



Feature Management and Experimentation Key to Improving Business Velocity

FEATURING RESEARCH FROM FORRESTER

The Forrester New Wave™: Feature Management And Experimentation, Q2 2021

In a software-powered world, innovation and agility are critical to business success. Feature management empowers development teams to do their best work while helping organizations deliver value to customers faster, with less risk.

WHAT IS FEATURE MANAGEMENT?

In a world where every company is becoming a software company, the way we deliver and control software can be used as a lever for business growth. But a software launch is a big stressor for many organizations. The stakes are high when a feature is released into production for the first time—engineering teams sit anxiously at their computers, sometimes in the middle of the night, waiting for something to go wrong. If something does go wrong, the process of remedying it can harm the customer experience, business reputation, and engineering productivity.

Contrast this with the ideal software release that's simple, safe and well, boring. Where developers deploy code to production frequently and can roll back error-causing changes seamlessly and without negatively impacting end users. Getting there starts with feature management, an approach to software delivery that enables teams to ship software faster, while virtually eliminating risk in the process. Feature management enables businesses to more quickly implement new and beneficial features for customers and frees developers to be more productive.

Feature management lets teams progressively release code to production using feature flags to mitigate the risks associated with continuous delivery, enabling an array of impactful use cases. Businesses can reduce time to value for new features by separating deploy from release, safely testing features in production, and shortening customer feedback loops. Feature flagging allows for the ability to swiftly roll back any code and reduces operational risk. Businesses can safely migrate applications to the cloud, upgrade their tech stacks, and dynamically control features in real-time without the risk of a typical deployment.

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FEATURE MANAGEMENT USE CASES

Feature management helps engineering teams be more productive by removing blockers to building and delivering new features, bug fixes, or code changes of any kind. By continuously releasing code to production—and using a flag to dictate when and how users will experience those changes—teams can adopt trunk-based development, testing in production, and collaborative rollout planning. The cost of mistakes is lowered when releases are more frequent and teams have more control over who sees which code changes when.

Feature management can also be used to increase the reliability and availability of applications. By making feature flags a mission-critical piece of operations, teams can reduce the number of system failures that occur and recover in minutes, or even seconds, when they do.

The Forrester New Wave for Feature Management and Experimentation differentiates software development-driven experimentation from front-end experimentation platforms that are popular with marketing teams. The former ecompasses the entire software stack, giving teams a holistic understanding of how code changes impact user experiences. Tying together feature management and experimentation helps product and engineering teams become more data-driven, collaborate more effectively, and improve time to value for new feature development.

Feature management also bridges the divide between engineering and business by allowing customer-facing teams to play a bigger role in delivering software. Generally, business stakeholders have had more insight into customer needs than developers. Yet, historically, they've lacked a way to control how features are released to these customers. By giving the right teams control over how groups of users experience their product—and removing development as the blocker for doing so—everyone wins.

FORRESTER RECOGNIZES FEATURE MANAGEMENT AS AN EMERGING CATEGORY CRITICAL TO MODERN DEVOPS

Forrester's New Wave for Feature Management and Experimentation calls out the category as one critical to the modern DevOps workflow. "Moving forward, expect feature management and experimentation products to be the latest must-have DevOps tools to help teams not only create faster release cycles but also do so while staying completely connected with the customer", the report says. At LaunchDarkly, we agree that feature management is foundational to helping engineering teams do their best work and in turn, accelerating business velocity.

Forrester also calls out the benefits of giving "product-minded teams two major pieces of capability that are not otherwise easy to recreate — the ability to code and deploy features to production with code only exposed to a select audience. This enables testing in production and testing of different user experiences with similar audiences in production under very controlled and monitored circumstances." LaunchDarkly can help mitigate risks associated with testing in production environments.

The Forrester New Wave™: Feature Management And Experimentation, Q2 2021

The Seven Providers That Matter Most And How They Stack Up

by Christopher Condo June 3, 2021

Why Read This Report

In Forrester's evaluation of the emerging market for feature management and experimentation, we identified the seven most significant providers in the category — AB Tasty, ConfigCat, Featureflow, LaunchDarkly, Optimizely, Split, and Unleash — and evaluated them. This report details our findings about how well each vendor scored against 10 criteria and where they stand in relation to each other. AD&D professionals can use this report to select the right partner for their feature management and experimentation needs.

