*** 北米連携センター情報***

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●グーグルXのテラー氏、「プロジェクト・ムーン」の進捗を報告

【Wall Street Journal, 2014/09/25】
グーグルの研究部門「グーグル X」のトップを務めるアストロ・テラー氏は、MIT テクノロジーレビューの「EmTech」カンファレンスに出席。
高高度の気球で世界中にインターネット・アクセスを提供することを目指す同社の「プロジェクト・ルーン」は、来年頃には南半球で半恒久的な気球群を構築できる見込みだと語り、これまでのテストで気球の飛行距離が 200km 以上を記録したことも明らかにした。
ITU は今年末になっても世界人口のおよそ 60%にあたる 40 億人は依然、インターネットへの接続手段を持たず、その 90%は開発途上国に住むと予想しているが、グーグルはこのような人々に広くインターネット・アクセスを提供するために 2013 年 6 月よりプロジェクト・ルーンを開始。
IDC のスコット・ストローン氏は、インターネット・ユーザーを増やす同プロジェクトは同社主要事業にとっても重要という。
同プロジェクトのテストはニュージーランドを皮切りにブラジル、カリフォルニア州セントラルバレー、ネバダ州に広がっており、ブラジルでは LTE 通信のテストも初めて行われ、地上のアンテナへは 22Mbps、スマートフォンへの 5Mbps でのデータ伝送に成功している。

（参考）本件報道記事
Google's Moonshot Chief Claims Progress On Project Loon Balloons

By ALISTAIR BARR
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Dow Jones Top North American Equities Stories

Google says it's making progress on one of the Internet company's more ambitious projects: An effort to beam Internet access to billions of unconnected people from high-altitude, wind-borne balloons circling the earth.

Astro Teller, who as "chief of moonshots" runs the company's Google X research lab, said at the MIT Technology Review's EmTech conference that Project Loon should have a "semi-permanent" ring of balloons floating across the southern hemisphere in the next year or so. The balloons have logged more than two million kilometers in testing, he added.

Loon started in June 2013 and is part of a broad effort by Google to get more people connected to the Internet. Some Google X projects, such as the self-driving car, the smart contact lens and an effort called Baseline to map a human health at the molecular level, are loosely connected to the company's main online advertising business. But if Loon gets a lot more of the earth's inhabitants online that could increase Web searches and boost Google's growth.

By the end of this year, about 60% of the world's population, or roughly 4 billion people, still won't be connected to the Internet and 90% of those people are in the developing world, according to the International Telecommunications Union, part of the United Nations.

"Project Loon is very important to their main business," said Scott Strawn of research firm IDC.

Loon balloons float in the stratosphere, about twice as high as airplanes and weather systems. They circle the earth by rising or descending into layers of wind blowing in the right direction. Antennas attached to homes on the ground connect wirelessly to the balloons as they pass overhead. Google hasn't disclosed who makes or supplies the antennas, and a company spokeswoman declined to comment.

Google started testing in New Zealand and has expanded tests to Northeast Brazil, California's Central Valley and Nevada. In Brazil earlier this year, Loon tested LTE high-speed wireless data technology for the first time, opening up the possibility that the balloons could send Internet signals directly to mobile phones, rather than home-based antennas. To use LTE, Project Loon partners with telecom companies to share their cellular spectrum.

During the tests in Brazil, Google said the balloons transferred data at 22 megabits per second to ground antennas and five megabits per second to smart

phones. The average Internet speed in the U.S. is just over 10 megabits per second, according to Akamai.

The goal is to get a chain of balloons circling the 40 southern parallel and beaming uninterrupted Internet service to pilot testers along this latitude, which crosses South America, below the southern tip of Africa, Tasmania and New Zealand.

There are still questions about the technical and commercial viability of Loon. Getting all the balloons floating in the same direction at the right altitude is a big challenge and Google must coordinate with air traffic control authorities in each country.

A balloon crashed in in Nevada in June, damaging a utility pole, and Google has built a balloon-recovery team headed by Nick Kohli, who volunteered for many years on a search and rescue mountaineering team in California.

Still, Teller said the service would make a profit if it works out because there's a lot of value in figuring out a way to hook up billions of new Internet users.

Dow Jones & Company, Inc.

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