

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of

Office of Economics and Analytics Seeks
Comment on the State of Competition in
the Communications Marketplace

)
)
)
)
)
)
)

GN Docket No. 26-78

COMMENTS OF INCOMPAS

Staci L. Pies
Christopher L. Shipley
Taylor Abshire
INCOMPAS
1100 G Street, N.W., Suite 800
Washington, DC 20005
(202) 872-5745

May 21, 2026

TABLE OF CONTENTS

I. INTRODUCTION AND SUMMARY 2

II. THE FIXED BROADBAND MARKETPLACE REMAINS HIGHLY CONCENTRATED AND CONSUMERS AND SMALL BUSINESSES HAVE INSUFFICIENT CHOICE 4

III. THE FCC SHOULD CONTINUE TO VIEW FIXED AND MOBILE BROADBAND AS SEPARATE, COMPLEMENTARY, AND NON-SUBSTITUTABLE SERVICES 8

IV. BROADBAND RESALE AND OPEN-ACCESS MODELS ARE CRITICAL TO COMPETITION11

V. DATA-DRIVEN ANALYSIS IS ESSENTIAL TO AN ACCURATE COMPETITION ASSESSMENT 12

VI. THE COMMISSION SHOULD MOVE EXPEDITIOUSLY TO ELIMINATE BARRIERS TO COMPETITIVE BROADBAND DEPLOYMENT 14

 A. The Build America Record Supports Moving Expeditiously to a Rulemaking15

 B. Pole Attachment Progress and Remaining Work16

 C. Railroad Crossings: The Case for a Federal Shared-Jurisdiction Framework 18

VII. COMPETITIVE PROVIDERS ARE DEPLOYING ARTIFICIAL INTELLIGENCE TO IMPROVE THEIR NETWORKS AND CUSTOMER EXPERIENCE 20

VIII. THE COMMISSION’S MARKETPLACE ASSESSMENT MUST ADDRESS THE WHOLESALE INTERCONNECTION GAP AND THE COMPETITIVE CONSEQUENCES OF THE TDM-TO-IP TRANSITION 22

 A. The Relevant Competitive Market Is Wholesale Interconnection, Not Retail Voice 23

 B. Prior Forbearance Has Produced the Monopoly Pricing That Competitive Providers Anticipated 24

 C. ILEC Refusal to Offer IP Interconnection Demonstrates That the Barrier Is Strategic, Not Regulatory 24

 D. Forbearance From TDM Obligations Cannot Proceed Without Condition-Based 9-1-1 Protections 25

 E. Collocation Rights Remain Essential Competitive Infrastructure in the IP Era 26

IX. CONCLUSION28

FEDERAL COMMUNICATIONS COMMISSION

Washington, DC 20554

In the Matter of)
)
)
Office of Economics and Analytics Seeks)
Comment on the State of Competition in) GN Docket No. 26-78
the Communications Marketplace)
)

COMMENTS OF INCOMPAS

INCOMPAS, by the undersigned, respectfully submits these comments in response to the Federal Communications Commission's ("Commission" or "FCC") *Public Notice* ("PN") seeking input on the state of competition in the communications marketplace to inform the 2026 Communications Marketplace Report to Congress ("2026 Communications Marketplace Report").¹ These comments build on INCOMPAS's comments to the 2024 Communications Marketplace Report ("2024 INCOMPAS Communications Marketplace Comments"),² which remain substantively valid. As the record has evolved with new deployment data, emerging technologies, recent FCC proceedings, and changing market conditions, we have updated and expanded the submission accordingly.

¹ *Office of Economics and Analytics Seeks Comment on the State of Competition in the Communications Marketplace*, GN Docket No. 26-78, Public Notice, DA 26-333 (rel. Apr. 6, 2026) (*Public Notice*).

² *Comments of INCOMPAS*, GN Docket No. 24-119 (filed May 28, 2024) (*2024 INCOMPAS Communications Marketplace Comments*).

I. INTRODUCTION AND SUMMARY

INCOMPAS is the premier national industry association for providers of internet, communications, and AI infrastructure. Our members include fixed broadband companies, small local fiber providers, fixed wireless operators, regional and national fiber transport and backbone carriers, cloud communications providers, VoIP providers, competitive voice service providers, including companies that serve schools, libraries, hospitals, and businesses of all sizes and artificial intelligence (“AI”) infrastructure companies.

As a leading advocate for competition in the communications marketplace, INCOMPAS maintains that competition, supported by clear statutory authority and evidence-based policymaking, is the primary driver of affordability, innovation, deployment, and consumer choice. INCOMPAS has advocated that U.S. policymakers should continue to promote policies that enable competition and consumer benefits by prioritizing next-generation networks and services. This includes investing in fiber networks to support all broadband technologies in the marketplace, including fixed broadband, cable, mobile, 5G, and satellite. The Commission’s role in encouraging broadband deployment, both mobile and fixed, and in protecting and promoting broadband competition is key to ensuring that residential and business customers have a choice of broadband providers, as well as the online services and applications they may choose to use over those broadband connections. As such, INCOMPAS’ members are interested in ensuring that the 2026 Communications Marketplace Report accurately captures the state of competition in the communications marketplace.

The 2026 marketplace assessment arrives at an inflection point for competitive communications policy. Three developments since the 2024 Report have materially altered the landscape, making the Commission's competition analysis more consequential than in prior cycles.

First, artificial intelligence is driving significant new demand for high-capacity, low-latency network infrastructure, creating competitive opportunities across the INCOMPAS membership while also raising important questions about how AI-ready infrastructure markets will develop and who will be positioned to serve them. Second, Broadband Equity, Access and Deployment (“BEAD”) funding has moved from planning to deployment, and early award data raises questions worth examining about whether public investment is producing durable new competitive entry alongside expanded coverage. Third, the Commission's pending Internet Protocol (“IP”) interconnection proceeding has reached a decision point that will directly affect the competitive conditions in which voice network modernization occurs. Each of these developments reinforces the importance of the evidence-based, pro-competitive policy framework these comments advance.

