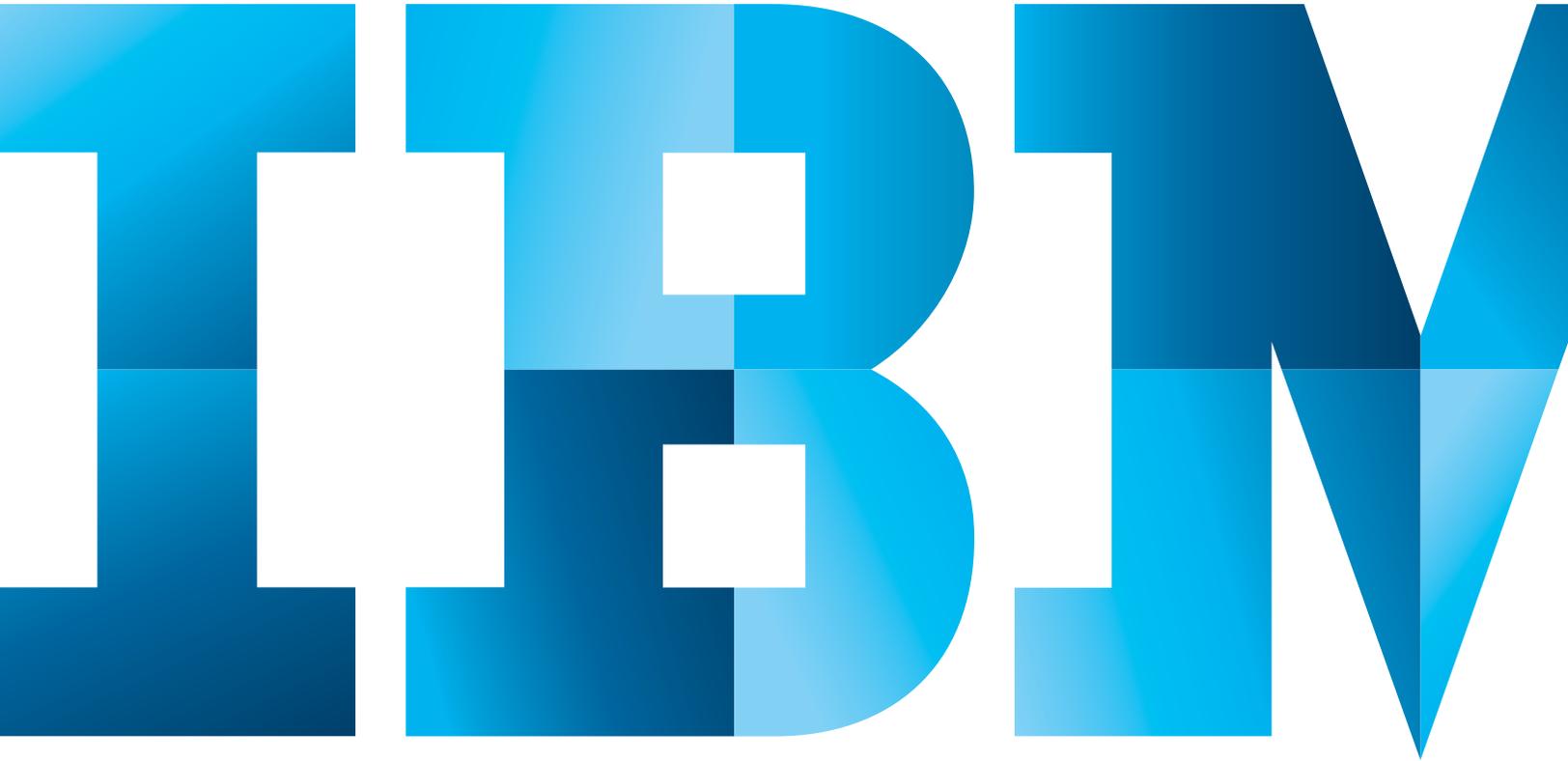


Application innovation with hybrid cloud

Empowering a new era for application delivery



In today's new world, customers rule—they want to do business how they want, when they want and from the device of their choice. They demand immediate response times, accurate information and a personalized experience that makes them feel truly special. If you don't provide them with an engaging and pleasant experience every time, they will simply take their business somewhere else and let everyone know about their dissatisfaction with your company.

