Abstract

Techniques for separating an aggregate power consumption profile into individual device components typically fall into one of two categories: hardware agnostic techniques relying on low frequency data from a utility power meter, and techniques involving purpose-built hardware sampling at a high rate. The disclosed load disaggregation method pertains to purpose-built hardware that is resource constrained on embedded elements and in network bandwidth available to connect to and communicate with a web server on the internet, as shown in Figure 1. The method includes techniques for feature selection, compression and encoding, and model training that support the identification of individual electric loads from an aggregated input signal.

Figure 1