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Giving Application Developers Access to Telco Networks Will Create Business Opportunities

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The internet is democratizing telecommunications and this is enabling amazing opportunities for developers, said Alan Quayle, the founder of TADHack (Telecom Application Developer Hackathon), during this year's second edition of the global hacking event that happened on June 13 and 14.

Hundreds of millions of people texting for free with WhatsApp, or using Facebook's messaging system, show that one-to-one communication is moving to the internet and that telecommunications and the web platform are converging. One of the motivations behind the TADHack initiative is to show to telecom companies that if they welcome this change, building internet applications on top of their infrastructure will open a wealth of opportunities not only for developers, but for the whole telecom ecosystem.

The speed and the fidelity of modern mobile network technologies, like LTE, is bringing high definition to all media, not just to voice communication, said Jonathan Christensen, co-founder and CEO of Wire, in his keynote at TADHack 2015. The next generation of telecommunication is not simply emulating Skype in the web browser. It is actually using multimedia telecommunication as an added or fundamental functionality to websites and web based applications.

It has never been easier, faster or cheaper for developers to build on these technologies and add real-time communication to their web applications. The WebRTC stack saves developers from having to study and understand the complexities of the underlying protocols, bandwidth issues and media encodings. It is a plug-in free technology already enabled in 1.5 billion web browsers in the market, and its components are open-source.

In addition, companies like Tropo and Apidaze, both TADHack sponsors, are working as brokers between telecommunication service providers and application developers, empowering the developer community with the ability to integrate phone networks in their apps. Their APIs give web apps access to phone operators' functionality, such as making calls and handling incoming calls, or sending and receiving SMS messages. Some of these companies also include audio transcription and text-to-speech tools.

On the side of telcos, Truphone, a global mobile network provider, has taken a step ahead in the telecommunication landscape and is open-sourcing its whole network. James Tagg, Truphone's founder and CTO, announced in Lisbon, in his keynote at TADHack 2015, that they have built a framework that gives low-level access to their network so that developers can build parts of the network themselves.

"What we would like to do is to lower the barrier to entry to our network... We want to get it down to one developer with his WebRTC stack and his computer can change the world and take advantage of the massive capital investment that we've made," said James Tagg.

Other telecommunication companies need to take similar steps and to open their networks. The collaboration with developers in the open spirit of the internet platform will extend their infrastructure into new services and

business models.

A most needed leap in this direction is the definition of standards, so that developers can rely on a common interface across service providers. “Despite of all the attempts to define new standards at the application layer, nothing has happened - it happens ad-hoc in the wild,” said Christensen.

TADHack challenged developers to explore the potential of real-time telecommunication technologies and inspire the telecommunications world. Leslie Drewery, one of this year’s London-based winners, entered the competition with an application to help people with dementia with their phone conversations. The app accepts incoming phone calls and presents the user with information about the caller and a summary of past conversations with that person.

Other possible applications range from collaboration tools, and distance learning platforms, to telemedicine applications, and alternative communication channels to be used between game players.

“Companies who are not part of the telecommunication space are just as able to have complete communication functionality,” said Niklas Blum, product manager at Google, in his keynote at the TADHack event.

The TADHack winning projects will be showcased in the next TADSummit, to be held in Lisbon, Portugal, on November 17 and 18. Its objective is to build the telecom application development ecosystem, joining people working on service innovation in the convergence of internet and telecommunications.

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