This places incredible pressure on companies to know more about their customers and prospects than ever before, and to deliver an application experience that exceeds customer expectations. But it doesn't end with getting an application right the first time. Customer preferences are ever-changing, so your applications must be able to react quickly and keep pace, as well as scale and adapt to changing business demands—for example, from a marketing promotion that exceeds all response predictions.

Can your organization do all that? Unfortunately, most cannot. It's not because of lack of desire. It's because today's application development model is too slow, too cumbersome and too costly.

Fortunately, there are exciting new technologies and strategies that can help. One of these is hybrid cloud. Hybrid cloud provides a dynamic environment where applications and data can achieve the ultimate in availability and flexibility at the lowest possible cost. Applications and data can reside in a public or private cloud, or on-premises, and work together effectively, efficiently and seamlessly. Hybrid clouds are driving the next wave of application innovation.

Forward-thinking businesses are investing in hybrid cloud

Application executives in a wide range of industries are realizing the advantages of a hybrid cloud model to speed application delivery, adapt to changing business requirements and provide better customer experiences. Here's how companies are doing that today:

Better ROI

Synchrony Systems used an **IBM® Bluemix™** platform and DevOps methods to rapidly deliver a mobile cloud solution for Bay Area Rapid Transit (BART), in days versus the months that it would have taken without a hybrid cloud approach. Although the rail system's workforce is mobile, its maintenance application was not. BART maximized the return on investment (ROI) of the existing application by taking it mobile in the cloud and securely connecting it to an on-premises database.

Accelerated mobile development

Tangerine uses **IBM PureApplication® System** as the application platform to speed mobile development for continuous delivery of banking applications to its customers. As the direct banking subsidiary of Canadian-based Scotiabank, Tangerine knows that great service is about meeting and exceeding client demands and expectations quickly and reliably.

That's why Tangerine looked to IBM technology and gained the ability to test, build and deploy new applications quickly—delivering superior customer service by shaving four weeks off of a six-week mobile app delivery cycle.

Enhanced customer engagement

Financial Insurance Management Corp. (FIMC) delivered a new cloud-based mobile application in three months with IBM MobileFirst™ Platform Foundation, formerly IBM Worklight®, and IBM Rational® Test Workbench software, increasing its renewal rate and improving its bottom line. The new application helps clients engage more personally by showcasing member benefits in a far more compelling and consumable way. A leading provider of outsourced customer membership programs, FIMC now delivers increased value by offering an enhanced, high-quality mobile experience for services ranging from roadside assistance to claims submission.

Why hybrid cloud for your applications?

Cloud offers a self-service, highly automated environment that completely changes the application development model. Lengthy 12- to 24-month delivery cycles are replaced with a flexible, as needed, continuous delivery model where applications can be deployed in weeks or days and updated virtually on-the-fly. Developers are freed from the underlying complexities and dynamics of the computing and data infrastructure so they can focus on designing, developing and delivering the most creative and engaging applications possible.

Application developers gain the freedom and flexibility they need to take advantage of new technologies without being forced to rewrite major portions of their applications. This greatly accelerates initial application delivery, as well as speeds up the process of making improvements and adjustments to applications already in production. The risk of “get it right the first time because change is too expensive” is significantly reduced, if not eliminated, because of the flexibility and agility a cloud environment gives to application developers.

By leveraging new technologies such as containers, hybrid cloud offers further advantages to deploy and move applications where they need to be to meet the demands of the business. Born-on-the-cloud applications developed on accelerated schedules can be deployed in production on-premises. Enterprise applications can be extended with a mobile front end running in the cloud. And application configurations running in one environment can easily be captured and deployed in other markets through the use of patterns and containers—without changing the application and without the time, effort and capital cost of creating new data centers in the new markets.

