Hero

Hero MotoCorp moves its IT into the fast lane with Nutanix

The world's biggest manufacturer of two-wheelers accelerates the performance of key applications by 30 percent by migrating to a Nutanix hyperconverged infrastructure

INDUSTRY
Manufacturing

BENEFITS
- Application performance goes up by 30%
- Supply chain management improves drastically to avoid delays
- Employee productivity rises 20%; it has enhanced routine transaction activities
- IT system administration productivity increases 70% with one-click management
- Hardware scaling takes less than 30 minutes
- Software release cycles done 50% faster, backups 50% quicker
- Downtime is zero and power usage falls by 50% by replacing three-tier infrastructure

BUSINESS BENEFIT

Hero MotoCorp needed to replace a three-tier infrastructure that wasn't meeting the business need—causing bottlenecks on front-end applications that cost employees time while trying to do their jobs efficiently. What's more, the infrastructure was time consuming to manage, failing to give the company the agility it wanted. This all changed when Hero MotoCorp implemented Nutanix Cloud Platform built on hyperconverged infrastructure (HCI). The boost to

"With Nutanix, we gain the round-the-clock reliability that manufacturing requires as well as the performance and flexibility to be agile. We're helping the business continually improve its operations to realize new opportunities and overcome potential challenges."

– Sujoy Brahmachari, Head of IT Infrastructure and Information Security, Hero MotoCorp Ltd

"Just like we manufacture a new motorcycle every few seconds, you can scale Nutanix HCI in that time too. I thought this is the kind of performance you need in manufacturing in the 21st century."

– Ajay Aggarwal, Data Centre Manager, Hero MotoCorp Ltd

SOLUTIONS
- Nutanix Cloud Platform
- Nutanix Prism management software
- Nutanix Prism Pro management software

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APPLICATIONS

- Product lifecycle management
- SAP front-end and integration platform
- Vehicle dispatch system
- Document management system
- Dealer management system application integration
- Middleware

application performance was 30 percent, enabling key management tasks to be handled more efficiently. Straightaway, the queues of delivery trucks held up because of a poor performing management application disappeared. Furthermore, employee productivity went up 20 percent while IT system administration productivity ramped up by 70 percent. Now the business had the agility and efficiency it sought—being able to scale hardware in less than 30 minutes, release software 50 percent faster, perform backups 50 percent quicker, and cut power usage in half.

CHALLENGE

A new motorcycle rolls off the production line of Hero MotoCorp every 18 seconds in India. A multinational business, Hero MotoCorp is the largest motorcycle and scooter manufacturer in the world. In its 34-year history, the company has produced more than 90 million two-wheelers and has a network of 6,000 dealers across the country.

Being able to manufacture two-wheelers at this rate takes precision. All processes from the supply of materials for production and the assembly of motorcycles and scooters to quality assurance and eventual distribution have to be in sync. To manufacture at this scale, companies such as Hero MotoCorp rely on IT systems just as much as production-line robots and machinery. These systems provide the data and connectivity for employees to coordinate the multitude of activities they need to complete during the production cycle. "IT enables our entire manufacturing ecosystem," says Sujoy Brahmachari, head of IT infrastructure and information security at Hero MotoCorp. "The days of manual processes are truly over."

In Hero MotoCorp's case, three-tier infrastructure supporting the systems that staff rely on needed replacing. The infrastructure delivers business-critical systems such as a product lifecycle management (PLM) application, which increases the efficiency of new-product launches. Yet, it was failing the business requirements. There were data bottlenecks on the front end, which were impacting supply chain management and causing delays of hours to operations like invoicing. The ability to complete routine but vital management tasks was also impeded. Hence, queues of delivery trucks often formed at production plants because supplies couldn't be processed quickly enough.

Accessing data quickly was not the only problem, however. Managing the infrastructure was so complex and time consuming that IT personnel couldn't focus on strategic work. "It never stops," comments Mr Brahmachari. "There is always a need to develop some system because of new government regulations or business requirements. And it's always been a battle to have enough time for these tasks when you're spending days trying to resolve performance challenges."

NUTANIX.

SOLUTION

Hero MotoCorp could have updated the legacy infrastructure, but Mr Brahmachari and Ajay Aggarwal, who runs the Hero MotoCorp data centre, were not convinced. They were both aware of hyperconverged infrastructure (HCI) technology that offered an improvement on three-tier solutions in terms of performance, scalability, and manageability. "As soon as we started evaluating HCI, we came across Nutanix," remembers Mr Aggarwal. The speed at which you can scale Nutanix HCI appealed to Mr Brahmachari. "Just like we manufacture a new motorcycle every few seconds, you can scale Nutanix HCI in that time too. I thought this is the kind of performance you need in manufacturing in the 21st century."

