

## FEDERAL COMMUNICATIONS COMMISSION

### 47 CFR Part 4

[PS Docket No. 11–82; FCC 11–74]

#### Proposed Extension of Part 4 of the Commission's Rules Regarding Outage Reporting to Interconnected Voice Over Internet Protocol Service Providers and Broadband Internet Service Providers

**AGENCY:** Federal Communications Commission.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The purpose of this document is to seek comment on a proposal to extend the Commission's communications outage reporting requirements to interconnected Voice over Internet Protocol (VoIP) service providers and broadband Internet Service Providers (ISPs). This action will help ensure that our current and future 9–1–1 systems are as reliable and resilient as possible and assist our Nation's preparedness for man-made or natural disasters, such as Hurricane Katrina.

**DATES:** Submit comments on or before August 8, 2011. Submit reply comments on or before October 7, 2011. Written comments on the Paperwork Reduction Act proposed information collection requirements must be submitted by the public, Office of Management and Budget (OMB), and other interested parties on or before August 8, 2011.

**ADDRESSES:** You may submit comments, identified by PS Docket No. 11–82, by any of the following methods:

- *Federal eRulemaking Portal:* <http://www.regulations.gov>. Follow the instructions for submitting comments.

- *Federal Communications Commission's Web Site:* <http://www.fcc.gov/cgb/ecfs/>. Follow the instructions for submitting comments on the Commission's Electronic Comment Filing System (ECFS).

- *People with Disabilities:* Contact the FCC to request reasonable accommodations (accessible format documents, sign language interpreters, CART, etc.) by e-mail: [FCC504@fcc.gov](mailto:FCC504@fcc.gov) or phone: (202) 418–0530 or TTY: (202) 418–0432.

In addition to filing comments with the Secretary, a copy of any comments on the Paperwork Reduction Act information collection requirements contained herein should be submitted to the Federal Communications Commission via e-mail to [PRA@fcc.gov](mailto:PRA@fcc.gov) and to Nicholas A. Fraser, Office of Management and Budget, via e-mail to

[Nicholas\\_A\\_Fraser@omb.eop.gov](mailto:Nicholas_A_Fraser@omb.eop.gov) or via fax at 202–395–5167. For detailed instructions for submitting comments and additional information on the rulemaking process, see the **SUPPLEMENTARY INFORMATION** section of this document.

#### FOR FURTHER INFORMATION CONTACT:

Gregory Intoccia, Public Safety and Homeland Security Bureau, at (202) 418–1300, Federal Communications Commission, 445 12th Street, SW., Washington, DC 20554; or via the Internet to [Gregory.Intoccia@fcc.gov](mailto:Gregory.Intoccia@fcc.gov).

For additional information concerning the Paperwork Reduction Act information collection requirements contained in this document, send an e-mail to [PRA@fcc.gov](mailto:PRA@fcc.gov) or contact Judith Boley Herman at (202) 418–0214 or [judith.b.herman@fcc.gov](mailto:judith.b.herman@fcc.gov).

#### SUPPLEMENTARY INFORMATION:

##### I. Introduction

1. Broadband technologies delivering communications services to end users have changed behaviors and revolutionized expectations in American life and are fast becoming substitutes for communications services provided by older, legacy communications technologies. In 2010, 28 percent of the more than 89 million residential telephone subscriptions were provided by interconnected VoIP providers. Broadband networks now carry a substantial volume of 9–1–1 traffic. They are also a significant form of communications in times of crisis. Communications outages to broadband facilities threaten the public's ability to summon in emergency situations. The National Security and Emergency Preparedness posture of the United States depends on the availability of broadband communications during times of emergencies, and it is one of the core responsibilities of the Commission. In 2010 alone, there were a number of significant outages to broadband networks and services in various parts of the Nation.

2. The resilience of the broadband communications infrastructure directly impacts the emergency preparedness and readiness posture of the United States. Outages to broadband networks can have a significant impact on emergency services, consumers, businesses, and governments. The most practical, effective way to maintain emergency preparedness and readiness is to work continuously to minimize the incidence of routine outages.

3. Since 2005, the Commission has required providers of interconnected VoIP services to supply 9–1–1 emergency calling capabilities to their

customers as a mandatory feature of the service. “Interconnected” VoIP services allow a user generally to receive calls from and make calls to the legacy telephone network. Under the Commission's rules, interconnected VoIP providers must deliver all 9–1–1 calls to the local emergency call center; deliver the customer's call-back number and location information where the emergency call center is capable of receiving it; and inform their customers of the capabilities and limitations of their VoIP 9–1–1 service. By Presidential Directives and Executive Orders the FCC has been assigned a critical role in the Nation's emergency preparedness and response efforts. Presidential Directives and Executive Orders and their implementing documents charge the FCC with ensuring the resiliency and reliability of the Nation's commercial and public safety communications infrastructure.

4. The Commission has many years of experience working with communications providers to improve communications resiliency and emergency readiness. The Commission's current outage reporting rules, applicable to legacy communications systems, allows the Commission staff to collect and analyze key outage data that has helped to reduce outages. With the percent of VoIP-only households and businesses increasing, it is essential for safety reasons that we extend outage reporting to VoIP.

5. The Commission's existing approach includes the analysis and response to information received during an emergency. During Hurricane Katrina, the Commission's outage reporting data was the Federal government's primary and best source of information about the condition of critical communications infrastructure in the disaster area. Using this information the Commission was able to contact affected reporting providers to establish an *ad hoc* data-driven working group to help manage the crisis.

6. Currently, only providers of legacy circuit-switched voice and/or paging communications over wireline, wireless, cable, and satellite communications services must report communications outages. Commission analysis of industry-wide outage reports has led to improvements in the engineering, provisioning, and deployment of communications infrastructure and services. The Commission has been able to share its analysis with members of industry, providing an understanding of recurring problems nationwide that an individual provider cannot know by itself. This process has also made communications networks more robust

to the effects of natural or man-made disasters, thereby improving our Nation's readiness posture. Reducing the number of communications outages greatly improves the resiliency of the communications critical infrastructure to withstand disruptions that would otherwise jeopardize the Nation's ability to communicate during emergency events, including to the Nation's 9-1-1 system.

7. In this proceeding, we seek to extend these benefits to the broadband communications networks frequently used for emergency response today. We propose to extend the Commission's Part 4 communications outage reporting requirements to include both interconnected VoIP service providers and broadband ISPs. This change would allow the Commission, and other Federal agencies, to track and analyze information on outages affecting broadband networks. The availability of this information would also help the Commission determine the extent of the problem nationwide, identify recurring problems, determine whether action can be taken immediately to help providers recover or prevent future outages, and ensure to the extent possible that broadband networks are prepared for disasters. Our proposed action will allow the Commission to use the same successful process it currently uses with wireline and wireless providers to refine best practices to prepare broadband communications networks better for emergency situations.

8. In this *Notice of Proposed Rulemaking (NPRM)*, with respect to both interconnected VoIP service and broadband Internet service we seek comment on reporting thresholds based on circumstances specific to each different type of service or technology. Because requiring interconnected VoIP service providers and broadband ISPs to report outages may impose a burden on them, we welcome comments quantifying this burden and recommendations to mitigate it. We believe that the type of information that would be collected for outage reporting is already collected by providers for their own internal use, and that reporting the information on a confidential basis to the Commission would create a minimal burden.

9. We encourage comments on the thresholds or circumstances that should be included to improve our ability to address communication system vulnerabilities and to help prevent future outages through the development and refinement of best practices. We encourage interested parties to address these issues in the contexts of interconnected VoIP service and

broadband Internet service. We also encourage commenters to address how the proposed information collection would facilitate best practices development and increased network security, reliability and resiliency throughout the United States and its Territories. We also seek comment on sources of authority.

10. This document contains proposed information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and the Office of Management and Budget (OMB) to comment on the information collection requirements contained in this document, as required by the Paperwork Reduction Act of 1995, Public Law 104-13. Public and agency comments are due August 8, 2011. Comments should address: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimates; (c) ways to enhance the quality, utility, and clarity of the information collected; (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology; and (e) ways to further reduce the information collection burden on small business concerns with fewer than 25 employees. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4), we seek specific comment on how we might further reduce the information collection burden for small business concerns with fewer than 25 employees.

