

COMBINE THE BEST OF ON-PREMISE VIRTUALIZATION WITH PUBLIC CLOUD FOR HIGH PERFORMING IT

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Report Highlights

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36% of organizations are concerned about integrating public cloud with their existing infrastructure.

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The number one criteria when evaluating public cloud platforms is its ability to integrate with existing infrastructures.

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Businesses with a hybrid cloud approach are 4.5 times more likely to implement dynamic virtualized and cloud IT infrastructures.

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Businesses using hybrid cloud are 38% more likely to have seen a reduction in overall IT expenditures.

By making the right decisions and following best practices, leading organizations can easily combine the best of on-premise and cloud in order to reap significant benefits in faster delivery, improved reliability and savings on IT costs.

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Of high importance to businesses is having strong on-premise and cloud-based platforms that not only operate well on their own, but can integrate to make each other better.

In the world of sports, some teams dominate at home, making it nearly impossible for opponents to come into their house and beat them. And some teams are road warriors, able to travel into hostile stadiums and come away the victor.

Either of these are a great trait for any sports club to have. However, to be a champion, a team needs to be great everywhere, whether at home or away.

The same is true in IT infrastructures and data centers. Having a strong on-premise, or in-house, infrastructure can provide solid security, improved speed and increased piece of mind. And an extensive public cloud platform offers increased agility, flexibility and recovery capabilities.

But best of all, is an organization that can combine both. One that can have a strong on-premise infrastructure that is seamlessly integrated with the public cloud.

Through on-premise virtualization infrastructures, businesses gain a number of benefits in ease of management, improved ability to provide services and applications to the business, and increased security. Additionally, with public cloud, organizations gain fast service deployment capabilities, reduced infrastructure costs, unlimited flexibility, and the ability to grow capacity as needed with the click of a button.

Many organizations today want to have the ability to combine these two infrastructures in order to gain the best of both worlds but fear the cost and complexity of properly implementing a hybrid cloud infrastructure. But by making the right decisions and following best practices, leading organizations can easily combine the best of on-premise and cloud in order to reap significant benefits in faster delivery, improved reliability, and savings on IT costs.

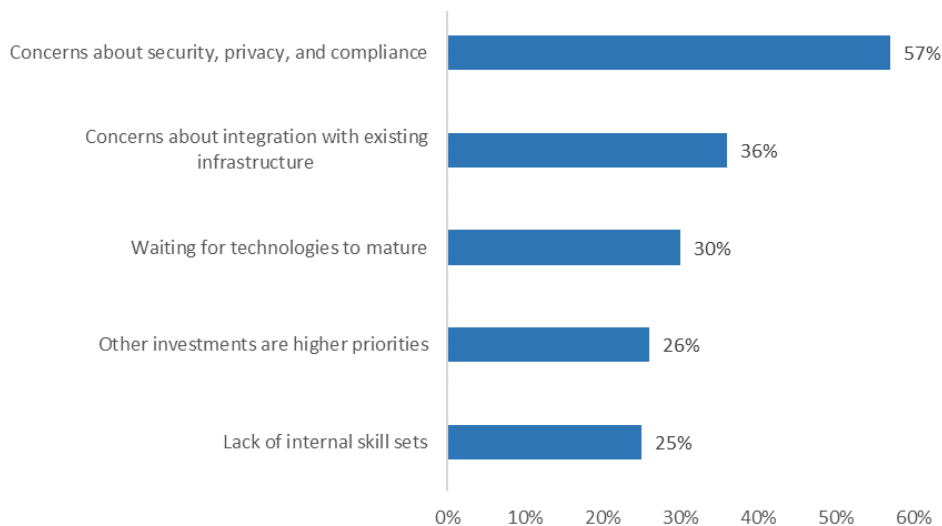
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Why it Makes Sense for On-premise and Public Cloud to Get Together

Looking from the outside in, building IT infrastructures using virtualization and cloud should be a well-established and mature process. After all, public cloud has been around for many years now and server virtualization for at least twice as long. But while both of these technologies are in some ways “mature” both are also completely new. That’s because each has been transformed by other emerging technologies.

Virtualization and cloud have been transformed by software defined data centers, big data, the Internet of Things, converged systems, and each other. All of this has added improved capabilities but has also, in some ways, added to the complexity of deploying these technologies.

Figure 1: Top Virtualization and Cloud Challenges



Source: Aberdeen Group, March 2016 Percentage of respondents, n=96

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In our research into IT cloud and virtualized infrastructures, we asked businesses about the top hurdles they were facing when it comes to these technologies (Figure 1 above). And, as one would expect, the number one challenge is concern about security, data privacy, and regulatory compliance.

