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NEXT-GENERATION ENTERPRISE FILE SERVICES

MARKET LANDSCAPE REPORT

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INTRODUCTION

Traditional file services, as we know them, are no longer adequate to serve modern enterprise needs. Local NAS filers, which share data via traditional protocols like NFS and SMB, present too many limitations in both large and small distributed environments.

There are, at least, two major areas of concern when considering traditional file services:

- **High TCO.** File servers and NAS appliances, especially remote ones, are very expensive to manage. Meeting the required SLAs is harder than in the past. The infrastructure must be protected properly against data loss, disasters, and an increasing number of security risks. This means that, instead of reducing the total cost of storage, the costs are increasing while, at the same time, data under management is growing. A trend that could quickly pose many threats to overall storage infrastructure sustainability.
- **Evolving user needs.** NFS and SMB were designed to be used on high speed and low latency local area networks. These protocols can't be exposed efficiently on wide area networks or the internet. But this is not how users need to access data today. In fact, most users access data remotely from their laptops or mobile devices and while traveling. Furthermore, the access pattern is even more complicated than that, with users now switching devices all the time while working on the same documents. Documents that are also shared to the rest of the team and can't be copied to a local device with all the associated risks that come with it.

SaaS solutions, such as Sync & Share from the public cloud, for example, may partially solve small business needs, but they can not offer adequate performance for certain workloads nor an adequate control over data for highly regulated environments. Even more so, most of these services do not usually offer data protection, and archiving, solutions aligned with enterprise business needs. A deficiency that requires external tools to make the system compliant with stringent legislation and data retention policies usually found in large organizations or highly regulated fields.

New hybrid cloud infrastructure designs offer performance for local access, lower TCO, better data protection and improved security when compared to traditional infrastructures. The combination of small, stateless, local appliances for caching data locally with the capacity of the cloud and the additional services that can be built on top of it are the answer to create a modern file service platform for all kinds of users in the organization, no matter the size or its distribution in the globe.

REPORT TOPICS

In this report, we will analyze several aspects of hyper-converged and composable infrastructures including:

- Challenges of traditional file services approached
- Modern user behaviors and access patterns
- The increasing impact of regulations like GDPR
- Data protection, auditing, and security in large scale file services
- Architecture design of modern file service infrastructure
- Hybrid Vs Private cloud approach for file services

KEY FINDINGS (AND CONSIDERATIONS FOR ADOPTING THE SOLUTION)

- A new approach to file services is necessary to cope with both the data growth as well as changing user needs. TCO of traditional solutions is too high and they are not flexible enough to respond quickly at ever-changing business needs.
The separation of the frontend access layer from the backend allows creating better services at a lower cost. If the backend storage layer is delivered on the cloud, all major pain points about scalability, data protection, and DR can be neutralized.
- Hybrid solutions offer the best compromise in terms of costs and flexibility, but some organization could adopt a similar infrastructure design on their premises to get better control on data and security when there are data sovereignty concerns or specific regulations.



ANALYST ENRICO SIGNORETTI

Enrico has **25+ years of industry experience** in technical product strategy and management roles. He has advised mid-market and large enterprises across numerous industries and software companies ranging from small ISVs to large providers.

Enrico is an **internationally renowned visionary author**, blogger, and speaker on the topic of data storage. He has tracked the changes in the storage industry as a Gigaom Research Analyst, Independent Analyst and contributor to the Register.

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