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BUILDING A SMART FOUNDATION FOR A SUCCESSFUL HYBRID TRANSFORMATION

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Jim Rapoza
Research Director

ABERDEEN



In this report, we'll examine the challenges that businesses face when transforming their IT infrastructure to a hybrid model. We'll also analyze how Best-in-Class organizations are taking advantage of innovative servers to provide a smart and powerful base that leads to strong capabilities today and lets them easily take advantages of technologies to come.

Traditionally, businesses deployed applications and services to be run on a specific platform. Some applications were destined for the public cloud, while others ran on-premise in a private cloud or even a bare metal server. But trends in technology have sparked a change in this mindset.

The days where IT had to decide if a workload ran in the Cloud or on-premise are long gone. Today, leading organizations are taking a hybrid cloud approach, leveraging the best capabilities of public cloud, private cloud and on-premise servers to create the most efficient, secure, and capable infrastructures.

With this hybrid approach, businesses see improved performance, lower management complexity, high flexibility, and better security than they would achieve from a pure cloud or on-premise solution. However, Aberdeen research has found that the most successful organizations utilizing hybrid cloud are those taking advantage of intelligent, optimized, and future-ready servers to build a strong foundation for their hybrid cloud infrastructure.

And getting to this strong foundation doesn't mean a business needs to fully embrace private and hybrid cloud right now. By investing in and taking advantage of powerful and innovative on-premise systems to run their infrastructure today, these forward-thinking organizations set themselves up to not only overcome current technology barriers, but also be ready for the private and hybrid cloud environments that they are moving to tomorrow.

To overcome the challenges that come with deploying a modern hybrid cloud infrastructure, businesses need to not only focus on the right foundation, but also consider several attributes that are key to success.

Hybrid Cloud Keys – Automation

For effective hybrid cloud, automation must go beyond simple defined processes. Leading businesses use intelligent automation that is software defined to understand business needs and simplify management and optimization.

Organizations that are leaders in hybrid cloud implement solutions that offer strong automation, intelligent optimization, end-to-end security, and embrace “as-a-service” capabilities. With these elements in place, businesses are well positioned for success.

The Intelligent Path to Overcome IT Infrastructure Challenges

In a classic data center environment, figuring out where to run certain workloads and how to optimize them was, for the most part, a hardware decision. You’d figure out which servers to run the workloads on and how much compute power was needed. This typically wasn’t that complex — mainly coming down to how much hardware to throw at a workload.

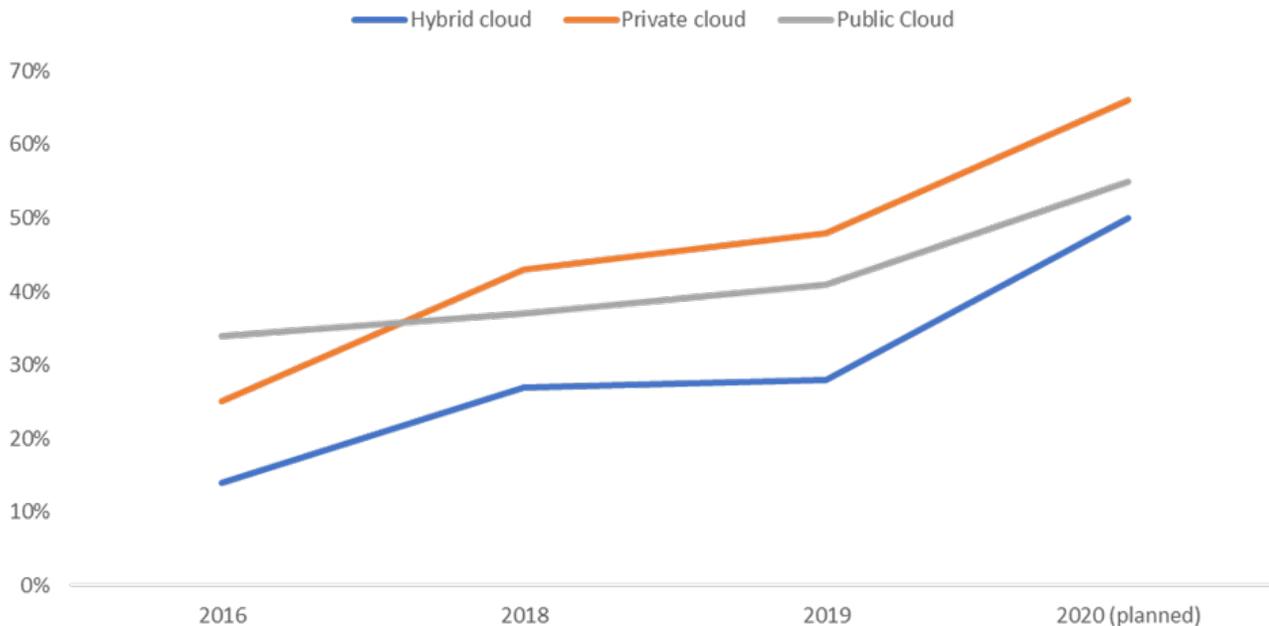
However, as businesses have embraced public, private, and hybrid cloud, along with transformative technologies like containers and intelligent automation, the way that workloads are deployed, managed, and optimized has also transformed. With these technologies, leading organizations are now focusing on building the right foundation on which to run next generation workloads.

