As an enterprise-class cloud service provider, Pi DATACENTERS provides virtual infrastructure to clients struggling with on-premises solutions. By selecting SUSE® OpenStack Cloud and SUSE Enterprise Storage™, the company gained a cost-effective platform with the flexibility needed to provide customizable IT infrastructure-as-a-service at multiple pricing levels depending on clients’ specific needs. Backed by expert support from SUSE, Pi DATACENTERS now provides robust virtual IT infrastructure, allowing clients to concentrate on their core business, not IT.

**Overview**
Founded in 2014, Pi DATACENTERS is an enterprise-class cloud service provider, based in Amaravati in Andhra Pradesh, India. Operating out of state-of-the-art, green-field data center facilities, the company offers a full spectrum of solutions across Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Disaster Recovery as a Service (DRaaS), Backup as a Service (BaaS), Network Operations Center as a Service (NOCaaS), and Remote Infrastructure Management as a Service (RIMS), along with a host of other cloud-enabled solutions, services and migration. Its clients include organizations in the Government, Retail, Banking, Blockchain, Manufacturing, Healthcare, Life Science and IT sectors.

“Thanks to the savings we have achieved using SUSE Enterprise Storage, we can now offer the end-consumer a price 25 percent lower than our nearest competitor.”

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**Challenge**
As a relatively new business in the enterprise-class cloud services sector, Pi DATACENTERS wants to provide clients with a completely different experience from existing operators. A crucial part of its business strategy is the ability to offer its clients flexible price levels depending on the amount of cloud storage they actually consume, in contrast to the more rigid pricing systems of many of its larger competitors.

T Lakshminarayana, Vice President of IT Operations, Governance, Delivery & Procurement at Pi DATACENTERS, said: “We are still essentially a start-up, and in this kind of business environment, clients want two things: high performance and low cost. We knew we could offer similar levels of performance to our biggest competitors, thanks to our previous adoption of SUSE technologies, but to really get ahead we needed to be able to bring the cost of our services within the financial reach of a bigger set of potential clients.”

Sunder Muthevi, Vice President of Products and Strategy at Pi DATACENTERS, said: “We wanted a flexible, reliable, cost-effective foundation on which to build our business and stand out from the crowd. To

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**Pi DATACENTERS at a Glance:**
Pi DATACENTERS is Asia’s largest Uptime Certified TIER IV data center organization, focused on delivering futuristic data center and cloud solutions through its strategic Software Defined Data Centers (SDDC).

- **Industry and Location**
  IT Services, Amaravati, Andhra Pradesh, India

- **Product and Services**
  SUSE Enterprise Storage
  SUSE OpenStack Cloud

- **Results**
  + Provides stable foundation for innovative cloud service provider
  + Enables price flexibility depending on levels of use
  + Reduces administrative burden while boosting system agility
win business, we knew we needed to offer added value, above and beyond what an internal IT department could provide, using our scale and expertise to make bigger and smarter investments than any single company could do in its own data center. That naturally led us to SUSE OpenStack Cloud.”

In addition to SUSE OpenStack Cloud, Pi DATACENTERS realized it needed a greater degree of control over its own storage infrastructure landscape, and that it could benefit from further support from the SUSE team.

“We saw that SUSE could give us a greater degree of personalization in our own IT environment,” said T Lakshminarayana. “We saw that as a key component of our strategy to provide our clients with greater flexibility to choose the precise services they need at a price that makes economic sense for them.

“For a company like ours, where we are effectively asking people to sign part of their IT department over to us, it is important to have a personal relationship with the client. In these sorts of relationships, it’s enormously beneficial to have someone as large and reliable as SUSE backing you up, for the clients’ peace of mind as well as our own. We wanted to integrate with SUSE still further, so we began exploring SUSE Enterprise Storage to complement and extend our existing SUSE OpenStack Cloud environment.”

**Solution**

**AN OPEN SOLUTION**

Pi DATACENTERS had previously decided to use OpenStack, a free, open source cloud computing platform that controls large pools of compute, storage, and networking resources, all managed through a single dashboard. Offering seamless compatibility with popular enterprise and open source technologies, OpenStack is ideally suited to running multi-tenant clouds with diverse workloads.

“OpenStack is the ideal solution for a cloud service provider, bringing all of the major functionality we need into a single stack,” said Sunder Muthevi. “However, while its open source status provides advantages in terms of cost and future development, it also presents certain challenges to organizations seeking to run commercial services on it. Essentially, we wanted all the benefits of OpenStack, but packaged and supported by an expert team. To get the integration and ongoing support and enhancements we wanted, we chose to deploy SUSE OpenStack Cloud.”

SUSE OpenStack Cloud delivers enterprise-ready technology for building private clouds, providing automated pools of IT resources that can be orchestrated to meet different requirements. Pi DATACENTERS uses the technology to provide IaaS offerings encompassing compute, storage, networking, firewalls and load-balancing services, so that it can create entire virtual data centers for its clients. SUSE OpenStack Cloud is also the basis for the company’s PaaS offerings, and for virtual services around backup and disaster recovery.

“Another key reason for us choosing SUSE OpenStack Cloud was its inclusion of SUSE Linux Enterprise Server,” said Sunder Muthevi. “It’s a world-class, open source server operating system offering high availability and powerful management tools, making it ideal for cloud services providers.

