

Business needs

To deliver cloud-based AI services to make advanced AI education and research accessible nationwide — including digital textbooks with AI chatbot tutors for South Korean students — Elice had to build a portable modular data center (PMDC) that could meet requirements for performance, energy efficiency, compact design and governance compliance for sovereign AI initiatives.

Business results

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Serves over 5,400 South Korean institutions, upskilling more than 2.6 million people with Al knowledge.



Provides a scalable, affordable and secure data center model for AI education and cloud innovation.



Safeguards data via an Al infrastructure with built-in security and compliance with ISO global standards.



Nearly twice as efficient as the average data center in South Korea, with Power Usage Effectiveness (PUE) of 1.27.



Drives AI talent development so South Korea can meet its workforce technology upskilling requirements.

Solutions at a glance

- Dell AI Factory with NVIDIA
 - Dell PowerEdge XE Series
 Servers with NVIDIA Tensor
 Core GPUs
- <u>Dell PowerEdge Accelerated</u> <u>Rack Servers</u>
- Dell PowerVault Storage



D&LLTechnologies



Equips South Korean students with digital textbooks and AI chatbot tutors that provide personalized guidance.

Al adoption rates are impacting the ability of nations to compete globally, especially in manufacturing. However, traditional learning models are unable to provide millions of learners across organizations, government agencies, schools and universities — with the technologies needed to effectively learn how to develop and use AI to solve problems and boost efficiency. Elice saw this educational need as a golden opportunity and created the first AI learning experience platform in South Korea, Elice LXP.

Success soon required Elice to provide a virtually limitless number of individual learners across the country and beyond with cloud-based Al-powered education tools and high-performance Al learning environments. Much of the demand for Elice's all-in-one digital educational platform was coming from South Korea's educational system, which continuously reviews how to integrate advanced digital tools to facilitate leading learning environments. Elice CEO Mr. Jae-won Kim, explains, "Developing the talent South Korea needs to meet its workforce requirements calls for digitally transformed classrooms, ones that offer secure, individual, virtual environments for all students, that can be managed most efficiently, so they can learn AI, data analytics and other technologies."

To achieve its goals, Elice had to build a new, highly scalable data center and IT infrastructure to support its Elice LXP as well as its Elice Cloud, an on-demand GPU-as-a-Service offering for Al learning, research and development. The solutions had to be highly secure, affordable and energy-efficient.

Driving AI success with an integrated solution

Elice engaged Dell Technologies and NVIDIA to help build its portable modular data center (PMDC) and Elice Cloud platform using the Dell AI Factory with NVIDIA. The infrastructure includes Dell PowerEdge XE-series servers equipped with NVIDIA Tensor Core GPUs. To process AI workloads and

high-performance computing capabilities, Elice implemented Dell PowerEdge accelerated rack servers. Additionally, Dell PowerVault storage ensures reliable performance, affordable capacity and simplified operations.

"Dell Technologies and NVIDIA are the top companies and provide the best support," Mr. Kim says. "With their assistance, we were able to deploy our PMDC in three months and quickly provide our customers with the Al-enabled services they need to upskill their workforces and deploy AI in their workflows."

Improving nationwide education

Elice is now facilitating South Korea's first implementation of digital, Al-enabled textbooks to classrooms. "With our Elice Cloud and partnership with Dell Technologies and NVIDIA, we're delivering digital textbooks to students in South Korea," Mr. Kim says. "Each textbook includes an AI chatbot that gives every student a customized tutor for immediate, tailored guidance and feedback, which frees teachers' time to focus on advancing their instructional models."

Today, more than 2.6 million users from over 5,400 organizations are engaging Elice to advance Al research and development. Not only can they use Elice LXP for digital learning but they can also use scalable, high-performance Elice Cloud services to run large-scale natural language processing, recommendation engines and neural network applications used in machine learning and test environments.

Reducing AI costs and energy requirements

By building its PMDC with Dell Technologies and NVIDIA, Elice has made AI research and education more affordable. "GPU environments can be very expensive, which creates a barrier for Al learning and advancement," Mr. Kim says. "The Dell Al Factory with NVIDIA helped us provide affordable GPU environments including GPU-as-a-Service in our Elice Cloud to help upskill workforces with AI know-how."



With the Dell Al Factory with NVIDIA, we can host nations' sovereign Al requirements on scalable and secure infrastructure."

> Jae-won Kim. CEO, Elice



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Jae-won Kim, CEO, Elice



Elice's PMDC allows for modular elastic infrastructure expansion, minimizing idle resources and maximizing compute utilization for a smaller footprint, lower power consumption, and reduced operational costs. With a Power Usage Effectiveness (PUE) rating of 1.27, Mr. Kim notes, "Elice's PMDC, powered by the Dell AI Factory with NVIDIA, is about twice as efficient as the average data center in Korea." This supports Elice in implementing AI solutions with sustainability in mind, while also reducing carbon emissions.

Meeting the security goals of countries and institutions

Elice solutions comply with global ISO cybersecurity standards and the company has a Cloud Security Assurance Program (CSAP) SaaS and IaaS certification. This means Elice meets information protection standards and is capable of providing cloud services to local governments and public institutions. "Government ministries and academic institutions require the most secure cloud infrastructure," Mr. Kim says. "Thanks to our collaboration with Dell Technologies and NVIDIA in building the PMDC, we can successfully meet these security requirements."

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Elice can now address the increasing demands of national governments that prioritize control over AI ecosystems to ensure data security, ethical alignment and local innovation.

Mr. Kim says, "With the Dell AI Factory with NVIDIA, we can host nations' sovereign AI requirements on scalable and secure infrastructure," noting that Elice will soon market its AI services to other East Asian nations.

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