And as we’ve tracked trends in cloud adoption over recent years, Aberdeen has seen steady growth in the move to private cloud, as seen in Figure 1.

Hybrid Cloud Keys - End to End Security

When deploying infrastructure to support hybrid cloud, look for solutions that provide a unified, end-to-end view of the entire lifecycle. With this capability, leading businesses have the insight and capabilities needed for the highest levels of security.

Figure 1: IT Infrastructures Embrace Move to Private Cloud



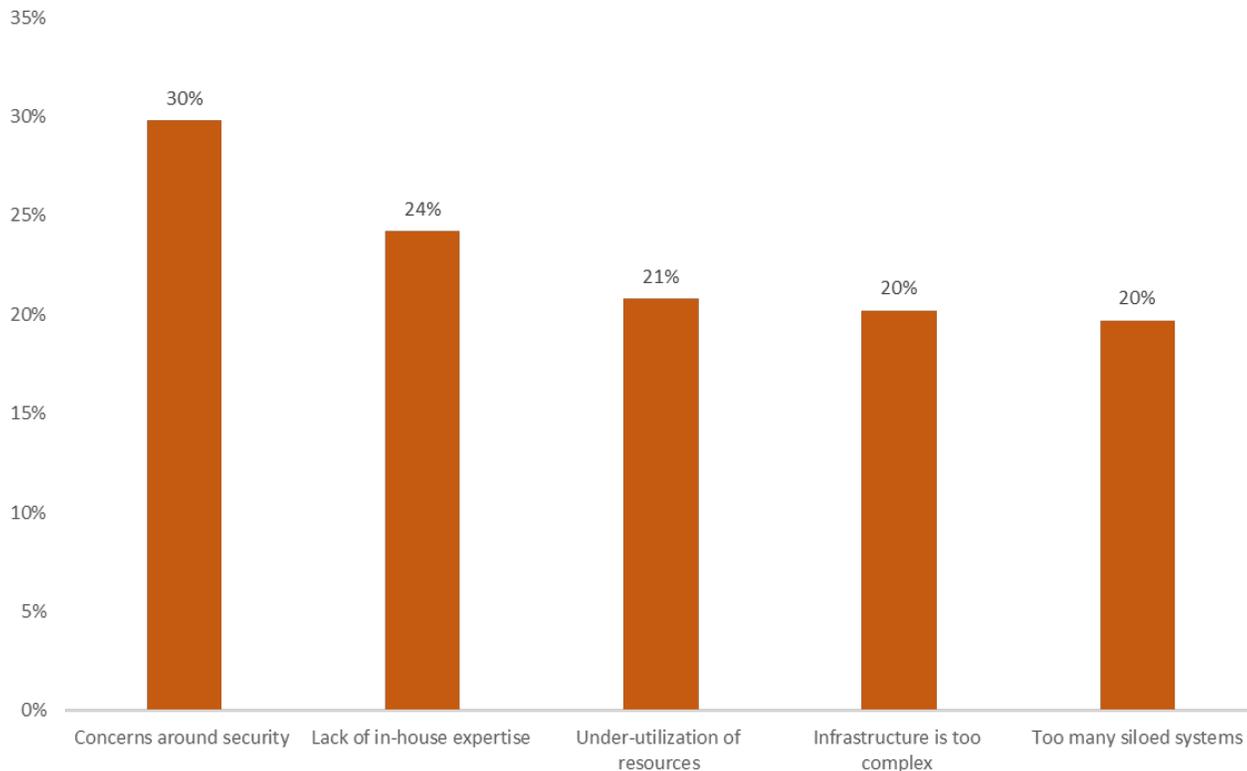
Source: Aberdeen, December 2019

Looking at this data, we see a steady rise in the use of private clouds for business infrastructures. And this move goes along with what Aberdeen has seen from businesses that are leaders. By implementing private (and eventually hybrid) cloud, these organizations are getting the most out of their on-premises systems, and improving performance and security, while leveraging key cloud computing capabilities in management, application flexibility and cost controls.

