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In the Matter of

Advancing IP InterconnectionWC Docket No. 25-304
Accelerating Network ModernizationWC Docket No. 25-208
Call Authentication Trust AnchorWC Docket No. 17-97

The Voluntary IP Service Transition Auction (VISTA)

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Executive Summary

The IP interconnection transition generates unavoidable costs for ICC-dependent rural carriers, and deferring those costs to "future proceedings" predictably leads to pressure for permanent new USF support. We propose a Voluntary IP Service Transition Auction (VISTA) that converts those implicit future liabilities into explicit, time-limited transition payments. Small incumbent carriers could voluntarily bid to exit federal ETC status and associated legacy obligations, while other providers bid to assume restructured service obligations for consolidated territories. The auction would close only where the combined cost of exit payments and time-limited support is lower than the net present value of continuing high-cost subsidies. Modeled on the broadcast incentive auction, VISTA reveals market prices for exit and entry, enables consolidation where it is efficient, incorporates fixed wireless and LEO satellite as credible competitors in high-cost areas, and allows the IP transition to proceed without expanding the long-run size or scope of the Universal Service Fund.

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I. THE NPRM AS AN OPPORTUNITY FOR FUNDAMENTAL USF REFORM

While this proceeding is nominally about IP interconnection, it offers the Commission its best opportunity in decades to rationalize the Universal Service Fund's high-cost program. The NPRM proposes ending incumbent-specific interconnection and collocation obligations from the TDM era by December 31, 2028 to accelerate the shift to all-IP interconnection. The NPRM notes the plan "may impose costs on competitive LECs that previously were borne by"[3] incumbent LECs and that small rural carriers may face "particular challenges... such as needing to lease third-party networks or services or purchase equipment and other technology for network upgrades."[4] However, the Commission does not address how to pay for the transition, stating that "the Commission's rules related to tariffing and access charge requirements stem directly from the legacy TDM framework; we intend to address any such related issues as needed in separate future items."[5]

The predictable outcome of using undetermined "separate future items" is pressure to replace lost ICC revenues with permanent USF support, which would compound the high-cost program's existing structural problems. The high-cost fund distributes over $4.5 billion annually, funded by taxing a growing share of a shrinking base of telecommunications revenues. The high-cost program's root problem is too many carriers serving territories too small to achieve efficient scale, sustained by subsidies that remove incentives to consolidate or exit.[6]

The IP transition creates a forcing function for USF reform. Rather than replace lost revenues with another permanent subsidy stream, which is the predictable outcome of kicking the can to indeterminate future proceedings, we propose that the Commission create a Voluntary IP Service Transition Auction (VISTA). This market mechanism would reveal which carriers want to exit, what compensation they require, and which alternative providers can serve their territories more efficiently, converting perpetual USF obligations into time-limited transition payments while improving service for rural consumers.

II. VISTA: A VOLUNTARY AUCTION FOR SERVICE TRANSITION

A. Overview and Precedent

VISTA is modeled partly on the Commission's successful Broadcast Incentive Auction. That auction allowed broadcasters to voluntarily relinquish spectrum rights in exchange for compensation while reassigning that spectrum to others who valued the spectrum more than the broadcasters. The auction generated $19.8 billion in net proceeds while reallocating spectrum to higher-value uses, creating a "win-win" outcome.

VISTA would apply the same economic principles to change the incentives for modernizing the network and reform the universal service program. To engender discussion which should be extensive to ensure the auction will succeed, consider a process with two components:

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[3] NPRM para. 84.

[4] NPRM para. 47.

[5] NPRM para. 54.

[6] The NPRM's Initial Regulatory Flexibility Analysis identifies 1,175 incumbent LECs filing FCC Form 499A, of which 917 (78%) qualify as small entities under SBA size standards.

1. **Exit Auction:** Small rural incumbent LECs submit bids[7] stating the minimum compensation required to voluntarily relinquish federal ETC designation, federal support eligibility, COLR-like obligations tied to federal support, and to participate in an orderly 214 discontinuance/transfer process; plus numbering/interconnection resources as applicable, in coordination with states. Bids reveal willingness to exit and required compensation.

2. **Entry Auction:** Qualified providers, possibly including but not limited to cable operators, regional fiber operators, electric cooperatives, fixed wireless providers, and satellite operators, bid to assume restructured service obligations for consolidated territories.[8]

   Winners would receive time-limited support (7-10 years) rather than perpetual subsidies, with performance requirements tied to modern service standards rather than legacy cost recovery.[9] A transition occurs when buying out an incumbent and supporting a new entrant costs less than the present value of existing subsidies.

