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

In the Matter of)	
)	
Implementation of the Telecommunications Act of 1996:)	CC Docket No. 96-115
)	
Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information)	
)	
IP-Enabled Services)	WC Docket No. 04-36
)	

**REPORT AND ORDER AND
FURTHER NOTICE OF PROPOSED RULEMAKING**

Adopted: March 13, 2007

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Comment Date: [30 days after publication in the Federal Register]

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By the Commission: Chairman Martin issuing a separate statement; Commissioners Copps and Adelstein dissenting in part and issuing separate statements; Commissioner Tate concurring in part and issuing a separate statement; Commissioner McDowell issuing a separate statement.

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I. INTRODUCTION

1. In this Order, the Commission responds to the practice of “pretexting”^[1] by strengthening our^[2] rules to protect the privacy of customer proprietary network information (CPNI)^[3] that is collected and held by providers of communications services (hereinafter, communications carriers or carriers). Section 222 of the Communications Act requires telecommunications carriers to take specific steps to ensure that^[4] CPNI is adequately protected from unauthorized disclosure. Today, we strengthen our privacy rules by adopting additional safeguards to protect customers’ CPNI against unauthorized access and disclosure.

2. Our Order is directly responsive to the actions of data brokers, or pretexters, to obtain unauthorized access to CPNI. As the Electronic Privacy Information Center (EPIC) pointed out in its^[5]

petition that led to this rulemaking proceeding, numerous websites advertise the sale of personal telephone records for a price. These data brokers have been able to obtain private and personal information, including what calls were made to and/or from a particular telephone number and the duration

of such calls. In many cases, the data brokers claim to be able to provide this information within fairly quick time frames, ranging from a few hours to a few days. The additional privacy safeguards we adopt today will sharply limit pretexters' ability to obtain unauthorized access to this type of personal customer information from carriers we regulate. We also adopt a Further Notice of Proposed Rulemaking seeking comment on what steps the Commission should take, if any, to secure further the privacy of customer information.

II. EXECUTIVE SUMMARY

3. As discussed below, we take the following actions to secure CPNI:

- **Carrier Authentication Requirements.** We prohibit carriers from releasing call detail information to customers during customer-initiated telephone contact except when the customer provides a password. If a customer does not provide a password, we prohibit the release of call detail information except by sending it to an address of record or by the carrier calling the customer at the telephone of record. We also require carriers to provide mandatory password protection for online account access. However, we permit carriers to provide CPNI to customers based on in-store contact with a valid photo ID.
- **Notice to Customer of Account Changes.** We require carriers to notify the customer immediately when a password, customer response to a back-up means of authentication for lost or forgotten passwords, online account, or address of record is created or changed.
- **Notice of Unauthorized Disclosure of CPNI.** We establish a notification process for both law enforcement and customers in the event of a CPNI breach.
- **Joint Venture and Independent Contractor Use of CPNI.** We modify our rules to require carriers to obtain opt-in consent from a customer before disclosing a customer's CPNI to a carrier's joint venture partners or independent contractors for the purposes of marketing communications-related services to that customer.
- **Annual CPNI Certification.** We amend the Commission's rules and require carriers to file with the Commission an annual certification, including an explanation of any actions taken against data brokers and a summary of all consumer complaints received in the previous year regarding the unauthorized release of CPNI.
- **CPNI Regulations Applicable to Providers of Interconnected VoIP Service.** We extend the application of the CPNI rules to providers of interconnected VoIP service.
- **Enforcement Proceedings.** We require carriers to take reasonable measures to discover and protect against pretexting, and, in enforcement proceedings, will infer from evidence of unauthorized disclosures of CPNI that reasonable precautions were not taken.
- **Business Customers.** In limited circumstances, we permit carriers to bind themselves contractually to authentication regimes other than those adopted in this Order for services they provide to their business customers that have a dedicated account representative and contracts that specifically address the carrier's protection of CPNI.

III. BACKGROUND

A. Section 222 and the Commission's CPNI Rules

4. *Statutory Authority.* In section 222, Congress created a framework to govern telecommunications carriers' protection and use of information obtained by virtue of providing a

[6]

telecommunications service. The section 222 framework calibrates the protection of such information from disclosure based on the sensitivity of the information. Thus, section 222 places fewer restrictions on the dissemination of information that is not highly sensitive and on information the customer authorizes to be released, than on the dissemination of more sensitive information the carrier has gathered

[7]

about particular customers. Congress accorded CPNI, the category of customer information at issue in this Order, the greatest level of protection under this framework.

5. CPNI is defined as “(A) information that relates to the quantity, technical configuration, type, destination, location, and amount of use of a telecommunications service subscribed to by any customer of a telecommunications carrier, and that is made available to the carrier by the customer solely by virtue of the carrier-customer relationship; and (B) information contained in the bills pertaining to telephone

[8]

exchange service or telephone toll service received by a customer of a carrier.” Practically speaking, CPNI includes information such as the phone numbers called by a consumer; the frequency, duration, and timing of such calls; and any services purchased by the consumer, such as call waiting. CPNI therefore includes some highly-sensitive personal information.

6. Section 222 reflects the balance Congress sought to achieve between giving each customer ready access to his or her own CPNI, and protecting customers from unauthorized use or disclosure of CPNI. Every telecommunications carrier has a general duty pursuant to section 222(a) to protect the

[9]

confidentiality of CPNI. In addition, section 222(c)(1) provides that a carrier may only use, disclose, or

[10]

permit access to customers’ CPNI in limited circumstances: (1) as required by law; (2) with the customer’s approval; or (3) in its provision of the telecommunications service from which such information

[11]

is derived, or services necessary to or used in the provision of such telecommunications service.

Section 222 also guarantees that customers have a right to obtain access to, and compel disclosure of, their

[12]

own CPNI. Specifically, pursuant to section 222(c)(2), every telecommunications carrier must disclose

[13]

CPNI “upon affirmative written request by the customer, to any person designated by the customer.”

7. *Existing Safeguards.* On February 26, 1998, the Commission released the *CPNI Order* in

[14]

which it adopted a set of rules implementing section 222. The Commission’s CPNI rules have been amended from time to time since the *CPNI Order*, primarily in respects that do not directly impact the issues raised in this Order. Here, we focus on the substance of the Commission’s rules most relevant to this Order, and briefly review the history of the creation of those rules only to the extent necessary to

[15]

provide appropriate context for the actions we take today.

8. In the *CPNI Order* and subsequent orders, the Commission promulgated rules implementing the express statutory obligations of section 222. Included among the Commission’s CPNI regulations implementing the express statutory obligations of section 222 are requirements outlining the extent to which section 222 permits carriers to use CPNI to render the telecommunications service from which the

[16]

CPNI was derived. Beyond such use, the Commission’s rules require carriers to obtain a customer’s knowing consent before using or disclosing CPNI. As most relevant to this Order, under the Commission’s

existing rules, telecommunications carriers must receive opt-out consent before disclosing CPNI to joint venture partners and independent contractors for the purposes of marketing communications-related [17] services to customers. Consistent with section 222(c)(2), the Commission's rules recognize that a [18] carrier must comply with the express desire of a customer seeking the disclosure of his or her CPNI.

9. In addition to adopting restrictions on the use and disclosure of CPNI, the Commission in the *CPNI Order* also adopted a set of rules designed to ensure that telecommunications carriers establish [19]

effective safeguards to protect against unauthorized use or disclosure of CPNI. Among these safeguards are rules that require carriers to design their customer service records in such a way that the [20]

status of a customer's CPNI approval can be clearly established. The Commission also requires telecommunications carriers to train their personnel as to when they are and are not authorized to use [21]

CPNI, and requires carriers to have an express disciplinary process in place. The Commission's safeguard rules also require carriers to maintain records that track access to customer CPNI records. Specifically, section 64.2009(c) of the Commission's rules requires carriers to "maintain a record of all instances where CPNI was disclosed or provided to third parties, or where third parties were allowed [22]

access to CPNI," and to maintain such records for a period of at least one year. The Commission's safeguard rules also require the establishment of a supervisory review process for outbound marketing [23]

campaigns. Finally, the Commission requires each carrier to certify annually regarding its compliance [24] with the carrier's CPNI requirements and to make this certification publicly available.

B. *IP-Enabled Services Notice*

10. On March 10, 2004, the Commission initiated a proceeding to examine issues relating to Internet Protocol (IP)-enabled services – services and applications making use of IP, including, but not [25]

limited to VoIP services. In the *IP-Enabled Notice*, the Commission sought comment on, among other things, whether to extend the CPNI requirements to any provider of VoIP or other IP-enabled services. [26]

C. *EPIC CPNI Notice*

11. On August 30, 2005, EPIC filed a petition with the Commission asking the Commission to investigate telecommunications carriers' current security practices and to initiate a rulemaking proceeding to consider establishing more stringent security standards for telecommunications carriers to govern the [27]

disclosure of CPNI. In particular, EPIC proposed that the Commission consider requiring the use of consumer-set passwords, creating audit trails, employing encryption, limiting data retention, and improving [28]

notice procedures. On February 14, 2006, the Commission released the *EPIC CPNI Notice*, in which it sought comment on (a) the nature and scope of the problem identified by EPIC, including pretexting, and [29]

(b) what additional steps, if any, the Commission should take to protect further the privacy of CPNI.

Specifically, the Commission sought comment on the five EPIC proposals listed above. In addition, the Commission tentatively concluded that it should amend its rules to require carriers annually to [\[30\]](#)

file their section 64.2009(e) certifications with the Commission. It also sought comment on whether it should require carriers to obtain a customer's opt-in consent before the carrier shares CPNI with its joint venture partners and independent contractors; whether to impose rules relating to how carriers verify customers' identities; whether to adopt a set of security requirements that could be used as the basis for liability if a carrier failed to implement such requirements, or adopt a set of security requirements that a carrier could implement to exempt itself from liability; whether VoIP service providers or other IP-enabled service providers should be covered by any new rules the Commission adopts in the present rulemaking; and other specific proposals that might increase the protection of CPNI.

IV. DISCUSSION

12. In this Order, we adopt necessary protections put forward by EPIC to ensure the privacy of CPNI. The carriers' record on protecting CPNI demonstrates that the Commission must take additional [\[31\]](#)

steps to protect customers from carriers that have failed to adequately protect CPNI. The Attorneys General of dozens of states cite numerous suits by telecommunications carriers seeking to enjoin pretexting activities – a clear indication that pretexters have been successful at gaining unauthorized access to CPNI. [\[32\]](#) [\[33\]](#) [\[34\]](#) [\[35\]](#) [\[36\]](#)

Cingular, Sprint, T-Mobile, Verizon Wireless and other companies have sued dozens of [\[37\]](#)

people whom they accuse of fraudulently obtaining phone records. In one of the cases filed by Cingular, Cingular states in a court-filed affidavit that certain defendants or their agents posed as an employee/agent of Cingular and as a customer of the carrier to induce Cingular's customer service [\[38\]](#)

representative to provide them with the call records of a targeted customer. The Federal Trade Commission has also filed suits against several pretexters under laws barring unfair and deceptive [\[39\]](#) [\[40\]](#) [\[41\]](#) [\[42\]](#) [\[43\]](#)

practices. Additionally, numerous states, including California, Florida, Illinois, Missouri, [\[44\]](#)

and Texas have all sued data brokers for pretexting phone records.

A. Carrier Authentication Requirements

1. Customer-Initiated Telephone Account Access

[\[45\]](#)

13. We find that the release of call detail over the telephone presents an immediate risk to privacy and therefore we prohibit carriers from releasing call detail information based on customer- [\[46\]](#)

initiated telephone contact except under three circumstances. First, a carrier can release call detail [\[47\]](#)

information if the customer provides the carrier with a pre-established password. Second, a carrier [\[48\]](#)

may, at the customer's request, send call detail information to the customer's address of record. Third, [\[49\]](#)

a carrier may call the telephone number of record and disclose call detail information. A carrier may [\[50\]](#)

disclose non-call detail CPNI to a customer after the carrier authenticates the customer.

14. The record reflects that pretexters use evolving methods to trick employees at customer service call centers into releasing call detail information. This release of call detail through customer-initiated telephone contact presents heightened privacy concerns because of pretexters' abilities to circumvent carrier authentication requirements and gain immediate access to call detail. By restricting the ways in which carriers release call detail in response to customer-initiated telephone calls, we place most a minimal inconvenience on carriers and consumers.

15. *Establishment of Password Protection.* For new customers, carriers may request that the customer establish a password at the time of service initiation because the carrier can easily authenticate the customer at that time. For existing customers to establish a password, a carrier must first authenticate the customer without the use of readily available biographical information, or account information. For example, a carrier could call the customer at the telephone number of record. If a carrier already has password protection in place for a customer account, a carrier does not have to reinitialize a customer password. By permitting the carrier to determine its authentication method, the carrier has the most flexibility for designing an authentication program that can continue to evolve to fight against pretexting efforts.

16. *Use of Password Protection.* For accounts that are password protected, a carrier cannot obtain the customer's password by asking for readily available biographical information, or account information, to prompt the customer for his password. We understand, of course, that passwords can be lost or forgotten, and share commenters' concern that security measures should not unnecessarily inconvenience customers or impair customer service systems. We therefore allow carriers to create back-up customer authentication methods for lost or forgotten passwords that are also not based on readily available biographical information, or account information. For example, the Attorneys General support the use of a shared secret back-up authentication procedure for lost or forgotten passwords. As further account protection, with a shared secret back-up authentication program, the carrier may offer the opportunity for the customer to design the shared secret question. We find that limiting back-up authentication methods to those that do not include readily available biographical information, or account information, will protect customers most effectively from pretexters.

17. Although we recognize that carriers and customers will be subject to a one-time burden to implement password protection if a customer is interested in gaining access to call detail during a customer-initiated telephone call, we believe that the ongoing burdens of these authentication requirements will be minimal. Further, this method balances consumers' interests in ready access to their call detail, and carriers' interests in providing efficient customer service, with the public interest in maintaining the security and confidentiality of call detail information.

18. *Alternative Access to Call Detail Information.* If a customer does not want to establish a password, the customer may still access call detail information, based on a customer-initiated telephone

call, by asking the carrier to send the call detail information to an address of record or by the carrier calling the telephone number of record. Because we provide multiple methods for the customer to access call detail based on a customer-initiated telephone call, neither customers who dislike passwords nor carriers concerned about timely customer service should find our requirements burdensome. Furthermore, by providing a variety of secure means for customers to receive call detail information from carriers, and focusing on one of the most problematic means of pretexting – obtaining call detail information from customer service representatives without proper identity screening – our rules are no more extensive than necessary to protect consumers’ privacy with respect to telephone access to account information.

19. We do not intend for the prohibition on the release of call detail over the telephone for customer-initiated telephone contact to hinder routine carrier-customer relations regarding service/billing

disputes and questions. If a customer is able to provide to the carrier, during a customer-initiated telephone call, all of the call detail information necessary to address a customer service issue (*i.e.*, the telephone number called, when it was called, and, if applicable, the amount charged for the call), then the carrier is permitted to proceed with its routine customer care procedures. We believe that if a customer is able to provide this information to the carrier, without carrier assistance, then the carrier does not violate our rules if it takes routine customer service actions related to such information. We additionally clarify that under these circumstances, carriers may not disclose to the customer any call detail information about the customer account other than the call detail information that the customer provides without the customer first providing a password. Our rule is intended to prevent pretexter phishing and other pretexter methods for gaining unauthorized access to customer account information.

2. Online Account Access

20. We also require carriers to password protect online access to CPNI. Although section 222 of the Act imposes a duty on carriers to protect the privacy of CPNI, data brokers and others have been able to access CPNI online without the account holder’s knowledge or consent. We agree with EPIC that the apparent ease with which data brokers have been able to access CPNI online demonstrates the insufficiency of carriers’ customer authentication procedures. In particular, the record evidence demonstrates that some carriers permit customers to establish online accounts by providing readily available biographical information. Thus, a data broker may obtain online account access easily without the customer’s knowledge. Therefore, we agree with EPIC and others that use of such identifiers is an insufficient mechanism for preventing data brokers from obtaining unauthorized online access to CPNI.

21. To close this gap, we prohibit carriers from relying on readily available biographical information, or account information to authenticate a customer’s identity before a customer accesses CPNI online. In addition, because a carrier is responsible to ensure the security and privacy of online account access, a carrier must appropriately authenticate both new and existing customers seeking access to CPNI

[75]

online. However, we do not require carriers to reinitialize existing passwords for online customer accounts, but a carrier cannot base online access *solely* on readily available biographical [76] information, or account information, or prompts for such information.

22. As with the password protection for the release of call detail during customer-initiated telephone contact, we understand that passwords for online access can also be lost or forgotten, and share commenters' concern that security measures should not unnecessarily inconvenience customers or impair [77]

customer service systems. We therefore allow carriers to create back-up customer authentication methods for lost or forgotten passwords in line with the back-up authentication method framework [78]

established for the password protection for customer-initiated telephone contact. Further, if a customer cannot provide a password or the proper response for the back-up authentication method to access an online account, the carrier must reauthenticate the customer based on the authentication methods adopted [79]

in this Order prior to the customer gaining online access to CPNI. Finally, as with the establishment of the password for the release of call detail for customer-initiated telephone contact, although we recognize that carriers and customers will be subject to a one-time burden to implement this Order, we believe the ongoing burdens of these authentication requirements will be minimal and are outweighed by the benefits to consumer privacy.

3. Carrier Retail Location Account Access

23. We continue to allow carriers to provide customers with access to CPNI at a carrier's retail [80] location if the customer presents a valid photo ID and the valid photo ID matches the name on the [81] account. We agree with the Attorneys General and find that this is a secure authentication practice [82] because it enables the carrier to make a reasonable judgment about the customer's identity.

4. Notification of Account Changes

24. We require carriers to notify customers immediately of certain account changes, including [83] whenever a password, customer response to a carrier-designed back-up means of authentication, [84] online account, or address of record is created or changed. We agree with the New Jersey Ratepayer Advocate [85] that this notification is an important tool for customers to monitor their account's security. This notification may be through a carrier-originated voicemail or text message to the telephone number of record, or by mail to the address of record, as to reasonably ensure that the customer receives this [86] notification. We believe this measure is appropriate to protect customers from data brokers that might otherwise manage to circumvent the authentication protections we adopt in this Order, and to take appropriate action in the event of pretexter activity. Further, we find that this notification requirement will also empower customers to provide carriers with timely information about pretexting activity, which the [87] carriers may not be able to identify easily.

5. Business Customer Exemption

25. We do make an exception to the rules that we adopt today for certain business customers. We agree with commenters who argue that privacy concerns of telecommunications consumers are greatest [88]

when using personal telecommunications services. Indeed, the fraudulent practices described by EPIC have mainly targeted individual consumers, and the record indicates that the proprietary information of wireline and wireless business account customers already is subject to stringent safeguards, which are [89]

privately negotiated by contract. Therefore, if the carrier's contract with a business customer is serviced by a dedicated account representative as the primary contact, and specifically addresses the carrier's protection of CPNI, we do not extend our carrier authentication rules to cover these business customers because businesses are typically able to negotiate the appropriate protection of CPNI in their [90]

service agreements. However, nothing in this Order exempts carriers serving wireline enterprise and wireless business account customers from section 222 or the remainder of the Commission's CPNI rules.

B. Notice of Unauthorized Disclosure of CPNI

26. We agree with EPIC that carriers should be required to notify a customer whenever a security breach results in that customer's CPNI being disclosed to a third party without that customer's [91]

authorization. However, we also appreciate law enforcement's concern about delaying customer [92]

notification in order to allow law enforcement to investigate crimes. Therefore, we adopt a rule that we believe balances a customer's need to know with law enforcement's ability to undertake an investigation of [93]

suspected criminal activity, which itself might advance the goal of consumer protection.

[94]

27. In conjunction with the general rulemaking authority under the Act, section 222(a), which imposes a duty on "[e]very telecommunications carrier . . . to protect the confidentiality of proprietary information," provides ample authority for the Commission to require carriers to report CPNI breaches to law enforcement and prohibit them from disclosing breaches to their customers until after law enforcement has been notified. Notifying law enforcement of CPNI breaches is consistent with the goal of protecting CPNI. Law enforcement can investigate the breach, which could result in legal action against the perpetrators, thus ensuring that they do not continue to breach CPNI. When and if law enforcement determines how the breach occurred, moreover, it can advise the carrier and the Commission, enabling industry to take steps to prevent future breaches of that kind. Because law enforcement will be informed of all breaches, it will be better positioned than individual carriers to develop expertise about the methods and motives associated with CPNI breaches. Again, this should enable law enforcement to advise industry, the Commission, and perhaps Congress regarding additional measures that might prevent future breaches.

28. The requirement that carriers delay customer notification of breaches until after law enforcement has been notified is also consistent with these goals. Once customers have been notified, a breach may become public knowledge, thereby impeding law enforcement's ability to investigate the breach, identify the perpetrators, and determine how the breach occurred. In short, immediate customer notification may compromise all the benefits of requiring carriers to notify law enforcement of CPNI breaches. A short delay is warranted, therefore, with the proviso that carriers may notify customers if there is an urgent need to do so to avoid immediate and irreparable harm.

29. A telecommunications carrier shall notify law enforcement of a breach of its customers' CPNI no later than seven business days after a reasonable determination of a breach by sending electronic

notification through a central reporting facility to the United States Secret Service (USSS) and the [95]

Federal Bureau of Investigation (FBI). A telecommunications carrier may notify the customer and/or disclose the breach publicly after seven business days following notification to the USSS and the FBI, if the USSS and the FBI have not requested that the telecommunications carrier continue to postpone [96]

disclosure. A telecommunications carrier, however, may immediately notify a customer or disclose the breach publicly after consultation with the relevant investigative agency, if the carrier believes that there is an extraordinarily urgent need to notify a customer or class of customers in order to avoid immediate and [97]

irreparable harm. Additionally, we require carriers to maintain a record of any discovered breaches, notifications to the USSS and the FBI regarding those breaches, as well as the USSS and the FBI response to the notifications for a period of at least two years. This record must include, if available, the date that the carrier discovered the breach, the date that the carrier notified the USSS and the FBI, a detailed description of the CPNI that was breached, and the circumstances of the breach.

30. We reject commenters' argument that the Commission need not impose new rules about notice to customers of unauthorized disclosure because competitive market conditions will protect CPNI from [98]

unauthorized disclosure. If customers and law enforcement agencies are unaware of pretexting activity, unauthorized releases of CPNI will have little impact on carriers' behavior, and thus provide little incentive [99]

for carriers to prevent further unauthorized releases. By mandating the notification process adopted here, we better empower consumers to make informed decisions about service providers and assist law enforcement with its investigations. This notice will also empower carriers and consumers to take [100]

whatever "next steps" are appropriate in light of the customer's particular situation.

31. We clarify, however, that nothing in today's Order is intended to alter existing law regarding customer notification of law enforcement access to customer records. Therefore, for example, when CPNI is disclosed pursuant to the "except as required by law" exception contained in section 222(c)(1), such disclosure does not trigger the carrier's obligation to notify a customer of any "unauthorized" access to [101]

CPNI. We further clarify that nothing in today's Order is intended to mandate customer notice when providers of covered services are permitted by law to disclose customers' personal information, such as to "protect the rights or property of the carrier, or to protect users of those services and other carriers from [102]

fraudulent, abusive, or unlawful use of, or subscription to, such services." Further, we do not intend to supersede any statute, regulation, order, or interpretation in any state, except to the extent that such statute, regulation, order, or interpretation is inconsistent with the provisions of this section, and then only to the extent of the inconsistency.

32. *Content of Customer Notice.* We decline to specify the precise content of the notice that must be provided to customers in the event of a security breach of CPNI. The notice requirement we adopt in this proceeding is general, and we recognize that numerous types of circumstances – including situations other than pretexting – could result in the unauthorized disclosure of a customer's CPNI to a third party. Thus, we leave carriers the discretion to tailor the language and method of notification to the [103]

circumstances. Finally, we expect carriers to cooperate fully in any law enforcement investigation of such unauthorized release of CPNI or attempted unauthorized access to an account consistent with statutory and Commission requirements.

C. Additional Protection Measures

33. *Guarding Against Pretexting.* We agree with commenters that techniques for fraud vary and tend to become more sophisticated over time, and that carriers need leeway to engage emerging threats. [104]

We therefore clarify that carriers are free to bolster their security measures through additional [105] measures to meet their section 222 obligations to protect the privacy of CPNI. We also codify the existing statutory requirement contained in section 222 of the Act that carriers take reasonable measures to [106]

discover and protect against activity that is indicative of pretexting. As we discuss below, adoption of the rules in this Order does not relieve carriers of their fundamental duty to remain vigilant in their protection of CPNI, nor does it necessarily insulate them from enforcement action for unauthorized disclosure of CPNI.

34. Although we expect that carriers will use forms of self-monitoring to comply with this obligation, at this time we allow carriers to determine what specific measures will best enable them to [107]

ensure compliance with this requirement. By codifying a general requirement to take reasonable measures to discover and protect against activity that is indicative of pretexting, we permit carriers to weigh the benefits and burdens of particular methods of possibly detecting pretexting. This approach will [108]

allow carriers to improve the security of CPNI in the most efficient manner possible, and better enable small businesses to comply with our rules.

35. We stress our expectation that carriers will take affirmative measures to discover and protect against activity that is indicative of pretexting beyond what is required by the Commission's current rules, [109]

and remind carriers that the Act imposes on them the duty of instituting effective measures to protect [110] the privacy of CPNI. [111] Moreover, as discussed in the Enforcement Section, *infra*, by requiring carriers to demonstrate that they have taken adequate measures to guard against pretexting, we give carriers adequate incentive to uncover situations where they have released CPNI to a third party without authorization. We anticipate that a carrier that practices willful blindness with regard to pretexting would not be able to demonstrate that it has taken sufficient measures to guard against pretexting. Although, we do not adopt specific rules in this Order that fully encompass this affirmative duty, we seek comment in our Further Notice on whether the Commission should require carriers to utilize audit trails and comply with [112] certain data retention requirements.

36. *Network Security.* In response to EPIC's encryption proposal, we make clear that carriers' existing statutory obligations to protect their customers' CPNI include a requirement that carriers take reasonable steps, which may include encryption, to protect their CPNI databases from hackers and other [113]

unauthorized attempts by third parties to access CPNI. Although several carriers report that they have [114] looked for, but not found, attempts by outsiders to penetrate their CPNI databases directly, [115]

commenters also report that pretexters' methods for gaining access to data evolve over time. As carriers take stronger measures to safeguard CPNI, data brokers may respond by escalating their techniques to access CPNI, such as through hacking. Therefore, although we decline at this time specifically to

require carriers to encrypt their CPNI databases, we interpret section 222 as requiring carriers to [\[116\]](#) protect CPNI when it is stored in a carrier's databases.

D. Joint Venture and Independent Contractor Use of CPNI

37. We modify our rules to require telecommunications carriers to obtain opt-in consent from a customer before disclosing that customer's CPNI to a carrier's joint venture partner or independent [\[117\]](#)

contractor for the purpose of marketing communications-related services to that customer. While we realize that this is a change in Commission policy, we find that new circumstances force us to reassess our existing regulations. As we have found previously, the Commission has a substantial interest in protecting [\[118\]](#)

customer privacy. Based on this and in light of new privacy concerns, we now find that an opt-in framework for the sharing of CPNI with joint venture partners and independent contractors for the purposes of marketing communications-related services to a customer both directly advances our interest in protecting customer privacy and is narrowly tailored to achieve our goal of privacy protection. Specifically, an opt-in regime will more effectively limit the circulation of a customer's CPNI by maintaining it in a carrier's possession unless a customer provides informed consent for its release. Moreover, we find that an opt-in regime will provide necessary informed customer choice concerning these information sharing relationships with other companies.

38. In the *Notice*, the Commission sought comment on whether the existing opt-out regime is sufficiently protective of the privacy of CPNI when CPNI is disclosed to telecommunications carriers' joint venture partners and independent contractors, and whether the Commission should instead adopt an opt-in [\[119\]](#)

policy for this type of CPNI sharing. The current opt-out regime allows for carriers to share CPNI with joint venture partners and independent contractors for the purposes of marketing communications- [\[120\]](#)

related services after providing only a notice to a customer. The burden is then placed on the customer to opt-out of such sharing arrangements. If the customer does not respond, a carrier's sharing of customer information with these entities is allowed.

39. We find that there is a substantial need to limit the sharing of CPNI with others outside a customer's carrier to protect a customer's privacy. The black market for CPNI has grown exponentially with an increased market value placed on obtaining this data, and there is concrete evidence that the dissemination of this private information does inflict specific and significant harm on individuals, [\[121\]](#)

including harassment and the use of the data to assume a customer's identity. The reality of this private information being disseminated is well-documented and has already resulted in irrevocable damage [\[122\]](#)

to customers. While there are safeguards in our current rules for sharing CPNI with joint venture [\[123\]](#)

partners and independent contractors, we believe that these safeguards do not adequately protect a customer's CPNI in today's environment. Specifically, we find that once the CPNI is shared with a joint venture partner or independent contractor, the carrier no longer has control over it and thus the potential for [\[124\]](#)

loss of this data is heightened. We find that a carrier's section 222 duty to protect CPNI extends to situations where a carrier shares CPNI with its joint venture partners and independent contractors. However, because a carrier is no longer in a position to personally protect the CPNI once it is shared – and section 222's duties may not extend to joint venture partners or independent contractors themselves in all cases – we find that this sharing of data, while still permitted, warrants a requirement of express prior [\[125\]](#)

customer authorization.

40. We agree with commenters that argue that the current opt-out notices allowing carriers to share information with joint venture partners and independent contractors are often vague and not [126]

comprehensible to an average customer. Further, we find that many consumer studies on opt-out [127]

regimes also reflect this consumer confusion. We do not believe that simply modifying our existing opt-out notice requirements will alleviate these concerns because opt-out notices do not involve a customer actually authorizing the sharing of CPNI in the first instance, but rather leave it to the carrier to decide [128]

whether to share it after sending a notice to a customer, which a customer may or may not have read. While many customers accept and understand that carriers will share their information with affiliates and agents – as provided in our existing opt-out rules – there is less customer willingness for their information [129]

to be shared without their express authorization with others outside the carrier-customer relationship.