Aberdeen research into private and hybrid cloud and cutting-edge IT infrastructures has found that businesses that get the most out of these environments are focused on leveraging intelligence to understand where workloads will run best, deploying secure and dynamically composable server systems as a foundation, and embracing “as-a-service” models to gain flexibility and efficiency. With this foundation, leading organizations are able to reduce complexity, speed delivery, and effectively transform their infrastructure.

Today, businesses are facing a number of growing challenges when it comes to building, managing, and optimizing an infrastructure that can stand up to the needs of today’s cloud-based workloads. In Figure 1, we look at these top challenges that slow innovation and transformation for organizations that are followers in modern cloud technologies.

Figure 2: Top IT Infrastructure Challenges



Source: Aberdeen, December 2019 n=178

The top challenge we see in this data is no surprise. Businesses continue to be concerned about security and how to ensure that it is effective — especially as their workloads and applications move from on-premise, monolithic designs to services which can be on public, private, or hybrid clouds, that are dynamic and often complex to understand and secure.

We also see that organizations today are challenged by the constantly rising flood of data coming into modern infrastructures which needs to be optimized and managed. These organizations are striving to bring the rising complexity of these transformed infrastructures under control. Most importantly, these businesses are striving to overcome hurdles in the very nature of their infrastructure — especially the number of disconnected and siloed systems, which adds to complexity and makes it hard to properly utilize resources.

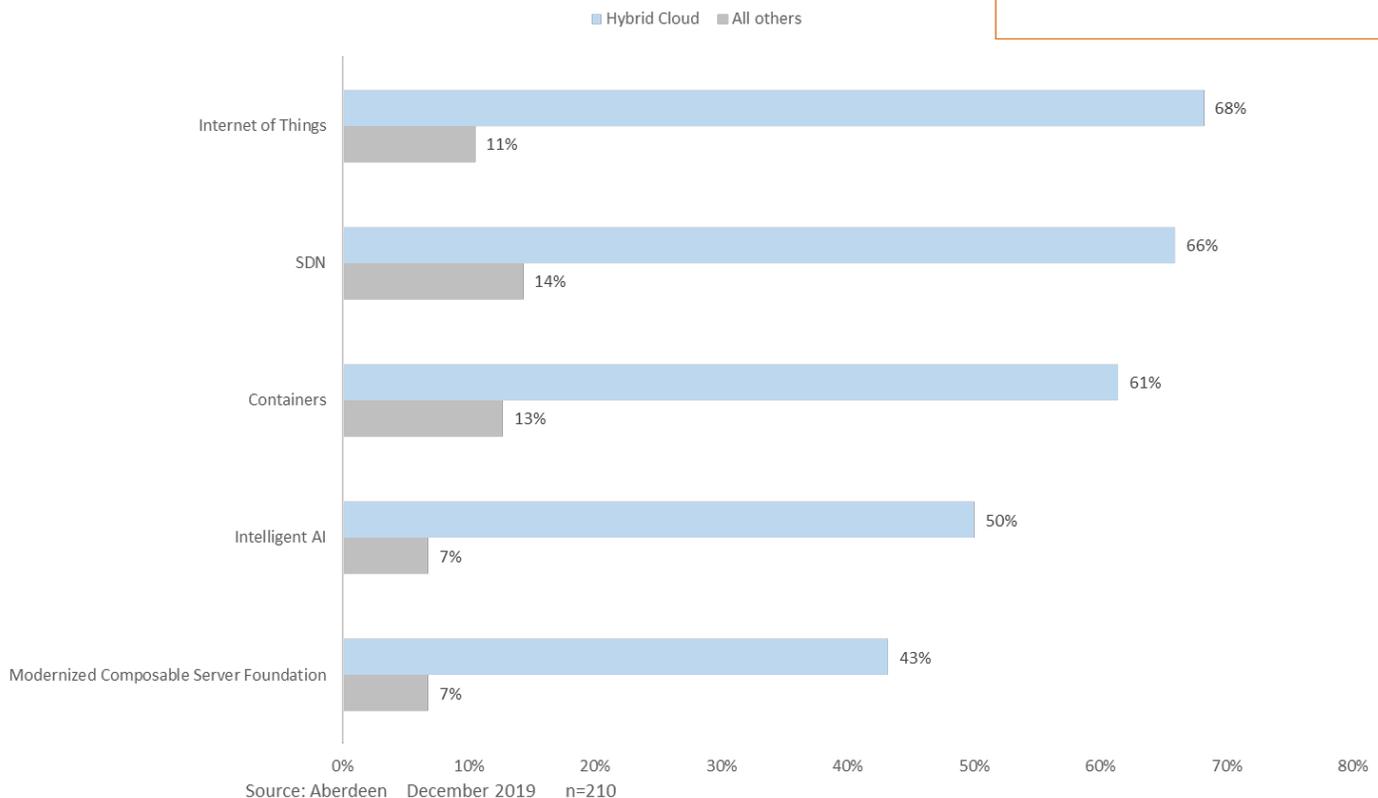
How Leaders Are Building a Strong Foundation for Transformation

