



Korea Education and Research Information Service (KERIS) (2021–2024)

— Public Sector

Deployment of 4th Generation Intelligent NEIS Infrastructure (Phases 1, 2, 3)

Client Overview

Korea Education and Research Information Service (KERIS) is a public institution under the Ministry of Education (MOE) dedicated to digitalizing education and academic research, from pre-school to higher education. As a key MOE affiliate, KERIS ensures the efficient, centralized management of national educational data. The MOE Central Management Center and 17 Metropolitan/Provincial Education Centers operate the National Education Information System (NEIS). This centralized platform facilitates education administration and learning management across 20,200 schools (pre-school through high school), 17 provincial offices, 176 district offices, 23 overseas Korean schools, and 400 universities.

Deployed Products & Services

eyeCloudSIM v3.0 – LMS

(Integrated Log Management Solution)

Background

The 4th Generation NEIS initiative aimed to streamline faculty workloads, drive digital education innovation, and future-proof educational environments. However, managing vast educational datasets presented persistent challenges in integrated log management and heightened security requirements.

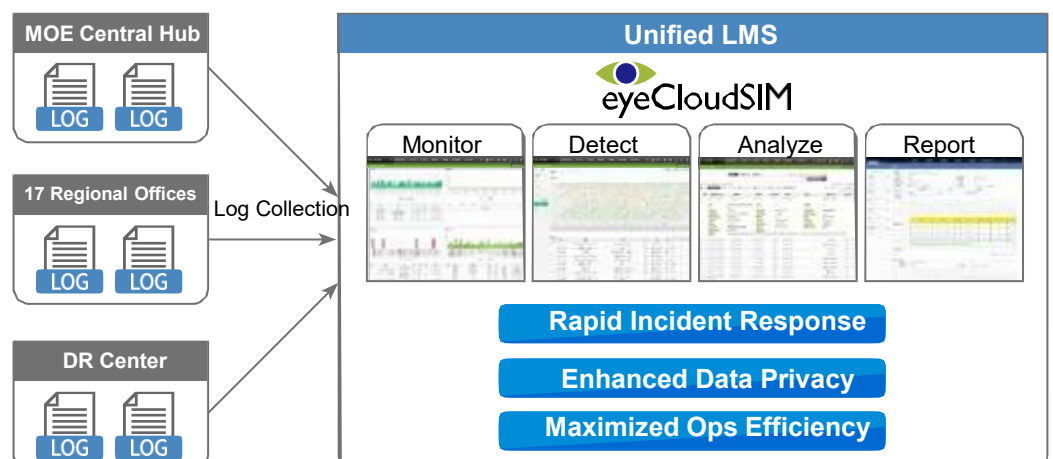
To address these, KERIS deployed LMS (Log Management System) to centralize the collection and storage of massive security logs generated across the educational administration system. This deployment ensured efficient log management and rapid detection and response to operational failures and security threats.

Consequently, KERIS significantly fortified security and ensured stable service delivery maximizing the reliability and operational efficiency of the 4th Generation NEIS framework.

Jan 2021 – Dec 2024

Project Period

Concept map



Solution

Strengthening Operational Efficiency through Centralized Log Management

To align with the 4th Generation NEIS overhaul, KERIS deployed eyeCloudSIM to ensure stable security log collection and analysis across 17 regional offices and 200 educational institutions. The legacy system faced limitations in real-time log retrieval, long-term storage, and rapid incident response.

Post-deployment, 2,050 agents (regional offices, the Central Hub, and Sejong and Daegu DR centers) were established via a Central Management Platform (CMP). This infrastructure automates the centralized collection and storage of nationwide logs, enabling instantaneous analysis through a high-speed search engine.

Consequently, root cause analysis time was reduced, and proactive threat detection was realized through automated event monitoring. To ensure regulatory compliance, KERIS implemented encrypted storage and anti-forgery mechanisms to guarantee log integrity, while reinforced access controls significantly elevated data privacy standards.

For administrative efficiency, customized dashboards provide real-time monitoring of critical events, with advanced search and filtering capabilities ensuring rapid access to essential log data.

Through these advancements, KERIS has established a systematic framework for security log management of nationwide educational institutions, enabling early detection and response of security threats via real-time analysis.



Benefit

Realizing Digital Transformation to Enhance Stability and Security

As part of the 4th Generation NEIS overhaul, KERIS innovated its security log management framework to proactively address escalating threats and ensure a stable information environment for nationwide educational institutions. By transitioning from fragmented legacy systems to a centralized, real-time analytical architecture, KERIS significantly fortified security and operational efficiency.

Post-deployment of eyeCloudSIM, the previous manual, institution-level log retrieval and analysis were replaced by automated, centralized data collection. This transition enables instantaneous root cause analysis and rapid retrieval of massive datasets through high-speed search engines, drastically streamlining operations.

Administratively, improved log analysis and retrieval speeds reduced faculty workloads. Customized dashboards now facilitate intuitive real-time monitoring of critical logs across the MOE and regional offices, ensuring rapid data access. Furthermore, the implementation of encrypted storage and anti-forgery mechanisms ensures log integrity, elevating data privacy and regulatory compliance.

Through this deployment, KERIS has established a robust framework to effectively manage nationwide security logs, maximizing operational efficiency and incident response capabilities.



Summary

1. Deployment of a Unified SIEM Optimized for CMPs across 17 Regional Offices
2. Ensured Service Continuity and Stability via Intelligent Cloud Infrastructure
3. Enhanced Data Privacy through Log Integrity and Regulatory Compliance