41. We disagree with commenters that assert that an opt-in approach will not serve to remedy the [130]

concerns raised in this proceeding. The Attorneys General note that since February 2005, security [131]

breaches have resulted in the personal information of over 54 million Americans being compromised. With the growing interest in obtaining customer CPNI and the resulting increase in the number of security breaches, carriers must be more vigilant in protecting a customer's CPNI from unauthorized disclosure. [132]

It stands to reason that placing customers' personal data in the hands of companies outside the carrier-customer relationship places customers at increased risk, not only of inappropriate handling of the information, but also of innocent mishandling or loss of control over it. Further, we find that an opt-in regime will clarify carriers' information sharing practices because it will force carriers to provide clear and comprehensible notices to their customers in order to gain their express authorization to engage in such activity.

42. We also disagree with commenters that argue that the current opt-out approach is sufficient, and that in the event of a breach, a carrier can terminate its relationship with the joint venture partner or independent contractor, or that the Commission can simply deal with the situation through an enforcement [133]

proceeding. We find that in the event of a breach of CPNI security, the damage is already inflicted upon the customer. We also find that the carrier cannot simply rectify the situation by terminating its agreement nor can the Commission completely alleviate a customer's concerns about the privacy invasion [134]

through an enforcement proceeding.

43. This minor modification of our rules seeks to narrow the number of avenues available for an unauthorized disclosure of CPNI without eliminating a carrier's ability to share CPNI with its joint venture partners and independent contractors under certain circumstances. We disagree that an opt-in regime's [135]

costs outweigh the benefits to customers. While we appreciate commenter concern that carriers may need to engage in broader marketing campaigns for their services as a result of an opt-in regime, we believe that this cost is outweighed by the carriers' duty to protect their customers' private information, and [136]

more importantly, customers' interest in maintaining control over their private information. Thus, we believe that an opt-in regime is the least restrictive means to ensure that a customer has control over its private information and is not subjected to permanent harm as a result of a carrier's disclosure of CPNI to [137]

one of its joint venture partners or independent contractors.

44. We disagree with commenters who assert that an opt-in regime for disclosures to joint venture

[138]

partners and independent contractors fails the *Central Hudson* test for the regulation of [139]

commercial speech. We recognize that more than seven years ago, in *U.S. West, Inc. v. FCC*, the United States Court of Appeals for the Tenth Circuit held that the Commission had failed, based on the record in that proceeding, to satisfy its burden of showing that an opt-in rule passed the *Central Hudson* [140]

test. That decision, however, was based on a different record than the one compiled here and, in particular, on two premises that are no longer valid. First, the Tenth Circuit concluded that there was no evidence showing harm to privacy interests from unauthorized disclosure of CPNI. “While protecting against disclosure of sensitive and potentially embarrassing personal information may be important in the abstract, we have no indication of how it may occur in reality with respect to CPNI. Indeed, we do not [141]

even have indication that the disclosure might actually occur.” The record in this proceeding, by contrast, is replete with specific examples of unauthorized disclosure of CPNI and the adverse effects of [142]

such disclosures on customers. Indeed, in the Telephone Records and Privacy Protection Act of 2006, Congress recently found that unauthorized disclosure of telephone records is a problem that “not only assaults individual privacy but, in some instances, may further acts of domestic violence or stalking, compromise the personal safety of law enforcement officers, their families, victims of crime, witnesses, or [143]

confidential informants, and undermine the integrity of law enforcement investigations.” Second, the Tenth Circuit in *U.S. West* concluded that the record “d[id] not adequately show that an opt-out strategy [144]

would not sufficiently protect customer privacy.” In this proceeding, however, substantial evidence shows that the current opt-out rules do not adequately protect customer privacy because most customers [145]

either do not read or do not understand carriers’ opt-out notices. For example, the National Association of Attorneys General cites to “studies [that] serve as confirmation of what common sense tells us: that in this harried country of multitaskers, most consumers are unlikely to read extra notices that arrived in today’s or last week’s mail and thus, will not understand that failure to act will be treated as an [146]

affirmative consent to share his or her information.”

45. We find, based on the record in this proceeding, that requiring carriers to obtain opt-in consent from customers before sharing CPNI with joint venture partners and independent contractors for marketing purposes satisfies the *Central Hudson* test. Specifically, we find that: (1) unauthorized disclosure of CPNI is a serious and growing problem; (2) the government has a substantial interest in preventing unauthorized disclosure of CPNI because such disclosure can have significant adverse consequences for privacy and [147]

safety; (3) the more independent entities that possess CPNI, the greater the danger of unauthorized disclosure; (4) an opt-in regime directly and materially advances privacy and safety interests by giving customers direct control over the distribution of their private information outside the carrier-customer relationship; and (5) an opt-in regime is not more extensive than necessary to protect privacy and safety interests because opt-out rules, the alternative cited by the Tenth Circuit in *U.S. West, Inc. v. FCC*, do not adequately secure customers’ consent for carriers to share CPNI with unaffiliated entities. In short, given the undisputed evidence demonstrating that unauthorized disclosures of CPNI constitute a serious and prevalent problem in the United States today, we believe that carriers should be required to obtain a customer’s explicit consent before sending such sensitive information outside of the company for marketing purposes. In light of the serious damage that unauthorized CPNI disclosures can cause, it is important that individual consumers determine if they want to bear the increased risk associated with sharing CPNI with independent contractors and joint venture partners, and the only way to ensure that a

consumer is willingly bearing that risk is to require opt-in consent. In this vein, we note that most United States privacy laws, such as the Family Educational Rights and Privacy Act, Cable Communications Policy Act, Electronic Communications Privacy Act, Video Privacy Protection Act, Driver's Privacy Protection Act, and Children's Online Privacy Protection Act, do not employ an opt-out approach but rather require an individual's explicit consent before private information is disclosed or [148] employed for secondary purposes.

46. We disagree with commenters who contend that requiring carriers to obtain opt-in consent from customers before sharing CPNI is unnecessary because, they claim, there is no evidence that data brokers have obtained CPNI from carriers' joint venture partners and independent contractors. [149] While it is true that the record does not include specific examples of unauthorized disclosure of CPNI by a joint venture partner or independent contractor, that does not mean unauthorized disclosure has not occurred or will not occur in the future. We see no reason why joint venture partners and independent contractors would be immune from this widespread problem. While carriers argue that pretexters do not focus their efforts on independent contractors and joint venture partners, we disagree with commenters who suggest [150]

that the governmental interests at stake in this proceeding are limited to the prevention of pretexting. The rules we are adopting are designed to curtail *all* forms of unauthorized disclosure of CPNI, not just pretexting. Unauthorized disclosure of CPNI by any method invades the privacy of unsuspecting

consumers and increases the risk of identity theft, harassment, stalking, and other threats to personal safety. [151]

In this proceeding, commenters have identified at least two other common forms of unauthorized [152]

disclosure of CPNI: computer intrusion and disclosure by insiders. Indeed, evidence in the record [153]

suggests that 50-70% of cases of identity theft arise from wrongful conduct by insiders. The record further demonstrates that information security breaches are on the rise in this country, and it is axiomatic that the more companies that have access to CPNI, the greater the risk of unauthorized disclosure through [154]

disclosure by insiders or computer intrusion. Thus, by sharing CPNI with joint venture partners and independent contractors, it is clear that carriers increase the odds of wrongful disclosure of this sensitive information, and before the chances of unauthorized disclosure are increased, a customer's explicit consent should be required. In any event, returning to the issue of pretexting, we also reject the argument that pretexters do not attempt to obtain CPNI from independent contractors and joint venture partners. Indeed, Sprint admits that "pretexters persist without regard to the status of any carrier representative (whether an [155]

employee, a joint venture partner, or an independent contractor)." To be sure, certain carriers claim that they do not provide the type of CPNI to joint venture partners and independent contractors that are attractive to pretexters. But even assuming this to be true for the moment, this does not appear to be the case across the entire industry.

47. Carriers also argue that there are more narrowly tailored alternatives to requiring opt-in consent for disclosures of CPNI to independent contractors and joint venture partners. First, Verizon [156]

suggests that the Commission could mandate password protection of call detail information. While we [157]

agree that this is a good idea and adopt it in this Order, this step is plainly insufficient by itself to address all of the legitimate privacy concerns at issue in this proceeding. Such a step, for example, would do nothing to protect the unauthorized disclosure of call detail information in the possession of independent

contractors and joint venture partners by insiders or computer intrusion, let alone the unauthorized disclosure of other forms of CPNI.

48. Second, Verizon argues that it would be sufficient to adopt an opt-in regime only for call detail information shared with independent contractors and joint venture partners. We likewise conclude that this alternative would be inadequate. While we recognize that unauthorized disclosure of call detail information is a significant problem, all CPNI constitutes sensitive information that is protected under the Communications Act and our rules. Moreover, we note that Congress did not distinguish between call detail and non-call detail information in the Telephone Records and Privacy Protection Act of 2006. Verizon's premise that non-call detail information is not sufficiently sensitive to warrant an opt-in requirement is therefore incorrect. For example, information about a customer's calling plan may be highly sensitive. T-Mobile currently offers a "myFaves" plan that allows customers to make unlimited calls to five "myFaves" contacts for a flat monthly charge, and Alltel offers a similar calling plan (the My Circle Plan) that allows for unlimited calls to ten contacts. While the identity of such contacts would not constitute call detail information, such information is no doubt highly personal and would be of significant interest to those seeking to invade another's privacy. As a result, we believe that carriers should be required to obtain a customer's explicit consent before such information is shared with independent contractors or joint venture partners and thus placed at greater risk of unauthorized disclosure.

49. Finally, carriers suggest that the Commission could mandate that carriers sharing CPNI with joint venture partners and independent contractors implement additional contractual safeguards. We again conclude that this alternative would not adequately vindicate our interest in protecting consumers' privacy. Further contractual safeguards would not change the fact that the risk of unauthorized CPNI disclosures increases when such information is provided by a carrier to a joint venture partner or independent contractor. Indeed, in light of the record developed in this proceeding, it is quite apparent that safeguards implemented by carriers themselves often fail to prevent unauthorized disclosures of CPNI.

It is for this reason that we believe that a carrier should be required to obtain explicit consent from its customer before that customer's CPNI is sent outside of the company for marketing purposes.

50. *Grandfathering of Previously Obtained CPNI Approvals.* To the extent that carriers voluntarily obtained opt-in approval from their customers for the disclosure of customers' CPNI to a joint venture partner or independent contractor for the purposes of marketing communications-related services to a customer prior to the adoption of this Order, those carriers can continue to use those approvals.

E. Annual Certification Filing

51. We adopt the Commission's tentative conclusion and amend our rules to require carriers to file their annual CPNI certification with the Commission, including an explanation of any actions taken against data brokers and a summary of all customer complaints received in the past year concerning the unauthorized release of CPNI. We find that this amendment to the Commission's rules is an appropriate measure and will ensure that carriers regularly focus their attention on their duty to safeguard CPNI. Additionally, we find that this modification to our rules will remind carriers of the Commission's oversight and high priority regarding carrier performance in this area. Further, with this filing, the Commission will be better able to monitor the industry's response to CPNI privacy issues and to take any

[165]

necessary steps to ensure that carriers are managing customer CPNI securely.

52. Under the Commission's existing CPNI regulations, each telecommunications carrier must have an officer, as an agent of the carrier, sign a compliance certificate on an annual basis stating that the officer has personal knowledge that the company has established operating procedures that are adequate to

ensure compliance with the Commission's CPNI rules and to make that certification available to the public. [166]

While carriers currently are required to certify annually that their operating procedures are adequate to ensure compliance with the Commission's CPNI rules, the failure of carriers to make this annual certification in their own public file, and the evidence EPIC introduced into the record regarding the industry-wide problem of pretexting, suggests that certain carriers have been less than vigilant concerning

[167]

the safeguarding of CPNI.

53. We find that carriers should be required to make this filing annually with the Enforcement

Bureau on, or before, March 1, in EB Docket No. 06-36, for data pertaining to the previous calendar year.

[168]

We believe that this deadline will provide carriers with ample opportunity to review their own CPNI protection programs and ensure the adequacy of their defenses against fraudulent attempts to access

[169]

customers' private data. Further, this deadline will allow carriers sufficient time to review their filings without the certification being overshadowed by other annual filing requirements.

F. Extension of CPNI Requirements to Providers of Interconnected VoIP Service

54. We extend the application of the Commission's CPNI rules to providers of interconnected

[170]

VoIP service. In the *IP-Enabled Services Notice* and the *EPIC CPNI Notice*, the Commission sought

[171]

comment on whether to extend the CPNI requirements to VoIP service providers. Since we have not decided whether interconnected VoIP services are telecommunications services or information services as

[172]

those terms are defined in the Act, nor do we do so today, we analyze the issues addressed in this

[173]

Order under our Title I ancillary jurisdiction to encompass both types of service. If the Commission later classifies interconnected VoIP service as a telecommunications service, the providers of interconnected VoIP services would be subject to the requirements of section 222 and the Commission's

[174]

CPNI rules as telecommunications carriers under Title II.

55. We conclude that we have authority under Title I of the Act to impose CPNI requirements on providers of interconnected VoIP service. Ancillary jurisdiction may be employed, in the Commission's discretion, when Title I of the Act gives the Commission subject matter jurisdiction over the service to be

[175]

regulated and the assertion of jurisdiction is "reasonably ancillary to the effective performance of [its]

[176]

various responsibilities." Both predicates for ancillary jurisdiction are satisfied here. First, as we

concluded in the *Interim USF Order* and *VoIP 911 Order*, interconnected VoIP services fall within [177] the subject matter jurisdiction granted to us in the Act. Second, our analysis requires us to evaluate whether imposing CPNI obligations is reasonably ancillary to the effective performance of the Commission's various responsibilities. Based on the record in this matter, we find that sections 222 and 1 of the Act provide the requisite nexus, with additional support from section 706.

56. Section 222 requires telecommunications carriers to protect the confidentiality of CPNI, and [178] the Commission has adopted detailed regulations to help clarify this duty. The Commission already has determined that interconnected VoIP service "is increasingly used to replace analog voice service" – a [179] trend that we expect will continue. It therefore seems reasonable for American consumers to expect that their telephone calls are private irrespective of whether the call is made using the services of a wireline carrier, a wireless carrier, or an interconnected VoIP provider, given that these services, from the [180] perspective of a customer making an ordinary telephone call, are virtually indistinguishable.

57. Moreover, extending section 222's protections to interconnected VoIP service customers is necessary to protect the privacy of wireline and wireless customers that place calls to or receive calls from interconnected VoIP customers. The CPNI of interconnected VoIP customers includes call detail information concerning all calling and called parties. Thus, by protecting from inadvertent disclosure the CPNI of interconnected VoIP customers, the Commission will more effectively protect the privacy of wireline and wireless service customers. We therefore find that the extension of the CPNI privacy requirements to providers of interconnected VoIP service is reasonably ancillary to the effective performance of the Commission's duty to protect the CPNI of all telecommunications customers under Title II.

58. Section 1 of the Act charges the Commission with responsibility for making available "a rapid, efficient, Nation-wide, and world-wide wire and radio communication service . . . for the purpose of [181] *promoting safety of life and property* through the use of wire and radio communication." In light of this statutory mandate in conjunction with the recent real-life implications of the unauthorized release of CPNI, protecting a consumer's private information continues to be one of the Commission's public safety [182] responsibilities.

If we failed to exercise our responsibilities under sections 222 and 1 of the Act with respect to customers of interconnected VoIP service, a significant number of American consumers might suffer a loss of privacy and/or safety resulting from unauthorized disclosure of their CPNI – and be harmed by this loss. Therefore, we believe that extending the CPNI obligations to interconnected VoIP service [183] providers is "reasonably ancillary to the effective performance of [our] responsibilities" under sections [184] 222 and 1 of the Act, and "will 'further the achievement of long-established regulatory goals'" to [185] protect the confidentiality of CPNI.

59. We also are guided by section 706 of the Act, which, among other things, directs the Commission to encourage the deployment of advanced telecommunications capability to all Americans by [186] using measures that "promote competition in the local telecommunications market." The protection of CPNI may spur consumer demand for interconnected VoIP services, in turn driving demand for broadband connections, and consequently encouraging more broadband investment and deployment consistent with

[187]
 the goals of section 706. Thus, pursuant to our ancillary jurisdiction, we extend the CPNI [188]
 obligations to providers of interconnected VoIP services.

G. Preemption

[189]
 60. We reject commenter requests to preempt all state CPNI obligations because we agree [190]
 with commenters that assert we should allow states to also create rules for protecting CPNI. We
 recognize that many states already have laws relating to safeguarding personal information such as CPNI.
 [191]

To the extent those laws do not create a conflict with federal requirements, carriers are able to
 comply with federal law and state law. Should a carrier find that it is unable to comply simultaneously
 with the Commission's rules and with the laws of another jurisdiction, the carrier should bring the matter to
 [192]
 our attention in an appropriate petition.

H. Implementation

[193]
 61. In light of the importance of this issue to the public interest, we require that our rules
 become effective within an aggressively short amount of time because of the important consumer and
 [194]
 public safety considerations raised by pretexting that demand near immediate action. The rules we
 adopt in this Order, however, are subject to approval by the Office of Management and Budget (OMB).
 Thus, our rules become effective six months after the Order's effective date or on receipt of OMB
 [195]

approval, as required by the Paperwork Reduction Act, whichever is later. We will issue a Public
 Notice when OMB approval is received. For carriers satisfying the definition of a "small entity" or a
 [196]

"small business concern" under the Regulatory Flexibility Act or Small Business Act, we provide an
 additional six months to implement the rules pertaining to the online carrier authentication requirements.
 [197]

62. We find that the requirements we adopt in this Order most appropriately respond to actions by
 wrongdoers to obtain unauthorized access to CPNI, and carriers' failures to adequately protect CPNI in
 violation of their section 222 duty. This order balances those actions and inactions against the privacy
 concerns of all Americans. By requiring carriers (including interconnected VoIP service providers) to
 implement CPNI protections as a top priority, we hope to minimize the likelihood of future unauthorized
 disclosures of consumer's CPNI.

I. Enforcement

63. We take seriously the protection of customers' private information and commit to remaining
 vigilant to ensure compliance with applicable privacy laws within our jurisdiction. One way in which we
 will help protect consumer privacy is through strong enforcement measures. When investigating
 compliance with the rules and statutory obligations, the Commission will consider whether the carrier has
 taken reasonable precautions to prevent the unauthorized disclosure of a customer's CPNI. Specifically,
 we hereby put carriers on notice that the Commission henceforth will infer from evidence that a pretexter

has obtained unauthorized access to a customer's CPNI that the carrier did not sufficiently protect that customer's CPNI. A carrier then must demonstrate that the steps it has taken to protect CPNI from unauthorized disclosure, including the carrier's policies and procedures, are reasonable in light of the threat posed by pretexting and the sensitivity of the customer information at issue. If the Commission finds at the conclusion of its investigation that the carrier indeed has not taken sufficient steps adequately to protect the privacy of CPNI, the Commission may sanction it for this oversight, including through forfeiture.

64. We offer here additional guidance regarding the Commission's expectations that will inform our investigations. We fully expect carriers to take every reasonable precaution to protect the

[198]

confidentiality of proprietary or personal customer information. Of course, we require carriers to implement the specific minimum requirements set forth in the Commission's rules. We further expect carriers to take additional steps to protect the privacy of CPNI to the extent such additional measures are feasible for a particular carrier. For instance, and as discussed above, although we decline to impose audit trail obligations on carriers at this time, we expect carriers through audits or other measures to take reasonable measures to discover and protect against activity that is indicative of pretexting. Similarly, although we do not specifically require carriers to encrypt their customers' CPNI, we expect a carrier to encrypt its CPNI databases if doing so would provide significant additional protection against the unauthorized access to CPNI at a cost that is reasonable given the technology a carrier already has implemented.

65. By adopting certain specific minimum standards regarding what measures carriers must take to protect the privacy of CPNI, and by committing to taking resolute enforcement action to ensure that the goals of section 222 are achieved, we believe we appropriately balance consumer privacy interests with carriers' interests in minimizing burdens on their customers. Our two-prong approach will (1) allow carriers to implement whatever security measures are warranted in light of their technological choices, (2) create a diversity of security practices that will enable market forces to improve carriers' security measures over time, (3) avoid creating unnecessary regulatory barriers that could impede carriers from adapting to new threats as the methods used by data brokers evolve, and (4) alleviate commenters' concerns that specific safeguard rules could provide pretexters with a "roadmap" of how to obtain CPNI without authorization. We further believe that our two-pronged approach will ensure a high level of privacy protection for CPNI because carriers will have sufficient incentive and ability to adopt whatever security mechanisms work best with their existing systems and procedures.

66. *Carrier Safe Harbor.* We decline to immunize carriers from possible sanction for disclosing customers' private information without appropriate authorization. Some carriers support the adoption of a "safe harbor," which would immunize carriers from liability for improper disclosure of CPNI if the carrier followed certain security guidelines, such as those comparable to the Federal Trade Commission's (FTC's)

[199]

guidelines for the financial industry. We decline to adopt this proposal because such a rule would result in less protection of customers' CPNI than exists under the status quo. The guidelines the carriers propose to trigger immunity do not add meaningful protections beyond carriers' existing regulatory

[200]

obligations. Therefore, if we adopted the proposed safe harbor, carriers would receive immunity from liability for meeting the requirements set forth in the safe harbor, even if a carrier acted egregiously and in derogation of its general duty to protect CPNI from unauthorized release. The public interest is better served if the Commission retains the option of taking strong enforcement measures regarding carriers' duties under section 222 and the Commission's rules.

V. FURTHER NOTICE OF PROPOSED RULEMAKING

67. The Commission has a duty to ensure that, as technologies evolve, the consumer protection objectives of the Act are maintained. Through this Further Notice of Proposed Rulemaking, we seek comment on whether the Commission should act to expand its CPNI rules further, and whether it should expand the consumer protections to ensure that customer information and CPNI are protected in the context

of mobile communication devices.

A. Additional CPNI Protective Measures

68. *Password Protection.* In light of the rules we adopt in today's Order and the recent enactment of criminal penalties against pretexters, we seek comment on whether the Commission should adopt any further carrier requirements to protect CPNI. Specifically, while we limited our rules to password protecting call detail information for customer-initiated telephone contact, we seek comment on whether to extend these rules to include optional or mandatory password protection for non-call detail CPNI. Should this password protection be for all non-call detail CPNI or should it only include certain account changes? Further, if the Commission were to adopt password protection for certain account changes, what should that include (*e.g.*, changes in the address of record, account plans, or billing methods)? Would requiring these forms of password protection place an undue burden on carriers, customers, or others, including any burdens placed on small carriers? We solicit further comment on any other modifications to our rules that we should adopt in light of pretexting activity, and a carrier's duty to protect CPNI.

69. *Audit Trails.* While we did not adopt rules requiring audit trails at this time, in light of our new rules and the recent enactment of criminal penalties against pretexters, we seek comment on whether the Commission should adopt rules pertinent to audit trails. Are audit trails generally used by carriers to track customer contact? We ask carriers to assess the benefits and burdens, including the burdens on small carriers, of recording the disclosure of CPNI and customer contact. Our current record indicates that the broad use of audit trails likely would be of limited value in ending pretexting because such a log would [\[201\]](#)

record enormous amounts of data, the vast majority of it being legitimate customer inquiry. Commenters also report that implementing and maintaining audit trails would be costly with little to no [\[202\]](#)

corresponding benefit to the consumer. However, would an audit trail assist law enforcement with its criminal investigations against pretexters? Further, in the interim period since we sought comment on this issue, have carriers' reactions to audit trails changed or has the technology changed such that audit trails are now an economically feasible option?

70. *Physical Safeguards.* We also seek comment on whether the Commission, in light of the rules we adopt in this Order and the recent enactment of criminal penalties against pretexters, should adopt rules that govern the physical transfer of CPNI among companies, such as between a carrier and its affiliates, or the transfer of CPNI to any other third party authorized to access or maintain CPNI, including a carrier's joint venture partners and independent contractors. Specifically, we seek comment on what physical safeguards carriers currently are using when they transfer, or allow access to, CPNI to ensure that they [\[203\]](#)

maintain the security and confidentiality of CPNI? We also seek comment on whether these safeguards for the physical transfer of, or for access to, CPNI are sufficient? Further, we seek comment on what steps the Commission should require of a carrier to protect CPNI when CPNI is being transferred or accessed by the carrier, its affiliates, or its third parties (*e.g.*, encryption, audit trails, logs, etc.).

Additionally, we seek comment on the benefits and burdens, including the burdens on small carriers, of requiring carriers to physically safeguard the security and confidentiality of CPNI.

71. *Limiting Data Retention.* We also seek comment on whether the Commission, in light of the rules we adopt in this Order and the recent enactment of criminal penalties against pretexters, should adopt rules that require carriers to limit data retention. If the Commission did adopt such a rule, what should be the maximum amount of time that a carrier should be able to retain customer records? Additionally, should all customer records be eliminated or is there a subset of customer records that are more susceptible to abuse and should be destroyed? Also, should the Commission define exceptions where a carrier is permitted to retain certain records (*e.g.*, for the length of carrier-carrier or carrier-customer disputes)? The Department of Justice argues that destruction of CPNI after a specified period would hamper law

enforcement efforts by destroying data sometimes needed for criminal and other lawful
[\[204\]](#)
 investigations. We also seek comment on whether there are any state or Commission data retention
[\[205\]](#)
 requirements that might conflict with a carrier's data limitation. Additionally, does a limitation on
[\[206\]](#)
 data retention enhance protection of CPNI? Alternatively, should the Commission require carriers to
[\[207\]](#)
 de-identify customer records after a certain period? We seek comment on the benefits and burdens,
 including the burdens on small carriers, of requiring carriers to limit their data retention or to de-identify
 customer records.

B. Protection of Information Stored in Mobile Communications Devices

72. We seek comment on what steps the Commission should take, if any, to secure the privacy of
[\[208\]](#)
 customer information stored in mobile communications devices. Specifically, we seek comment on
 what methods carriers currently use, if any, for erasing customer information on mobile equipment prior to
[\[209\]](#)
 refurbishing the equipment, and the extent to which carriers enable customers to permanently erase
 their personal information prior to discarding the device. We also seek comment on whether the
 Commission should require carriers to permanently erase, or allow customers to permanently erase,
 customer information in such circumstances. Should the Commission require manufacturers to configure
 wireless devices so consumers can easily and permanently delete personal information from those
 devices? Further, we seek comment on the burdens, including those placed on small carriers, associated
 with a Commission rule requiring carriers and manufacturers to fully expunge existing customer data from
 a mobile device at the customer's request.

VI. PROCEDURAL MATTERS

A. *Ex Parte* Presentations

73. The rulemaking this Notice initiates shall be treated as a "permit-but-disclose" proceeding in
[\[210\]](#)
 accordance with the Commission's *ex parte* rules. Persons making oral *ex parte* presentations are
 reminded that memoranda summarizing the presentations must contain summaries of the substance of the
 presentations and not merely a listing of the subjects discussed. More than a one or two sentence
[\[211\]](#)
 description of the views and arguments presented generally is required. Other requirements pertaining
[\[212\]](#)
 to oral and written presentations are set forth in section 1.1206(b) of the Commission's rules.

B. Comment Filing Procedures

[\[213\]](#)
 74. Pursuant to sections 1.415 and 1.419 of the Commission's rules, interested parties may
 file comments and reply comments regarding the Notice on or before the dates indicated on the first page
 of this document. **All filings related to this Further Notice of Proposed Rulemaking should refer to
 CC Docket No. 96-115 and WC Docket No. 04-36.** 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).

- 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 website for submitting comments.
- ECFS filers must transmit one electronic copy of the comments for CC Docket No. 96-115 and WC Docket No. 04-36. In completing the transmittal screen, filers should include their full name, U.S. Postal Service mailing address, and the applicable docket 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, and include the following words in the body of the message, “get form.” A sample form and directions will be sent in response.
- Paper Filers: Parties who choose to file by paper must file an original and four copies of each filing. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission’s Secretary, Marlene H. Dortch, Office of the Secretary, Federal Communications Commission, 445 12th Street, S.W., Washington, D.C. 20554.
- The Commission’s contractor will receive hand-delivered or messenger-delivered paper filings for the Commission’s Secretary at 236 Massachusetts Avenue, N.E., Suite 110, Washington, D.C. 20002. The filing hours at this location are 8:00 a.m. to 7:00 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 should be addressed to 445 12th Street, S.W., Washington D.C. 20554.

75. Parties should send a copy of their filings to Janice Myles, Competition Policy Division, Wireline Competition Bureau, Federal Communications Commission, Room 5-C140, 445 12th Street, S.W., Washington, D.C. 20554, or by e-mail to janice.myles@fcc.gov. Parties shall also serve one copy with the Commission’s copy contractor, Best Copy and Printing, Inc. (BCPI), Portals II, 445 12th Street, S.W., Room CY-B402, Washington, D.C. 20554, (202) 488-5300, or via e-mail to fcc@bcpiweb.com.

76. Documents in CC Docket No. 96-115 and WC Docket No. 04-36 will be available for public inspection and copying during business hours at the FCC Reference Information Center, Portals II, 445 12th Street S.W., Room CY-A257, Washington, D.C. 20554. The documents may also be purchased from BCPI, telephone (202) 488-5300, facsimile (202) 488-5563, TTY (202) 488-5562, e-mail fcc@bcpiweb.com.

C. Final Regulatory Flexibility Analysis

77. As required by the Regulatory Flexibility Act of 1980, *see* 5 U.S.C. § 604, the Commission has prepared a Final Regulatory Flexibility Analysis (FRFA) of the possible significant economic impact on small entities of the policies and rules addressed in this document. The FRFA is set forth in Appendix C.

D. Initial Regulatory Flexibility Analysis

78. As required by the Regulatory Flexibility Act of 1980, *see* 5 U.S.C. § 603, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and rules addressed in this document. The IRFA is set forth in Appendix D.

Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the Notice provided below in Appendix D.

E. Paperwork Reduction Act

79. This Order contains modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. It will be submitted to the Office of Management and Budget (OMB) for review under Section 3507(d) of the PRA. OMB, the general public, and other Federal agencies are invited to comment on the new information collection requirements contained in this proceeding. 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 previously sought specific comment on how we might “further reduce the information collection burden for small business concerns with fewer than 25 employees.”

