

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Service Quality, Customer Satisfaction, Infrastructure and Operating Data Gathering)	WC Docket No. 08-190
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)	
Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscribership Data, and Development of Data on Interconnected Voice over Internet Protocol (VoIP) Subscribership)	WC Docket No. 07-38
)	

COMMENTS OF FREE PRESS

Ben Scott
Policy Director
Free Press
501 Third Street, NW, Suite 875
Washington, DC 20001
202-265-1490

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I. Introduction

In this proceeding the Commission requests comment on the modern utility of the data collected through the Automated Reporting Management Information System (ARMIS). The Commission has long recognized that tracking industry trends is an essential component of successful policymaking. All industries under the Commission's jurisdiction report various types of data. Cable operators and broadcasters report infrastructure and other data through a variety of Media Bureau forms.¹ All broadband providers report a variety of line count, availability and service level information in Form 477. And of course, price cap Local Exchange Carriers have been reporting service quality and infrastructure information in ARMIS.

ARMIS was established in part because the Commission was concerned that the move from rate-of-return regulation to the (then) new price cap regulatory structure could lead to a decline in service quality.² Such a decline in a market with little effective competition would be an outcome that clearly runs counter to the Commission's central purpose of "making available... adequate facilities." There is no denying that in the years since ARMIS was established the communications marketplace has changed in many ways. What has not changed however is the simple fact that today's essential communications technology -- broadband -- is offered in a marketplace that lacks adequate competition. Thus the need for the Commission to gather data regarding infrastructure and service quality has not changed.

Therefore, the Commission must retain a system of reporting that enables it to adequately monitor the communications industry. The Commission has already noted the

¹ See <http://www.fcc.gov/mb/mbform.html>

² We say "in part", as the Commission at the time stated "ARMIS data serves more and broader purposes than merely the regulation and enforcement of rate of return. *Policy and Rules Concerning Rates for Dominant Carriers*, CC Docket No. 87-313, Second Report and Order, ¶378 (rel. Oct. 4, 1990) ("Price Cap Order").

importance of this function in the traditional telecom sector stating, “[w]ithout routine automated reporting...this Commission may not be able to adequately monitor carriers and, thus, perform our regulatory functions.”³ The broadband sector is no different. In requiring the reporting of broadband data, the Commission expected to “facilitate a more comprehensive understanding of the deployment of advanced telecommunications capabilities and broadband services”.⁴ The Commission stated further:

We understand that we cannot in one data collection gather all of the information relevant to every possible future proceeding. Instead we expect to obtain a baseline of knowledge and understanding about the market for local telephony and broadband services that will both guide us in assessing the overall effectiveness of our actions and will enable us to ask for more specifically targeted information in discrete proceedings.⁵

Along with the Commission, consumers also need adequate information to make informed choices in the communications marketplace. In the *Comcast Order*, the Commission specifically noted the lack of adequate information available to broadband Internet consumers.⁶ The collection of broadband infrastructure and service quality data would begin to address some of these concerns.⁷

Both Local Exchange Carriers and cable providers currently report detailed infrastructure and service quality information to the Commission, and in many cases, to

³ *Automated Reporting Requirements for certain Class A and Tier 1 Telephone Companies*, Notice of Proposed Rulemaking, CC Docket No. 86-182, ¶6 (Rel. May 7, 1986) (“Previous ARMIS NPRM”).

⁴ *Local Competition and Broadband Reporting*, CC Docket No. 99-301, Report and Order, ¶4 (Rel. March 30, 2000) (“Form 477 Order”).

⁵ *Id.*, ¶6.

⁶ *Formal Complaint of Free Press & Public Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications; Broadband Industry Practices; Petition of Free Press et al. for Declaratory Ruling That Degrading an Internet Application Violates the FCC’s Internet Policy Statement & Does Not Meet an Exception for “Reasonable Network Management,”* WC Docket No. 07-52, Memorandum Opinion and Order, (rel. Aug. 20, 2008) (“Comcast Order”).

⁷ See e.g. *Broadband Data Order and FNPRM*, ¶36; Ex Parte filing of Free Press, *Broadband Industry Practices*, WC Docket No. 07-52, Oct. 24, 2008.

the public.⁸ However, this data is reported at varying levels of granularity and is not designed to reflect the reality that these once orthogonal infrastructures are now used to offer similar services. In addition to offering broadband services, cable providers use their traditional coaxial plant to offer voice services, and LECs now offer video entertainment over the local loop. The data that the Commission gathers from these industries remains valuable, but is not optimal for the purposes of analyzing the broadband market. The communications marketplace has converged; the Commission must modernize its reporting system to reflect this development.