It was a straightforward process to obtain buy-in from the senior management team at Hero MotoCorp. This, Mr Aggarwal believes, was as much to do with the responsiveness of the Nutanix team as the solution itself. "The Nutanix team was there for us whenever we needed them to answer questions or provide data. This approach gave everyone a lot of confidence."

Hero MotoCorp implemented a three-node cluster when it began migrating applications such as the PLM over to Nutanix. The company added more nodes as the number of applications increased to include front-end SAP applications, a vehicle dispatch system, a document management system, and a dealer management integration system. "We have nine nodes at present, running around 80 workloads," says Mr Aggarwal. For management of the Nutanix Cloud Platform, Hero MotoCorp uses Nutanix Prism. Comments Mr Aggarwal, "We manage our two clusters with Prism, which tells us how the clusters are performing. It also keeps us updated on capacity, so we have constant visibility on whether we can continue adding more workloads to the clusters or need to add more nodes."

CUSTOMER OUTCOME

PLM application performance improves by 30%
It took years of investment in technology to get to the position where a new motorcycle would roll off the production line so quickly. By migrating its systems—particularly the PLM which enables so many business processes to Nutanix, Hero MotoCorp not only can protect this achievement, but possibly improve upon it. Thanks to Nutanix, the company has enhanced the performance of the PLM by 30 percent, so personnel have faster access to data. What that means in practical terms is that engineering, manufacturing, and marketing teams get the data they need with less delays to complete key tasks, such as finishing designs for new motorcycles or go-to-market strategies.

Improves supply management TAT (Truck turnaround time) process improved drastically to avoid queues of deliveries
Anyone who wants to see the improvements from Nutanix just needs to stand outside where supply trucks drop off their loads. The truck queues have gone. "We've improved the management of supply trucks by four times," says Mr Aggarwal," because personnel managing the arrival and departure of the trucks have faster and more reliable access to data in the management application. Drivers are no longer waiting so long to be attended to. So, no more lines of trucks waiting to unload."

Employee productivity improves 20%, invoice verification done in minutes not hours
Hero Motorcorp has measured the impact on employee productivity as a result of the migration to Nutanix. Staff are now 20 percent more productive, removing front-end data bottlenecks across multiple business-critical systems. The impact on their working lives is significant because it takes them less time to perform tasks—such as invoice verification and payment release processes, which are now down to minutes. "We may be an IT-driven business, but we are also a people-focused company," says Mr Brahmachari. "They are one of our biggest assets and can play a key role in improving processes through feedback."

Compute provisioning increases 70%, scaling hardware in less than 30 minutes
With Nutanix, Hero MotoCorp can turn ideas into actions faster thanks to the agility of HCI. "Nowadays, if there's an idea to improve processes, you can't tell stakeholders the IT will be ready in a month or so," says Mr Brahmachari. "Hence, you need flexible, easy-to-manage infrastructures like Nutanix for your business. As of now, we can scale hardware for new services in less than a day, and our IT productivity has risen by 70 percent."

System upgrades release cycles 50% faster, backups 80% quicker
Besides provisioning hardware quicker, the IT team can also roll out software updates in less time. Using Nutanix Prism, the team can manage infrastructure upgrades, including firmware and storage software, in a single click. There is no longer a requirement to apply the upgrades separately across multiple infrastructure tiers. "We implement software at least 50 percent faster with Nutanix, freeing up our time to work on strategic projects," says Mr Brahmachari.

Mr Aggarwal adds, "It also used to take us 8-10 hours to back up the data from our application servers, but now it's less than two hours with Nutanix—enabling better disaster recovery."

Zero downtime, simplified administration, and 50% power savings
The senior team at Hero MotoCorp is highly satisfied with IT performance—with zero downtime since Nutanix was implemented—and power usage cut in half. But as Mr Brahmachari says, there is still more to do. "Our IT is very robust, and we knew IT personnel pick up working with Nutanix very easily. Nonetheless, with Nutanix, we have an opportunity to build on past successes, drive further digitization and improve the "smartness" of our manufacturing processes."

NEXT STEPS

Looking ahead, Hero MotoCorp is considering moving the databases to Nutanix. "We are in constant communication with the Nutanix team over their products that would add value to our solution," comments Mr Aggarwal.

Concludes Mr Brahmachari, "We were early adopters of Nutanix in India, and our decision was totally correct. We've seen the HCI market grow and the Nutanix solutions flourish, helping us gain more value from our IT."

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