



Case Study

Cloud

Cortex IT

As the commoditization of cloud services continues, specialist providers can differentiate themselves in a crowded marketplace by offering comprehensive, fully supported business solutions. In replacing a disparate set of proprietary technologies with an open source stack built around OpenStack, SUSE Enterprise Storage and SUSE Manager, Cortex IT has enhanced the quality and flexibility of its services, increased internal efficiency, reduced costs, and gained access to more responsive support services.



Overview

Cortex IT is an innovative cloud and infrastructure provider that runs tier 3 and 4 data centers in Switzerland. Since 2013, the company has been part of the WIRD Group, the leading Swiss solution provider for IT infrastructure, cloud services and security solutions.

Maintaining a truly national footprint through its six regional offices, WIRD Group offers both on-premises and cloud-based solutions to a broad set of medium to large clients across financial services, insurance, pharmaceuticals, luxury goods, technology, government and public sector. All WIRDCloud services are powered by Cortex IT, which acts as the “cloud factory” within the group.

Challenge

The rapid rise of global cloud service providers has made it possible for organizations of all sizes to take advantage of infrastructure and services on demand. Rather than investing in building up and maintaining on-premises computing and storage resources, organizations can use an internet browser to fire up virtual resources whenever they need them.

While public clouds can deliver great flexibility and low costs, they typically offer only very limited support. For this reason, smaller cloud providers can continue to thrive by offering high service levels and by being fully attuned to their clients’ business needs rather than just their IT requirements.

Georges Sancosme, CTO/COO of Cortex IT and WIRD Group, comments: “We do not aim to compete on price with global cloud companies – rather than selling commodity services at the lowest possible cost, we seek to add genuine business value to our relationships with our clients. Indeed, we actively encourage our clients to take a hybrid approach to cloud, whereby we may run some services while others – typically less critical – are hosted on generic public cloud platforms.”

Cortex IT had built up its private cloud landscape over a number of years, and this had resulted in a highly diverse environment in which both cost and complexity were constantly increasing. The company wanted to adopt a consistent, platform-based approach to technology, and looked to take advantage of OpenStack technology as a way to unify its cloud services and simplify management.



Cortex IT at a Glance:

Cortex IT provides comprehensive private cloud and hybrid cloud services to businesses and public-sector organizations throughout Switzerland.

■ Industry and Location

Computer Services
Switzerland

■ Product and Services

SUSE CaaS Platform
SUSE Cloud Application Platform
SUSE Enterprise Storage
SUSE Linux Enterprise Server
SUSE Manager

■ Results

- + Enables economical, high-quality cloud services on a fully open source stack
- + Powers a larger set of cloud services with a smaller internal team
- + Removes vendor lock-in, enabling technical solutions to evolve in line with clients’ requirements

“Our existing stack was delivering the right level of service to our clients, but internally our costs were absolutely out of control,” says Georges Sancosme. “I knew that OpenStack would give us a complete platform in a single package, and enable us to get rid of all the costly proprietary technologies the company had adopted over the years.”

Solution

Cortex IT set out to replace its existing proprietary technologies with standard off-the-shelf hardware and open source software.

“My background is in the academic world, where knowledge is always shared, and in the same way I believe that software should be free,” says Georges Sancosme. “On top of software, you then have services, and of course it’s fine to charge for those. And the message has got through: 90 percent of global software runs on open source technologies such as Linux and Apache.”

The company chose OpenStack as its core technology for running a new private cloud landscape for its clients, supplemented with SUSE Linux Enterprise Server, SUSE Manager and SUSE Enterprise Storage.

“SUSE has a great set of software – well packaged, well supported,” comments Georges Sancosme. “Of course, we could have chosen a completely free distribution of Linux, but we need to be able to reassure our clients of 24/7 professional support, which is what SUSE provides. Factoring in the time we save by working with SUSE, it’s a far more cost-effective approach.”

Cortex IT’s business model is built on understanding its clients’ business requirements and translating them into technical solutions. To avoid having to maintain internal expertise in every possible technology – which would diminish the focus on clients – the company relies on the backing of external partners like SUSE.

Georges Sancosme adds: “OpenStack is already a commoditized technology. In the same way that when you appoint a cloud service provider, you no longer ask about virtualization – which is just the standard way everything is delivered – organizations are no longer interested in how the OpenStack components fit together. And very soon, if it’s not already the case, containers will be a commodity technology also. The new paradigm is infrastructure as code, where you will write applications and just drop them onto the target platform.”

On this basis, Cortex IT has recently launched a proof-of-concept platform to showcase both SUSE CaaS Platform and SUSE Cloud Application Platform to its clients. Says Georges Sancosme: “We wanted to show our clients just how easy it is to use the next generation of software. We don’t want to present antique solutions when our clients come to us with new challenges.

“In the past, the business would need to ask the IT department to set up an infrastructure, then keep changing it in line with requirements. With solutions like SUSE Cloud Application Platform, they will simply build software based on existing services, drop the code onto the platform and have it run from anywhere, and be accessible from anywhere.

“This is what clients can increasingly expect from us, and this is what we will be delivering with help from SUSE.”

To replace its existing proprietary storage, Cortex IT selected SUSE Enterprise Storage, a software-defined solution powered by Ceph technology that delivers enterprise-class availability, flexibility and performance on off-the-shelf hardware.