As the Commission considers the state of competition in the communications marketplace, INCOMPAS urges the Commission to consider the following:

1. The fixed broadband marketplace remains highly concentrated, with most consumers still limited to one or two choices, particularly at higher speed tiers;
2. Fixed and mobile broadband services remain separate, complementary, and non-substitutable, and the Commission should continue to evaluate them independently;
3. Broadband and telecommunications resale remains critical to competition, especially where facilities-based entry is not viable in the near term;
4. Data-driven, subscriber-based analysis using Broadband Data Collection (“BDC”) data and regression methodology is essential to accurate competition assessment;

5. Competitive broadband providers continue to face significant deployment barriers, including local permitting costs and delays, pole attachment disputes, and railroad crossing impediments;
6. Providers are deploying AI to improve their networks and customer experience, and that deployment should be encouraged rather than constrained by prescriptive regulation;
7. The Commission should establish a mandatory IP interconnection framework before forbearing from Section 251(c) obligations, because post-forbearance experience demonstrates conclusively that Section 201 alone cannot prevent monopoly pricing in markets where ILECs retain bottleneck control;
8. Robocall and robotext mitigation must remain standardized and competitively neutral, with clear redress mechanisms that include the link between STIR/SHAKEN effectiveness and the unresolved IP interconnection gap.

II. THE FIXED BROADBAND MARKETPLACE REMAINS HIGHLY CONCENTRATED AND CONSUMERS AND SMALL BUSINESSES HAVE INSUFFICIENT CHOICE

INCOMPAS documented in its 2024 Communications Marketplace comments that the fixed broadband marketplace remains highly concentrated across much of the country, and the most recent FCC data show that this basic market structure has not materially changed. The Commission's Broadband Data Collection confirms that limited competition remains the norm for residential consumers at meaningful speed tiers.³ According to the FCC's most recent Internet

³ Internet Access Services: Status as of June 30, 2024, Industry Analysis Division, Office of Economics and Analytics (May 2025) (*June 2024 IAS Report*), available at <https://docs.fcc.gov/public/attachments/DOC-411463A1.pdf>.

Access Services report, as of June 2024, approximately 26 percent of broadband serviceable locations had only one terrestrial fixed broadband provider reporting availability at the 100/20 Mbps speed tier, and approximately 34 percent had exactly two such providers, meaning that roughly 60 percent of locations had at most two providers at this benchmark speed.⁴ FCC subscription data further reflects the persistent dominance of a small number of large providers: the largest cable and wireline phone providers collectively account for the substantial majority of residential fixed broadband connections nationwide.⁵ This concentration is also reflected in the FCC's own market analysis, which shows that the median Herfindahl-Hirschman Index ("HHI") for residential fixed broadband connections at 100/20 Mbps was approximately 7,222 at the census tract level as of June 2024, a level that economists characterize as highly concentrated.⁶ Although the reported availability of broadband service has expanded, the number of providers at meaningful speed tiers remains low. Using the FCC's 100/20 Mbps national broadband speed benchmark, the baseline speed tier for most federal broadband programs, BDC data show that a substantial share of broadband serviceable locations have access to only one provider offering qualifying low-latency fixed service, and a comparable share have exactly two such providers.

⁴ *Id.*, Fig. 6 (reporting percentages of broadband serviceable locations by number of terrestrial fixed broadband providers at various speed tiers as of June 2024; satellite services are excluded from this analysis per the report's methodology).

⁵ See Leichtman Research Group, Inc., *Research Notes Q1 2024* (2024) (reporting that the largest cable and wireline phone providers and fixed wireless services, representing approximately 96 percent of the market, collectively accounted for approximately 114.7 million broadband subscribers as of end of 2023, with top cable companies holding approximately 76.1 million subscribers and top wireline phone companies holding over 30.7 million subscribers); see also Leichtman Research Group, Inc. (reporting that top cable providers held approximately 62.5 percent of broadband subscribers in the U.S. as of Q3 2025)

⁶ *June 2024 IAS Report*, Fig. 5 (reporting median census-tract-level HHI of 7,222 for residential fixed connections of at least 100 Mbps downstream and 20 Mbps upstream as of June 2024; HHIs above 2,500 are generally considered highly concentrated under standard economic benchmarks).

Locations with three or more providers meeting the 100/20 Mbps benchmark remain limited nationwide.⁷ This market structure becomes even more pronounced at higher speed tiers. FCC BDC data shows that the number of providers offering gigabit- and multi-gigabit services per location is significantly lower than at the 100/20 tier, often leaving both residential and business customers with only a single facilities-based option for next-generation speeds. As demand for higher-capacity connections grows, including for bandwidth-intensive and latency-sensitive applications associated with advanced computing and artificial intelligence, these competitive limitations at higher tiers become increasingly consequential.⁸

Federal broadband investment through BEAD has the potential to alter these competitive dynamics over time. BEAD funding is moving from planning to the award and deployment stages, and the program's fiber and satellite deployments are expected to compete for customers and market share. However, early public information on provisional BEAD awards indicates that a substantial share of funding is being directed to providers with existing broadband footprints.⁹ While this reflects, in part, the program's emphasis on cost efficiency and demonstrated execution capacity in subgrantee selection, it also underscores the importance of ensuring that BEAD-funded

⁷ *June 2024 IAS Report*, Fig. 6. (showing that as of June 2024, approximately 34 percent of broadband serviceable locations had three or more terrestrial fixed broadband providers at the 100/20 Mbps tier, with the remainder having two or fewer).

⁸ Federal Communications Commission, Technological Advisory Council, *The Transformation of the Network: Impacts on the FCC, the Telecommunications Industry, and End-Users* (2025). <https://www.fcc.gov/sites/default/files/08-05-2025-AIWG-Final-report-for-August-5-TAC-Final.pdf>.

⁹ Advanced Communications Law & Policy Institute, *From BEAD to Buildout: Comparing BEAD Awards to ISP Footprints* (2026). <https://broadbandexpanded.com/posts/beadfccprovidermatch>

networks support robust, long-term competition.¹⁰ While these investments may expand coverage, their longer-term impact on competition will depend significantly on the terms under which funded networks are deployed and whether new competitive entry results.

