Increasing WiFi VoIP Call Capacity (#4036)

Software optimization solutions that have to be deployed at the access-point and the mobile client that can significantly improve the VoIP call capacity

Georgia Tech inventors have developed software optimization solutions that have to be deployed at the access-point and the mobile client that can significantly improve the VoIP call capacity. Using both simulations and real-life prototypes inventors have validated their solutions. The solutions include frame aggregation, block acknowledgements, and intelligent rate adaptation.

Benefits/Advantages

- Supports many calls per access points

Potential Commercial Applications

- Data communication and data protocols
- enabling VoIP over WiFi networks

Background/Context for This Invention

The move from wired networks to wireless networks such as those implemented by IEEE 802.11 (also known as “WiFi”) is becoming more and more common. At the same time, making telephone calls over the internet using a technology such as Voice over Internet Protocol (VoIP) is also growing in popularity. However, wireless networks that use conventional protocol suites often support an unexpectedly small number of calls, even when the bandwidth offered by the wireless network would suggest a larger number of calls.

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More Information

U.S. Number: 8,542,618

Publications

For more information about this technology, please visit:
https://licensing.research.gatech.edu/technology/increasing-wifi-voip-call-capacity

Images:

The automated sequential delivery of multiple fluids. A varying number of delay gates imprinted in the branches are shown in the figure.

COVID-19 and flu saliva test on paper: (A) The automatic sequential delivery of multiple reagents required for virus test; (B) Water pouring into the device triggers the virus assay, allowing the presence of SARS-CoV-2 and influenza A & B viruses to be visually identified by the color changes in the corresponding detection spot