## II. Background

11. In this section, we review the key prior Commission policies and results of those policies leading up to the present rules and the current proposal for extending the Commission's outage reporting requirements to interconnected VoIP service providers and broadband Internet service providers. In its initial 1992 *Initial Outage Reporting Order*, released on February 27, 1992 and published in the **Federal Register** at 57 FR 7883, March 5, 1992, the Commission established network outage reporting requirements for wireline providers. In 2004, in the *Second Outage Reporting Order*, released on August 19, 2004 and published in the **Federal Register** at 69 FR 70316, Dec. 3, 2004, the Commission extended outage reporting requirements to include providers of wireless

(including paging), cable, and satellite communications.

12. The Commission uses outage information submitted pursuant to Part 4 of its rules to, among other things, address communication system vulnerabilities and help prevent future outages. The Commission staff accomplishes this objective by using statistically meaningful trends in data as well as associated technical analysis to gather communications providers together in coordinated efforts to improve security, reliability and resiliency. Where necessary, the Commission also recommends policy changes to address persistent problems. The Commission works with each individual reporting service provider to monitor and address specific communications vulnerabilities identified in outage reports.

13. As a result of reporting pursuant to the Commission's Part 4 outage reporting rules, positive results have been achieved. For example, the frequency of wireline outages, which had spiked in 2008, has dramatically decreased since the issue was identified through the Commission's ongoing analyses of monthly wireline outages. Estimated lost 9-1-1 calls due to wireline outages were reduced by more than 50 percent from peak when the Commission worked with the Network Reliability Steering Committee (NRSC) to reduce wireline outages. As a result of the conclusions drawn and the additional work of the NRSC, providers were able to take corrective action. These reductions occurred because of the Commission's analysis of outage reporting data and the sharing of data among Commission and industry network experts. Thus the Commission's existing outage reporting has increased the resiliency of the communications infrastructure and increased the availability of public safety communication services.

14. On March 16, 2010, the Commission delivered to Congress the National Broadband Plan, which recommended that the Commission extend its Part 4 outage reporting rules to broadband ISPs and interconnected VoIP service providers as "the lack of data limits our understanding of network operations and of how to prevent future outages."

15. In July 2010, the Public Safety and Homeland Security Bureau released a *Public Notice* in which it sought comment on a variety of issues related to whether, and if so how, the Commission should extend coverage of its Part 4 rules to apply to broadband ISPs and interconnected VoIP service

providers. The Bureau considered this information in preparing this *NPRM*.

### III. Extending Outage Reporting Requirements

#### A. Interconnected VoIP Service Providers

16. Interconnected VoIP services increasingly are viewed by consumers as a substitute for traditional telephone service. This is also reflected in our 9–1–1 emergency call system today, where we estimate that approximately 28 percent of residential wireline 9–1–1 calls are made using VoIP service. In keeping with increased public reliance on interconnected VoIP services, we propose to extend our outage reporting rules to interconnected VoIP service providers. In 2010, there were 29 million interconnected residential and business VoIP subscriptions in the United States. Between June 2009 and June 2010, interconnected residential and business VoIP subscriptions increased from 24 million to 29 million and retail switched access lines decreased from 133 million to 122 million. Unlike wireline service, currently the Commission has no mechanism to identify outages of VoIP service that impact end users and cannot address the cause of 9–1–1 outages relating to VoIP service. Applying outage reporting requirements to these services brings the reporting requirements into line with existing E9–1–1 obligations.

17. We propose to apply our outage reporting requirements to both facilities-based and non-facilities-based interconnected VoIP service providers. Both groups are subject to our E9–1–1 obligation. A reporting requirement that extends only to facilities-based interconnected VoIP service providers would not result in reporting of all significant VoIP service outages experienced by end users and may put in jeopardy the ability to receive 9–1–1 calls. Our current rules require communications providers to report on service outages that affect their customers even if they do not own or operate the facilities that failed. We seek comment on this proposal.

18. Currently, under the Commission's Part 4 outage reporting rules, an "outage" is defined to include "a significant degradation in the ability of an end user to establish and maintain a channel of communications as a result of failure or degradation in the performance of a communications provider's network." Our rules tailor the definition of a reportable significant degradation to communications over cable, telephony carrier tandem,

satellite, System Signaling 7 ("SS7"), wireless, or wireline facilities. Broadband networks operate differently than legacy networks, so the impact of outages is likely to be different. We seek comment on the definition of "outage" as applicable to these providers. We believe that a complete loss of the ability to complete calls should be included. We seek comment on whether there should also be a threshold based on lost or delayed packets. Should the Commission use a concept such as "loss of generally-useful availability or connectivity" and if so, how should we define it? Should we adopt the metrics used by the Internet Engineering Task Force (IETF), such as packet loss, round-trip latency, and jitter? The Commission recognizes that wireless and satellite networks include specific latency challenges not found in wireline-only networks. Should the thresholds be altered to address the unique architectural characteristics and challenges of wireless, satellite, cable, and wireline systems used by interconnected VoIP service providers? If the thresholds need to be altered, what values should be used to represent the loss of generally-useful availability and connectivity? How should the concept itself be revised to provide more useful information for analysis purposes? What voice quality-related network metrics are routinely reported to operations support systems in carrier-operated VoIP architectures? Do the Real-time Transport Control Protocol (RTCP) round-trip and Session Initiation Protocol (SIP) Event Package for Voice Quality Reporting provide guidance for suitable metrics that are already being collected for purposes other than outage reporting? How should the number of potentially affected users be counted for interconnected VoIP service providers? Can the number of assigned telephone numbers for non-mobile VoIP service users be used in a manner similar to what is used for wireline service providers? We recognize the difficulty of distinguishing precisely when a VoIP end system cannot place a call as opposed to when it is simply temporarily disconnected from the network due to user choice or home network failure. Can statistical measures that compare typical to current device registration counts (e.g., number of active SIP registration entries) be used to detect and measure large-scale outages?

19. For wireless service providers, the current rules require the service provider to estimate the simultaneous call capacity lost and then multiply the result by a concentration ratio of eight

(to convert the number of users affected to the number of potentially affected users). Should a similar construct be used for mobile VoIP service users? Is there a direct estimate of the number of potentially affected users that would be preferable? For both wireline and wireless service providers, should the failure of core routers, network servers, SIP proxy servers, Serving General Packet Radio Service (GPRS) and Gateway GPRS support nodes, call session control function (CSCF), home subscriber servers (HSS), root name servers, provider-operated Domain Name System (DNS) servers, Dynamic Host Control Protocol (DHCP) servers, Call Agents, Session Border Controllers, Signaling Gateways, or some other type of communications equipment be reportable similar to the current reporting requirement for Mobile Switching Center failures? Should special considerations be given to services provided via VoIP to PSAPs? How should outages that are observable by end users as performance degradations (e.g., increased latency and/or jitter) be addressed? How should we account for those differences in our outage reporting rules? Should the same or a different standard apply to interconnected VoIP service providers who provide service to end users with wireless applications?

20. Based on how interconnected VoIP service is typically configured and provided, we propose that a significant degradation of interconnected VoIP service exists and must be reported when an interconnected VoIP service provider has experienced an outage or service degradation for at least 30 minutes: (a) On any major facility (e.g., Call Agent, Session Border Controller, Signaling Gateway, CSCF, HSS) that it owns, operates, leases, or otherwise utilizes; (b) potentially affecting generally useful availability and connectivity of at least 900,000 user minutes (e.g., average packet loss of greater than one percent for 30,000 users for 30 minutes); or (c) otherwise potentially affecting special offices, or special facilities, including 9–1–1 PSAPs. We seek comment on whether the proposed reporting thresholds are appropriate. Should some other analogous threshold be considered for interconnected VoIP service providers? Should the thresholds be equally applied to redundant facilities?

#### B. Broadband Internet Service Providers

21. Interconnected VoIP services ride over broadband networks. If the underlying communications network fails, the VoIP service, including its Commission-mandated 9–1–1

capabilities, will fail as well. Thus we propose to extend our outage reporting rules to include broadband ISPs, a term which includes broadband Internet access service providers and broadband backbone ISPs. While there is increasing evidence that major outages are occurring on these providers' facilities, and those outages may disable 9–1–1 and other service capabilities, currently there are no Commission requirements to report such outages. The Commission accordingly is unable to analyze underlying causes, support the development of best practices that would lead to better overall network performance. We seek comment on all aspects of this proposal.

22. We seek comment on whether both facilities-based and non-facilities based broadband ISPs should be required to report outages that meet a certain threshold. Inclusion of both of these types of providers we believe would ensure outage reporting covers Internet consumers and businesses that purchase Internet access through less traditional access arrangements (*e.g.*, prepaid Internet access cards).

