HPE GreenLake

Speeding up delivery of healthcare services

San Vicente Fundación Hospital provides information on demand for faster decisions

San Vicente Fundación Hospital has extensive experience in complex patient care and prioritizes getting data into the hands of care providers to expedite clinical decision-making. Now with close to 100% uptime and query times improved by 60%, the hospital can accelerate diagnoses, which translates into better overall patient care.

Addressing highly complex patient care

San Vicente Fundación Hospital follows an integrated care model to provide comprehensive healthcare for high-risk populations through leading facilities such as heart services for children, transplants, oncology, functional neurosurgery, and more. Yet, annually treating 40,300 patients, managing 200,000 medical appointments, performing more than 23,500 surgeries and 12,000 procedures, and issuing over 8,500 prescriptions per year creates significant data complexity. The hospital needed to find a way to get real-time data into the hands of healthcare providers to speed diagnoses and improve patient care.

Opening its doors in 1934 to anyone needing medical care in the community, San Vicente primarily serviced low-income individuals. Today, it's one of Colombia's most recognized medical institutions for its extensive experience in complex patient care, diagnostic and therapeutic support, surgical services, medical research, and university training.

San Vicente cares for high-risk populations and follows an integrated care model. Every day, its information system handles more than 4,500 clinical orders to manage procedures, laboratories, diagnostic images, and medical services. "We needed to renew our IT platform so healthcare personnel could access the information they need in a timely manner," says Edwin José Flórez Osorno, ICT analyst at San Vicente Fundación Hospital. "A delay in information delivery can adversely affect patient care."

Accelerating patient care with good data

As demand for its services from both local and foreign patients increased, San Vicente had to modernize its operations and streamline its processes. Response times were slow, failovers took too long, and scalability was limited. The lack of speed in generating data slowed the process of carrying out even routine patient care.

HOSPITAL SAN vicente fundación

Industry: Healthcare

Region: Colombia

Vision

To care for high-risk populations, San Vicente Fundación Hospital is an open-door medical facility that uses an integrated care model

Strategy

To enable providers to make more effective clinical decisions, the hospital needed to improve the availability of accurate patient information

Outcomes

- Accelerates diagnoses with real-time data
- Improves user experience—query time is 60% faster
- Enables efficiency and scalability without additional headcount

"Before we updated our SAP® ERP system, backup was a real issue: it would take three days. Now, we have several copies of the data, hour by hour," says Flórez Osorno.

It was clear San Vicente's legacy platform was not meeting the needs of the hospital's complex services. Working with HPE partner, Team IT, the hospital chose a comprehensive HPE GreenLake edge-to-cloud platform solution that would provide an entire environment for its production, quality testing, SAP ERP environment, business warehouse, and customer relationship management systems.

Flórez Osorno notes, "A patient's care can be complicated if they do not receive a timely diagnosis; the speed in the response times of the information system now allows us to reduce these risks."

Protecting patient information during a pandemic

San Vicente was tasked to comply with new data protection rules, which only increased the urgency to update the hospital's technology. Colombia enacted regulations for the processing and protection of personal data, and in 2017, the Ministry of Health and Social Protection issued guidance for the management, custody, and disposition of medical records.

"An on-premises solution allows us to more easily guarantee compliance with patient data protection regulations," says Flórez Osorno. Using an HPE StoreOnce solution with Veeam backup, the hospital improved disaster recovery and data backup/replication. The previous three-day backup now completes hour by hour, helping the hospital overcome potential ransomware attacks and guard against the loss of vital data needed for quality patient care.

Furthermore, the onset of the COVID-19 pandemic prompted the urgent digitization of many patient care processes and records. "Telehealth increased, video conference meetings became a daily occurrence, and virtual trainings also grew," explains Flórez Osorno.

Meeting needs quickly and flexibly

"To achieve digital transformation and improve our organization's compliance, we needed to update our version of SAP ERP and change its database from Oracle® to SAP HANA®," says Flórez Osorno. "This led us to look for a high-performance, reliable, redundant, and scalable IT solution."

San Vicente can accelerate healthcare services delivery and core application response times with the HPE GreenLake platform, along with HPE Synergy 480 Compute modules and HPE ConvergedSystem 500 for SAP HANA. "HPE Synergy provides great computing capacity in very little space," says Flórez Osorno. "It keeps us flexible in our access to storage and computing." Now, the hospital has fast access to clinical information for patient care. San Vicente also opted to implement the solution for the flexibility in performance, capacity, and efficiency to power any workload.

The hospital chose HPE 3PAR and HPE StoreOnce storage with Veeam backup to complement its IT environment, providing high-performance network storage and optimized storage space. Previously, the IT staff assigned separate times for departments to perform certain queries that consumed significant computing resources because they would degrade the performance of the system. "The new solution enables all groups to work simultaneously without limitations, which

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improves overall workplace efficiency. The hospital has faster response times for analytics and reporting, which enables administrators to make quicker, quality decisions that drive better patient outcomes," says Flórez Osorno.