The Forrester New Wave™: Feature Management And Experimentation, Q2 2021

The Seven Providers That Matter Most And How They Stack Up



by Christopher Condo with Chris Gardner, Andrew Dobak, and Kara Hartig | June 3, 2021

Feature Management And Experimentation Modernizes Software Delivery

Compared with other DevOps technologies such as continuous integration (CI) and continuous delivery (CD), commercial feature management and experimentation products are relatively new, having come onto the market in the past half decade or so. This market sets itself apart from traditional (and more well-known) experimentation platforms by targeting software development teams (vs. marketing teams) and by enabling feature management and experimentation of the full software stack — not just the client side of the user experience. This gives product-minded teams two major pieces of capability that are not otherwise easy to recreate — the ability to code and deploy features to production with code only exposed to a select audience. This enables testing in production and testing of different user experiences with similar audiences in production under very controlled and monitored circumstances.

The evaluation showed a clear delineation between larger and smaller vendors. Vendors with a larger market presence provide offerings with a broad set of capabilities that play well with enterprise clients such as integrated approval processes, workflow automation, and multiple compliance certifications. In comparison, smaller vendors focus on offering core capabilities of feature management, augmented by experimentation. However, each vendor offered compelling features that enable development teams to switch to single trunk development, reduce software release headaches, and enable true testing in production. Moving forward, expect feature management and experimentation products to be the latest must-have DevOps tools to help teams not only create faster release cycles but also do so while staying completely connected with the customer.

Feature Management And Experimentation Evaluation Overview

The Forrester New Wave[™] differs from our traditional Forrester Wave[™]. In the Forrester New Wave evaluation, we assess only emerging technologies, and we base our analysis on a 10-criterion survey and a 2-hour briefing with each evaluated vendor. We group the 10 criteria into current offering and strategy (see Figure 1). We also review market presence.

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We included seven vendors in this assessment: AB Tasty, ConfigCat, Featureflow, LaunchDarkly, Optimizely, Split, and Unleash (see Figure 2 and see Figure 3). Each of these vendors has:

- > An application-level feature management offering. This includes the ability to wrap code inside if-then-else logic and control the exposure of this code using a remote service.
- > An application-level experimentation offering (A/B testing, multivariate, etc.). This includes the ability to compare two or more versions of code in production at the same time against similar audiences to find a winning result.
- > Central management of experiments. The vendor offers experiments based on feature management and/or experimentation (A/B testing, multivariate, etc.) that a central control application manages in real time.
- > A commercial offering that is generally available to all its customers. The product offering version being evaluated is the default version users will have when they purchase this product.
- > The ability to provide a customer reference. This includes the ability to provide a commercial customer reference that is using this product in a substantial manner to facilitate software development.
- Market presence/interest from our clients that may warrant inclusion. Vendors may be selected based on client interest or market presence, i.e., users would expect to see their offering in such an evaluation.



FIGURE 1 Assessment Criteria: Feature Management And Experimentation, Q2 2021

Criteria	Platform evaluation details
Feature management	How well does the vendor's solution enable developers to create and manage feature toggles in source code to combine that capability with audience targeting? How well does it enable engineers to adopt single trunk development, testing in production, beta testing, or management of progressive releases?
Experimentation	How well does the vendor's solution enable developers and product teams to create and manage experiments such as A/B tests, multivariate tests, and other forms of feature experimentation?
Audience targeting	How well does the vendor offering provide audience targeting? How sophisticated is it? How well does this complement feature management and experimentation? What other capabilities differentiate it from competitors?
Security and privacy	How well does the vendor's solution support enterprise security and data privacy? What capabilities does the solution provide, and how well do those capabilities enable enterprises to carry out best practices for user access and data privacy?
Analytics and UX	Does the vendor offering include a dashboard or graphical UI, and if so, how well does it enable the management and understanding of feature flags and experiments? Which analytics are included in the UI, and are they customizable? How well do they compare with other vendor offerings?
Technical debt	How well does the vendor offering help users manage the feature flag and experimentation lifecycle and the technical debt that arises naturally from the use of such technologies? What features set this offering apart from others?
Architecture	How well does the architecture of this solution provide a resilient, higher-performance platform for managing feature flags and experimentation at scale across multiple geographies? How well does it work with continuous integration and continuous delivery pipelines? What capabilities differentiate this offering?
Vision	What is the vendor's long-term vision for feature management and experimental development? What type of investments are being made for long-term innovation? How well does the vendor's vision align with customers' future needs? How innovative is this vision, compared with its industry peers?
Roadmap	How comprehensive is this roadmap, compared with peers in this market? How well does it address top concerns of customer references, and what types of innovations are being planned to serve future needs?
Market approach	What tangible evidence exists to demonstrate a successful go-to-market strategy (e.g., customer growth and regional expansion and support)? To what degree has the vendor raised awareness of the importance of feature management and experimentation in product development?

