



eMobility software solutions

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Paving the way for successful mobility concepts

Electromobility is concerned first and foremost with the electrification of the drivetrain and the development of electric vehicles. But implicit in this is the need for infrastructure in the form of charge spots. This is all it takes for electromobility to be viable – in theory at least. And yet it will only become a compelling proposition for end users once web-based software solutions have made electromobility truly practical. Such solutions underpin the new integrated mobility concepts of the future.

In the successful uptake of electromobility, a central role will be played by solutions that overcome the phenomenon known as range anxiety – in other words, the fear of being left stranded somewhere because the batteries are flat.

Software solutions that network charge spots together provide one remedy. For many drivers of electric vehicles, the degree to which they can be confident of remaining mobile is determined by the battery's charge state as they set off. They will be happy to travel much further once networked charging infrastructure is in a position to tell them where they can find charge spots along their planned route and planned stopping points. This will make electric vehicles attractive in a greater variety of situations and will support the wider acceptance of electromobility.

The networked infrastructure provides access to other applications, such as precise billing for energy obtained. Roaming, a familiar concept in mobile telephony, will enable drivers of electric vehicles in a few years to take full advantage of the services offered by a host of companies via a single platform – without additional customer cards or individual contracts. These services will no longer be restricted to purely topping up energy, but can be combined to create complete mobility packages. So it is conceivable, for instance, that in future someone could drive an electric vehicle from a smaller suburb to the main train station in the nearby town, park the vehicle at a charge spot there, take the train to the next major conurbation, and be mobile there too through a car-sharing scheme. The entire package will be bookable as a roaming service.

Bosch Software Innovations is working on numerous projects to deliver practical building blocks for these developments. In June 2011, the “EV test bed” in Singapore, which is based on Bosch software solutions and charge spots, entered the operational phase. The company will be operating this networked infrastructure through 2016 and has teamed up with local firms and government agencies to promote a cost-effective environment for developing sustainable mobility concepts in the city-state.

The Bosch Group range of products and services includes the software solution for operating the charging infrastructure, the networked charge spots, the components of the electrified drivetrain, and the battery. The breadth of its offering puts Bosch in a unique position to drive forward the mobility of the future. At the same time, Bosch is setting up its own charging infrastructure so that electric vehicles can be used for transportation between its locations in Abstatt, Feuerbach, Reutlingen, Schwieberdingen, Schillerhöhe, Waiblingen, Bamberg, and Bühl all Germany. In future, associates will also be able to charge their electric vehicles at these locations.