



Service Provider

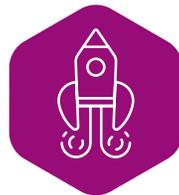
SURF SARA

Knowing that they've got reliable, performant, available storage for the long haul that will grow easily as SURFdrive subscription grows means the team can spend its time enhancing rather than maintaining the service. And they've got plans.



Availability & Reliability

SURFdrive's success is measured by user satisfaction. It just works; for all 25,000 of them.



Easy Scalability with No Downtime

Upgrades and add-ons are easy— with zero downtime.



Lower Operations Overhead

Ease of administration means low staff overhead.

“One of our biggest challenges is how smart our users are—25,000 smart users do stuff you didn’t even imagine was possible. To operate the service doesn’t take a lot of human effort. The system takes care of itself.” — Ron Trompert, PhD, Group Leader for Online Data Services, SURFsara

Making IT Easy

SURF is a centralized IT foundation for Dutch education and research, offering services to students, lecturers and scientists across the Netherlands. A foundation that employs more than 300 people, its SURFsara arm is focused on high-performance computing and data infrastructure services for researchers, students and educators from the country’s 14 universities, as well as from other scientific and research organizations in the region. Still growing on all levels: subscriber organizations, individual subscribers and the infrastructure that supports them, SURFsara supports diverse efforts: from the massive and complex CERN (the European Council for Nuclear Research) and the data generated by its massive hadron collider; to individual academics’ data, notes, lectures, publications and more.

SURFdrive

The SURFdrive service offers secure, reliable cloud storage to students, faculty and researchers in SURF’s member organizations. Secure is the keyword, because, it is their position that although there are commercial cloud storage services with free tiers, it’s hard to be sure exactly where the data is stored and who, ultimately, can access it when using those commercial services. SURFsara and SURFnet offer SURFdrive so that staff, researchers and students can store, share and synchronize files within a secure community cloud, effortlessly, and with ample storage

capacity. Today, 25,000 individual users from 50 institutions use the service, and that user base continues to grow. “We’re still recruiting and growing; we’ve only recently started adding medical centers,” said Ron Trompert, PhD, group leader for online data services for SURFsara.

Essentially a B2B2C offering, SURFdrive makes its contracts with organizations that then offer individual user accounts within their

ranks. Each of its university member organizations “buy-in” to SURFdrive with a commitment to a minimum of 750 user accounts, each of which is allocated 100GB. And that structure works; it earned buy-in from all 14 of the Netherlands’ universities. Other qualifying organizations can buy in in lower numbers, but there’s a price break for them at that 750-user level.

A Rocky Start for SURFdrive

When it was launched on April 1st, 2014, SURFdrive was built on Gluster. According to Trompert, that worked fine for a year and a half. “As it filled and the storage expanded, the Gluster file system rebalanced data and couldn’t serve clients while it was doing that. The service was down for more than a few days before people could use it again. That was a major red flag.”

And that’s when they knew they needed to look at alternatives. During his 17 years at SURF, user expectations had evolved, and downtime like that simply wasn’t tolerated. “It used to be that people were fine with ½ day or so of downtime, especially in the supercomputer environment,” said Trompert. “No more. The reliability of cloud services has trained people to expect data to always be there for them.”

Advice, Research and Testing

So, the search for replacement began. Determined to make a better choice this time, Trompert and his team reached out to IT teams in other, similar, organizations to learn

Business Benefits

Availability

Service and data availability is the number one key to success for SURFdrive. The fact that SURFdrive can be upgraded with no downtime, no loss of availability make it a success. SURFsara was able to offer an SLA this past year of 4x9’s, and that’s their best ever.

Customer Satisfaction

SURF measures success not on costs or profits, but on user satisfaction—and it’s extremely high for SURFdrive. Even with its 25,000 users, the service never has more than 5-10 open tickets at any time, and those cover all aspects of the service: storage, software, network...even user error.

Easy Administration

The fact that it just works—even through upgrades—means low staff overhead.

from their experiences. “During our selection process, we were in touch with colleagues abroad,” said Trompert. “We asked what they used—we didn’t want to risk choosing another bad solution.”

Their independent research and those consultations helped them narrow the field to two contenders: Scality RING and IBM SpectrumScale. In the Spring of 2016, they tested both. With the key considerations of Scalability, Reliability and Performance top of mind, Scality came out on top. “IBM was very good, but looking at our long-term plan for the service, it seemed that Scality would cover our growth plans better,” said Trompert. “Expansion to the IBM infrastructure would have to be done in large chunks,” he added, “Scality can do smaller increments—and multiple datacenters, too.”

Impressive Transition & Ongoing Operation

What impressed Trompert and his team most of all about Scality RING was its performance. “It took a couple of months to complete the migration, but the day we started up the Scality RING, performance increased significantly. And we’ve continued to have availability like never before.”

“We recently completed a Scality upgrade while in production,” he added. “Nobody noticed anything.”

Looking Ahead

Knowing that they’ve got reliable, performant, available storage for the long haul that will grow easily as SURFdrive subscribership grows means the team can spend its time enhancing rather than maintaining the service. And they’ve got plans.

They plan to expand this year from their current single datacenter in Amsterdam to three datacenters across multiple geographic locations. And growth, they’re still seeing a lot of it, both through organizations that are already subscribers adding users, and through adding new organizations to their subscriber roles. By way of example, they have only just begun to recruit medical center organizations to use SURFdrive.