80. In the Order, we have assessed the burdens placed on small businesses to notify customers of account changes, to notify law enforcement and customers of unauthorized CPNI disclosure; to obtain opt-in consent prior to sharing CPNI with joint venture partners and independent contractors; to file annually a CPNI certification with the Commission, including an explanation of any actions taken against data brokers and a summary of all consumer complaints received in the past year concerning the unauthorized release of CPNI, and to extend the CPNI rules to providers of interconnected VoIP services, and find that these requirements do not place a significant burden on small businesses.

81. This Further Notice contains proposed information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invited the general public and the Office of Management and Budget (OMB) to comment on the information collection requirements contained in this Further Notice, as required by the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. Public and agency comments are due **60 days after publication in the Federal Register**. 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; and (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. 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 comment on how we might “further reduce the information collection burden for small business concerns with fewer than 25 employees.”

F. Congressional Review Act

82. The Commission will send a copy of this Report and Order and Further Notice of Proposed Rulemaking in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act (CRA), *see* 5 U.S.C. § 801(a)(1)(A).

G. Accessible Formats

83. 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 or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice) or 202-418-0432 (TTY). Contact the FCC to request reasonable accommodations for filing comments (accessible format documents, sign language interpreters, CART, etc.) by e-mail: FCC504@fcc.gov; phone: 202-418-0530 or TTY: 202-418-0432.

VII. ORDERING CLAUSES

84. Accordingly, IT IS ORDERED that pursuant to sections 1, 4(i), 4(j), 222, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i)-(j), 222, 303(r), this Report and Order and Further Notice of Proposed Rulemaking in CC Docket No. 96-115 and WC Docket No. 04-36 IS ADOPTED, and that Part 64 of the Commission’s rules, 47 C.F.R. Part 64, is amended as set forth in Appendix B. The Order shall become effective upon publication in the Federal Register subject to OMB

approval for new information collection requirements ~~or six months after the Order's effective date, whichever is later.~~

85. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Report and Order and Further Notice of Proposed Rulemaking, including the Final Regulatory Flexibility Analysis and the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

Appendix A

Commenters in CC Docket No. 96-115

Comments	Abbreviation
Alexicon Telecommunications Consulting	Alexicon
Alltel Corporation	Alltel
American Association of Paging Carriers	AAPC
American Cable Association	ACA
AT&T Inc.	AT&T
Attorneys General of the Undersigned States	Attorneys General
BellSouth Corporation	BellSouth
Centennial Communications Corp.	Centennial
Charter Communications, Inc.	Charter
Cingular Wireless LLC	Cingular
COMPTEL	COMPTEL
Cross Telephone Company, Cimmaron Telephone Company, Pottawatomie Telephone Company, Chickasaw Telephone, and Salina-Spavinaw Telephone Company	Oklahoma Carriers
Crown Castle International Corp.	Crown Castle
CTIA-The Wireless Association [®]	CTIA
Dobson Communications Corporation	Dobson
Electronic Privacy Information Center, Consumer Action, Privacy Rights Now Coalition, Center for Digital Democracy, Consumer Federation of America, Privacy Journal, Center for Financial Privacy and Human Rights, and National Consumers League	EPIC <i>et al.</i>
Enterprise Wireless Alliance and the USMSS, Inc.	Enterprise Wireless
Eschelon Telecom, Inc., SNIP Link Inc., and XO Communications, Inc.	Joint Commenters
Global Crossing North America, Inc.	Global Crossing
Infonxx, Inc.	Infonxx
Independent Carrier Group	ICG
Kim Phan	Phan
Leap Wireless International, Inc. and Cricket Communications, Inc.	Leap
McManis & Mosaive Association	MMA
MetroPCS Communications, Inc.	MetroPCS
Microsoft Corporation, Skype Inc. and Yahoo! Inc.	Internet Companies
Myung Kim	Kim
National Association of State Utility Consumer Advocates	NASUCA
National Cable & Telecommunications Association	NCTA
National Telecommunications Cooperative Association	NTCA
New Jersey Division of the Ratepayer Advocate	New Jersey Ratepayer Advocate
NextG Networks, Inc.	NextG
Nicholas Leggett	Leggett
Organization for the Promotion and Advancement of Small Telecommunications Companies	OPASTCO
Pennsylvania Public Utility Commission	PaPUC
Princeton University Students	Princeton Students
Privacy Rights Clearinghouse	Privacy Rights
Public Service Commission of the State of Missouri	MoPSC
Public Utilities Commission of Ohio	Ohio PUC

Qwest Communications International Inc.	Qwest
RNK Inc. d/b/a RNK Telecom	RNK
Rural Cellular Association	RCA
Sprint Nextel Corporation	Sprint Nextel
TCA, Inc. – Telecom Consulting Associations	TCA
Texas Office of Public Utility Counsel	TX OPUC
Texas Statewide Telephone Cooperative, Inc.	TSTCI
The People of the State of California and the California Public Utilities Commission	CaPUC
Time Warner Inc.	Time Warner
Time Warner Telecom Inc.	TWTC
T-Mobile USA, Inc.	T-Mobile
United States Departments of Justice and Homeland Security	DOJ/DHS
United States Internet Service Provider Association	USISPA
United States Telecom Association	USTelecom
USA Mobility, Inc.	USA Mobility
US LEC Corp.	US LEC
Verizon	Verizon
Verizon Wireless	Verizon Wireless

Reply Commenters in CC Docket No. 96-115

Reply Comments	Abbreviation
AT&T Inc.	AT&T
BellSouth Corporation	BellSouth
Centennial Communications Corp. d/b/a Centennial Wireless	Centennial
Charter Communications, Inc.	Charter
Cingular Wireless LLC	Cingular
CTIA-The Wireless Association®	CTIA
Direct Marketing Association, Inc.	DMA
Dobson Communications Corporation	Dobson
Electronic Privacy Information Center	EPIC
Embarq Corporation	Embarq
Enterprise Wireless Alliance, together with USMSS, Inc.	EWA
Eschelon Telecom, Inc., SNiP LiNK Inc., and XO Communications, Inc.	Joint Commenters
Insite Wireless LLC	Insite
MetroPCS Communications Inc.	MetroPCS
National Association of State Utility Consumer Advocates	NASUCA
Pennsylvania Public Utility Commission	PA PUC
Rock Hill Telephone Company d/b/a Comporium Communications, Fort Mill Telephone Company d/b/a Comporium Communications, and Lancaster Telephone Company d/b/a Comporium Communications	Comporium
Sprint Nextel Corporation	Sprint Nextel
T-Mobile USA, Inc.	T-Mobile
United States Cellular Corporation	US Cellular
Verizon	Verizon
Verizon Wireless	Verizon Wireless

Virgin Mobile USA, LLC

Virgin Mobile

Commenters in WC Docket No. 04-36

Comments	Abbreviation
8X8, Inc.	8X8
AARP	AARP
ACN Communications Services, Inc.	ACN
Ad Hoc Telecommunications Users Committee	Ad Hoc
Alcatel North America	Alcatel
Alliance for Public Technology	APT
America's Rural Consortium	ARC
American Foundation for the Blind	AFB
American Public Communications Council	APCC
Amherst, Massachusetts Cable Advisory Committee	Amherst CAC
Arizona Corporation Commission	Arizona Commission
Artic Slope Telephone Association Cooperative, Inc. Cellular Mobile Systems of St. Cloud, LLC d/b/a Cellular 2000 Comanche County Telephone, Inc. DeKalb Telephone Cooperative, Inc. d/b/a DTC Communications Grand River Mutual Telephone Corporation Interstate 35 Telephone Company KanOkla Telephone Association, Inc. Siskiyou Telephone Company Uintah Basin Telecommunications Association, Inc. Vermont Telephone Company, Inc. Wheat State Telephone, Inc.	Artic Slope <i>et al.</i>
Association for Communications Technology Professionals in Higher Education	ACUTA
Association for Local Telecommunications Services	ALTS
Association of Public-Safety Communications Officials- International, Inc.	APCO
AT&T Corporation	AT&T
Attorney General of the State of New York	New York Attorney General
Avaya, Inc.	Avaya
BellSouth Corporation	BellSouth
Bend Broadband Cebridge Connections, Inc. Insight Communications Company, Inc. Susquehanna Communication	Bend Broadband <i>et al.</i>
Boulder Regional Emergency Telephone Service Authority	BRETSA
BT Americas Inc.	BTA
Cablevision Systems Corp.	Cablevision
Callipso Corporation	Callipso
Cbeyond Communications, LLC GlobalCom, Inc. MPower Communications, Corp.	Cbeyond <i>et al.</i>
CenturyTel, Inc.	CenturyTel
Charter Communications	Charter
Cheyenne River Sioux Tribe Telephone Authority	Cheyenne Telephone Authority
Cisco Systems, Inc.	Cisco

Citizens Utility Board	CUB
City and County of San Francisco	San Francisco
City of New York	New York City
Comcast Corporation	Comcast
Communication Service for the Deaf, Inc.	CSD
Communications Workers of America	CWA
CompTel/ASCENT	CompTel
Computer & Communications Industry Association	CCIA
Computing Technology Industry Association	CompTIA
Consumer Electronics Association	CEA
Covad Communications	Covad
Cox Communications, Inc.	Cox
CTIA-The Wireless Association	CTIA
Department of Homeland Security	DHS
DialPad Communication, Inc. ICG Communications, Inc. Qovia, Inc. VoicePulse, Inc.	Dialpad <i>et al.</i>
DJE Teleconsulting, LLC	DJE
Donald Clark Jackson	Jackson
EarthLink, Inc.	EarthLink
EDUCAUSE	EDUCAUSE
Electronic Frontier Foundation	EFF
Enterprise Communications Association	ECA
Federation for Economically Rational Utility Policy	FERUP
Francois D. Menard	Menard
Frontier and Citizens Telephone Companies	Frontier/Citizens
General Communications, Inc.	GCI
Global Crossing North America, Inc.	Global Crossing
GVNW Consulting, Inc.	GVNW
ICORE, Inc.	ICORE
IEEE-USA	IEEE-USA
Illinois Commerce Commission	Illinois Commerce Commission
Inclusive Technologies	Inclusive Technologies
Independent Telephone & Telecommunications Alliance	ITTA
Information Technology Association of America	ITAA
Information Technology Industry Council	ITIC
Interstate Telcom Consulting, Inc.	ITCI
Ionary Consulting	Ionary
Iowa Utilities Board	Iowa Commission
King County E911 Program	King County
Level 3 Communications LLC	Level 3
Lucent Technologies Inc.	Lucent Technologies
Maine Public Utilities Commissioners	Maine Commissioners
MCI	MCI
Microsoft Corporation	Microsoft
Minnesota Public Utilities Commission	Minnesota Commission
Montana Public Service Commission	Montana Commission
Motorola, Inc.	Motorola
National Association of Regulatory Utility Commission	NARUC
National Association of State Utility Consumer Advocates	NASUCA
National Association of Telecommunications Officers and	NATOA <i>et al.</i>

Advisors National League of Cities National Association of Counties U.S. Conference of Mayors National Association of Towns and Townships Texas Coalition of Cities for Utility Issues Washington Association of Telecommunications Officers and Advisors Greater Metro Telecommunications Consortium Mr. Hood Cable Regulatory Commission Metropolitan Washington Council of Governments Rainier Communications Commission City of Philadelphia City of Tacoma, Washington Montgomery County, Maryland	
National Cable & Telecommunications Association	NCTA
National Consumers League	NCL
National Emergency Number Association	NENA
National Exchange Carrier Association, Inc.	NECA
National Governors Association	NGA
National Grange	National Grange
National Telecommunications Cooperative Association	NTCA
Nebraska Public Service Commission	Nebraska Commission
Nebraska Rural Independent Companies	Nebraska Rural Independent Companies
Net2Phone, Inc.	Net2Phone
New Jersey Board of Public Utilities	New Jersey Commission
New Jersey Division of the Ratepayer Advocate	New Jersey Ratepayer Advocate
New York State Department of Public Service	New York Commission
NexVortex, Inc.	nexVortex
Nortel Networks	Nortel
Nuvio Corporation	Nuvio
Office of Advocacy, U.S. Small Business Administration	SBA
Office of the Attorney General of Texas	Texas Attorney General
Office of the People's Counsel for the District of Columbia	D.C. Counsel
Ohio Public Utilities Commission	Ohio Commission
Omnitor	Omnitor
Organization for the Promotion and Advancement of Small Telecommunications Companies	OPASTCO
Pac-West Telecomm, Inc.	Pac-West
People of the State of California and the California Public Utilities Commission	California Commission
Public Service Commission of the State of Missouri	Missouri Commission
Pulver.com	pulver.com
Qwest Communications International Inc.	Qwest
Rehabilitation Engineering Research Center on Telecommunications Access	RERCTA
Rural Independent Competitive Alliance	RICA
SBC Communications, Inc.	SBC
Self Help for Hard of Hearing People	SHHHP
Skype, Inc.	Skype
Sonic.net, Inc.	Sonic.net
SPI Solutions, Inc.	SPI Solutions

Spokane County 911 Communications	Spokane County 911
Sprint Corporation	Sprint
TCA, Inc. – Telecom Consulting Associates	TCA
Telecommunications for the Deaf, Inc	TDI
Telecommunications Industry Association	TIA
Tellme Networks, Inc	Tellme Networks
Tennessee Regulatory Authority	TRA
Texas Coalition of Cities for Utility Issues	TCCFUI
Texas Commission on State Emergency Communications.	TCSEC
Texas Department of Information Resources	Texas DIR
Time Warner Inc.	Time Warner
Time Warner Telecom	TWTC
TracFone Wireless, Inc.	TracFone
UniPoint Enhanced Services Inc. d/b/a PointOne	PointOne
United States Conference of Catholic Bishops Alliance for Community Media Appalachian People’s Actions Coalition Center for Digital Democracy Consumer Action Edgemont Neighborhood Coalition Migrant Legal Action Program	USCCB <i>et al.</i>
United States Department of Justice	DOJ
United States Telecom Association	USTA
United Telecom Council The United Power Line Council	UTC <i>et al.</i>
USA Datanet Corporation	USAD Datanet
Utah Division of Public Utilities	Utah Commission
Valor Telecommunications of Texas, L.P. and Iowa Telecommunications Services, Inc.	Valor <i>et al.</i>
VeriSign, Inc.	VeriSign
Verizon Telephone Company	Verizon
Vermont Public Service Board	Vermont
Virgin Mobile USA, LLC	Virgin Mobile
Virginia State Corporation Commission	Virginia Commission
Voice on the Net Coalition	VON Coalition
Vonage Holdings Corp	Vonage
Western Telecommunications Alliance	WTA
WilTel Communications, LLC	WilTel
Wisconsin Electric Power Company Wisconsin Gas	Wisconsin Electric <i>et al.</i>
Yellow Pages Integrated Media Association	YPIMA
Z-Tel Communications, Inc.	Z-Tel

Reply Commenters in WC Docket No. 04-36

Reply Comments	Abbreviation
8X8, Inc.	8X8
Ad Hoc Telecom Manufacturer Coalition	Ad Hoc Telecom Manufacturers Coalition
Ad Hoc Telecommunications Users Committee	Ad Hoc
Adam D. Thierer, Director of Telecommunications Studies, Cato Institute	Thierer
Alcatel North America	Alcatel

Alliance for Public Technology et al.	APT <i>et al.</i>
American Cable Association	ACA
American Electric Power Service Corporation Duke Energy Corporation Xcel Energy Inc.	American Electric Power <i>et al.</i>
Association for Local Telecommunications Services	ALTS
AT&T Corp.	AT&T
Avaya Inc.	Avaya
BellSouth Corporation	BellSouth
Broadband Service Providers Association	BSPA
Cablevision Systems Corp.	Cablevision
Callipso Corporation	Callipso
Central Station Alarm Association	CSAA
Cingular Wireless LLC	Cingular
Cisco Systems, Inc.	Cisco
City and County of San Francisco	San Francisco
Comcast Corporation	Comcast
CompTel/Ascent	CompTel
Consumer Electronics Association	CEA
Consumer Federation of America Consumers Union	CFA <i>et al.</i>
Covad Communications	Covad
CTC Communications Corp.	CTS
CTIA-The Wireless Association	CTIA
Department of Defense	DoD
Donald Clark Jackson	Jackson
EarthLink, Inc.	EarthLink
Educause	Educause
Enterprise Communications Association	ECA
Ericsson Inc.	Ericsson
Florida Public Service Commission	Florida Commission
Francois D. Menard	Menard
General Communication (GCI)	GCI
Global Crossing North America, Inc.	Global Crossing
Independent Telephone & Telecommunications Alliance	ITTA
Information Technology Association of America	Information Technology Association of America
Intergovernmental Advisory Committee	IAC
Intrado Inc.	Intrado
Knology, Inc.	Knology
Level 3 Communications LLC	Level 3
Massachusetts Office of the Attorney General	Massachusetts Attorney General
MCI	MCI
Montana Public Service Commission	Montana Commission
Motorola, Inc.	Motorola
National Association of State Utility Consumer Advocates	NASUCA
National Association of Telecommunications Officers and Advisors National League of Cities National Association of Counties U.S. Conference of Mayors National Association of Towns and Townships	NATOA <i>et al.</i>

Texas Coalition of Cities for Utility Issues Washington Association of Telecommunications Officers and Advisors Greater Metro Telecommunications Consortium Mr. Hood Cable Regulatory Commission Metropolitan Washington Council of Governments Rainier Communications Commission City of Philadelphia City of Tacoma, Washington Montgomery County, Maryland	
National Cable & Telecommunications Association	NCTA
National Emergency Number Association	NENA
National Exchange Carrier Association, Inc.	NECA
Nebraska Public Service Commission	Nebraska Commission
Nebraska Rural Independent Companies	Nebraska Rural Independent Companies
Net2Phone, Inc.	Net2Phone
New Jersey Division of the Ratepayer Advocate	New Jersey Ratepayer Advocate
New York State Department of Public Service	New York Commission
Nextel Communications, Inc.	Nextel
Nuvio Corporation	Nuvio
Office of the People's Counsel for the District of Columbia	D.C. Counsel
Organization for the Promotion and Advancement of Small Telecommunications Companies	OPASTCO
Pac-West Telecomm, Inc.	Pac-West
Pennsylvania Public Utility Commission	Pennsylvania Commission
Public Service Commission of Wisconsin	Wisconsin Commission
Qwest Communications International Inc.	Qwest
Regulatory Studies Program (RSP) of the Mercatus Center at George Mason University	Mercatus Center
Rehabilitation Engineering Research Center on Telecommunications Access	RERCTA
RNKL, Inc. d/b/a RNK Telecom	RNK
Rural Independent Competitive Alliance	RICA
SBC Communications Inc.	SBC
Skype, Inc.	Skype
Southern Communications Services, Inc. d/b/a Southern LINC	Southern LINC
Sprint Corporation	Sprint
Telecommunications Industry Association	TIA
Tellme Networks, Inc	Tellme Networks
Texas Statewide Telephone Cooperative, Inc.	Texas Statewide Telephone Cooperative
Time Warner Telecom, Inc.	Time Warner Telecom
T-Mobile USA, Inc.	T-Mobile
TracFone Wireless, Inc.	TracFone
United States Conference of Catholic Bishops Alliance for Community Media Appalachian Peoples' Action Coalition Center for Digital Democracy Consumer Action Edgemont Neighborhood Coalition Migrant Legal Action Program	USCCB <i>et al.</i>
United States Department of Justice	DOJ
United States Telecom Association	USTA

USA Datanet Corporation	USA Datanet
Utah Division of Public Utilities	Utah Commission
VeriSign, Inc.	VeriSign
Verizon Telephone Companies	Verizon
Voice on the Net Coalition	VON Coalition
Wisconsin Department of Public Instruction	Wisconsin Department of Public Instruction

Appendix B

Final Rules

Subpart U of Part 64, of Title 47 of the Code of Federal Regulations is amended to read as follows:

SUBPART U – CUSTOMER PROPRIETARY NETWORK INFORMATION

1. Section 64.2003(k) is amended to read as follows:
 - (k) *Telecommunications carrier or carrier.* The terms “telecommunications carrier” or “carrier” shall have the same meaning as set forth in section 3(44) of the Communications Act of 1934, as amended, 47 U.S.C. 153(44). For the purposes of this subpart, the term “telecommunications carrier” or “carrier” shall include an entity that provides interconnected VoIP service, as that term is defined in section 9.3 of these rules.
2. Section 64.2003 is amended by redesignating paragraphs (a)-(l) and by adding the following paragraphs:
 - (a) *Account information.* “Account information” is information that is specifically connected to the customer’s service relationship with the carrier, including such things as an account number or any component thereof, the telephone number associated with the account, or the bill’s amount.
 - (b) *Address of record.* An “address of record,” whether postal or electronic, is an address that the carrier has associated with the customer’s account for at least 30 days.
 - (d) *Call detail information.* Any information that pertains to the transmission of specific telephone calls, including, for outbound calls, the number called, and the time, location, or duration of any call and, for inbound calls, the number from which the call was placed, and the time, location, or duration of any call.
 - (m) *Readily available biographical information.* “Readily available biographical information” is information drawn from the customer’s life history and includes such things as the customer’s social security number, or the last four digits of that number; mother’s maiden name; home address; or date of birth.
 - (q) *Telephone number of record.* The telephone number associated with the underlying service, not the telephone number supplied as a customer’s “contact information.”
 - (r) *Valid photo ID.* A “valid photo ID” is a government-issued means of personal identification with a photograph such as a driver’s license, passport, or comparable ID that is not expired.
3. Section 64.2005(c)(3) is amended to read as follows:
 - (3) LECs, CMRS providers, and entities that provide interconnected VoIP service as that term is defined in section 9.3 of these rules, may use CPNI, without customer approval, to market services formerly known as adjunct-to-basic services, such as, but not limited to, speed dialing, computer-provided directory assistance, call monitoring, call tracing, call blocking, call return, repeat dialing, call tracking, call waiting, caller I.D., call forwarding, and certain centrex features.
4. Section 64.2007 is amended by deleting paragraphs (b)(2) and (b)(3), and revising paragraph (b)(1) to read as follows:
 - (b) *Use of Opt-Out and Opt-In Approval Processes.* A telecommunications carrier may, subject to

opt-out approval or opt-in approval, use its customer's individually identifiable CPNI for the purpose of marketing communications-related services to that customer. A telecommunications carrier may, subject to opt-out approval or opt-in approval, disclose its customer's individually identifiable CPNI, for the purpose of marketing communications-related services to that customer, to its agents and its affiliates that provide communications-related services. A telecommunications carrier may also permit such persons or entities to obtain access to such CPNI for such purposes. Except for use and disclosure of CPNI that is permitted without customer approval under section § 64.2005, or that is described in this paragraph, or as otherwise provided in section 222 of the Communications Act of 1934, as amended, a telecommunications carrier may only use, disclose, or permit access to its customer's individually identifiable CPNI subject to opt-in approval.

5. Section 64.2009 is amended by revising paragraph (e) to read as follows:

- (e) A telecommunications carrier must have an officer, as an agent of the carrier, sign and file with the Commission a compliance certificate on an annual basis. The officer must state in the certification that he or she has personal knowledge that the company has established operating procedures that are adequate to ensure compliance with the rules in this subpart. The carrier must provide a statement accompanying the certificate explaining how its operating procedures ensure that it is or is not in compliance with the rules in this subpart. In addition, the carrier must include an explanation of any actions taken against data brokers and a summary of all customer complaints received in the past year concerning the unauthorized release of CPNI. This filing must be made annually with the Enforcement Bureau on or before March 1 in EB Docket No. 06-36, for data pertaining to the previous calendar year.

6. Section 64.2010 is added to read as follows:

§ 64.2010 Safeguards on the disclosure of customer proprietary network information

- (a) *Safeguarding CPNI.* Telecommunications carriers must take reasonable measures to discover and protect against attempts to gain unauthorized access to CPNI. Telecommunications carriers must properly authenticate a customer prior to disclosing CPNI based on customer-initiated telephone contact, online account access, or an in-store visit.
- (b) *Telephone access to CPNI.* Telecommunications carriers may only disclose call detail information over the telephone, based on customer-initiated telephone contact, if the customer first provides the carrier with a password, as described in paragraph (e) of this section, that is not prompted by the carrier asking for readily available biographical information, or account information. If the customer does not provide a password, the telecommunications carrier may only disclose call detail information by sending it to the customer's address of record, or, by calling the customer at the telephone number of record. If the customer is able to provide call detail information to the telecommunications carrier during a customer-initiated call without the telecommunications carrier's assistance, then the telecommunications carrier is permitted to discuss the call detail information provided by the customer.
- (c) *Online access to CPNI.* A telecommunications carrier must authenticate a customer without the use of readily available biographical information, or account information, prior to allowing the customer online access to CPNI related to a telecommunications service account. Once authenticated, the customer may only obtain online access to CPNI related to a telecommunications service account through a password, as described in paragraph (e) of this section, that is not prompted by the carrier asking for readily available biographical information, or account information.
- (d) *In-store access to CPNI.* A telecommunications carrier may disclose CPNI to a customer who, at a carrier's retail location, first presents to the telecommunications carrier or its agent a valid photo ID matching the customer's account information.

- (e) *Establishment of a Password and Back-up Authentication Methods for Lost or Forgotten Passwords.* To establish a password, a telecommunications carrier must authenticate the customer without the use of readily available biographical information, or account information. Telecommunications carriers may create a back-up customer authentication method in the event of a lost or forgotten password, but such back-up customer authentication method may not prompt the customer for readily available biographical information, or account information. If a customer cannot provide the correct password or the correct response for the back-up customer authentication method, the customer must establish a new password as described in this paragraph.
- (f) *Notification of account changes.* Telecommunications carriers must notify customers immediately whenever a password, customer response to a back-up means of authentication for lost or forgotten passwords, online account, or address of record is created or changed. This notification is not required when the customer initiates service, including the selection of a password at service initiation. This notification may be through a carrier-originated voicemail or text message to the telephone number of record, or by mail to the address of record, and must not reveal the changed information or be sent to the new account information.
- (g) *Business Customer Exemption.* Telecommunications carriers may bind themselves contractually to authentication regimes other than those described in this section for services they provide to their business customers that have both a dedicated account representative and a contract that specifically addresses the carriers' protection of CPNI.

7. Section 64.2011 is added to read as follows:

§ 64.2011 Notification of customer proprietary network information security breaches

- (a) A telecommunications carrier shall notify law enforcement of a breach of its customers' CPNI as provided in this section. The carrier shall not notify its customers or disclose the breach publicly, whether voluntarily or under state or local law or these rules, until it has completed the process of notifying law enforcement pursuant to paragraph (b).
- (b) As soon as practicable, and in no event later than seven (7) business days, after reasonable determination of the breach, the telecommunications carrier shall electronically notify the United States Secret Service (USSS) and the Federal Bureau of Investigation (FBI) through a central reporting facility. The Commission will maintain a link to the reporting facility at <http://www.fcc.gov/eb/cpni>.
 - (1) Notwithstanding any state law to the contrary, the carrier shall not notify customers or disclose the breach to the public until 7 full business days have passed after notification to the USSS and the FBI except as provided in paragraphs (2) and (3).
 - (2) If the carrier believes that there is an extraordinarily urgent need to notify any class of affected customers sooner than otherwise allowed under paragraph (1), in order to avoid immediate and irreparable harm, it shall so indicate in its notification and may proceed to immediately notify its affected customers only after consultation with the relevant investigating agency. The carrier shall cooperate with the relevant investigating agency's request to minimize any adverse effects of such customer notification.
 - (3) If the relevant investigating agency determines that public disclosure or notice to customers would impede or compromise an ongoing or potential criminal investigation or national security, such agency may direct the carrier not to so disclose or notify for an initial period of up to 30 days. Such period may be extended by the agency as reasonably necessary in the judgment of the agency. If such direction is given, the agency shall notify

the carrier when it appears that public disclosure or notice to affected customers will no longer impede or compromise a criminal investigation or national security. The agency shall provide in writing its initial direction to the carrier, any subsequent extension, and any notification that notice will no longer impede or compromise a criminal investigation or national security and such writings shall be contemporaneously logged on the same reporting facility that contains records of notifications filed by carriers.

- (c) *Customer Notification.* After a telecommunications carrier has completed the process of notifying law enforcement pursuant to paragraph (b), it shall notify its customers of a breach of those customers' CPNI.
- (d) *Recordkeeping.* All carriers shall maintain a record, electronically or in some other manner, of any breaches discovered, notifications made to the USSS and the FBI pursuant to paragraph (b), and notifications made to customers. The record must include, if available, dates of discovery and notification, a detailed description of the CPNI that was the subject of the breach, and the circumstances of the breach. Carriers shall retain the record for a minimum of 2 years.
- (e) *Definitions.* As used in this section, a "breach" has occurred when a person, without authorization or exceeding authorization, has intentionally gained access to, used, or disclosed CPNI.
- (f) This section does not supersede any statute, regulation, order, or interpretation in any State, except to the extent that such statute, regulation, order, or interpretation is inconsistent with the provisions of this section, and then only to the extent of the inconsistency.

Appendix C

Final Regulatory Flexibility Analysis

[214]

86. As required by the Regulatory Flexibility Act of 1980, as amended (RFA), an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *EPIC CPNI Notice* in CC Docket No. 96-

[215]

115 and the *IP-Enabled Services Notice* in WC Docket 04-36. The Commission sought written public

[216]

comment on the proposals in both notices, including comment on the IRFA. We received comments specifically directed toward the IRFA from three commenters in CC Docket No. 96-115 and from three commenters in WC Docket No. 04-36. These comments are discussed below. This Final Regulatory

[217]

Flexibility Analysis (FRFA) conforms to the RFA.

A. Need for, and Objectives of, the Rules

87. Today's Order strengthens the Commission's rules to protect the privacy of CPNI that is collected and held by providers of communications services. Section 222 of the Communications Act requires telecommunications carriers to take specific steps to ensure that CPNI is adequately protected from unauthorized disclosure. This Order adopts additional safeguards to protect customers' CPNI against unauthorized access and disclosure.

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

88. *Comments Received in Response to the EPIC CPNI Notice.* In this section, we respond to

[218]

comments filed in response to the IRFA. To the extent we received comments raising general small business concerns during this proceeding, those comments are discussed throughout the Order.

