



KEN SLEEPS LIKE
A BABY. A SCALABLE,
REVENUE-GENERATING,
FUTURE-PROOF BABY.

A SOLIDFIRE PAPER

Where's the next growth opportunity
for cloud and hosting providers?

As most of us know, the managed hosting business requires significant capital investment in expensive technologies to maintain and support day-to-day hosting operations of the underlying infrastructure. So it's critical to understand where new revenue opportunities await to support ongoing expenses.

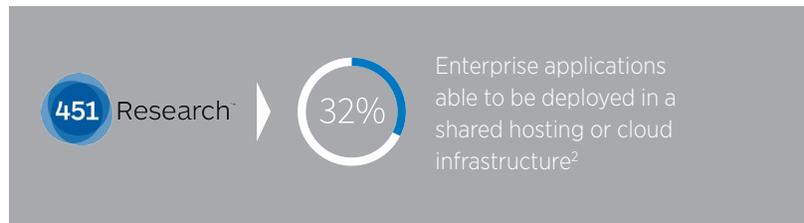
Recent IDC studies show that the cloud will see 5X more growth than traditional IT, indicating that the cloud continues to be a rapidly growing market¹. However, what is not always spelled out is what drives that continued cloud growth, why it's happening and what kind of applications comprise the best near-term business opportunities for hosting service providers.

The challenge for executives in the cloud and managed hosting business is that there is no magic eight-ball or broadly accepted belief that accurately predicts the next area of customer growth, forcing many service providers to take calculated risks and place expensive bets on what they feel is the next big area of potential market growth for them.

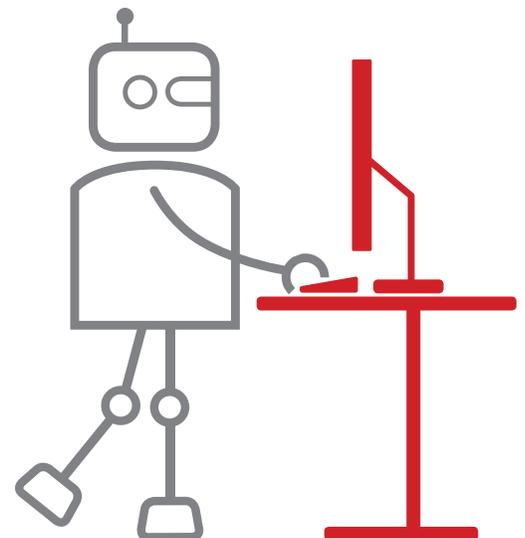
This paper looks at concepts that provide direction to help cloud and managed hosting service providers think about where to place their three- to five-year technology bets.

Looking back

If we look at the market today and study the kinds of applications or systems that are being deployed in multi-tenant or cloud environments, we see that most applications are typically low performance and highly web centric. In a recent study, 451 Research stated that approximately 32% of enterprise applications have been or are able to be deployed in a shared hosting or cloud infrastructure². In other words, these web-centric applications work well in a multi-tenant environment and typically don't require constant high performance (IOPS). However, many service providers that host both high- and low-performance applications configure hybrid environments that mix dedicated or private physical servers and storage arrays with cloud or shared virtual servers to address each application's individual performance requirements.



A common service provider deployment methodology is to run databases on physical servers with local storage or a dedicated SAN because of the limited availability of IOPS in the shared hosting environment. They frequently run the web servers (requiring lower IOPS) on virtual servers that benefit from the cloud's agility and flexibility. There are pros and cons to these configurations, and hosting service providers are adept at tweaking their hosting environments to address every customer need (for the right price).



¹ IDC, Worldwide and Regional Public IT Cloud Services 2013-2017 Forecast. Available at: <http://www.idc.com/prodserv/4Pillars/cloud>. Accessed February 17, 2015.

² 451 Research, Cloud Computing - Wave 7 2014. Available at: <https://451research.com/report-long?icid=3186>. Accessed February 17, 2015.

What about the other 68%?

If about 32% of applications run in shared hosting environments, where do the other 68% of enterprise applications live and what kinds of applications are they? The answer is simple. The remaining enterprise applications are still running in the enterprise data center, sitting comfortably behind the enterprise firewall. The harder question to answer, however, is how do you get internal IT to want to give YOU those applications to run in your hosted infrastructure?

Why are the other applications not being hosted?

If we look at the performance requirements of the applications running in shared hosting environments today, the IOPS demands range from the low double digits to the low to mid hundreds. This correlates directly to the number of IOPS available via the shared SAN systems running behind the scenes. Because the controllerbased, spinning disk systems can only provide limited performance, enterprises are only willing to deploy the applications that fit within that storage performance profile, leaving the much higher performance applications to run on dedicated gear behind the enterprise firewall or in misfit hybrid hosting configurations.

A recent ESG study shows that an overwhelming 89% of enterprises are either using or considering using flash technologies to run their critical enterprise applications³. These critical applications demand the IOPS and low latency that flash storage delivers along with a consistent and predictable level of IO performance. While these applications are not all mission critical, applications such as big data, analytics, ERP, VDI, Terminal Services, large SQL clusters and highly transactional OLTP applications need much higher levels of performance than can be achieved in most of today's shared hosting or cloud environments. Because of these predictable and high-performance storage requirements, enterprise IT is asking service providers more often to have flash as an integral a part of their shared hosting environment.

