

Creating High-Impact, Advanced AVoIP Conference Experiences

Overview

SENICT Technology, a leading ICT systems integrator in Taiwan, specializes in smart command centers and cloud communication platforms. To demonstrate their advanced solutions to clients more effectively, SENICT needed to create a high-performance audiovisual environment at its headquarters in Taipei.

To meet this demand, Zyxel Networks partnered with Cypress Technology to deliver a comprehensive AV over IP (AVoIP) solution. This collaborative solution leverages Zyxel Networks' high-performance switches and Cypress's HyLinX technology to enable seamless, high-definition 4K60 content distribution across multiple screens, significantly enhancing both internal collaboration and client demonstration experiences. The system supports a wide range of inputs, including PTZ cameras and wireless presentations, to create a flexible hybrid meeting environment.

Challenges

To showcase its latest solutions at headquarters, SENICT required an advanced, high-performance audiovisual environment. Achieving this, however, presented several technical challenges to delivering an optimal experience.

High-resolution AV transmission required stable networks with high bandwidth, as even minor delays or packet loss could disrupt video quality. Real-time applications demanded ultra-low latency to keep audio and video perfectly synchronized, ensuring seamless meetings and demonstrations. The system also needed to support future expansion without major rewiring and remain compatible with new devices. On top of that, sharing the network with general data traffic posed risks of interference and security, requiring careful traffic management and access control.

Customer

SENICT Technology

Industry

ICT Systems Integration

Location

Taipei, Taiwan

Partner

Cypress Technology

Customer Background

SENICT Technology has over 40 years of experience in ICT systems integration, specializing in network switching and data networking. The company provides wireless and wired communication and system integration solutions, including environmental control, lighting, and access control, and low-voltage cabling for surveillance systems.



Solutions



Recognizing the need for a stable and scalable network, SENICT implemented an integrated AV over IP solution delivered in partnership with Zyxel Networks and Cypress Technology. This partnership combines Cypress's expertise in video processing with Zyxel Networks' robust networking infrastructure to ensure stable, low-latency 4K transmission and high-impact performance for both meetings and solution demonstrations.

At the core of the network, Zyxel Networks' XS3800-28 switch offers a dedicated Networked AV mode. The switch's interface wizard and built-in AI function simplify complex configurations, enabling rapid deployment of a professional-grade AV over IP network. A dedicated dashboard provides real-time visibility into key network parameters, including IGMP and IP settings, enhancing network management efficiency.

Besides, Zyxel Networks' GS1900-8 smart managed switch aggregates and forwards AV data from eight HyLinX encoders to six decoders, maintaining stable transmission across the system. The switch's intuitive web interface enables the IT team to deploy, configure, and manage the network efficiently.

The GS1900-8 and XS3800-28 switches support centralized routing control, status monitoring, and unified management. They significantly improve system scalability, operational efficiency, and long-term flexibility. Strengthened network security, through traffic isolation and secure access control, protects against potential interference or unauthorized connections.

Product List

-  • XS3800-28 L3 Aggregation Switch
-  • GS1900-8 Smart Managed Switch

Results

With Zyxel Networks' high-performance switches in place, Cypress Technology's HyLinX system performs at its best. The switches deliver reliable, low-latency 4K multi-screen displays while ensuring secure traffic separation. This optimized network architecture ensures consistent image quality, stable operation, and centralized management, providing immediate reliability and the flexibility to scale for future expansion. Built-in network traffic separation and access control further enhance data security, safeguarding sensitive information while supporting high-quality demonstrations and collaborative meetings.

- Stable, low-latency 4K60 AV over IP transmission for high-quality demonstrations and collaborative meetings
- Scalable architecture supporting future expansion without major rewiring
- Enhanced data security through network separation and access control