89. We disagree with Alexicon that small carriers are less vulnerable to unauthorized attempts to

[219]

access CPNI. In fact, Alexicon itself points out that one of its client companies actually experienced an unauthorized access attempt, and thus we find the steps the Commission takes in this Order are

[220]

applicable to all carriers. We do, however, agree with commenters that argue the Commission should

[221]

not adopt many of EPIC's suggested requirements. We also agree with commenters that argue for

[222]

flexible rules to allow carriers to determine proper authentication methods for its customers. Therefore, we do not adopt specific authentication methods, or back-up authentication methods for lost or forgotten passwords and instead adopt rules that provide limits on the types of authentication methods that

[223]

meet section 222's mandate to protect CPNI. Further, we agree with commenters that small carriers

[224]

should be provided additional time to implement the requirements that we do adopt in this Order.

Thus, we provide small carriers with an additional six month implementation period for the online carrier

[225]

authentication requirements adopted in this Order.

90. *Comments Received in Response to the IP-Enabled Services Notice.* In this section, we [226] respond to comments filed in response to the IRFA. To the extent we received comments raising general small business concerns during this proceeding, those comments are discussed throughout the Order.

91. We disagree with the SBA and Menard that the Commission should postpone acting in this proceeding – thereby postponing extending the application of the CPNI rules to interconnected VoIP service providers – and instead should reevaluate the economic impact and the compliance burdens on small entities and issue a further notice of proposed rulemaking in conjunction with a supplemental IRFA [227]

identifying and analyzing the economic impacts on small entities and less burdensome alternatives. We believe the additional steps suggested by SBA and Menard are unnecessary because small entities [228]

already have received sufficient notice of the issues addressed in today’s Order and because the Commission has considered the economic impact on small entities and what ways are feasible to minimize the burdens imposed on those entities, and, to the extent feasible, has implemented those less burdensome [229] alternatives.

C. Description and Estimate of the Number of Small Entities to Which Rules Will Apply

92. The RFA directs agencies to provide a description of and, where feasible, an estimate of the [230] number of small entities that may be affected by the rules adopted herein. The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” [231] and “small governmental jurisdiction.” In addition, the term “small business” has the same meaning [232] 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) [233] satisfies any additional criteria established by the Small Business Administration (SBA).

93. *Small Businesses.* Nationwide, there are a total of approximately 22.4 million small [234] businesses, according to SBA data.

[235] 94. *Small Organizations.* Nationwide, there are approximately 1.6 million small organizations.

95. *Small Governmental Jurisdictions.* The term “small governmental jurisdiction” is defined generally as “governments of cities, towns, townships, villages, school districts, or special districts, with a [236] population of less than fifty thousand.” Census Bureau data for 2002 indicate that there were 87,525

[237]

local governmental jurisdictions in the United States. We estimate that, of this total, 84,377 [238] entities were “small governmental jurisdictions.” Thus, we estimate that most governmental jurisdictions are small.

1. Telecommunications Service Entities

a. Wireline Carriers and Service Providers

96. We have included small incumbent local exchange carriers in this present RFA analysis. As noted above, a “small business” under the RFA is one that, *inter alia*, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer employees), and “is not [239] dominant in its field of operation.” The SBA’s Office of Advocacy contends that, for RFA purposes, small incumbent local exchange carriers are not dominant in their field of operation because any such [240]

dominance is not “national” in scope. We have therefore included small incumbent local exchange carriers in this RFA analysis, although we emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

97. *Incumbent Local Exchange Carriers (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 [241]

that size standard, such a business is small if it has 1,500 or fewer employees. According to [242]

Commission data, 1,303 carriers have reported that they are engaged in the provision of incumbent local exchange services. Of these 1,303 carriers, an estimated 1,020 have 1,500 or fewer employees and 283 have more than 1,500 employees. Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by our action.

98. *Competitive Local Exchange Carriers, Competitive Access Providers (CAPs), “Shared-Tenant Service Providers,” and “Other Local Service Providers.”* Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size [243]

standard, such a business is small if it has 1,500 or fewer employees. According to Commission data, [244]

769 carriers have reported that they are engaged in the provision of either competitive access provider services or competitive local exchange carrier services. Of these 769 carriers, an estimated 676 have 1,500 or fewer employees and 93 have more than 1,500 employees. In addition, 12 carriers have reported that they are “Shared-Tenant Service Providers,” and all 12 are estimated to have 1,500 or fewer employees. In addition, 39 carriers have reported that they are “Other Local Service Providers.” Of the 39, an estimated 38 have 1,500 or fewer employees and one has more than 1,500 employees. Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, “Shared-Tenant Service Providers,” and “Other Local Service Providers” are small entities that may be affected by our action.

99. *Local Resellers*. The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer

[245]

[246]

employees. According to Commission data, 143 carriers have reported that they are engaged in the provision of local resale services. Of these, an estimated 141 have 1,500 or fewer employees and two have more than 1,500 employees. Consequently, the Commission estimates that the majority of local resellers are small entities that may be affected by our action.

100. *Toll Resellers.* The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer

[247]

[248]

employees. According to Commission data, 770 carriers have reported that they are engaged in the provision of toll resale services. Of these, an estimated 747 have 1,500 or fewer employees and 23 have more than 1,500 employees. Consequently, the Commission estimates that the majority of toll resellers are small entities that may be affected by our action.

101. *Payphone Service Providers (PSPs).* Neither the Commission nor the SBA has developed a small business size standard specifically for payphone services providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a

[249]

[250]

business is small if it has 1,500 or fewer employees. According to Commission data, 613 carriers have reported that they are engaged in the provision of payphone services. Of these, an estimated 609 have 1,500 or fewer employees and four have more than 1,500 employees. Consequently, the Commission estimates that the majority of payphone service providers are small entities that may be affected by our action.

102. *Interexchange Carriers (IXCs).* 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

[251]

standard, such a business is small if it has 1,500 or fewer employees. According to Commission data,

[252]

316 carriers have reported that they are engaged in the provision of interexchange service. Of these, an estimated 292 have 1,500 or fewer employees and 24 have more than 1,500 employees. Consequently, the Commission estimates that the majority of IXCs are small entities that may be affected by our action.

103. *Operator Service Providers (OSPs).* 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

[253]

[254]

business is small if it has 1,500 or fewer employees. According to Commission data, 23 carriers have reported that they are engaged in the provision of operator services. Of these, an estimated 20 have 1,500 or fewer employees and three have more than 1,500 employees. Consequently, the Commission estimates that the majority of OSPs are small entities that may be affected by our action.

104. *Prepaid Calling Card Providers.* Neither the Commission nor the SBA has developed a small business size standard specifically for prepaid calling card providers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a

[255]

[256]

business is small if it has 1,500 or fewer employees. According to Commission data, 89 carriers have reported that they are engaged in the provision of prepaid calling cards. Of these, 88 are estimated to have 1,500 or fewer employees and one has more than 1,500 employees. Consequently, the Commission estimates that all or the majority of prepaid calling card providers are small entities that may be affected by our action.

[257]

105. *800 and 800-Like Service Subscribers.* Neither the Commission nor the SBA has developed a small business size standard specifically for 800 and 800-like service (“toll free”) subscribers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under [258]

that size standard, such a business is small if it has 1,500 or fewer employees. The most reliable source of information regarding the number of these service subscribers appears to be data the Commission [259]

collects on the 800, 888, and 877 numbers in use. According to our data, at the end of January, 1999, the number of 800 numbers assigned was 7,692,955; the number of 888 numbers assigned was 7,706,393; and the number of 877 numbers assigned was 1,946,538. We do not have data specifying the number of these subscribers that are not independently owned and operated or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of toll free subscribers that would qualify as small businesses under the SBA size standard. Consequently, we estimate that there are 7,692,955 or fewer small entity 800 subscribers; 7,706,393 or fewer small entity 888 subscribers; and 1,946,538 or fewer small entity 877 subscribers.

b. International Service Providers

106. The Commission has not developed a small business size standard specifically for providers of international service. The appropriate size standards under SBA rules are for the two broad census categories of “Satellite Telecommunications” and “Other Telecommunications.” Under both [260]

categories, such a business is small if it has \$12.5 million or less in average annual receipts.

107. The first category of Satellite Telecommunications “comprises establishments primarily engaged in providing point-to-point telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a [261]

system of satellites or reselling satellite telecommunications.” For this category, Census Bureau data [262]

for 2002 show that there were a total of 371 firms that operated for the entire year. Of this total, 307 firms had annual receipts of under \$10 million, and 26 firms had receipts of \$10 million to \$24,999,999. [263]

Consequently, we estimate that the majority of Satellite Telecommunications firms are small entities that might be affected by our action.

108. The second category of Other Telecommunications “comprises establishments primarily engaged in (1) providing specialized telecommunications applications, such as satellite tracking, communications telemetry, and radar station operations; or (2) providing satellite terminal stations and associated facilities operationally connected with one or more terrestrial communications systems and capable of transmitting telecommunications to or receiving telecommunications from satellite [264]

systems.” For this category, Census Bureau data for 2002 show that there were a total of 332 firms [265]

that operated for the entire year. Of this total, 259 firms had annual receipts of under \$10 million and [266]

15 firms had annual receipts of \$10 million to \$24,999,999. Consequently, we estimate that the majority of Other Telecommunications firms are small entities that might be affected by our action.

c. Wireless Telecommunications Service Providers

109. Below, for those services subject to auctions, we note that, as a general matter, the number of winning bidders that qualify as small businesses at the close of an auction does not necessarily represent the number of small businesses currently in service. Also, the Commission does not generally track subsequent business size unless, in the context of assignments or transfers, unjust enrichment issues are implicated.

110. *Wireless Service Providers.* The SBA has developed a small business size standard for wireless firms within the two broad economic census categories of “Paging”^[267] and “Cellular and Other Wireless Telecommunications.”^[268] Under both SBA categories, a wireless business is small if it has 1,500 or fewer employees. For the census category of Paging, Census Bureau data for 2002 show that^[269]

there were 807 firms in this category that operated for the entire year. Of this total, 804 firms had employment of 999 or fewer employees, and three firms had employment of 1,000 employees or more.^[270]

Thus, under this category and associated small business size standard, the majority of firms can be considered small. For the census category of Cellular and Other Wireless Telecommunications, Census Bureau data for 2002 show that there were 1,397 firms in this category that operated for the entire year.^[271]

Of this total, 1,378 firms had employment of 999 or fewer employees, and 19 firms had employment^[272]

of 1,000 employees or more. Thus, under this second category and size standard, the majority of firms can, again, be considered small.

111. *Cellular Licensees.* The SBA has developed a small business size standard for wireless firms within the broad economic census category “Cellular and Other Wireless Telecommunications.”^[273] Under this SBA category, a wireless business is small if it has 1,500 or fewer employees. For the census category of Cellular and Other Wireless Telecommunications, Census Bureau data for 2002 show that there^[274]

were 1,397 firms in this category that operated for the entire year. Of this total, 1,378 firms had^[275]

employment of 999 or fewer employees, and 19 firms had employment of 1,000 employees or more. Thus, under this category and size standard, the great majority of firms can be considered small. Also, according to Commission data, 437 carriers reported that they were engaged in the provision of cellular service, Personal Communications Service (PCS), or Specialized Mobile Radio (SMR) Telephony services,^[276]

which are placed together in the data. We have estimated that 260 of these are small, under the SBA^[277]

small business size standard.

112. *Common Carrier Paging.* The SBA has developed a small business size standard for wireless firms within the broad economic census category, “Cellular and Other Wireless Telecommunications.”^[278] Under this SBA category, a wireless business is small if it has 1,500 or fewer employees. For the census category of Paging, Census Bureau data for 2002 show that there were 807^[279]

firms in this category that operated for the entire year. Of this total, 804 firms had employment of 999^[280]

or fewer employees, and three firms had employment of 1,000 employees or more. Thus, under this category and associated small business size standard, the majority of firms can be considered small. In the Paging *Third Report and Order*, we developed a small business size standard for “small businesses” and

“very small businesses” for purposes of determining their eligibility for special provisions such as [281]

bidding credits and installment payments. A “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 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 \$3 million for the preceding [282] [283]

three years. The SBA has approved these small business size standards. An auction of Metropolitan Economic Area licenses commenced on February 24, 2000, and closed on March 2, 2000. [284]

Of the 985 licenses auctioned, 440 were sold. Fifty-seven companies claiming small business status won. Also, according to Commission data, 375 carriers reported that they were engaged in the provision of [285]

paging and messaging services. Of those, we estimate that 370 are small, under the SBA-approved [286] small business size standard.

113. *Wireless Communications Services.* This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission established small business size standards for the wireless communications services (WCS) auction. A “small business” is an entity with average gross revenues of \$40 million for each of the three preceding years, and a “very small business” is an entity with average gross revenues of \$15 million for each of the three preceding years. [287]

The SBA has approved these small business size standards. The Commission auctioned geographic area licenses in the WCS service. In the auction, there were seven winning bidders that qualified as “very small business” entities, and one that qualified as a “small business” entity.

114. *Wireless Telephony.* Wireless telephony includes cellular, personal communications services (PCS), and specialized mobile radio (SMR) telephony carriers. As noted earlier, the SBA has developed a small business size standard for “Cellular and Other Wireless Telecommunications” services. [288]

Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees. [289]

According to Commission data, 445 carriers reported that they were engaged in the provision of [290]

wireless telephony. We have estimated that 245 of these are small under the SBA small business size standard.

115. *Broadband Personal Communications Service.* The broadband Personal Communications Service (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission defined “small entity” for Blocks C and F as an entity that has average gross revenues of \$40 million or less in the three previous calendar years. [291] For Block F, an additional classification 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 calendar years.” [292] These standards defining “small entity” in the context of broadband PCS auctions have been approved by the SBA. [293] 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 qualified as small entities in the Block C auctions. A total of 93 small and very small business bidders won approximately 40 percent of the 1,479 licenses for Blocks D, E, and F. [294] On March 23, 1999, the Commission re-

auctioned 347 C, D, E, and F Block licenses. There were 48 small business winning bidders. On January 26, 2001, the Commission completed the auction of 422 C and F Broadband PCS licenses in Auction No. 35. Of the 35 winning bidders in this auction, 29 qualified as “small” or “very small” businesses. 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.

116. *Narrowband Personal Communications Services.* To date, two auctions of narrowband personal communications services (PCS) licenses have been conducted. For purposes of the two auctions that have already been held, “small businesses” were entities with average gross revenues for the prior three calendar years of \$40 million or less. Through these auctions, the Commission has awarded a total of 41 licenses, out of which 11 were obtained by small businesses. To ensure meaningful participation of small business entities in future auctions, the Commission has adopted a two-tiered small business size [\[295\]](#)

standard in the *Narrowband PCS Second Report and Order*. A “small business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$40 million. A “very small business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$15 [\[296\]](#)

million. The SBA has approved these small business size standards. In the future, the Commission will auction 459 licenses to serve Metropolitan Trading Areas (MTAs) and 408 response channel licenses. There is also one megahertz of narrowband PCS spectrum that has been held in reserve and that the Commission has not yet decided to release for licensing. The Commission cannot predict accurately the number of licenses that will be awarded to small entities in future auctions. However, four of the 16 winning bidders in the two previous narrowband PCS auctions were small businesses, as that term was defined. The Commission assumes, for purposes of this analysis that a large portion of the remaining narrowband PCS licenses will be awarded to small entities. The Commission also assumes that at least some small businesses will acquire narrowband PCS licenses by means of the Commission’s partitioning and disaggregation rules.

117. *220 MHz Radio Service – Phase I Licensees.* The 220 MHz service has both Phase I and Phase II licenses. Phase I licensing was conducted by lotteries in 1992 and 1993. There are approximately 1,515 such non-nationwide licensees and four nationwide licensees currently authorized to operate in the 220 MHz band. The Commission has not developed a small business size standard for small entities specifically applicable to such incumbent 220 MHz Phase I licensees. To estimate the number of such licensees that are small businesses, we apply the small business size standard under the SBA rules applicable to “Cellular and Other Wireless Telecommunications” companies. This category provides that a [\[297\]](#)

small business is a wireless company employing no more than 1,500 persons. For the census category Cellular and Other Wireless Telecommunications, Census Bureau data for 1997 show that there were 977 firms in this category, total, that operated for the entire year. [\[298\]](#) Of this total, 965 firms had employment [\[299\]](#) of 999 or fewer employees, and an additional 12 firms had employment of 1,000 employees or more. Thus, under this second category and size standard, the majority of firms can, again, be considered small. Assuming this general ratio continues in the context of Phase I 220 MHz licensees, the Commission estimates that nearly all such licensees are small businesses under the SBA’s small business size standard. In addition, limited preliminary census data for 2002 indicate that the total number of cellular and other [\[300\]](#)

wireless telecommunications carriers increased approximately 321 percent from 1997 to 2002.

118. *220 MHz Radio Service – Phase II Licensees.* The 220 MHz service has both Phase I and Phase II licenses. The Phase II 220 MHz service is a new service, and is subject to spectrum auctions. In the *220 MHz Third Report and Order*, we adopted a small business size standard for “small” and “very small” businesses for purposes of determining their eligibility for special provisions such as bidding credits

[301]

and installment payments. This small business size standard indicates that a “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not [302]

exceeding \$15 million for the preceding three years. A “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that do not exceed \$3 million for [303]

the preceding three years. The SBA has approved these small business size standards. Auctions of [304]

Phase II licenses commenced on September 15, 1998, and closed on October 22, 1998. In the first auction, 908 licenses were auctioned in three different-sized geographic areas: three nationwide licenses, 30 Regional Economic Area Group (EAG) Licenses, and 875 Economic Area (EA) Licenses. Of the 908 [305]

licenses auctioned, 693 were sold. Thirty-nine small businesses won licenses in the first 220 MHz auction. The second auction included 225 licenses: 216 EA licenses and 9 EAG licenses. Fourteen [306]

companies claiming small business status won 158 licenses.

119. *800 MHz and 900 MHz Specialized Mobile Radio Licenses.* The Commission awards “small entity” and “very 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, or that had revenues of no more than \$3 million in [307]

each of the previous calendar years, respectively. These bidding credits apply to SMR providers in the 800 MHz and 900 MHz bands that either hold geographic area licenses or have obtained extended implementation authorizations. The Commission does 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. One firm has over \$15 million in revenues. The Commission assumes, for purposes here, that all of the remaining existing extended implementation authorizations are held by small entities, as that term is defined by the SBA. The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz SMR bands. There were 60 winning bidders that qualified as small or very small entities in the 900 MHz SMR auctions. Of the 1,020 licenses won in the 900 MHz auction, bidders qualifying as small or very small entities won 263 licenses. In the 800 MHz auction, 38 of the 524 licenses won were won by small and very small entities.

120. *700 MHz Guard Band Licensees.* In the *700 MHz Guard Band Order*, we adopted a small business size standard for “small businesses” and “very small businesses” for purposes of determining their [308]

eligibility for special provisions such as bidding credits and installment payments. A “small business” as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 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 \$3 million for the preceding three years. An auction of 52 Major Economic Area (MEA) licenses commenced [309]

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 [310]

was a small business that won a total of two licenses.

121. *Rural Radiotelephone Service.* The Commission has not adopted a size standard for small businesses specific to the Rural Radiotelephone Service. A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio System (BETRS). The Commission uses the SBA's small business size standard applicable to "Cellular and Other Wireless Telecommunications," *i.e.*, an entity employing no more than 1,500 persons. There are approximately 1,000 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 1,000 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies adopted herein.

122. *Air-Ground Radiotelephone Service.* The Commission has not adopted a small business size standard specific to the Air-Ground Radiotelephone Service. We will use SBA's small business size standard applicable to "Cellular and Other Wireless Telecommunications," *i.e.*, an entity employing no more than 1,500 persons. There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and we estimate that almost all of them qualify as small under the SBA small business size standard.

123. *Aviation and Marine Radio Services.* Small businesses in the aviation and marine radio services use a very high frequency (VHF) marine or aircraft radio and, as appropriate, an emergency position-indicating radio beacon (and/or radar) or an emergency locator transmitter. The Commission has not developed a small business size standard specifically applicable to these small businesses. For purposes of this analysis, the Commission uses the SBA small business size standard for the category "Cellular and Other Telecommunications," which is 1,500 or fewer employees. Most applicants for recreational licenses are individuals. Approximately 581,000 ship station licensees and 131,000 aircraft station licensees operate domestically and are not subject to the radio carriage requirements of any statute or treaty. For purposes of our evaluations in this analysis, we estimate that there are up to approximately 712,000 licensees that are small businesses (or individuals) under the SBA standard. In addition, between December 3, 1998 and December 14, 1998, the Commission held an auction of 42 VHF Public Coast licenses in the 157.1875-157.4500 MHz (ship transmit) and 161.775-162.0125 MHz (coast transmit) bands. For purposes of the auction, the Commission defined a "small" business as an entity that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$15 million dollars. In addition, a "very small" business is one that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$3 million dollars. There are approximately 10,672 licensees in the Marine Coast Service, and the Commission estimates that almost all of them qualify as "small" businesses under the above special small business size standards.

124. *Offshore Radiotelephone Service.* This service operates on several UHF television broadcast channels that are not used for television broadcasting in the coastal areas of states bordering the Gulf of Mexico. There are presently approximately 55 licensees in this service. We are unable to estimate at this time the number of licensees that would qualify as small under the SBA's small business size standard for "Cellular and Other Wireless Telecommunications" services. Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees.

125. *39 GHz Service.* The Commission created a special small business size standard for 39 GHz licenses – an entity that has average gross revenues of \$40 million or less in the three previous [321]

calendar years. An additional size standard for “very small business” is: an entity that, together with affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years. [322] [323]

The SBA has approved these small business size standards. The auction of the 2,173 39 GHz licenses began on April 12, 2000 and closed on May 8, 2000. The 18 bidders who claimed small business status won 849 licenses. Consequently, the Commission estimates that 18 or fewer 39 GHz licensees are small entities that may be affected by the rules and policies adopted herein.

126. *Multipoint Distribution Service, Multichannel Multipoint Distribution Service, and ITFS.* Multichannel Multipoint Distribution Service (MMDS) systems, often referred to as “wireless cable,” transmit video programming to subscribers using the microwave frequencies of the Multipoint Distribution [324]

Service (MDS) and Instructional Television Fixed Service (ITFS). In connection with the 1996 MDS auction, the Commission established a small business size standard as an entity that had annual average [325]

gross revenues of less than \$40 million in the previous three calendar years. The MDS 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. MDS also includes licensees of stations authorized prior to the auction. In addition, the SBA has developed a small business size standard for Cable and Other Program Distribution, which includes all such companies generating \$12.5 million or [326]

less in annual receipts. According to Census Bureau data for 1997, there were a total of 1,311 firms in [327]

this category, total, that had operated for the entire year. Of this total, 1,180 firms had annual receipts of under \$10 million and an additional 52 firms had receipts of \$10 million or more but less than \$25 million. Consequently, we estimate that the majority of providers in this service category are small businesses that may be affected by the rules and policies adopted herein. This SBA small business size standard also appears applicable to ITFS. There are presently 2,032 ITFS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in this analysis as small [328]

entities. Thus, we tentatively conclude that at least 1,932 licensees are small businesses.

127. *Local Multipoint Distribution Service.* Local Multipoint Distribution Service (LMDS) is a fixed broadband point-to-multipoint microwave service that provides for two-way video [329]

telecommunications. The auction of the 1,030 Local Multipoint Distribution Service (LMDS) licenses began on February 18, 1998 and closed on March 25, 1998. The Commission established a small business size standard for LMDS licenses as an entity that has average gross revenues of less than \$40 million in the [330]

three previous calendar years. An additional small business size standard for “very small business” was added as an entity that, together with its affiliates, has average gross revenues of not more than \$15 [331]

million for the preceding three calendar years. The SBA has approved these small business size [332]

standards in the context of LMDS auctions. There were 93 winning bidders that qualified as small entities in the LMDS auctions. A total of 93 small and very small business bidders won approximately 277 A Block licenses and 387 B Block licenses. On March 27, 1999, the Commission re-auctioned 161 licenses; there were 40 winning bidders. Based on this information, we conclude that the number of small

LMDS licenses consists of 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.

128. *218-219 MHz Service.* The first auction of 218-219 MHz spectrum resulted in 170 entities winning licenses for 594 Metropolitan Statistical Area (MSA) licenses. Of the 594 licenses, 557 were won by entities qualifying as a small business. For that auction, the small business size standard was an entity that, together with its affiliates, has no more than a \$6 million net worth and, after federal income taxes (excluding any carry over losses), has no more than \$2 million in annual profits each year for the previous [333]

two years. In the *218-219 MHz Report and Order and Memorandum Opinion and Order*, we established a small business size standard for a “small business” as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and their affiliates, has average annual gross [334]

revenues not to exceed \$15 million for the preceding three years. A “very small business” is defined as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and [335]

its affiliates, has average annual gross revenues not to exceed \$3 million for the preceding three years. We cannot estimate, however, the number of licenses that will be won by entities qualifying as small or very small businesses under our rules in future auctions of 218-219 MHz spectrum.

129. *24 GHz – Incumbent Licensees.* This analysis may affect incumbent licensees who were relocated to the 24 GHz band from the 18 GHz band, and applicants who wish to provide services in the 24 GHz band. The applicable SBA small business size standard is that of “Cellular and Other Wireless Telecommunications” companies. This category provides that such a company is small if it employs no [336]

more than 1,500 persons. According to Census Bureau data for 1997, there were 977 firms in this [337]

category, total, that operated for the entire year. Of this total, 965 firms had employment of 999 or [338]

fewer employees, and an additional 12 firms had employment of 1,000 employees or more. Thus, under this size standard, the great majority of firms can be considered small. These broader census data notwithstanding, we believe that there are only two licensees in the 24 GHz band that were relocated from [339]

the 18 GHz band, Teligent and TRW, Inc. It is our understanding that Teligent and its related companies have less than 1,500 employees, though this may change in the future. TRW is not a small entity. Thus, only one incumbent licensee in the 24 GHz band is a small business entity.

130. *24 GHz – Future Licensees.* With respect to new applicants in the 24 GHz band, the small business size standard for “small business” is an entity that, together with controlling interests and affiliates, has average annual gross revenues for the three preceding years not in excess of \$15 million. [340]

“Very small business” in the 24 GHz band is an entity that, together with controlling interests and [341]

affiliates, has average gross revenues not exceeding \$3 million for the preceding three years. The SBA [342]

has approved these small business size standards. These size standards will apply to the future auction, if held.

2. Cable and OVS Operators

131. *Cable and Other Program Distribution.* This category includes cable systems operators, closed circuit television services, direct broadcast satellite services, multipoint distribution systems,

satellite master antenna systems, and subscription television services. The SBA has developed small business size standard for this census category, which includes all such companies generating \$12.5 [343]

million or less in revenue annually. According to Census Bureau data for 2002, there were a total of [344]

1,191 firms in this 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. [345]

Consequently, the Commission estimates that the majority of providers in this service category are small businesses that may be affected by the rules and policies adopted herein.

132. *Cable System Operators.* The Commission has developed its own small business size standards for cable system operators, for purposes of rate regulation. Under the Commission's rules, a [346]

"small cable company" is one serving fewer than 400,000 subscribers nationwide. In addition, a [347]

"small system" is a system serving 15,000 or fewer subscribers.

133. *Cable System Operators (Telecom Act Standard).* 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 [348]

\$250,000,000." The Commission has determined that there are approximately 67,700,000 subscribers [349]

in the United States. Therefore, 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 [350]

not exceed \$250 million in the aggregate. Based on available data, the Commission estimates that the number of cable operators serving 677,000 subscribers or fewer, totals 1,450. The Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross [351]

annual revenues exceed \$250 million, and therefore is unable, at this time, to estimate more accurately the number of cable system operators that would qualify as small cable operators under the size standard contained in the Communications Act of 1934.

134. *Open Video Services.* Open Video Service (OVS) systems provide subscription services. [352] [353]

The SBA has created a small business size standard for Cable and Other Program Distribution. This standard provides that a small entity is one with \$12.5 million or less in annual receipts. The Commission has certified approximately 25 OVS operators to serve 75 areas, and some of these are [354]

currently providing service. Affiliates of Residential Communications Network, Inc. (RCN) received approval to operate OVS systems in New York City, Boston, Washington, D.C., and other areas. RCN has sufficient revenues to assure that they do not qualify as a small business entity. Little financial information is available for the other entities that are authorized to provide OVS and are not yet operational. Given that some entities authorized to provide OVS service have not yet begun to generate revenues, the Commission concludes that up to 24 OVS operators (those remaining) might qualify as small businesses that may be affected by the rules and policies adopted herein.

3. Internet Service Providers

135. *Internet Service Providers.* The SBA has developed a small business size standard for Internet Service Providers (ISPs). ISPs “provide clients access to the Internet and generally provide related services such as web hosting, web page designing, and hardware or software consulting related to Internet connectivity.” [\[355\]](#) Under the SBA size standard, such a business is small if it has average annual receipts of \$21 million or less. [\[356\]](#) According to Census Bureau data for 2002, there were 2,529 firms in this category that operated for the entire year. [\[357\]](#) Of these, 2,437 firms had annual receipts of under \$10 million, and 47 firms had receipts of \$10 million or more but less than \$25 million. [\[358\]](#) Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

4. Other Internet-Related Entities

136. *Web Search Portals.* Our action pertains to interconnected VoIP services, which could be provided by entities that provide other services such as email, online gaming, web browsing, video conferencing, instant messaging, and other, similar IP-enabled services. The Commission has not adopted a size standard for entities that create or provide these types of services or applications. However, the census bureau has identified firms that “operate web sites that use a search engine to generate and maintain extensive databases of Internet addresses and content in an easily searchable format. Web search portals often provide additional Internet services, such as e-mail, connections to other web sites, auctions, news, and other limited content, and serve as a home base for Internet users.” [\[359\]](#) The SBA has developed a small business size standard for this category; that size standard is \$6 million or less in average annual receipts. [\[360\]](#) According to Census Bureau data for 1997, there were 195 firms in this category that operated for the entire year. [\[361\]](#) Of these, 172 had annual receipts of under \$5 million, and an additional nine firms had receipts of between \$5 million and \$9,999,999. Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

137. *Data Processing, Hosting, and Related Services.* Entities in this category “primarily ... provid[e] infrastructure for hosting or data processing services.” [\[362\]](#) The SBA has developed a small business size standard for this category; that size standard is \$21 million or less in average annual receipts. [\[363\]](#) According to Census Bureau data for 1997, there were 3,700 firms in this category that operated for the entire year. [\[364\]](#) Of these, 3,477 had annual receipts of under \$10 million, and an additional 108 firms had receipts of between \$10 million and \$24,999,999. Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

138. *All Other Information Services.* “This industry comprises establishments primarily engaged in providing other information services (except new syndicates and libraries and archives).” [\[365\]](#) Our action pertains to interconnected VoIP services, which could be provided by entities that provide other services such as email, online gaming, web browsing, video conferencing, instant messaging, and other, similar IP-enabled services. The SBA has developed a small business size standard for this category; that size standard is \$6 million or less in average annual receipts. [\[366\]](#) According to Census Bureau data for

[367]

1997, there were 195 firms in this category that operated for the entire year. Of these, 172 had annual receipts of under \$5 million, and an additional nine firms had receipts of between \$5 million and \$9,999,999. Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

139. *Internet Publishing and Broadcasting.* “This industry comprises establishments engaged in publishing and/or broadcasting content on the Internet exclusively. These establishments do not provide [368]

traditional (non-Internet) versions of the content that they publish or broadcast.” The SBA has developed a small business size standard for this new (2002) census category; that size standard is 500 or [369]

fewer employees. To assess the prevalence of small entities in this category, we will use 1997 Census Bureau data for a relevant, now-superseded census category, “All Other Information Services.” The SBA small business size standard for that prior category was \$6 million or less in average annual receipts. According to Census Bureau data for 1997, there were 195 firms in the prior category that operated for the [370]

entire year. Of these, 172 had annual receipts of under \$5 million, and an additional nine firms had receipts of between \$5 million and \$9,999,999. Consequently, we estimate that the majority of the firms in this current category are small entities that may be affected by our action.