Given these realities, INCOMPAS continues to urge the Commission to closely examine competition in fixed broadband markets using the most current BDC data, which provides granular, location-level information on provider availability and speed tiers. In particular, the Commission should update its competition analyses, including regression-based assessments, to reflect current provider counts and speed-tier availability. At the same time, the Commission should strengthen its data collection on pricing and quality of service, areas the Commission has recognized as limitations in existing datasets and critical to a full evaluation of competitive conditions.¹¹ Improved information on prices, switching behavior, and consumer satisfaction across urban, suburban, and rural markets would enhance the Commission's ability to assess whether broadband markets are delivering the benefits of competition envisioned by Congress, particularly given evidence that many Americans have access to only one provider or none at all.¹²

¹⁰ National Telecommunications and Information Administration, *BEAD Restructuring Policy Notice* (June 6, 2025), <https://www.ntia.gov/other-publication/2025/bead-restructuring-policy-notice>.

¹¹ Communications Marketplace Report, GN Docket No. 24-119, Report, 39 FCC Rcd 14116, para. 9 (2024) (*2024 Communications Marketplace Report*).

¹² *Id.*; see also Federal Communications Commission, Broadband Data Collection (BDC), June 2025 Data Overview, <https://broadbandmap.fcc.gov/data-download?version=jun2025>.

III. THE FCC SHOULD CONTINUE TO VIEW FIXED AND MOBILE BROADBAND AS SEPARATE, COMPLEMENTARY, AND NON-SUBSTITUTABLE SERVICES

INCOMPAS continues to support the Commission’s longstanding approach to treating fixed and mobile broadband internet access service (“BIAS”) as distinct, complementary services rather than functional substitutes. This framework is grounded in consumer behavior, network performance, and established regulatory practice. Developments since 2024 do not warrant departing from it. The Commission’s 2024 Communications Marketplace Report and most recent Section 706 report appropriately continue to analyze fixed and mobile broadband markets separately, even while acknowledging limited intermodal interaction in certain use cases.¹³

Fixed broadband connections typically deliver higher, more consistent download and upload speeds, greater capacity, and lower latency, making them better suited for in-home and enterprise uses such as video conferencing, telehealth, remote work, cloud computing, gaming, and increasingly AI-enabled applications. Mobile broadband provides critical on-the-go connectivity, but it typically operates under network capacity constraints, variable performance, and usage limitations that restrict its suitability as a full replacement for high-capacity fixed service. FCC performance data likewise show that average fixed broadband speeds substantially exceed mobile speeds, with especially pronounced differences in upload capacity, which is increasingly important for interactive and cloud-based applications.¹⁴

¹³ *2024 Communications Marketplace Report*, 39 FCC Rcd 14116; Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, GN Docket No. 22-270, Report, 39 FCC Rcd 3247 (2024) (*2024 Section 706 Report*).

¹⁴ Measuring Fixed Broadband—Twelfth Report, Federal Communications Commission, Office of Engineering and Technology, (Jan. 6, 2023) <https://www.fcc.gov/reports-research/reports/measuring-broadband-america/measuring-fixed-broadband-twelfth-report>; See *2024 Communications Marketplace Report*.

Consumer behavior reinforces this distinction. Most Americans subscribe to both mobile and fixed broadband services, suggesting these services are generally complements rather than close substitutes. While a subset of consumers relies exclusively on mobile service, that reliance remains limited and is often driven by affordability or access constraints rather than direct substitutability.¹⁵ These patterns reflect the distinct technical and functional roles of fixed and mobile networks, with fixed networks optimized for high-capacity, always-on use in homes and businesses, and mobile networks designed for portability and variable usage across geography and time.

At the same time, the Commission’s analysis should recognize the emergence of intermodal competitive pressure within this broader complementary framework. Fixed wireless access (“FWA”) has become a meaningful and rapidly growing component of the fixed broadband marketplace. FWA providers, including mobile carriers offering 5G home internet and fixed wireless operators serving rural and suburban markets, have added millions of subscribers and are increasingly competing for household broadband customers.¹⁶ This growth has expanded consumer choice, particularly in areas where wireline deployment is limited or still developing.

¹⁵ Pew Research Center, *Americans’ Use of Mobile Technology and Home Broadband* (Jan. 31, 2024) <https://www.pewresearch.org/internet/2024/01/31/americans-use-of-mobiletechnology-and-home-broadband/>.

¹⁶ See, e.g., T-Mobile US, Inc., T-Mobile Delivers Best-in-Class Customer Results in 2024, Q4 2024 Earnings Release, Jan. 29, 2025, <https://www.t-mobile.com/news/business/t-mobile-q4-fy-2024-earnings>; Verizon Communications Inc., Verizon Delivered Strong Customer Growth and Profitability in 2024, Q4 2024 Earnings Release, Jan. 24, 2025, <https://www.verizon.com/about/sites/default/files/4Q24-Earnings-Press-Release.pdf>

Nevertheless, the rise of FWA does not alter the fundamental distinction between fixed and mobile broadband services, nor does it convert them into full substitutes. Rather, it illustrates how wireless technologies can complement wireline infrastructure within the fixed broadband market itself. FWA connections are engineered to serve fixed locations and support household-level usage, resulting in higher data consumption and distinct network dimensioning requirements compared to mobile services. Differences in spectrum availability, capacity constraints, and performance characteristics also mean that FWA’s competitive impact may vary across geographic markets and performance tiers.¹⁷

Accordingly, the Commission should evaluate FWA’s role with analytical precision. The FCC’s competition analysis should account for FWA’s growth and assess the extent to which it is providing meaningful competitive discipline on incumbent cable and other wireline providers at relevant speed tiers. At the same time, variations in capacity, scalability, and performance across technologies underscore that competition, particularly for higher-speed, high-capacity services, cannot be assessed based solely on nominal availability. Consistent with the Commission’s longstanding framework and the available evidence, fixed and mobile broadband markets should continue to be analyzed separately, while competition within fixed broadband, including contributions from FWA, is assessed based on actual capabilities and performance at the relevant service levels.

