

A world under threat fights back with AI.

"We decided to offer our AI solution to healthcare professionals to identify lung disease more rapidly and save lives. By collaborating with Dell Technologies OEM Solutions, we were able to promptly provide our solution to the market in more than 10 countries."

Minhong Jang
Chief Business Officer, Lunit

Situation Analysis

Applying AI to tackle a global healthcare issue.

Lunit, based in Seoul, South Korea, is a medical artificial intelligence (AI) software company focused on conquering cancer using advanced medical technology. Its AI-powered solutions for cancer diagnostics and therapeutics can potentially save time and lives.

Lunit developed Lunit INSIGHT CXR, an innovative AI solution for chest X-ray analysis that detects thoracic lesions such as nodule, mass, consolidation and pneumothorax. Using the AI solution, physicians can make early diagnoses of lung cancers and respiratory diseases from X-ray examinations. Internal studies show Lunit INSIGHT CXR can significantly improve the diagnostic performance of both radiologists and non-radiology physicians by up to 20 percent.

Enabling faster healthcare outcomes.

The business wanted to realize the global potential of Lunit INSIGHT CXR in providing faster treatment for cancer and other diseases. Furthermore, healthcare providers would gain a solution for helping prioritize patients in emergency wards, detect pneumonia cases and monitor the progression or regression of disease once identified.

Supporting the global healthcare community.

Lunit released a free, online version of Lunit INSIGHT CXR making it accessible to anyone in the global healthcare community. News spread of its availability, and web traffic to the online version quickly quadrupled—highlighting the worldwide need for such a solution.

Design Partnership

Appliance version of Lunit INSIGHT CXR is launched with the support of OEM Solutions.

After witnessing the healthcare community's response to the online version, Lunit decided to release a state-of-the-art appliance edition of the Lunit INSIGHT CXR solution. Lunit looked for a technology provider that could launch its appliance version into the market without delays. Ultimately, it chose Dell Technologies OEM Solutions for its agility and the ability to leverage Dell Technologies global engineering, supply chain management expertise and Intel-based technology.

Lunit creates a global solution with OEM Solutions tailored to the needs of front-line workers.

- Healthcare workers select from a range of appliance sizes—based on different Dell Precision workstation platforms—to match the size of their local communities and possible patient-intake numbers.
- For the breakthrough performance needed for Lunit INSIGHT CXR's AI software, the workstations include Intel® Core™ processors alongside NVIDIA Quadro GPUs.
- To reduce delivery lead times, OEM Solutions pre-installs software images at the Dell Technologies factory as soon as the workstations are completed.
- Lunit maximizes the product life cycle of Lunit INSIGHT CXR with the OEM XL

extended product life, which gives Lunit time to make any final adjustments to the solution before delivery.

- To avoid shipping delays, OEM Solutions also provides assistance with compliance and regulatory requirements around medical-device licensing and certification.
- Regular meetings allow Lunit to be looped into technical and supply updates from OEM Solutions. The meetings also cover delivery schedules to ensure Lunit's expectations are met.
- Healthcare providers worldwide can deploy Lunit INSIGHT CXR assured that if issues with the hardware platform occur, Dell Technologies will handle them by the next business day, minimizing disruption.

Outcome

Building a solution for humanity.

At a time when lung cancers and respiratory diseases remain a leading cause of death and disability across the globe, AI has risen to the challenge in helping countries identify people for potentially life-saving treatments. With Lunit INSIGHT CXR supporting healthcare providers, people who are suspected of having serious illness are diagnosed faster than ever before and with a higher degree of accuracy.

From day one, getting solutions like Lunit INSIGHT CXR into the market without delay has been crucial, and Dell Technologies OEM Solutions is helping Lunit to expedite deliveries of the appliance, increasing survival rates. What's more, with the Lunit appliances playing such an important role for diagnostic teams, peak performance has to be maintained. Hence, if any issues with the hardware do ever arise, Dell Technologies engineers will be onsite within 24 hours.

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