140. *Software Publishers.* These companies may design, develop or publish software and may provide other support services to software purchasers, such as providing documentation or assisting in installation. The companies may also design software to meet the needs of specific users. The SBA has developed a small business size standard of \$21 million or less in average annual receipts for all of the following pertinent categories: Software Publishers, Custom Computer Programming Services, and Other [371]

Computer Related Services. For Software Publishers, Census Bureau data for 1997 indicate that there [372]

were 8,188 firms in the category that operated for the entire year. Of these, 7,633 had annual receipts under \$10 million, and an additional 289 firms had receipts of between \$10 million and \$24,999,999. For providers of Custom Computer Programming Services, the Census Bureau data indicate that there were [373]

19,334 firms that operated for the entire year. Of these, 18,786 had annual receipts of under \$10 million, and an additional 352 firms had receipts of between \$10 million and \$24,999,999. For providers of Other Computer Related Services, the Census Bureau data indicate that there were 5,524 firms that [374]

operated for the entire year. Of these, 5,484 had annual receipts of under \$10 million, and an additional 28 firms had receipts of between \$10 million and \$24,999,999. Consequently, we estimate that the majority of the firms in each of these three categories are small entities that may be affected by our action.

5. Equipment Manufacturers

141. The equipment manufacturers described in this section are merely indirectly affected by our current action, and therefore are not formally a part of this RFA analysis. We have included them, however, to broaden the record in this proceeding and to alert them to our decisions.

142. *Wireless Communications Equipment Manufacturers.* The SBA has established a small business size standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing. Examples of products in this category include “transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and

[375]

radio and television studio and broadcasting equipment” and may include other devices that transmit and receive IP-enabled services, such as personal digital assistants (PDAs). Under the SBA size [376]

standard, firms are considered small if they have 750 or fewer employees. According to Census [377]

Bureau data for 1997, there were 1,215 establishments in this category that operated for the entire [378]

year. Of those, there were 1,150 that had employment of under 500, and an additional 37 that had employment of 500 to 999. The percentage of wireless equipment manufacturers in this category was [379]

approximately 61.35%, so we estimate that the number of wireless equipment manufacturers with employment of under 500 was actually closer to 706, with an additional 23 establishments having employment of between 500 and 999. Consequently, we estimate that the majority of wireless communications equipment manufacturers are small entities that may be affected by our action.

143. *Telephone Apparatus Manufacturing.* This category “comprises establishments primarily [380]

engaged primarily in manufacturing wire telephone and data communications equipment.” Examples of pertinent products are “central office switching equipment, cordless telephones (except cellular), PBX equipment, telephones, telephone answering machines, and data communications equipment, such as [381]

bridges, routers, and gateways.” The SBA has developed a small business size standard for this [382]

category of manufacturing; that size standard is 1,000 or fewer employees. According to Census [383]

Bureau data for 1997, there were 598 establishments in this category that operated for the entire year. Of these, 574 had employment of under 1,000, and an additional 17 establishments had employment of 1,000 to 2,499. Consequently, we estimate that the majority of these establishments are small entities that may be affected by our action.

144. *Electronic Computer Manufacturing.* This category “comprises establishments primarily engaged in manufacturing and/or assembling electronic computers, such as mainframes, personal [384]

computers, workstations, laptops, and computer servers.” The SBA has developed a small business [385]

size standard for this category of manufacturing; that size standard is 1,000 or fewer employees. According to Census Bureau data for 1997, there were 563 establishments in this category that operated for [386]

the entire year. Of these, 544 had employment of under 1,000, and an additional 11 establishments had employment of 1,000 to 2,499. Consequently, we estimate that the majority of these establishments are small entities that may be affected by our action.

145. *Computer Terminal Manufacturing.* “Computer terminals are input/output devices that [387]

connect with a central computer for processing.” The SBA has developed a small business size [388]

standard for this category of manufacturing; that size standard is 1,000 or fewer employees. According to Census Bureau data for 1997, there were 142 establishments in this category that operated for

[\[389\]](#)

the entire year, and all of the establishments had employment of under 1,000. Consequently, we estimate that the majority or all of these establishments are small entities that may be affected by our action.

146. *Other Computer Peripheral Equipment Manufacturing.* Examples of peripheral [\[390\]](#) equipment in this category include keyboards, mouse devices, monitors, and scanners. The SBA has developed a small business size standard for this category of manufacturing; that size standard is 1,000 or [\[391\]](#) fewer employees. According to Census Bureau data for 1997, there were 1061 establishments in this [\[392\]](#) category that operated for the entire year. Of these, 1,046 had employment of under 1,000, and an additional six establishments had employment of 1,000 to 2,499. Consequently, we estimate that the majority of these establishments are small entities that may be affected by our action.

147. *Fiber Optic Cable Manufacturing.* These establishments manufacture “insulated fiber-[\[393\]](#) optic cable from purchased fiber-optic strand.” The SBA has developed a small business size standard [\[394\]](#) for this category of manufacturing; that size standard is 1,000 or fewer employees. According to Census Bureau data for 1997, there were 38 establishments in this category that operated for the entire [\[395\]](#) year. Of these, 37 had employment of under 1,000, and one establishment had employment of 1,000 to 2,499. Consequently, we estimate that the majority of these establishments are small entities that may be affected by our action.

148. *Other Communication and Energy Wire Manufacturing.* These establishments [\[396\]](#) manufacture “insulated wire and cable of nonferrous metals from purchased wire.” The SBA has developed a small business size standard for this category of manufacturing; that size standard is 1,000 or [\[397\]](#) fewer employees. According to Census Bureau data for 1997, there were 275 establishments in this [\[398\]](#) category that operated for the entire year. Of these, 271 had employment of under 1,000, and four establishments had employment of 1,000 to 2,499. Consequently, we estimate that the majority or all of these establishments are small entities that may be affected by our action.

149. *Audio and Video Equipment Manufacturing.* These establishments manufacture “electronic audio and video equipment for home entertainment, motor vehicle, public address and musical [\[399\]](#) instrument amplifications.” The SBA has developed a small business size standard for this category of [\[400\]](#) manufacturing; that size standard is 750 or fewer employees. According to Census Bureau data for [\[401\]](#) 1997, there were 554 establishments in this category that operated for the entire year. Of these, 542 had employment of under 500, and nine establishments had employment of 500 to 999. Consequently, we estimate that the majority of these establishments are small entities that may be affected by our action.

150. *Electron Tube Manufacturing.* These establishments are “primarily engaged in

[402]

manufacturing electron tubes and parts (except glass blanks).” The SBA has developed a small business size standard for this category of manufacturing; that size standard is 750 or fewer [403]

employees. According to Census Bureau data for 1997, there were 158 establishments in this category [404]

that operated for the entire year. Of these, 148 had employment of under 500, and three establishments had employment of 500 to 999. Consequently, we estimate that the majority of these establishments are small entities that may be affected by our action.

151. *Bare Printed Circuit Board Manufacturing.* These establishments are “primarily engaged in manufacturing bare (i.e., rigid or flexible) printed circuit boards without mounted electronic [405]

components.” The SBA has developed a small business size standard for this category of [406]

manufacturing; that size standard is 500 or fewer employees. According to Census Bureau data for [407]

1997, there were 1,389 establishments in this category that operated for the entire year. Of these, 1,369 had employment of under 500, and 16 establishments had employment of 500 to 999. Consequently, we estimate that the majority of these establishments are small entities that may be affected by our action.

152. *Semiconductor and Related Device Manufacturing.* These establishments manufacture “computer storage devices that allow the storage and retrieval of data from a phase change, magnetic, [408]

optical, or magnetic/optical media.” The SBA has developed a small business size standard for this [409]

category of manufacturing; that size standard is 500 or fewer employees. According to Census Bureau [410]

data for 1997, there were 1,082 establishments in this category that operated for the entire year. Of these, 987 had employment of under 500, and 52 establishments had employment of 500 to 999.

153. *Electronic Capacitor Manufacturing.* These establishments manufacture “electronic fixed [411]

and variable capacitors and condensers.” The SBA has developed a small business size standard for [412]

this category of manufacturing; that size standard is 500 or fewer employees. According to Census [413]

Bureau data for 1997, there were 128 establishments in this category that operated for the entire year. Of these, 121 had employment of under 500, and four establishments had employment of 500 to 999.

154. *Electronic Resistor Manufacturing.* These establishments manufacture “electronic [414] resistors, such as fixed and variable resistors, resistor networks, thermistors, and varistors.” The SBA has developed a small business size standard for this category of manufacturing; that size standard is 500 or [415]

fewer employees. According to Census Bureau data for 1997, there were 118 establishments in this [416]

category that operated for the entire year. Of these, 113 had employment of under 500, and 5 establishments had employment of 500 to 999.

155. *Electronic Coil, Transformer, and Other Inductor Manufacturing.* These establishments [\[417\]](#) manufacture “electronic inductors, such as coils and transformers.” The SBA has developed a small business size standard for this category of manufacturing; that size standard is 500 or fewer employees. [\[418\]](#)

According to Census Bureau data for 1997, there were 448 establishments in this category that [\[419\]](#) operated for the entire year. Of these, 446 had employment of under 500, and two establishments had employment of 500 to 999.

156. *Electronic Connector Manufacturing.* These establishments manufacture “electronic connectors, such as coaxial, cylindrical, rack and panel, pin and sleeve, printed circuit and fiber [\[420\]](#) optic.” The SBA has developed a small business size standard for this category of manufacturing; that [\[421\]](#) size standard is 500 or fewer employees. According to Census Bureau data for 1997, there were 347 [\[422\]](#) establishments in this category that operated for the entire year. Of these, 332 had employment of under 500, and 12 establishments had employment of 500 to 999.

157. *Printed Circuit Assembly (Electronic Assembly) Manufacturing.* These are establishments “primarily engaged in loading components onto printed circuit boards or who manufacture and ship loaded [\[423\]](#) printed circuit boards.” The SBA has developed a small business size standard for this category of [\[424\]](#) manufacturing; that size standard is 500 or fewer employees. According to Census Bureau data for [\[425\]](#) 1997, there were 714 establishments in this category that operated for the entire year. Of these, 673 had employment of under 500, and 24 establishments had employment of 500 to 999.

158. *Other Electronic Component Manufacturing.* These are establishments “primarily engaged in loading components onto printed circuit boards or who manufacture and ship loaded printed [\[426\]](#) circuit boards.” The SBA has developed a small business size standard for this category of [\[427\]](#) manufacturing; that size standard is 500 or fewer employees. According to Census Bureau data for [\[428\]](#) 1997, there were 1,835 establishments in this category that operated for the entire year. Of these, 1,814 had employment of under 500, and 18 establishments had employment of 500 to 999.

159. *Computer Storage Device Manufacturing.* These establishments manufacture “computer storage devices that allow the storage and retrieval of data from a phase change, magnetic, optical, or [\[429\]](#) magnetic/optical media.” The SBA has developed a small business size standard for this category of [\[430\]](#) manufacturing; that size standard is 1,000 or fewer employees. According to Census Bureau data for [\[431\]](#) 1997, there were 209 establishments in this category that operated for the entire year. Of these, 197 had employment of under 500, and eight establishments had employment of 500 to 999.

D. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements

160. We are requiring telecommunications carriers and providers of interconnected VoIP service to collect certain information and take other actions to comply with our rules regarding the use of CPNI. For example, carriers must have an officer, as an agent of the carrier, sign and file with the Commission a compliance certificate on an annual basis stating that the officer has personal knowledge [432]

that the carrier has established procedures that are adequate to ensure compliance with the CPNI rules. The carrier must also provide a statement accompanying the certificate explaining how its operating [433]

procedures ensure that it is or is not in compliance with the CPNI rules. Further, the carrier must include an explanation of any actions taken against data brokers and a summary of all consumer complaints [434]

received in the past year concerning the unauthorized release of CPNI. Additionally, carriers must obtain opt-in approval before sharing CPNI with their joint venture partners or independent contractors for [435]

the purposes of marketing communications-related services to customers. Also, carriers are required to maintain a record of any discovered breaches, notifications to the United States Secret Service (USSS) and the Federal Bureau of Investigation (FBI) regarding those breaches, as well as the USSS and FBI [436]

response to those notifications for a period of at least two years.

161. We also impose other requirements on telecommunications carriers and providers of interconnected VoIP service. Specifically, the Order prohibits carriers from releasing call detail information over the phone during customer-initiated telephone calls except by those methods provided for [437]

in the Order. The Order also requires, with the exception of carriers that are small businesses, that a carrier not permit customers to gain access to an online account without first properly authenticating the customer and, for subsequent access, without a customer password or response to a back-up authentication method for lost or forgotten passwords, neither of which may be based on a carrier prompt for readily [438]

available biographical information, or account information. For the rules pertaining to online carrier authentication, we provide carriers that satisfy the definition of a “small entity” or a “small business [439]

concern” under the RFA or SBA an additional six months to implement these rules.

162. The Order also requires that carriers notify customers through a carrier-originated voicemail or text message to the telephone number of record, or by mail or email to the address of record whenever a password, customer response to a back-up means of authentication for lost or forgotten [440]

passwords, online account, or address of record is created or changed. Further, the Order requires that carriers notify the USSS and the FBI no later than seven days after a reasonable determination of a CPNI [441]

breach.

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

163. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include (among others) 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 [442] entities.

164. The notices invited comment on a number of issues related to small entities. For example, the Commission sought comment on the effect the various proposals described in the *EPIC CPNI Notice* [443]

will have on small entities, and on what effect alternative rules would have on those entities. Additionally, the Commission invited comment on ways in which the Commission can achieve its goal of protecting consumers while at the same time impose minimal burdens on small telecommunications service [444]

providers. With respect to any of the Commission consumer protection regulations already in place, the Commission sought comment on whether it has adopted any provisions for small entities that the Commission should similarly consider in this proceeding? Specifically, it invited comment on whether the [445]

problems identified by EPIC were better or worse at smaller carriers. The Commission invited comment on whether small carriers should be exempt from password-related security procedures to protect [446]

CPNI. The Commission invited comment on the benefits and burdens of recording audit trails for the [447]

disclosure of CPNI on small carriers. The Commission invited comment on whether requiring a small [448]

carrier to encrypt its stored data would be unduly burdensome. The Commission solicited comment on [449]

the cost to a small carrier of notifying a customer upon release of CPNI. The Commission sought comment on whether the Commission should amend its rules to require carriers to file annual certifications concerning CPNI and whether this requirement should extend to only telecommunications carriers that are not small telephone companies as defined by the Small Business Administration, and whether small [450]

carriers should be subject to different CPNI-related obligations.

165. The Commission has considered each of the alternatives described above, and in today's Order, imposes minimal regulation on small entities to the extent consistent with its goal of ensuring that carriers and providers of interconnected VoIP service protect against the unauthorized release of CPNI. Specifically, the Commission extended the implementation date for the rules pertaining to online authentication by six months so that small businesses will have additional time to come into compliance [451]

with the Order's rules.

166. However, as stated above, we must assess the interests of small businesses in light of the overriding public interest of protecting against the unlawful release of CPNI. The Order discusses that [452]

CPNI is made up of very personal data. Therefore, the Commission concluded that it was important for *all* telecommunications carriers and providers of interconnected VoIP service, including small businesses, to comply with the rules the Commission adopts in this Order six months after the Order's effective date or on receipt of OMB approval, as required by the Paperwork Reduction Act, whichever is later. For example, the Commission concluded that carriers and providers of interconnected VoIP service must stop releasing call detail information based on customer-initiated telephone calls except by those methods provided for in the Order. Additionally, the Commission concluded that it was important for *all*

telecommunications carriers and providers of interconnected VoIP service to report breaches of CPNI data to law enforcement. The Commission therefore rejected solutions that would exempt small businesses. The record indicated that exempting small carriers from these regulations would compromise the Commission's goal of protecting all Americans from the unauthorized release of CPNI.

167. **Report to Congress:** The Commission will send a copy of the Order, including this FRFA, in a report to be sent to Congress and the Government Accountability Office pursuant to the [\[453\]](#)

Congressional Review Act. In addition, the Commission will send a copy of the Order, including this FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the Order and FRFA (or summaries [\[454\]](#)

thereof) will also be published in the Federal Register.

Appendix D

Initial Regulatory Flexibility Analysis

[455]

168. As required by the Regulatory Flexibility Act of 1980, as amended (RFA), the Commission has prepared the present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities that might result from this Further Notice. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the Further Notice provided above. The Commission will send a copy of the Further Notice, including this IRFA, to the Chief Counsel for Advocacy of the Small Business [456]

Administration. In addition, the Further Notice and the IRFA (or summaries thereof) will be published [457] in the Federal Register.

A. Need for, and Objectives of, the Proposed Rules

169. In the Further Notice, we seek comment on what steps the Commission should take, if any, to expand its CPNI rules further, and whether it should expand the consumer protections to ensure that customer information and CPNI are protected in the context of mobile communications devices. In particular, we seek comment on whether the Commission should adopt any further carrier requirements to protect CPNI, including password protection, audit trails, physical security, and limits on data retention. [458]

Further, we seek comment on what methods carriers currently use, if any, for erasing customer information on mobile equipment prior to refurbishing the equipment, and the extent to which carriers [459]

enable customers to permanently erase their personal information prior to discarding the device. We also seek comment on whether the Commission should require carriers or manufacturers to permanently [460]

erase, or allow customers to permanently erase, customer information in such circumstances. For each of these issues, we seek comment on the burdens, including those placed on small carriers, associated with [461]

corresponding Commission rules related to each issue.

B. Legal Basis

170. The legal basis for any action that may be taken pursuant to this Further Notice is contained in sections 1, 4(i), 4(j), and 222 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i)-(j), 222.

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules May Apply

171. The RFA directs agencies to provide a description of and, where feasible, an estimate of [462]

the number of small entities that may be affected by the proposed rules. The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” [463]

and “small governmental jurisdiction.” In addition, the term “small business” has the same meaning

[464]

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).

[465]

172. *Small Businesses.* Nationwide, there are a total of approximately 22.4 million small businesses, according to SBA data.

[466]

173. *Small Organizations.* Nationwide, there are approximately 1.6 million small organizations.

[467]

174. *Small Governmental Jurisdictions.* 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 2002 indicate that there were 87,525 local governmental jurisdictions in the United States. We estimate that, of this total, 84,377 entities were “small governmental jurisdictions.” Thus, we estimate that most governmental jurisdictions are small.

[468]

[469]

[470]

1. Telecommunications Service Entities

a. Wireline Carriers and Service Providers

175. We have included small incumbent local exchange carriers in this present RFA analysis. As noted above, a “small business” under the RFA is one that, *inter alia*, meets the pertinent small business size standard (*e.g.*, a telephone communications business having 1,500 or fewer employees), and “is not dominant in its field of operation.” The SBA’s Office of Advocacy contends that, for RFA purposes, small incumbent local exchange carriers are not dominant in their field of operation because any such dominance is not “national” in scope. We have therefore included small incumbent local exchange carriers in this RFA analysis, although we emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

[471]

[472]

176. *Incumbent Local Exchange Carriers (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. According to

[473]

[474]

Commission data, 1,303 carriers have reported that they are engaged in the provision of incumbent local exchange services. Of these 1,303 carriers, an estimated 1,020 have 1,500 or fewer employees and 283 have more than 1,500 employees. Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by our action.

177. *Competitive Local Exchange Carriers, Competitive Access Providers (CAPs), “Shared-*

Tenant Service Providers,” and “*Other Local Service Providers.*” Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under [475]

that size standard, such a business is small if it has 1,500 or fewer employees. According to [476]

Commission data, 769 carriers have reported that they are engaged in the provision of either competitive access provider services or competitive local exchange carrier services. Of these 769 carriers, an estimated 676 have 1,500 or fewer employees and 93 have more than 1,500 employees. In addition, 12 carriers have reported that they are “Shared-Tenant Service Providers,” and all 12 are estimated to have 1,500 or fewer employees. In addition, 39 carriers have reported that they are “Other Local Service Providers.” Of the 39, an estimated 38 have 1,500 or fewer employees and one has more than 1,500 employees. Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, “Shared-Tenant Service Providers,” and “Other Local Service Providers” are small entities that may be affected by our action.

178. *Local Resellers.* The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or [477] [478]

fewer employees. According to Commission data, 143 carriers have reported that they are engaged in the provision of local resale services. Of these, an estimated 141 have 1,500 or fewer employees and two have more than 1,500 employees. Consequently, the Commission estimates that the majority of local resellers are small entities that may be affected by our action.

179. *Toll Resellers.* The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer [479] [480]

employees. According to Commission data, 770 carriers have reported that they are engaged in the provision of toll resale services. Of these, an estimated 747 have 1,500 or fewer employees and 23 have more than 1,500 employees. Consequently, the Commission estimates that the majority of toll resellers are small entities that may be affected by our action.

180. *Payphone Service Providers (PSPs).* Neither the Commission nor the SBA has developed a small business size standard specifically for payphone services providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a [481] [482]

business is small if it has 1,500 or fewer employees. According to Commission data, 613 carriers have reported that they are engaged in the provision of payphone services. Of these, an estimated 609 have 1,500 or fewer employees and four have more than 1,500 employees. Consequently, the Commission estimates that the majority of payphone service providers are small entities that may be affected by our action.

181. *Interexchange Carriers (IXCs).* 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 [483]

standard, such a business is small if it has 1,500 or fewer employees. According to Commission data, [484]

316 carriers have reported that they are engaged in the provision of interexchange service. Of these, an estimated 292 have 1,500 or fewer employees and 24 have more than 1,500 employees. Consequently, the Commission estimates that the majority of IXCs are small entities that may be affected by our action.

182. *Operator Service Providers (OSPs).* 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 [485]

standard, such a business is small if it has 1,500 or fewer employees. According to Commission data, [486]

23 carriers have reported that they are engaged in the provision of operator services. Of these, an estimated 20 have 1,500 or fewer employees and three have more than 1,500 employees. Consequently, the Commission estimates that the majority of OSPs are small entities that may be affected by our action.

183. *Prepaid Calling Card Providers.* Neither the Commission nor the SBA has developed a small business size standard specifically for prepaid calling card providers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a [487] [488]

business is small if it has 1,500 or fewer employees. According to Commission data, 89 carriers have reported that they are engaged in the provision of prepaid calling cards. Of these, 88 are estimated to have 1,500 or fewer employees and one has more than 1,500 employees. Consequently, the Commission estimates that all or the majority of prepaid calling card providers are small entities that may be affected by our action.

[489]

184. *800 and 800-Like Service Subscribers.* Neither the Commission nor the SBA has developed a small business size standard specifically for 800 and 800-like service (“toll free”) subscribers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under [490]

that size standard, such a business is small if it has 1,500 or fewer employees. The most reliable source of information regarding the number of these service subscribers appears to be data the Commission [491]

collects on the 800, 888, and 877 numbers in use. According to our data, at the end of January, 1999, the number of 800 numbers assigned was 7,692,955; the number of 888 numbers assigned was 7,706,393; and the number of 877 numbers assigned was 1,946,538. We do not have data specifying the number of these subscribers that are not independently owned and operated or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of toll free subscribers that would qualify as small businesses under the SBA size standard. Consequently, we estimate that there are 7,692,955 or fewer small entity 800 subscribers; 7,706,393 or fewer small entity 888 subscribers; and 1,946,538 or fewer small entity 877 subscribers.

b. International Service Providers

185. The Commission has not developed a small business size standard specifically for providers of international service. The appropriate size standards under SBA rules are for the two broad census categories of “Satellite Telecommunications” and “Other Telecommunications.” Under both [492]

categories, such a business is small if it has \$12.5 million or less in average annual receipts.

186. The first category of Satellite Telecommunications “comprises establishments primarily engaged in providing point-to-point telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a [493]

system of satellites or reselling satellite telecommunications.” For this category, Census Bureau data [494]

for 2002 show that there were a total of 371 firms that operated for the entire year. Of this total, 307 firms had annual receipts of under \$10 million, and 26 firms had receipts of \$10 million to \$24,999,999.

[495]

Consequently, we estimate that the majority of Satellite Telecommunications firms are small entities that might be affected by our action.

187. The second category of Other Telecommunications “comprises establishments primarily engaged in (1) providing specialized telecommunications applications, such as satellite tracking, communications telemetry, and radar station operations; or (2) providing satellite terminal stations and associated facilities operationally connected with one or more terrestrial communications systems and capable of transmitting telecommunications to or receiving telecommunications from satellite

[496]

systems.” For this category, Census Bureau data for 2002 show that there were a total of 332 firms

[497]

that operated for the entire year. Of this total, 259 firms had annual receipts of under \$10 million and

[498]

15 firms had annual receipts of \$10 million to \$24,999,999. Consequently, we estimate that the majority of Other Telecommunications firms are small entities that might be affected by our action.

c. Wireless Telecommunications Service Providers

188. Below, for those services subject to auctions, we note that, as a general matter, the number of winning bidders that qualify as small businesses at the close of an auction does not necessarily represent the number of small businesses currently in service. Also, the Commission does not generally track subsequent business size unless, in the context of assignments or transfers, unjust enrichment issues are implicated.

189. *Wireless Service Providers.* The SBA has developed a small business size standard for wireless firms within the two broad economic census categories of “Paging”^[499] and “Cellular and Other Wireless Telecommunications.”^[500] Under both SBA categories, a wireless business is small if it has 1,500 or fewer employees. For the census category of Paging, Census Bureau data for 2002 show that

[501]

there were 807 firms in this category that operated for the entire year. Of this total, 804 firms had employment of 999 or fewer employees, and three firms had employment of 1,000 employees or more.

[502]

Thus, under this category and associated small business size standard, the majority of firms can be considered small. For the census category of Cellular and Other Wireless Telecommunications, Census Bureau data for 2002 show that there were 1,397 firms in this category that operated for the entire year.

[503]

Of this total, 1,378 firms had employment of 999 or fewer employees, and 19 firms had employment

[504]

of 1,000 employees or more. Thus, under this second category and size standard, the majority of firms can, again, be considered small.

190. *Cellular Licensees.* The SBA has developed a small business size standard for wireless firms within the broad economic census category “Cellular and Other Wireless Telecommunications.”^[505] Under this SBA category, a wireless business is small if it has 1,500 or fewer employees. For the census category of Cellular and Other Wireless Telecommunications, Census Bureau data for 2002 show that there

[506]

were 1,397 firms in this category that operated for the entire year. Of this total, 1,378 firms had

[507]

employment of 999 or fewer employees, and 19 firms had employment of 1,000 employees or more.

Thus, under this category and size standard, the great majority of firms can be considered small. Also, according to Commission data, 437 carriers reported that they were engaged in the provision of cellular service, Personal Communications Service (PCS), or Specialized Mobile Radio (SMR) Telephony [508] services, which are placed together in the data. We have estimated that 260 of these are small, under [509] the SBA small business size standard.

191. *Common Carrier Paging.* The SBA has developed a small business size standard for wireless firms within the broad economic census category, “Cellular and Other Wireless Telecommunications.” [510] Under this SBA category, a wireless business is small if it has 1,500 or fewer employees. For the census category of Paging, Census Bureau data for 2002 show that there were 807 [511] firms in this category that operated for the entire year. Of this total, 804 firms had employment of 999 [512] or fewer employees, and three firms had employment of 1,000 employees or more. Thus, under this category and associated small business size standard, the majority of firms can be considered small. In the Paging *Third Report and Order*, we developed a small business size standard for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding [513]

credits and installment payments. A “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years. Additionally, a “very small business” is an entity that, together with its affiliates and controlling principals, [514]

has average gross revenues that are not more than \$3 million for the preceding three years. The SBA [515] has approved these small business size standards. An auction of Metropolitan Economic Area licenses [516]

commenced on February 24, 2000, and closed on March 2, 2000. Of the 985 licenses auctioned, 440 were sold. Fifty-seven companies claiming small business status won. Also, according to Commission [517] data, 375 carriers reported that they were engaged in the provision of paging and messaging services. [518]

Of those, we estimate that 370 are small, under the SBA-approved small business size standard.

192. *Wireless Telephony.* Wireless telephony includes cellular, personal communications services (PCS), and specialized mobile radio (SMR) telephony carriers. As noted earlier, the SBA has developed a small business size standard for “Cellular and Other Wireless Telecommunications” services. [519]

Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees. [520]

According to Commission data, 445 carriers reported that they were engaged in the provision of [521] wireless telephony. We have estimated that 245 of these are small under the SBA small business size standard.

