate this as a fundamental principle across every single implementation.”

“This could change the whole framework of how organizations manage SAP projects,” Long added.
Southeast Asian Farm Production Pioneer

One of the early adopters of CALM is a Southeast Asian company working to help increase local farm production, and help local farmers be part of a larger food security initiative in the region that is intended to increase local production and decrease local markets’ dependency on food imports. S/4 HANA Cloud is an important component of this company’s strategy.

The company started their S/4 HANA Cloud implementation using a small internal team that quickly found out its reliance on spreadsheets and other legacy technology was making it hard to move the implementation forward. “We were using Excel and our browsers were so full of open tasks that we started to lose track” of the implementation, the company’s head of technology told EAC. When SAP offered Implementation Portal to the team, they quickly signed up.

“All the best practices were in CALM,” the technology head reported. “That made it very useful for content access and task assignment. We didn’t have to jump around finding tasks.”

The ability of CALM and Implementation Portal to align this company’s requirements to the “fit to standard” capabilities of S/4 HANA Cloud was a contributor to the success of the implementation, he added. “CALM helped in terms of efficiency. I don’t think we could have done it if S/4 HANA hadn’t been based on the best practices that CALM helps us connect to,” he said.

CALM in 2022 and Beyond: Full Lifecycle Management for Cloud and Hybrid Landscapes

SAP has an ambitious roadmap for CALM. By 2022, it is expected that CALM will support the full lifecycle of the cloud products in SAP’s Intelligent Enterprise, including SuccessFactors, Ariba, Fieldglass, Cloud for Customer, and others, including support for hybrid landscapes as well. This lifecycle support will also include hybrid cloud and on-premise implementations. In addition, CALM will be able to actively support complex end-to-end processes that traverse multiple SAP cloud properties.

The fulfillment of this ambitious plan will place CALM and SAP in the unique position of being the only comprehensive, cloud-based, full-lifecycle management offering in the market. The importance of this cannot be overemphasized. The move to the cloud has created new complexities and interdependencies that must be well managed in order for the promise of cloud-based innovation and transformation to be realized. This is particularly true as SAP’s Intelligent Enterprise suite becomes fully integrated and supports an increasing number of high value end-to-end processes for its customers.
Conclusion: CALM and the Business User

While CALM offers important capabilities for both IT and business users, it is the latter group that stands to benefit in new and different ways. Lifecycle management is a topic few business users find important, and yet an application that isn’t functioning as expected or as needed at go-live, three months post go-live, or three years later can have direct and often unfortunate impacts on business success. While IT continues to play an important role in digital transformation, business success is increasingly the purview of the business process owner as well. More often than not, the changes made to existing processes or the creation of net new processes are directly tied to customer success, and are thereby focused on enabling the business user, directly or indirectly. In many cases, only the business user can determine whether a particular process is working as expected or not, and what needs to be changed in order to improve the process, or if it’s necessary to design a wholly new one.

CALM brings the lifecycle issue front and center to the business, and distributes the responsibility across IT and lines of business today and into the future. One distinct advantage of implementing new processes in the cloud is that the time to value can be greatly diminished, but that also means that failure can happen more quickly, and, depending on the overall value of the process in question, the consequences of failure in the cloud will be more immediately felt as well. This is an important differentiator between cloud and on-premise software, and it is yet another key reason why managing the full lifecycle of the software is so critical. CALM makes that lifecycle management more efficient and effective, and along the way provides a rich data source for continuous process, methodology, and partnership improvement. What SAP has begun with CALM will one day become a standard in the industry. The companies that choose to embrace CALM will be well ahead of the curve for some time to come.