FIGURE 2 Forrester New Wave™: Feature Management And Experimentation, Q2 2021

THE FORRESTER NEW WAVE™

Feature Management And Experimentation

Q2 2021





FIGURE 3 Forrester New Wave™: Feature Management And Experimentation Scorecard, Q2 2021

	Feature managementation security and privacy to Architecture Audience temperatury Analytics and ut									
Company	keati	ite Expe	in. Audi	ge ^{cut}	Anali Anali	hic Tech	nic Archi	visio	r Road	Imap Mar
AB Tasty	•	0	0	0	0	•	•	0	0	0
LaunchDarkly	•	•	•	•	•	•	•	•	0	0
Optimizely	0	0	٥	0	0	0	0	٥	0	0
Split	0	•	•	٥	•	0	•	•	•	9
ConfigCat	0	0	0	0	0	0	0	9	0	0
Unleash	•	•	0	0	9	0	•	0	•	9
Featureflow	•	•	0	•	0	0	0	•	0	0

Vendor QuickCards

Forrester evaluated seven vendors and ranked them against 10 criteria. Here's our take on each.

AB TASTY: FORRESTER'S TAKE

Our evaluation found that AB Tasty (see Figure 4):

- Offers the strongest balance of feature management and A/B testing capabilities. AB Tasty's cloud-native architecture balances feature management and A/B testing capabilities, serving app dev and product leaders equally well. It also has robust security featuring independently verified penetration testing and certifications.
- > Must improve technical debt capabilities. A natural outcome of inserting feature flags into source code is the accumulated technical debt that comes from it. An automated system for tracking/ organizing technical debt and linking it with agile planning would be welcome.
- > Is the best fit for enterprise companies that need advanced targeting capabilities. AB Tasty's audience targeting capabilities are sophisticated. They incorporate multi-armed bandit and AI to execute experiments with a variety of audience-targeting demographics/scenarios.

AB TASTY CUSTOMER REFERENCE SUMMARY

AB Tasty has a highly responsive cloud-native architecture that enables teams to quickly get started with feature management. It combines that with complex targeting and experimentation capabilities for advanced feature experimentation.

FIGURE 4 AB Tasty QuickCard

Wave position **LEADER AB Tasty** Technical debt Feature management REFERENCE QUOTES Experimentation Architecture "I tried the API and made a first Audience targeting Vision test within an hour. It's very Security and privacy Roadmap simple. ... They were Analytics and UX Market approach responsive to our ideas to improve the API." Differentiated Needs improvement "One of our critical needs was an extremely modern and fast On par No capability implementation. There could be no lag or delay in **Products evaluated** experiments or flags." Flagship



LAUNCHDARKLY: FORRESTER'S TAKE

Our evaluation found that LaunchDarkly (see Figure 5):

- > Offers strong feature management, security/privacy, and tech debt management. LaunchDarkly is a Leader in the feature management space, offering highly performant and scalable feature flagging capabilities. Setting it apart is its strong enterprise governance capabilities, which include an integrated workflow and approval engine. It also scored highest in managing feature flag technical debt.
- > Improves its strategic vision by investing more in experimentation capabilities. While experimentation is nascent for many dev teams, users overwhelmingly tell us their plans include the ability to run experiments such as A/B and multivariate tests. Adding more weight to experimentation investments will better align it to users' future needs.
- Best suits enterprises that want solid feature management, governance, and compliance. LaunchDarkly's plans to further improve its governance and compliance capabilities should place it squarely on every enterprise's evaluation short list, especially those operating in regulated environments.

LAUNCHDARKLY CUSTOMER REFERENCE SUMMARY

LaunchDarkly has been extremely reliable and responsive. Its customers appreciate this as feature management and experimentation expand further into their software delivery strategies.

