



# IntriHEALTH® and Client Outlook Advance Healthcare in Africa by Enabling Fast Access to Diagnostic Quality Images

## AT A GLANCE

**Client:** IntriHEALTH® is delivering innovative imaging solutions to the people of Africa, empowering medical professionals to improve patient care.

**Environment A:** Large geographic areas served. Patients in Rundu, Namibia drive 8 hours one-way to Windhoek for image diagnosis.

**Environment B:** Extremely low clinician to patient ratio and poor infrastructure. Three radiologists serving 15 million people in Zambia with one fully functioning MRI,

**Solution:** Client Outlook's eUnity™ Diagnostic Enterprise Viewing and Collaboration Platform integrated with IntriHEALTH's Vendor Neutral Platform.

## Driving eight hours to deliver images for diagnosis

Providing healthcare in Africa has challenges which are not common in more developed parts of the world. Patients in places like North America and Europe are accustomed to referring physicians accessing imaging reports within minutes or hours of image acquisition. However, in developing countries, patients have a very different experience. Access to time sensitive diagnosis and treatment is critical to patient care, but typically reports are not available for days or even weeks.

## CHALLENGE:

- Providing patients with timely results by enabling healthcare providers with quick and reliable access to diagnostic quality medical images from acquisition to reporting in South Africa, Zambia and Namibia.

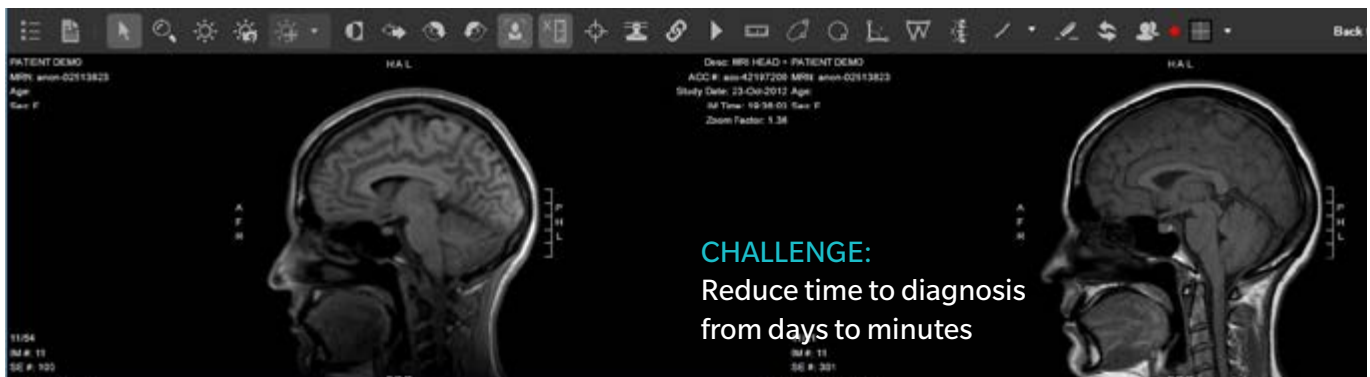
## SOLUTION:

- eUnity - a zero-footprint diagnostic enterprise image viewing solution integrated into IntriHEALTH's vendor neutral platform enables fast, reliable and efficient access to diagnostic quality images, resulting in improved patient outcomes.

## RESULT:

- Reducing the availability of patient results in Zambia from 10 days to mere minutes
- Studies are now available on radiologist worklist within minutes of acquisition.
- Fully eliminated the need for patients to drive 8 hours for image diagnosis. Images and reports are now made available to clinicians within an hour of acquisition.
- Improvements in patient care and an increase in the number of patients who can be scanned and diagnosed

The town of Rundu, Namibia is located on the border of Angola, has a government run hospital and a private hospital, Rundu Medical Centre that can acquire radiology images. However, the closest radiologist is an 8-hour drive away. Due to the lack of technical infrastructure, exams needed to be physically driven to Windhoek, the capital of Namibia. This 8-hour drive is generally the responsibility of the patient and their families. Once the patient and images arrived in Windhoek, there was another waiting period at the private clinics, and at the hospital. Patients often needed to stay the night before driving back to Rundu with their results. When health issues are being investigated, the long drive and the waiting are emotionally stressful and physically tiring for patients and family members.