193. *Broadband Personal Communications Service.* The broadband Personal Communications Service (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission defined “small entity” for Blocks C and F as an entity

that has average gross revenues of \$40 million or less in the three previous calendar years.^[522] For Block F, an additional classification 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 calendar years.”^[523] These standards defining “small entity” in the context of broadband PCS auctions have been approved by the SBA.^[524] 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 qualified as small entities in the Block C auctions. A total of 93 small and very small business bidders won approximately 40 percent of the 1,479 licenses for Blocks D, E, and F.^[525] On March 23, 1999, the Commission re-auctioned 347 C, D, E, and F Block licenses. There were 48 small business winning bidders. On January 26, 2001, the Commission completed the auction of 422 C and F Broadband PCS licenses in Auction No. 35. Of the 35 winning bidders in this auction, 29 qualified as “small” or “very small” businesses. 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.

194. *Narrowband Personal Communications Services.* To date, two auctions of narrowband personal communications services (PCS) licenses have been conducted. For purposes of the two auctions that have already been held, “small businesses” were entities with average gross revenues for the prior three calendar years of \$40 million or less. Through these auctions, the Commission has awarded a total of 41 licenses, out of which 11 were obtained by small businesses. To ensure meaningful participation of small business entities in future auctions, the Commission has adopted a two-tiered small business size

standard in the *Narrowband PCS Second Report and Order*. A “small business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$40 million. A “very small business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$15

million. The SBA has approved these small business size standards. In the future, the Commission will auction 459 licenses to serve Metropolitan Trading Areas (MTAs) and 408 response channel licenses. There is also one megahertz of narrowband PCS spectrum that has been held in reserve and that the Commission has not yet decided to release for licensing. The Commission cannot predict accurately the number of licenses that will be awarded to small entities in future auctions. However, four of the 16 winning bidders in the two previous narrowband PCS auctions were small businesses, as that term was defined. The Commission assumes, for purposes of this analysis that a large portion of the remaining narrowband PCS licenses will be awarded to small entities. The Commission also assumes that at least some small businesses will acquire narrowband PCS licenses by means of the Commission’s partitioning and disaggregation rules.

195. *Rural Radiotelephone Service.* The Commission has not adopted a size standard for small

businesses specific to the Rural Radiotelephone Service. A significant subset of the Rural

Radiotelephone Service is the Basic Exchange Telephone Radio System (BETRS). The Commission uses the SBA’s small business size standard applicable to “Cellular and Other Wireless

Telecommunications,” *i.e.*, an entity employing no more than 1,500 persons. There are approximately 1,000 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 1,000 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies adopted herein.

196. *Air-Ground Radiotelephone Service.* The Commission has not adopted a small business

[531]

size standard specific to the Air-Ground Radiotelephone Service. We will use SBA's small business size standard applicable to "Cellular and Other Wireless Telecommunications," *i.e.*, an entity [532]

employing no more than 1,500 persons. There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and we estimate that almost all of them qualify as small under the SBA small business size standard.

197. *Offshore Radiotelephone Service.* This service operates on several UHF television broadcast channels that are not used for television broadcasting in the coastal areas of states bordering the [533]

Gulf of Mexico. There are presently approximately 55 licensees in this service. We are unable to estimate at this time the number of licensees that would qualify as small under the SBA's small business [534]

size standard for "Cellular and Other Wireless Telecommunications" services. Under that SBA small [535]

business size standard, a business is small if it has 1,500 or fewer employees.

2. Cable and OVS Operators

198. *Cable and Other Program Distribution.* This category includes cable systems operators, closed circuit television services, direct broadcast satellite services, multipoint distribution systems, satellite master antenna systems, and subscription television services. The SBA has developed small business size standard for this census category, which includes all such companies generating \$12.5 million [536]

or less in revenue annually. According to Census Bureau data for 2002, there were a total of 1,191 [537]

firms in this category that operated for the entire year. Of this total, 1,087 firms had annual receipts of [538]

under \$10 million, and 43 firms had receipts of \$10 million or more but less than \$25 million. Consequently, the Commission estimates that the majority of providers in this service category are small businesses that may be affected by the rules and policies adopted herein.

199. *Cable System Operators.* The Commission has developed its own small business size standards for cable system operators, for purposes of rate regulation. Under the Commission's rules, a [539]

"small cable company" is one serving fewer than 400,000 subscribers nationwide. In addition, a [540]

"small system" is a system serving 15,000 or fewer subscribers.

200. *Cable System Operators (Telecom Act Standard).* 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 [541]

\$250,000,000." The Commission has determined that there are approximately 67,700,000 subscribers [542]

in the United States. Therefore, 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 [543]

not exceed \$250 million in the aggregate. Based on available data, the Commission estimates that the

number of cable operators serving 677,000 subscribers or fewer, totals 1,450. The Commission neither requests nor collects information on whether cable system operators are affiliated with entities [544]

whose gross annual revenues exceed \$250 million, and therefore is unable, at this time, to estimate more accurately the number of cable system operators that would qualify as small cable operators under the size standard contained in the Communications Act of 1934.

201. *Open Video Services.* Open Video Service (OVS) systems provide subscription services. [545] [546]

The SBA has created a small business size standard for Cable and Other Program Distribution. This standard provides that a small entity is one with \$12.5 million or less in annual receipts. The Commission has certified approximately 25 OVS operators to serve 75 areas, and some of these are [547]

currently providing service. Affiliates of Residential Communications Network, Inc. (RCN) received approval to operate OVS systems in New York City, Boston, Washington, D.C., and other areas. RCN has sufficient revenues to assure that they do not qualify as a small business entity. Little financial information is available for the other entities that are authorized to provide OVS and are not yet operational. Given that some entities authorized to provide OVS service have not yet begun to generate revenues, the Commission concludes that up to 24 OVS operators (those remaining) might qualify as small businesses that may be affected by the rules and policies adopted herein.

3. Internet Service Providers

202. *Internet Service Providers.* The SBA has developed a small business size standard for Internet Service Providers (ISPs). ISPs “provide clients access to the Internet and generally provide related services such as web hosting, web page designing, and hardware or software consulting related to Internet [548]

connectivity.” Under the SBA size standard, such a business is small if it has average annual receipts [549]

of \$21 million or less. According to Census Bureau data for 2002, there were 2,529 firms in this [550]

category that operated for the entire year. Of these, 2,437 firms had annual receipts of under \$10 [551]

million, and 47 firms had receipts of \$10 million or more but less than \$25 million. Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

203. *All Other Information Services.* “This industry comprises establishments primarily [552] engaged in providing other information services (except new syndicates and libraries and archives).” The SBA has developed a small business size standard for this category; that size standard is \$6 million or [553]

less in average annual receipts. According to Census Bureau data for 1997, there were 195 firms in [554]

this category that operated for the entire year. Of these, 172 had annual receipts of under \$5 million, and an additional nine firms had receipts of between \$5 million and \$9,999,999. Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

4. Equipment Manufacturers

204. *Wireless Communications Equipment Manufacturers.* The SBA has established a small business size standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing. Examples of products in this category include “transmitting and receiving antennas, cable

television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, [\[555\]](#) and radio and television studio and broadcasting equipment” and may include other devices that transmit and receive IP-enabled services, such as personal digital assistants (PDAs). Under the SBA size [\[556\]](#) standard, firms are considered small if they have 750 or fewer employees. According to Census [\[557\]](#) Bureau data for 1997, there were 1,215 establishments in this category that operated for the entire [\[558\]](#) year. Of those, there were 1,150 that had employment of under 500, and an additional 37 that had employment of 500 to 999. The percentage of wireless equipment manufacturers in this category was [\[559\]](#) approximately 61.35%, so we estimate that the number of wireless equipment manufacturers with employment of under 500 was actually closer to 706, with an additional 23 establishments having employment of between 500 and 999. Consequently, we estimate that the majority of wireless communications equipment manufacturers are small entities that may be affected by our action.

205. *Telephone Apparatus Manufacturing.* This category “comprises establishments primarily [\[560\]](#) engaged primarily in manufacturing wire telephone and data communications equipment.” Examples of pertinent products are “central office switching equipment, cordless telephones (except cellular), PBX equipment, telephones, telephone answering machines, and data communications equipment, such as [\[561\]](#) bridges, routers, and gateways.” The SBA has developed a small business size standard for this [\[562\]](#) category of manufacturing; that size standard is 1,000 or fewer employees. According to Census [\[563\]](#) Bureau data for 1997, there were 598 establishments in this category that operated for the entire year. Of these, 574 had employment of under 1,000, and an additional 17 establishments had employment of 1,000 to 2,499. Consequently, we estimate that the majority of these establishments are small entities that may be affected by our action.

206. *Semiconductor and Related Device Manufacturing.* These establishments manufacture “computer storage devices that allow the storage and retrieval of data from a phase change, magnetic, [\[564\]](#) optical, or magnetic/optical media.” The SBA has developed a small business size standard for this [\[565\]](#) category of manufacturing; that size standard is 500 or fewer employees. According to Census Bureau [\[566\]](#) data for 1997, there were 1,082 establishments in this category that operated for the entire year. Of these, 987 had employment of under 500, and 52 establishments had employment of 500 to 999.

207. *Computer Storage Device Manufacturing.* These establishments manufacture “computer storage devices that allow the storage and retrieval of data from a phase change, magnetic, optical, or [\[567\]](#) magnetic/optical media.” The SBA has developed a small business size standard for this category of [\[568\]](#) manufacturing; that size standard is 1,000 or fewer employees. According to Census Bureau data for [\[569\]](#) 1997, there were 209 establishments in this category that operated for the entire year. Of these, 197

had employment of under 500, and eight establishments had employment of 500 to 999.

D. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements

208. Should the Commission decide to adopt any further regulations to ensure that all providers of telecommunication services meet consumer protection needs in regard to CPNI, including the security of the privacy of customer information stored in mobile communications devices, the associated rules potentially could modify the reporting and recordkeeping requirements of certain telecommunications providers. We could, for instance, require that telecommunications providers require further customer

[570]

password-related security procedures to access CPNI data. We could also require telecommunications providers to track customer contact through the use of audit trails or to limit their retention of data related

[571]

to CPNI. Additionally, we could require additional physical safeguards be implemented to protect the

[572]

transfer of CPNI. Further, we could require telecommunications providers and/or manufacturers to configure wireless devices so consumers can easily and permanently delete personal information from

[573]

mobile communications devices. These proposals may impose additional reporting and recordkeeping requirements on entities. Also, we seek comment on whether any of these proposals places burdens on

[574]

small entities. Entities, especially small businesses, are encouraged to quantify the costs and benefits or any reporting requirement that may be established in this proceeding.

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

209. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include (among others) 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,

[575]

standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.

210. The Commission's primary objective is to secure the privacy of customer information collected by telecommunications carriers and stored in mobile communications devices. We seek comment on the burdens, including those placed on small carriers, associated with related Commission

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rules and whether the Commission should adopt different requirements for small businesses.

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

211. None.

**STATEMENT OF
CHAIRMAN KEVIN J. MARTIN**

Re: *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information; IP-Enabled Services*, Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 96-115 and WC Docket No. 04-36

The unauthorized disclosure of consumers' private calling records is a significant privacy invasion. Today, the Commission significantly strengthens the Commission's existing safeguards and takes a strong approach to protecting consumer privacy.

The Commission has taken numerous steps to combat these alarming breaches of the privacy of consumers' telephone records. We investigated so-called "data brokers" to determine how they are obtaining this information, and levied forfeitures against companies that failed to respond to our subpoenas and requests for information. We also investigated telecommunications carriers to determine whether they had implemented appropriate safeguards, and issued Notices of Apparent Liability against carriers that failed to comply with the Commission's rules.

The Order we adopt prohibits carriers from releasing over the phone sensitive personal data, call detail records, unless the customer provides a password, requires providers to notify customers immediately when changes are made to a customer's account and requires providers to notify their customers in the event of a breach of confidentiality. Service providers also must annually certify their compliance with these regulations, inform the Commission of any actions they have taken against data brokers, and provide a summary of the complaints they receive regarding the unauthorized release of CPNI. Today's action also ensures that law enforcement will have necessary tools to investigate and enforce illegal access to customer records.

While we work to create an environment in which market forces can thrive, the Commission must also act to protect consumers. With its strong approach to safeguarding consumer privacy, this item does just that. In particular, this item requires *express* consumer consent before a carrier may disclose a customer's phone records to joint venture partners or independent contractors for the purposes of marketing communications services. The former "opt-out" approach to customer consent, whereby a carrier may disclose a customer's phone records provided that a customer does not *expressly* withhold consent to such use, shifted too much of the burden to consumers, and has resulted in a much broader dissemination of consumer phone records. The "opt-in" approach adopted in this Order clearly is supported by the record, is consistent with applicable law, and directly advances our interest in protecting customer privacy.

Compliance with our consumer protection regulations is not optional for any telephone service provider. We need to take whatever actions are necessary to enforce these requirements to secure the privacy of personal and confidential information of American customers.

**STATEMENT OF
COMMISSIONER MICHAEL J. COPPS
APPROVING IN PART, DISSENTING IN PART**

Re: *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information; IP-Enabled Services*, Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 96-115 and WC Docket No. 04-36

Few rights are as fundamental as the right to privacy in our daily lives, but this cherished right seems under almost constant attack. As recent abuses by unscrupulous data brokers and others illustrate, the Commission's existing customer proprietary network information (CPNI) rules have not adequately protected individual privacy. Recognizing the seriousness of the threat, Congress recently made pretexting a federal crime. Now it is time for the Commission to step up to the plate and update its rules to protect consumers from the dangers that portend when personal information is turned over to telephone carriers.

Today we take action to protect the privacy of American consumers by imposing additional safeguards on how telephone carriers handle the vast amount of customers' personal information that they collect and hold. We require passwords before call detail information is released over the phone. We require carriers to provide notice to customers when changes occur to their accounts. Very importantly, we require carriers to obtain prior consent from their customers before providing personal information to their joint venture partners and independent contractors. My personal preference remains that a customer's private information should never be shared by a carrier with any entity for marketing purposes without a customer opting-in to the use of his or her personal information. But today's order strikes an acceptable balance – a balance that will give consumers more confidence that their personal data will not be shared with certain third parties with whom the carriers have attenuated oversight. In 2002 I disagreed with the Commission's decision not to implement opt-in requirements for the use of consumers' personal information. In light of recent and well-documented abuses of consumer privacy, this recalibration of our rules is the least that we should do, and I very much appreciate the Chairman's willingness to take these important steps.

There is one aspect of this order, however, from which I must respectfully dissent. The Commission adopts a process by which customers could be left totally uninformed of unauthorized access to their CPNI for 14 days after a carrier reasonably determines there has been a records breach. Worse, the FBI and the U.S. Secret Service would have the ability to keep victims of these unauthorized disclosures in the dark even longer, perhaps indefinitely. As some have described it, it is akin to not telling victims of a burglary that their home has been broken into because law enforcement needs to continue dusting for fingerprints.

While I have always recognized the legitimate interests of law enforcement to be notified when there has been unauthorized access to a customer's CPNI, I also believe that consumers need to know when their private information has been accessed. There may be circumstances in which a delayed notification regime would be reasonable, for example, when an investigation of a large-scale breach of a database might be compromised because mass notification via the media is required. The Commission, however, adopts a rule that, in my opinion, is needlessly overbroad. It fails to distinguish those exigent circumstances in which delayed notification is necessary from what I believe to be the majority of cases in which immediate notification to a victim is appropriate. I continue to believe that notification to the victim of unauthorized access to their personal information will often actually aid law enforcement because the violator is frequently someone well known to the victim. If an unauthorized individual has gained access to personal telephone records involving victims of stalking or spousal violence, it won't be the carrier or the law enforcement agency – but the victims – who are in the best position to know when and how harm may be heading toward them.

Given the scope of the procedures adopted here – procedures which pre-empt state consumer privacy protections to the extent that they require immediate notification to consumers when their privacy has been violated – the delayed notification proposal would have benefited from greater scrutiny and analysis, particularly with respect to law enforcement's apparent unfettered ability to extend the period of

non-notification. This seems especially important given the recent and troubling report by the Justice Department's own Inspector General raising serious questions as to whether the FBI properly followed the law in obtaining access to the telephone records of thousands of consumers. Our approach here requires more balance than the instant item provides.

Finally, while we make positive strides today, I look forward to taking prompt action on the proposals in the Further Notice regarding additional passwords, audit trails and data retention limits. When the stakes for misuse of our personal information are so high, the Commission must continue to be extraordinarily vigilant to ensure that the privacy of consumers is protected.

**STATEMENT OF
COMMISSIONER JONATHAN S. ADELSTEIN
APPROVING IN PART, DISSENTING IN PART**

Re: *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information; IP-Enabled Services, Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 96-115 and WC Docket No. 04-36*

Through this proceeding, we address an issue of immediate personal importance to American consumers, the protection of sensitive information that telephone companies collect about their customers. This information can include some of the most private personal information about an individual, and failure to safeguard it can result in highly invasive intrusions into both the personal and professional lives of consumers. When someone gets hold of who you are calling, and for how long, it is like letting strangers pick your brain about your friends, plans or business dealings. So, I am pleased to support much of this Order, which takes meaningful steps to shut off the information drain that has left so many customers exasperated.

Congress recognized the sensitivity of this information in the Telecommunications Act of 1996 when it prohibited phone companies from using or disclosing customer proprietary network information without the customer's approval. It charged the Commission with enforcing this privacy protection and the Commission previously adopted a set of rules designed to ensure that telephone companies have effective safeguards in place.

Today's action comes in response to the chorus of evidence detailing the need for greater privacy measures. Indeed, this proceeding flows from a petition filed by a watchful public interest group, the Electronic Privacy Information Center (EPIC), which alerted the FCC during the summer of 2005 to the troubling trend of telephone call records being made available on the Internet without customers' knowledge or consent. As EPIC then made clear to the Commission and as the record to this proceeding has borne out, disclosure of these records is far more than a mere annoyance; indeed, it can lead to tragic consequences.

So, our efforts here to strengthen our rules are critical and time sensitive. This Order takes several important steps tighten our rules and provide greater security for sensitive consumer records. Requiring more rigorous customer authentication, giving customers notice of account changes, and applying a more consumer-friendly approach to sharing of customer data should all serve to improve customers control over their private data. As documented by EPIC, the sheer volume of customer information illegally available for public consumption made clear just how porous the existing firewalls and safeguards have been. At the same time, the Commission strikes a balanced approach in this Order, giving consumers greater ability to control their own information while also giving companies a degree of flexibility in how they implement safeguards. In this regard, I would like to thank Chairman Martin and the Wireline Competition Bureau for their attention to this item. Their extra work to fine tune the rules we adopt here will surely improve their functioning for consumers and providers alike.

Although much of this Order does exactly what Congress contemplated – putting the customer in control – there is one critical aspect where this Order falls short. Despite the Order's conclusion that customers should have notice of unauthorized disclosure of customer information, this Order set up a process which can result in the unnecessary and even indefinite delay of consumer notification without any accountability. Under these rules, the Commission gives the Federal Bureau of Investigation a potentially open-ended ability to delay customer notification of security breaches. While I expect that the FBI will work as quickly as possible to identify any investigative issues, I find no statutory basis in the Act for granting the FBI a blank check to delay notice to customers. I can understand the need for delay in extraordinary circumstances identified by law enforcement, but automatic delays coupled with unlimited and unchecked extensions are not appropriate. Particularly given that timely notice to consumers may be essential for those customers to take protective action, I must dissent from this portion of the Order.

Finally, even as we work here to improve our rules and as Congress considers additional

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safeguards, we must also re-double our efforts to address abuses of this private information. Swift enforcement action against companies that are violating our rules will be essential if we are to live up to our duty under the Act to protect customers' sensitive and private information.

**STATEMENT OF
COMMISSIONER DEBORAH TAYLOR TATE**

Re: *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information; IP-Enabled Services, Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 96-115 and WC Docket No. 04-36*

I have said time and again that the brokerage of personal information – whether it be personal identity, financial records, or a list of phone calls – is intolerable. “Pretexting” is nothing more than stealing; robbing consumers in a variety of slick ways of their most personal information. Indeed the law places a duty on telecommunications providers to protect this information and today, we take important steps to better secure private customer telephone records.

While I generally prefer market-based solutions to government intervention, I agree with my colleagues that the widespread actions of pretexters to obtain this type of personal customer information from carriers, required this action on our part.

I fully support strict requirements governing treatment of this sensitive data. However, I hope that the broad scope of our actions will not impact the ability of both companies and consumers to benefit from marketing information which may lead to lower prices or competitive bundled packages. An approach limiting the very strict “opt-in” obligations only to call detail records may have cured the problem at hand in a less burdensome manner.

In the end, however, customer privacy must take precedence. I am pleased that the rules we adopt today will go a long way towards closing off the avenues that information snatchers have repeatedly used to violate the privacy of consumer phone records.

**STATEMENT OF
COMMISSIONER ROBERT M. McDOWELL**

Re: *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information; IP-Enabled Services*, Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 96-115 and WC Docket No. 04-36

Pretexting has become the biggest threat to consumer security in the Information Age. Today's action further enhances the Commission's ability to protect consumers from these advanced fraudulent practices by strengthening our existing rules. Among the new requirements imposed on carriers, the decision prohibits carriers from releasing call detail information during customer-initiated telephone calls except when the customer provides a password. It also precludes carriers from disclosing CPNI to independent contractors and joint venture partners without the customer's specific consent, and requires carriers to notify customers of all account changes and unauthorized disclosures of CPNI.

We must take all necessary steps to protect unauthorized disclosure of this sensitive data, keeping in mind that pretexters are constantly trying new techniques to defraud consumers. In view of the pretexters' malevolent intent, the Commission will vigilantly pressure carriers to take precautions to stay ahead of the pretexters. However, our rules should strike a careful balance and should also guard against imposing over-reaching and unnecessary requirements that could cause unjustified burdens and costs on carriers. In the spirit of finding that balance, the *Further Notice* seeks comment on possible additional protections against unauthorized disclosure of CPNI. I look forward to reviewing the comments on those proposals.

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As used in this Order, "pretexting" is the practice of pretending to be a particular customer or other authorized person in order to obtain access to that customer's call detail or other private communications records. Indeed, Congress has responded to the problem by making pretexting a criminal offense subject to fines and imprisonment. Telephone Records and Privacy Protection Act of 2006, Pub. L. No. 109-476, 120 Stat. 3568 (2007) (codified at 18 U.S.C. § 1039).

[2]

CPNI includes personally identifiable information derived from a customer's relationship with a provider of communications services. Section 222 of the Communications Act of 1934, as amended (Communications Act, or Act), establishes a duty of every telecommunications carrier to protect the confidentiality of its customers' CPNI. 47 U.S.C. § 222. Section 222 was added to the Communications Act by the Telecommunications Act of 1996. Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified at 47 U.S.C. §§ 151 *et seq.*).

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This Order also extends the CPNI requirements to interconnected VoIP service providers. *See infra* Section IV.F. As used in this Order, the terms "communications carriers" and "carriers" refer to telecommunications carriers and providers of interconnected VoIP service.

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Prior to the 1996 Act, the Commission had established CPNI requirements applicable to the enhanced services operations of AT&T, the Bell Operating Companies (BOCs), and GTE, and the customer premises equipment (CPE) operations of AT&T and the BOCs, in the Computer II, Computer III, GTE Open Network Architecture (ONA), and BOC CPE Relief proceedings. *See Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information and Implementation of Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as amended*, CC Docket Nos. 96-115 and 96-149, Second Report and Order and Further Notice of Proposed Rulemaking, 13 FCC Rcd 8061, 8068-70, para. 7 (1998) (*CPNI Order*) (describing the Commission's privacy protections for confidential customer information in place prior to the 1996 Act).

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Petition of the Electronic Privacy Information Center for Rulemaking to Enhance Security and Authentication Standards for Access to Customer Proprietary Network Information, CC Docket No. 96-115 (filed Aug. 30, 2005)

(EPIC Petition).

[6]

Section 222(a) imposes a general duty on telecommunications carriers to protect the confidentiality of proprietary information – a duty owed to other carriers, equipment manufacturers, and customers. 47 U.S.C. § 222(a). Section 222(b) states that a carrier that receives or obtains proprietary information from other carriers in order to provide a telecommunications service may only use such information for that purpose and may not use that information for its own marketing efforts. 47 U.S.C. § 222(b). Section 222(c) outlines the confidentiality protections applicable to customer information. 47 U.S.C. § 222(c). Section 222(d) delineates certain exceptions to the general principle of confidentiality. 47 U.S.C. § 222(d). The Commission addressed the scope of section 222(e) in the *Subscriber List Information Order* and *Order on Reconsideration. Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Provision of Directory Listing Information Under the Telecommunications Act of 1934, as amended*, CC Docket Nos. 96-115, 96-98, and 99-273, Third Report and Order, Second Order on Reconsideration, and Notice of Proposed Rulemaking, 14 FCC Rcd 15550 (1999) (*Subscriber List Information Order*), on reconsideration, CC Docket No. 96-115, Memorandum Opinion and Order on Reconsideration, 19 FCC Rcd 18439 (2004) (*Order on Reconsideration*).

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The Commission's previous orders in this proceeding have addressed three general categories of customer information to which different privacy protections and carrier obligations apply pursuant to section 222: (1) individually identifiable CPNI, (2) aggregate customer information, and (3) subscriber list information. *See, e.g., CPNI Order*, 13 FCC Rcd 8061; *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Provision of Directory Listing Information Under the Telecommunications Act of 1934, as amended*, CC Docket Nos. 96-115, 96-98, and 99-273, Order on Reconsideration and Petitions for Forbearance, 14 FCC Rcd 14409 (1999) (*CPNI Reconsideration Order*); *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Provision of Directory Listing Information Under the Telecommunications Act of 1934, as amended*, CC Docket Nos. 96-115, 96-98, and 99-273, Clarification Order and Second Further Notice of Proposed Rulemaking, 16 FCC Rcd 16506 (2001); *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information and Implementation of Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as amended; 2000 Biennial Regulatory Review – Review of Policies and Rules Concerning Unauthorized Changes of Consumers' Long Distance Carriers*, Third Report and Order and Third Further Notice of Proposed Rulemaking, CC Docket Nos. 96-115, 96-149, and 00-257, 17 FCC Rcd 14860 (2002) (*Third Report and Order*).

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47 U.S.C. § 222(h)(1).

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47 U.S.C. § 222(a).

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See, e.g., Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information, CC Docket No. 96-115, Declaratory Ruling, 21 FCC Rcd 9990 (2006) (clarifying that section 222 does not prevent a telecommunications carrier from complying with the obligation in 42 U.S.C. § 13032 to report violations of specific federal statutes relating to child pornography).

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47 U.S.C. § 222(c)(1). Subsequent to the adoption of section 222(c)(1), Congress added section 222(f). Section 222(f) provides that for purposes of section 222(c)(1), without the “express prior authorization” of the customer, a customer shall not be considered to have approved the use or disclosure of or access to (1) call location information concerning the user of a commercial mobile service or (2) automatic crash notification information of any person other than for use in the operation of an automatic crash notification system. 47 U.S.C. § 222(f).

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See CPNI Order, 13 FCC Rcd at 8101-02, para. 53.

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47 U.S.C. § 222(c)(2).

[14]

See *CPNI Order*, 13 FCC Rcd 8061.

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The Commission summarized the history of the CPNI proceeding in the *Third Report and Order*. See *Third Report and Order*, 17 FCC Rcd at 14863-72, paras. 5-25.

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As the Commission discussed in the *CPNI Order*, “the language of section 222(c)(1)(A) and (B) reflects Congress’ judgment that customer approval for carriers to use, disclose, and permit access to CPNI can be inferred in the context of an existing customer-carrier relationship. This is so because the customer is aware that its carrier has access to CPNI, and, through subscription to the carrier’s service, has implicitly approved the carrier’s use of CPNI within that existing relationship.” *CPNI Order*, 13 FCC Rcd at 8080, para. 23 (introducing the “total service approach” to define the boundaries of a customer’s implied consent concerning use of CPNI); see also 47 C.F.R. § 64.2005(a).

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47 C.F.R. § 64.2007(b); but see *infra* Section IV.D. (modifying this disclosure requirement to require customer opt-in consent). A customer is deemed to have provided “opt-out approval” if that customer has been given appropriate notification of the carrier’s request for consent consistent with the Commission’s rules and the customer has failed to object to such use or disclosure within the waiting period described in section 64.2008(d)(1) of the Commission’s rules, a minimum of 30 days. 47 C.F.R. § 64.2003(i); see also 47 C.F.R. § 64.2008(d)(1). Under the Commission’s rules, carriers must also receive a customer’s opt-out approval before intra-company use of CPNI beyond the total service approach. 47 U.S.C. § 64.2005(a), (b). Except as required by law, carriers may not disclose CPNI to third parties, or to their own affiliates that do not provide communications-related services, unless the consumer has given opt-in consent, which is express written, oral, or electronic consent. 47 C.F.R. §§ 64.2005(b), 64.2007(b)(3), 64.2008(e); see also 47 C.F.R. § 64.2003(h) (defining “opt-in approval”).

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47 U.S.C. § 222(c)(2); see also, e.g., *CPNI Order*, 13 FCC Rcd at 8101-02, para. 53; 47 C.F.R. § 2005(b)(3) (prohibiting the disclosure of CPNI without opt-in consent except as permitted by section 222 of the Act or the Commission’s rules).

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See *CPNI Order*, 13 FCC Rcd at 8195, para. 193.

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47 C.F.R. § 64.2009(a); see also *CPNI Order*, 13 FCC Rcd at 8198, para. 198.

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47 C.F.R. § 64.2009(b); see also *CPNI Order*, 13 FCC Rcd at 8198, para. 198.

[22]

47 C.F.R. § 64.2009(c); see also *CPNI Order*, 13 FCC Rcd at 8198-99, para. 199.

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47 C.F.R. § 64.2009(d); see also *CPNI Order*, 13 FCC Rcd at 8199, para. 200.

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47 C.F.R. § 64.2009(e); see also *CPNI Reconsideration Order*, 14 FCC Rcd at 14468 n.331 (clarifying that carriers must “make these certifications available for public inspection, copying and/or printing at any time during regular business hours at a centrally located business office of the carrier”). The Commission’s rules also require carriers to notify the Commission in writing within five business days of any instance in which the opt-out mechanisms did not work properly, to such a degree that consumers’ inability to opt-out is more than an anomaly. 47 C.F.R. § 64.2009(f); see *Third Report and Order*, 17 FCC Rcd at 14910-11, paras. 114-15 (adopting such requirement).

