

Modernizing Campus Connectivity of the American University of Iraq



About AUIS

Founded in 2007, the **American University of Iraq, Sulaimani (AUIS)** is a non-profit, independent liberal arts university located in the Kurdistan Region of Iraq. AUIS offers a diverse range of undergraduate and graduate programs taught in English, combining an American-style liberal arts education with regional relevance.

With a growing student population and a commitment to digital learning, AUIS has made continuous investments in IT infrastructure to deliver a seamless, modern academic experience. Reliable, high-performance connectivity is a critical foundation for this vision.

Challenge: Legacy WLAN Instability

AUIS's previous Cisco-based WLAN infrastructure had become increasingly **unstable and difficult to maintain**. Despite having a perpetual license, a critical issue arose when the **Manufacture Installed Certificate (MIC)**—used for authenticating communication between access points (APs) and the wireless LAN controller (WLC)—expired.

The expired certificate caused APs to **fail registration with the WLC**, leading to widespread wireless outages across campus. Suggested workarounds were ineffective.

With no way to renew the expired certificates and increasing pressure to restore reliable wireless services, AUIS needed an **immediate replacement** for its outdated wireless infrastructure—one that was **secure, scalable, and future-ready**.

Solution

To address these challenges, AUIS partnered with **Pine Networks** to design and deploy a modern campus WLAN network. Pine Networks proposed an **Edgecore Networks Wi-Fi** that offered superior performance, cost efficiency, and flexibility.

The wireless upgrade included the latest **Edgecore Networks Wi-Fi 6 and Wi-Fi 7 access points**, supported by centralized management:

- **EAP102** – Wi-Fi 6 access points
- **EAP105** – Wi-Fi 7 access points
- **EWS5203 WLAN Controller** – Centralized configuration, monitoring, and optimization



Edgecore WLAN Access Points and Controller

In addition to the WLAN upgrade, AUIS replaced its distribution layer switch with a **SONiC-based open networking switch**, enabling greater control, scalability, and long-term adaptability.



Edgecore AS5835-54X switch (48 x 10G and 6 x 100G ports)

Results: Seamless Transformation

The partnership with Pine Networks delivered **transformational results**:

- **Next-Generation Wireless:** A seamless leap from Wi-Fi 4 to Wi-Fi 6 and Wi-Fi 7, delivering dramatically improved coverage, speed, and device density.
- **Cost Advantage:** Edgecore's solutions, combined with Pine Networks' lean integration approach, provided significant savings compared to traditional vendors.
- **End-to-End Support:** Pine Networks offered **dedicated technical assistance** before, during, and after deployment, ensuring long-term reliability and success.
- **Future-Proof Design:** AUIS now operates a **license-free, scalable, and high-performance wireless infrastructure**, ready to support modern digital learning needs.

Customer Testimonial

"When I joined AUIS as a Network Administrator in 2024, I found that earlier attempts to replace Cisco's outdated wireless infrastructure had failed due to high costs and restrictive licensing.

Pine Networks stood out for their responsiveness, professionalism, and genuine ownership of our challenges. A sudden MIC certificate expiration forced us to accelerate deployment, and Pine Networks delivered seamlessly.

Thanks to Pine Networks and Edgecore, we now have a modern, license-free, and future-proof wireless infrastructure that fully supports the evolving needs of our campus."

– Daro Karim, IP Network Engineer, American University of Iraq, Sulaimani

About Pine Networks

Pine Networks helps educational institutions, service providers, and enterprises modernize their networks with **open, flexible, and high-performance solutions**. With expertise in **open networking, whitebox hardware and disaggregated software**, Pine Networks delivers cost-effective deployments and provides continuous, hands-on support tailored to each customer's needs.

