



# UNION CHRISTIAN COLLEGE ALUVA-2



**SSR 5<sup>th</sup> CYCLE 2023** 

**Criterion 4**

**4.3.1 IT Infrastructure- WiFi Access**



## WiFi Access at Union Christian College, Aluva

The WiFi network at Union Christian College, Aluva, is designed to provide internet connectivity to students, faculty, and staff members across the campus. The network infrastructure is equipped with SOPHOS XGS3100 Firewalls, capable of accommodating a large number of users. Below are the details of the WiFi access setup and the devices involved:

### Main Campus WiFi Network:

- Firewall: SOPHOS XGS3100
- Capacity: Accommodates up to 3000 users
- WiFi Access Points: 39 units
- Network Switches: 38 units
- WiFi Routers: 25 Points
- Coverage: Provides seamless internet access across the main campus area, including academic buildings, library, administrative blocks, and common areas.
- Users: The WiFi network serves 2726 students, 139 teaching faculty in the aided stream, and 46 non-teaching staff.

Firewalls ensures smooth and secure internet access for the entire campus, with enough capacity to handle the total number of users. The 39 WiFi access points are strategically placed to ensure comprehensive coverage across all areas of the campus, eliminating dead zones and ensuring a seamless user experience.

Additionally, LAN connectivity is provided for all postgraduate students, ensuring they have access to the network through wired connections in their respective hostels or designated areas.

Overall, the WiFi infrastructure at Union Christian College, Aluva, is well-equipped to meet the connectivity needs of its students, faculty, and staff members, promoting a conducive learning and working environment.

### Growth of WiFi Access at Union Christian College, Aluva (2018-2023)

In 2017, the college administration recognized the increasing demand for WiFi access and the need for enhanced security. We purchased the SOPHOS XG210 firewall to strengthen the network security infrastructure. This firewall provided robust protection against cyber threats and allowed for better management of internet access.

During 2018-2019 period, the college witnessed a steady growth in the number of students, faculty, and staff, leading to an increased demand for WiFi access. Additional WiFi access points were added in critical areas to improve coverage and accommodate the growing user base.

In 2020, the college took significant steps to upgrade its IT infrastructure to meet the escalating WiFi demands and enhance digital learning capabilities. The following key investments were made:

**Renewal of SOPHOS XGS3100 Firewall:** The initial SOPHOS XG210 firewall was renewed to ensure continued robust security and updated features for the network.



**Purchase of TCS (Total Campus Solutions):** TCS is a comprehensive campus management software that streamlines various administrative processes, including admissions, attendance tracking, examination management, and more.

**Purchase of MOODLE:** Moodle is an open-source Learning Management System (LMS) that facilitates online course delivery, assignments, quizzes, and other e-learning activities.

**Addition of 21 WiFi Access Points:** To improve network coverage and performance, 21 new WiFi access points were deployed in different locations across the campus, including academic buildings, hostels, and common areas.

**LAN Connection for all PG Classrooms:** LAN connectivity was established in all postgraduate classrooms, enabling a reliable and faster internet connection for students and faculty during academic activities.

Over the last two years, the WiFi network continued to see a surge in users as the college community embraced digital learning and adopted technology for various academic and administrative purposes. The previous investments in network infrastructure helped to meet the increasing demand.

As the college's technology requirements evolved, the administration decided to invest in the purchase of a new standard protection SOPHOS XGS3100 firewall. This updated firewall model provided the latest security features and enhanced performance to ensure a secure and efficient WiFi network.

The growth of WiFi access at Union Christian College, Aluva, from 2018 to 2023, has been remarkable, driven by strategic investments in network infrastructure, firewalls, and other technologies. These measures have allowed the college to offer seamless WiFi connectivity to its expanding user base while ensuring the highest levels of security and reliability for its digital ecosystem.