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See *IP-Enabled Services*, WC Docket No. 04-36, Notice of Proposed Rulemaking, 19 FCC Rcd 4863 (2004) (*IP-Enabled Services Notice*).

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IP-Enabled Services Notice, 19 FCC Rcd at 4910, para. 71.

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See EPIC Petition.

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See *id.*

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Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information; Petition for Rulemaking to Enhance Security and Authentication Standards for Access to Customer Proprietary Network Information, CC Docket No. 96-115, Notice of Proposed Rulemaking, 21 FCC Rcd 1782 (2006) (*EPIC CPNI Notice* or *Notice*).

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See *id.* at 1793, para. 29.

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For example, the Enforcement Bureau issued Notices of Apparent Liability against Cbeyond Communications, LLC, Alltel Corporation, and AT&T for each failing to certify that they had established operating procedures adequate to ensure compliance with the Commission's rules governing the protection and use of CPNI. *Cbeyond Communications, LLC*, Notice of Apparent Liability for Forfeiture, 21 FCC Rcd 4316 (2006); *Alltel Corporation*, Notice of Apparent Liability for Forfeiture, 21 FCC Rcd 746 (2006); *AT&T, Inc.*, Notice of Apparent Liability for Forfeiture, 21 FCC Rcd 751 (2006). Additionally, AT&T recently notified the Commission that it failed to send its CPNI "opt-out" notice to 1.2 million customers resulting in the marketing to customers who may have otherwise opted out. See Letter from Davida M. Grant, Senior Counsel, AT&T Inc., to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 (filed Nov. 3, 2006) (AT&T CPNI Notification). Recent investigations by law enforcement authorities, including the Chicago Police Department and Federal Bureau of Investigation (FBI), have documented the ease with which a party, without proper authorization, may obtain the confidential calling records of consumers. See Law Enforcement and Phone Privacy Protection Act of 2006, H.R. Rep. No. 109-395, 109th Cong. 2d Sess. 2 (2006) (citing Frank Main, *Anyone Can Buy Cell Phone Records: Online Services Raise Security Concerns for Law Enforcement*, Chi. Sun-Times, January 5, 2006, at A3). For instance, a Chicago police official obtained call records of an undercover narcotics officer's telephone number, and received accurate call records within four hours of the request. See Prevention of Fraudulent Access to Phone Records Act, H.R. Rep. No. 109-398, 109th Cong. 2d Sess. 2 (2006); Frank Main, *Anyone Can Buy Cell Phone Records: Online Services Raise Security Concerns for Law Enforcement*, Chi. Sun Times, Jan. 5, 2006, at A3. In 1999, law enforcement authorities discovered that an information broker sold a Los Angeles detective's pager number to an Israeli mafia member who was trying to determine the identity of the detective's confidential information. See Frank Main, *Cell Call Lists Reveal Your Location: Anybody Can Pay to Track Where You Used Phone*, Chi. Sun Times, Jan. 19, 2006, at A3. Citizens themselves have also testified to the ease with which a pretexter can navigate easily around the carriers' authentication systems. For example, a political Internet blogger purchased the cell phone records of former presidential candidate General Wesley Clark. See Frank Main, *Blogger Buys Presidential Candidate's Call List: "Nobody's Records Are Untouchable," as \$90 Purchase Online Shows*, Chi. Sun-Times, January 13, 2006, at A10. Journalist Christopher Byron also testified before Congress about his own battle with pretexters, stating that pretexters repeatedly called AT&T pretending to be him or his wife and asking for his phone records, which the pretexter was able to obtain. See *Internet Data Brokers and Pretexting: Who Has Access to Your Private Records?: Hearings Before the Subcommittee on Oversight and Investigations of the H. Comm. on Energy and Commerce*, 109th Cong. (Sept. 29, 2006) (testimony of Christopher Byron).

[32]

See Attorneys General Comments at 3 (identifying multiple filed lawsuits). All comments and reply comments cited in this Order refer to comments and reply comments cited in CC Docket No. 96-115 unless otherwise stated.

[33]

See, e.g., *Cingular Wireless LLC v. Data Find Solutions, Inc.*; *James Kester*; *1st Source Information Specialists Inc.*; *Kenneth W. Gorman*; *Steven Schwartz*; *John Does 1-100*; and *XYZ Corps. 1-100*, Case No. 1:05-CV-3269-CC (N.D. Ga. filed Dec. 23, 2005); *Cingular Wireless LLC v. Efindoutthetruth.com, Inc.*; *Lisa Loftus*; *Tiffany Wey*; *North American Services, LLC d/b/a North American Information*; *Tom Doyle*; *John Does 1-100*; and *XYZ Corps. 1-100*, Case No. 1:05-CV-3268-ODE (N.D. Ga. filed Dec. 23, 2005); *Cingular Wireless LLC v. Global Information Group, Inc.*; *GIG Liquidation, Inc. f/k/a Global Information Group*; *Bureau of Heirs, Inc.*; *Edward Herzog*; *Laurie Misner*; *Robin Goodwin*; *John Does 1-100*; and *XYZ Corps. 1-100*, Case No. 1:06-CV-0413-TWT (N.D. Ga. filed Feb. 23,

2006); *Cingular Wireless LLC v. Get A Grip Consulting, Inc.*; *Paraben Corporation d/b/a Get A Grip Software Publishing*; *Robert Schroeder*; *John Does 1-100*; and *XYZ Corps. 1-100*, Case No. 1:06-CV-0498 (N.D. Ga. filed Mar. 2, 2006).

[34]

See, e.g., *Sprint Nextel Corp. d/b/a Sprint Nextel v. Ist Source Information Specialists, Inc., et al.*, Case No. 06001083 (02) (Broward County, Florida Cir. Ct. filed Jan. 26, 2006); *Sprint Nextel Corp. d/b/a Sprint Nextel v. All Star Investigations, Inc., et al.*, Case No. 06 01736 (Miami-Dade County, Florida Cir. Ct. filed Jan. 27, 2006); *Sprint Nextel Corp. d/b/a Sprint Nextel v. San Marco & Associates Private Investigation, Inc., et al.*, Case No. 8:06-CV-00484-T-17TGW (MD. Fla. filed March 17, 2006).

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See, e.g., *T-Mobile USA, Inc. v. C.F. Anderson et al.*, Cause No. 06-2-04163 (King County Super. Ct. Feb. 2, 2006) (Stipulated Order and Permanent Injunction); *T-Mobile USA, Inc. v. 1st Source Information Services, et al.*, Case No. 06-2-03113-0 SEA (King County Super. Ct. May 22, 2006) (Final Order and Judgment); *T-Mobile USA, Inc. v. AccuSearch, et al.*, Case No. 06-2-06933-1 SEA (King County Super. Ct. filed May 18, 2006) (Stipulated Order of Injunction).

[36]

See, e.g., *Cellco Partnership d/b/a Verizon Wireless v. Source Resources*, Permanent Injunction on Consent, Docket No. SOM-L-1013-05 (Sup. Ct. of N.J.; Law Div.: Somerset County Sept. 13, 2005); *Cellco Partnership d/b/a Verizon Wireless v. Global Information Group, Inc., et al.*, Order, No. 05-09757 (Fla. Cir. Ct., 13th Judicial Circuit, Hillsborough County, Nov. 2, 2005); *Cellco Partnership d/b/a Verizon Wireless v. Data Find Solutions, Inc., et al.*, Order, No. 06-CV-326 (SRC) (D.N.J., Jan. 31, 2006).

[37]

See Matt Richtel and Miguel Helft, *An Industry Is Based on a Simple Masquerade*, N.Y. Times, Sept. 11, 2006, at C1; see also Charles Toutant, *Verizon Wireless Suing 'Pretexters' Who Gain Access to Customer Data*, 186 N.J.L.J. 976 (2006); Marguerite E. Patrick, *Lessons Learned: Issues Exposed in the Aftermath of the Hewlett-Packard Debacle*, 1 Privacy & Data Protection Leg. Rep. 1 (October 2006); *Internet Data Brokers and Pretexting: Who Has Access to Your Private Records?: Hearings Before the Subcommittee on Oversight and Investigations of the H. Comm. on Energy and Commerce*, 109th Cong. (Sept. 26, 2006) (testimony of Michael Holden).

[38]

See H.R. Rep. 109-398 at 2.

[39]

See *Internet Data Brokers and Pretexting: Who Has Access to Your Private Records?: Hearings Before the Subcommittee on Oversight and Investigations of the H. Comm. on Energy and Commerce*, 109th Cong. 1 (Sept. 29, 2006) (testimony of the Joel Winston, Federal Trade Commission) (citing *FTC v. Info Search, Inc.*, No. 1:06-CV-01099-AMD (D. Md. filed May 1, 2006); *FTC v. Accusearch, Inc. d/b/a Abika.com*, No. 06-CV-0105 (D. Wyo. filed May 1, 2006); *FTC v. CEO Group, Inc. d/b/a Check Em Out*, No. 06-60602 (S.D. Fla. filed May 1, 2006); *FTC v. 77 Investigations, Inc.*, No. EDCV06-0439 VAP (C.D. Cal. filed May 1, 2006); *FTC v. Integrity Sec. & Investigation Servs., Inc.*, No. 2:06-CV-241-RGD-JEB (E.D. Va. filed May 1, 2006)).

[40]

See, e.g., *California v. Data Trace USA Inc.*, No. GIC862672 (Cal. Super. Ct. filed Mar. 14, 2006).

[41]

See, e.g., *Florida v. 1st Source Information Specialists, Inc.*, No. 37-2006-CA-00234 (Fla. Cir. Ct. filed Jan. 24, 2006); *Florida v. Global Information Group, Inc., et al.*, No. 06-1570 (Fla. Cir. Ct. filed Feb. 24, 2006).

[42]

See, e.g., *Illinois v. 1st Source Information Specialists, et al.*, No. 2006-CH-29 (Ill. Cir. Ct. filed Jan. 20, 2006); see also Press Release, Office of the Attorney General, Madigan Sues Second Company that Sells Cell Phone Records (Mar. 15, 2006), available at www.ag.state.il.us/pressroom/2006_03/20060315c.html (announcing the filing of a law suit against a Florida company that allegedly obtained and sold phone records without customer consent).

[43]

See, e.g., *Missouri v. Data Trace USA, Inc., et al.*, No. 06AC-CC-00158 (Mo. Cir. Ct. filed Mar. 3, 2006); see also Press Release, Missouri Attorney General's Office, *Locatecell.com must stop selling cell phone records of*

Missourians, under court order obtained by Nixon (Feb. 15, 2006), available at www.ago.mo.gov/newsreleases/2006/021506.htm (announcing the issuance of a court order to stop the sale of Missourians' cell phone records by several people currently or formerly associated with the website Locatecell.com).

[44]

See, e.g., Texas v. John Strange d/b/a USA Skiptrace.com, No. 06-1666 (Tex. Dist. Ct. Travis County filed Feb. 9, 2006); *see also* Press Release, Attorney General of Texas, *Attorney General Abbott Files First Suit Against Sellers of Private Phone Records* (Feb. 9, 2006), available at <http://www.oag.state.tx.us/oagnews/release.php?id=1449>.

[45]

“Call detail” or “call records” includes any information that pertains to the transmission of specific telephone calls including, for outbound calls, the number called, and the time, location, or duration of any call and, for inbound calls, the number from which the call was placed, and the time, location, or duration of any call. *See, e.g., Third Report and Order*, 17 FCC Rcd at 14864, para. 7. Remaining minutes of use is an example of CPNI that is not call detail information. We disagree with commenters that argue we should adopt a more narrow definition of call detail; a narrower definition that included only inbound or outbound telephone numbers would make it too easy for unauthorized persons with partial information to confirm and expand on that information. *See, e.g., Letter from Jim Halpert, Counsel to the Anti-Pretexting Working Group, DLA Piper, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 Attach. at 2* (filed Oct. 31, 2006); *Letter from William F. Maher, Jr., Counsel for T-Mobile USA, Inc., to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 at 1* (filed Nov. 30, 2006); *Letter from Charon Phillips, Verizon Wireless, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 at 1* (filed Dec. 1, 2006).

[46]

See, e.g., Letter from Donna Epps, Vice President Federal Regulatory, Verizon, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 (filed Nov. 20, 2006) (arguing that any password requirement should only apply to accessing call detail information). By limiting our rules to the disclosure of call detail information, we believe that we have narrowly tailored our requirements to address the problem of pretexting. *See, e.g., AT&T Reply at 2* (arguing that the Commission should ensure that any measures taken are “narrowly tailored to address a demonstrated problem”); *Letter from Donna Epps, Vice President, Federal Regulatory, Verizon, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 at Attach. (filed Jan. 29, 2007) (Verizon Jan. 29, 2007 Ex Parte Letter)* (stating that password protecting call detail records “is a narrowly tailored solution” that “directly targets the means and methods used by pretexters”). We also limit the requirements we impose in this section to customer-initiated contact with the carrier. We find that there is not the same need for authentication when the carrier initiates contact with a customer via the telephone number of record or via the address of record. By “telephone number of record,” we mean the telephone number associated with the underlying service, rather than some other telephone number supplied as a customer’s “contact information.” By “address of record,” whether postal or electronic, we mean an address that the carrier has associated with the customer’s account for at least 30 days. Requiring that the address be on file for 30 days will foreclose a pretexter’s ability to change an address of record for the purpose of being sent call detail information immediately.

[47]

We understand that many consumers may not like passwords and thus we only extend the use of password protection of call detail information during customer-initiated telephone calls. *See, e.g., AT&T Comments at 8-11* (noting studies that demonstrate customers are opposed to mandatory passwords; Centennial Comments at 3-4 (arguing that customers find passwords burdensome). Further, for those customers not interested in password protection, we provide other alternatives for carrier disclosure of call detail information that directly advance our goal of protecting against pretexter activity and will not unduly burden carrier-customer relations.

[48]

This exception to the disclosure of call detail information in no way alters a carrier’s usual practice of sending monthly billing statements to the customer.

[49]

See supra note 46 (defining “telephone number of record”). We find that it is necessary for the carrier to call the customer at the telephone number of record, rather than rely on caller ID as an authentication method, because pretexters can easily replicate caller ID numbers. *See, e.g., Alltel Comments at 5.*

[50]

Although we do not enact password protection for non-call detail CPNI in this Order, carriers are still subject to section 222’s duties to protect CPNI, and thus a carrier must authenticate a customer prior to disclosing non-call detail CPNI. *See* 47 U.S.C. § 222; *see also* Verizon Wireless Comments at 9 (arguing that “passcodes” can lead to a frustrating experience for customers seeking answers to simple billing questions). We rely on carriers to determine

the authentication method for the release of non-call detail CPNI that is appropriate for the information sought and which adheres to section 222's duty. However, we seek comment on whether the Commission should impose password protection on non-call detail CPNI in today's Further Notice. *See infra* Section V.A.

[51]

See, e.g., Alltel Comments at 5; Cingular Comments at 13; Dobson Comments at 2; Sprint Nextel Comments at 4-5; *see also* Testimony of James Rapp, House Energy and Commerce Committee, Subcommittee on Oversight and Investigations Hearing: "Internet Data Brokers and Pretexting: Who Has Access to Your Private Records?" Attach. A (June 21, 2006) (setting forth an outline of a training manual on how to obtain call detail and other personal information), *available at* <http://energycommerce.house.gov/108/Hearings/06212006hearing1916/Rapp.pdf>; Brad Stone, *A 'Pretexter' and His Tricks: Phone Records Are a Snap to Snag. Just Ask David Gandal*, NEWSWEEK, Sept. 10, 2006, at 43 (interviewing a pretexter who explains how pretexting is accomplished); *supra* para. 12 and accompanying notes (identifying lawsuits alleging pretexting activity).

[52]

Specifically, the Attorneys General state that data brokers consistently demonstrate that they can obtain almost any type of personal information, including social security numbers and mother's maiden name, which carriers currently use to authenticate a customer. *See, e.g.*, Attorneys General Comments at 15; *see also* EPIC *et al.* Comments at 12.

[53]

Customers requiring instant access to call detail information also have the option of accessing such data online in the protected manner described in Section IV.A.2, or by visiting a carrier's retail location with a valid photo ID as described in Section IV.A.3.

[54]

See, e.g., Virgin Mobile Reply at 4 (mandating that customers select a password at the time of the service activation process). By "new customers," we include only those customers that establish service after the effective date of our rules.

[55]

"Readily available biographical information" includes such things as the customer's social security number, or the last four digits of that number; the customer's mother's maiden name; a home address; or a date of birth. *See, e.g.*, EPIC Petition at 8; *see also* AT&T Comments at 3 (noting that authenticating customers by relying "solely on a customer's name, address and/or phone number may be insufficient" and that the Commission could reasonably conclude "that all carriers should authenticate a customer's identity using non-public information prior to releasing CPNI"); *id.* at 7 (finding that authenticating the customer based on non-public information would impose "little additional cost").

[56]

See, e.g., EPIC Reply at 2. "Account information" includes such things as account number or any component thereof, the telephone number associated with the account, or amount of last bill.

[57]

A carrier could also use a Personal Identification Number (PIN) method to authenticate the customer. A PIN authentication method could entail a carrier supplying the customer with a randomly-generated PIN, not based on readily available biographical information, or account information, which the customer would then provide to the carrier prior to establishing a password. Carriers could supply the PIN to the customer by a carrier-originated voicemail or text message to the telephone number of record, or by sending it to an address of record so as to reasonably ensure that it is delivered to the intended party. *See, e.g.*, Letter from William F. Maher, Jr., Counsel for T-Mobile USA, Inc., Morrison & Foerster, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 at 2 (filed Nov. 20, 2006) (providing customers with a temporary password by sending it to the customer's mobile phone number). A carrier cannot authenticate a customer by sending the customer a PIN (or any other type of carrier chosen method of authentication) to new contact information that the customer provides at the time of the customer's PIN (or other authentication) request. Carriers could also authenticate the customer by requesting that the customer present a valid photo ID at a carrier's retail location. A "valid photo ID" is a government-issued personal identification with a photograph such as a current driver's license, passport, or comparable ID.

[58]

See, e.g., Sprint Nextel Reply at 7 (noting that most carriers already allow customers to choose password protection); Letter from Donna Epps, Vice President, Federal Regulatory, Verizon, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 at 2 (filed Dec. 22, 2006) (Verizon Dec. 22, 2006 *Ex Parte* Letter) (noting that Verizon already permits its customers to password protect telephone account access).

[59]

We agree with commenters that assert that individuals tend to choose passwords that are based on personal information and therefore pretexters can easily circumvent password protections. *See, e.g.*, Verizon Wireless Comments at 9; Sprint Nextel Reply at 8. To prevent this, we prohibit carriers from using prompts to request the customer's password based on readily available biographical information, or account information. If a customer cannot provide the correct password and the carrier does not offer a back-up authentication method to access call detail, the carrier must reauthenticate the customer. A carrier cannot disclose call detail information over the telephone during a customer-initiated telephone call until the carrier is able to reauthenticate the customer without the use of readily available biographical information, or account information.

[60]

See, e.g., Verizon Wireless Comments at 9.

[61]

See, e.g., Letter from Cynthia R. Southworth, Director of the Safety Net Project, National Network to End Domestic Violence, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 at 2 (filed Nov. 30, 2006) (NNEDV Nov. 30, 2006 *Ex Parte* Letter). We do not require carriers to adopt a specific back-up authentication method because we believe that by directing carriers to do so we might make it easier for pretexters to defeat the protections we adopt in this Order. *See, e.g.*, Verizon Wireless Reply at 9. If a customer cannot provide the correct response to the back-up authentication method to access call detail, the carrier must reauthenticate the customer. A carrier cannot disclose call detail information over the telephone during a customer-initiated telephone call until the carrier is able to reauthenticate the customer without the use of readily available biographical information, or account information.

[62]

See Attorneys General Comments at 16; *see also* Ohio PUC Comments at 9-10. A shared secret is one or more question-answer combinations that are known to the customer and the carrier but are not widely known. Thus, if the customer lost or forgot a password, the carrier could provide the pre-selected shared secret question, or set of shared secret questions, to the customer for authentication purposes.

[63]

See, e.g., Virgin Mobile Reply at 5 n.3 (allowing the customer to create their own back-up authentication question).

[64]

The customer may also access call detail information by establishing an online account or by visiting a carrier's retail location. *See infra* Sections IV.A.2 and IV.A.3.

[65]

See, e.g., BellSouth Comments at 16 (noting the use of an optional customer-provided password for the release of CPNI over the telephone).

[66]

See Verizon Dec. 22, 2006 *Ex Parte* Letter at 5 (arguing that "any password requirement would have to be narrowly crafted to address the specific problem of pretexters fraudulently obtaining call detail information").

[67]

See, e.g., Letter from Charon Phillips, Verizon Wireless, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 at 1 (filed Dec. 1, 2006) (raising concerns about a carrier's ability to serve customers during customer service calls).

[68]

See, e.g., Letter from William F. Maher, Jr., Counsel for T-Mobile USA, Inc., to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 at 2 (filed Nov. 20, 2006); Verizon Dec. 14, 2006 *Ex Parte* Letter at 2.

[69]

See, e.g., Letter from John T. Scott, III, Vice President & Deputy General Counsel Regulatory Law, Verizon Wireless, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 at 1 (filed Oct. 18, 2006) (Verizon Wireless Oct. 16 *Ex Parte* Letter) (arguing that carriers should require passwords for online access to CPNI); Verizon Dec. 22, 2006 *Ex Parte* Letter at 2 (supporting a proposal to require password protection for customer online account access because passwords are "routine and readily accepted by customers" in the online environment). We do not limit our online account access rules to just call detail because online account access presents a heightened security risk. Specifically, online account access allows a customer (or pretexter) to view and change personal information easily

(including online passwords, addresses of record, and billing information) without carrier assistance. During a telephone conversation with the customer, a carrier is able to authenticate a customer and sense whether the customer is who he claims to be. In the online context, however, there is no person-to-person contact (or limited interactive voice recognition menu) and thus a pretexter, if he were able to circumvent online password protection, could obtain significant amounts of a customer's private information (including home address, plan information, billing information, and call detail records for months at a time) with only the click of a mouse. Thus, we believe that we must extend our online account access rules to include the disclosure of all CPNI to protect customer privacy. Furthermore, most carriers already require password protection for online accounts. *See, e.g., Verizon Dec. 22, 2006 Ex Parte Letter at 2.* They do not differentiate their online account systems between access to call detail information and non-call detail CPNI, and requiring them to do so likely would impose significant costs. For these reasons, we find that our requirements in the online context are no more extensive than necessary to protect consumers' privacy. *See Central Hudson Gas & Elec. Corp. v. Public Service Comm'n of N.Y., 447 U.S. 557, 564-65 (1980).*

[70]

See 47 U.S.C. § 222(a) (stating that "[e]very telecommunications carrier has a duty to protect the confidentiality of proprietary information of, and relating to . . . customers").

[71]

For instance, pretexters have been able to access CPNI by deceiving customer service representatives or by exploiting security gaps in customers' online accounts. *See, e.g., EPIC Petition, Appendix C* (providing a list of 40 web sites offering to sell CPNI to third parties); Attorneys General Comments at 3 (describing pretexters' use of online account access).

[72]

See, e.g., EPIC Petition at 8, 11; see also supra para. 12 and accompanying notes.

[73]

See, e.g., EPIC Petition at 8. The record in this proceeding reveals other holes in carriers' existing authentication measures, such as authenticating a customer's identity through information the carrier readily provides to any person purporting to be the customer without authentication, thus enabling a pretexter to obtain online access to CPNI by first calling the carrier to obtain the information. The requirements we adopt in this Order fix such flaws.

[74]

See, e.g., EPIC et al. Comments at 12-13 (explaining that biographical identifiers are widely available on websites and easily obtained by pretexters); Centennial Reply at 6 (stating that biographical information like social security number can be found on the Internet).

[75]

For new customers, a carrier could request that a customer establish an online password at the time of service initiation. *See supra* note 54. Alternatively, for all customers, a carrier could use a PIN method, as described above, to authenticate a customer if necessary. *See supra* note 56.

[76]

Although we do not mandate what specific level of password protection carriers must provide for their customers for online access, we expect carriers to ensure that online access to CPNI is adequately password protected. For example, we believe it would be reasonable for carriers to block access to a customer's account after repeated unsuccessful attempts to log in to that account to prevent hackers from using a so-called "brute force attack" to discover account passwords. Carriers may also determine the password format they deem appropriate. For example, carriers may decide the length of the password, whether or not the password should be case-sensitive, or whether the password should require a mix of numerals, letters, and other symbols.

[77]

See supra note 60.

[78]

See supra Section IV.A.1. For existing online accounts, although we do not mandate that a carrier reinitialize those accounts, if a carrier provides a back-up authentication method that is not in conformance with this Order (*i.e.,* the method is based on carrier prompts for readily available biographical information, or account information), then a carrier must modify its back-up authentication method to comply with this Order.

[79]

This requirement extends to all online accounts regardless of whether the online account access existed prior to the effective date of these rules.

[80]

A “valid photo ID” is a government-issued personal identification with a photograph such as a current driver’s license, passport, or comparable ID.

[81]

See, e.g., Cingular Comments at 18 (requiring a photo ID before providing a customer a print of the bill at a retail location).

[82]

See Attorneys General Comments at 16.

[83]

A customer response to a carrier-designed back-up means of authentication is the customer’s pre-selected answer to the carrier’s back-up authentication method in the event that the customer lost or forgot his password.

[84]

This notification process is not required when the customer initiates service, including the selection of a password at service initiation.

[85]

See New Jersey Ratepayer Advocate Comments at 4; *see also* Alltel Comments at 5 (noting that notice of certain account changes may protect subscriber’s security); Ohio PUC Comments at 10 (asserting that providing notice to customers of changed passwords is an effective strategy for protecting CPNI).

[86]

See, e.g., Verizon Dec. 22, 2006 *Ex Parte* Letter at 6 (arguing against a “one-size-fits-all” requirement for notifying customers of account changes on First Amendment grounds). To protect the security of the potential victim of pretexting, such notification must not reveal the changed account information. Additionally, a carrier may not notify the customer of account changes by sending notice to the new account information, which might result in the customer not being notified of the change (*e.g.*, mailing a customer’s change of address to a new address rather than to the former address of record).

[87]

See, e.g., NCTA Comments at 6 (arguing that a carrier generally does not know when a data broker breaches carrier security measures because the carrier believes the data broker is the customer); TWTC Comments at 13 (stating that carriers usually are not aware when pretexting occurs); Cingular Reply at 7 n.17 (arguing that the customer is usually aware of a security problem before the carrier).

[88]

See, e.g., Letter from Donna Epps, Vice President and Federal Regulatory, Verizon, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 at 2 (filed Dec. 14, 2006) (Verizon Dec. 14, 2006 *Ex Parte* Letter).

[89]

See, e.g., TWTC Comments at 19-20; Letter from John J. Heitmann and Jennifer M. Kashatus, Counsel to XO Communications, to Marlene Dortch, Secretary, FCC, CC Docket No. 96-115, at 2 (filed Oct. 19, 2006); Letter from Karen Reidy, Vice President, Regulatory Affairs, COMPTTEL, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 at 1 (filed Dec. 18, 2006) (COMPTTEL Dec. 18, 2006 *Ex Parte* Letter).

[90]

These business customers are able to reach customer service representatives without going through a call center. If the business customer must go through a call center to reach a customer service representative then this exemption does not apply to that customer.

[91]

See EPIC *et al.* Comments at 15; *see also, e.g.*, CaPUC Comments at 3 (recommending the adoption of a rule that carriers notify a customer when the carrier discloses a customer’s CPNI without customer consent); MetroPCS Comments at 9 (stating that it notifies a customer through a text message anytime that it releases CPNI); Verizon Wireless Oct. 18, 2006 *Ex Parte* Letter at 2 (arguing that customers should be aware if a carrier disclosed their data to a third party); NNEDV Nov. 30, 2006 *Ex Parte* Letter at 3 (arguing for a victim to be notified prior to law enforcement).

[92]

See DOJ/DHS Comments at 14; Letter from Paul J. McNulty, Deputy Attorney General, United States

Department of Justice, to Kevin J. Martin, Chairman, FCC, CC Docket No. 96-115 (filed Dec. 28, 2006) (DOJ Dec. 28, 2006 *Ex Parte* Letter); Letter from Joseph E. Springsteen, Trial Attorney, United States Department of Justice, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 (filed Mar. 13, 2007).

[93]

See DOJ Dec. 28, 2006 *Ex Parte* Letter; see also Cal. Civ. Code § 1798.82 (permitting law enforcement to delay customer notification of breaches of security if a law enforcement agency determines the notification will impede a criminal investigation); N.Y. Gen. Bus. Law § 899-aa (permitting law enforcement to delay customer notification of breaches of security if a law enforcement agency determines the notification impedes a criminal investigation).

[94]

Section 201(b) authorizes the Commission to “prescribes such rules and regulations as may be necessary in the public interest to carry out the provisions of this Act,” including section 222. 47 U.S.C. § 201(b). Section 1 charges the Commission with “promoting safety of life and property through the use of wire and radio communication.” 47 U.S.C. § 151.

[95]

The Commission will maintain a link to the reporting facility at www.fcc.gov/eb/cpni.

[96]

If the relevant investigating agency determines that public disclosure or notice to customers would impede or compromise an ongoing or potential criminal investigation or national security, the law enforcement agency may direct the carrier not to disclose the breach for an initial 30-day period. This 30-day period may be extended by the law enforcement agency as reasonably necessary in the judgment of the agency. The law enforcement agency shall provide in writing to the carrier its initial direction to the carrier and any subsequent direction.

[97]

A telecommunications carrier should indicate its desire to notify its customer or class of customers immediately concurrent with its notice to the USSS and FBI of a breach.

[98]

See, e.g., Charter Comments at 7-9 (discussing how market forces give carriers incentive to protect CPNI); Time Warner Comments at 6 (noting that AOL has market incentives to protect its subscribers’ personal information).

[99]

See, e.g., Charter Comments at 8 (noting that recent studies demonstrate that nearly 60% of consumers either terminate service or consider switching service providers when a company fails to protect personally identifiable information); NASUCA Comments at 26 (arguing that the Commission should not rely alone on the “good business sense” of carriers to notify their customers of a security breach).

