Financial Institutions Leaning into Cloud-Native Development

Financial institutions are adopting cloud-native application development, but their modernization efforts are proceeding at a very measured pace, according to a recent IDG survey. Top executives are leaning forward—but the next-lower levels of management in IT and on the business side indicated that they are proceeding at a more measured pace.

Financial institutions, like companies in many other market segments, are striving to modernize applications and speed up development as they seek to become faster, more agile, and more scalable. This is crucial to creating experiences that help achieve business priorities and satisfy customers. But they face unique regulatory and risk management requirements that can slow or inhibit achievement of those goals.

Cloud-native concept catching on

Financial institution C-level execs are driving cloud-native development for their organization to modernize applications and build more-responsive development efforts. Breaking down once-monolithic applications into discrete components that can independently be built, scaled, and maintained offers the promise of decreased time to market, ultimately resulting in better experiences for customers, among other benefits.

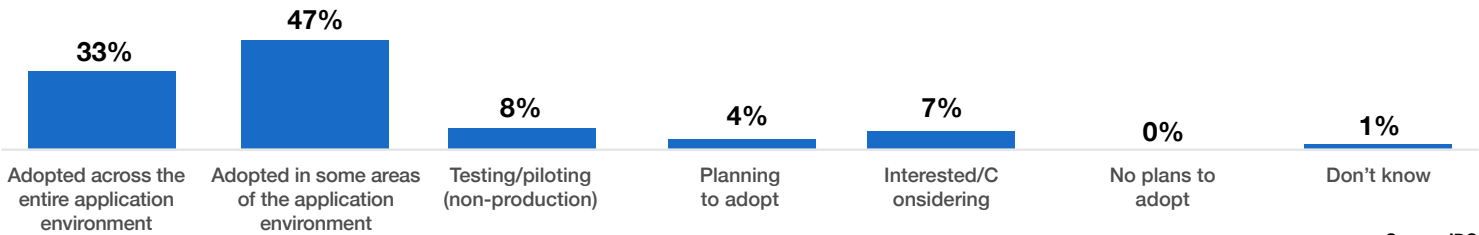
IDG surveyed 100 executives in C-suite and senior IT and business management roles at financial institutions to determine their progress in application modernization and to assess the obstacles they have faced. Most are well on the way, with 80% saying they have adopted cloud-native development to some degree—although only a third said they have done so across their entire application environment—and almost all of the remainder are in various stages of exploration.

The promise of cloud deployment relies on new methodologies and processes. Cloud-native application development features a service-based architecture using microservices, containers, and application programming interfaces (APIs), often building on DevOps (development and operations) principles. DevOps has been adopted across all or parts of the application environment at 70% of the institutions represented by the respondents, container technology at 78%, and a continuous-integration/continuous-delivery (CI/CD) model at 73%.

Overall, 49% of the surveyed organizations said they are taking a measured approach and refactoring or rebuilding a few applications to be hosted in the cloud, whereas 19% are committed to a cloud-first approach with a majority of applications.

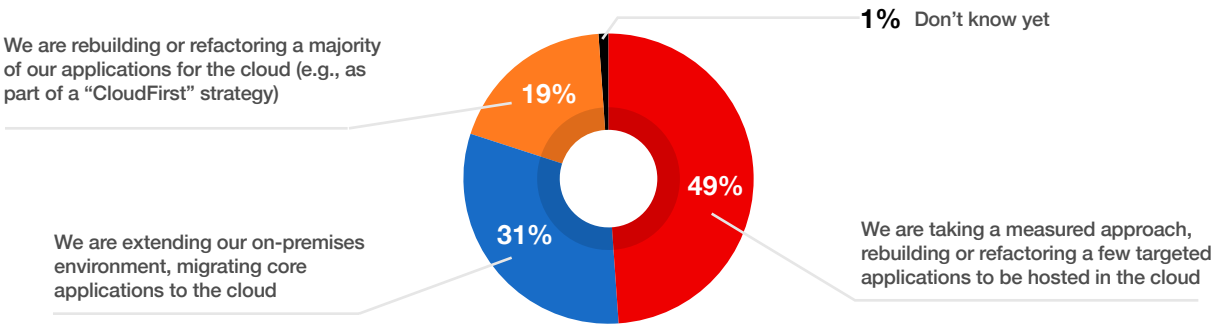
Figure 1: Adopting Cloud-Native Development

Cloud-native application development features service-based architecture using microservices, containers and APIs. Organizations can break applications down into discrete components, each of which can be built, scaled and maintained independently.



Source: IDG

Figure 2: Application Modernization Plans



Source: IDG

Buying into the concept

Cloud-native development empowers financial institutions to build and run applications that are more responsive, elastic, and resilient across modern, dynamic environments such as public, private, and hybrid clouds. Majorities of the respondents in the C-level, IT, and business decision-maker categories said they are pursuing a hybrid-cloud approach rather than relying on a single cloud provider.

"Financial institutions have some very specific characteristics regarding security and regulatory compliance that restricts their ability to move anything and everything to the public cloud," says Marius Bogoevici, chief solutions architect, Financial Services, with Red Hat. "The hybrid model allows them to decide what stays in house, what needs to live in specific locations under tight control, and what can be moved to the public cloud to gain scalability and cost advantages."

Many institutions are following a natural process of identifying portions of their applications portfolio to determine good candidates to move to the cloud and aligning development resources to do so. According to Bogoevici, once they break apart the components of those applications and encapsulate those within secure containers, they are able to deploy to the public, private, and hybrid environments of choice.

There are, however, challenges to overcome. The top inhibitor to application modernization, in the view of 65% of the C-level respondents, is low application portability, followed by security (59%) and the lack of developer and other needed skill sets (53%). For the IT and business decision-makers, the top concern is security (67% and 64%, respectively); those in business roles view legacy technology as the second-most-prevalent inhibitor, whereas IT is more concerned about portability. Only 33% of the IT and 39% of the business respondents view skill sets as a top inhibitor.

Aligning the organization to move faster

The disparity apparent in the survey between C-level execs and other decision-makers on the IT and business sides indicates some lag between the vision at the topmost levels and the execution priorities in the next-lower management tiers. That may reflect that it takes time for the vision to make its way to actual implementation.

"One of the key aspects of cloud technology is the focus on innovation," says Bogoevici. "It's not just the old type of infrastructure or the old type of model with added elasticity—it requires rethinking of strategies and approaches. That comes with certain costs up front, but it also comes with big payoffs in terms of value delivered."

With new applications and service delivery models transforming banking and other financial services, cloud-native development can help institutions adapt more quickly. But to move forward at the desired pace, they need to make sure IT and business decision-makers are in alignment with the vision and strategy at the top.

Learn how Red Hat can help your strategy move forward at www.redhat.com/financial.