23. Some broadband ISPs provide Internet access directly connecting to end users, while others provide the connectivity and related services needed to establish and maintain end-to-end IP communications among independently-operated networks. While we identify two broad categories of broadband ISPs, we seek comment on whether there are other categories of ISPs the Commission should consider for outage reporting purposes.

24. A broadband Internet access service provider aggregates end-user communications, usually within a specific geographic region. For this proceeding, we propose to define a “broadband Internet access service provider” as a provider of mass-market retail service by wire or radio that is able to support interconnected VoIP service as defined in our E11 rules. Alternatively, we could define a “broadband Internet access service provider” as a provider of mass-market retail service by wire or radio that provides the capability to transmit data to and receive data from all or substantially all Internet endpoints, including any capabilities that are incidental to and enable the operation of the communications service, but excluding dial-up Internet access service. This term would also encompass providers of any service that the Commission finds to be providing a functional equivalent of the service described in the previous sentence. We seek comment on this alternative

approach and any other alternative definitions.

25. We propose to define a “broadband backbone ISP” to be one that provides long-haul transmission for one or more broadband Internet access service providers (*e.g.*, typically connecting traffic among major cities). We seek comment on this proposed definition.

26. We distinguish between broadband Internet access service providers and broadband backbone ISPs because of the different roles that they perform. Often a single organization may fulfill both types of broadband ISP roles, providing roles as broadband Internet access service provider and as broadband backbone ISP. We seek comment on the definitions that we should use for purposes of outage reporting.

27. *Broadband Internet Access Service Providers.* Broadband Internet access service providers aggregate end-user communications, usually within a specific geographic region. Examples of broadband Internet access service providers are local exchange carriers that provide end-user traffic access to the Internet, and cable system operators that aggregate the traffic of residential end users using cable modem technology and offer access to the Internet.

28. Broadband Internet access service providers are the conduit for delivering broadband services to the American public and business community. When outages occur that severely degrade the delivery of the broadband services, end users are negatively affected, which can include 9–1–1 services. Without a reporting requirement, however, it is nearly impossible to determine the extent, the effect, and the consequences of broadband outages.

29. Broadband Internet access service providers continue to show significant growth in subscribership. Between 1999 and 2009, the number of fixed-location business and residential connections grew at an annual compound rate of 42 percent, increasing from 2 million to 81 million connections. This growth reflects the American public's increasing reliance on broadband Internet access service to conduct important daily communications.

30. We therefore propose to extend the outage reporting requirements in Part 4 of our rules to broadband Internet access service providers. Consistent with the current definition of “outage” in Part 4 of the Commission's rules, which places emphasis on a “significant degradation” of communications, we propose that an outage in the context of broadband Internet access service

provider be defined as “the loss to the end user of generally-useful availability and Internet connectivity.”

31. Should we measure “generally-useful availability and connectivity” of broadband Internet service as it relates to a broadband Internet access service provider as the operational state in which the transmission from the end user to the broadband ISP Point of Presence (PoP) is operating as designed for normal use, the logical functions and relay systems required from ISPs are operating as designed for normal use, and the end user is not prevented by the broadband Internet access service provider from establishing communications with any destination device on the global Internet that has an assigned Internet Protocol address?

32. We seek comment on whether for broadband Internet access service providers the “loss of generally-useful availability and connectivity” can be measured using the metrics defined by the IETF, such as packet loss, round-trip latency, or jitter from the source to the destination host? Are there additional metrics that should be used to trigger outage reporting? There are differences in the various architectures of different types of communications systems employed by broadband Internet access service providers that may affect the delivery of Internet services. We seek comment on the applicability of the IETF metrics and their values for these types of service providers. Based on an examination of commercial practices, and considering the apparent lack of standardized values for the metrics presented here, we believe that the appropriate values should be packet loss of one percent or more, round-trip latency of 100 ms or more, or jitter of 4 ms or more from the source to the destination host in order to trigger outage reporting. Are these values appropriate for all types of broadband Internet access service providers? Are there more appropriate values? What are they and why are they better? How should the number of potentially affected users be counted for broadband Internet access service providers? For non-mobile users, can the number of IP addresses be used as a direct estimate of the number of potentially affected non-mobile users? In the cases where Dynamic Host Configuration Protocol (DHCP) is used to assign IP addresses by Internet access service providers, how does its use affect the estimate of the number of potentially affected users given the dynamic re-use of IP addresses? Should there be a multiplier introduced to improve the estimate? For wireless service providers, the current rules require the service provider to

estimate the simultaneous call capacity lost and then multiply the result by a concentration ratio of eight (to convert the number of users affected to the number of potentially affected users). Should a similar construct be used for non-mobile broadband access users? Is there a direct estimate of the number of potentially affected users that would be preferable? We also understand that performance degradations on control elements in ISP networks can result in Internet service that is neither generally useful nor available to end users. We seek comment on what thresholds should be set to measure outages of this nature. We seek comment on whether these outage definitions are appropriate, and how these user-centric metrics might be aggregated into a more meaningful metric that can be the basis for reporting.

33. Should we require a broadband Internet access service provider to submit reports in cases similar to the current reporting requirements for voice service providers? We seek comment on requiring a report when the provider has experienced an outage or service degradation for at least 30 minutes: (a) On any major facility (e.g., authoritative DNS server, DHCP server, HSS) that it owns, operates, leases, or otherwise utilizes; (b) potentially affecting generally-useful availability and connectivity of at least 900,000 user minutes (e.g., average packet loss of greater than one percent for 30,000 users for 30 minutes); or (c) that affects any special offices and facilities, including major military installations, key government facilities, nuclear power plants, airports, and Public Safety Answering Points (PSAPs). Are there other special facilities for which outage reporting would be appropriate? Should a different standard apply to broadband access providers that provide service to end users with wireless applications? How should potentially affected mobile users be counted?

34. *Broadband Backbone ISPs.* A broadband backbone ISP interconnects a broadband Internet access service provider to other broadband Internet access service providers. Broadband backbone ISPs also connect to each other through network access points (NAPs) or private peering arrangements. Broadband backbone ISPs route all traffic incoming from broadband Internet access service providers and provide the infrastructure needed for Internet connectivity between the broadband Internet access service providers.

35. Based on the role that they serve, we believe it possible that an outage suffered by a broadband backbone ISP

could cause greater impact, as measured by the number of affected users, than a similar outage experienced by an access ISP. Such outages could severely impact the ability of users to reach 9–1–1 during an emergency. We therefore propose to require that broadband backbone ISPs report outages whenever the broadband backbone ISP experiences an outage or service degradation affecting other ISPs or end users. Reporting of these types of service disruptions would serve as a foundation for the development of network best practices to guard against future disruptions of this magnitude that have the potential to compromise public safety and have a widespread negative effect on consumers.

36. We seek comment on what threshold of disruption should constitute a reportable broadband backbone ISP service outage. Consistent with the current definition of “outage” in Part 4 of our rules that places emphasis on a “significant degradation” of communications, we propose that an outage in the context of a broadband backbone ISP be defined as the loss of “generally-useful availability and Internet connectivity.”

37. Should we define “generally-useful availability and Internet connectivity” of broadband Internet service as it relates to a broadband backbone ISP as: (a) The operational state in which the transmission between ISP PoPs is operating as designed for normal use; (b) the logical functions and relay systems required from ISPs are operating as designed for normal use; and/or (c) the connected access ISP networks are not prevented from establishing communications with any destination device on the global Internet that has an assigned Internet Protocol address. Can the “loss of generally-useful availability and connectivity” for broadband backbone ISPs be measured using the metrics defined by the IETF, including packet loss, round-trip latency, or jitter as measured from source to destination PoP? Are there additional metrics that should be used to trigger outage reporting? We seek comment on these metrics and the values in this proposal. Based on commercial practices, and considering the lack of standardized values for the metrics presented here, we believe that the appropriate values should be packet loss of one percent or more, round-trip latency of 100 ms or more, or jitter of 4 ms or more as measured from source to destination PoP in order to trigger outage reporting. Are these values appropriate for all types of broadband backbone ISPs? Are there more

appropriate values? What are they and why are they better?

38. Due to the Nation’s growing dependence on ISPs to deliver critical IP communication services, we seek comment on requiring a broadband backbone ISP to submit outage reports when it experiences an outage or service degradation for at least 30 minutes: (a) On any major facility (e.g., PoP, Exchange Point, core router, root name server, ISP-operated DNS server, or DHCP server) that it owns, operates, leases, or otherwise utilizes; (b) potentially affecting generally-useful availability and connectivity for any Internet PoP-to-Internet PoP (PoP-to-PoP) pair for which they lease, own or operate at least one of the PoPs where the “loss of generally useful availability and connectivity” is defined as: (1) An average packet loss of one percent or greater; (2) average round-trip delay of 100 ms or greater; or (3) average jitter of 4 ms or greater with measurements taken in each of at least six consecutive five-minute intervals as measured from source to destination PoP. We also seek comment on the proposed packet loss, latency, and jitter threshold values. Should the failure of routers, network servers, or some other type of communications equipment be reportable? Should failure of a PoP, core router, root name server, or authoritative DNS server be included in the list of such equipment?