The details of auction design, bidder qualifications, and implementation require further development. But the basic framework offers a path toward market entry through one-time subsidies rather than perpetual support, with competition driving down costs.

B. Why This Makes Economic Sense

The economic logic is straightforward. If buying out inefficient carriers and providing time-limited support to efficient replacement providers costs less than the net present value of perpetual high-cost support, the transition pays for itself while permanently reducing USF's obligations and increasing service quality.[10]

VISTA can make all parties better off. For large carriers, the alternative to VISTA is years of regulatory uncertainty, potential litigation over stranded costs, and political pressure to fund bailouts for failing small rural carriers. A defined transition mechanism with predictable costs may be preferable to an indefinite tail of legacy obligations and disputes. For small carriers, the alternative is attempting to survive the IP transition without the capital to upgrade, watching revenues decline as TDM traffic migrates to IP, and eventually exiting under distressed conditions rather than through a voluntary auction that maximizes the value of their legacy position. Consumers end up with modernized service provision.

C. Fixed Wireless and LEO Satellite Enhance the Opportunity

The existing subsidy framework derives from a time when providing wireline service in some areas was unprofitable without a subsidy. Even with improved technology, traditional wireline providers may still find it unprofitable to serve many of the relevant service areas even with the promised USF support. Previous efforts at competitive bidding for unserved rural service territories, including CAF Phase II and RDOF, had no bidders in some

[7] Such an auction could be a single round bid or multiple rounds.
[8] The auction structure could allow bidders to submit bids on overlapping combinations of territories.
[9] The Commission should ensure that new subsidy recipients actually perform. *See*, e.g., Rosston, Gregory L. and Scott Wallsten, "Comments filed with the Federal Communications Commission in the Matter of Rural Digital Opportunity Fund Auction." April 2020. https://techpolicyinstitute.org/wp-content/uploads/2020/04/Rosston-Wallsten-WC-Docket-No.-19-126.pdf
[10] It will be important for the Commission to determine the current subsidy burden.

of the highest-cost, most remote areas. Wireline providers concluded that no reasonable subsidy level would make the investment worthwhile. These “no-bid” areas represent the legitimate rural service problem—territories where the incumbent carrier’s continued operation seems like the only option regardless of efficiency.

Low Earth Orbit (LEO) satellite and terrestrial fixed wireless service potentially break this impasse. The cost functions of the two are somewhat different, but both may better be able to serve low density areas.

LEO economics are fundamentally different from terrestrial network economics.[11] For a terrestrial provider, costs scale with distance and terrain as every mile of fiber or wireless backhaul adds expense. LEO providers face capacity constraints but not distance constraints. LEO costs are less terrain- and distance-dependent than terrestrial builds, though performance and capacity constraints vary by location and load. Fixed wireless services, meanwhile, require incremental investments but can provide a competitive service with high throughput signals without bringing wires all the way to the consumer.

These cost structures mean that territories that are economically impossible for wireline providers might be economically attractive for fixed wireless and LEO operators, particularly if those operators receive transitional support that helps cover upfront costs.

Fixed wireless and LEO participation in entry auctions could therefore create competitive pressure even in territories where they do not ultimately win. The mere presence of a credible alternative bidder disciplines pricing. The auction would reveal, for the first time, actual market-clearing prices for serving rural territories when fixed wireless and satellite are genuine alternatives.

It will be important to set standards necessary to qualify for subsidies and to include pricing models and credible ways to ensure that consumers will continue to benefit when evaluating the bid. The FCC had different discounts for different performance in its RDOF auction. Similar quality standards should be put in place to ensure that different technologies are competing to provide service on a comparable basis.

The mechanism should be technology-neutral. While wireless and LEOs provide a critical backstop against “no-bid” scenarios, they compete with terrestrial providers. If a local electric cooperative or WISP can serve a territory more efficiently than a satellite operator, the auction structure ensures they win.

III. A REALISTIC IMPLEMENTATION PATH

We propose a phased approach after more discussion and comment regarding the rules and participant responsibilities:

[11] LEO technology overcomes the latency barrier that disqualified previous generations of satellite service from voice support. Unlike geostationary satellites, which suffer from latency (600ms+) that makes real-time conversation difficult, LEO constellations operate with latency (25-50ms) comparable to terrestrial networks. This technical distinction allows LEOs to meet the statutory requirement for 'comparable' voice service, making them viable entry auction participants.

