

Public - commercial collaboration provides eduroam® roaming access service in downtown Tokyo

In March 2010, a collaborative experimental service was launched, adding eduroam to commercial hotspots in cafés, convention centres and large shops in downtown Tokyo, Japan. By July, Wi-Fi stations on power poles were also making the secure, roaming access service available on the streets. The Japanese National Institute of Informatics (NII) and livedoor, a Japanese provider of commercial WLAN services, worked together to create this service for students and researchers in the region. In March 2011, livedoor announced that the experiment was over and it would support eduroam as a regular service.



NII is Japan's national operative body for eduroam. An NII committee of representatives from eight leading national universities and a major research organisation is in charge of inter-university federation in Japan, and these organisations also promote eduroam.

In 2009, NII contacted Internet Service Providers and carriers to explore possible collaboration on eduroam. In October that year, livedoor was the first ISP that agreed to providing eduroam via commercial hotspots. In November the first meeting was held. The service began as a collaborative experiment, with 130 indoor hotspots in early March. By July, 2,200 more hotspots were eduroam ready, on power poles, making eduroam available on the streets within the loop of the JR Yamanote rail line. In future, livedoor plans to add eduroam hotspots in other Japanese cities.

Benefits for the commercial partner

When livedoor Co.,Ltd. first heard about eduroam, it was designing its public wireless service to cater for the growing smartphone market – such as iPhone3G, iPad, Android, BlackBerry etc. – and saw academic institutions and college students as key markets for the smartphone as well as the main beneficiaries of a public wireless service.

livedoor is an Internet Service Provider whose main business is to provide 'total solution' packages that include both network and Wi-Fi infrastructures, benefiting from the installation and service fees. Previously, deploying commercial hotspots in universities was not popular, but livedoor worked with four universities to install access points and networks on campus, rather than constructing hotspot infrastructure independent of the campus LAN (Local Area Network). As the universities and institutions are responsible for the cost of installation and Internet access, setting up the eduroam hotspots is extremely cost effective for

livedoor and gains the company competitive advantage: in March 2011, livedoor decided to accelerate this part of its business. The universities also benefit: by outsourcing the network system they can reduce the network management / maintenance effort while paying the same or less money, and technical knowledge is no longer required.

Another part of livedoor's business is to manage a portal site with a lot of web content. The company sees its infrastructures as a way of generating more traffic: by installing hotspots in campuses, it aimed to encourage the use of its web portal by the many students and other people related to universities and institutions, and to gain understanding about the use of its services. Since installing campus hotspots, livedoor has seen an increased profit for its Internet-access service.

Why put eduroam® on the streets?

livedoor decided to expand its eduroam provision from academic and research institutions to public areas in Tokyo because this would enlarge the opportunities for users to access the company's other content and services. And for a company that has been operating a public wireless service and gaining experiences since 2005, and which enjoyed the cooperation of NII on this venture, there were no problems in scaling the service across so many access points.

How eduroam is gaining ground in Japan

Tohoku University introduced eduroam in Japan in 2006, and has been in charge of the eduroam JP operation since then, as a member of the National Institute of Informatics committee that oversees inter-university federation within the country.

As a member of staff at Tohoku University with a broad interest in information sciences, and as a Visiting Associate Professor at NII, Dr. Hideaki Goto "works for eduroam in NII, virtually". It was he who first introduced livedoor to eduroam and who worked with the company to get the experimental service under way.



Akiteru Shirakura

Manager, Core NetWork Group, Network Division, livedoor Co.,Ltd., Tokyo.

"We support eduroam because we thought it would have a positive impact on our business, as well as being beneficial for researchers and students to have mobile access to the Internet."

Who is using eduroam in Japan?

The number of eduroam users in Tokyo is still relatively small, but has been increasing since July 2010 according to livedoor: although the company is still collecting information, it feels that there has been an increase in traffic to its web portal and that there have been growing numbers of users at the universities. It plans to use the statistics to encourage advertising on its website. So far, the majority of users are European research staff who are working in Japanese institutions.

Dr. Hideaki Goto uses eduroam every time he visits Tokyo, keeping up with work and study by accessing email and the Internet while commuting. He has also used the service while travelling outside Japan, in Europe, Hong Kong and New Zealand.



The majority though are using the service locally, and less frequently. But they share similar views about the benefits of the service:

- once installed, eduroam is easy to use as mobile devices connect to it automatically;
- eduroam expands the number of providers to choose from;
- it broadens the range of places where users can access the network;
- it does this free of charge to the user;
- since Japanese commercial services do not provide fixed rates for roaming abroad, eduroam is also useful in other countries.



Professor Hideaki Goto

Associate Professor - Cyberscience Center, Tohoku University, Sendai (350 km from Tokyo); Visiting Associate Professor - NII.

Virtually expanding the university campuses

"3G data communication is very slow and expensive. I was using a commercial Wi-Fi service at my personal expense even for work because it is much more convenient, except the location limitation. eduroam has provided me with free Wi-Fi access and added some new places where I can use Wi-Fi."

"From the professor's points of view, we can encourage students to use the net for studying since eduroam is free. Although commercial Wi-Fi has become very cheap (3 euro/month) in Japan, it is almost impossible to ask students to make a contract or to ask universities to pay for professors' and students' use abroad. eduroam has the potential to provide a (technically) free Wi-Fi service and to virtually expand the university campuses."

eduroam® around the world

eduroam is a fast growing, global service that was pioneered by the European research and education networking community. It is available at thousands of participating organisations in Europe, Canada, the USA, Australia, China, Taiwan, Hong Kong, New Zealand and Japan, among other places, and provides roaming connectivity to users allowing them to be truly part of the international research and education community.

The European eduroam service is a large-scale collaboration between hundreds of institutions, the majority of which own and operate the service's infrastructure. The national and pan-European coordination of this infrastructure is undertaken by the National Roaming Operators (NROs) and an eduroam Operational Team that is funded by the GÉANT project, which is co-funded by Europe's National Research and Education Networking organisations (NRENs) and by the European Commission.

For more information on eduroam, participating institutions and NROs, visit: www.eduroam.org