As more service providers deploy flash technologies and accelerate the availability of flash performance, more enterprises are considering moving their critical applications to those shared platforms. But again, there's a catch. Enterprise IT understands technology and hosting infrastructure more now than ever before, and the idea of flash alone will not make them comfortable enough to move their higher-performance applications onto a multi-tenant platform. Enterprises are looking for both the agility and the financial value proposition of the cloud, but they want it all delivered as if they were contracting for the performance and predictability of fully dedicated equipment. They want the ability to specify, very granularly, the performance levels for each application independently because they have no desire to expose themselves to the support nightmare associated with unpredictable performance in multitenant environments.

Take the cake AND eat it?

It may seem that enterprises looking to service providers to address the other 68% of their enterprise applications are metaphorically asking for their cake AND they want to eat it too. We all are. To get enterprise IT to feel comfortable releasing their critical internal applications out into the wilds of a shared platform though, you, as a service provider, have to be able to address their needs with predictable storage performance combined with system-wide resiliency or high availability in a secure environment. And you need to be able to rapidly deploy all of these services from your tightly integrated service catalog. Until you do, enterprise IT won't take the bait and will keep their applications safe behind their enterprise firewall.

So what services and solutions should you consider?



Deploy flash storage. A flash-enabled infrastructure will deliver the performance that enterprise IT is looking for and deliver the IOPS that the next generation of enterprise applications needs.



Offer quality of service (QoS) with a rich SLA that guarantees predictable storage performance. Or at a higher level, offer an SLA on guaranteed application performance backed up with a 200% of solution MRR payout. (This 200% guarantee illustrates confidence in your system's architecture and your stake in the game in supporting your customer's business.)



Offer the option of an API access. This allows enterprise IT to take advantage of your cloud platform's agility to spin up and spin down resources on demand.



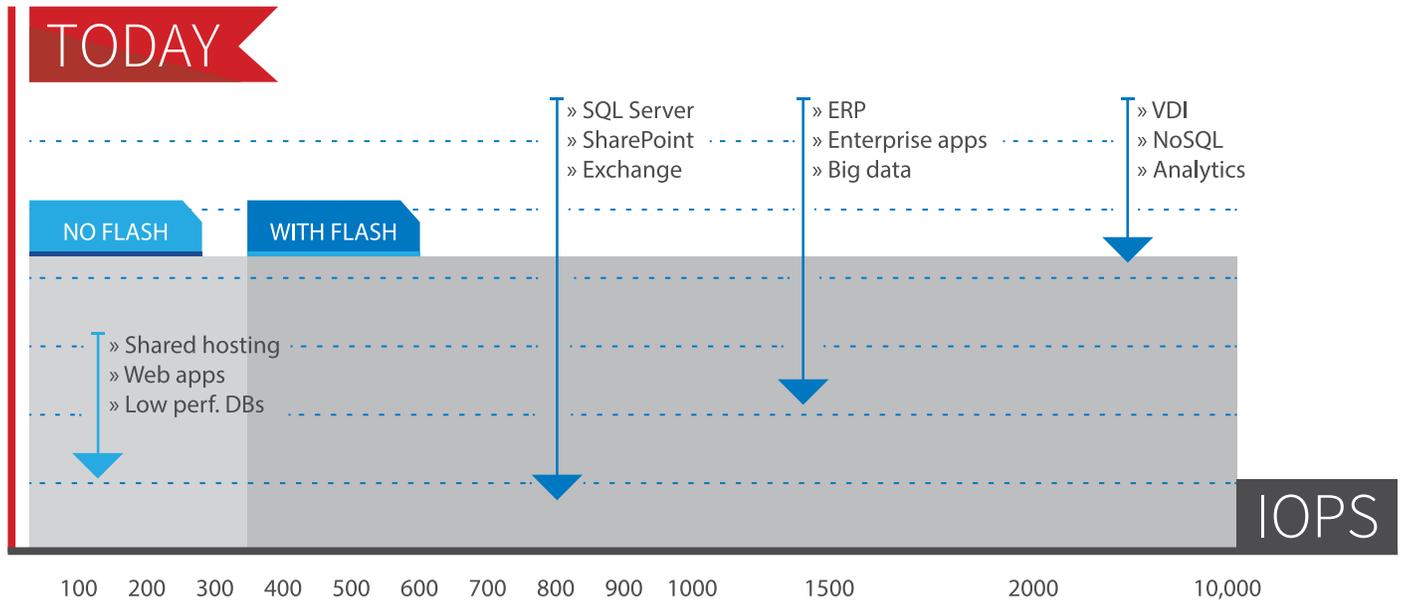
Train your support staff to support at a much deeper level those applications that your enterprise customers want to host. When enterprise IT is remote and cannot touch the servers, it makes a world of difference having expert MySQL admins or Oracle-trained DBAs on staff.



Create and execute a vertical solution set. If you find that 30% of your revenue is driven by SaaS/ ISV vendors, ask yourself why you have attracted so many of those types of customers and consider beefing up that practice with specific marketing messages and related services.

³ ESG. Market Landscape Report: 2014 Solid-state Storage: The Case for, Types of, and Purchasing Considerations. Available at: <http://research.esg-global.com>. Accessed February 17, 2015.

ENTERPRISE APPLICATION REVENUE OPPORTUNITY



It's time to make your bet.

The cloud and hosting market is evolving faster than ever before. Not making a bet in any particular direction can be worse than making the wrong one. The technologies exist today for you to cost effectively be able to deliver the speed (IOPS), guaranteed QoS and the API control all from a multi-tenant infrastructure that will attract enterprise IT to consider moving their applications to you.

For many enterprise IT organizations, cloud has become an operational mandate because the benefits now outweigh the risks. Service providers have to look at their customers, at the applications still behind the enterprise firewall, at the innovative technologies now available in the market, then bet on the infrastructure that best enables their future cloud position and that drives future hosting revenue.

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