



SUCCESS STORY
Service Provider



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To keep up with constant growth, Internet Solutions turned to NetApp SolidFire, cutting operational costs in half while lowering procurement time.

Offering Performance-Based Tiering Services in Africa with NetApp SolidFire

Internet Solutions (IS) is a Pan-African converged communications service provider operating in 14 countries across Africa, with international offices and points of presence in New York, London, Germany, Hong Kong, and Singapore. The company's growth is constant and dynamic, requiring a cost-effective, flexible platform—and SolidFire delivered.

3x

shorter procurement time

50%

overhead cost improvement

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“Moving to all flash is the future. Spinning disk is on its way out. SolidFire has moved us to the forefront of our industry because we gained a high-performing and much faster storage platform. Tiering and QoS was an added benefit in the decision-making process.”

Andrew Green
Cloud Infrastructure Manager, Internet Solutions

With over 15,500 square meters of data center space across the African continent, IS is the largest provider of alternate last-mile services in South Africa and the first service provider to offer performance-based tiering services in Africa.

As a wholly owned subsidiary of the Dimension Data Group and part of NTT, IS leverages its global footprint and infrastructure to rapidly deploy emerging technologies to its customer network of public and private sector organisations. IS needed the ability to easily move storage around its data centres and have it up and running quickly for customers, and it needed to capitalize on granular scalability for a more flexible and portable deployment model. IS evaluated a number of storage providers in a bid to find an alternative, cost-effective and more flexible platform—and only SolidFire delivered.

WHAT THIS MEANS FOR IS CUSTOMERS

The majority of IS customers are listed in the Fortune 2000 in Africa, including the Johannesburg Stock Exchange. IS also addresses the needs of up to 35,000 small and

medium-size businesses. In total, IS offers about 500 products across four divisions, ranging from fibre in the ground to software in data centers. IS is using SolidFire to create multiple tiers of storage performance to serve all customers—a major differentiator for the company that enables it to meet increasingly complex customer demands.

“We are using SolidFire to create a storage tier that can service any of our cloud platforms—IaaS, PaaS, and SaaS. This is both a real benefit to customers and a competitive advantage for us, and we couldn't do it with any other storage,” says Kervin Pillay, director of technology, Internet Solutions. “If a client needs more performance, we can enable it at the click of a button. Customers don't need to wait for hours—it can be done instantly.”

THE WHOLE STORY

With a large and growing cloud services operation, planning for future storage capacity is essential to the successful delivery of IS's solutions and services. IS partnered with ShapeBlue, a SolidFire partner that focuses exclusively on the service

BUSINESS BENEFITS

- Blisteringly fast performance
- 5x lower environmental footprint
- 50% improvement in the cost of operational overhead
- 3x shorter procurement time, leading to enormous savings in terms of people, money and time

provider market, to deliver cost improvements, both on commodity cost reductions over time and volume discounts.

“We narrowed the choice down to three storage vendors and then carried out an intensive proof-of-concept using a detailed scoring mechanism. We measured across a number of points, including performance, risk, licensing, cost, modularity to scale up and out, and the ability to move nodes between data centers, along with the time it takes to add a node,” says Pillay. “This guided us to our decision to implement SolidFire.”

“IS had very clearly defined problem statements with its old storage environment that it set out to resolve, including increasing costs and decreasing margins with new services, as well as capacity planning in a dynamic and rapidly growing IaaS cloud environment,” says Dan Crowe, managing consultant, ShapeBlue. “They also sought more granular scalability and a modular deployment model.”

“With our previous storage platform, we felt like we were in a process of continuous data migration. This was an expensive process in terms of people, cost, and time. Every time a storage array needed to be replaced, data center space requirements tripled. Further, upgrading arrays after 12 to 24 months involved significant cost,” says Andrew Green, cloud infrastructure manager, Internet Solutions. “We also often found ourselves pushed into a corner to buy more storage than was needed to obtain better discount rates. With this in mind, we clearly needed an

alternative approach and one that was also defined by reduced and predictable pricing per gigabyte of storage.”

SOLUTION

SolidFire provides sweepingly comprehensive all-flash storage. This, in turn, delivers a raft of benefits for IS from increased infrastructure agility and responsiveness, by delivering capacity and performance on demand, to no more data migrations.

One of the immediate benefits of SolidFire was the reduction in operational costs, as well as the cost of storage per gigabyte. With SolidFire, the company doesn’t need to engage in migration as the backend modules are easily replaced and swapped out. This setup has significantly improved the ability to move storage around IS data centers.

Crowe says, “After initial cluster investments, a node-by-node expansion plan enables IS to keep capex relatively low, reduce sign-off

times, and not create any large array replacements of end-of-life equipment with corresponding capex spikes.”

“If we’re growing in one location, we simply ship a node from one data center to another, connect it to a cluster, and it’s up and running within minutes,” Green explains. “The procurement time has plunged from three months down to four weeks and we can reduce this further to two weeks in the near future. This has led to enormous savings in terms of people, money, and time.”

Green continues, “We never need to do a forklift upgrade again. This was previously a massive problem; it sometimes took years to do. Because we don’t have to do this anymore, we’ve experienced a 50% reduction in the cost of operational overhead along with significant Cloud staff productivity gains.”

BENEFITS OF SOLIDFIRE

By implementing SolidFire, IS also benefited from lower power cooling costs, as well as a lower carbon footprint. Pillay says, “One of our requirements was to reduce costs and our overall carbon footprint. We have certainly achieved this with SolidFire. Our storage footprint has now actually shrunk up to five times, which is a significant benefit given that carbon reduction is a big issue in South Africa.” 

“The integration of SolidFire with OpenStack is incredible. It is really providing significant value in that space from both integration and scalability perspectives.”

Kervin Pillay
Director of Technology, Internet Solutions

INTEGRATION WITH OPENSTACK

Another benefit was the easy integration with OpenStack and VMware. When SolidFire was initially implemented, it was running across 23 VMware environments, utilizing and integrating with VMware SIOC to deliver guaranteed performance-based tiering at a per-VM disk level. However, IS also has an OpenStack-powered cloud designed around a pay-as-you-use consumption model for its consumer space that runs side by side with its enterprise IaaS platforms. SolidFire's integration with OpenStack and the Cinder driver has proved invaluable in delivering the tiered services on this platform.

"The integration of SolidFire with OpenStack is incredible. It is really providing significant value in that

space from both integration and scalability perspectives," adds Pillay.

COMPETITIVE ADVANTAGE

SolidFire's all-flash storage enables full automation with IS's Continuous Integration/Continuous Deployment (CI/CD) workflow, enabling DevOps services and virtual machines with containers to be deployed up to 15 times faster  than with traditional architectures. It also allows IS to deliver predictable performance to hundreds of applications and services on a single platform, along with guaranteed Quality of Service (QoS).

As a result, SolidFire has been rolled out across four IS data centers (two in Johannesburg, one in Cape Town, and one in Durban), with plans to roll out to another

Johannesburg data center within a year. SolidFire will replace all current storage in the cloud environments as the old arrays reach the end of service life.

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SOLUTION COMPONENTS

NETAPP PRODUCTS

[NetApp SolidFire](#)

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