

ENHANCED WIRELESS COVERAGE AND REDUCED BATTERY POWER CONSUMPTION

ABSTRACT

5 Embodiments of the invention describe a novel solution to enhance network service
to devices with limited or no connectivity. Embodiments include network-aware nodes
deployed by an end-user or operator which are configured by a network to achieve enhanced
coverage, enhanced throughput, enhanced battery life, and mitigation of cell boundary
experiences, etc. Embodiments provide these benefits to a specified or non-specified set of
10 user equipment (e.g., neighboring user equipment). The service expansion terminal can be
an available user equipment that is idle and that has been volunteered, assigned, or is a
dedicated node with limited user interface and designed for carrying out enhanced coverage,
enhanced throughput, enhanced battery life, and the mitigation of cell boundary experiences,
etc. Embodiments may therefore provide low-cost, flexible deployment, and mobility thereby
15 enabling boundaryless service.

Figure 1

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