A. Phase 1: Voluntary Pilot with Willing Participants

The Commission should begin with a pilot with 20-30 incumbent carriers. It should include a mix of carrier circumstances and geographic conditions to generate representative clearing prices, not just the floor prices that willing sellers would accept.[12]

The pilot should be structured to test fixed wireless and LEO participation explicitly. Some pilot territories should include areas where wireline economics are challenging but wireless and LEO service is technically feasible. If any of those providers bid in the pilot, even for a subset of territories, that would demonstrate the viability of competitive alternatives. If they decline despite favorable terms, the Commission will have concrete information about the limits of participation.

The pilot should pose minimal regulatory risk. If the exit auction clearing prices plus the present value of future subsidy payments exceed the value of entry auction bids, the auction simply fails to close. The status quo remains, and the USF incurs no new liability. This structure eliminates financial risk to the fund while allowing the Commission to test market valuation without commitment.

B. Phase 2: Evaluate Against USF Baseline

In order to determine success, the Commission should compare pilot results against the counterfactual, which is what perpetual support for these carriers have cost. If consolidation produced savings, how substantial were they? If not, why not? The auction can be structured to try to ensure net savings, but the process must have a serious evaluation process in place in advance to rigorously evaluate the outcome.[13]

This evaluation should be honest. If the mechanism does not generate savings sufficient to justify administrative complexity, the Commission should say so and consider alternatives. The goal is to provide efficient service, not to vindicate any particular policy mechanism.

C. Phase 3: Scale Implementation

Only if the pilot demonstrates favorable economics should the Commission consider broader implementation.

IV. CHALLENGES

The broadcast incentive auction analogy is imperfect, and we want to be direct about the obstacles facing this proposal.

Uncertain value differential. In the broadcast auction, mobile carriers had demonstrated willingness to pay large sums for cleared spectrum. Here, we do not know whether efficient providers will submit bids low enough so that the sum of the bid and the exit payment is less than the existing subsidy.

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[12] It should be noted that at the start of the Broadcast Incentive Auction formulation incumbents did not enthusiastically step forward, presumably because reluctance may have given them better bargaining leverage in the negotiations over the auction rules.

[13] This evaluation must also account for the administrative savings of the Commission no longer having to regulate, audit, and process cost studies for the carriers that exited the market. Reducing the number of high-cost recipients reduces the Commission's own overhead. This amount may be small compared to subsidy payments, but is a real and growing cost.

LEO participation is promising but not guaranteed. The economic logic for LEO participation is sound. But LEO operators have not yet demonstrated willingness to accept COLR obligations or regulated service commitments at scale. An auction would test whether support payments can bridge this gap.

On the other hand, LEO capacity over rural America exists whether or not it is monetized.[14] Unlike terrestrial providers who must build infrastructure to serve a territory, LEO operators have already incurred the capital cost of their constellations. Rural service obligations represent incremental revenue against a largely fixed cost base, except to the extent serving new obligations require additional satellite infrastructure. Guaranteed demand that helps amortize constellation costs might make LEO operators willing to bid for territories that terrestrial providers would not.

Political opposition will be intense. Small rural carriers are effectively represented in Congress. Any proposal aimed at reducing their numbers will face opposition from legislators and other interests who care more about incumbent carriers than efficient service provision. The proposal must be genuinely voluntary to be politically viable.

Not all territories can be consolidated efficiently. Even with LEO satellite and fixed wireless as potential bidders, some areas may not attract bids at reasonable support levels, or may face unique circumstances (tribal requirements, extreme conditions, specialized service needs) that complicate transfer. For those territories, some form of ongoing support is likely to remain necessary. This mechanism identifies which territories can be served more efficiently but does not eliminate the need for subsidized service entirely. However, existing subsidies mean that any auction that does not close would not be a failure, but simply a continuation of the status quo.

Can auction winners credibly commit? The plan works only if the time-limited USF commitment remains time limited. However, it will always be in a subsidy recipient's interest to lobby for additional subsidies once the promised tranche is finished.[15] In addition, the Commission will need to enforce quality controls (presumably as it does with incumbents).

Funding is complicated. Unlike the broadcast incentive auction, third-party auction proceeds would not finance VISTA. The Commission cannot bind future appropriations. Exit payments and entry auction support must be structured to work within existing USF and FCC spending authority. So what can make this work in practice?

The key is monetizing the substantial efficiency gains the IP transition will generate. Large carriers will save billions when they no longer must maintain legacy TDM infrastructure to satisfy section 251(c)(2) obligations. Small carriers that exit through VISTA will monetize legacy rights that otherwise become worthless as TDM traffic disappears. Entry auction winners will acquire customers and service territories at known costs with time-limited support commitments. And the USF avoids perpetual obligations that would otherwise compound as ICC revenues decline.