¹⁷ *2024 Communications Marketplace Report*; Ericsson, *Fixed Wireless Access Handbook* (2023) (describing capacity, spectrum, and network dimensioning constraints for FWA deployments), <https://www.ericsson.com/en/fixed-wireless-access>.

IV. BROADBAND RESALE AND OPEN-ACCESS MODELS ARE CRITICAL TO COMPETITION

In markets where facilities-based competition is limited or absent, resale and wholesale access arrangements can serve as an important mechanism for introducing competitive choice and consumer discipline. Network industries such as broadband are characterized by high fixed costs and economies of scale, which can create structural barriers to entry and limit the economic feasibility of duplicative last-mile infrastructure. Consistent with this dynamic, the Commission has long recognized the importance of evaluating multiple forms of competition, including non-facilities-based entry, as well as the barriers that may constrain competitive expansion in communications markets.¹⁸ As INCOMPAS explained in its 2024 comments, assessing the current state of broadband resale and the conditions under which wholesale access is made available remains an important component of evaluating broadband competition.¹⁹ Developments over the past two years have not diminished the relevance of that inquiry.

Open-access fiber models remain relatively limited in the United States but are gaining traction in targeted contexts, particularly through privately financed wholesale platforms and select public-private deployments. For example, recent large-scale investments are testing the viability of shared-infrastructure models that enable multiple providers to deliver service over a single network. These arrangements can lower barriers to entry by allowing providers to expand into new markets without deploying duplicative facilities and may improve network utilization where demand or deployment economics are uncertain. While facilities-based competition continues to anchor U.S. broadband policy, these resale models may play a complementary role

¹⁸ *See 2024 Communications Marketplace Report.*

¹⁹ INCOMPAS 2024 Communications Marketplace Comments, GN 24-119, at 8-15 (filed June 6, 2024).

in expanding service availability, particularly in higher-cost or less dense areas.²⁰ Resale-based providers can add competitive value even when they do not own the underlying network, including through differentiated service offerings, flexible pricing and billing arrangements, and the integration of broadband connectivity with complementary services such as managed IT, cloud computing, cybersecurity, and advanced customer support.

At the same time, many of the structural barriers to broader resale participation identified in 2024 remain. Providers that control last-mile facilities may, in concentrated markets, face economic incentives that limit the availability of wholesale access on terms conducive to sustainable competition. These incentives arise from underlying market structure and economies of scale inherent in network industries, rather than from provider-specific conduct, and may warrant targeted oversight where they impede competitive entry or expansion. Accordingly, INCOMPAS continues to urge the Commission to move forward with the inquiry it proposed in 2024 to examine the terms and conditions on which wholesale broadband services are offered, and to consider whether targeted, enforceable safeguards are warranted to address practices that may inhibit competition.

V. DATA-DRIVEN ANALYSIS IS ESSENTIAL TO AN ACCURATE COMPETITION ASSESSMENT

The Commission's increasing use of granular data on broadband connections and adoption represents an important improvement in its methodology for assessing competition.

²⁰ See Press Release, AT&T Inc. & BlackRock, Gigapower Joint Venture from AT&T and BlackRock Launches, May 11, 2023, <https://about.att.com/story/2023/gigapower.html> (describing a commercial wholesale open-access fiber network designed to support multiple competing providers over shared infrastructure); Broadband Breakfast, *Gigapower Expands Fiber Buildout, Prepares for Second ISP*, (Sept. 25, 2025), <https://broadbandbreakfast.com/gigapower-expands-fiber-buildout-prepares-for-second-isp/> (noting expansion across multiple states and efforts to onboard additional ISPs).

Incorporating subscriber data alongside availability data allows the Commission to more accurately assess whether households have meaningful competitive alternatives, rather than relying solely on reported coverage. By examining both availability and adoption, the Commission can more effectively distinguish between nominal competition and markets in which consumers have realistic, comparable choices.²¹

INCOMPAS urges the Commission to continue and expand this analytical approach in the forthcoming *2026 Communications Marketplace Report*. Broadband availability alone does not demonstrate effective competition. Meaningful competitive choice requires that a substantial portion of households can reasonably access and subscribe to an alternative provider offering comparable speeds and service quality. Analyses that rely solely on provider-reported availability risk overstating competition, particularly in markets where coverage data may not reflect actual service performance or consumer uptake.²²

The BDC has substantially strengthened the Commission’s ability to measure broadband deployment and availability at the level of individual Broadband Serviceable Locations (“BSL”). These data now underpin the FCC’s National Broadband Map, which federal and state agencies, including NTIA, use to identify unserved and underserved locations and inform broadband funding decisions. While this mapping is essential for targeting deployment, availability data alone does not capture competitive outcomes such as subscribership, pricing discipline, service quality, or switching behavior. For this reason, analyses that incorporate adoption and usage data remain an important complement to BDC availability data. INCOMPAS encourages the

²¹ See *2024 Communications Marketplace Report*.

²² See FCC *Broadband Data Collection* (BDC) <https://www.fcc.gov/BroadbandData> (last visited May 18, 2026).

Commission to use BDC data to conduct more granular analyses of competitive availability and effective choice by speed tier, geography, and provider type, and integrate those findings with measures of subscription and service quality to assess whether alternative offerings meaningfully constrain incumbent providers.

The Commission should also supplement these quantitative tools with targeted consumer research addressing pricing, service quality, and switching behavior. Such information would provide important insight into whether markets that appear competitive based on provider counts, in fact, deliver lower prices, higher-quality service, and realistic opportunities for consumers to switch providers. The Commission has previously emphasized the importance of evaluating multiple dimensions of competition, including pricing, quality, and consumer experience, and has sought to improve its data collection in these areas.²³ Expanded consumer-focused data collection would materially strengthen future competition assessments.