#### *C. Application of Part 4 Rules to Service Using New Wireless Technologies*

39. In the 2004 *Second Outage Reporting Order*, the Commission extended its outage reporting requirements beyond wireline providers to include wireless providers. In the decision, the Commission enumerated several types of licensees providing wireless service that would be covered by the Part 4 outage reporting obligations. Since that time, licensing in additional spectrum bands, e.g., Advanced Wireless Services (AWS) and 700 MHz licensing, has become available for wireless services. The 2004 *Second Outage Reporting Order* suggests that the Commission intended to extend the scope of outage reporting to include all non-wireline providers, including new technologies developed after the adoption of the 2004 *Second Outage Reporting Order*. We seek comment on whether we should amend our rules to clarify and reflect this meaning. For instance, should our rules be amended to state that the requirement also applies to new services using spectrum bands or new wireless technologies that come into being after the adoption of the rule? With respect

to AWS and 700 MHz licensees, are the current Part 4 outage reporting rules adequate to cover outage reporting obligations by these providers (e.g., reporting thresholds, and nature of information to be submitted)? Should the rules be amended so as to exclude AWS and 700 MHz providers from reporting requirements because the services that they provide have not reached sufficiently high levels such that outage reporting would be desirable? For AWS and 700 MHz providers, what are their respective usage levels such that an outage would have a significantly large impact on telecommunications networks and users so as to warrant collecting such data?

#### IV. Mandatory Reporting and Other Alternatives

40. For the Commission to obtain a complete picture of service outages from interconnected VoIP service providers and broadband ISPs, and to allow the Commission to assist in facilitating a resolution of outages and preventing future outages, we propose that the outage reporting described herein be mandatory, just as it is today for services covered under our Part 4 rules. Because of the importance of the reliability and resiliency of broadband communications for the Nation's 9-1-1 system and overall emergency response, we believe mandatory reporting is appropriate. We note that a voluntary outage reporting trial was attempted, without success, prior to the imposition of our original Part 4 rules. Hence, mandatory outage reporting was adopted to ensure timely, accurate reporting.

41. We note that Japan requires outage reporting from broadband communications providers. We seek comment on what role the Japanese outage reporting requirements played in restoring communications during the recent earthquake-related events. We seek comment also on current proposals in other countries to require outage reporting by broadband communications providers and, specifically, how those proposals are tailored to ensure valuable data is collected while imposing the least amount of burden on reporting providers.

42. We seek comment on whether mandatory reporting is necessary to obtain a comprehensive view of outages experienced by customers that may impact 9-1-1 and other services. Alternatively, if we were to adopt a voluntary reporting scheme, how could the Commission be confident that it is not missing important information? What other regulatory alternatives

should the Commission consider for interconnected VoIP service provider and broadband ISP outage reporting? What aspects of the information that providers share, as part of their voluntary ongoing public-private coordination, should we adopt?

#### V. Reporting Process

43. Under our Part 4 rules, communications providers are required to submit a Notification within two hours of discovering a reportable outage. An Initial Report is due within 72 hours after discovering the outage, and a Final Report is due within 30 days after discovering the outage. Final Reports must be submitted by a person authorized by the provider to submit such reports to the Commission and to bind the provider legally to the truth, completeness, and accuracy of the information contained in the report. The Final Communications Outage Report must contain all potentially significant information known about the outage after a good faith effort has been made to obtain it, including any information that was not contained in, or that has changed from that provided in, the Initial Report. We propose to follow the same reporting process for the reporting of outages experienced by interconnected VoIP service providers and broadband ISPs. We seek comment on this proposal.

44. We currently provide an electronic reporting template to facilitate outage reporting by those types of providers currently subject to our Part 4 rules. We believe that this approach to collecting data has ensured that the Commission learns of major outages in a timely fashion and, at the same time, minimizes the amount of time and effort required to comply with the reporting requirements. We propose to utilize a very similar electronic reporting template to collect outage reports from interconnected VoIP service providers and broadband ISPs. We seek comment on this proposal.

45. We believe this process is reasonable in light of the significant benefits conferred by the ability to analyze and address network outages. In addition, we believe that interconnected VoIP service providers and broadband ISPs are currently collecting in the ordinary course of their business much of the information, and perhaps even a broader range of information, than we propose be reported. Therefore, we believe that, in the usual case, complying with our proposed reporting requirements would not result in an undue administrative burden. We seek comment on the reasonableness of the reporting process proposed herein, and

we request comment on relevant types of outage information already being collected by interconnected VoIP service providers and broadband ISPs so that we could align our metrics with what is already available to them.

46. We seek comment on whether collecting and reporting as proposed would be no more burdensome for interconnected VoIP service providers and broadband ISPs than current Part 4 reporting requirements are for traditional providers. Is the burden greater on smaller VoIP service providers and smaller broadband ISPs? If so, to what degree? Are there alternative ways to accomplish the aims of this proceeding in a less burdensome manner? For example, what alternatives processes, if any, could be followed which would enable the Commission to collect the types of data specified in this proceeding without requiring a direct interface between the Commission and VoIP service providers and broadband ISPs? Analysis of outage reports by both Commission staff and reporting providers has led to a significant reduction in the frequency and scope of outages on the providers' networks. Is the burden of reporting outweighed by the benefits from the ability to analyze reported outages to help prevent future outages and assist better responses to actual outages?

#### VI. Sharing of Information and Confidentiality

47. Data collected pursuant to the Commission's outage reporting requirements is presumptively confidential. Currently, to the extent that the Commission shares the outage information it receives, sharing is done on a presumptively confidential basis pursuant to the procedures in Part 0 of our rules for sharing information not generally available for inspection. We seek comment on whether the outage information collected from broadband ISPs and interconnected VoIP service providers should also be treated as presumptively confidential. We seek comment on publicly reporting aggregated information across companies, e.g., total number of incidents by root cause categories. Also, we seek comment on whether the Commission should share the information with other Federal agencies on a presumptively confidential basis.

#### VII. Legal Authority

48. We believe the Commission has authority under the Communications Act to promulgate the reporting rules proposed here. In section 615a-1 of the Communications Act, Congress imposed a "duty" on "each IP-enabled voice

service [interconnected VoIP] provider to provide 9–1–1 service and enhanced 9–1–1 service to its subscribers in accordance with the requirements of the Federal Communications Commission.” The Commission has express statutory authority to adopt rules implementing that requirement. We seek comment on this interpretation.

49. In addition, we believe that the Commission has authority to ensure both that interconnected VoIP providers fulfill their duty to provide 9–1–1 services and to address obstacles, such as failures in underlying communications networks, to their doing so. Under the definition of ancillary authority recently adopted by the U.S. Court of Appeals for the District of Columbia Circuit, the Commission may exercise ancillary authority when “(1) The Commission’s general jurisdictional grant under Title I [of the Communications Act] covers the regulated subject and (2) the regulations are reasonably ancillary to the Commission’s effective performance of its statutorily mandated responsibilities.” Both prongs are met here with respect to interconnected VoIP providers. The provision of interconnected VoIP is “communication by wire or radio” within the general jurisdictional grant of section 2 of the Act. Second, as explained above, collecting outage information from interconnected VoIP providers as proposed in this Notice is “reasonably ancillary” to ensuring that interconnected VoIP providers are able to satisfy their 9–1–1 obligations under the Act as implemented in our Part 9 rules, and to enable the Commission to assist in improving the reliability of these mandated services. We seek comment on this analysis.

50. We believe that the Commission has authority, under the test stated by the DC Circuit, to collect outage information from broadband Internet service providers. We believe that broadband services fall within the Commission’s general jurisdictional grant as “communication by wire or radio.” The network outage reporting proposals for broadband Internet service providers are reasonably ancillary to ensuring that interconnected VoIP providers are able to satisfy their 9–1–1 duties under the Act. This is because interconnected VoIP services by definition depend on broadband networks. If a broadband network fails, interconnected VoIP traffic—including calls to 9–1–1—cannot travel over that network. A broadband failure would potentially prevent interconnected VoIP providers from satisfying their duty under the Act and our rules to provide

9–1–1 services. For these reasons, and as authorized by section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), we believe we have ancillary authority to collect outage information from broadband Internet service providers. We seek comment on this analysis. We also ask commenters to address other potentially relevant sources of authority, or to otherwise explain why they believe that the Commission has no legal authority to extend outage reporting requirements in the manner proposed.