The importance of an application platform

Hybrid cloud provides the freedom to move, compose, localize and optimize applications, data and services across traditional systems, devices and clouds. Applications can run where they are most effective and deliver the most value in the least time—essentially, you can build applications once and run them anywhere. What makes this possible is an application platform and runtime environment that is consistent across on-premises and off-premises environments.

An open and extensible application platform offers the freedom to choose and compose services across a selection of industry standards, open source technologies, programming frameworks and operating models. It provides the foundation that enables agile and continuous delivery across a hybrid landscape of on-premises and off-premises environments, and the ability to scale at unprecedented levels to capitalize on changing customer needs and market shifts.

Taking full advantage of hybrid cloud options and a comprehensive application platform opens the door to greater opportunities for innovation and optimization. Here are few use cases where hybrid cloud offers significant benefits:

- **Connect a cloud application to on-premises systems of record:** Companies can build and run an application in a public or virtual private cloud, and securely connect that application to customer data residing in on-premises systems of record.
- **Develop and test applications on the cloud before rolling them into production:** A cloud environment can be spun up quickly and inexpensively to develop and test applications before they are rolled into your on-premises production environment.
- **Extend existing applications to the cloud:** Enterprise applications that you already have running in-house can be ported completely or in part onto a public cloud or virtual private cloud to accommodate anticipated spikes in demand, or extend into a global market that your in-house infrastructure is not prepared to handle.

Clearly, the advantages of a hybrid cloud environment help make your business more agile and enable you to respond rapidly to your changing business requirements. Applications and data can more quickly and more easily move between interconnected off-premises and on-premises environments to deliver the high availability, scalability and reliability you need.

IBM is uniquely positioned to address your cloud needs

No matter where you are on your journey to a hybrid cloud, IBM services and technologies are available to help you arrive faster and easier than you may have thought. IBM is ready to help you envision your future and optimize your route to get there.

If you are thinking about cloud but are not sure where to start, consider IBM advisory services. [IBM Global Business Services® \(GBS\)](#) can help you assess where you are today, determine where you want to be and develop the right cloud architecture for you. IBM services use sound design principles that will help you accelerate time to value and minimize both risk and cost.

IBM DevOps solutions allow you to develop, update and deploy apps continuously and seamlessly across hybrid cloud and traditional infrastructures. Adopting DevOps best practices and solutions from IBM allows you to accelerate software delivery by enabling collaboration between customers and enterprises and eliminating organizational silos. You can balance speed, cost, quality and risk by automating manual processes and eliminating waste, and improve the client experience by speeding the customer feedback loop.

For rapid application delivery for cloud and mobile, IBM Bluemix is an open cloud-development platform where users can build, run, scale and manage cloud-born applications of all types, including web, mobile and the Internet of Things (IoT). Ideal if you want to build an application directly on the cloud, IBM Bluemix helps developers reduce their setup time by supplying building blocks and services for new applications as well as DevOps capabilities for managing and automating the software delivery process—all provided as-a-service in the IBM cloud.

IBM WebSphere® delivers an industry-leading application server runtime environment for building and running applications that have been proven to support environments from the lightest-weight mobile, cloud, web and IoT applications to the most demanding mission-critical implementations.

IBM PureApplication System, Software and Services provide the application platform that can help you automate and accelerate the delivery and movement of applications across hybrid cloud environments without application changes. Using built-in patterns of expertise, these offerings can help you quickly and simply deploy applications in different environments while retaining control of the applications and their lifecycle management. This solution is well-suited for clients looking to extend traditional applications to the cloud.

Alternatively, you may want someone else to host your cloud and manage your more complex applications for you. Explore tapping into managed service options. IBM Cloud Managed Services™ can help businesses innovate by quickly delivering environments on a security-rich, cost-effective and fully managed cloud infrastructure. Your business can set up new application production environments in days versus weeks or months.

For more information

To learn more about application innovation with hybrid cloud, contact your IBM representative or IBM Business Partner.



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