## Supporting a population of 15 million with 3 radiologists

When it comes to providing the best care, limited resources challenge the healthcare system in Africa, and that directly impacts its ability to provide advanced healthcare services to patients. African countries do not have the technology infrastructure fundamentally required to support most of the advanced healthcare solutions available in today's market. Internet is not readily available, and when it is available, bandwidth is at best minimal and inconsistent. Power outages occur numerous times throughout the day, shutting down computers, servers and equipment. These complex challenges are not just limited to technology. Lusaka, the largest city and the capital of Zambia, a country of 15 million, is home to one of the few fully functioning MRI's in the country and has a very limited number of radiologists for the entire Zambian population.

"The people of Africa and other emerging countries need a healthcare system that provides them with improved access to healthcare services. We need a solution that works in an environment with limited resources. Our providers need access to diagnostic quality images by using a system that can effectively handle the infrastructure," explains Mike Simpson, CEO, IntriHEALTH. "We have partners that are innovative and focused on providing technologically based solutions that advance healthcare and provide timely patient care. For a solution to be successful in our market, it must be fast, simple to deploy and highly resilient."

IntriHEALTH is focused on providing an end-to-end solution for Radiology from a single platform. By using world-class software, exceptional system integration and a highly-sophisticated back-end, IntriHEALTH offers a complete solution.

Their 4-tier process incorporates ingesting different types of data formats, directly from any radiology network, PACS, and all modalities types. The data is then, archived and securely stored in two separate vendor neutral data center. Patient information is accessible through IntriHEALTH's data distribution platform, enabling a free flow of clinical data over a secure network. And finally, the ability to diagnose and provide reports for radiologists, clinicians and patients.

eUnity - a zero-footprint diagnostic enterprise image viewing solution is an important part to this offering, ensuring healthcare providers can access images from any location, on any device

## Intelligently using technology to improve patient care

With IntriHEALTH, Simpson's strategy continues to be the implementation of a solution that is comprised of best of breed components, vendor neutral solutions, where speed and patient care are fundamental to the offering. The solution must be resilient to effectively handle multiple power outages in any given day. Ensuring radiologists have quick access to diagnostic quality images is vital to improving the healthcare system in Africa. "We cannot afford heavy server hardware where re-booting the system is cumbersome, complex and difficult to deploy. We need a solution that intelligently uses technology to improve patient care," says Simpson.

IntriHEALTH was looking for a diagnostic enterprise image viewing solution that could easily integrate with their vendor neutral platform, was simple to manage and deploy, highly resilient, and provided its radiologists access to diagnostic quality images quickly and effectively, regardless of where the images are acquired and the infrastructure in place.

### SOLUTION

## Around the world 1.5 times to find the right image viewing platform

The IntriHEALTH team began their search and embarked on a journey that took them around the world 1.5 times. Their needs were very specific and improving the quality of patient care was of utmost importance. After many solution trials, and after implementing other solutions, IntriHEALTH was introduced to eUnity, Client Outlook's diagnostic enterprise image viewing platform. IntriHEALTH quickly realized that eUnity was the best platform to address the unique and difficult challenges faced by their market.

"We found eUnity to meet our technical and clinical needs," said Christoph Coetzee, CIO, IntriHEALTH. "By previously implementing and evaluating other universal viewers, we were burdened with solutions that were cumbersome to manage. Unlike the other solutions, eUnity allows radiologists to view diagnostic quality images during image manipulation. This is critical to diagnosing in low bandwidth scenarios because the radiologist is confident they are viewing full quality images. This clearly has a positive impact on user experience and on patient care. eUnity is perfectly designed to support rural locations."

