easy to apply, fair to the applicants and serves the public interest.

4. Competitive Bidding Design

65. In this Report and Order, we have attempted to design auction rules and procedures that are compatible with the unique characteristics of MDS and that meet the congressional objectives set forth in the Communications Act. See 47 U.S.C. 309(j)(3). We believe that these objectives are embodied in two basic Commission policy goals: promoting economic growth and enhancing access to telecommunications service offerings for consumers, producers and new entrants. Second Report and Order at 2349–2350. In the paragraphs below, we implement competitive bidding for MDS, pursuant to Section 309(j) of the Communication Act and based on the record in this proceeding. The methodology and procedures we will utilize in conducting MDS auctions are identified below, and additional details about specific competitive bidding procedures will be provided by public notice prior to the MDS auction.

66. General Competitive Bidding Designs. The Second Report and Order established the criteria to be considered in selecting the auction methodology for each auctionable service. We generally concluded that awarding licenses to those parties that value them most highly will best advance congressional policy goals. Id. at 2360. We also indicated that, because a bidder's ability to introduce valuable new services and to deploy them rapidly, intensively and efficiently increases the value of the license to that bidder, an auction design that awards licenses to those bidders who are willing to pay the highest bid tends to promote the development and deployment of new services and the efficient and intensive use of the spectrum. Id. at 2349–2350.

67. With regard to auction methodologies specifically, the Commission previously determined that: (1) licenses with strong interdependencies should be auctioned simultaneously; [36] (2) multiple round auctions, by providing bidders with information regarding other bidders' valuations of licenses, generally will yield more efficient allocations of licenses and higher revenues, especially where there is substantial uncertainly as to value; and (3) because they are relatively expensive to implement and time-consuming, simultaneous and/or multiple round auctions become less cost-effective as the value of licenses decreases. Second Report and Order at 2360. We also found that simultaneous multiple round bidding facilitates the efficient aggregation of licenses across spectrum bands and geographic areas, and because of the superior information and flexibility this bidding methodology provides, is likely to yield greater revenues than other auction designs. Thus, we concluded in the Second Report and Order that the use of simultaneous multiple round bidding would generally be preferred. Id. at 2366.

68. We also recognized in the Second Report and Order that simultaneous multiple round bidding may appear more complex to bidders and could be more difficult and expensive to implement than other auction methods. Id. at 2364. We have, however, in the past year gained considerable experience in conducting simultaneous multiple round bidding. This competitive bidding method has been utilized in several narrowband and broadband PCS auctions,[37] and has proved to be an efficient and effective way to conduct spectrum auctions. In addition, the cost to the Commission of conducting simultaneous multiple round bidding has decreased considerably since the initial simultaneous auctions because the computer software used in these auctions has now been developed. We have also recently initiated procedures permitting remote bidding from personal computers throughout the country. Consequently, bidders may now participate in simultaneous multiple round auctions in a variety of ways—on site, by personal computer using remote bidding software, or via telephone.

69. MDS Competitive Bidding Design. Given our growing and successful experience with this auction design, we conclude that the generally favored method of simultaneous multiple round bidding is appropriate for MDS. We accordingly adopt this method to auction the BTA service areas.

70. In the Notice, we had tentatively concluded that simultaneous multiple round bidding was less appropriate for MDS than other auction methods primarily because the ''value of and interdependence between'' the geographic service areas might not be ''sufficiently high to justify the use'' of the generally preferred auction method. Notice at 7678. After further consideration, and based upon our continuing successful experience with simultaneous multiple round bidding, we now conclude that simultaneous multiple round bidding is in fact appropriate for MDS.

71. With regard to the expected value of the BTA service areas at auction, we realize that some areas—particularly those with sparse populations—may be auctioned for relatively modest amounts. The value of any BTA service area at auction will, however, vary, depending in large part upon the population of and the amount of usable spectrum in that area. Heavily populated BTA service areas may therefore attract more substantial sums, depending on the availability of spectrum within such areas. Given the substantially decreased costs associated with implementing simultaneous multiple round bidding, we believe that BTA service area values are sufficient to justify the use of this auction method.

72. With regard to the question of interdependence, we believe that the BTA service area authorizations to be auctioned possess a degree of interdependence. As explained in the Notice, ''[t]here appears to be some geographic interdependence due to coordination of interference at the borders.'' Id. at 7678. Indeed, because we have selected a filing approach based on predetermined geographic areas, rather than a national filing window, we emphasize that authorizations for adjacent BTA service areas will be interdependent, as common ownership of such areas will reduce problems of controlling interference at the borders of the BTAs. See Second Report and Order at 2364. Interdependence between the BTA authorization may also arise from economies of scale achieved by wireless cable operators spreading of fixed costs over more units of output. See Second Report and Order at 2364. We accordingly conclude that there is some degree of interdependence between BTA authorizations and that this interdependence may be significant for geographically contiguous BTAs. Thus, the adoption of simultaneous multiple round bidding should result in the most efficient award of these BTA authorizations. See Second Report and Order at 2363. In particular, we believe that potential bidders that operate (or are planning to operate) MDS systems in

[36] Licenses are interdependent when the value of a license to the bidder depends on the other licenses that the bidder acquires. Second Report and Order at 2361. Licenses may be interdependent because they are substitutes or because they are complements. Id. at 2364.

[37] The Commission has also recently proposed to utilize simultaneous multiple round bidding for both the 800 and 900 MHz Specialized Mobile Radio services. Further Notice of Proposed Rule Making in PR Docket No. 93–144 and PP Docket No. 93–253, FCC 94–271 (released Nov. 4, 1994), 59 FR. 60111 (Nov. 22, 1994); Second Report and Order and Second Further Notice of Proposed Rulemaking in PR Docket No. 89–553, PP Docket No. 93–253, and GN Docket No. 93–252, FCC 95–159 (released April 17, 1995), 60 FR. 21987 (May 4, 1995).