

Healthcare

# Improving health equity with VR technology

US Healthcare Organization

Using VR technology, this US Healthcare Organization teamed up with a medical specialty clinic in Ecuador to accelerate diagnoses and increase access to medical training.



Lenovo

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## **Who is this US Healthcare Organization?**

This academic learning healthcare organization in the United States strives to improve health for all. As part of this mission, it aims to generate and translate knowledge, train leaders in healthcare and biomedical sciences, and build centers of excellence that are recognized internationally.

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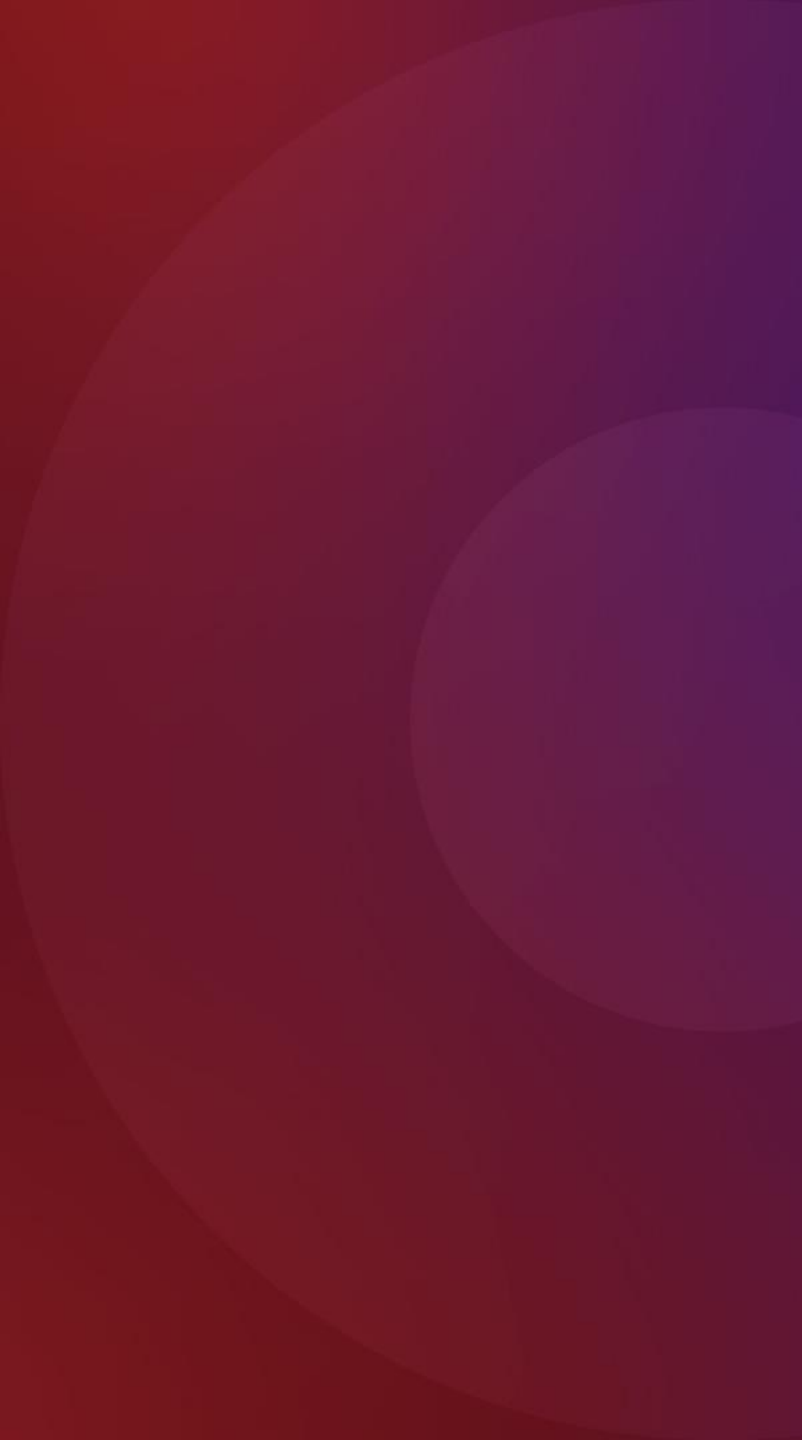
## The Challenge

Health is a fundamental human right, and yet people around the world have differing access to healthcare. There is a global shortage of specialists in virtually every health discipline, with many patients missing out on potentially life-saving interventions due to their location.

