VENDOR PROFILE

Zadara Storage: How to Blend the Economics and Flexibility of Public Cloud with Enterprise-Class Features

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IDC OPINION

In five years Zadara Storage has become a growing force in the cloud storage market with a distinctive approach to enterprise storage. The company offers the flexibility of a per-TB pricing model that is comparable with public cloud providers, yet claims to provide the performance and security characteristics of a traditional storage array. Customers can choose to have the Zadara Storage software running on-premises, in the public cloud, or as a hybrid model.

Conventional capital expense (capex) based on-premises storage is widely perceived to be expensive, inflexible, and complex to manage. The need for backup, archive, disaster recovery, service, and governance adds to the overhead, just as companies are looking to stretch their capabilities with new 3rd Platform–based applications based on data analytics, mobility, and social media.

IDC believes that many organizations are increasingly looking for a new approach to storage that is service-based and tightly aligned with their changing business needs, but without compromising on security, availability, or performance.

IN THIS VENDOR PROFILE

This document profiles Zadara Storage's capabilities, its alignment with the current trends in the enterprise storage market, and IDC's view of the company's outlook.

SITUATION OVERVIEW

The enterprise storage market comprises thousands of organizations with a multitude of objectives, challenges, and constraints. Yet IDC finds a high degree of agreement about what's good and less good with conventional storage solutions. As a generalization, traditional enterprise storage is seen as too expensive, too inflexible, and unnecessarily difficult to manage. Enterprise storage usually needs data protection, archive, administration, engineering support, disaster recovery, and regulatory compliance, all of which adds cost and limits responsiveness to changing business requirements.

The growth of 3rd Platform applications is adding to the need for a new approach to storage. According to the 2015 *IDC Western Europe Storage Manager Survey* (involving 550 respondents across six regions), IoT data, social/mobile, and BD analytics were already deployed by about 22% of respondents in early 2015. These, coupled with the ever-increasing volume of compliance data, are already putting pressure on the capacity that companies can hold on premises, resulting in modern datacenters becoming quickly obsolete or simply not sufficient.

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In fact, European storage administrators report low IT staff productivity, storage integration issues, and capacity problems (all cited by 11% of respondents) as the main concerns for storage managers, with manageability immediately below (10%): this hardly comes as a surprise. It is also telling that only 6% of respondents reported that they didn't experience any challenges with their storage infrastructure. This suggests that, on average, more than 90% of datacenters cannot keep up with storage needs, regardless of the size of the company, their vertical, or country.

In response to this, IDC is seeing storage offerings split into two areas, reflecting a high-capacity versus high-performance focus:

- Cheaper, object, and cloud-based services aimed at covering the high-capacity tail of demand
- Flash-based storage aimed at covering high-performance, critical applications that companies prefer to keep on premises

However, customer workload cases are not always neatly bifurcated into capacity versus performance, and companies like Zadara have built their success on coupling quality of service and enterprise-grade features with the compelling economy that public cloud can offer.

According to IDC's *Worldwide Quarterly Cloud Infrastructure Tracker, 3Q15* (January 2016), the traditional, on-premises IT infrastructure will account for a mere 47% of worldwide external storage spending by 2019, down from 61% in 2015, while the majority of it will be sold to be deployed in the cloud. For Western Europe only, the share of external storage infrastructure sold to be deployed in the cloud is expected to increase from 27% in 2015 to 52% by 2019.

Also, according to IDC's *European Cloud FutureScape 2016* the overall investment in private and public cloud services in Western Europe is expected to account for $30.1 billion in spending by the end of 2016, up from $17.9 billion in 2014, mostly driven by virtual private cloud and software-as-a-service (SaaS) adoption. According to the same report, infrastructure as a service (IaaS) is expected to account for $3.6 billion in the region, or over 20% of the total public cloud services market, up from $1.8 billion in 2014. In fact, IDC believes that more than 70% of large European organizations will commit to implementing hybrid cloud by the end of next year. After all, cloud-based services are an excellent option for companies struggling to accommodate increasingly demanding workloads, and they have started offloading the most capacity-intensive ones to the cloud.