VI. THE COMMISSION SHOULD MOVE EXPEDITIOUSLY TO ELIMINATE BARRIERS TO COMPETITIVE BROADBAND DEPLOYMENT

In 2025, INCOMPAS documented a wide range of barriers that competitive providers face when deploying broadband networks.²⁴ Those barriers persist. With BEAD implementation now underway, removing them is no longer just a matter of competitive principle; it is about ensuring that the federal government's historic broadband investment reaches the communities it was meant to serve. The Commission has laid important groundwork through its Build America agenda and

²³ See *2024 Communications Marketplace Report*.

²⁴ Comments of INCOMPAS, WC Docket No. 25-253, at Annexes A and B (filed Nov. 18, 2025) (*INCOMPAS Section 253 Comments*).

its pole attachment rulemaking series. The *2026 Communications Marketplace Report* is an appropriate vehicle to take stock of what remains undone and to call for the next step: a *Notice of Proposed Rulemaking* (“NPRM”) in the Build America wireline barriers proceeding that translates the substantial record compiled in WC Docket No. 25-253 into enforceable rules.

A. The Build America Record Supports Moving Expeditiously to a Rulemaking

The Commission’s Build America wireline barriers proceeding generated a substantial record. INCOMPAS and other filers documented the same patterns with specificity: permitting timelines measured in years rather than months, in-kind demands with no statutory basis, fees with no relationship to actual rights-of-way management costs, and moratoria that local governments maintain despite sustained federal attention.²⁵ Wireless providers have operated under a favorable deployment framework, with shot clocks, deemed-granted remedies, and anti-moratorium protections, for years. Wireline providers building the fiber backbone for private and federally-funded last-mile networks have no comparable federal framework, and the absence of one has had real consequences: competitive deployments face avoidable delay, costs increase, and public funding risks migrating toward incumbents with the established local relationships and legal resources to navigate permitting environments that lack enforceable standards.

The NPRM should address, at a minimum, shot clocks for wireline network deployments, rules implementing Section 253’s fair and reasonable compensation and publicly disclosed requirements, and a clear statement that localities may not use the commingled nature of modern fiber deployments as a basis for imposing requirements that would otherwise be preempted under Section 253(a). The Commission’s commingled-services doctrine, affirmed in the

²⁵ See *INCOMPAS Section 253 Comments*; see also *Crown Castle Section 253 Comments*, WC Docket No. 25-253, at 26 (filed Nov. 18, 2025) (*Crown Castle Comments*).

Moratoria Order and grounded in the plain text of Section 253(a), already forecloses that tactic as a legal matter.²⁶ A rulemaking would give providers, local governments, and courts the prospective clarity that case-by-case adjudication cannot provide.

B. Pole Attachment Progress and Remaining Work

INCOMPAS commends the Commission for the significant progress it has made in recent years to modernize the pole attachment framework, better reflecting the realities of a competitive communications marketplace. In particular, the *Fifth Report and Order* represents an important acknowledgment that longstanding inefficiencies in the pole attachment process have slowed broadband deployment and created costly disputes between attachers and utilities.²⁷ These reforms appropriately recognize that predictable and timely access to essential utility infrastructure is a prerequisite for effective competition and sustained investment in advanced broadband networks.

The Commission's recent actions, including establishing defined timelines for large pole attachment orders, strengthening coordination and transparency requirements, expanding self-help remedies, and accelerating contractor approval processes, are meaningful steps toward reducing barriers that have historically impeded broadband buildout.²⁸ By increasing certainty around application processing and make-ready timelines, the Commission has reinforced its longstanding policy that Section 224 must function as a pro-competitive safeguard rather than a procedural

²⁶ See *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, Third Report and Order and Declaratory Ruling, WC Docket No. 17-84, 33 FCC Rcd 7705, para. 167 (2018) (*Moratoria Order*), aff'd, *City of Portland v. United States*, 969 F.3d 1020 (9th Cir. 2020).

²⁷ *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, Fifth Report and Order and Fourth Further Notice of Proposed Rulemaking, WC Docket No. 17-84, FCC 25-38 (rel. July 25, 2025) (*Fifth Broadband Deployment Order and Fourth Further Notice of Proposed Rulemaking*).

²⁸ *Id.*

bottleneck. The Commission correctly grounded these reforms in its statutory obligation to ensure that pole attachment rates, terms, and conditions are just and reasonable and that access to essential facilities is provided on a nondiscriminatory basis.²⁹

At the same time, the Commission has appropriately recognized that additional reforms are needed to ensure that the pole attachment regime fully supports competition in today's broadband marketplace. The *Fourth Further Notice of Proposed Rulemaking* identifies several unresolved issues, including cost predictability, true-up practices, onboarding delays, and access to modern infrastructure, such as light poles, that continue to create uncertainty and asymmetric risks for competitive providers.³⁰ These unresolved issues directly undermine the Commission's broader goals of promoting facilities-based competition, accelerating deployment, and expanding consumer choice. Completing the rulemaking initiated in the *Fourth Further Notice* is therefore essential to securing the full competitive benefits of the Commission's recent actions.

From a competitive standpoint, delay in resolving these issues perpetuates a structural imbalance in which utilities retain significant control over deployment timelines and costs, while attachers bear disproportionate financial and operational risk. The Commission has recognized that the absence of clear timelines and standards for processing attachment requests can slow broadband deployment and increase costs, thereby discouraging investment and delaying service availability.³¹ Competitive providers must make substantial, upfront capital investments and cannot do so efficiently when pole access is subject to unpredictable costs, open-ended delays, or

²⁹ 47 U.S.C. § 224(b), (f).

³⁰ See *Fourth Further Notice of Proposed Rulemaking*, at 34-67, paras. 51–103

³¹ *Id.*

inconsistent practices. The record in this proceeding demonstrates that these barriers continue to materially affect deployment decisions.