“SUSE OpenStack Cloud has given us a stable platform on which we can provision independent and isolated clouds, enabling multiple clients to have their own distinct cloud environments, but all within the same data center fabric. This means that clients can choose to have the security benefits of running in their own separate physical landscape but still within our flexible, low-cost cloud—it really is the best of both worlds.”

**SUSE ENTERPRISE STORAGE**

Following its successful implementation of SUSE OpenStack Cloud, Pi DATACENTERS decided to deploy SUSE Enterprise Storage, to help further improve the flexibility and reliability of its services.

“We saw further integration with SUSE as a positive step,” said T Lakshminarayana. “We had already been impressed with the support they had offered us for OpenStack, and we saw SUSE Enterprise Storage as a way to further increase the flexibility and stability of our offering to clients—with that level of flexibility, it becomes easier to offer competitive pricing across the spectrum from small clients to large ones, which we couldn’t achieve otherwise.

“Another benefit was that the SUSE solution was platform-agnostic. That meant it was compatible with our entire storage landscape, and could smoothly integrate with whatever our clients’ systems threw at it. Being able to pick and choose our own storage hardware, and know that the SUSE software-defined storage solution could handle it, made it a much less risky investment than some alternative solutions we looked at. This level of compatibility also helped make our virtualization services in general much more attractive to potential clients.”

Pi DATACENTERS, working with SUSE’s own support team, spent six months rolling out the SUSE Enterprise Storage solution, ensuring that it operated in tandem with the company’s existing solutions, to ensure stability for Pi DATACENTERS’ clients.
“We were very impressed with SUSE’s implementation team,” said T Lakshminarayana. “They were extremely diligent in helping us get the solution up and running, and we can mostly handle the day-to-day maintenance ourselves now, thanks to the training and skills-transfer. It is a system we have built from scratch, so we really already know how to operate it, but it always helps to have people as experienced as SUSE in a supporting role.”

Sunder Muthevi agreed: “The SUSE team provided us with high quality documentation and prompt remote support whenever issues arose.”

“Overall, we are very happy with the implementation of SUSE Enterprise Storage, on top of SUSE OpenStack Cloud,” said T Lakshminarayana. “Right now, we have about 6.85 petabytes of flash data storage managed through the SUSE solution, and there is ample room for further expansion as we onboard more clients to our virtual infrastructure services. That room for growth is hugely valuable to us, and makes SUSE an excellent long-term platform for our business model.”

Results
Since adopting SUSE Enterprise Storage along with SUSE OpenStack Cloud, Pi DATACENTERS has been able to offer flexible, reliable IT infrastructure services at multiple price points tailored to each client’s specific requirements and consumption patterns. This flexible proposition has helped the company to attract many new clients across multiple industries.

“With SUSE OpenStack Cloud and SUSE Enterprise Storage in place, we have been able to lower our prices significantly,” said T Lakshminarayana. “Thanks to the savings we have achieved using SUSE Enterprise Storage, we can now offer the end-consumer a price 25 percent lower than our nearest competitor.”

The SUSE solutions’ flexibility and user-friendliness means that Pi DATACENTERS can offer a more rapid implementation of its services. “Because the SUSE technology integrates seamlessly with VMware, it’s much easier for us to set up entirely software-defined storage environments for our clients,” said T Lakshminarayana. “The level of automation we have achieved in provisioning has significantly accelerated the delivery of new cloud storage systems to clients.”

On top of that, we have been able to reduce the complexity of our billing process. Some cloud service providers’ billing patterns are so complex, only IT people can understand it, but we have been able to reduce our bills to just two pages. As such, we have seen a huge spike in uptake since implementing the SUSE technology.”

Pi DATACENTERS has attracted new clients from both the private and public sector, thanks to the flexibility and stability of its SUSE solutions.

“We now have clients in the Government, Retail, Banking, Blockchain, Manufacturing, Healthcare, Life Science and SAP product sectors,” said T Lakshminarayana. “They are using Pi DATACENTERS as both a data center and a disaster recovery solution, and we have another few dozen or so clients using just our Software-as-a-Service (SaaS) offerings. All of them came on board since we made the transition to SUSE Enterprise Storage. Deploying SUSE OpenStack Cloud also meant we made significant savings on our maintenance requirements, which we have been able to pass on to the end-consumer as well.”

The company has also been satisfied with the reliability of the SUSE solutions. “The technical side of things has not really changed that much for us,” said T Lakshminarayana. “We have experienced absolutely no technical issues at all, but it is good to know that the SUSE team is there if we need them. The hardware management has mostly stayed the same, and that’s thanks to the broad compatibility that the SUSE technologies offer.”

“At the end of the day, it’s all about our clients,” T Lakshminarayana concluded. “By outsourcing their IT needs to us, they eliminate the stress of deploying, owning, managing, maintaining and upgrading their own infrastructure—we take care of everything so they can focus on their core missions, not on their IT. Though it is a competitive market, SUSE’s technology has helped make every step of the process easier, and we look forward to offering our superior service to even more clients as we grow.”
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T LAKSHMINARAYANA
Vice President of IT Operations, Governance, Delivery & Procurement
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