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Automating the operational foundation for customer experience in communications

Oracle Communications Digital Business Experience



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Automating the operational foundation for customer experience in communications

Communications service providers are under pressure to introduce new services, offers, and customer experience improvements at a faster pace, even as the technology environments supporting those experiences become more complex. Cloud-native architectures can provide greater flexibility, but they also introduce more infrastructure, application dependencies, configuration requirements, shared services, repositories, and lifecycle activities that operations teams need to coordinate across environments.

That complexity extends well beyond initial deployment. Once applications are online, teams still need to connect them across the broader solution, configure the dependencies required for them to work together, validate business processes that span multiple systems and interfaces, and maintain those environments as applications are patched, upgraded, reconfigured, and evolved over time.

As communications applications become more cloud-native and distributed, scaling them means coordinating more than application capacity. Teams must manage a growing number of clusters, services, dependencies, repositories, configurations, interfaces, environments, and lifecycle activities. Each additional application or change can introduce new dependencies across the broader solution. When deployment, integration, testing, and operations rely on manual procedures or environment-specific expertise, the operational effort grows along with the application footprint.

When too much of this work depends on manual processes, one-off configuration, or specialized expertise, operational effort can increase as the application environment grows, making change harder to repeat consistently across environments. This can increase operational effort, slow the cadence of releases and updates toward production, and make it more difficult for teams to introduce customer experience improvements with confidence.

Oracle Communications Digital Business Experience helps communications service providers deliver more seamless, relevant, and hyper-personalized customer experiences by connecting digital engagement to the operational and monetization capabilities required to deliver them. Automation strengthens the operational foundation behind those experiences by helping teams deploy, connect, validate, operate, and evolve Oracle Digital Business Experience with greater consistency and less dependence on manual work.

Across the solution lifecycle, automation can help standardize repeatable activities, reduce one-off effort, improve consistency between environments, and make it easier for teams to manage ongoing change. The result is a stronger operational foundation for customer experience, helping providers introduce new offers and improve upon existing processes while maintaining the reliability and continuity the customer experience depends on.



1. Deploy applications faster and more consistently

Deploying complex communications applications can require significant coordination. Every new application, environment, or update can introduce changes across infrastructure, application clusters, software artifacts, repositories, configuration, dependencies, and the operational services required to support the environment. When those activities are handled through separate or largely manual processes, each deployment can require significant effort and create opportunities for inconsistency.

Oracle Communications Cloud Native Automation Platform supports service providers as they evolve their offerings with application-aware automation. Repeatable workflows reduce complexity and help service providers deploy, validate, and operate supported components on Kubernetes. With Oracle's Cloud Native Automation Platform, service providers can standardize how environments are prepared, and establish an operational baseline including configuration management, observability, and health validation. Guided workflows provide the required deployment inputs while automation handles many of the underlying activities associated with infrastructure preparation, application deployment, configuration, and supporting services.

Observability, automated health checks, and service assurance capabilities can be established as part of the same deployment foundation, so the environment is prepared not only to run, but also to be managed over time. The result is a repeatable approach to bringing Oracle Digital Business Experience applications online, with less manual coordination behind each deployment.

2. Standardize integration with pre-built automation patterns

Outside of the challenges of deployment, service providers are often hindered by the task of integration. Deploying an application is only one part of putting a complete solution into operation. Customer engagement, order management, monetization, and other capabilities still need to exchange information and operate together across the customer lifecycle. That can require application-specific configuration, shared services, dependencies, connectivity, and coordination across multiple components and environments. As environments change, repeating that work through one-off integration processes becomes increasingly difficult to manage consistently.

Oracle Communications Cloud Native Automation Platform can standardize more of this work for service providers by providing pre-built and repeatable automation patterns that standardize integration activities. With guided execution in place, the platform can reduce the amount of one-off configuration required each time an environment is created or changed.



Providers can reduce the amount of integration work that has to be recreated for every environment or change, improving consistency and making it easier to introduce updates across the broader Oracle Digital Business Experience solution without relying on one-off configuration each time.