Some common operational advantages of using IaaS include the following:

- New infrastructure can be provisioned and brought online more quickly, often in minutes rather than weeks or months.
- Payment is generally based on usage, so can flex up and down as requirements change.
- IaaS avoids disruption related to hardware upgrades, as those are dealt with by the service provider.
- In terms of scalability, for some workloads such as ecommerce, online marketing, mobile applications, and high-performance computing enterprises need flexible storage that can stretch and reduce almost in real time, without having to plan ahead, and without the risk of buying unneeded capacity.

Workloads cannot always be neatly framed into a strict dichotomy of capacity versus performance, and in most cases companies cannot sacrifice performance (and security) to leverage capacity advantages ensured by public cloud.

So, although some critical workloads are better kept off premises, there is still room to expand cloud adoption to cover parts of the day-to-day workloads typically sitting on primary storage.

However, such workloads need to have the right support of the infrastructure in terms of high availability and security, while it is no mystery that security and data availability concerns are top of the list of inhibitors for public cloud. For this reason, companies have mostly refrained from putting critical data on public cloud, and have mainly used the public cloud for data for which they would be willing to accept downtime. In fact, archiving, backup, and disaster recovery are still the most frequent use cases for public cloud: all secondary storage workloads that are not affected by a little downtime. According to IDC's survey, public cloud is used for data protection by 49% of public cloud users, archiving by 50%, and disaster recovery by 44%. So, it turns out that high flexibility and lower cost are not enough to fully develop the potential of public cloud, but they need to be supported by enterprise-grade SLAs and security.

In response to this, Zadara Storage is positioned in the middle zone between the likes of AWS and on-premise storage for critical applications. Using its patented technology, Zadara offers a common storage platform either in the cloud, on-premise, or in a hybrid solution. This gives it the ability to provide enterprise-class storage features (such as QoS and security) in the cloud, or conversely, cloud flexibility and economics on-premise.

Company Overview

Formed in 2011 and headquartered in Irvine (California) and Yokneam (Israel), Zadara Storage has about 50 employees and operates in North America, Western Europe, and Asia.

About 25% of Zadara Storage's global business comes from outside North America, with Western Europe representing a sizeable chunk of it. Zadara Storage's patented innovation is an architecture for delivering enterprise file and block storage services with high performance, availability, and security using mainstream x86 servers from vendors such as Dell and SuperMicro. Zadara can deliver a range of storage-as-a-service offerings, all based on its core software offering called Virtual Private Storage Arrays (VPSA). VPSA can be deployed in a variety of back-ends:

- Public cloud providers including Amazon Web Services (AWS) and Microsoft Azure (the latter currently only available in the U.S.).
- Off-premises private in co-location on dedicated Zadara hardware.
- On-Premise as a Service (OPaaS, Storage On-Premise as a Service), powered by VPSA, the same available in public clouds but running on physical storage onsite, featuring remote storage management and delivered by usage-based subscription. It also offers a customizable blend of SSD and HDD drives.

On average, 26% of customers opted for the on-premises option in 2015 (it was introduced only in 2014), and this segment is growing faster than Zadara's cloud business. This solution is proving to be especially popular in Western Europe, where the large public cloud providers have lower penetration compared with North America and where data sovereignty issues are particularly strong.

Company Strategy

Zadara offers additional advantages to the ones typically related to public cloud offerings seen before, and in particular:

- **SLA.** Zadara offers 99.999% availability and guarantees credit starting from a few seconds of downtime, where a 5% rebate of the monthly fee is offered. This is aimed at building trust and credibility around the deployment of cloud on a critical data environment, and it is a powerful differentiator for Zadara compared with other cloud-based offerings.
- **Flexibility.** This is a proposition that Zadara interprets in multifaceted ways: high scalability, fully customized SLAs, different topology (NAS and SAN) supported, as well as very flexible contractual terms that allow for immediate cancellation (and permanent data

deletion) if required. Also, the option of personalizing the mix of HDD with SSD configurations gives enterprises more choice on the level of performance required. In terms of location, Zadara offers the flexibility to run its storage in the cloud, on premises, and in hybrid configurations.

