

Hewlett Packard Enterprise

Transforming healthcare with patient-centered outcomes

Lupin elevates patient experiences with digital connectivity and data analytics

Lupin Limited's rise from a modest vitamin maker to a $2 billion healthcare enterprise highlights its trailblazing impact. Known for affordable medicines, the company has evolved into a holistic care provider with a strong focus on patient well-being. By embracing digital connectivity, advanced analytics, and secure private cloud integration, Lupin streamlines operations and drives faster medical interventions, resulting in significantly improved access to care and better patient outcomes.

Becoming a holistic care provider

Starting out as a maker of pre-natal vitamins with a ₹5,000 loan (equivalent to around $60 today), Lupin Limited has grown into a $2 billion enterprise. Today, it is one of India's leading pharmaceutical companies and is the third-largest producer of prescription generic drugs in the US.

Lupin's impact on patients has been profound. As well as providing affordable and life-saving medications for diabetes, cardiovascular diseases, and respiratory illnesses, the company plays a vital role in the fight against tuberculosis as the world's largest supplier of primary anti-tuberculosis drugs.

Recognizing the importance of holistic and patient-centered care, the company has ventured into diagnostics and healthcare solutions, starting with cardiovascular and diabetes care.

"We realized we couldn't just be a medicine producer and supplier," says chief information officer Sreeji Gopinathan. "We needed to get closer to the patient, doctors, and practitioners to understand how we could make the process of treatment and recovery better."

This shift in approach has resulted in the company implementing a platform that connects patients, healthcare professionals, and even ambulance service providers. "Our role is to provide high-quality medicines at affordable prices and to help patients as well as doctors and practitioners in achieving swift recovery," adds Gopinathan.

LUPIN

Industry: Pharmaceutical
Country: India

Vision

Improve healthcare accessibility and outcomes while transforming the company's entire ecosystem

Strategy

Leverage digital connectivity and data analytics to streamline patient interactions and enhance internal processes

Outcomes

- Improves patient care and recovery time through streamlined interactions and prompt interventions
- Guarantees quality of medicines and lowers costs through data-driven decisions
- Ensures zero downtime incidents, enhanced reliability, and efficient operations

Enhancing patient interactions and outcomes

To better align with this shift and meet the added responsibilities of the digital age, Lupin has embraced a digital transformation program to streamline patient interactions and internal processes. It is making strides toward enhancing healthcare accessibility and connectivity, leading to timely interventions and efficient treatment processes for better patient outcomes. At the same time, the company is advancing improvements in the quality and efficiency of processes across various functional areas.

Lupin's main challenge was creating a seamless digital ecosystem for patient care, processes, and data reliability. This required integrating patient-doctor interactions, optimizing operations, consolidating data sources, and strengthening data security.

The company's strategy goes beyond analytics and network upgrades. Instead, "It looks at our entire architecture, from shop-floor systems to ERP and systems that collect data from equipment," says Gopinathan.

Seamlessly connecting patients and practitioners

Through a digital platform that connects cardiovascular and diabetes patients, doctors, and practitioners, Lupin has improved healthcare accessibility and connectivity. This has resulted in faster interventions and puts patient well-being at the center.

"That's how we've enabled connectivity," notes Gopinathan. "We can be more responsive now, which means treatments and interventions are being provided a lot faster. Patients who subscribe to the service on the advice of their doctors are connected through devices monitoring vitals. This enables caregivers and doctors to take proactive action to prevent adverse events."

The integration of digital records has streamlined communication between doctors and patients. In cases where a patient requires reevaluation, test results can be shared digitally, reducing the need for additional in-person visits.

Artificial intelligence (AI) plays a key role in Lupin's patient analytics. After vital data is collected and analyzed via the company's healthcare platform, an AI-powered algorithm assesses potential cardiovascular risks for patients. "This algorithm ensures decisions are made with the highest possible accuracy, helping avoid false positives and unnecessary panic," says Gopinathan.