## VIII. Procedural Matters

### A. *Ex Parte* Rules—Permit-But-Disclose

51. This is a permit-but-disclose notice and comment rulemaking proceeding. *Ex parte* presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed pursuant to the Commission’s rules.

### B. *Comment Period and Procedures*

52. Pursuant to §§ 1.415 and 1.419 of the Commission’s rules, 47 CFR 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using: (1) The Commission’s Electronic Comment Filing System (ECFS), (2) the Federal Government’s eRulemaking Portal, or (3) by filing paper copies. See Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (1998).

53. Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://www.fcc.gov/cgb/ecfs/> or the Federal eRulemaking Portal: <http://www.regulations.gov>. Filers should follow the instructions provided on the Web site for submitting comments. All comments shall be filed in PS Docket No. 07–114 and WC Docket No. 05–196. In completing the transmittal screen, filers should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions, filers should send an e-mail to [ecfs@fcc.gov](mailto:ecfs@fcc.gov), and include the following words in the body of the message, “get form.” A sample form and directions will be sent in response.

54. Paper Filers: Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional

docket or rulemaking number. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission’s Secretary, Office of the Secretary, Federal Communications Commission. All hand-delivered or messenger-delivered paper filings for the Commission’s Secretary must be delivered to FCC Headquarters at 445 12th St., SW., Room TW–A325, Washington, DC 20554. The filing hours are 8 a.m. to 7 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of *before* entering the building. Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743. U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW., Washington, DC 20554.

55. People With Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer & Governmental Affairs Bureau at 202–418–0530 (voice), 202–418–0432 (tty).

56. The public may view the documents filed in this proceeding during regular business hours in the FCC Reference Information Center, Federal Communications Commission, 445 12th Street, SW., Room CY–A257, Washington, DC 20554, and on the Commission’s Internet Home Page: <http://www.fcc.gov>. Copies of comments and reply comments are also available through the Commission’s duplicating contractor: Best Copy and Printing, Inc., 445 12th Street, SW., Room CY–B402, Washington, DC 20554, 1–800–378–3160.

### C. *Initial Regulatory Flexibility Analysis*

57. As required by the Regulatory Flexibility Act of 1980 (RFA), the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and rules proposed in the *NPRM*. We request written public comment on the IRFA analysis. Comments must be filed by the same dates as listed in the first page of this document, and must have a separate and distinct heading designating them as responses to the IRFA. The Commission’s Consumer and Governmental Affairs Bureau, Reference Information Center, will send a copy of this *NPRM*, including the IRFA, to the



Chief Counsel for Advocacy of the Small Business Administration.

#### Need for, and Objectives of, the Proposed Rules

58. In 2005, the Commission adopted rules requiring providers of interconnected Voice over Internet Protocol (VoIP) service to supply E9-1-1 capabilities to their customers as a standard feature from wherever the customer is using the service. In 2008, Congress enacted the New and Emerging Technologies 9-1-1 Improvement Act of 2008 that amended the 9-1-1 Act to codify the Commission's E9-1-1 rules for interconnected VoIP providers. Interconnected VoIP service providers generally must transmit all 9-1-1 calls, including Automatic Number Identification (ANI) and the caller's Registered Location for each call, to the PSAP, designated statewide default answering point, or appropriate local emergency authority. Currently, however, the Commission's outage reporting rules covering legacy circuit-switched voice and/or paging communications over wireline, wireless, cable and satellite communications services do not also cover interconnected VoIP service providers or the broadband Internet Service Providers (ISPs) on whose networks interconnected VoIP services are carried. As a result, the Commission currently cannot monitor the reliability and availability of 9-1-1 and E9-1-1 communications that depend on these systems.

59. With the objective of ensuring reliability of related networks and services, the *NPRM* proposes to extend the Commission's mandatory outage reporting rules under Part 4 of its rules to cover interconnected VoIP service providers and "broadband Internet service providers" meaning "broadband Internet access service providers" and "broadband backbone Internet service providers." Under the proposal, mandatory reporting to the Commission would be required when certain threshold conditions are present that are specific to the technology of each category of service provider.

60. The proposed reporting to the Commission would use the Commission-approved Web-based outage reporting templates. The proposed reporting process for outages experienced by interconnected VoIP service providers and broadband ISPs would follow the existing reporting process for legacy communications providers, such as wireline communications providers.

61. The Commission traditionally has addressed reliability issues by helping

to develop and promote best practices that address vulnerabilities in the communications network, and by measuring the effectiveness of best practices through outage reporting. Under the Commission's current rules, the outage reporting process has been effective in improving the reliability, resiliency and security of the legacy services. Collaborating with providers and industry bodies, the Commission staff has been able to achieve dramatic reductions in outages affecting legacy services. The aim of extending outage reporting process to cover interconnected VoIP service providers and broadband ISPs is to achieve a similar result: Improve the reliability, resiliency and security of their services.

#### Legal Basis

62. **Authority:** The legal basis for any action that may be taken pursuant to this *NPRM* is contained in sections 1, 2, 4(i)-(k), 4(o), 218, 219, 230, 256, 301, 302(a), 303(f), 303(g), 303(j), 303(r), 403, 615a-1, 621(b)(3), 621(d), 1302(a), and 1302(b) of the Communications Act of 1934, as amended, 47 U.S.C. 151, 152, 154(i)-(k), 154(o), 218, 219, 230, 256, 301, 302(a), 303(f), 303(g), 303(j), 303(r), 403, 615a-1, 621(b)(3), 621(d), 1302(a), and 1302(b), and section 1704 of the Omnibus Consolidated and Emergency Supplemental Appropriations Act of 1998, 44 U.S.C. 3504.

#### Description and Estimate of the Number of Small Entities to Which the Proposed Rules Would Apply

63. The RFA directs agencies to provide a description of, and, where feasible, an estimate of, the number of small entities that may be affected by the proposed rules adopted herein. The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act. A small business concern is one which: (1) Is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).

64. **Total Small Entities.** Our action may affect small entities that are not easily categorized. We therefore describe three comprehensive, statutory small entity size standards. First, nationwide, there are a total of approximately 27.5 million small businesses, according to the SBA. In addition, a "small organization" is generally "any not-for-profit enterprise

which is independently owned and operated and is not dominant in its field." Nationwide, as of 2007, there were approximately 1,621,315 small organizations. Finally, the term "small governmental jurisdiction" is defined generally as "governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand." Census Bureau data for 2011 indicate that there were 89,476 local governmental jurisdictions in the United States. We estimate that, of this total, as many as 88,506 entities may qualify as "small governmental jurisdictions." Thus, we estimate that most governmental jurisdictions are small.

65. **Interconnected VoIP and Broadband ISPs.** The 2007 Economic Census places these firms, the services of which might include Voice over Internet protocol (VoIP), in either of two categories, depending on whether the service is provided over the provider's own telecommunications facilities, or over client-supplied telecommunications connections. The former are within the category of Wired Telecommunications Carriers, which has an SBA small business size standard of 1,500 or fewer employees. These are also labeled "broadband." The latter are within the category of All Other Telecommunications, which has a size standard of annual receipts of \$25 million or less. These are labeled non-broadband.

66. The most current Economic Census data for all such firms are 2007 data. For the first category, the data show that 396 firms operated for the entire year, of which only 2 operated with more than 1,000 employees. For the second category, the data show that 2,383 firms operated for the entire year. Of those, only 37 had annual receipts of more than \$25,499,999 per year. We estimate that the majority of ISP firms are small entities. To ensure that this IRFA describes the universe of small entities that our action might affect, we discuss below several different types of entities that might be currently providing interconnected VoIP service, Internet access service, or broadband backbone Internet service.

67. **Wireline Providers: Incumbent Local Exchange Carriers (Incumbent LECs).** Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. Census Bureau data



for 2007 show that there were 3,188 firms in this category that operated for the entire year. Of this total, 3,144 had employment of 999 or fewer, and 44 firms had employment of 1,000 employees or more. Thus under this category and the associated small business size standard, the majority of these incumbent local exchange service providers can be considered small.

68. The Commission has included small incumbent LECs in this present RFA analysis. A "small business" under the RFA is one that, inter alia, meets the pertinent small business size standard and "is not dominant in its field of operation." The SBA's Office of Advocacy contends that small incumbent LECs are not dominant in their field of operation because any such dominance is not "national" in scope. The Commission has therefore included small incumbent LECs in this RFA analysis.