"Billing has also improved. It once took more than a month to consolidate particularly complex bills, but now bills are ready instantly when patients leave the hospital."

Surpassing performance expectations

"The new solution has achieved the performance, stability, reliability, and compliance required by the hospital," says Flórez Osorno. "And user experience has also improved."

With the new HPE GreenLake platform in place, more than 3,000 staff members at San Vicente now enjoy the ability to access and generate data in real time. The solution portfolio enables the hospital to run critical operations and power its end-to-end processes across patient care and support services, ensuring close to 100% uptime.

The change in response times is particularly remarkable—increasing by up to 60%. According to Flórez Osorno, "Queries that previously took around 900 to 1,000 milliseconds now take approximately 300 milliseconds."

Staff members can load massive data sets on a single system much more quickly, speeding up their response times to requests. With the new solution's flexible configurations, applications can be consolidated on a centralized platform, helping bring down costs. "The new system is three to four times faster than the previous one, thanks to the HPE GreenLake platform's high performance and the network connections of at least 10 gigabits per second," says Flórez Osorno.

Choosing the right partners

"San Vicente has a long-standing relationship with HPE, which gives us great confidence," states Flórez Osorno. The organization first adopted a tailored HPE solution about three years ago when San Vicente couldn't afford to make a substantial up-front investment in its IT estate. "The HPE GreenLake platform provides a pay-per-use with the scalability and cost-efficiency the hospital required," says Flórez Osorno. The hospital now uses the HPE GreenLake platform to support its core system, more than 130 virtual machine servers, and backup functions on-premises.

"Team IT accompanied us throughout this technology renovation process. They did the sizing of the HPE Synergy solution for the migration of the virtualization infrastructure alongside HPE," explains Flórez Osorno.

Easing the burden of complex IT

San Vicente can now quickly deploy new servers, scale with ease, and pay more attention to its critical business services. The administration is simple and intuitive. "Last year we doubled the RAM memory of the servers where the SAP ERP runs," says Flórez Osorno. "The upgrade was carried out in a planned maintenance window."

He continues, "HPE Synergy has reduced the complexity of operating the platform and monitoring tasks by having centralized networking information, storage, and computing." With unified services on a single platform, Flórez Osorno and his team no longer need to manage multi-vendor infrastructures. "We have automated the provisioning and deployment of new servers using templates."
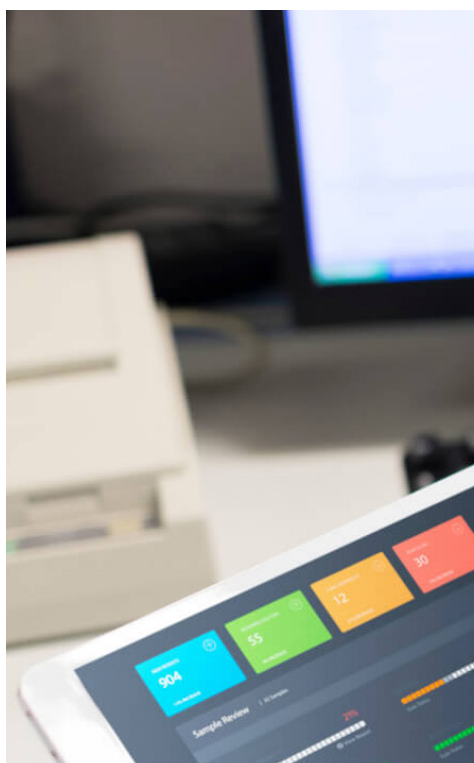
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The hospital's IT unit is also able to achieve greater efficiency and scale without increasing its headcount. Having an integrated technology management solution has reduced implementation times. Satisfied with its use of solutions as a pay-as-you-go service, the hospital decided to shift its other IT requirements to utilize the HPE GreenLake platform. It has moved its backup and recovery systems, and more than 130 of its virtual machines are now on the HPE GreenLake platform.

Delivering healthcare into the future

San Vicente is confident it can meet the changing needs of its healthcare services by partnering with Team IT and HPE.

The hospital is banking on HPE to give it all the support it needs to continue to effectively run its SAP and non-SAP environments—and enable it to deliver excellent and effective healthcare into the future.

"We hope the HPE GreenLake solution will continue to grow and allow us to satisfy the IT needs of the hospital," concludes Flórez Osorno.

Solution

HPE GreenLake Platform

- HPE GreenLake cloud services

HPE Pointnext Services

- Transformation services for SAP HANA
- HPE Education Services
- Advisory and Professional Services

Hardware

- HPE ConvergedSystem 500 for SAP HANA Scale-out Configurations
- HPE Synergy
- HPE 3PAR
- HPE StoreOnce with Veeam backup
- HPE ProLiant DL360 servers
- HPE StoreEver MSL6480 tape library

Software

- HPE OneView

Key partners

- Team IT

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