



Low Bandwidth Data Base Synchronization – LBDS

Keywords: low bandwidth, data transmission, synchronization of databases

INVENTION NOVELTY

Provided is a computer-implemented technology for the synchronization of databases and reliable transfer of data in the absence of a stable internet connection.

VALUE PROPOSITION

Synchronisation of data in a central database with corresponding data in databases of mobile end devices is necessary and common for a variety of applications. For this purpose, synchronisation usually takes place automatically by means of IP communication via the Internet. In this case, IP data packets are transmitted in the Internet protocol format via the Internet and the protocol standard intended for this Internet data channel is used to ensure error-free reception of the data packets at the recipient. This requires a stable connection between the central database and the mobile device via the Internet. For this purpose, the mobile device can use the data channel of the mobile phone network or direct access to the Internet via WLAN. Data transmission between the central database and the mobile device takes place using standardised communication protocols, which require a stable mobile network for Internet access. However, mobile devices are also used in areas that have only a poor mobile communication infrastructure. As a result, users may not be able to transmit data to the central server in the required time or may not receive important information from the central database at all or in time. This invention offers a novel reliable way of data transmission.



Synchronisation of data require a stable mobile network

TECHNOLOGY DESCRIPTION

The invention relates to a method for synchronising data of a database in mobile device with data in a central database, wherein the data transmission between mobile device and the central database takes place optionally via a) data messages in a voice channel of a mobile communication network, b) IP data packets in a data channel of a mobile communication network or c) IP data packets in a WLAN for data transmission over the Internet. Via selection of the strongest available connection on the mobile user's site, content prioritisation of information and coding into data packets the novel software ensures the reliable, error-free complete transmission of data and the synchronisation of data bases in the absence of a stable internet connection.

COMMERCIAL OPPORTUNITY

Applicable in regions with unreliable or weak internet connection or where the connection with the best cost-benefit ratio shall be selected (e.g., costly satellite communication). The technology is offered for licensing.

DEVELOPMENT STATUS

A solution for the data exchange via SMS gateways or alternative data connections in context of the epidemiological management system SORMAS is available.



PATENT SITUATION

A European priority application was filed in April 2020 (EP20170842.7), an international PCT- application has been filed on April 20, 2021 (PCT/EP2021/060219).

FURTHER READING

Tom-Aba D, Silenou BC, Doerrbecker J, Fourie C, Leitner C, Wahnschaffe M, Strysewske M, Arinze CC, Krause G, The Surveillance Outbreak Response Management and Analysis System (SORMAS): Digital Health Global Goods Maturity Assessment, JMIR Public Health Surveill 2020;6(2):e15860 DOI:10.2196/15860