Enabling scalable private cloud hosting

Using the HPE GreenLake edge-to-cloud platform, his team collaborated with HPE Managed Services to create and manage a colocation facility, network, and security. This collaboration successfully established a private hosted cloud for Lupin's SAP S/4HANA® system and other resources.

The company's HPE infrastructure includes the mission-critical HPE Superdome Flex for SAP HANA® Tailored Data Center Integration, HPE ProLiant DL380 Servers designed to provide optimized performance for SAP HANA, and HPE Primera for the data center and disaster recovery, with HPE MSA Storage as backup. For its network and security upgrade, Lupin incorporated low-latency switches, dual-firewall protection, load balancers, distributed denial-of-service (DDoS) defense, and advanced network inspection.

Lupin secured the solution through flexible financing from HPE Financial Services, enabling the adoption of a pay-per-use* model for technology consumption without up-front capital or overprovisioning risks. This approach allowed Lupin to access state-of-the-art technology and sustainably retire end-of-life assets, in line with circular economy principles.

* May be subject to minimums or reserve capacity may apply

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>
> – **Sreeji Gopinathan,** Chief Information Officer, Lupin Limited

Empowering decision-making through data

Lupin's new data analytics layer bridges different systems and centralizes data from various sources. This gives the company a comprehensive view of its operations — from medicine manufacturing to distribution — while helping it identify strengths and areas that need improvement.

"For instance, we can improve the yield of a product, increase mean time between failures, deliver medicines to distributors faster, and supply items based on the needs of specific regions. Making sure medicines reach a territory on time every time — that's the kind of journey we're on," says Gopinathan.

"HPE is helping us create visibility and observability so that we're not disrupting the business in any way."

Using data analytics, the company can make impactful business decisions, including cutting costs and improving the affordability of medicines. One example is using data analytics to lower utility bills at its pharmaceutical ingredients facility. It not only enhances operational efficiency but also contributes to sustainability goals by reducing power consumption.

"It's a power-hungry setup," according to Gopinathan. "So even if I reduce one percentage of my utility bill in absolute terms, it makes a huge impact. How do I do that? I connect all building management and environmental data collected via sensors or IoT devices onto a platform and apply analytics to identify potential levers and mechanisms to optimize power utilization."

In addition, Lupin's medical representatives optimize their limited interactions with doctors using insights derived from data, ensuring focused and productive conversations.

"We use CRM data, operational data, and other relevant information to apply algorithms and sharpen the interaction of medical reps with doctors."

Ensuring high-quality medicines

Data-driven digital connectivity also ensures that every batch of manufactured medicine exceeds regulatory requirements. As Gopinathan points out, "Maintaining quality is paramount because medicines are ingested into the body. This is driven by both Food and Drug Administration regulations and our own responsibility and standards."

To achieve this, continuous monitoring is crucial, involving the use of mechanisms designed to swiftly respond to issues. For instance, improving the time required for quality tests and releasing batches faster would enhance the utilization of capacity and overall throughput.

"And how do we do that? Through data and digital connectivity. That's what this digital transformation is all about," says Gopinathan.

Unlocking efficiency and reliability

By adopting the HPE GreenLake platform, Lupin has set a new standard for stability in its core operations. The migration of its SAP S/4HANA to HPE GreenLake has not only led to zero downtime incidents but instilled greater confidence in the system's reliability. The goal is to achieve a similar standard of stability for other applications as well.

Through its collaboration with HPE Managed Services, Lupin has built a robust technology foundation. The partnership enables a secure environment for managing sensitive data and safeguarding against cyber threats, while simplifying the operations and management of the IT infrastructure.

"HPE is my sole point of contact for accountability in core ERP operations," notes Gopinathan.

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Embracing tech for better performance

As Lupin looks to further leverage data and digital connectivity, it sets ambitious goals for extracting value from these efforts.

Embracing technology is no longer a choice limited to specific functions or occasional trials, according to Gopinathan. "Every leader in the organization is accountable for making their processes more efficient, transparent, and financially beneficial while prioritizing the well-being of the patient," he adds.

"Whether you do sales, marketing, manufacturing, or HR, it doesn't matter. Technology is deeply ingrained in how we operate."

Solution

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