“If an Ecuadorian clinician trains in the United States, it takes several years to complete their studies and then several more years to train others back home. And in the current geopolitical climate, it’s not always easy to transfer knowledge from affluent countries to the rest of the world.”

**Spokesperson**

Medical specialty clinic in Ecuador



Technology holds the potential to level the playing field. In 2022 and 2023, the US Healthcare Organization saw an opportunity to extend the impact of its own highly trained medical staff by teaming up with a medical specialty clinic in Ecuador.

A spokesperson from the clinic explains: “There is a worldwide knowledge gap between affluent countries and developing countries. We simply don’t have access to the same level of training that people in wealthy countries do, leading to a lack of specialists in disciplines such as radiology. We had long depended on colleagues at the US Healthcare Organization to consult on cases at the clinic via video call or SMS—but we wanted a more far-reaching approach.”

# Bringing a virtual reading room to life

The US Healthcare Organization teamed up with Lenovo and Lenovo partner Luxsonic Technologies Inc. to harness virtual reality (VR) technology to enable its clinicians to better collaborate with their colleagues in Ecuador.

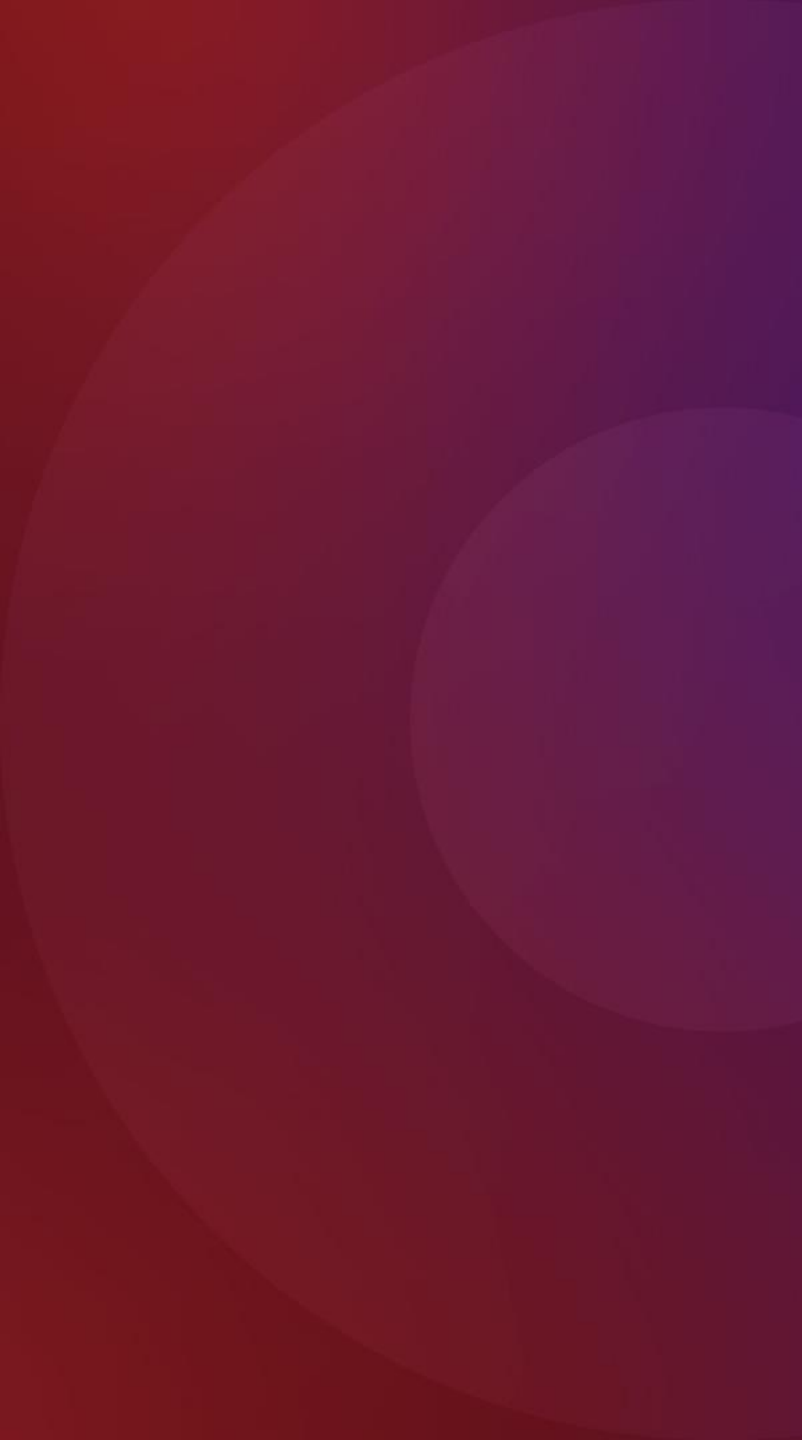
Using Lenovo workstations, VR headsets from Lenovo partner Varjo, and the Luxsonic Virtual Imaging software platform shipped to both the medical center in the US and the clinic in Ecuador, the solution enabled users to work together in a simulated radiology reading room.