69. *Wireline Providers: Interexchange Carriers.* Neither the Commission nor the SBA has developed a small business size standard specifically for providers of interexchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. Census Bureau data for 2007 show that there were 3,188 firms in this category that operated for the entire year. Of this total, 3,144 had employment of 999 or fewer, and 44 firms had employment of 1,000 employees or more. Thus under this category and the associated small business size standard, the Commission estimates that the majority of interexchange carriers are small entities that may be affected by our proposed action.

70. Neither the Commission nor the SBA has developed a small business size standard specifically for operator service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. According to Commission data, 33 carriers have reported that they are engaged in the provision of operator services. Of these, an estimated 31 have 1,500 or fewer employees and 2 have more than 1,500 employees. Consequently, the Commission estimates that the majority of operator service providers are small entities that may be affected by our proposed action.

71. *Wireless Providers—Fixed and Mobile.* To the extent the wireless services listed below are used by wireless firms for fixed and mobile

broadband Internet access services, the *NPRM's* proposed rules may have an impact on those small businesses as set forth above and further below. For those services subject to auctions, we note that, as a general matter, the number of winning bidders that claim to qualify as small businesses at the close of an auction does not necessarily represent the number of small businesses currently in service.

72. *Wireless Providers—Fixed and Mobile Wireless: Telecommunications Carriers (except Satellite).* Since 2007, the Census Bureau has placed wireless firms within this new, broad, economic census category. Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees. For the category of Wireless Telecommunications Carriers (except Satellite), Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year. Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Thus under this category and the associated small business size standard, the majority of firms can be considered small. According to Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service (PCS), and Specialized Mobile Radio (SMR) Telephony services. Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees. Consequently, the Commission estimates that approximately half or more of these firms can be considered small. Using available data, we estimate that the majority of wireless firms can be considered small.

73. *Wireless Providers—Fixed and Mobile: Wireless Communications Services.* This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined "small business" for the wireless communications services (WCS) auction as an entity with average gross revenues of \$40 million for each of the three preceding years, and a "very small business" as an entity with average gross revenues of \$15 million for each of the three preceding years. The Commission auctioned geographic area licenses in the WCS service. In the auction, which commenced on April 15, 1997 and closed on April 25, 1997, seven bidders won 31 licenses that qualified as very small business entities, and one bidder

won one license that qualified as a small business entity.

74. *Wireless Providers—Fixed and Mobile: 1670–1675 MHz Services.* This service can be used for fixed and mobile uses, except aeronautical mobile. An auction for one license in the 1670–1675 MHz band commenced on April 30, 2003 and closed the same day. One license was awarded. The winning bidder was not a small entity.

75. *Wireless Providers—Fixed and Mobile: Wireless Telephony.* Wireless telephony includes cellular, personal communications services, and specialized mobile radio telephony carriers. The SBA has developed a small business size standard for Wireless Telecommunications Carriers (except Satellite). Under the SBA small business size standard, a business is small if it has 1,500 or fewer employees. A total of 413 carriers reported that they were engaged in wireless telephony. Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees. Therefore, more than half of these entities can be considered small.

76. *Wireless Providers—Fixed and Mobile: Broadband Personal Communications Service.* The broadband personal communications services (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission initially defined a "small business" for C- and F-Block licenses as an entity that has average gross revenues of \$40 million or less in the three previous calendar years. For F-Block licenses, an additional small business size standard for "very small business" was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three years. These small business size standards, in the context of broadband PCS auctions, have been approved by the SBA. No small businesses within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90 winning bidders that claimed small business status in the first two C-Block auctions. A total of 93 bidders that claimed small business status won approximately 40 percent of the 1,479 licenses in the first auction for the D, E, and F Blocks. On April 15, 1999, the Commission completed the re-auction of 347 C-, D-, E-, and F-Block licenses in Auction No. 22. Of the 57 winning bidders in that auction, 48 claimed small business status and won 277 licenses.

77. On January 26, 2001, the Commission completed the auction of 422 C- and F-Block Broadband PCS licenses in Auction No. 35. Of the 35 winning bidders in that auction, 29 claimed small business status. Subsequent events concerning Auction 35, including judicial and agency determinations, resulted in a total of 163 C and F Block licenses being available for grant. On February 15, 2005, the Commission completed an auction of 242 C-, D-, E-, and F-Block licenses in Auction No. 58. Of the 24 winning bidders in that auction, 16 claimed small business status and won 156 licenses. On May 21, 2007, the Commission completed an auction of 33 licenses in the A, C, and F Blocks in Auction No. 71. Of the 12 winning bidders in that auction, five claimed small business status and won 18 licenses. On August 20, 2008, the Commission completed the auction of 20 C-, D-, E-, and F-Block Broadband PCS licenses in Auction No. 78. Of the eight winning bidders for Broadband PCS licenses in that auction, six claimed small business status and won 14 licenses.

78. *Wireless Providers—Fixed and Mobile: Specialized Mobile Radio Licenses.* The Commission awards “small entity” bidding credits in auctions for Specialized Mobile Radio (SMR) geographic area licenses in the 800 MHz and 900 MHz bands to firms that had revenues of no more than \$15 million in each of the three previous calendar years. The Commission awards “very small entity” bidding credits to firms that had revenues of no more than \$3 million in each of the three previous calendar years. The SBA has approved these small business size standards for the 900 MHz Service. The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction began on December 5, 1995, and closed on April 15, 1996. Sixty bidders claiming that they qualified as small businesses under the \$15 million size standard won 263 geographic area licenses in the 900 MHz SMR band. The 800 MHz SMR auction for the upper 200 channels began on October 28, 1997, and was completed on December 8, 1997. Ten bidders claiming that they qualified as small businesses under the \$15 million size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz SMR band. A second auction for the 800 MHz band was held on January 10, 2002 and closed on January 17, 2002 and included 23 BEA

licenses. One bidder claiming small business status won five licenses.

79. The auction of the 1,053 800 MHz SMR geographic area licenses for the General Category channels began on August 16, 2000, and was completed on September 1, 2000. Eleven bidders won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band and qualified as small businesses under the \$15 million size standard. In an auction completed on December 5, 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were awarded. Of the 22 winning bidders, 19 claimed small business status and won 129 licenses. Thus, combining all four auctions, 41 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small businesses.

80. There are numerous incumbent site-by-site SMR licenses and licensees with extended implementation authorizations in the 800 and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR service pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than \$15 million. In addition, we do not know how many of these firms have 1,500 or fewer employees, which is the SBA-determined size standard. We assume that all of the remaining extended implementation authorizations are held by small entities, as defined by the SBA.

81. *Wireless Providers—Fixed and Mobile: Lower 700 MHz Band Licenses.* The Commission previously adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits. The Commission defined a “small business” as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years. A “very small business” is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years. Additionally, the lower 700 MHz Service had a third category of small business status for Metropolitan/Rural Service Area (MSA/RSA) licenses—“entrepreneur”—which is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years. The SBA approved these small size standards. An auction of 740 licenses (one license in each of the 734

MSAs/RSAs and one license in each of the six Economic Area Groupings (EAGs)) commenced on August 27, 2002, and closed on September 18, 2002. Of the 740 licenses available for auction, 484 licenses were won by 102 winning bidders. Seventy-two of the winning bidders claimed small business, very small business or entrepreneur status and won a total of 329 licenses. A second auction commenced on May 28, 2003, closed on June 13, 2003, and included 256 licenses: 5 EAG licenses and 476 Cellular Market Area licenses. Seventeen winning bidders claimed small or very small business status and won 60 licenses, and nine winning bidders claimed entrepreneur status and won 154 licenses. On July 26, 2005, the Commission completed an auction of 5 licenses in the Lower 700 MHz band (Auction No. 60). There were three winning bidders for five licenses. All three winning bidders claimed small business status.

82. In 2007, the Commission reexamined its rules governing the 700 MHz band in the *700 MHz Second Report and Order*. An auction of 700 MHz licenses commenced January 24, 2008 and closed on March 18, 2008, which included 176 Economic Area licenses in the A Block, 734 Cellular Market Area licenses in the B Block, and 176 EA licenses in the E Block. Twenty winning bidders, claiming small business status (those with attributable average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years) won 49 licenses. Thirty-three winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years) won 325 licenses.