Completing the rulemaking also would advance regulatory consistency and reduce disputes, both of which are central to effective competition policy. The Commission's recent reforms are expressly intended to promote greater collaboration, improve transparency, and establish more predictable processes between utilities and attachers. Resolving the outstanding issues identified in the *Fourth Further Notice of Proposed Rulemaking* would build on these foundations by reducing transaction costs and limiting the ability of bottleneck facility owners to disadvantage competitors through procedural uncertainty.

INCOMPAS therefore urges the Commission to build on its recent momentum and expeditiously complete this rulemaking. Doing so will reinforce the Commission's commitment to policies that promote entry, investment, and innovation, while ensuring that monopoly control of essential infrastructure does not impede competition. The Commission has laid the groundwork for meaningful reform; completing this proceeding will ensure that the pole attachment framework fully supports the competitive communications marketplace Congress envisioned in Section 224.³²

C. Railroad Crossings: The Case for a Federal Shared-Jurisdiction Framework

Railroad crossings remain among the most consequential and least resolved barriers to broadband deployment that competitive providers face. Permitting wait times of eighteen months or more are common, fees bear no relationship to actual costs, and broadband providers have documented individual crossing negotiations that consumed entire budgets and killed deployments that were otherwise ready to build.³³

³² *Id.*

³³ See *INCOMPAS Section 253 Comments*, at Annex B.

The experience of state-level reform efforts underscores why durable resolution requires federal action. Virginia’s 2023 legislation, which imposed a shot clock and fee cap on railroad crossings, was effectively rendered unavailable to private, for-profit ISPs after the Virginia Supreme Court’s May 2025 ruling held that commercial providers may not invoke its provisions to compel crossings under Virginia’s constitution.³⁴ That outcome is not surprising; Currently, railroads are subject to federal regulation, including preemption under the Interstate Commerce Commission Termination Act (“ICCTA”), which limits the ability of states to regulate railroad operations, routes, and access. Railroad safety is also predominantly governed by federal law, particularly under the Federal Railroad Safety Act. That jurisdictional framework points toward a federal solution rather than foreclosing one.

INCOMPAS agrees that the future regulatory framework should preserve the Federal Railroad Administration’s (“FRA”) authority to set and enforce safety standards for crossings. But safety standards define the scope of the railroad’s legitimate review authority over a crossing application; they do not encompass the commercial terms of access once safety requirements are satisfied. The deployment-facilitation dimension of this problem, including enforceable shot clocks for permit processing once safety review is complete, fee standards tied to actual costs, and remedies for providers when the process is used to delay rather than evaluate a crossing application, is squarely within Congress’s authority to grant to the FCC.

INCOMPAS urges the Commission to use the *2026 Communications Marketplace Report* to make the affirmative case for federal legislation built on this shared-jurisdiction model (FRA as the safety regulator, and the FCC as the final authority on broadband deployment), to document

³⁴ See *Norfolk S. Ry. Co. v. State Corp. Comm’n*, Record No. 240869 (Va. May 22, 2025).

the extent to which railroad crossing barriers are impeding BEAD-funded and private broadband deployment, and to refer this issue to Congress with a clear framework for action.

VII. COMPETITIVE PROVIDERS ARE DEPLOYING ARTIFICIAL INTELLIGENCE TO IMPROVE THEIR NETWORK OPERATIONS AND CUSTOMER EXPERIENCE

The rapid advancement of artificial intelligence is creating significant opportunities for competitive broadband providers to improve network performance, reduce operating costs, and deliver higher-quality services to customers. As INCOMPAS highlighted in its 2024 comments, early adoption of AI-driven tools by member companies, such as Granite Telecommunications and Segra, demonstrated the potential of these technologies to enhance both network operations and customer experience. Since that time, AI adoption across the communications sector has accelerated, and its implications for competition have become more pronounced.

Competitive providers are increasingly deploying AI-enabled tools to monitor network performance in real time, predict and prevent outages, and dynamically optimize traffic across multi-technology networks. For example, Granite Telecommunications has deployed AI-driven network management solutions that continuously monitor connectivity, detect issues, and automatically take corrective action, improving reliability while reducing operational costs.³⁵ More broadly, AI-driven network analytics and automation are enabling providers to transition from reactive maintenance to predictive and proactive network management, improving uptime and performance. These capabilities allow competitive providers to operate with greater efficiency

³⁵ See Granite Telecommunications Press Release *Granite Issued U.S. Patent for AI-Powered edgeboot Product* (May 8, 2024) available at <https://www.granitenet.com/granite-issued-u-s-patent-for-ai-powered-edgeboot-product/>.

and reliability, narrowing traditional scale advantages held by larger incumbents and enabling more effective competition on service quality and price.

AI is also transforming the customer experience in ways that directly affect competitive dynamics. AI-powered contact center and service platforms enable providers to deliver faster resolution times, more personalized support, and more efficient customer interactions. Segra, an INCOMPAS member, was among the first commercial customers to deploy Google Cloud's Contact Center AI platform end-to-end, improving agent productivity, enabling intelligent call routing, and enhancing overall customer experience.³⁶ More broadly, AI-based contact center tools can reduce interaction times, improve service quality, and increase operational efficiency, allowing providers to differentiate their offerings without requiring the scale of legacy incumbents.³⁷

Beyond network operations and customer service, the growth of AI itself is reshaping demand for communications infrastructure. The deployment of AI at scale is driving significant demand for high-capacity fiber and subsea cable networks, low-latency connectivity, and data center interconnection services. Competitive providers play a critical role in meeting this demand, particularly in emerging data center markets and along key transport corridors. AI is therefore not only a tool for enhancing competition within broadband markets, but also a driver of new infrastructure investment and competitive entry across the broader communications ecosystem.³⁸

³⁶ See Business Wire, *Segra Modernizes Customer Experience by Being First to Implement Google Cloud Contact Center AI Platform* (Dec. 1, 2022), available <https://www.businesswire.com/news/home/20221201005284/en/Segra-Modernizes-Customer-Experience-by-Being-First-to-Implement-Google-Cloud-Contact-Center-AI-Platform>.

³⁷ See Google Cloud, *Contact Center AI Platform*, <https://cloud.google.com/solutions/contact-center-ai-platform> (last visited May 20, 2026).

