D2D Connect / PowerFolder: Mobile devices create their own network for file sharing

How can files be shared easily secure and independent of external services and networks, between multiple mobile devices?

PowerFolder teams up with the "Workgroup for technology of social networks at the University of Duesseldorf" in a project funded by the German Federal Ministry of Economics (BMWi) to find out. The goal of the Project is not only to understand the requirements and develop new concepts but also to turn those concepts into a solution. The final product will be able to create dynamic networks on the fly, independent of classical network infrastructures or internet connections and exchange files and information directly between devices.

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The title of the project is D2D Connect and will have multiple phases, in the first step the goal is to provide a solution for file sync and share directly between devices. Long term the product will focus and solve problems within the industry 4.0, the automotive sector and the internet of things.

What are the advantages of direct exchange of files via self-generated connections between mobile devices?

- It is fast and easy, even with large amounts of data
- The transfer is independent of limiting external factors such as network-quality (for example on fairs).
- The exchange is encrypted
- The exchanged file exist nowhere but on the sender- and the receiver-device

Christian Sprajc CEO of PowerFolder: "Especially in companies with extreme requirements for security, a mobile file exchange between devices in a self-generated or independent network is important, since it is secure and can remove many possibilities for corporate espionage"

The new technology which is used in D2D Connect will be introduced to Apple and Android devices in the first step, but aims to provide a general solution for automatic data exchange between all kind of devices, vehicles, facilities. This way the internet of things can become a reality even in environments in which classical network environments are not needed, not trusted, or not possible.

What is the "Workgroup for technology of social networks at the University of Duesseldorf"?

Under the direction Jun.-Prof. Dr.-Ing. Kalman Graffi the "Workgroup for technology of social networks at the University of Duesseldorf" is part of the institute for computer science at the Heinrich-Heine-University of Duesseldorf and part of the faculty of mathematics and natural sciences.

The team consists of seven doctoral students and focuses on the research of self-organizing protocols and innovative mechanisms to make unreliable resources, which are available in large amounts, available as reliable, high quality infrastructure services. Target applications are, among others, decentralized data services, highly scale-able communication structures and social networks. Jun.-Prof. Dr.-Ing. Kalman Graffi was honored as „Young scientist of the year 2014" by Academics.de and is member of the "Arab-German Young Academy of Sciences and Humanities".

What is PowerFolder?

PowerFolder / dal33t GmbH is a German software company, which provides "out of the box" cloud and in-house Enterprise file sync and share solutions and partly individualized on-premise services for the educational-, research-, industrial and information-sector.

The company focuses on efficient, reliable, scale- able and secure sync, share and backup solutions. PowerFolder has become the base for some of the biggest German educational cloud services and a wide range of cloud and infrastructural services for companies of any size around the world.

The on-premise solutions of PowerFolder allow companies to become independent and self-sufficient when it comes to "dropbox – like" cloud services, the collaboration with Jun.-Prof. Dr.-Ing. Kalman Graffi and his team in this new BMWi project aims to create an advanced level of independence, security and reliability for PowerFolder customers.