

Incentive Auctions

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Abstract

A proposed auction design for incentive auctions is given. The two-sided auctions enable the exchange of spectrum from a low-value use, such as over-the-air TV broadcast, to a high-value use, such as mobile broadband. The approach is both simple and effective. The auction has three stages conducted in sequence: 1) a reverse auction to determine the supply curve for spectrum, 2) a repacking stage that determines a set of optimal repacking plans for freeing various amounts of contiguous spectrum nationwide, and 3) a forward auction for determining the demand curve for spectrum. The auction determines the parties that are giving up spectrum, reorganizes the remaining parties within the legacy band to free-up contiguous spectrum at least cost in a new band, and finally determines the assignment and pricing of the new band.

Papers are available at www.cramton.umd.edu/papers/spectrum.