## Incomparable speed and performance

Client Outlook proved to be an innovative organization that is solely focused on advancing healthcare. "eUnity is an exceptionally fast viewer, its speed and performance are incomparable. eUnity effortlessly managed the power outages and was by far the most resilient zero-footprint diagnostic enterprise image viewing solution. And the rich clinical feature-set exceeds our needs," says Mike Simpson. "Travelling to manage and deploy solutions is not an option for us. It is a two-hour flight with an overnight layover in Windhoek, then another flight just to reach Rundu airport. There is no car rental service and prearranged car services are required. eUnity does not require any complex hardware and it works in a virtual machine environment, making it easy to deploy and simple to manage. This is exactly what we needed. "



## Reasons why IntriHEALTH selected eUnity as their image viewing platform

1. eUnity is easy to deploy and simple to manage. Since eUnity does not require any complex hardware, and it supports a virtual machine environment, resulting in a very small hardware footprint.
2. eUnity is a very resilient imaging platform based on a virtual machine infrastructure. With the implementation of a cache, radiologists are not impacted by power outages. They can continue to create reports on the IntriHEALTH TeleRadiology System, integrated with eUnity by accessing images in the cache. This ensures patient care is not impacted. If an eUnity server is affected by the power outages, it flawlessly powers up once power is restored. No other viewer could perform with these results.
3. Client Outlook is an innovative organization that is truly focused on advancing healthcare by providing a fast, robust and reliable image viewing platform. By focusing on the foundations first and providing a rich clinical feature-set, eUnity is a superior image viewing platform.



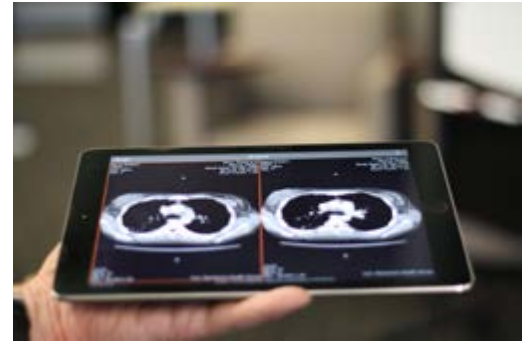
## RESULT

In just the first six months since eUnity was implemented, the impact has been phenomenal. In Lusaka, where the turnaround for reports was up to 10 days, has been reduced to mere minutes. The study is available on the radiologist's worklist within minutes after acquisition. Reports are available to the clinicians shortly after they have been reported on the IntriHEALTH TeleRadiology System, all within an hour. Implementing eUnity in Lusaka has resulted in a remarkable impact on patient care. Patients have access to time sensitive information and can begin treatment in a timely manner. "Fast access to diagnostic quality images is critical to ensure radiologists are able to quickly provide reports, significantly improving patient care," said Simpson.

"The IntriHEALTH TeleRadiology System together with eUnity has made a positive impact on my ability to diagnose studies" said Dr. Swartzberg. "I can review studies from any location, on any device by quickly accessing diagnostic quality images. By using eUnity, I can then provide reports in a timely manner, resulting in a level of service that was not possible before."

In Rundu, with the implementation of eUnity as the zero-footprint diagnostic viewer, IntriHEALTH has been able to eliminate the need for patients to drive 8 hours and provide reports within one hour from the time of image acquisition. This is an extraordinary improvement to the level of patient care that is critically needed.

"We are not just seeing an improvement in reducing the turnaround for reports to be available," explained Simpson. "We are also seeing an increase in the number of patients that can be scanned and diagnosed. eUnity is the system that meets the needs of our patients, works in our infrastructure, with our challenges and is very reliable." Simpson further added, "Client Outlook has been a great team to work with, providing the support we require. We are extremely pleased with the clinical functionality and the robust technology of eUnity. We are looking forward to advancing healthcare through the use technology with eUnity and Client Outlook being a critical piece."



To find out more about the power of the eUnity universal viewing and collaboration platform, visit [www.clientoutlook.com/eunity-platform/](http://www.clientoutlook.com/eunity-platform/)

# Client Outlook Inc.

Client Outlook is a healthcare company first, a technology company second. Driven by our own personal healthcare experiences. We challenge ourselves every day to develop and deliver practical, useful and secure clinical mobility solutions for physicians and frontline healthcare professionals – right where healthcare happens. For more information about our company and our eUnity product suite, visit us on the web at [www.clientoutlook.com](http://www.clientoutlook.com)

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