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Low Code Release Orchestration

Executive Summary

The pandemic has prompted different ways of working to meet the changing needs of customers and employers. According to Gartner, 64% of IT executives view skill shortage as the most significant barrier to emerging technologies and on the journey towards digital transformation.

These shifts have accelerated the trend towards low-code/no-code as a go-to-market software development solution across verticals. Far from being worried about digital disruption in a pandemic world, 58% of IT professionals say their organization is excited by the digital acceleration, which brought a new urgency for faster and more collaborative development.

More than 83% of organizations using low-code say they are using it more since the pandemic. Low-code adoption increased across many areas of business activity, from e-commerce, process automation, and the Internet of Things to mission-critical solutions. A low-code development platform can be leveraged to develop a powerful, scalable solution - "Release Orchestration", to increase productivity, optimize cost, and faster release to market.

"While low-code application development is not new, a confluence of digital disruptions, hyper-automation, and the rise of composable business has led to an influx of tools and rising demand."

- Fabrizio Biscotti,
Research Vice President At Gartner

Challenges With Conventional Release Management

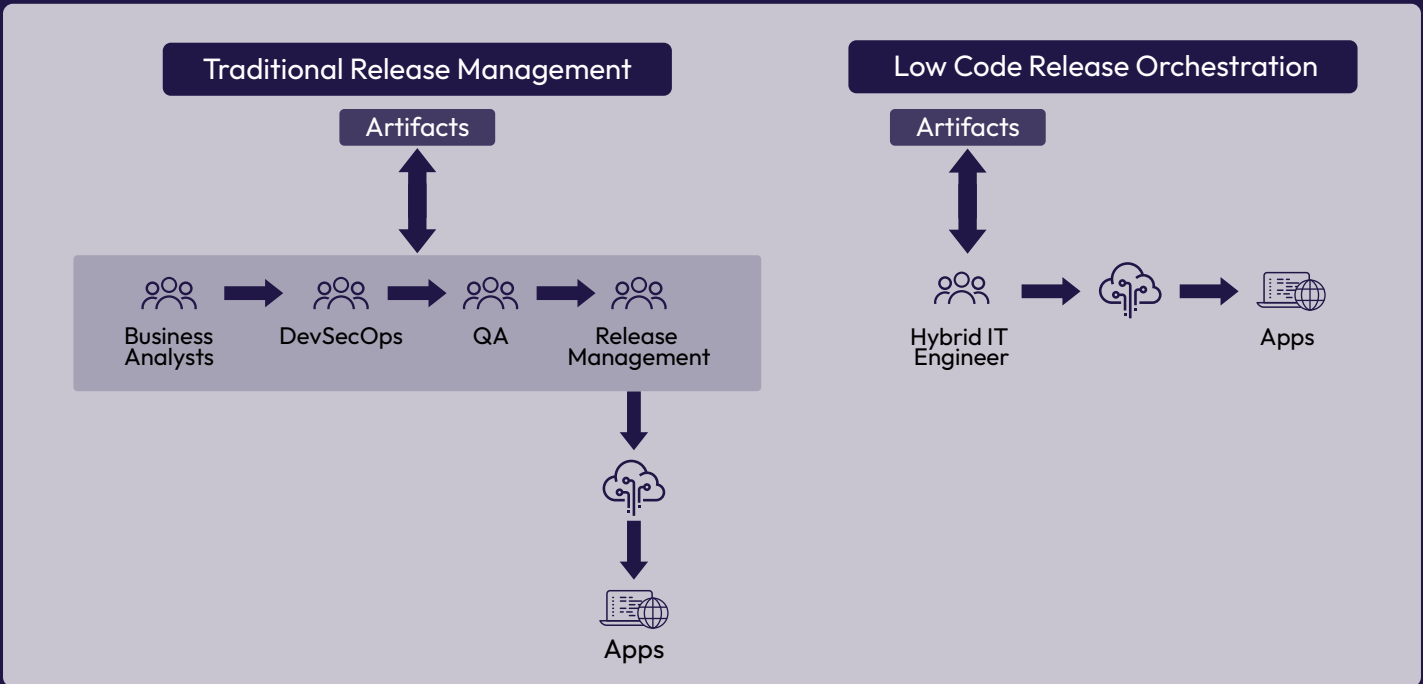
With teams working in virtual environments, there remains a significant gap between the creation and delivery of software, from the source to the end-user. In a typical release process, there are a lot of people involved in highly specialized roles/skills like business analysts to ensure functional requirements, technical analysts to validate technical specifications, DevSecOps teams for CI-CD, and finally the Release/Operations management team that brings all the pieces together for a successful deployment.

