# Generating Product-based Availability Overviews for Fixed Line Network Access Points 

Christoph Wiesen, Thorsten Wunderlich, Robert Mertens<br>Fraunhofer IAIS, Schloss Birlinghoven, 53754 Sankt Augustin<br>Contact: christoph.wiesen@iais.fraunhofer.de

Product customization has become a commonplace topic in the last few years. Cars can be equipped with numerous gadgets, cell phones come in different colours and so on. In all these cases, product customization is a means of marketing. In the fixed line telecommunications market customization is a necessity. This difference is due to the fact that technical infrastructure differs from customer to customer. While one customer can easily be connected to fibre, another one might only be connected via miles of copper cable. Hence, every single customer's product has to be customized. This kind of technical customization is not only increasing complexity in product realization, it also means that product offers have to be custom tailored. Otherwise customers might be offered products that cannot be realized at their homes. For sales talks, this information is crucial. If sales agents do not know which product a customer can buy, they either sell the wrong product or keep the customer waiting while trying to find out which product is available to the customer. Furthermore marketing agents rely on product availabilty reports that give an overview how many products of a certain kind are available.

We introduce an algorithmic approach for conducting availabilty checks for single customers and generating availability surveys. The approach is described by means of terms and concepts from the field of supply chain management. Supply chain management allows for obtaining a non technological view on the provisioning process of a telecommunication product and thus gives the possibility to think more in terms of commonly manufactured products. Based on this view a simple model describing the first mile of a fixed line telephone network is presented which allows for a general and easy understandable description of our algorithm.