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[14] See, e.g., this discussion of LEO capacity. "Anyone, Anywhere, not Everyone, Everywhere: Starlink Doesn't End the Digital Divide" Wesley Woo, Juan A. Fraire, Sylvia Ratnasamy, Scott Shenker, Shaddi HasanAuthors Info & Claims HotNets '25: Proceedings of the 24th ACM Workshop on Hot Topics in Networks Pages 114 - 122 https://doi.org/10.1145/3772356.3772383

[15] See, e.g., Rosston, Gregory and Scott Wallsten, "BEAD's Bidding for Broadband: Why Williamson's 1976 Analysis Still Matters." August 27, 2025. https://techpolicyinstitute.org/publications/broadband/digital-divide/beads-bidding-for-broadband-why-williamsons-1976-analysis-still-matters/

The mechanism could work several ways. Entry auction support could be structured to decline over time, with the NPV savings from reduced perpetual obligations funding initial buyout payments. The Commission could establish a transition fund within existing USF authority.

We encourage the Commission to seek comment on specific funding structures. The core economic logic is straightforward: if the total efficiency gains from consolidation and IP transition exceed the costs of buyouts and time-limited support, a deal exists that makes all parties better off. VISTA is the mechanism for discovering whether that deal exists and what its terms should be.

V. HOW THE AUCTION ADDRESSES NPRM QUESTIONS

A. On Small Carrier Impact and Costs

The NPRM asks: "What steps do small and rural carriers, specifically, need to take, and what are the associated costs?"[16] Without this auction, the cost is insolvency or continued subsidy. The auction reveals the true market value of exit, allowing carriers to monetize their legacy rights rather than stranding their investment. Market-revealed prices provide superior information to cost studies.

B. On Interconnection Points

The NPRM asks about the geographic distribution and concentration of POIs.[17] Post-auction, consolidated service territories would enable interconnection at a manageable number of national or regional IP POIs rather than the current fragmented mesh of local TDM points.

C. On Critical Infrastructure and Safety

The NPRM "seek[s] comment on how the Commission can avoid any harm to critical infrastructure services…."[18] Legacy networks are the primary bottleneck for NG911 deployment. By transferring territories to entry auction winners (who are likely to be large, capitalized entities or technologically advanced LEOs), the Commission ensures that NG911 and STIR/SHAKEN compliance is "baked in" to the new service obligation, rather than retrofitted onto decaying copper.

The Commission asks whether market incentives prove sufficient. Post-auction, the answer is likely to be yes because the structural barrier (a large number of small carriers with incompatible networks and insufficient scale) no longer exists. Remaining carriers should have the technical capabilities and commercial incentives to negotiate IP interconnection agreements.

D. On Timeline

The NPRM proposes December 31, 2028 for forbearance.[19] The auction timeline can align with and support this deadline. The auction accelerates rather than delays the IP transition by providing a clear path forward that enables the Commission to proceed with forbearance while ensuring service continuity.

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[16] NPRM para. 46.
[17] NPRM para.17-23.
[18] NPRM para. 42.
[19] NPRM para. 44.

VI. CONCLUSION

The Commission's IP interconnection proceeding is nominally about Section 251(c)(2) forbearance and the transition from TDM to IP networks. But the NPRM's questions about ICC-dependent carriers create leverage for structural USF reform.

We have tried to present the VISTA proposal honestly. The broadcast auction analogy is imperfect. Implementation will be difficult. Political opposition will be substantial. Not every territory can be efficiently consolidated.

But the alternative to VISTA, which is likely perpetuating a subsidy structure that pays over a thousand separate carriers to maintain fragmented, inefficient operations indefinitely and potentially adding new subsidies to cover the transition costs the NPRM would create, is worse. The IP transition will happen regardless of what the Commission does. The question is whether that transition produces yet another layer of permanent subsidy, or whether it becomes the occasion for rationalization that has eluded every previous reform effort.

A carefully designed pilot would answer empirical questions about viability while limiting downside risk. If market-based consolidation proves impractical, the Commission will have learned something important. If it works, the Commission will have a template for the most significant USF reform in the program’s history.

The IP transition's full benefits, which could include lower costs, better service quality, enhanced public safety capabilities, and reduced robocalls, cannot be realized while so many small carriers maintain separate TDM networks. A market-based auction provides an efficient, incentive-compatible path to completing this transition while protecting consumers and reducing fiscal burdens on the Universal Service Fund.