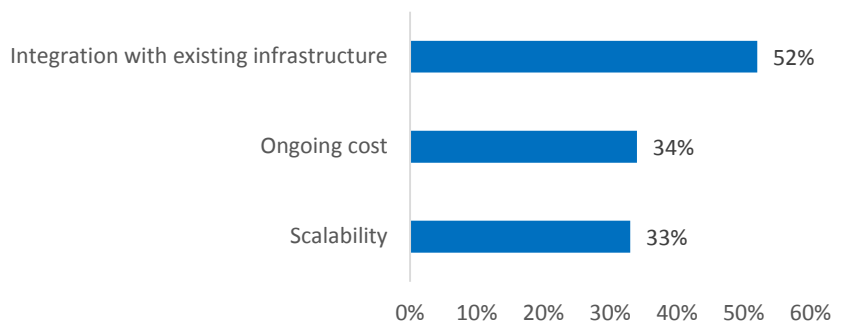
Actually of a bit more interest, is the fact that the number two challenge is around integration with existing infrastructure. This clearly shows that businesses aren't just looking to move from traditional on-premise data centers to a 100% virtual and cloud-based system. Ability to integrate with their existing data center and get the most out of on-premise and cloud are of major importance to these organizations.

The Best of Both Worlds

When it comes to choosing cloud platforms, integration isn't just a challenge, it's the main criteria that businesses will use to decide just what solutions they will choose to implement.

When Aberdeen Group asked organizations how they evaluate cloud solutions, integration with existing infrastructure was the number one criteria, as shown in Figure 2.

Figure 2: How Businesses Evaluate Cloud Solutions



Source: Aberdeen Group, March 2016 Percentage of respondents, n=82

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Cited at a 55% higher rate than the number two criteria, ongoing cost, one can quickly see how important integration is (not just rating higher than cost but significantly higher). This is due to the high importance that businesses put on having strong on-premise and cloud-based platforms that not only operate well on their own, but can integrate to make each other better.

Another key factor in the importance of integration between on-premise virtualization and public cloud is the value businesses see from the adoption of hybrid cloud. With hybrid cloud, organizations can take advantage of the security and high-speed access of their on-premise systems while also benefitting from public cloud's fast deployment capabilities, reduced infrastructure costs, unlimited flexibility, and the ability to grow capacity as needed with the click of a button.

Figure 3: Hybrid Cloud Firms Build a Strong On-Premise and Public Cloud Base

Businesses that have a hybrid cloud IT infrastructure gain these benefits over organizations that don't

4.5X

more likely to have implemented a dynamic Virtualized and Cloud IT Infrastructure

2.5X

more likely to have been running applications and services in the public cloud for five or more years

40%

more likely to have been running on-premise virtual servers for five or more years

Source: Aberdeen Group, May 2016 Percentage of respondents, n=113

Looking at Figure 3 above, we see that businesses that are leveraging hybrid cloud have more experience in server

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The top criteria for choosing a public cloud system is its ability to integrate with on-premise infrastructure.

virtualization and public cloud and that they embrace dynamic policies and strategies.

This is a key point as, while some believe that use of public cloud leads to abandoning on-premise systems, instead we see that organizations with lots of experience in public clouds keep their on-premise systems and embrace hybrid approaches. And their use of dynamic processes means that they design workloads that run flexibly and dynamically on the computing infrastructure — physical or virtual, public or on premise — that best addresses the performance, trust level, geographic location, and compliance requirements of the application.

