



**SHARDA
UNIVERSITY
CASE STUDY**

WiFi for 10,000 peoples

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OVERVIEW

Sharda University, situated in Noida, is one of the largest universities in Uttar Pradesh. Its campus is spread over 200 acres. The university wanted a unified solution for managing their entire network of hotspots, effectively aggregate 1 Gbps internet backbone and evenly distribute bandwidth. Further, they wanted to prevent internet misuse, track student usage, filter URLs and policy related functionalities.



REQUIREMENT

- Fast WiFi
- Needed campus wide WiFi network with reliable network controller
- Easy onboarding
- Bandwidth aggregation
- Policy Enforcement
- Web logging
- Central Management



HOW WE HELPED

- Deployed UniBox controller for managing 200 acre campus network with failover architecture
- Created customised login and student registration process with email and phone verification
- Setup bandwidth rules, access policies and web filtering to track all student activities
- Separated VLANs for Students, Faculty and Guests
- Easy integration with third party vendor hardware

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Sharda University is one of the largest universities in Noida, Uttar Pradesh. The university has a diverse culture with the presence of students from over 100 different countries. The culture is open and inclusive of people from all walks of life. The university offers undergraduate, post graduate and doctoral degrees across several domains.

Sharda University required a campus wide solution for managing their entire network of hotspots spread across 200 acres. For making optimal use of their 1 Gbps internet backbone, they wanted the solution to aggregate bandwidth and distribute it evenly to all users in the network, with responsive failover mechanisms to prevent network failure. In a deployment where the concurrency of users goes into the thousands, onboarding and management of users can be daunting for IT admins, the university wanted to streamline this

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process and customise the login policies for its students. They also wanted implementation of separate VLANs for segmentation of Students, Faculty and Guest WiFi.

IMPACT

The project, albeit challenging, served as quite the experience for us. Our solution helped the university create a tight security perimeter around their network with deep visibility into network elements and single console management. Here are a few key highlights of how our solution helped Sharda University:

- Increased usage of WiFi services
- Significant improvement in uptime of the WiFi network in the campus
- Managed network reduced network downtime and improved average browsing speed
- Increased average browsing speed per student by 65%
- Reduced network complaints and provided greater visibility into the network
- Students and faculty leveraged faster WiFi
- Helped system administrators keep student activities in check

CHALLENGES

Here are some key challenges we had to face while implementing this project:

- 200 acre network to integrate
- Integration with third party network hardware
- Load Balancing
- Working with third party System Integrators
- VLAN specific access control

SOLUTION

Our Campus Series UniBox hotspot controller was the perfect product for Sharda University's requirements. UniBox provides single console management of all operational support systems and business support systems.

With UniBox, we successfully integrated all Access Points placed across different locations in the 200 acre area.

Through the UniBox, a customised login & student registration method facilitated through email and phone verification added extra layers of security to the network.

UniBox's bandwidth aggregation used the broadband connections effectively, while bandwidth regulation policies controlled available bandwidth flowing to devices for ensuring even distribution.

Separation of VLANs for students, faculty and guests allowed IT admins to enforce policies relating to access and bandwidth.

UniBox's policy management and reporting functionalities helped the University maintain access logs and user activity reports for each student.

UniBox's vendor agnostic nature gave it an edge over other network controllers, with the solution seamlessly integrating all Access Points from third parties into the single control plane.