



SUCCESS STORY

## Web-hosting Provider



### 1&1 | PROBLEM SOLVED

1&1's switch to NetApp® SolidFire® from traditional storage architecture for its 1&1 Cloud Server simplified the company's internal complexity and its end-user cloud experience.

# Delivering a First-Class Cloud Experience

As one of the world's leading web-hosting providers, 1&1 makes serving adaptable solutions to its customers a top priority. The company deployed its 1&1 Cloud Server on NetApp® SolidFire® storage, eliminating performance lag issues while giving customers unprecedented flexibility in choosing the type of cloud needed to support their businesses.

**1&1 GIVES ITS CUSTOMERS MORE SERVER CONFIGURATIONS WITH NETAPP**

FROM

**1,000**  
IN 10 MINUTES



TO

**2 million**  
IN 55 SECONDS



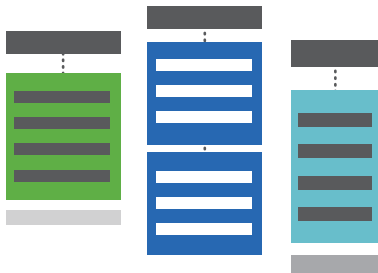
[✉ NETAPP.COM/CONTACT](mailto:NETAPP.COM/CONTACT)

**NetApp®**

# REDUCING COMPLEXITY

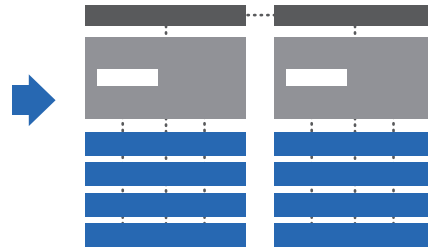
## TRADITIONAL STORAGE ARRAYS

Application and virtualized environments are siloed



## NETAPP SOLIDFIRE

Simplified and consolidated workloads deliver guaranteed performance and more flexible service



Serving consumer, business, and developer users, 1&1's award-winning products range from web hosting and domains to the provisioning of dedicated, virtual private and cloud servers, email, and e-commerce packages. It serves Austria, Canada, France, Germany, Italy, Mexico, Poland, Spain, the UK, and the United States.

1&1 aims to satisfy a clear need in the market: simplifying the use of technology and making the cloud fully dependable and accessible to small businesses, resellers, and enterprises. Recently, 1&1 introduced the new 1&1 Cloud Server, which allows customers from small and medium sized companies (SMBs) to benefit from an easy-to-use, flexible, and high-performance

product, which combines high-quality enterprise features with the needs of SMBs.

## HOW 1&1 DID WHAT'S NEVER BEEN DONE


1&1 has renewed its cloud portfolio to create a new generation of cloud solutions. The main goal was to design a new cloud offering for SMBs to deliver enterprise-level flexibility and power within an easy-to-use product. Uniquely, 1&1 customers can easily create high-performance cloud deployments and scale them up and down based on their business needs without any prior training or additional investment. This allows companies, developers, and integrators to easily move their web projects and business applications to a flexible and high-performance cloud environment.

## BEST TECHNOLOGY, LESS COMPLEXITY

Storage is the foundation of any cloud solution. 1&1 was looking for a trusted storage partner and, after a thorough evaluation, realized the SolidFire storage platform would greatly simplify end-user cloud experiences, while simultaneously reducing internal complexity with its Quality of Service (QoS) and scale-out architecture. Each time 1&1 adds a storage node, it benefits from predictable performance and capacity gains. SolidFire's QoS guarantee has also allowed 1&1 to safeguard against "noisy neighbor" problems where a user could experience a performance lag because one application affects another's performance. With SolidFire, 1&1 can provide each application with the resources it requires without impacting the performance of other applications. This has meant 1&1's operations team no longer needs to constantly manage the storage infrastructure when particularly resource-intensive applications are deployed by a customer.

## WHAT THIS MEANS TO 1&1 CUSTOMERS

1&1 Cloud Server customers have a tremendous amount of flexibility when it comes to choosing the type of cloud they need to support their business. "Compared to the 1,000 server configurations that could

previously be delivered in 10 minutes, thanks to SolidFire's platform, 1&1 can now offer its customers two million server configurations delivered in 55 seconds,  which is clearly a massive improvement for us and our users. And with state-of-the-art, solid-state storage, they never need to worry about performance, availability, or reliability," says Javier Salcedo Gadea, head of Product Management Cloud at 1&1.

### THE WHOLE STORY

1&1's cloud solution was originally built on a traditional storage architecture from a range of vendors. As part of this cloud offering, customers chose between performance tiers, with each tier having a different architecture and price point, rather than offering a single solution providing guaranteed performance. 1&1 aimed to reduce this complexity and found that traditional storage was no longer

sufficient for the needs of demanding clients. While 1&1 was able to meet its customers' needs with this offering, it began to realise that the limitations of traditional storage could be holding it back. The primary concern was that these traditional storage arrays introduced complexity, both for customers and the operations team managing 1&1's internal infrastructure.