83. *Wireless Providers—Fixed and Mobile: Upper 700 MHz Band Licenses.* In the *700 MHz Second Report and Order*, the Commission revised its rules regarding Upper 700 MHz licenses. On January 24, 2008, the Commission commenced Auction 73 in which several licenses in the Upper 700 MHz band were available for licensing: 12 Regional Economic Area Grouping licenses in the C Block, and one nationwide license in the D Block. The auction concluded on March 18, 2008, with 3 winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years) and winning five licenses.

84. *Wireless Providers—Fixed and Mobile: 700 MHz Guard Band Licensees.* In 2000, in the 700 MHz Guard Band

Order, the Commission adopted size standards for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments. A small business in this service is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years. Additionally, a very small business is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years. SBA approval of these definitions is not required. An auction of 52 Major Economic Area licenses commenced on September 6, 2000, and closed on September 21, 2000. Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced on February 13, 2001, and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.

85. *Wireless Providers—Fixed and Mobile: Air-Ground Radiotelephone Service.* The Commission has previously used the SBA’s small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), *i.e.*, an entity employing no more than 1,500 persons. There are fewer than 10 licensees in the Air-Ground Radiotelephone Service, and under that definition, we estimate that almost all of them qualify as small entities under the SBA definition. For purposes of assigning Air-Ground Radiotelephone Service licenses through competitive bidding, the Commission has defined “small business” as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding \$40 million. A “very small business” is defined as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding \$15 million. These definitions were approved by the SBA. In May 2006, the Commission completed an auction of nationwide commercial Air-Ground Radiotelephone Service licenses in the 800 MHz band (Auction No. 65). On June 2, 2006, the auction closed with two winning bidders winning two Air-Ground Radiotelephone Services

licenses. Neither of the winning bidders claimed small business status.

86. *Wireless Providers—Fixed and Mobile: AWS Services (1710–1755 MHz and 2110–2155 MHz bands (AWS–1); 1915–1920 MHz, 1995–2000 MHz, 2020–2025 MHz and 2175–2180 MHz bands (AWS–2); 2155–2175 MHz band (AWS–3)).* For the AWS–1 bands, the Commission has defined a “small business” as an entity with average annual gross revenues for the preceding three years not exceeding \$40 million, and a “very small business” as an entity with average annual gross revenues for the preceding three years not exceeding \$15 million. In 2006, the Commission conducted its first auction of AWS–1 licenses. In that initial AWS–1 auction, 31 winning bidders identified themselves as very small businesses. Twenty-six of the winning bidders identified themselves as small businesses. In a subsequent 2008 auction, the Commission offered 35 AWS–1 licenses. Four winning bidders identified themselves as very small businesses, and three of the winning bidders identified themselves as a small business. For AWS–2 and AWS–3, although we do not know for certain which entities are likely to apply for these frequencies, we note that the AWS–1 bands are comparable to those used for cellular service and personal communications service. The Commission has not yet adopted size standards for the AWS–2 or AWS–3 bands but has proposed to treat both AWS–2 and AWS–3 similarly to broadband PCS service and AWS–1 service due to the comparable capital requirements and other factors, such as issues involved in relocating incumbents and developing markets, technologies, and services.

87. *Wireless Providers—Fixed and Mobile: 3650–3700 MHz band.* In March 2005, the Commission released a *Report and Order and Memorandum Opinion and Order* that provides for nationwide, non-exclusive licensing of terrestrial operations, utilizing contention-based technologies, in the 3650 MHz band (*i.e.*, 3650–3700 MHz). As of April 2010, more than 1270 licenses have been granted and more than 7433 sites have been registered. The Commission has not developed a definition of small entities applicable to 3650–3700 MHz band nationwide, non-exclusive licensees. However, we estimate that the majority of these licensees are Internet Access Service Providers (ISPs) and that most of those licensees are small businesses.

88. *Wireless Providers—Fixed and Mobile: Fixed Microwave Services.* Microwave services include common

carrier, private-operational fixed, and broadcast auxiliary radio services. They also include the Local Multipoint Distribution Service (LMDS), the Digital Electronic Message Service (DEMS), and the 24 GHz Service, where licensees can choose between common carrier and non-common carrier status. The Commission has not yet defined a small business with respect to microwave services. For purposes of the IRFA, the Commission will use the SBA’s definition applicable to Wireless Telecommunications Carriers (except satellite)—*i.e.*, an entity with no more than 1,500 persons is considered small. For the category of Wireless Telecommunications Carriers (except Satellite), Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year. Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Thus under this category and the associated small business size standard, the majority of firms can be considered small. The Commission notes that the number of firms does not necessarily track the number of licensees. The Commission estimates that virtually all of the Fixed Microwave licensees (excluding broadcast auxiliary licensees) would qualify as small entities under the SBA definition.

89. *Wireless Providers—Fixed and Mobile: Local Multipoint Distribution Service.* Local Multipoint Distribution Service (LMDS) is a fixed broadband point-to-multipoint microwave service that provides for two-way video telecommunications. In the 1998 and 1999 LMDS auctions, the Commission defined a small business as an entity that has annual average gross revenues of less than \$40 million in the previous three calendar years. Moreover, the Commission added an additional classification for a “very small business,” which was defined as an entity that had annual average gross revenues of less than \$15 million in the previous three years. These definitions of “small business” and “very small business” in the context of the LMDS auctions have been approved by the SBA. In the first LMDS auction, 104 bidders won 864 licenses. Of the 104 auction winners, 93 claimed status as small or very small businesses. In the LMDS re-auction, 40 bidders won 161 licenses. Based on this information, the Commission believes that the number of small LMDS licenses will include the 93 winning bidders in the first auction and the 40 winning bidders in the re-auction, for a total of 133 small entity

LMDS providers as defined by the SBA and the Commission's auction rules.

90. *Wireless Providers—Fixed and Mobile: Broadband Radio Service and Educational Broadband Service.* Broadband Radio Service systems, previously referred to as Multipoint Distribution Service (MDS) and Multichannel Multipoint Distribution Service (MMDS) systems, and “wireless cable,” transmit video programming to subscribers and provide two-way high speed data operations using the microwave frequencies of the Broadband Radio Service (BRS) and Educational Broadband Service (EBS) (previously referred to as the Instructional Television Fixed Service (ITFS)). In connection with the 1996 BRS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of no more than \$40 million in the previous three calendar years. The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (BTAs). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At this time, we estimate that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent BRS licensees that are considered small entities. After adding the number of small business auction licensees to the number of incumbent licensees not already counted, we find that there are currently approximately 440 BRS licensees that are defined as small businesses under either the SBA or the Commission's rules. In 2009, the Commission conducted Auction 86, the sale of 78 licenses in the BRS areas. The Commission offered three levels of bidding credits: (i) A bidder with attributed average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years (small business) will receive a 15 percent discount on its winning bid; (ii) a bidder with attributed average annual gross revenues that exceed \$3 million and do not exceed \$15 million for the preceding three years (very small business) will receive a 25 percent discount on its winning bid; and (iii) a bidder with attributed average annual gross revenues that do not exceed \$3 million for the preceding three years (entrepreneur) will receive a 35 percent discount on its winning bid. Auction 86 concluded in 2009 with the sale of 61 licenses. Of the ten winning bidders,

two bidders that claimed small business status won 4 licenses; one bidder that claimed very small business status won three licenses; and two bidders that claimed entrepreneur status won six licenses.

91. In addition, the SBA's Cable Television Distribution Services small business size standard is applicable to EBS. There are presently 2,032 EBS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in this analysis as small entities. Thus, we estimate that at least 1,932 licensees are small businesses. Since 2007, Cable Television Distribution Services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: “This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies.” The SBA has developed a small business size standard for this category, which is: All such firms having 1,500 or fewer employees. To gauge small business prevalence for these cable services we must, however, use the most current census data that are based on the previous category of Cable and Other Program Distribution and its associated size standard; that size standard was: All such firms having \$13.5 million or less in annual receipts. According to Census Bureau data for 2002, there were a total of 1,191 firms in this previous category that operated for the entire year. Of this total, 1,087 firms had annual receipts of under \$10 million, and 43 firms had receipts of \$10 million or more but less than \$25 million. Thus, the majority of these firms can be considered small.

92. *Satellite Service Providers.* Two economic census categories address the satellite industry. The first category has a small business size standard of \$15 million or less in average annual receipts, under SBA rules. The second has a size standard of \$25 million or less in annual receipts.

