

ABSTRACT

Techniques are described for automatically and dynamically modifying ongoing operation of computing devices in device-specific manners, such as to improve ongoing performance of the computing devices by modifying
5 configuration settings on the computing devices or on associated systems in communication with the computing devices. The techniques may include generating one or more decision structures that are each specific to a type of measured performance effect, and using the decision structure(s) to improve corresponding performance of a computing device, with the generating of the
10 decision structure(s) including analyzing training data that associates prior measured performance effects with corresponding attributes of computing devices and of modification actions that were performed for the computing devices. Non-exclusive examples of modifying operation of a smartphone computing device include modifying configuration settings affecting use of one or
15 more of the device's battery, memory, storage and network communications.

Figure 1