FIGURE 5 LaunchDarkly QuickCard

Wave position **LEADER** LaunchDarkly Feature management Technical debt **REFERENCE QUOTES** Architecture Experimentation "We like the ability to create Vision Audience targeting segments (predefined or with Security and privacy Roadmap predefined rules that we can Analytics and UX Market approach use). We use this quite a bit." "We have had great support Differentiated Needs improvement from their reps. The tech rep really knows his stuff, and he On par No capability usually has an answer to our questions." **Products evaluated** LaunchDarkly Feature Management Platform



OPTIMIZELY: FORRESTER'S TAKE

Our evaluation found that Optimizely (see Figure 6):

- Offers strong experimentation and analytics capabilities. Optimizely comes from traditional A/B testing for marketing but also serves application development teams with a full stack offering. This delivers both experimentation and leading analytical capabilities with patented analysis algorithms.
- > Still needs to strengthen its feature management capabilities. To fully serve app dev, Optimizely needs to improve feature management capabilities like progressive and key performance indicator (KPI)-informed rollouts as well as kill switches to limit the blast radius of features gone bad.
- > Best suits companies that want a strong strategic vision for content and app delivery.
 Optimizely merged with Episerver. Their combined vision serves digital teams that want an end-to-end platform that helps both the digital experience and the app dev teams.

OPTIMIZELY CUSTOMER REFERENCE SUMMARY

Optimizely customers are very happy with its security, privacy, and customer support. They report that they are satisfied with all major capabilities related to experimentation.

FIGURE 6 Optimizely QuickCard

Wave position **Optimizely LEADER** Feature management Technical debt **REFERENCE QUOTES** Architecture Experimentation "Optimizely's A/B testing is Audience targeting Vision mission critical to our software Security and privacy Roadmap development initiatives." Analytics and UX Market approach "Optimizely's customer support exceeded our expectations." Differentiated Needs improvement On par No capability **Products evaluated** Optimizely Full Stack



SPLIT: FORRESTER'S TAKE

Our evaluation found that Split (see Figure 7):

- > Offers strong analytics and UI capabilities. Split has leading analytics and UI capabilities, allowing teams to easily manage features and experiments while gleaning actionable insights from the Split dashboard.
- > Is adding integrated workflows that will improve its governance capabilities. Automated workflows integrated with approval processes were a differentiating capability in this evaluation. Enterprises in regulated industries will welcome that addition.
- > Is the best fit for companies that need balanced feature management/experimentation. Split offered strong-to-leading capabilities in nearly every category, reassuring any dev team on the journey toward feature management and experimentation.

SPLIT CUSTOMER REFERENCE SUMMARY

Split customers are happy with privacy and security features and say the resilience of the service is "top-notch."

FIGURE 7 Split QuickCard

Wave position STRONG PERFORMER **Split** Feature management Technical debt **REFERENCE QUOTES** Experimentation Architecture "Having a tool like Split seems Audience targeting Vision to be a good thing because we Security and privacy Roadmap can manage compliance while Analytics and UX Market approach rolling out experiments." "When submitting feature Differentiated Needs improvement requests, they are very transparent. Our requests No capability On par might end up on the backlog, but they at least let us know." **Products evaluated** Split



CONFIGCAT: FORRESTER'S TAKE

Our evaluation found that ConfigCat (see Figure 8):

- > Provides solid feature management capabilities. AD&D leaders looking for a platform that focuses on the developer experience will do well with ConfigCat. Its feature management system enables single trunk development from feature flag creation to removal.
- > Must invest more in A/B testing to appeal to the growing need for experimentation. Even though A/B experimentation at the development phase is still nascent, our data tells us it is a growing need. More enterprises are looking for complete platforms for feature management and experimentation.
- Should be chosen to support dev-centric teams focused on speed and quality. Customers chose ConfigCat over other vendors because they were looking for solid feature flag functionality focused on developer productivity. ConfigCat serves the role well.

CONFIGCAT CUSTOMER REFERENCE SUMMARY

ConfigCat offers a dev-centric solution to adopt both feature management and experimentation. Dev teams like ConfigCat's ease of onboarding and ability to use software development kits (SDKs) or REST APIs, which enables them to select the option that works best for them.

FIGURE 8 ConfigCat QuickCard

Wave position **CONTENDER** Con gCat Technical debt Feature management REFERENCE QUOTES Architecture Experimentation "We wanted to get away from Audience targeting Vision long-running feature branches Security and privacy Roadmap and do so with ease and Analytics and UX Market approach flexibility." "They are open to suggestions Differentiated Needs improvement and have even implemented one of mine. They respond On par No capability quickly to support queries and are very responsive getting **Products evaluated** fixes out to customers." ConfigCat

UNLEASH: FORRESTER'S TAKE

Our evaluation found that Unleash (see Figure 9):

- Offers solid analytics and tech debt management capabilities. Unleash offers great analytics that stand up well to those of Leaders. Its tech debt features are helpful and dev friendly with a dedicated technical debt dashboard.
- Still needs to improve feature management and experimentation capabilities. Unleash is off to a strong start in creating a complete feature management and experimentation platform. But it has more work to do to match Leaders in this workspace, such as offering KPI-triggered kill switches, better hosting capabilities, and better governance.
- > Is the best fit for companies that desire an open source market approach. Unleash is the only open core solution evaluated in this Forrester New Wave, meaning the core of the application is open source and free to use, but vendor extensions are proprietary and only available at a cost. With a reported 4 million downloads, this solution will appeal to developers who want to try feature management without having to deal with procurement.