- **Security.** Security is a paramount issue and the main factor preventing companies from moving critical data to the cloud. Therefore, offering an excellent level of security is as powerful a business enabler as flexibility. Zadara's storage is fully encrypted, with the key being in full control of the customers only. In the case of highly sensitive data, Zadara supports "air-gapped" on-premises installations without any connection to the Internet: this ensures maximum levels of security, albeit at the expense of SLAs.
- **Ubiquitous offering.** Even with the highest security and performance settings, however, it is clear that some workloads will never move to the cloud. To meet this need, Zadara offers an on-demand on-premises solution, Storage On-Premise as a Service (OPaaS), running on Zadara's physical storage onsite but based on usage-based subscription pricing, which still relieves companies from disrupting upgrade cycles and high capex, but guarantees security levels for those workloads that will never be moved to the cloud.
- **Easy data migration.** Migration capabilities are built in; data migration can be carried out online, over a fully encrypted network, or offline, with a physical appliance that is shipped to the customer's location and then back to Zadara (at $100 per TB).

The most tangible result of this offering is that 90% of Zadara services are deployed for primary storage purposes, with backup covering just 10%. The main applications are file sharing, web infrastructure, and satellite imagery. However, some customers have started deploying critical primary storage applications too: Starcom, for example, is deploying Zadara Storage to support its ERP, CRM, business intelligence, ecommerce, hosting, and managed services applications.

The main verticals are education (traditionally one of the first verticals to take on new technologies), IT services, retail, manufacturing, media and entertainment, government, and of course cloud service providers. Although Zadara claims to have a competitive offering when compared with the likes of AWS, it doesn't try to compete with them, but positions itself as an enhancement of AWS' proposition, rather than an alternative to it. This allows it to fully leverage (and even be backed by) AWS for its ability to integrate security and SLAs to better fit enterprises' needs.

So, Zadara Storage's competitors are above all incumbent storage and software players implementing IaaS services as part of their cloud proposition. Unlike them, however, it doesn't have to leverage a partner ecosystem to find business.

FUTURE OUTLOOK

IDC believes that the current capex and opex structure of storage will go through a rethink as it is arguably obsolete and unfit for next-generation datacenter needs, and that Zadara represents an enterprise-fit option that allows companies to benefit from the advantages offered by public cloud, without having to compromise on performance and security.

Although Zadara has a compelling offering, it still faces some challenges in the market:

- **Competition is going to increase.** The cloud services environment is becoming increasingly crowded, as incumbents have understood that they will need to cannibalize some of their offering to survive in the 3rd Platform market. Incumbents, both in hardware storage (e.g., IBM and NetApp) and in software (e.g., Oracle and VMware), are quickly implementing a cloud strategy with strong messaging around bridging on-premises and off-premises environments. They usually need the support of a partner ecosystem (which then adds to

the total cost for users), but on the other side they can leverage the existing customer base and a more holistic offering, spanning from on-premises to cloud offerings inclusive of SaaS, PaaS, and IaaS. The cloud market is in its early stages, and competition, especially for more sophisticated, enterprise-oriented offerings, will become harsher.

- **Large public cloud providers shifting focus upward.** Global providers such as AWS and Microsoft Azure could start building more intellectual property in storage services, making Zadara IP less compelling.
- **Alternative deployments are emerging.** The software-defined storage segment is becoming increasingly crowded. Also, incumbents are betting (and investing) high on on-premises private cloud options that ensure a safer way to go to the cloud: this segment is also forecast to grow exponentially in the coming years.

