iQuila IN HIGHER EDUCATION

OUR CHALLENGE

Our university needed an optimal solution for connecting multiple remote campus sites back to the central data centres. We sought a secure and user-friendly remote access solution for faculty and students that wouldn't require significant changes in user connection settings or increase IT support requests.

KEY CHALLENGES

Resilience

Security

Latency and speed of connections

Delivering multiple VLANs to remote campus buildings

Consistent 1500 MTU across all connections

Simple deployment and management

Cost

THE SOLUTION

The deployment of iQuila Enterprise addressed all the University's requirements.

KEY BENEFITS

Resilience
iQuila Enterprise offers High Availability (HA) and clustering. We deployed two iQuila Enterprise servers in HA, one in each of the two data centres. This setup can be easily expanded by adding member servers to manage the load as needed.

Security
iQuila provides robust security options, supporting encryption levels from 256-bit up to 4096-bit, ensuring secure data transmission.

Latency and speed of connections
iQuila supports low latency and high speeds up to 1Gbps on all connections, making it ideal for connecting remote campus buildings and users. With only a 4% overhead, connections remain fast with minimal latency.

Delivering multiple VLANs to remote campus buildings
iQuila's capability to deliver a full native Layer 2 network and multiple VLANs was a perfect fit. We can now deploy an iQuila bridge at the remote buildings and tag the required VLANs. This simplifies installation and management, providing better network visibility for troubleshooting. The solution also allows backup WAN links at remote sites, seamlessly switching WAN connections if one becomes unavailable without the need for complex Layer 3 routing, and fixed IP address on WAN connections.

Faculty and students
The iQuila solution includes client connection software that is easy to distribute and automate through various methods, including RADIUS. This makes it simple for faculty and students to use. Security policies allow selected groups of users to be assigned to specific VLANs, utilizing the campus DHCP for simpler management and enhanced security.

Consistent 1500 MTU across all connections:
Maintaining a 1500-byte MTU is crucial for network performance and efficiency, allowing better throughput and lower latency. Since 1500 bytes is the standard MTU size for Ethernet, adhering to this standard ensures seamless interoperability between different network segments, devices, and vendors, maintaining a robust and reliable network infrastructure.

Simple deployment and management
The iQuila solution is straightforward to deploy and manage. The iQuila VEN protocol delivers Layer 2 networking without the need for complex routing. Simply authenticate the iQuila bridge, select the required VLANs, and the site is operational. With a single management interface, all sites and users can be easily monitored and controlled.

By deploying iQuila Enterprise, the university successfully enhanced network resilience, security, and performance while simplifying management and maintaining cost-effectiveness.