³⁸ See McKinsey & Co., *AI-Driven Telecom Networks* (Feb. 27, 2026), available at <https://www.mckinsey.com/industries/technology-media-and-telecommunications/our->

In light of these developments, the Commission should ensure its competition analysis reflects the growing role of AI in shaping both network performance and infrastructure demand. The Commission should also remove barriers to deployment of the underlying infrastructure that enables AI-driven services, including fiber, subsea cable, transport, and interconnection facilities. At the same time, the Commission should avoid prescriptive requirements governing the use of AI in network operations or customer service. Given the pace of technological change and the diversity of business models in the marketplace, such mandates could chill innovation, limit efficient deployment of new tools, and disproportionately burden competitive providers.

VIII. THE COMMISSION’S MARKETPLACE ASSESSMENT MUST ADDRESS THE WHOLESALE INTERCONNECTION GAP AND THE COMPETITIVE CONSEQUENCES OF THE TDM-TO-IP TRANSITION

The Commission’s 2026 marketplace assessment cannot treat the voice sector as competitive without confronting a structural problem that the retail market data obscures: ILECs retain significant and persistent market power in the wholesale interconnection market even as their retail voice share has declined to a fraction of its former level. The ongoing transition from TDM to IP voice infrastructure is reaching a critical juncture at which the Commission must act to preserve competitive access. As INCOMPAS has documented in detail in its filings in the IP interconnection proceeding, the state of competition in the voice marketplace is directly and urgently tied to how the Commission manages this transition.³⁹ The analysis that follows reinforces

[insights/issue-brief-ai-driven-telecom-networks](#). (describing the use of AI to automate and optimize network planning, operations, and performance).

³⁹ See Comments of INCOMPAS, WC Docket Nos. 25-304, 25-304, 25-208, and 17-97 (filed Jan. 20, 2026) (*INCOMPAS IP Interconnection Comments*); Reply Comments of INCOMPAS, WC Docket Nos. 25-304, 25-304, 25-208, and 17-97 (filed Feb. 19, 2026) (*INCOMPAS IP Reply Comments*).

the Commission's broader competitive assessment and strongly counsels against characterizing the voice marketplace as competitive in the absence of enforceable interconnection protections.

A. The Relevant Competitive Market Is Wholesale Interconnection, Not Retail Voice

ILECs routinely invoke their diminished retail voice market share to argue that their regulatory obligations should be relaxed. That argument misidentifies the relevant market. The market that matters for interconnection analysis is not the retail voice services market; it is the distinct wholesale market for interconnection facilities and tandem services. In that market, ILECs continue to exercise bottleneck control through their ownership of central office facilities that remain the primary aggregation points for local traffic exchange, regardless of what is happening at the retail level. INCOMPAS members collectively maintain approximately 350 ILEC central office collocations because those facilities represent the only practical points for physical interconnection across their service territories. That is not evidence of a competitive market; it is evidence of infrastructure dependency with no viable alternative.

As NTCA explained in the IP interconnection proceeding, the Commission's competitive analysis errs by measuring competition in the retail voice market while declining to examine the wholesale interconnection market that competitive carriers depend on.⁴⁰ The 2026 Communications Marketplace Report should incorporate this distinction explicitly and resist characterizations of the voice marketplace that rely on retail market share data to obscure persistent wholesale bottlenecks.

⁴⁰ See Comments of NTCA—The Rural Broadband Association, WC Docket No. 25-304, et al. at 7 (filed Jan. 20, 2026) (*NTCA IP Interconnection Comments*).

B. Prior Forbearance Has Produced the Monopoly Pricing That Competitive Providers Anticipated

The competitive consequences of regulatory forbearance in the wholesale interconnection market are not theoretical. INCOMPAS and Bandwidth have documented for the Commission the price increases that competitive carriers have experienced in TDM tandem and transport markets following forbearance from interconnection rate regulation: increases ranging from several hundred to more than two thousand percent on DS3 circuits, and price spikes of comparable magnitude in switched access tandem services.⁴¹ Section 201's just and reasonable standard has proven inadequate as a substitute for structural interconnection obligations, because the timelines and remedies available in Section 208 complaint proceedings are incompatible with the operational reality of carrier interconnection agreements that must be renegotiated on commercial terms under market conditions that ILECs effectively set.

The 2026 marketplace assessment should explicitly document these pricing dynamics. A competitive market does not produce the price trajectories that the record reflects. The Commission's assessment of the voice sector should be anchored in wholesale market data, not retail market share figures that ILECs deploy to argue for further deregulation.

C. ILEC Refusal to Offer IP Interconnection Demonstrates That the Barrier Is Strategic, Not Regulatory

Competitive carriers have sought IP interconnection from ILECs for years. ILECs have declined, requiring competitive carriers to continue exchanging traffic over costly TDM tandem

⁴¹ See *INCOMPAS IP Interconnection Reply Comments* at 31–35; Comments of Bandwidth Inc., WC Docket No. 25-304, et al. at 14–17 (filed Jan. 20, 2026) (*Bandwidth IP Interconnection Comments*).

facilities that ILECs own and price.⁴² The pattern is not a byproduct of technical complexity or regulatory uncertainty; it is a commercial strategy to preserve TDM-based revenue streams and maintain the switching costs that competitive carriers must bear to reach end-user customers.

The Commission's marketplace assessment should treat this pattern as a competitive finding. A market in which the dominant infrastructure owner systematically refuses to offer the interconnection technology that would enable a more competitive exchange structure is not a functioning competitive market. The 2026 Communications Marketplace Report should reflect that finding and support the Commission's ongoing IP interconnection proceeding accordingly. INCOMPAS urges the Commission to adopt a condition-based rather than a date-certain approach to any forbearance from TDM interconnection obligations, conditioning relief on the demonstrated availability of IP interconnection alternatives at just and reasonable prices.