II. Discussion

A. The Data Reported Through ARMIS Still Provides the Commission and the Public with an Important Monitoring Tool

The ARMIS database provides both federal and state regulators, along with consumers, the ability to monitor the performance of the dominant phone providers. During their initial Notice of Proposed Rulemaking in establishing ARMIS, the Commission noted that this reporting “would enable us to monitor the results of our actions on the industry and, thus, to take corrective actions when necessary. We believe that timely information and action is essential in the current period of rapid change.”⁹

The purpose of this collection was to protect consumers:

We recognize that consumer protection was behind much of the original intent for requiring disclosure of service quality and infrastructure investment information through these ARMIS reports.¹⁰

⁸ See e.g. ARMIS Reports and Media Bureau Form 320, 325: Annual Cable Operator Report.

⁹ *Previous ARMIS NPRM*, ¶1

¹⁰ *Service Quality, Customer Satisfaction, Infrastructure and Operating Data Gathering*, WC Docket No. 08-190, Memorandum Opinion and Order, ¶10 (rel. Sept. 6, 2008) (“ARMIS Order and NPRM”).

This justification holds true today. The industry is undoubtedly experiencing another period of rapid change and continued monitoring will allow for both self-assessment and safeguarding consumers. The value of this monitoring is dependent on the underlying data capturing all of the industries providing these services. The data collection must be updated to reflect the technological advancements occurring within the broadband industry.

In the recent *ARMIS Order and NPRM*, the Commission recognized that collecting this type of data for “the entire relevant industry”¹¹ would be very valuable for consumers¹² as well as broadband policymakers.¹³ Such information is of particular value to state regulators.¹⁴ Indeed, the Commission established “a policy of cooperation with the state commissions, including and attested to by the ready availability of ARMIS data.”¹⁵ State entities play a valuable role in protecting consumers and have detailed their extensive use of the ARMIS data in the record.¹⁶ The Commission should recognize this

¹¹ *Id.*, ¶34. (“We find, moreover, that these data would be useful only if they are collected from the entire relevant industry. Therefore, any such data collection would gather this information from all facilities-based providers of broadband and/or telecommunications.”).

¹² *Id.*, ¶12. (“we recognize the potential for such information to help consumers make informed choices”).

¹³ *ARMIS Order and NPRM*, ¶1. (“collection of information of this type would be useful to the Commission’s public safety and broadband policymaking”).

¹⁴ This reporting can also prove valuable to the industry itself. *See e.g.* Steve Johnson, “Testing In Progress,” *Broadband Library International*, p. 40, available at <http://www.johnsontelecom.com/resources/Sig+Leak.pdf>. (“Since 1990, the U.S. Federal Communications Commission requires cable operators to monitor, measure and annually report their compliance to the commission’s signal leakage rules. The original impetus for these rules was to protect over-the-air spectrum users (aircraft, in particular) from harmful interference originating from breaks in our cable plants. The upside, we soon discovered, was that maintaining a tight plant also improves signal quality.”)

¹⁵ *Policy and Rules Concerning Rates for Dominant Carriers*, CC Docket No. 87-313, Second Report and Order, ¶369 (rel. Oct. 4, 1990) (“Price Cap Order”).

¹⁶ *See e.g.* Reply Comments of National Association of State Utility Consumer Advocates, In the Matter of Petition of AT&T Inc. for Forbearance Under 47 U.S.C. § 160 (c) from Enforcement of Certain of the Commission’s ARMIS Reporting Requirements, WC Docket No. 07-139, Sept. 19, 2007, p. 4.

continued value but also consider that “there have been a number of significant developments in the Commission’s public safety and broadband information gathering.”¹⁷

B. The Commission Must Modernize Reporting to Reflect the Current Marketplace

At the core of the information and communication technology-based economy is network infrastructure. Successful regulatory oversight of these industries can only be achieved if policymakers have access to detailed and accurate network infrastructure data. Without adequate information, policy is created in an information abyss that can impede rather than advance goals. While the phone and cable industry have long reported network infrastructure data to the Commission, reporting through the lens of broadband is lacking.