One of the biggest drivers in the transformation of today’s infrastructures is the move to hybrid cloud. With hybrid capabilities, leading organizations are able to effectively maximize the use of all of their environments, getting the best capabilities of public cloud, private cloud, and on-premise systems simultaneously.

Hybrid Cloud Keys - Intelligent Optimization

The key to hybrid cloud success is knowing where to run workloads for the best performance and efficiency. Strong hybrid clouds leverage deep insights that optimize workload placement and provide a high performance foundation.

Figure 3: Leading Actions to Leverage Hybrid Cloud



When Aberdeen identified businesses that were successfully implementing hybrid cloud, we discovered some key emerging technologies that they are leveraging at a much higher level than their competitors. With a strong hybrid cloud in place, these leaders find it easier and more effective to be innovative.

Businesses with strong hybrid cloud in place are 6x more likely to be utilizing the Internet of Things and 7x more likely to be benefiting from artificial intelligence. These hybrid cloud organizations are also beating their competitors when it comes to Software Defined Networks and containers — deploying them at rates nearly 5x higher than other businesses.

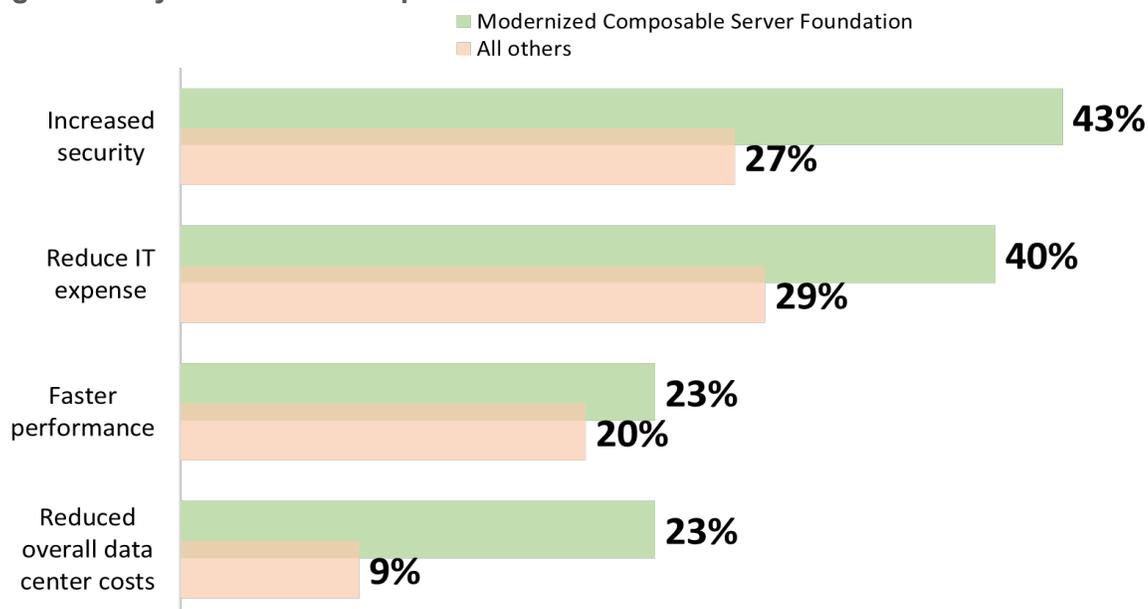
Importantly, hybrid cloud leaders are 6x more likely to be taking advantage of strong composable server infrastructures. With intelligent, automated, software defined, and secure servers as a foundation, these businesses are not only more successful with hybrid cloud, they are also more innovative and agile than their competitors.

