LOOKING FORWARD TO ANOTHER DECADE OF EDUROAM

Stefan Winter – R&D engineer at RESTENA, and technical expert at the Global eduroam Governance Committee, discusses what lies ahead for eduroam

Stefan, How do you see the current position of eduroam?

Well with more than a billion roaming authentications annually and 89 countries worldwide supporting eduroam we're seeing strong growth across the board. Even in Europe, which benefits from carriers having to abandon data roaming charges, we are still going strong, and in the rest of the world, the growth potential is enormous.

For students and researchers from all over the planet eduroam provides an essential connectivity service. This ability to roam seamlessly around the world is the unique value proposition.

Do you see the eduroam technology being adopted elsewhere?

Absolutely. The new PassPoint initiative (**https://www.wi-fi.org/discover-wi-fi/passpoint**) uses the core techniques and technologies of eduroam; we have been foundational in innovation in wireless LAN development. Also the govroam services in the Benelux area and in the UK have leveraged these technologies in the same way. We now need to work to ensure that all these activities work alongside each other and can be integrated where this is desired, to avoid them developing into distinct islands of accessibility.

What else do you see as a driver for eduroam?

I think both ease of use and security are key. For the end users, eduroam is already easy to use. However, for institutions and organisations wishing to offer eduroam there is a steep learning curve for the technologies and it can be hard for the education sector to find and retain the skilled staff. This is why we are developing cloud-based services to help organisations build-out and support eduroam for their locations and users.

We're also working to make eduroam even more secure for users; this includes advancements in our onboarding tool eduroam CAT as well as industry initiatives and standardisation. We can proudly say that eduroam is using the best Wi-Fi technologies available, and that we continue to push those technologies further.

So where will the growth be in eduroam over the next few years?

eduroam has certainly not reached saturation point yet so there is plenty of organic growth potential even in the long-standing member countries, and much more than organic in new countries and regions.

This is why we are focusing on ease of use for institutions. We see emerging NRENs and smaller institutions as the key drivers of growth and value for eduroam in the future.

There is a lot of talk about 5G – do you think 5G will take over from Wi-Fi as the connectivity technology for users?

5G certainly promises huge advancements over existing cellular networks, including but not limited to available bandwidth. However, standardisation is not even finished at this point, and actual deployment will only start around 2020, and then only in major cities. It will take a long while before it reaches the near-ubiquity of previous generations of cellular networks. So, I believe it safe to say that Wi-Fi will be with us for a long while. One also shouldn't forget that end user demand for bandwidth typically grows as fast, or even faster, than the ability to deliver this bandwidth on the supply side. It is almost certain that a multitude of access technologies will continue to be needed to satisfy user demand.

As a further plus, eduroam is an authentication service and is largely technology neutral at the network level – it is well possible that we can venture into the 5G operator space ourselves, exploiting some of 5G's distinctive new features such as 'network slicing'. This could offer interesting potential in the future!

Learn more at **eduroam.org**