Tej

Thanks for highlighting that, Rajeef. There are other apps which do aspects of this already. Just that combining those two distinct technology layers allows some very interesting applications. For instance, if I create a P2P WiFi network and have metering — I can create a massive WiFi network without infrastructure costs. And bill people based upon usage.

Future mobile networks cannot rely upon the traditional base station-cell-device model. There's a lot of research happening on creating entirely P2P GSM-like networks. These will be significantly faster and offer much higher QoS — at least in populated areas. I am just trying the simpler WiFi P2P aspect because it exists in the SDK and solves the needs of two potential partners — a travel company and a sporting events company.

Muhammed Rajeef M K

"Create network of like-minded people e.g. on tour buses" is something which I have been playing around in my mind for sometime since I have been frequently travelling from home to B'lore. I'm interested to talk more about it Tej.

Tej

We tried this last year through a product called ConnectONWheels. We had conversations with travel startups, Indigo airlines and bus companies like SRS. We had some product development but hit technical and operational bottlenecks. WiFiP2P solves that problem and follows more than an year of thought and experimentation! The travel startup is still interested and we can activate the others. Thing is once people start carrying 2–3 smart devices, most existing communication architectures will fail or deliver poor QoS. Let's not even dwell upon IoT using WiFi/GSM. That's the reason IBM is looking at P2P too — https://gigaom.com/…/check-out-ibms-proposal-for-an…/ Check out IBM's proposal for an internet of things architecture using Bitcoin's block

Early slide deck on ConnectONWheels — https://docs.google.com/.

Muhammed Rajeef

Slide 6 was exactly how I was thinking about it. Social connection with no

obligation. You can keep your identity safe/anonymous. Connect with fellow travellers , chat n discuss and connection expires when the journey ends. You could keep in touch via other social platforms, if you need to take the conversation further.!! Tej Have you locked on the features for the MVP ? And I think you have mentioned there is scope for two projects from above docs. Which one are you planning to take up first ?

On the technology front, I'm clear atleast on a high level, how WifiP2P can enhance connecting people in a specific area with a closed network. But I'm unsure, how that will result in hi-speed internet. Because, connecting with internet is again at the end of the day going to happen via GSM network, 3g or otherwise, especially if people are travelling. Anyway, its an interesting topic to explore. Do let me know your plans.

Tej

In mesh networks, throughput and latency are related to number of hops and number of gateways. In this case every phone is a potential gateway to the internet. There are a number of papers discussing these issues and ways of optimising. Here's one:
http://www.researchgate.net/.../0912f50f418d949877000000 3 hrs ·

At a simplistic level though, imagine a phone with only 2G coverage (or without it's own data gateway) on a P2P network with 10 4G gateways — suddenly traffic can flow a lot faster for this device. Latency can be reduced by optimising number of hops — there are established methods of determining mesh health and routing. The simplest ad-hoc system would be — is the P2P network offering better throughput/latency than my own gateway. If yes, I will broadcast this request. Otherwise I will use my own gateway. 3 hrs · Unlike · 1 Muhammed Rajeef M K Yes, this makes sense, atleast on a theoretical basis as well as the technology part. Not sure if we are in the right period of time, where 4G internet are available in abundance. Well, it depends on the geographic area we are focusing on too. And yes, if the benchmark for selection of network is "better than my own gateway", then the whole equation becomes feasible, 4G or not. Let me read through the paper to get a better grasp on mesh networks.