Conclusion

In today's market, the storage buyer is faced with possibly the widest range of options that has ever been offered. The buyer must somehow navigate all the trade-offs and risk factors to identify what is right for the future of his or her organization. As future requirements are unknown, buyers will be attracted to vendors that impose the fewest limitations on scalability, with the lowest entry price point and the highest levels of security and availability.

Zadara Storage appears to have a better response than most in meeting these conflicting requirements. With a growing list of serious customers, what looked like a fringe solution a couple of years ago now looks far more proven, professional, and hardened. The company has grown in a prudent and controlled way for five years in the face of intense competition from incumbent vendors, suggesting that the company is relatively stable and likely to last the distance.

IDC believes that Zadara Storage has brought new and useful options to the storage market, and to a large extent is capable of meeting the conflicting and volatile demands of today's enterprise storage buyer in a way that traditional storage solutions might struggle to match.

ESSENTIAL GUIDANCE

There are a few challenges, both at a global and regional level, that Zadara Storage should take into account when planning its future strategy.

Advice for Zadara

- **SLA offering will not be a competitive advantage forever.** With incumbent software and hardware players getting into the cloud, they will make similarly compelling claims for adaptability and enterprise-grade offering. Competition will move toward offering the most holistic integration, coupled with the best pricing. It is paramount therefore for Zadara to seek differentiation through transparent pricing and excellent customer support.
- **Maximize the footprint.** With low barriers to entry, footprint will be fundamental to ensure success in the market, and a powerful barrier to entry.
- **Partnerships and alliances.** A strong and early positioning with cloud service providers is critical to ensure a future presence in the market. This improves general market awareness as enterprises often look at the challenges and solutions that service providers put in place, and also increases competitiveness.

Moreover, there are some peculiarities in the EMEA market that Zadara should consider when adapting its strategy.

- **Exploit legislative differences.** Europe's Safe Harbour Agreement, which controls the movement of European citizens' personal data outside the EU, restricts the market to those players that have datacenters within European boundaries, therefore automatically favoring local SPs that have more granular coverage of the territory. This is a good opportunity for Zadara to expand its coverage through them.
- **Focus more attention on SMBs.** Zadara Storage typically focuses its efforts on mid to large enterprises, even though at least a quarter of its total business comes from SMBs; considering Zadara's limited focus on SMBs, this is a good percentage. Initial evidence shows that in EMEA demand for public cloud does not massively differ across size of company (according to an IDC survey, in early 2015, 63% of companies with fewer than 100 employees were using public cloud or planned to use it in 12 months, compared with an average of 74% of large enterprises with more than 1,000 employees, and there is a good chance that this gap has further reduced during the course of the year). Also, the midmarket is an easier entry point for cloud services offerings, due to the lack of skillsets here and the lower available budget to set up and run a suitable datacenter. Moreover, considering the historical prevalence of SMBs in the European economy, a European-adapted strategy should include SMBs as a primary focus. In fact, while PB-scale data is more frequently reached by mid to large enterprises, Zadara's offering fits well with small enterprises too, and gaining a good awareness in this segment is paramount to ensuring success.

In conclusion, European enterprises are becoming increasingly open to evaluating alternative models to store their data and, in general, to deploy datacenter infrastructure. According to IDC's *European Cloud FutureScape 2016*, in fact, more than 70% of large European organizations will commit to implementing hybrid cloud by the end of next year.

On the other hand, the European landscape is characterized by persisting differences in country regulations and a strong awareness of privacy issues. Also, core assets such as ERP, core banking, and customer databases are still largely kept on premises. In light of this, Zadara's comprehensive offering seems able to satisfy the various enterprise needs in terms of security, quality of service, and overall cost.

LEARN MORE

Related Research

- *European Cloud FutureScape 2016* (forthcoming)
- *EMEA Public and Private Cloud Services 2013 Market Size and 2014-2018 Forecast* (IDC #CL04W)

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