Low Code Release Orchestration: Solution Overview

With IT leaders reporting that two-thirds of major software projects are behind schedule, low code release orchestration works wonders for organizations who wish to prioritize low code serverless solutions.

The Release Orchestration solution can be more centric on n-tiered deployments of software throughout the enterprise, by providing tools that improve both deployment speed and reliability with at least 80% fewer resources. It can also be modeled through the software release lifecycle to expedite complex business processes, including:

- Workflows that orchestrate cross-function processes, where the end-users see a consistent user interface and consistent interactions regardless of the systems being accessed.
- System-to-system workflows that remove manual steps for application end users.
- Integrated developer experience with drag-and-drop simplicity for data integration, data science insights, building AI solutions, and creating powerful user experiences.



By leveraging an organization's DevSecOps ecosystem, the user can model the topology of multiple environments and provision all the components in a single action. It can be designed for localization and deliver a responsive user interface, accelerating application deployment with predictive dashboards. Blueprint generated simulates XaC for each modeled design of the release orchestration process before any real-time deployments, which makes for better use of the limited resources.

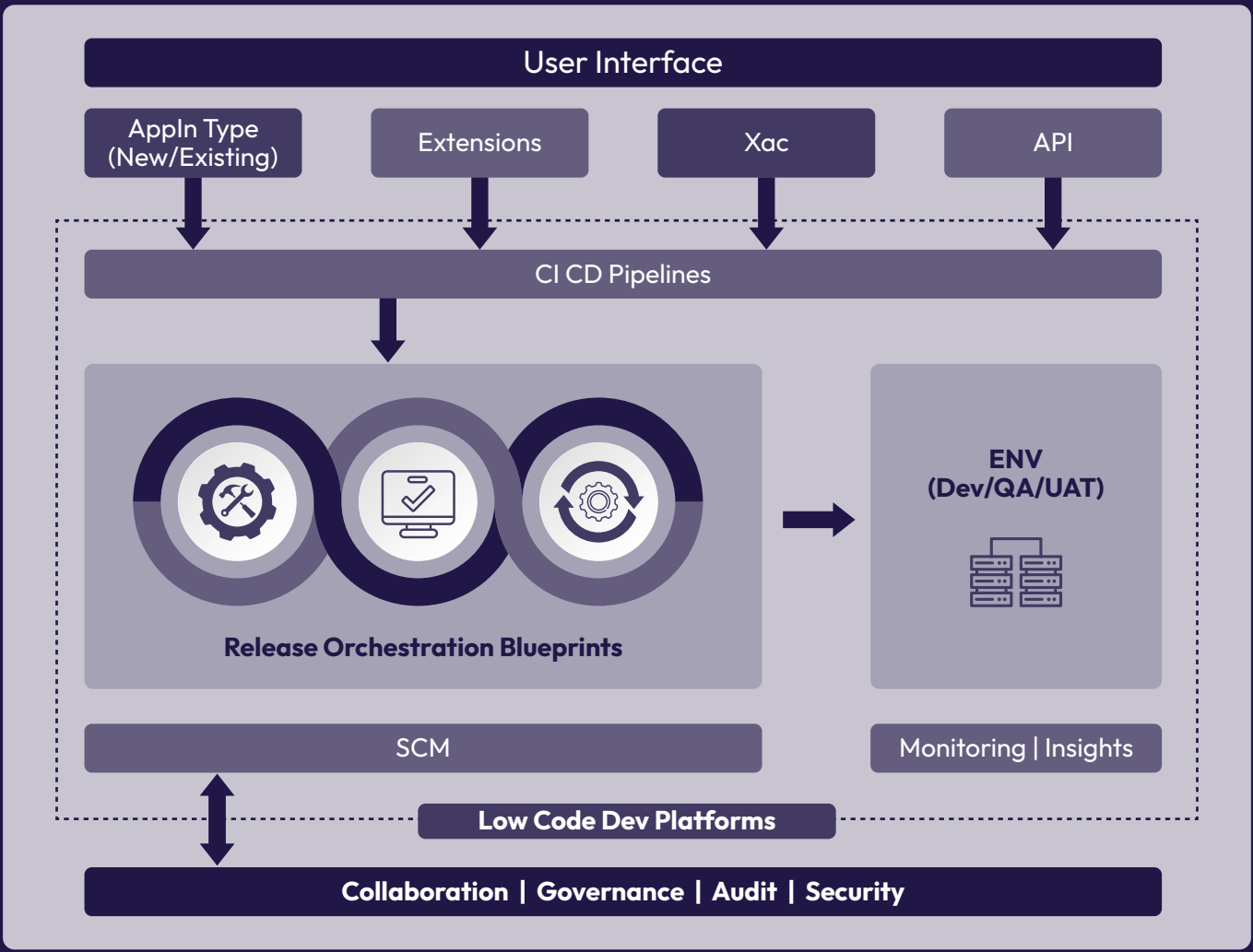
Low Code Release Orchestration: Solution Approach

Low Code Release Orchestration can give an ability to design unique processes through the drag and drop option. This can lead to continuous deployment of the code using jobs for any required task of each application or configuration. Multiple environments are created for each stage of deployment, and blueprints for each workflow component that is to be provisioned.