The main complexity for customers was the choice they had to make between performance tiers. Performance requirements often change during the lifetime of a project and traditional storage made changing between tiers a highly disruptive process. This introduced a layer of complexity that went against the overall aim of delivering simple-to-use cloud services. At the same time, 1&1 was also keen to give customers as much choice and flexibility as possible.

### BUSINESS BENEFITS

- Guaranteed performance for all of 1&1's customers
- Reduced storage infrastructure complexity
- Improved flexibility and performance for all cloud customers
- Ability to easily scale-out storage infrastructure

Internally, it was also important for 1&1 to improve the management process for the support teams. The main issue was that in order to guarantee performance for end-users, operations staff had to fine-tune storage performance whenever a particularly resource-hungry virtual machine was created. This meant they were constantly faced with the need to balance competing customer resource demands. "Always guaranteeing performance in spite of 'noisy neighbors' presented us with a constant challenge. While it was easy enough for us to add storage nodes thanks to our SAN setup, adding more customers made the problem of juggling resource demands more complex," Salcedo Gadea explains.

---

“Compared to the 1,000 server configurations that could previously be delivered in 10 minutes, thanks to SolidFire's platform, 1&1 can now offer its customers two million server configurations delivered in 55 seconds.”

Javier Salcedo Gadea  
Head of Product Management Cloud, 1&1

## THE SOLUTION

As 1&1 continued to grow, it became clear the company needed to look beyond traditional storage. It recognized all-flash, solid-state storage as the obvious choice to replace the existing cloud storage infrastructure. Once 1&1 identified all-flash storage as the next step for meeting its storage infrastructure needs, the team quickly narrowed down a list of vendors. Their primary consideration was to reduce the complexity of 1&1's storage infrastructure, both in terms of managing performance and offering customers a simplified and more flexible service.

After assessing a number of vendors, 1&1 chose SolidFire for its next generation storage platform. SolidFire was selected because it was the only storage technology that enables the company to simply control performance levels to each and every workload with zero disruption to customers. [Twitter](#) What's more, its in-line deduplication and compression technology would mean 1&1 could see significant cost benefits over other solutions.

## BENEFITS OF WORKING WITH SOLIDFIRE

After thoroughly testing SolidFire's storage solution, and following a two-month beta phase, the

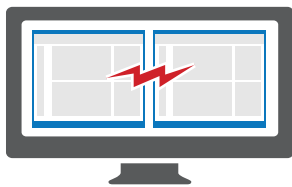
“Always guaranteeing performance in spite of ‘noisy neighbors’ presented us with a constant challenge. While it was easy enough for us to add storage nodes thanks to our SAN setup, adding more customers made the problem of juggling resource demands more complex.”

Javier Salcedo Gadea  
Head of Product Management Cloud,  
1&1

## QUIETING THE “NOISY NEIGHBOR”

### TRADITIONAL STORAGE ARRAYS

User experiences a performance lag because one application affects another's performance.



### NETAPP SOLIDFIRE

Each application has the resources it requires without impacting the performance of other applications.



SolidFire's QoS guarantee has also allowed 1&1 to safeguard against “noisy neighbor” problems where a user could experience a performance lag because one application affects another's performance. The SolidFire solution has meant 1&1's operations team no longer needs to constantly manage the storage infrastructure when particularly resource-intensive applications are deployed by a customer.

advantages of SolidFire's all-flash arrays were clear. Not only did the SolidFire storage platform greatly simplify end-user cloud experiences, but it simultaneously reduced internal complexity—primarily thanks to SolidFire's scale-out architecture and built-in automation.

### FUTURE PLANS

For an international company like 1&1, it is important to work with a storage vendor that is able to deliver its own global expertise, as well as one that supports it in delivering easy-to-use, powerful, and flexible cloud solutions to its customers. SolidFire will continue

to be an important partner, thanks to its global reach. As a result of SolidFire's scalability, guaranteed performance, and reliability, 1&1 is now able to deliver the power and flexibility of an enterprise solution to SMBs with the simplicity that makes it accessible to even the smallest business.

**LEARN MORE**

[www.netapp.com/us/products/storage-systems/solidfire](http://www.netapp.com/us/products/storage-systems/solidfire)

 [NETAPP.COM/CONTACT](mailto:NETAPP.COM/CONTACT)

+1 877 263 8277



Leading organizations worldwide count on NetApp for software, systems and services to manage and store their data. Customers value our teamwork, expertise and passion for helping them succeed now and into the future. To learn more, visit [www.netapp.com](http://www.netapp.com).

© 2017 NetApp, Inc. All Rights Reserved. NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners. CSS-6890-0117