## Hardware

Lenovo workstations  
Varjo VR Headsets

## Software

Luxsonic Virtual Imaging platform



A spokesperson from the US Healthcare Organization says:  
“The reading room plays an essential role in diagnosing patients and training upcoming radiologists. Working with Luxsonic, we were able to recreate this in VR and, even better, the immersive headsets blocked out all distractions so that we could totally focus on the case at hand. It replicates the specific lighting and resolution of FDA-certified PACS monitors, providing a relatively cost-effective alternative to buying the expensive equipment required in physical reading rooms.”

# Why **Lenovo**?

The Varjo VR headsets offer high performance and resolution combined with light, compact hardware, allowing for easy transportation. When combined with Luxsonic software and Lenovo workstations, the solution transforms 2D images into 3D, which enables radiologists to see crucial details such as volume and depth in the anatomical scans to drive more accurate diagnoses.

The US Healthcare Organization spokesperson adds: “The beauty of the VR solution is that it truly simulates reality. You can respond to people naturally and use built-in features such as virtual laser pointers to collaborate effectively. It’s so cool to see VR delivering real-world benefits.”



## Benefits today and tomorrow

Using the Luxsonic Virtual Imaging solution, clinicians and trainees from the US Healthcare Organization and the clinic in Ecuador were able to meet to inspect medical images. As a result, physicians in Ecuador could get expert opinions on urgent cases and give their teams exposure to a wider range of medical scenarios than ever before.

The US Healthcare Organization spokesperson comments: “I did my radiology residency in Quito, Ecuador before coming here for my fellowship, so I have experienced training in both the US and Ecuador. In Ecuador, we lack the resources to scan as many people as they do in the US, which limits the number and types of cases you get to see in real life. The VR solution opened a new horizon, giving the team in Ecuador the ability to consult with clinicians in the US more effectively and putting unprecedented knowledge at their fingertips.”



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“As far as I know, this project is the first of its kind. Thanks to VR from Lenovo and Luxsonic, we were suddenly able to have access to more extensive training, and an option for real-time assistance in critical cases. This could be the first step in addressing health inequity in Ecuador, and for increasing educational opportunities around the world.”

**Spokesperson**

Medical specialty clinic in Ecuador

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## Results

By enabling faster, more accurate diagnoses and treatment, the VR solution helped the clinic in Ecuador enhance patient outcomes.

The clinic spokesperson provides an example of how it helped save lives: “We had a patient whose brain was inflamed from drug use. I suspected toxic leukoencephalopathy but wasn’t confident in the diagnosis as it’s a rarity in Ecuador. Within half an hour we had a team from the US Healthcare Organization inspecting the scans with us who confirmed my suspicions—you can’t buy that level of knowledge.”



Accelerated potentially life-saving diagnoses and improves treatment accuracy, leading to better patient outcomes



Enabled effective remote training of more people, helping to close the knowledge gap



Offered a repeatable model to address widespread health inequity

## Partner perspective: Luxsonic Technologies Inc.



“Lenovo offers the ideal foundations for our software—alongside their partner Varjo they provide market-leading VR technology that is designed for enterprise deployment, and they’re already embedded in the healthcare industry. Together, we’re embarking on projects such as the radiology initiative at this US Healthcare Organization and medical specialty clinic in Ecuador that will change the world. VR technology is now mature enough to be deployed in healthcare to have a real impact on clinical decision-making and diagnostic work.”

**Dr. Mike Wesolowski**

Founder and CEO, Luxsonic Technologies Inc.

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# How can hospitals improve global access to healthcare?

This US Healthcare Organization used VR from Lenovo and Luxsonic to speed diagnoses and training for an Ecuadorian clinic.

[Explore Lenovo VR Solutions](#)