Now that they have the solid infrastructure that Scality RING brings to the table, they are also able to spend time considering service enhancements. Their development plans include adding guest account privileges that can be set up without IT intervention, collaborative editing tools within and across institutions, and new group privileges that will make it easier to maintain data stores if an individual user account is cancelled, as when someone leaves the organization.

The scalability, reliability and performance gained through their software-defined storage “trade-up” to Scality RING have brought the SURFdrive service up to a service level that meets the unique challenges of cloud storage for academic and research environments. Trompert characterizes it best, saying “One of our biggest challenges is how smart our users are. 25,000 smart users do stuff you didn’t even imagine was possible.”

Solution Components

Software-Defined Storage

- Scality RING with SOFS/SFUSED

Storage Hardware

- 12 Dell R730xd servers
- Dell R430s Connector nodes

Third-Party Applications

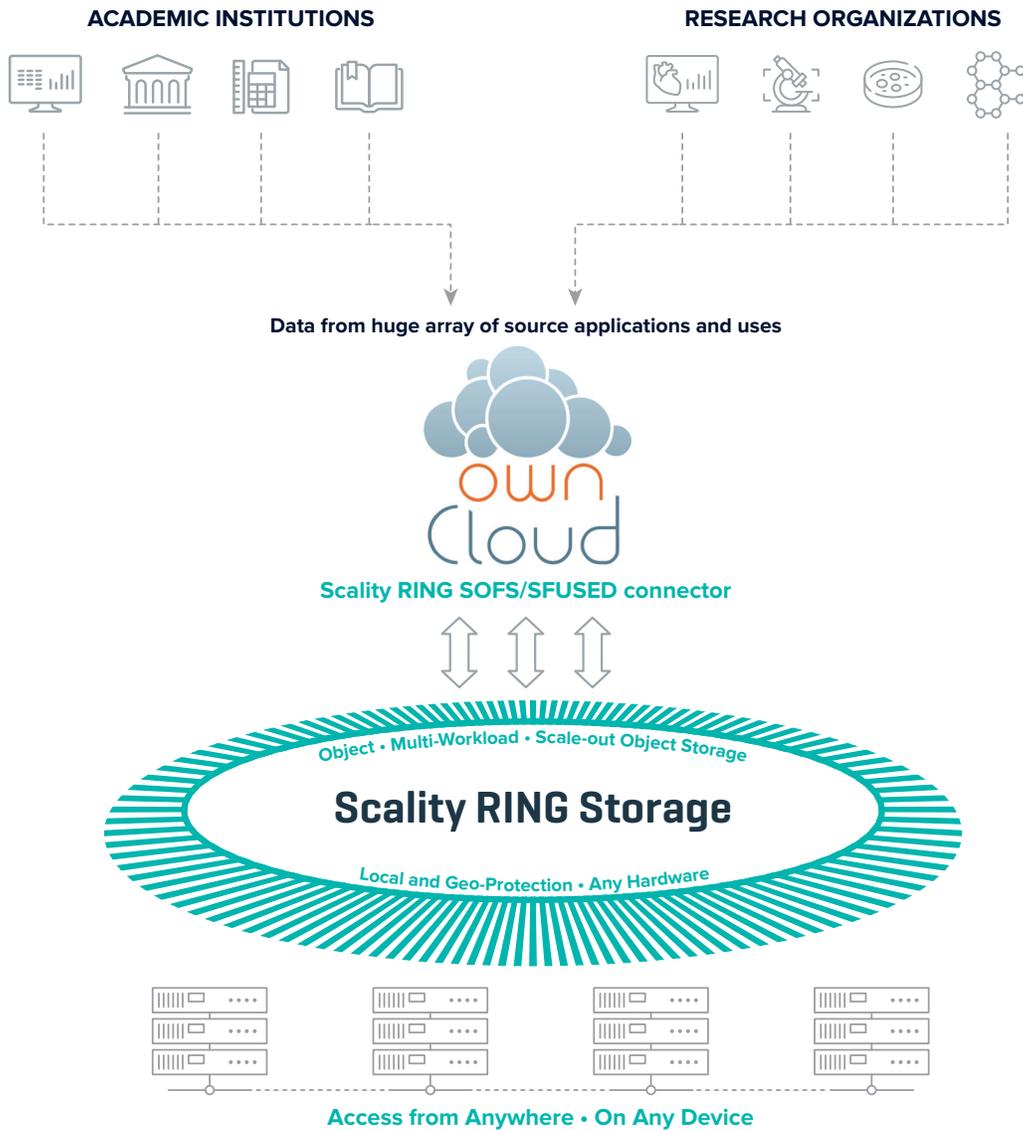
- OwnCloud



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Ron Trompert, PhD
Group Leader for Online
Data Services, SURFsara

SURFsara's SURFdrive



About Scality Scality, world leader in object and cloud storage, develops cost-effective Software Defined Storage (SDS): the *RING*, which serves over 500 million end-users worldwide with over 800 billion objects in production; and the open-source S3 Server. Scality RING software deploys on any industry-standard x86 server, uniquely delivering performance, 100% availability and data durability, while integrating easily in the datacenter thanks to its native support for directory integration, traditional file applications and over 45 certified applications. Scality's complete solutions excel at serving the specific storage needs of Global 2000 Enterprise, Media and Entertainment, Government and Cloud Provider customers while delivering up to 90% reduction in TCO versus legacy storage. A global company, Scality is headquartered in San Francisco.

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