UNLEASH CUSTOMER REFERENCE SUMMARY

Customers choose Unleash for its ability to be self-hosted, allowing them to conduct feature management and experimentation in a variety of locations. Customers would like to see improvements to analytics capabilities and to architecture beyond the current set of SDKs as well as the product's growth in maturity.

FIGURE 9 Unleash QuickCard

Wave position **Unleash CHALLENGER** Technical debt Feature management REFERENCE QUOTES Architecture Experimentation "We wanted a solution that Audience targeting Vision would work in multiple regions Security and privacy Roadmap and allow us to self-host if Analytics and UX Market approach necessary, such as in China." "A good feature of theirs: Their Differentiated Needs improvement dashboard shows if a flag is being used but has no impact No capability On par on any features (i.e., should be removed)." **Products evaluated** Unleash Enterprise



FEATUREFLOW: FORRESTER'S TAKE

Our evaluation found that Featureflow (see Figure 10):

- Offers solid A/B testing capabilities that cater to dev teams. AD&D leaders looking for a solid A/B testing platform that focuses on the developer experience will do well with Featureflow. Featureflow's integrated A/B testing engine is simple to use and can easily integrate with more sophisticated analytics engines.
- > Still needs to improve security. As enterprises begin their journey toward testing in production, they want to ensure proper governance. Featureflow should consider including multifactor authentication and having its software certified as secure by an independent organization.
- > Is the best fit for developers that need solid experimentation and audience targeting.

 Featureflow brings experimentation to developers and provides elements of sophisticated audience targeting similar, but not equivalent, to vendors that are Leaders.

FEATUREFLOW CUSTOMER REFERENCE SUMMARY

Featureflow's customers indicated that both feature management and experimentation are very important to their development team's initiatives and are satisfied with the performance, reliability, and developer experience from this vendor.

FIGURE 10 Featureflow QuickCard

Wave position Feature ow **CHALLENGER** Technical debt Feature management REFERENCE QUOTES Experimentation Architecture "We use Featureflow to test Vision Audience targeting new features in production Security and privacy Roadmap before they are turned on." Analytics and UX Market approach "Featureflow's feature management and Differentiated Needs improvement experimentation met our expectations." On par No capability **Products evaluated** Featureflow



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Supplemental Material

THE FORRESTER NEW WAVE METHODOLOGY

We conducted primary research to develop a list of vendors that met our criteria for the evaluation and definition of this emerging market. We evaluated vendors against 10 criteria, seven of which we based on product functionality and three of which we based on strategy. We also reviewed market presence. We invited the top emerging vendors in this space to participate in an RFP-style demonstration and interviewed customer references. We then ranked the vendors along each of the criteria. We used a summation of the strategy scores to determine placement on the x-axis, a summation of the current offering scores to determine placement on the y-axis, and the market presence score to determine marker size. We designated the top-scoring vendors as Leaders.

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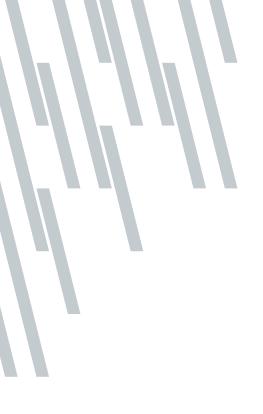
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LaunchDarkly

ABOUT LAUNCHDARKLY

Founded in 2014 by Edith Harbaugh and John Kodumal, LaunchDarkly is the leading feature management platform software teams across industries use to build better software faster with less risk. With LaunchDarkly, development teams control their entire feature lifecycles from concept to launch to value. Serving over 1800 customers, LaunchDarkly is used by teams at Atlassian, HashiCorp, Intuit, and more. LaunchDarkly has been named on the Forbes Cloud 100 list, InfoWorld's 2021 Technology of the Year list, and on the Enterprise Tech 30 list. Learn more at launchdarkly.com.