

Universitas Muhammadiyah Yogyakarta Sets New Standards for Technology Implementation in Education

Challenges

Provide a strong network connection that covers the whole campus through wireless internet connection

Solutions

- Router ASR1001X
- Core Switch 4507R+E
- Switch 3560X & 2960X
- Access point 3602I, 2702I & 1702I

More information

- Visit: cisco.com

Results

- A more stable network connection
- 85% of campus area has been covered with stable network connection
- Open new business opportunities for the university

Business challenges and opportunities

Nowadays, students access information and learning resources in a variety of ways. The learning process is not limited to the classroom only. UMY understands this transformation and therefore it has a vision to transform its learning system into one that is more digitally oriented and paperless, and to provide a better solution to facilitate the learning process and students' accessibility to resources and information.

This transformation has resulted in an e-learning solution that helps students better understanding the learning materials. Professors are allowed to post their teaching materials online, making it possible for students to access these materials from the university platform and support their learning. Since e-learning makes it possible for assignments to be submitted online, it also means the use of paper will be reduced.

Few universities in Indonesia, especially state-owned universities, have implemented online learning resources sharing. This means, UMY students and professors are able to access learning resources online from other universities that have agreed to share the materials with UMY. As a long-term strategy, Muhammadiyah university aims to enlarge the resources sharing network. The goals are to reduce learning resources costs and at the same time enable students and professors to access learning resources from as many sources as they can.

To achieve these goals, UMY has invested in IT infrastructure development on its 27 hectare campus to allow a strong and stable internet access from all areas of the campus.



Requirements, solutions, and implementation

UMY started its transformation by investing almost USD 550,000 for routers, switches and access points from Cisco.

Ir. Eko Prasetyo M, Eng., Information System Bureau of UMY, 2013-2017, says, "We need a solution from a reliable company with a proven track record, especially for enterprise solutions. Therefore we decided to install Cisco products. I know Cisco products and their quality. We have purchased from other brands before but, there were too many complaints."

Packet Data as Cisco's key partner in Indonesia supports UMY to meet the needs. The initial project was installing Cisco ASR 1001X as the router in late 2013.

The second phase was implementing Cisco 4507R+E switch which consists of core switch and Cisco 3560X of distribution switch.

The third phase in 2014 was installing numerous access points Cisco 3602I, 2702I & 1702I in various locations throughout the campus. There are currently more than 200 access points installed, with the aim of installing more, especially in outdoor areas.

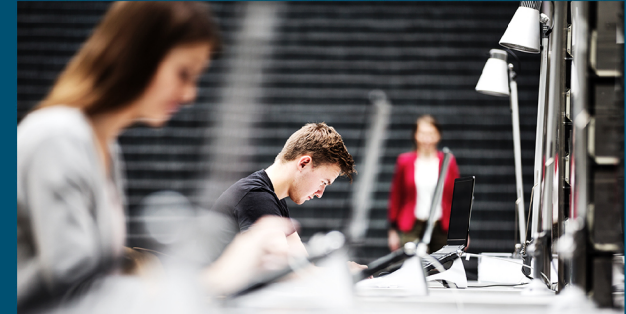
Outcome

This improvement of the IT Infrastructure at UMY has already impacted many aspects. Firstly, through a better network connection, the UMY online marketplace, which was previously only accessible by the professors and staffs to order from the cafeteria and online market, can now be accessed by students. This has increased the volume of orders for the cafeteria and transactions for the online marketplace.

Secondly, Muhammadiyah university has enhanced its resources sharing network. UMY professors and students are now able to access learning materials from other Muhammadiyah universities all over Indonesia through its online platform. Therefore, since the learning process is not limited to UMY itself, this resources sharing network significantly supports the learning process.

Thirdly, the network can be accessed in almost all campus areas with students, professors and staff now being able to benefit from a strong and stable network connection in the campus. UMY has successfully upgraded its facilities, making it a more attractive option for potential future students.

Iman, at student at UMY, says "I want to express my gratitude to UMY for the great network connection. I don't know the technical details of what was installed, but the network connection is now is more stable and can be accessed virtually anywhere in the campus area. Based on my experiences, I have not experienced an internet connection as stable and widely available as this in other universities."



Next step

The good relationship between UMY's IT team and Cisco/ Packet Systems Indonesia has resulted in the successful installation of routers, switches and access points to enhance the network connection. UMY will continue its partnership with Cisco and Packet Systems Indonesia to cover the 15% campus area that still has blank spots. This goal will provide UMY with a strong network connection in all areas of the campus, both out door and indoor.

UMY also has a long-term plan to construct an apartment building to accommodate its students and may leverage its positive collaboration with Cisco/Packet Systems Indonesia to provide IT infrastructure for the apartment building as well.