Finally, the application's unique ID is deployed as per the designed model. Overall, the orchestration can be managed and monitored through a userinterface. Necessary remediation runbooks can be executed on the go through AI. Master orchestration workflows may not be restricted to any one cloud or stack but can be designed for "Deploying Anywhere".

High-Level Model Design

The below diagram represents a high-level design of the different components involved.



The above model helps achieve a flawless iteration of deploying artifacts, applications, platforms, resources, configurations, security, etc. Any citizen user can select the packages, workflows can be integrated with DevSecOps frameworks and tools, which can be easily deployed to non-production/production environments. This is done with necessary security control gates while ensuring that each stakeholder is notified of the actions. This model can also be referred to as a release factory where all the prerequisites (XaC-Infra as code, Policy as Code, Security as Code) are validated, and executed through RBAC. An executable blueprint is generated to preview any impact and update any necessary remediation workflows. This model can be used for both web and mobile applications.

Benefits:

- Seamless release orchestration.
- Information security and compliance standards.
- Role-based dashboards with insights.
- Built-in consistency and governance.
- Service reliability and observability.
- Audit trails.

Below is a quick navigation guide for any organization that wants to maximize the benefits of adopting the Low-Code No-Code approach in their overall release orchestration process-

1. **Understanding The Why:** Design thinking-led approach can be used to prioritize the release gaps which need the most attention in order to maximize business impact from low-code/ no-code interventions. In the modernization of a transformation journey, the expectation from each team is to upskill with the latest technologies and be more productive by wearing caps simultaneously. Hence, it is evident that identifying a specialized resource is a challenge, and this is where low code release orchestration can play the role of a catalyst. It also enables to piece together coexisting roles and ensures faster delivery to market with optimized team size, including citizen users.

2. Navigating Through The Chaos: Having understood the low-hanging fruits in your organization's context, the next step is to identify and align with the right complementary platform. Given that there is a plethora of such platforms like Microsoft Power Apps, Oracle AXE, and IBM UrbanCode Deploy to name a few, the organization must follow the below approach to be able to narrow down to the right platform for their context.

- Create a roadmap on release orchestration at the Enterprise level.
- Identify metrics for complete visibility to n-tiered deployments.
- Design scalable deployment workflows for faster, reliable, secure, and error-free services.

3. Executing It Right: Once we know our priorities and the right supporting platform, it all boils down to execution. This encapsulates a combination of cultural, technical, and business aspects like enabling a roadmap to accommodate faster iterations, including security champions in DevOps teams, optimizing workflows with a limited menu for UX, etc.

Conclusion

To overcome most of the challenges through our traditional deployment approach where large teams, collaboration & strict compliance are mandated, low code release orchestration solution can be one of the most optimal choices achieved through fewer resources, collaboration towards innovation, increasing the productivity and speed of deployment so that it would be intuitive for a normal business user. While there are multiple low code platforms available, choosing the best platform for release orchestration is also a challenge. Hence, it becomes inevitable to adapt release orchestration to create quicker time to business value with a smaller team, realize innovative ideas, and less on finding the right talent and organizing the team around a seemingly impossible goal.

"Low-code is almost like when you hit the gas pedal on your car. A lot is going on, but you don't have to know anything the engine does other than it goes. That's pretty powerful."

-Scot Johnson,
Synopsys

ABOUT BRILLIO

At Brillio, our customers are at the heart of everything we do. We were founded on the philosophy that to be great at something, you need to be unreasonably focused. That's why we are relentless about delivering the technology-enabled solutions our customers need to thrive in today's digital economy. Simply put, we help our customers accelerate what matters to their business by leveraging our expertise in agile engineering to bring human-centric products to market at warp speed. Born in the digital age, we embrace the four superpowers of technology, enabling our customers to not only improve their current performance but to rethink their business in entirely new ways. Headquartered in Silicon Valley, Brillio has exceptional employees worldwide and is trusted by hundreds of Fortune 2000 organizations across the globe.

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Contact Us: info@brillio.com