

Abstract

Smart sensor networks provide numerous opportunities for smart grid applications including power monitoring, demand-side energy management, coordination of distributed storage, and integration of renewable energy generators. Because of their low cost and ease-of-deployment, smart sensor networks are likely to be used on a large scale in future of smart power grids. The result is a huge volume of different variety of data sets. Processing and analyzing these data reveals deeper insights that can help expert to improve the operation of power grid to achieve better performance. The technology to collect massive amounts of data is available today, but managing the data efficiently and extracting the most useful information out of it remains a challenge. This paper discusses and provides recommendations and practices to be used in the future of smart grid and Internet of things. We explore the different applications of smart sensor networks in the domain of smart power grid. Also we discuss the techniques used to manage big data generated by sensors and meters for application processing.