Broadband is without a doubt today’s critical communications technology -- a view long held by the Commission. Nearly a decade ago, the Commission concluded “that gathering comprehensive and consistent information from local telecommunications and broadband service providers is critical to our regulatory responsibilities.”¹⁸

Recognizing this was only the first step in what was sure to be a continual exercise, the Commission stated:

For example, because this information collection focuses on actual provision of service, we may need to take additional steps to examine other aspects of broadband “deployment” and “availability,” such as infrastructure deployment. We nevertheless expect that this reporting requirement will provide a baseline for understanding the state of the broadband market that will help refine those efforts.¹⁹

The domination of local broadband markets by incumbent telephone and incumbent cable companies is well established, and meets the formal definition of a true

¹⁷ *ARMIS Order and NPRM*, ¶33, fn. 93.

¹⁸ *Local Competition and Broadband Reporting*, CC Docket No. 99-301, Report and Order, ¶11 (rel. March 30, 2000).

¹⁹ *Id.* ¶13. [Footnotes Omitted]

duopoly.²⁰ Indeed, both Congress²¹ and the Commission²² have expressed concern about recent industry trends that reflect the predictable bad behavior expected in an uncompetitive market. In light of these trends and the general convergence and consolidation in the communications sector, it is imperative that the Commission collect the data it needs to adequately carry out its oversight duties.

The nature of the data currently collected from the phone and cable industries is comparable to what is needed to adequately monitor the broadband market. Below we provide examples.

The ARMIS reporting provides comprehensive information to monitor the health of the network infrastructure owned by major LECs. Information is collected to monitor the total network capacity ("Total Equipped Channels"²³), available network capacity ("Total Working Channels"²⁴), capacity dedicated to the service ("Total Switched Access Lines"²⁵), potential demands put on the network ("Access Lines in Service by Customer"²⁶), the potential to increase overall capacity ("Total Fiber Kilometers Deployed (Lit and Dark)"²⁷), and the overall pace of investment (Total Sheath Kilometers of Metallic Cable and Fiber Cable²⁸ and Total Number of Switches²⁹). ARMIS also

²⁰ The local marketshares of the incumbent cable and telcos (DSL or Fiber) constitute a formal duopoly market structure, despite the existence in some cases of minor competition from other providers. HHIs are likely in the range of 5,000, the functional equivalent of a 2 firm market. See, William G. Shepherd, *The Economics of Industrial Organization*, Englewood Cliffs, NJ, Prentice Hall, 1985.

²¹ Representatives Edward J. Markey and Joe Barton, Letter to Charter Communications, May 16, 2008, available at http://markey.house.gov/docs/telecomm/letter_charter_comm_privacy.pdf.

²² See e.g. *Comcast Order*.

²³ ARMIS Infrastructure Report 43-07, Table II, Row 0370 and Row 0420.

²⁴ *Id.*

²⁵ ARMIS Operating Data Report 43-08, Table III

²⁶ *Id.*

²⁷ ARMIS Operating Data Report 43-08, Table I.A.

²⁸ *Id.*

²⁹ ARMIS Service Quality Report 32-05, Table IV.

provides data on service quality -- information that would be of great utility to the Commission if it were gathered for the entire broadband market.³⁰

Information submitted by cable operators in Media Bureau Form 325 also provides the Commission and the public the ability to monitor industry trends. In this Form providers report information on total network capacity (Upstream/Downstream Spectrum Available³¹ and Analog and Digital Video Channels Capacity³²), dedicated network capacity (Max Activated Upstream/Downstream Spectrum³³), available network capacity³⁴, the capacity dedicated to the service (Analog and Digital Video Channels Carried³⁵), potential demands on the network (“Number of subscribers”³⁶), potential increase in demands on the network (“Potential subscribers”³⁷) and the overall pace of investment (“Coaxial Plant Length”, “Fiber Optic plant length” and “Fiber Optic Nodes”³⁸). In addition, performance assessments for phone and cable providers are currently collected through ARMIS service quality reports,³⁹ outage reports,⁴⁰ and cable

³⁰ While the Service Quality data collected through ARMIS is much more extensive, Cable operators report the quality of their network through Form 320: Basic Signal Leakage Performance Report.

³¹ Form 325: Annual Cable Operator Report, Section III.1.a and III.2.a

³² *Id.*, Section III.3.a and III.3.b

³³ *Id.*, Section III.1.b and III.2.b

³⁴ This figure is calculated from the Form 325 figures specifying the amount of spectrum available and the amount of spectrum already activated.

³⁵ *See* fn. 32.