D. Forbearance From TDM Obligations Cannot Proceed Without Condition-Based 9-1-1 Protections

The record established in the IP interconnection proceeding demonstrates that premature forbearance from TDM interconnection obligations would pose serious risks to emergency call delivery. NENA: The 9-1-1 Association has documented that many 9-1-1 authorities are not ready to receive NG9-1-1 traffic and continue to rely on copper wire service, which will remain necessary for years.⁴³ State and local governments typically operate on five-year purchasing cycles for infrastructure upgrades, governed by budget cycles that cannot be accelerated by federal regulatory deadlines. A 9-1-1 authority beginning NG9-1-1 procurement in 2026 cannot complete

⁴² See *Bandwidth IP Interconnection Comments* at 4; Comments of the Competitive Carriers Association, WC Docket No. 25-304, et al. at 7-8 (filed Jan. 20, 2026); Comments of the Voice on the Net Coalition, WC Docket No. 25-304, et al. at 2-3 (filed Jan. 20, 2026).

⁴³ See Comments of NENA: The 9-1-1 Association, WC Docket No. 25-304, et al. at 2 (filed Dec. 18, 2025).

deployment until 2031. The competitive and safety stakes are inseparable: a timing mismatch between ILEC copper retirement and NG9-1-1 readiness does not cause inconvenience; it causes emergency calls to fail.

Section 10 of the Communications Act prohibits forbearance when enforcement of a provision is necessary to protect consumers and requires that any forbearance determination be consistent with the public interest.⁴⁴ Forbearance that would jeopardize 9-1-1 service cannot satisfy either standard. The Commission's marketplace assessment should reflect the direct connection between the state of 9-1-1 infrastructure readiness and the competitive analysis: where NG9-1-1 transition is incomplete, TDM copper infrastructure is not an obsolete legacy asset; it is operational public safety infrastructure, and its premature retirement would constitute a market failure with life-safety consequences.

E. Collocation Rights Remain Essential Competitive Infrastructure in the IP Era

The transition from TDM to IP changes the protocol of traffic transmission but does not eliminate the need for physical interconnection infrastructure. IP networks still require physical fiber cross-connections, backup power systems, and network diversity for reliability. ILEC central offices remain critical traffic aggregation hubs regardless of the protocol carried. The costs of establishing alternative collocation facilities range from \$850,000 to \$1.5 million per site, with development timelines of up to 36 months, including property acquisition, construction,

⁴⁴ See 47 U.S.C. § 10(a)(2)-(3).

commissioning, and customer migration.⁴⁵ In rural areas, carrier-neutral alternatives do not exist at any price.

The competitive significance of this infrastructure dependency is directly relevant to the Commission's marketplace assessment. A market in which one competitor controls the physical facilities that rivals must access to serve customers, and in which no practical alternative exists, is not a market in which the Commission can characterize competitive conditions as favorable. Any forbearance from Section 251(c)(6) collocation obligations must include comprehensive grandfathering provisions protecting existing arrangements, with pricing remaining subject to just and reasonable standards and equipment remaining upgradeable from TDM to IP protocols without loss of grandfathered status. The Commission should condition forbearance from Section 251(c)(6) on a demonstrated showing that collocation is sufficiently available to effectuate IP interconnection at just and reasonable prices.

The Commission's assessment of robocall mitigation cannot be separated from its assessment of the IP interconnection market. The connection is direct: STIR/SHAKEN caller ID authentication depends on end-to-end IP transport to preserve the cryptographic integrity of attestation signatures. When traffic is forced through TDM gateways because ILECs decline to offer IP interconnection on reasonable terms, those gateways degrade or strip authentication signals, producing the attestation gaps that undermine STIR/SHAKEN's effectiveness as a system.⁴⁶ The Commission has invested significantly in STIR/SHAKEN as the foundation of its

⁴⁵ See Fiber Coalition IP Interconnection Comments, WC Docket No. 25-304 et al. at 9–10 (filed Jan. 20, 2026).

⁴⁶ See *INCOMPAS IP Interconnection Reply Comments*, WC Docket Nos. 25-304, 25-208, and 17-97 at 27–29 (documenting relationship between TDM gateway traversal and degradation of STIR/SHAKEN authentication signal integrity).

robocall mitigation strategy. That investment is only as effective as the interconnection infrastructure through which voice traffic travels.

The marketplace assessment should explicitly reflect this dependency. A finding that robocall mitigation is functioning effectively in the voice market would be incomplete and not accurate without an assessment of whether STIR/SHAKEN is operating as designed across the full interconnection ecosystem. INCOMPAS urges the Commission to document in the 2026 Communications Marketplace Report the extent to which authentication signal degradation attributable to TDM gateway traversal compromises mitigation effectiveness, and to treat the resolution of the IP interconnection gap as a prerequisite to a fully functional robocall mitigation framework. The Commission should ensure that STIR/SHAKEN standards are applied consistently and in a nondiscriminatory manner across all provider types, including competitive LECs and VoIP providers that have faced disparate treatment during implementation.

IX. CONCLUSION

For the reasons set forth above, INCOMPAS urges the Commission to use the *2026 Communications Marketplace Report* to deliver an honest, rigorous, and evidence-based assessment of the state of competition in communications markets and to expedite appropriate action as recommended to improve the state of competition. The key findings should be clear: fixed broadband markets remain concentrated; competitive providers continue to face significant structural barriers to entry and expansion; and the voice marketplace lacks adequate wholesale interconnection protections at the very moment the industry is navigating a critical technology transition.

Facilities and resale-based competition, supported by a level playing field, drive better networks, lower prices, and more innovative services for American consumers. The Commission's role is to clear the barriers to that competition, enforce the rules that enable it, and ensure that no community is left behind as the marketplace evolves. INCOMPAS and its members are committed to providing the competitive alternatives that Americans deserve. As such, these comments aim to provide the FCC with information to further enable and promote competition in the communications marketplace.

Respectfully submitted,

/s/ Staci L. Pies

Staci L. Pies
Christopher L. Shipley
Taylor Abshire
INCOMPAS
1100 G Street, N.W., Suite 800
Washington, DC 20005
(202) 872-5745

May 21, 2026