



Creative Shorts: The business value of ALM governance through process orchestration and management

A realistic and pragmatic strategy for collective governance

A Creative Intellect Consulting Shorts Report Series (ALM)

In this report from our Creative Shorts series on Application Lifecycle Management, we put forward a strategy for unified governance through process orchestration and management and its role in supporting the ALM process.

Bola Rotibi, Research Director, Creative Intellect consulting

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Shorts Overview

The demand is growing for software applications that support key business processes and which use the latest technology advances to deliver business growth and competitive edge. Crucially, however, with software applications now supporting and delivering critical business functions and services, there is greater call for demonstrating good governance and delivering business value.

Whilst no two organizations are the same, what they have in common is the need for consistent stable software delivery supported by repeatable, predictable, and reliable processes that deliver measurable benefits.

The common definition of process management is the collective activities of planning and monitoring the performance of a process. However, in the context of complex application delivery and lifecycle management where many processes are involved and executed by disparate teams using a variety of tools and methodologies, **process orchestration** and **management** becomes the critical factor.

What is delivered through process orchestration and management is the ability to ensure that all the necessary processes for delivering and managing the application lifecycle, work collectively and profitably, to the benefit and demands of the business.

The demand for better process orchestration and management of ALM

- **Effective and efficient application lifecycle:** For most companies the delivery and lifecycle process is based on ad hoc and inconsistent processes with weak support for process orchestration, management, validation, and knowledge sharing. The consequence of this is an application lifecycle that is not only unpredictable, unreliable, and hard to manage, but one that is open to waste, risk, and poor delivery schedules. It is a lifecycle process that cannot hope to deliver to the goals and demands of the business within the time and budget constraints.
- **Increasing regulatory control:** Software is becoming critical. This has always been the case within complex systems environment and vertical industries such as automotive, aerospace and defense, and medical equipment manufacturers. Here the strict safety regulations for safety or mission critical implementations require strong audit procedures to validate the steps taken. IT organizations in more regulated industries like finance, healthcare, and government have also begun to embrace the ability to automate and record process steps, so that they can prove and audit compliance to key regulatory rules and policy requirements.
- **Competitive differentiation:** Everyone has processes that they follow whether they are manual or automated. What is important is that these processes are actually benefiting the business and that they are consistently followed. The ability to bring all the processes together so that they are working collectively to the benefit of the business can prove to be a critical factor in competitive differentiation.
- **Bridging the gaps and silos of working practices:** Workflow, process enablement, orchestration, and management often expose the most significant challenges and failings to controlling waste and driving efficiency across the software lifecycle. Part of the problem lies in the silos of working practices and tools that have arisen in the software development, delivery, and production processes making it hard to get a handle on the actual workflow or processes in place. The other is down to poor workflow and process automation and weak handling of events involving human interactions. The blame can also be attributed to weak communication and collaboration channels and poor automation support that is often present within organizations.
- **Easier implementation of best practices and guidelines:** Many organizations want process management tools that reflect their working practices but which can also promote best practice implementations simply. Too often though, they are faced with process support that centers on heavy

customization of predefined practices that are too rigid and inflexible to truly reflect the working practices or tools in place.

- **Geographically distributed and external team support:** Whilst there are best practices, every organization, team, or individual has its own processes according to role, maturity, cultural set up, skill set, and industry sector. The challenge is bringing a variety of workflows into a unified process that is able to deliver according to the goals or demands of the project or the business.
- **Skill and knowledge sharing:** Getting people trained in the practices that are applicable for the organizations to a consistent level can often be a challenge. Individuals and teams over time will have developed best practices in their workflows and workarounds to handle certain exceptions. Ensuring that these can be propagated to others can help support the productivity and reliability of the process.

Executing process management effectively across the application lifecycle is being able to address the multiple levels of process and workflows that impact the development practice. Solving this will offer an opportunity to learn and make improvements. But it will take time and will require good analytical support.

Let's take a look at how things work in practice. If you are doing account payable, your business processes in a nutshell are: invoice in, sign off by department, invoice paid. Any issues with this can be identified and corrected easily. Compare that to the problem of writing a corporate accounting suite where you are trying to address how a developer writes code. You now have to deal with their tools, their training, their practices and their delivery. This is much more complex to resolve and cannot simply be looked at as a quick fix to the solution.

More importantly, failures in a developer's process may not surface for months or years at which point being able to identify where the real core failure occurred and therefore correct that failure of process is, with the best will in the world, virtually impossible without a long-term monitoring, process, and analytics strategy.

The process orchestration and management of ALM in a nutshell

Process facilitation, orchestration and management support is crucial in managing the interactions between teams and individual stakeholders that must happen to ensure the smooth progress of the ALM process.