³⁶ Form 325: Annual Cable Operator Report, Section II.2.a

³⁷ *Id.*, Section II.2.b

³⁸ *Id.*, Section II.4.a, II.4.b and II.4.c

³⁹ For example, the ARMIS Service Quality Report, collects information on the number of complaints filed with state or federal regulatory authorities pertaining to service quality. See FCC Report 43-05, Table V.

⁴⁰ *ARMIS Order and NPRM*, ¶13.

operator proof of performance tests.⁴¹ Similar assessments of the performance of the broadband industry would be very valuable to the Commission and the public.

Given that phone and cable companies are offering broadband services over the same network infrastructure used to provide traditional voice and video services, the types of broadband infrastructure data that would need to be collected would look quite similar to the information outlined above. Thus modernizing the reporting system to collect broadband infrastructure and service quality data would not create an additional regulatory burden, and would lead to more responsible oversight and more effective policymaking.

Due to the fact that end-user performance and infrastructure are inextricably linked, we suggest that the Commission collect data on three specific metrics -- metrics that will give the Commission the ability to assess the quality of the broadband service delivered to end-users. The Commission should collect the total capacity dedicated to residential broadband service, the total amount of bandwidth supplied through that capacity and the total potential bandwidth demand. By collecting this information at the first aggregation point in the local network, the Commission will possess granular data on the level of network oversubscription.

The Commission should also require the reporting of the total amount of spectrum that exists within the network, the total sheath kilometers of wire, the total fiber Km deployed (lit and dark), and the average distance from customer premise to fiber.⁴² This information will provide the Commission ability to track investments being made to increase overall network capacity. As it recognized during the creation of the ARMIS

⁴¹ See 47 CFR §76.601. See Also Federal Communications Commission, "FCC Fact Sheet on Subscriber Signal Quality Standards," Sept. 1997, Available at <http://www.fcc.gov/mb/facts/sigqualt.html>.

⁴² Much of this information is already collected through ARMIS Reports and Form 325: Annual Cable Operator Report.

system, the Commission needs to have the data necessary to “indicate trends” -- data which can serve as “a good indicator of investment.”⁴³ Furthermore, such information would prove useful in multiple areas of interest to the Commission.⁴⁴

C. The Commission Should Continue to Make Data Publicly Available

The majority of the data collected through ARMIS is publicly available.⁴⁵ The decision to make this data available to the public was based in part on the expertise of the Common Carrier Bureau, who determined that the release of the data “offers no competitive advantage to LEC competitors.”⁴⁶ The Commission recognized two crucial reasons for releasing the data:

First, public availability allows consumers and experts the opportunity to review the data to ensure the accuracy of the information. Second, wide dissemination of the information promotes a more informed, more efficient market.⁴⁷

Consumer groups and state regulators have stated their intention to be “eager and capable monitors” through the use of this data and, as we have detailed, a more informed market is exactly what is needed in today’s communication marketplace.⁴⁸ The Commission recognized nearly two decades ago that “LECs’ fears of competitive disadvantage with regard to automated reporting were overstated”.⁴⁹ ARMIS data has

⁴³ *Price Cap Order*, ¶357.

⁴⁴ We have requested the Commission collect certain aspects of this information to guide its ability to enforce the Internet Policy Statement and to assess the deployment of broadband, as required by Section 706 of the Telecommunications Act of 1996. See Further Reply Comments of Consumers Union, et al., WC Docket No. 07-38, Sept. 1, 2008, p. 14-18; Ex Parte filing of Free Press, WC Docket No. 07-52, Oct. 24, 2008, p. 12-13.

⁴⁵ *ARMIS Order and NPRM*, ¶36.

⁴⁶ *Price Cap Order*, ¶368, fn. 513.

⁴⁷ *Form 477 Order*, ¶86

⁴⁸ *Price Cap Order*, ¶369.

⁴⁹ *Id.*, ¶368, fn. 512.

been benefiting the public for two decades and the Commission should allow this successful policy to continue.

III. Conclusion

The tentative conclusions made in the Notice of Proposed Rulemaking are encouraging. The Commission has an opportunity to recognize the valuable and unique role that data collection plays in broadband policymaking. The Commission should move forward with the modernization and expansion of its data collection.

Respectfully submitted,

FREE PRESS
CONSUMERS UNION

By: _____
Adam Lynn
501 Third Street NW,
Suite 875
Washington, DC 20001
202-265-1490
alynn@freepress.net

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