Two Great Infrastructures that Are Even Better Together

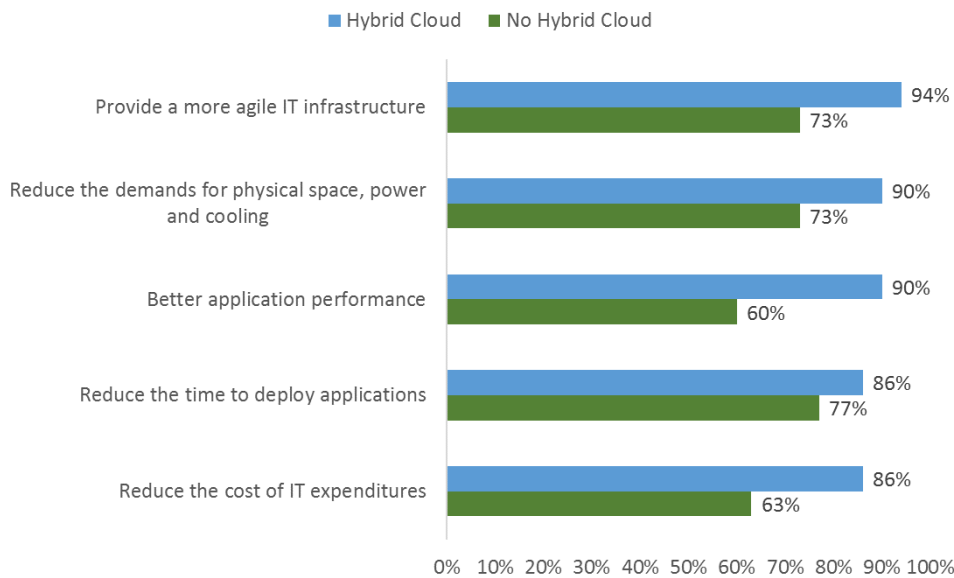
Some might argue that it is usually best to specialize, that trying to do two things at once, such as on-premise virtualization and public cloud, makes it hard to do either one well. But Aberdeen research shows that just the opposite is true, that businesses that embrace both on-premise and the cloud gain a number of key advantages that make them IT infrastructure leaders.

To find out just what benefits are present, we looked at organizations that had embraced a hybrid cloud approach. These businesses use on-premise virtualization, both in private cloud and traditional server virtualization, and tightly integrate it with public cloud to boost their performance, reliability and scalability.

Looking at the data in Figure 4 below, we see several key benefits that hybrid organizations gain by leveraging on-premise and cloud.

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Figure 4: Key Benefits of Hybrid On-Premise/Public Cloud Approach



Source: Aberdeen Group, March 2016 Percentage of respondents, n=97

Organizations that take a hybrid approach are 43% more likely to have successfully built an agile IT infrastructure, with the hybrid approach giving them the opportunity to use the resources they need, when and where they need them. They are also 24% more likely to have reduced data center demands for space, power, and cooling, which of course is one of the reasons that they also are also 38% more likely to have seen a reduction in overall IT expenditures.

Additionally, since deploying applications and services is the name of the game for IT infrastructures today, one of the biggest benefits is that these hybrid on-premise and public cloud organizations are 50% more likely to have better application

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performance and are able to deploy applications more quickly than businesses that don't embrace hybrid.

Recommended Steps

As we've seen, organizations that are able to take a hybrid approach that integrates their on-premise infrastructure with the public cloud gain a number of advantages. However, this move needs to be done correctly.

It isn't just a matter of having both on-premise and public cloud. To get the most out of these infrastructures, businesses need to ensure that their systems will not only integrate well, but will set them up well to improve performance, reliability, and the capability to grow.

To effectively deploy a hybrid on-premise and public cloud infrastructure, organizations should:

- ➔ **Understand their current IT infrastructure.** Step one in any major IT infrastructure process is to fully understand all of your applications, services, and servers (both virtual and physical). Knowing where your current infrastructure is today makes it possible to get it ready for tomorrow.
- ➔ **Build a strong on-premise virtualization infrastructure.** If your virtualization infrastructure is poorly configured or managed, with lots of VM sprawl, orphaned systems and poor utilization, it's likely that all of these problems will be replicated in the cloud. Leading organizations leverage strong virtualization management and monitoring tools to ensure that their on-premise infrastructure is a solid base for the added cloud capabilities.

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- **Map out your public cloud needs and the required capabilities.** Cloud can be easy but it's not simply a matter of throwing servers and applications into the cloud. Some services work well in the cloud and some don't — public cloud adds value in some areas while not in others. Take the time to understand everything that will be used in the cloud and map out those processes to ensure an effective public cloud deployment.
- **Look for strong integration between on-premise and cloud.** As stated earlier, ability to integrate with on-premise infrastructure is the number one criteria when businesses evaluate public cloud. With strong integration, organizations can seamlessly get the most out of both infrastructures.
- **Build for the future.** New technologies will continue to challenge businesses and bring additional complexities to IT. Those organizations that have used the right systems to build their infrastructure will not only be able to overcome these challenges, they will be able to effectively leverage them to gain key advantages.

It's great to have a strong in-house IT infrastructure. And the public cloud can bring powerful abilities to scale and be agile. But like a sports team that can win at home or away, leading IT organizations are able to leverage both on-premise and public cloud to be a winning organization.

That's what you call a home AND away advantage.

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