Process and workflow management are disciplines that have long histories of development and support particularly within the practice of business process management. What is important in the orchestration and management of processes that support the application lifecycle, and therefore in any tooling support used, is the ability to:

- Address and incorporate *ad hoc* exceptions to previously defined processes.
- Identify the processes and workflows in play including multiple tooling platforms and methodologies used.
- Bring together all the different workflows and processes involved in a specific execution so that they can work collectively and seamlessly to a common end.
- Gather process metrics and cycle times to identify improvement areas and exceptions.
- Gain insight to make improvements such as in the application of automation to speed up stable and repeatable process executions.
- Pass on knowledge and best practices and make modifications that can be propagated consistently, allowing teams to migrate from one process approach to another.

- Validate the effectiveness of a particular process strategy and ensure compliance to policy rules and regulations in place.
- Provide user-friendly intuitive interface portals.

Facilities for supporting and managing workflows and processes are important to other key capabilities of ALM, particularly those that address collaboration, communication, and interaction, and organizational and role based support. More importantly, process orchestration and management is a vital ingredient for the support of process automation and data synchronization.

Guidance strategies

Process orchestration and management is an important and valuable approach for ensuring continuous approach to end-to-end governance. Develop a vision and work within your organization by starting where you can easily demonstrate success.

People and processes:

Work with key stakeholder teams that can easily and quickly prove the benefits of unified governance through the process orchestration and management of their processes. Collaboration and communication are challenges of mindset and the right tool support.

More specifically you need to:

1. **Focus on process validation and audit:** Not every team dynamic is the same or has the same level of maturity, making a single standard and prescriptive workflow or process implementation across an organization unworkable in some instances. What will be more appropriate is support for flexible and adaptable implementation with a strong emphasis on the validation of output (e.g. a requirement has been met) and the audit proof of execution.
2. **Audit and measure progress:** The ability to support and apply robust analytics, measurement, and monitoring facilities will be vital for establishing the efficiency and effectiveness of a particular process strategy and determining any business value gained. The earlier the insight the more risk can be contained. The automation of data collection and in supporting the process orchestration and management process make analytical insight possible
3. **Employ assessment reviews:** to support the ability to measure progress, look to leverage assessments and improvement frameworks.
4. **Long term monitoring strategy required:** In the development world, the timescales for a set of actions are much longer than that of typical business function such as account payable. As a result being able to create effective practices that can be corrected and tuned can take months if not years.
5. **Support compliance for geographically distributed teams:** Organizations are coming under increasing regulations and policy rules and they will need to be able demonstrate compliance across the lifecycle. This means having consistent and manageable process policies that can be propagated to all no matter their location and jurisdiction along with facilities that can both prove compliance and enforce compliance

Tooling strategy:

Helping individuals and teams conform to the right practices and policies is an important benefit of a robust integration and process management strategy and tooling support.

1. **Just enough process management:** Heavily prescriptive process templates and process methodology and management frameworks can often be onerous and time consuming to customize. Nor are they appropriate for all process workflows or team dynamics. Look for tools that focus on ease of use and offer a quick start to orchestrating common practices and cross team interactions.
2. **Business or industry led solution support:** Greater benefits can be achieved if support for industry and/or organizational maturity specific process practice guidelines and templates are easily made available and consumable. For example, out-of-the-box process template support for Agile development and delivery, geographically distributed development, improving quality output, and working with professional service, can help teams to quickly put in place the necessary protocols.
3. **Flexible and adaptable approach to process control and management:** For example, a policy-driven approach that can enforce constraints on what and how things can be done in some circumstances whilst in others allow a degree of freedom, but with support for ensuring traceability of decision-making.
4. **Get the right tool support:** Look to tool providers with strong process orchestration and management ethics with the right partner support to ensure that your most important tools, as well as common tools for your industry sector and organizational maturity and size, can be incorporated into an end-to-end process management and governance strategy.
5. **A lifecycle approach is critical:** Process orchestration and management is and must be a lifecycle consideration and requirement. This means all services, tools, and workflows involved in the application lifecycle must hook into a common process orchestration and management platform for truly effective end-to-end coverage.
6. **Support manual processes:** A process orchestration and management platform and strategy should be capable of both supporting and automating human interaction and intervention. Bringing them into the wider process management remit will help to maintain end-to-end visibility and traceability and support the audit requirements for policy and regulation compliance.

Business engagement:

Processes are evolving, but so too is the need for them to ensure consistent and repeatable outcomes. As we go forward, the role of software applications are becoming increasingly important to business functionality and growth, making the scope for greater regulatory control and accountability more likely.

1. **Get the business involved where it makes sense:** This is especially true when determining business priorities, policies, and risks. Therefore it plays an active and accountable role in the ALM process.
2. **Identify the right incentives:** IT organizations are typically incentivized by opportunity costs i.e. the ability to easily and quickly take advantage of opportunities as they arise. The ability to understand which processes work and which ones don't can be elusive without good analytical support.

Ensuring consistent and reliable delivery offers a level of confidence for more realistic predictions that will strengthen capacity, resource, and project planning processes. Companies need a process automation, orchestration, and management strategy and platform across the application lifecycle that: responds to and leverages working practices and tools in existence; intelligently handles exceptions; and is able to drive and deliver consistent behavior, benefits, and quality improvements.