3. Increase confidence with end-to-end testing

Customer experiences rarely depend on a single application operating correctly in isolation. A purchase, service change, billing interaction, or other customer journey can cross multiple applications, APIs, interfaces, and downstream systems. A change in one area can therefore affect a business process elsewhere in the solution. As environments become more complex and releases occur more frequently, manually repeating complete end-to-end scenarios can become increasingly difficult to scale. Testing therefore needs to move beyond validating applications in isolation and provide a repeatable way to confirm that complete business processes continue to operate as expected when the solution changes.

Oracle Communications Solution Test Automation Platform helps teams automate end-to-end scenarios across applications and interfaces using reusable, low-code tests. Teams can validate workflows that span web, mobile, API, and other application interfaces, allowing testing to follow the business process across the broader solution rather than stopping at individual application boundaries.

Reusable scenarios and test data can help reduce repetitive regression work across releases and environments, while parallel execution and integration with CI/CD processes can help make validation part of the broader delivery lifecycle. Monitoring, logs, screenshots, recordings, and reporting provide additional context when a test fails, helping teams identify issues and simplify troubleshooting.

This creates a more repeatable approach to solution validation that can reduce the effort associated with end-to-end testing, improve solution quality, and give teams greater confidence before releases, updates, and other changes move toward production.

4. Operate and evolve

The need for automation does not end once an application reaches production. Oracle Digital Business Experience environments continue to change as applications are patched, upgraded, reconfigured, scaled, and evolved. The consistency established during deployment therefore needs to extend across the broader application lifecycle. Teams also need ongoing visibility into application status, functional health, and service conditions as those changes are introduced.

Oracle Communications Cloud Native Automation Platform supports ongoing lifecycle activities through repeatable workflows for maintenance, patching, upgrades, configuration management,

observability, health validation, troubleshooting, restarts, and other operational processes. This helps teams operate with confidence and consistency as environments change rather than conducting separate manual processes for each lifecycle event.

Reusable solution content complements that lifecycle automation. Oracle Digital Business Experience Reference Solution provides a pre-integrated, pre-configured reference environment that includes seed data, product catalog content, sample orders and business scenarios, documentation, best practices, and an end-to-end solution test catalog. These reusable assets can help teams validate and evolve the broader solution without rebuilding every configuration, business scenario, and test artifact independently.

These assets can support training, testing, and implementation planning by providing a working example of how Oracle Digital Business Experience applications and business processes are intended to operate together.

Oracle Communications Cloud Native Automation Platform standardizes how the application environment is operated and changed, while Oracle Digital Business Experience Reference Solution provides reusable solution content for evaluating, testing, training, and evolving the broader solution.

Together, these capabilities help teams manage ongoing change more consistently, reduce the need to recreate operational processes and solution assets for every lifecycle event, and evolve Oracle Digital Business Experience while maintaining the reliability and continuity that customer experience depends on.

Why Oracle for automation

Automation in a communications environment requires more than generic infrastructure tooling because the work behind customer experience extends across application deployment, configuration, integration, end-to-end business processes, and ongoing lifecycle management. Improving one of those areas in isolation does not necessarily simplify the broader solution lifecycle.

Oracle combines communications-specific application knowledge with cloud-native lifecycle automation, end-to-end solution testing, and reusable solution assets designed around the operational requirements of Oracle Digital Business Experience.

Together, these capabilities provide a more repeatable operational foundation across the Oracle Digital Business Experience lifecycle, from deploying and connecting applications through validating, operating, and evolving the solution over time.

Create a more repeatable foundation for customer experience transformation

Customer experience innovation depends on more than the interactions customers see. The applications behind those interactions need to be deployed reliably, the components across the solution need to work together, complete customer and business journeys need to be validated, and the environment needs to remain observable and manageable as it changes.

Oracle helps communications service providers automate more of this operational work across the lifecycle of Oracle Digital Business Experience, reducing reliance on manual processes while improving consistency across deployment, integration, testing, and ongoing operations.

By creating a more repeatable foundation for how change is introduced and managed, Oracle can help providers move customer experience improvements forward with greater confidence while maintaining the operational continuity required to turn experience ambition into delivered experience.

Connect with us

Call +1.800.ORACLE1 or visit oracle.com. Outside North America, find your local office at: oracle.com/contact.

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