The Impact of a Foundation Optimized for Hybrid Success

We've seen in the data above that leading hybrid cloud businesses are much more likely to be utilizing software-defined, automated and optimized servers as the foundation for their IT infrastructure. When these leaders deploy this strong and secure foundation, they set themselves up to be more competitive and to leverage new technologies.

But strong server foundations aren't just about being more innovative and optimizing the move to hybrid cloud. Aberdeen research shows that organizations with these server foundations see a number of key benefits over other businesses.

Figure 4: Key Benefits of an Updated Server Infrastructure



Source: Aberdeen percentage of respondents, n=140

Looking at the data in Figure 4, we find that when businesses leverage a modernized and composable server infrastructure, they gain significant benefits and competitive advantage over their competitors. These leading organizations see improved security and faster performance, which allows them to address key drivers from the increased data and user demand.

We also see that a modern and composable server infrastructure lets these businesses reduce key IT costs across the board, as these leaders are 30% more likely to reduce IT expenses and 2.5x more likely to see lower overall data center costs. One key area where businesses reduce costs is by taking advantage of “public cloud style” financial and usage controls, things like chargeback and consumption models, within their hybrid-enabled private clouds.

With this hybrid-ready foundation at their disposal, they are not only boosting efficiencies and reducing complexity, they are cutting costly downtime and keeping user and customer satisfaction high.

Recommended Steps

Looking at these benefits, along with the importance of moving to a hybrid infrastructure, it's easy to see why having the right server and software-defined foundation is vital for success. Businesses succeeding at the move to hybrid understand the need for a strong base for their hybrid cloud environments.

By utilizing unified, composable, and software-defined server systems, businesses gain increased efficiencies, higher performance, reduced costs, and are able to meet rising demand for applications and services. To achieve these benefits in your business, consider these key recommendations:

- ▶ **Know your technology demands.** As new technologies like Kubernetes, hybrid cloud, and AI become more pervasive, you'll need to understand their impact on your infrastructure. For organizations to succeed in a move to hybrid cloud, knowing these demands and where their current infrastructure fails to meet them, will lead to improved outcomes.
- ▶ **Take advantage of software-defined and composable systems.** Hybrid cloud and all of the other new cloud-native innovations are based on intelligent, software-defined

Hybrid Cloud Keys - Consumption-Based IT

Managing consumption is a core element of the Cloud. And using an "as-a-service" model for hybrid cloud is just as vital. Effective hybrid cloud means being able to centrally provision, manage, and secure all cloud services, whether they are public, private, multi-cloud, or multi-server



technologies. The server foundation that these systems run on needs to leverage the same technologies.

- ▶ **Take an end-to-end security approach.** In a highly interconnected and dynamic hybrid infrastructure, having deep and effective security in place is more important than ever. Leading businesses take a full and unified approach to having their core foundation be as secure as possible, leveraging everything from threat detection in the firmware to digital fingerprinting in the silicon.
- ▶ **Have a future-proof infrastructure.** Organizations need to be ready for emerging technologies continually coming onto the scene — they will bring both new opportunities and increased IT complexities. With a composable and software-defined hybrid infrastructure, businesses can reduce the complexity of these technologies and increase their ability to utilize them to gain competitive advantages.

Businesses face a simple choice when it comes to ensuring that their foundation is ready for hybrid cloud. They can try to build an old school data center and hope that throwing more hardware at issues will solve all of their challenges and needs. Or, they can deploy an intelligent, optimized, secure, and cloud-ready server foundation that will enable an effective hybrid cloud infrastructure today and also position them to be ready to innovate tomorrow.



About Aberdeen

Since 1988, Aberdeen has published research that helps businesses worldwide to improve their performance. Our analysts derive fact-based, vendor-neutral insights from a proprietary analytical framework, which identifies Best-in-Class organizations from primary research conducted with industry practitioners. The resulting research content is used by hundreds of thousands of business professionals to drive smarter decision-making and improve business strategies. Aberdeen is headquartered in Waltham, Massachusetts, USA.

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