Easily deploy and move enterprise applications in the cloud

IBM PureApplication solutions offer a simple way to implement a dynamic hybrid cloud environment
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Executive summary
What if your organization could take advantage of emerging business opportunities by deploying new applications dramatically faster than you ever could before? What if you could increase the value of your existing application investments by leveraging them in the cloud—and easily move your apps across off-premises and on-premises cloud options?

These capabilities are available today. With IBM® PureApplication® solutions, companies can build and use a cloud environment faster, easier and with less risk than traditional methods to better engage with their customers and partners in new ways. The result: increased competitiveness and improved profitability in a changing business landscape. This paper describes a simpler way forward to gain these advantages.

Introduction
The pace of business is accelerating. Mobile and social trends have influenced client engagement models, driving customers to expect new and better application services delivered faster. IBM cloud technology is helping businesses respond to these drivers by changing the status quo, enabling business leaders to fast-track innovation and advance key priorities.

To achieve these results, organizations need to rapidly exploit cloud capabilities across a hybrid environment that includes both on-premises and off-premises options. The IBM PureApplication solution portfolio helps deliver these capabilities quickly and easily.

The simple path to a hybrid cloud environment
Business leaders are choosing cloud for its economics, speed and flexibility. Both off-premises and on-premises cloud options are available to businesses today: off-premises cloud offers rapid access and low cost of entry, while on-premises cloud offers a higher level of security, control and customizability for enterprise use.

But to truly realize the benefits of cloud and leverage your existing investments in enterprise applications, you need a simpler approach. You cannot afford the time and resources to manually perform all the configuration and integration tasks required to deploy and manage an application, its environment and the underlying infrastructure. Complexity must be removed from the process. You also need a way to easily take advantage of both off-premises and on-premises cloud environments. The answer is a hybrid cloud where both environments are interconnected and you can deploy and move applications seamlessly between them.
**Saving time and money with patterns**

The key to easily deploying and moving enterprise applications in the cloud is to use “patterns.” By capturing the many steps of application configuration and deployment into a defined pattern, you can automate the complexity of the application architecture and deployment model in an easily deployable form. This approach reduces time, costs and risk by taking human tasks and errors out of the equation. Once a pattern is created, it can then be used across off-premises and on-premises cloud environments without having to readjust for each environment—providing seamless portability.

The IBM PureApplication family supports patterns created by IBM and its Business Partners for more than 200 business applications—ranging from traditional enterprise resource management and business intelligence to web and mobile applications—that you can exploit to accelerate innovation by rapidly deploying and managing workloads in the cloud. But enabling innovation also means bringing an organization’s existing applications into the cloud, and the IBM solution is the best method for this task as well. Using IBM tools, you can package your own applications into patterns and deploy them in the cloud in either an off-premises or on-premises environment.

While patterns simplify application configuration and portability across hybrid cloud options, a pre-integrated and automated application environment is also required to simplify and reduce the application lifecycle. With IBM PureApplication solutions, the monitoring and lifecycle management of the deployed pattern is automated according to the various policies and service-level requirements contained in the pattern. The underlying infrastructure and platform requirements of the application are dynamically adjusted to meet those service levels. As a result, your organization saves time, resources and expense across the lifecycle of the application while lowering risk of disruption.
Easily deploy and move enterprise applications in the cloud

Drive optimization:
You might choose to leverage the off-premises environment for development and testing to handle the rapid, dynamic setup of test environments for enterprise apps, and then use the corporate cloud environment when rolling enhancements into production. You also may have some lesser-used instances of key enterprise applications or tier 2 apps that might make sense to offload from your on-premises environment—freeing up resources and lowering the expense of maintaining application environments.

Ease market expansion and globalization:
You may be looking at entering new global markets and want to quickly utilize enterprise applications without capital investment for a physical data center presence or the latency of a remote data center. You can easily use an off-premises cloud to make this happen.

Using the cloud dynamically and strategically
Taking full advantage of dynamic hybrid cloud options—using on-premises and off-premises clouds strategically—opens the door to greater opportunities for innovation and optimization (see Figure 1):

- Extend enterprise apps (for example, with mobile): You can rapidly deploy new applications such as mobile apps in an off-premises cloud environment and integrate them with enterprise apps in your on-premises corporate cloud. Over time, as the mobile app gains acceptance and becomes more integrated into the business, you can easily move it into the corporate cloud environment.

- Test and learn with rapid experimentation: An off-premises cloud can be an opportunity for the business to test and learn. You can try ideas quickly, deliver something in a week or two, get feedback and then repeat. Behind this rapid experimentation and innovation, you have flexible operational alternatives in either an on-premises or off-premises environment based on the needs of the business.

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With IBM PureApplication solutions, you have a simple path to accomplish all these things.
Building your dynamic, hybrid cloud environment
To realize these advantages, both sides of the cloud are essential. Organizations may need to build their on-premises cloud environment so it can match the capabilities offered by the off-premises cloud. The IBM PureApplication System enables organizations to build an on-premises cloud environment faster, simpler and with lower risk than other methods.

IBM SoftLayer® provides IBM's off-premises cloud infrastructure services for the other piece of a dynamic, hybrid environment. IBM PureApplication Service on SoftLayer lets you automate and manage the SoftLayer infrastructure services for your enterprise applications as simply and easily as PureApplication System does for your on-premises infrastructure. The interface and experience for both developers and operations is the same for both the on-premises PureApplication System and the off-premises PureApplication Service. IBM PureApplication Service on SoftLayer runs in an isolated infrastructure environment (compute, storage and networking) from SoftLayer to keep workloads safe.

With these IBM solutions in place, the same predefined patterns work in both the on-premises and off-premises portions of the cloud, allowing your organization to easily move application workloads, integrate systems across the two environments, and gain the efficiencies and cost savings of cloud in both areas. When a workload moves in either direction between the on-premises and off-premises clouds, the pattern for that workload travels with it to continue providing automatic system configuration—in effect, your organization can configure a system once and use it anywhere.

The right tool for the new era of cloud
Today's cloud is about expanding business possibilities. The cloud can be an incubator of ideas to help organizations continually test, adjust and deploy new innovations more nimbly than ever before. IBM PureApplication solutions let you maximize this opportunity by providing an easier and faster path to extend your enterprise application investments across a dynamic, hybrid cloud environment. They provide an easy way to run the applications you have with the cloud economics you want and the isolation you need.

For more information
To learn more about IBM PureApplication solutions, please contact your IBM representative or IBM Business Partner, or visit: ibm.com/ibm/puresystems/us/en/solutions/index.html