

Researchers design a new computing system that can reduce delays on smart devices

January 10 2019



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Computer scientists at Queen's University Belfast have designed a new innovative system to reduce delays on smart devices.

The researchers who are based at the Institute of Electronics, Communications and Information Technology (ECIT) at Queen's have developed a speedy system that will process data geographically closer to the devices, instead of via "The Cloud".

At the moment all data is accessed and processed in The Cloud over the internet.

Forbes has predicted that by 2025 more than 80 billion devices, including smartphones, will be connected to the internet and 180 trillion gigabytes of data will be generated.

Eventually The Cloud will not be able to cope with the billions of devices seeking data processing.

Researchers Dr. Blesson Varghese and Nan Wang from the Institute of Electronics, Communications and Information Technology (ECIT) at Queen's University Belfast have been working on a solution to this problem using "edge computing" technology.

They have designed an edge computing system and developed a [software framework](#) for providing computing services on the system.

Speaking about the research, Dr. Varghese said: "Edge computing offers a much faster solution for [smart devices](#) by bringing application services onto hardware that is geographically closer to users. This means that a proportion of the data can be processed there and doesn't need to be sent all the way to the distant Cloud.

"With the edge computing system we have designed, multiple traditionally Cloud-hosted applications are able to service users from their adjacent places such as a home router. Consequently, delays experienced by application users are reduced.

"ECIT is leading the way in ensuring the adoption of edge computing. Our research focuses on developing the underlying approaches and software tools to deliver a comprehensive edge adoption solution. Our vision is to make the UK the first public adopters of edge computing."

It is expected that edge computing services will be commercialised within the next five years as demand increases.

Provided by Queen's University Belfast

Citation: Researchers design a new computing system that can reduce delays on smart devices (2019, January 10) retrieved 12 May 2024 from <https://phys.org/news/2019-01-smart-devices.html>

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