“Thanks to SUSE Enterprise Storage, with very few engineers we can manage and automate almost everything,” comments Georges Sancosme. “And whenever we have encountered minor challenges, SUSE has always rapidly delivered solutions.”

Cortex IT is now phasing out a two-site NetApp storage cluster with 50 TB of capacity in each data center. When the process is complete, and the specialized hardware has been replaced by inexpensive commodity equipment, the company will enjoy very significantly reduced costs, and will be able to scale its infrastructure far more easily. Says Georges Sancosme: “We wanted to have all storage consolidated to a single platform that offered high availability by design rather than as a separate option. SUSE Enterprise Storage gives us just that, in addition to simple integration with OpenStack and SUSE Manager.”

He adds: “We have to manage client workloads on multiple platforms, and not all of them are able to follow our advice and run on SUSE Linux Enterprise Server. Using SUSE Manager, we can just as easily administer Red Hat, Ubuntu, CentOS – we can automate our entire environment, backed by real expert support from SUSE engineers.”

Cortex IT is continuing to build out its fully open source cloud, steadily shutting down legacy proprietary environments as they reach end-of-support. Says Georges Sancosme: “We do not want to employ an army of specialists to stay on top of all developments across all technologies. There are constantly new challenges in software, and we need external partners like SUSE who have the scale to stay on top of the situation. That leaves us free to focus on offering first-class support to our clients and maintaining a close understanding of their changing business needs.”

Results

By standardizing on a comprehensive open source platform to replace multiple proprietary platforms, Cortex IT has significantly reduced its costs by eliminating software licenses and costs associated with ongoing staff training and certification.

“Previously, technical team members seemed always to be going out of the office on training courses,” recalls Georges Sancosme. “The vendors required our employees to maintain their certifications, and the penalty for not doing so was loss of vendor support. In practice, the certifications were bringing nothing useful to our business. To run fewer services than we offer today with our full open source stack, we had a team that was three or four times bigger.”

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Today, Cortex IT supports multiple client environments on its OpenStack platform, from public transportation companies and financial services providers to luxury products groups and medical clinics.

“It has been hard work to extricate ourselves from these disadvantageous locked-in relationships with proprietary vendors,” comments Georges Sancosme. “We stayed with them in the past because we were afraid of leaving – and of course you can’t have a business built on fear. Since adopting OpenStack, SUSE Enterprise Storage and SUSE Manager, we have improved the quality of service to our clients while reducing our internal costs and complexity.”

By adopting SUSE Manager as a cross-platform tool for setting up and maintaining multiple private cloud environments, Cortex IT has significantly increased efficiency.

“SUSE Manager gives us the ability to quickly integrate and manage other infrastructures,” explains Georges Sancosme. “For example, we now remotely manage the infrastructure for the Swiss arm of a major global pharmaceutical company. Thanks to SUSE Manager, we can deploy, supervise and monitor clients’ systems, and keep them up to date with patches – all using the same team and the same tools as for our internal systems and our private cloud. It’s just a one-week project each time to set up a new client, and then we can manage them in exactly the same way as we manage all other environments.”

In developing its infrastructure-as-code approach, Cortex IT is building out a fully automated provisioning system using

SUSE Manager to control its OpenStack environment – and this environment will ultimately also span SUSE CaaS Platform and SUSE Cloud Application Platform. Says Georges Sancosme: “Our future vision is that clients will come to us with their business requirements, we will define the appropriate configuration, then push that file to OpenStack, which will set up all of the specified resources.”

Naturally, increased automation requires greater flexibility in the infrastructure. For Cortex IT, the move to a software-defined storage solution has eliminated the dependency on a single vendor, making it possible to expand and develop the underlying data storage resources in a much more flexible – and cost-efficient – manner.

“With a proprietary storage system, you find you’re running out of space and have to buy new storage,” comments Georges Sancosme. “And then the vendor says that the original solution can no longer be expanded economically, but they can sell you a whole new solution that’s better... By contrast, with SUSE Enterprise Storage we can buy whatever hardware we want, adding nodes as required without any concerns about hardware compatibility today or tomorrow – and the performance, availability and fault-tolerance are managed in the software layer. We are totally confident in the ability of the underlying Ceph technology to support a production cloud landscape, and the packaging and support from SUSE are exceptional.”

As Cortex IT continues to bring innovative cloud services to a growing client base, the company remains committed to the open source philosophy. Closed source vendors typically try to lock companies into their

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roadmap, whereas service providers need complete flexibility in their platform strategy, precisely because they do not know what their clients will ask of them in the future.

“The openness of SUSE as a company is one of the key things that appeals to us,” says Georges Sancosme. “As a service provider, I don’t want to have to think about how I will acquire the necessary licenses to run a new service for my client. I want to stay close to what my clients are trying to do, and be able to try new ideas quickly and easily. For that reason, I want the whole stack to be open source. The board backs me completely on this strategy, not least because it has made the company more profitable.”

He concludes: “Working with SUSE helps us differentiate ourselves from global cloud services providers. Where they offer only commodity compute and storage capacity, we add business value by providing open and flexible resources that actually solve our clients’ business challenges.”