93. *Satellite Service Providers: Satellite Telecommunications Providers.* The category of Satellite Telecommunications “comprises establishments primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of

satellites or reselling satellite telecommunications.” Census Bureau data for 2007 show that 512 Satellite Telecommunications firms that operated for that entire year. Of this total, 464 firms had annual receipts of under \$10 million, and 18 firms had receipts of \$10 million to \$24,999,999. Consequently, the Commission estimates that the majority of Satellite Telecommunications firms are small entities that might be affected by our action.

94. *Satellite Service Providers: All Other Telecommunications.* The second category of Satellite Service Providers, i.e., “All Other Telecommunications” comprises “establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or Voice over Internet protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry.” For this category, Census Bureau data for 2007 show that there were a total of 2,383 firms that operated for the entire year. Of this total, 2,346 firms had annual receipts of under \$25 million and 37 firms had annual receipts of \$25 million to \$49,999,999. Consequently, the Commission estimates that the majority of All Other Telecommunications firms are small entities that might be affected by our action.

95. *Cable Service Providers.* Because Section 706 requires us to monitor the deployment of broadband regardless of technology or transmission media employed, we anticipate that some broadband service providers may not provide telephone service. Therefore, we describe below other types of firms that may provide broadband services, including cable companies, MDS providers, and utilities, among others.

96. *Cable Service Providers: Wired Telecommunications Carriers.* The 2007 North American Industry Classification System (“NAICS”) defines “Wired Telecommunications Carriers” as follows: “This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired

telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services; wired (cable) audio and video programming distribution; and wired broadband Internet services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.” The SBA has developed a small business size standard for wireline firms within the broad economic census category, “Wired Telecommunications Carriers.” Under this category, the SBA deems a wireline business to be small if it has 1,500 or fewer employees. Census data for 2007, which supersede data from the 2002 Census, show that 3,188 firms operated in 2007 as Wired Telecommunications Carriers, 3,144 had 1,000 or fewer employees, while 44 operated with more than 1,000 employees.

97. *Cable Service Providers: Cable Companies and Systems.* The Commission has also developed its own small business size standards, for the purpose of cable rate regulation. Under the Commission’s rules, a “small cable company” is one serving 400,000 or fewer subscribers nationwide. Industry data indicate that all but ten cable operators nationwide are small under this size standard. In addition, under the Commission’s rules, a “small system” is a cable system serving 15,000 or fewer subscribers. Industry data indicate that, of 6,101 systems nationwide, 4,410 systems have under 10,000 subscribers, and an additional 258 systems have 10,000–19,999 subscribers. Thus, under this standard, most cable systems are small.

98. *Cable Service Providers: Cable System Operators.* The Communications Act of 1934, as amended, also contains a size standard for small cable system operators, which is “a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000.” The Commission has determined that an operator serving fewer than 677,000 subscribers shall be deemed a small operator, if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed \$250 million in the aggregate. Industry data indicate that, of

1,076 cable operators nationwide, all but ten are small under this size standard. The Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million, and therefore we are unable to estimate more accurately the number of cable system operators that would qualify as small under this size standard.

#### Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

99. The rules proposed in this *NPRM* would require broadband backbone Internet service providers to report those outages that: (1) Last at least 30 minutes, and (2) meet or exceed a proposed specified technical threshold. The rules proposed also would require interconnected VoIP service providers and broadband Internet access service providers to report those outages that: (1) last at least 30 minutes, (2) meet or exceed a proposed specified technical threshold, and (3) affect at least 900,000 user minutes. Under the Commission’s current outage reporting rules, which apply only to legacy circuit-switched voice and/or paging communications over wireline, wireless, cable, and satellite communications services, about 11,000 outage reports per year from all reporting sources combined are filed with the Commission. As a result of the proposed rules, we anticipate that fewer than 2,000 additional outage reports would be filed annually. We estimate that if the proposed rules are adopted, the total number of reports from all outage reporting sources filed, pursuant to the current and proposed rules, combined would be fewer than 13,000 annually. Occasionally, the proposed outage reporting requirements could require the use of professional skills, including legal and engineering expertise. We believe that in the usual case, the only burden associated with the proposed reporting requirements contained in this *NPRM* would be the time required to complete the initial and final reports. We anticipate that electronic filing, through the type of template that we are proposing, should minimize the amount of time and effort that will be required to comply with the rules that we propose in this proceeding.

100. We expect that the outage reporting and analysis that would follow could lead to the development and refinement of best practices. There may be additional thresholds that should also be included to improve the process of developing and improving best practices. We encourage interested

parties to address these issues in the context of the applicable technologies and to develop their comments in the context of the ways in which the proposed information collection would facilitate best practices development and increased communications security, reliability and resiliency throughout the United States and its Territories.

#### Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

101. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives: (1) The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.

102. Over the past decade, the proportion of communications services provided over a broadband platform has increased substantially, and our Nation increasingly relies on broadband-based services not only for day-to-day consumer use but also for Homeland Defense and National Security. Over the past three years, the number of outages reported each year has remained relatively steady at about 11,000. We believe that the proposed outage reporting requirements are the minimum necessary to assure that we receive adequate information to perform our statutory responsibilities with respect to 9–1–1 services and ensure the reliability of communications and critical infrastructures. Also, we believe that the magnitude of the outages needed to trigger the proposed reporting requirements are sufficiently high as to make it unlikely that small businesses would be impacted significantly by the proposed rules. We also believe the choice of performance-based, as opposed to design-based, degradation characteristics and the corresponding thresholds chosen to trigger the outage reporting will not unduly burden smaller entities. We have also carefully considered the notion of a waiver for small entities from coverage of the proposed rules, but declined to propose one, as a waiver of this type would unduly frustrate the purpose of the proposed requirements and run counter to the objectives of the *NPRM*. We believe that the proposed requirement

that outage reports be filed electronically would significantly reduce the burdens and costs currently associated with manual filing processes.

103. The proposed rules in the *NPRM* are generally consistent with current industry practices, so the costs of compliance should be small. We believe that the costs of the reporting rules that we propose in the *NPRM* are outweighed by the expected benefits of being able to ensure communications reliability that we fully expect would result due to learning about the reasons that outages are occurring, which would take place as a consequence of the proposed requirements' reporting. We have excluded from the proposed requirements any type of competitively sensitive information, information that would compromise network security, and information that would undermine the efficacy of reasonable network management practices. We anticipate that the record will suggest alternative ways in which the Commission could increase the overall benefits for, and lessen the overall burdens on, small entities.

104. We ask parties to include comments on possible alternatives that could satisfy the aims of the proceeding in a less costly, less burdensome, and/or more effective manner, and to comment on the sources of legal authority for the proposal assuming the Commission were to decide to adopt the proposal. We also seek comments on an analysis of the costs, burdens, and benefits of the various proposed rules set forth in this proceeding. We ask commenters to address particularly the

following concerns: What are the costs, burdens, and benefits associated with any proposed rule? Entities, especially small businesses and small entities, more generally, are encouraged to quantify the costs and benefits of the proposed reporting requirements. How could any proposed rule be tailored to impose the least cost and the least amount of burden on those affected? What potential regulatory approaches would maximize the potential benefits to society? To the extent feasible, what explicit performance objectives should the Commission specify? How can the Commission best identify alternatives to regulation, including fees, permits, or other non-regulatory approaches?

105. Comments are sought on all aspects of this proposal, including the proposed extension of such requirements, the definitions and proposed reporting thresholds, and the proposed reporting process that would follow essentially the same approach that currently applies to outage reporting on legacy services. Parties should include in their comments whether the proposed rules would satisfy the Commission's intended aims, described herein, and would promote the reliability, resiliency and security of interconnected VoIP, broadband Internet access, and broadband backbone Internet services that support 9–1–1 communications. Commenters are asked to address our tentative conclusions that: Expanding Part 4 outage reporting requirements to interconnected VoIP service providers and broadband ISPs would allow the

Commission to analyze outages of the services that they provide; would provide an important tool for network operators to prevent future outages; and would help to ensure the reliability of critical communications networks and services.

106. We welcome comments on: the proposal itself; whether it would achieve the intended objectives; whether there are performance objectives not mentioned that we should address; whether better alternatives exist that would accomplish the proceeding's objectives; the legal authority to take the contemplated actions described herein; and the costs, burdens and benefits of our proposal.

Federal Rules that May Duplicate, Overlap, or Conflict With the Proposed Rule

107. None.

#### D. Initial Paperwork Reduction Analysis

108. This document does not contain proposed information collection(s) subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104–13. In addition, therefore, it does not contain any new or modified “information collection burden for small business concerns with fewer than 25 employees,” pursuant to the Small Business Paperwork Relief Act of 2002.

Federal Communications Commission.

**Marlene H. Dortch,**

*Secretary.*

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