[100]

As EPIC states by way of example, such notice will “allow individuals to take actions to avoid stalking or domestic violence. . . . and also allow individuals to pursue private claims against the pretexter or person employing the pretexter.” EPIC *et al.* Comments at 15.

[101]

See DOJ/DHS Comments at 14. In particular, a carrier is not required to notify the subject of a lawful investigation that law enforcement has sought or obtained access to the subject’s telephone records, which could jeopardize the investigation. As the Department of Justice explains, Congress already has established a structure for customer notification of law enforcement access to customer records for providers of certain services, and by our action today we do not disturb the balance Congress has struck on this issue for such providers. See *id.* at 15-16 (citing 18 U.S.C. §§ 2701 *et seq.*).

[102]

47 U.S.C. § 222(d); see also 18 U.S.C. § 2702.

[103]

NASUCA urges carriers to provide individualized notice to customers in the event of a security breach because notice in a bill may not be read by the customer. See NASUCA Comments at 7-8.

[104]

See, e.g., CTIA Comments at 6 (explaining that carriers must respond to a constantly evolving threat from pretexters who become more knowledgeable with every call to a carrier’s customer service representatives).

[105]

For example, several carriers already voluntarily refuse to divulge call detail information directly over the telephone even with password protection. *See, e.g.*, Letter from Brian F. Fontes, Vice President, Federal Relations, Cingular Wireless LLC, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 (filed Sept. 29, 2006); Letter from William F. Maher, Jr., Counsel for T-Mobile USA, Inc., to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 at 2 (filed Dec. 4, 2006).

[106]

Section 222(a) of the Act imposes a generally duty on carriers to “protect the confidentiality of proprietary information of, and relating to . . . customers.” 47 U.S.C. § 222(a).

[107]

See, e.g., Missouri PSC Comments at 3 (pointing out that audit trails are useful when tracking and prosecuting entities that obtain CPNI dishonestly or inappropriately); NCTA Comments at 4 (arguing that while audit trails do not deter pretexting, they can help carriers identify and investigate security breaches after they have occurred).

[108]

Moreover, as numerous commenters observe, publishing criteria for identifying suspect calls or calling patterns or online attempts at access would aid pretexters more than it would enhance security. *See, e.g.*, CTIA Comments at 3; T-Mobile Comments at 4; US Telecom Comments at 3-4 (arguing that overly-specific rules risk giving pretexters a “roadmap”).

[109]

This expectation is reasonable given that the problem of pretexting emerged notwithstanding the Commission’s current rules.

[110]

47 U.S.C. § 222(c); 47 C.F.R. § 64.2009.

[111]

See infra Section IV.I.

[112]

See Further Notice at paras. 69-70.

[113]

See EPIC Petition at 11.

[114]

See, e.g., AT&T Comments at 15-16; Cingular Comments at 13; Verizon Wireless Comments at 11.

[115]

See, e.g., Centennial Reply at 7.

[116]

Commenters report that the expense of encryption would be substantial, and would be of limited value in protecting against pretexting. *See, e.g.*, Verizon Wireless Comments at 11. Some carriers nevertheless may find that encryption currently is a cost-effective way to increase the security of CPNI. *See, e.g.*, Alltel Comments at 6 (noting that Alltel is encrypting some data stores to stop potential hackers). In addition, if carriers begin to experience increased attempts to obtain CPNI through hacking or similar measures, we would expect all carriers to revisit whether encryption of CPNI databases would satisfy their obligation to take reasonable steps to protect CPNI databases from unauthorized third-party access.

[117]

We do not believe that this minor change to our rules will have a major effect on carriers because many carriers already do not disclose CPNI to third parties. *See, e.g.*, CTIA Comments at 12 (noting that most wireless carriers do not disclose CPNI to third parties or use it outside of a total service approach); US Cellular Reply at 2 (stating that it does not share CPNI other than in accordance with the total service approach). Additionally, we note that this opt-in regime does not in any way affect a carrier’s permitted use of CPNI enumerated in section 222(d). 47 U.S.C. § 222 (d).

[118]

See Third Report and Order, 17 FCC Rcd at 14875-75, para. 33; *see also, e.g.*, Joint Commenters Comments at

16 (stating that they do not dispute that the Commission has a substantial interest in protecting privacy).

[\[119\]](#)

See Notice, 21 FCC Rcd at 1788, para. 12.

[\[120\]](#)

See 47 C.F.R. § 64.2007(b)(1); *see also, e.g.*, NASUCA Comments at 9 (arguing that with an opt-out policy “there is no assurance that any implied consent would be truly informed”).

[\[121\]](#)

See, e.g., supra para. 12 and accompanying notes; Telephone Records and Privacy Protection Act of 2006, H.R. 4709, 109th Cong. (2d Sess. 2006).

[\[122\]](#)

See, e.g., supra para. 12 and accompanying notes.

[\[123\]](#)

47 C.F.R. § 64.2007(b)(2).

[\[124\]](#)

See, e.g., MoPSC Comments at 4 (asserting that there is a lack of control over third-party recipients of CPNI).

[\[125\]](#)

See 47 U.S.C. § 222.

[\[126\]](#)

See, e.g., EPIC *et al.* Comments at 7; MoPSC Comments at 5.

[\[127\]](#)

See Attorneys General Comments at 6 (noting studies surrounding Gramm-Leach-Bliley Act, including a study by Harris Interactive, Inc.); MoPSC Comments at 5 (noting that during the state’s rulemaking on CPNI protections, it found that the concept of opt-out was not understandable to the average consumer).

[\[128\]](#)

See, e.g., Attorneys General Comments at 6 (arguing that most customers are unlikely to read opt-out notices and therefore not know that they are giving affirmative consent to share their information); NASUCA Comments at 9 (believing that customers might not read CPNI notices and thus they are unaware that they might need to take affirmative action to prevent the sharing of their personal information).

[\[129\]](#)

See, e.g., EPIC *et al.* Comments at 9-10 (pointing to a series of studies finding that consumers support opt-in privacy policies generally); NASUCA Comments at 9 (arguing that opt-in approval better protects a customer’s privacy and gives the customer more control over the sharing of their personal information); Privacy Rights Comments at 4 (arguing that only opt-in consent provides adequate privacy protection).

[\[130\]](#)

See, e.g., Alltel Comments at 3-4; AT&T Comments at 17-19; Cingular Comments at 14; CTIA Comments at 12; Joint Commenters Comments at 12; TWTC Comments at 16; Verizon Comments at 22-26; Verizon Wireless Comments at 10; DMA Reply at 1-2.

[\[131\]](#)

Attorneys General Comments at 7-9 (noting that there are over 152 major security breaches reported since February 2005 resulting in the loss of information to at least 54 million Americans).

[\[132\]](#)

See 47 U.S.C. § 222; *see also supra* note 121.

[\[133\]](#)

See, e.g., Cingular Comments at 14; COMPTTEL Comments at 4.

[\[134\]](#)

We note that while our enforcement actions may act as a deterrent to a carrier’s unauthorized use of CPNI, they cannot undo the harm to a customer after a breach.

[135]

See, e.g., BellSouth Comments at 26-27.

[136]

Compare Verizon Comments at 26 with 47 U.S.C. § 222.

[137]

We note that this minor modification to our rules does not affect the opt-out regime for intra-company use of CPNI beyond the total service approach, or the disclosure of CPNI to a carrier's agents or affiliates that provide communications-related services.

[138]

Central Hudson, 447 U.S. at 564-65. The *Central Hudson* test provides that if the commercial speech concerns lawful activity and is not misleading, the government may restrict the speech only if it (1) "has a substantial state interest in regulating the speech, (2) the regulation directly and materially advances that interest, and (3) the regulation is no more extensive than necessary to serve the interest." *Central Hudson*, 447 U.S. at 564-65.

[139]

See, e.g., BellSouth Comments at 27; Joint Commenters Comments at 14-16; TWTC Comments at 16-17; Verizon Comments at 23-25; Verizon Wireless Comments at 11-12; BellSouth Reply at 3-9; Charter Reply at 3-14; Verizon Reply at 2-8.

[140]

U.S. West, Inc. v. FCC, 182 F.3d 1224 (10th Cir. 1999).

[141]

Id. at 1237.

[142]

See supra para. 10 and accompanying notes; *see also, e.g.*, Attorneys General Comments at 1-4; NASUCA Reply at 12.

[143]

Telephone Records and Privacy Protection Act of 2006, Pub. L. No. 109-476, 120 Stat. 3568, § 2(5) (2007).

[144]

U.S. West, Inc. v. FCC, 182 F.3d at 1239.

[145]

See supra para. 36 & nn.124-25.

[146]

Attorneys General Comments at 6.

[147]

See also U.S. West, Inc. v. FCC, 182 F.3d at 1236.

[148]

EPIC *et al.* Comments at 9. Moreover, Verizon contends that consumers have found "the mechanics of the opt-in regime . . . confusing" and have been reluctant to use opt-in, that is based on its experiences following the Commission's 2001 *Clarification Order*. *See* Verizon Jan. 29 *Ex Parte* Letter, Verses Decl. at para. 16. We note, however, that in the intervening years the use of opt-in approval methods appear to have become increasingly common, such as in the mobile wireless context, and thus we do not find Verizon's past experiences persuasive. *See, e.g., The Mobile Revolution Will Be Advertised*, Wireless Business Forecast, 2006 WLNR 4911016 (Mar. 23, 2006) (discussing the use of opt-in approval processes in mobile wireless marketing); Betsy Spethmann, *Next-Tech.*, Promo, 2005 WLNR 10551271 (July 1, 2005) (discussing the use of an opt-in approval process by Verizon Wireless).

[149]

See Verizon Jan. 29, 2007 *Ex Parte* Letter at 3; Letter from William Maher, Jr., Counsel for T-Mobile USA, Inc. to Marlene Dortch, Secretary, FCC, CC Docket No. 96-115 at 3 (filed Jan. 25, 2007) (T-Mobile Jan. 25 *Ex Parte* Letter); Letter from Kathryn Marie Krause, Qwest, to Marlene Dortch, Secretary, FCC, CC Docket No. 96-115 at 3 (filed Jan. 18, 2007) (Qwest Jan. 18, 2007 *Ex Parte* Letter).

[150]

See Verizon Jan. 29, 2007 *Ex Parte* Letter at 20-22; Letter from Kent Nakamura, Vice President and Chief Privacy Officer, Sprint Nextel, to Marlene Dortch, Secretary, FCC, CC Docket No. 96-115 at 1 (filed Jan. 26, 2007) Sprint Nextel Jan. 26, 2007 *Ex Parte* Letter); Letter from James Jenkins, Vice President, United States Cellular Corp., to Marlene Dortch, Secretary, FCC, CC Docket No. 96-115 at 1 (filed Feb. 5, 2007); T-Mobile Jan. 25, 2007 *Ex Parte* Letter at 3; Qwest Jan. 18, 2007 *Ex Parte* Letter at 3; Letter from Anisa Latif, AT&T, to Marlene Dortch, Secretary, FCC, CC Docket No. 96-115 at 1 (filed Jan. 17, 2007).

[151]

See Telephone Records and Privacy Protection Act of 2006, § 2; NASUCA Reply at 12.

[152]

See Attorneys General Comments at 3; EPIC Comments at 5; NASUCA Reply at 11.

[153]

EPIC Comments at 6.

[154]

See, e.g., EPIC Comments at 6; NASUCA Reply at 15.

[155]

See Sprint Nextel Jan. 26, 2007 *Ex Parte* Letter at 1.

[156]

Verizon Jan. 29, 2007 *Ex Parte* Letter at 22, 26.

[157]

See *supra* paras. 11, 13-15, 18-20.

[158]

Verizon Jan. 29, 2007 *Ex Parte* Letter at 22, 26.

[159]

See 47 U.S.C. § 222(a); 47 C.F.R. § 64.2007(b)(3).

[160]

See 18 U.S.C. § 1039 (prohibiting the sale, transfer, purchase or receipt of “confidential phone records information” as defined in subsection (h)(1)).

[161]

See <http://www.t-mobile.com/shop/plans/detail.aspx?id=9d4cbda1-c54e-496c-b11f-d8b6da5798b9> (describing a myFaves plan); <http://www.alltelcircle.com/about.php> (comparing my circle plan to competitors offerings). Under these plans, the telephone numbers of favorite contacts are CPNI because they relate to the service to which the customer subscribes. See 47 U.S.C. § 222(h)(1)(A).

[162]

See, e.g., Letter from Kent Nakamura, Vice President and Chief Privacy Officer, Sprint Nextel, to Marlene Dortch, Secretary, FCC, CC Docket No. 96-115 at 1 (filed Jan. 22, 2007).

[163]

See, e.g., NASUCA Reply at 20.

[164]

See *Notice*, 21 FCC Rcd at 1793, para. 29. By the term “any action,” we mean that carriers should report on proceedings instituted or petitions filed by a carrier at either state commissions, the court system, or at the Commission against data brokers. For the summary of customer complaints, carriers must report on the number of customer complaints a carrier has received related to unauthorized access to CPNI, or unauthorized disclosure of CPNI, broken down by category of complaint, e.g., instances of improper access by employees, instances of improper disclosure to individuals not authorized to receive the information, or instances of improper access to online information by individuals not authorized to view the information. Additionally, carriers must report on any information that they have with respect to the processes pretexters are using to attempt to access CPNI, and what steps carriers are taking to protect CPNI.

[165]

See, e.g., AT&T Comments at 14 (noting that the Commission could “reasonably conclude” that carriers should annually filing their certifications with the Commission to enable the Commission to more effectively monitor CPNI security measures). For this reason, we disagree with commenters that believe that the certification should not be filed with the Commission. *See, e.g.*, RCA Comments at 5 (arguing that the annual filing of the certification with an explanation of the carrier’s actions against data brokers and a summary of the CPNI-related consumer complaints is unjustified).

[166]

See 47 C.F.R. § 64.2009(e); *see also CPNI Order*, 13 FCC Rcd 8061, 8199, para. 201 (1998) (requiring the annual certification to be made publicly available). As a reminder, the existing rules require the certification to be executed by an officer of the carrier. The officer of the carrier must state in the certification that he or she has “personal knowledge” that the carrier has established procedures adequate to ensure compliance with the Commission’s CPNI rules. Further, the carrier must also provide an accompanying statement explaining how the carrier’s procedures ensure that the carrier is or is not in compliance with the requirements set forth in sections 64.2100 through 64.2900 of the Commission’s rules. For example, the carrier may explain the training its employees receive regarding protection of CPNI, the disciplinary process applicable to improper disclosure of CPNI, the process used to ensure that opt-out elections are recorded and followed, and other measures relevant to demonstrating compliance with the CPNI rules. Finally, we remind carriers that the certification is required even if the carrier does not use CPNI for marketing purposes, as the obligation to protect CPNI from improper disclosure exists regardless of whether the carrier uses it for marketing purposes.

[167]

See, e.g., *Alltel Corporation Apparent Liability for Forfeiture*, Notice of Apparent Liability for Forfeiture, 21 FCC Rcd 746 (2006); *AT&T Inc. Apparent Liability for Forfeiture*, Notice of Apparent Liability for Forfeiture, 21 FCC Rcd 751 (2006); *Cbeyond Communications, LLC Apparent Liability for Forfeiture*, Notice of Apparent Liability for Forfeiture, 21 FCC Rcd 4316 (2006). Because carriers currently are required to make such a certification, requiring that this filing be made to the Commission will be minimally burdensome to the industry. *See, e.g.*, AT&T Comments at 14; Cingular Comments at 17; CTIA Comments at 2-3; Kim Comments at 11; OPASTCO Comments at 2, 8-9; Verizon Comments at 9; Verizon Wireless Comments at 19; MetroPCS Reply at 18. The additional information required by the expanded reporting obligation should not require carriers to make significant changes to their procedures, and some carriers report that they already keep track of CPNI-related complaints and actions taken against data brokers. *See, e.g.*, Kim Comments at 11; Phan Comments at 6; Verizon Comments at 9; Verizon Wireless Comments at 19. We disagree with commenters who assert that such a filing requirement will disadvantage small and regional carriers. We are equally concerned about the privacy of customers of small and regional carriers as we are about the privacy of customers of larger carriers and find that the benefits of customer privacy protection are significantly outweighed by a carrier’s costs to implement these CPNI rules. *See, e.g.*, EWA Comments at 5; MetroPCS Reply at 18. We recognize carrier concerns about providing a roadmap for pretexters with this annual filing, and thus we will allow carriers to submit their certifications confidentially with the Commission. *See, e.g.*, AT&T Comments at 15; Cingular Comments at 16-17; CTIA Comments at 9-10; Phan Comments at 15. Carriers should supply the Commission with redacted and non-redacted versions of their filings. A carrier may only redact specific data about its actual security procedures and actual complaints in its filing. A carrier may not redact summary data about the number or type of customer complaints or other aggregate or general data because we believe it is in the public’s interest to have access to such data when selecting a service provider. Members of the public will have the opportunity to review redacted filings and bring to the attention of the Commission any potential violations or concerns identified in those filings.

[168]

See, e.g., Joint Commenters Reply at 9 (requesting a date certain for this annual filing for administrative convenience).

[169]

See, e.g., AT&T Comments at 15; Cingular Comments at 17; T-Mobile Comments at 13; Verizon Comments at 9.

[170]

The Commission defines “interconnected VoIP service” as “a service that: (1) enables real-time, two-way voice communications; (2) requires a broadband connection from the user’s location; (3) requires Internet protocol-compatible customer premises equipment (CPE); and (4) permits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network.” 47 C.F.R. § 9.3; *see also IP-Enabled Services; E911 Requirements for IP-Enabled Service Providers*, First Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 10245, 10257-57, para. 24 (2005) (*VoIP 911 Order*), *aff’d*, *Nuvio Corp.*

v. FCC, No. 473 F.3d 302 (D.C. Cir. 2006). We emphasize that interconnected VoIP service offers the *capability* for users to receive calls from and terminate calls to the PSTN; the obligations we establish apply to all VoIP communications made using an interconnected VoIP service, even those that do not involve the PSTN. See, e.g., *VoIP 911 Order*, 20 FCC Rcd at 10257-58, para. 24. As we have in the past, we limit our extension of the rules to interconnected VoIP service providers because we continue to believe that consumers have a reasonable expectation that such services are replacements for “regular telephone” service. See, e.g., *id.* at 10256, para. 23; see also Internet Companies Comments at 22; Time Warner Comments at 13.

[171]

See *IP-Enabled Services Notice*, 19 FCC Rcd at 4910, para. 71; *EPIC CPNI Notice*, 21 FCC Rcd at 1793, para. 28.

[172]

See 47 U.S.C. § 153(20), (46) (defining “information service” and “telecommunications service”).

[173]

See, e.g., *VoIP 911 Order*, 20 FCC Rcd at 10261-65, paras. 26-32. We therefore disagree with commenters that we do not have statutory authority to extend the CPNI requirements to interconnected VoIP service providers. See, e.g., Charter Comments at 36-37; Internet Companies Comments at 17-22.

[174]

47 U.S.C. § 222.

[175]

See *United States v. Southwestern Cable Co.*, 392 U.S. 157, 177-78 (1968) (*Southwestern Cable*). *Southwestern Cable*, the lead case on the ancillary jurisdiction doctrine, upheld certain regulations applied to cable television systems at a time before the Commission had an express congressional grant of regulatory authority over that medium. See *id.* at 170-71. In *Midwest Video I*, the Supreme Court expanded upon its holding in *Southwestern Cable*. The plurality stated that “the critical question in this case is whether the Commission has reasonably determined that its origination rule will ‘further the achievement of long-established regulatory goals in the field of television broadcasting by increasing the number of outlets for community self-expression and augmenting the public’s choice of programs and types of services.’” *United States v. Midwest Video Corp.*, 406 U.S. 649, 667-68 (1972) (*Midwest Video I*) (quoting *Amendment of Part 74, Subpart K, of the Commission’s Rules and Regulations Relative to Community Antenna Television Systems; and Inquiry into the Development of Communications Technology and Services to Formulate Regulatory Policy and Rulemaking and/or Legislative Proposals*, Docket No. 18397, First Report and Order, 20 FCC 2d 201, 202 (1969) (*CATV First Report and Order*)). The Court later restricted the scope of *Midwest Video I* by finding that if the basis for jurisdiction over cable is that the authority is ancillary to the regulation of broadcasting, the cable regulation cannot be antithetical to a basic regulatory parameter established for broadcast. See *FCC v. Midwest Video Corp.*, 440 U.S. 689, 700 (1979) (*Midwest Video II*); see also *American Library Ass’n v. FCC*, 406 F.3d 689 (D.C. Cir. 2005) (holding that the Commission lacked authority to impose broadcast content redistribution rules on equipment manufacturers using ancillary jurisdiction because the equipment at issue was not subject to the Commission’s subject matter jurisdiction over wire and radio communications).

[176]

Southwestern Cable, 392 U.S. at 178.

[177]

See *Universal Service Contribution Methodology; Federal-State Joint Board on Universal Service; 1998 Biennial Regulatory Review – Streamlined Contributor Reporting Requirements Associated with Administration of Telecommunications Relay Service, North American Numbering Plan, Local Number Portability, and Universal Service Support Mechanisms; Telecommunications Services for Individuals with Hearing and Speech Disabilities, and the Americans with Disabilities Act of 1990; Administration of the North American Numbering Plan and North American Numbering Plan Cost Recovery Contribution Factor and Fund Size; Number Resource Optimization; Telephone Number Portability; Truth-in-Billing and Billing Format; IP-Enabled Services*, Report and Order and Notice of Proposed Rulemaking, 21 FCC Rcd 7518, 7542, para. 47 (2006) (*Interim USF Order*), appeal pending, *Vonage Holdings Corp. v. FCC*, No. 06-1276 (D.C. Cir. filed July 18, 2006); *VoIP 911 Order*, 20 FCC Rcd at 10261-62, para. 28 (“[I]nterconnected VoIP services are covered by the statutory definitions of ‘wire communication’ and/or ‘radio communication’ because they involve ‘transmission of [voice] by aid of wire, cable, or other like connection . . .’ and/or ‘transmission by radio . . .’ of voice. Therefore, these services come within the scope of the Commission’s subject matter jurisdiction granted in section 2(a) of the Act.”). This determination was not challenged in the appeal

of the *VoIP 911 Order*. See *supra* note 170.

[178]

47 U.S.C. § 222(a), (c)(1); see also 47 C.F.R. § 64.2001 *et seq.*

[179]

See *Interim USF Order*, 21 FCC Rcd at 7542-43, para. 48 (citing *Communications Assistance for Law Enforcement Act and Broadband Access and Services*, First Report and Order and Further Notice of Proposed Rulemaking, 20 FCC Rcd 14989, 15009-10, para. 42 (2005), *aff'd*, *American Council on Education v. FCC*, 451 F.3d 226 (D.C. Cir. 2006)); see also Attorneys General Comments at 11 (arguing that VoIP customers have the same privacy concerns as wireline and wireless customers).

[180]

To be clear, a service offering is “interconnected VoIP” if it offers the *capability* for users to receive calls from and terminate calls to the PSTN regardless of whether access to the PSTN is directly through the interconnected VoIP provider or through arrangements with a third party.

[181]

47 U.S.C. § 151 (emphasis added).

[182]

See 47 U.S.C. § 222; EPIC Petition at 5-10.

[183]

Southwestern Cable, 392 U.S. at 178.

[184]

Midwest Video I, 406 U.S. at 667-68 (quoting *CATV First Report and Order*, 20 FCC 2d at 202).

[185]

See, e.g., AARP Comments at 2 (WC Docket No. 04-36); Arizona Commission Comments at 15-16 (WC Docket No. 04-36); California PSC Comments at 14 (WC Docket No. 04-36); CenturyTel Comments at 22-23 (WC Docket No. 04-36); CWA Comments at 23 (WC Docket No. 04-36); Missouri PSC Comments at 21 (WC Docket No. 04-36); NCL Comments at 5 (WC Docket No. 04-36); New Jersey Ratepayer Advocate Comments at 39-43 (WC Docket No. 04-36); New York Attorney General Comments at 10-11 (WC Docket No. 04-36); Ohio PUC Comments at 37-38 (WC Docket No. 04-36); Rural Carriers Comments at 7-8 (WC Docket No. 04-36); Texas Attorney General Comments at 20-21 (WC Docket No. 04-36); Time Warner Comments at 31-32 (WC Docket No. 04-36); DOJ Comments at 17-20 (WC Docket No. 04-36); APT Reply at 8-9 (WC Docket No. 04-36). We disagree with commenters that argue there is no clear justification for CPNI protections, including because there is sufficient competition for such services. See, e.g., 8x8 Comments at 29 (WC Docket No. 04-36); AT&T Comments at 41 (WC Docket No. 04-36); SBC Comments at 124-25 (WC Docket No. 04-36); ALTS Reply at 1-2 (WC Docket No. 04-36). We find on the contrary that the continuing trend toward customer use of these services as a replacement for analog voice services in large measure justifies the extension of our rules to these services to protect consumer privacy.

[186]

47 U.S.C. § 157 nt.

[187]

See *Availability of Advanced Telecommunications Capability in the United States*, Fourth Report to Congress, 20 FCC Rcd 20540, 20578 (2004) (“[S]ubscribership to broadband services will increase in the future as new applications that require broadband access, *such as VoIP*, are introduced into the marketplace, and consumers become more aware of such applications.”) (emphasis added).

[188]

We do not believe that our actions today are in conflict or otherwise inconsistent with any provision of the Act. We acknowledge that section 230 of the Act provides that “[i]t is the policy of the United States – to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation.” 47 U.S.C. § 230(b)(2). We do not believe, however, that this congressional policy statement precludes us from extending the CPNI obligations to interconnected VoIP service providers here. We note that the Commission’s discussion of section 230 in the *Vonage Order* as cautioning against regulation was limited to “traditional common carrier economic regulations.” *Vonage Holdings Corporation Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, Memorandum Opinion and Order, 19 FCC Rcd 22404, 22426, para. 35 (2004) (*Vonage Order*), *appeal pending*, *National Ass’n of State Util.*

Consumer Advocates v. FCC, No. 05-71238 (9th Cir. filed Feb. 22, 2005).

[189]

See, e.g., Centennial Comments at 5-6; USISPA Comments at 7; Verizon Wireless Comments at 14-16; Charter Reply at 20-21.

[190]

See, e.g., Ohio PUC Comments at 32; PaPUC Comments at 3-4; NASUCA Reply at 28-30.

[191]

See, e.g., Letter from Richard T. Ellis, Director – Federal Regulatory Advocacy, Verizon, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 (filed Feb. 6, 2004) (Verizon Feb. 6 *Ex Parte* Letter) (expressing concern regarding state regulations of CPNI that are inconsistent with federal CPNI rules and citing the rules of California, Oregon and Washington). Verizon has not asked the Commission specifically to rule on whether those states' CPNI regulations should be preempted, and apparently obtained the preemption it sought regarding the Washington CPNI regulations from a U.S. District Court in Washington. See *id.*, Attach.; see also Ariz. Rev. Stat. § 40-202(C)(5) (conferring authority on the Arizona Corporation Commission to adopt rules that “customer information, account information and related proprietary information are confidential unless specifically waived by the customer in writing”).

[192]

See, e.g., Dobson Reply at 6; Verizon Wireless Reply at 13-14. The Commission reviews petitions for preemption of CPNI rules on a case-by-case basis. See *Third Report and Order*, 17 FCC Rcd at 14890-93, paras. 69, 74 (“By reviewing requests for preemption on a case-by-case basis, we will be able to make preemption decisions based on the factual circumstances as they exist at the time and on a full and a complete record.”). Verizon and AT&T Wireless Services filed petitions for reconsideration of the *Third Report and Order* regarding preemption of state CPNI regulation. See Verizon Petition for Reconsideration (filed Oct. 21, 2002); AT&T Wireless Services, Inc. Petition for Reconsideration (filed Oct. 21, 2002). This Order does not constitute a decision on the merits of those petitions.

[193]

See, e.g., Ellen Nakashima, *HP Scandal Shines Light on a Simple, Treacherous Act*, WASH. POST, Sept. 19, 2006, D1. Carriers of course may begin instituting our rules earlier to protect their customers' CPNI.

[194]

See 47 C.F.R. § 1.427(b). For this reason, we reject requests for longer implementation periods. See, e.g., Letter from Kent Y. Nakamura, Vice President and Chief Privacy Officer, Sprint Nextel Corporation, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 at 2 (filed Dec. 11, 2006); Letter from Donna Epps, Vice President Federal Regulatory, Verizon, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 at 1-4 (filed Dec. 22, 2006); Letter from Anisa A. Latif, Associate Director Federal Regulatory, AT&T, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 at 1 (filed Jan. 10, 2007); Letter from Indra Sehdev Chalk, Counsel for USTelecom, to Marlene Dortch, Secretary, FCC, CC Docket No. 96-115 at 1 (filed Jan. 18, 2007); Letter from William F. Maher, Counsel for T-Mobile USA, Inc., to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-115 at 4 (filed Jan. 25, 2007).

[195]

While the recent passage of the Telephone Records and Privacy Protection Act of 2006, 18 U.S.C. § 1039, which imposes new criminal penalties against pretexters, should reduce pretexting, we believe that our Order today is necessary to protect customer privacy and help bring an end to the unauthorized access to CPNI. We disagree with commenters that argue that we should allow the law to take effect and reassess the situation later because the actions we take today go beyond the legislation to ensure the privacy of CPNI by focusing on carriers that have not vigilantly discharged their obligations under section 222 to adequately protect CPNI. See, e.g., Dobson Comments at 3; COMPTTEL Dec. 18, 2006 *Ex Parte* Letter at 1.

[196]

The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.” 5 U.S.C. § 601(6). The term “small business” has the same meaning as the term “small business concern” under the Small Business Act. 5 U.S.C. § 601(3) (incorporating by reference the definition of “small business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such terms which are appropriate to the activities of the agency and publishes such definitions (s) in the Federal Register.”

[197]

We find this implementation period is reasonable for small carriers to avoid disruption and inconvenience to consumers.

[198]

See 47 U.S.C. § 222(a).

[199]

See, e.g., Cingular Comments at 31-33 (stating that the Commission should follow FTC Safeguards Rule issued pursuant to Section 501(b) of Gramm Leach Bliley Act (15 U.S.C. §6801(b)), and should offer safe harbor inducement to follow standards); Qwest Comments at 2-3 (arguing in favor of safe harbor procedures); AT&T Comments at n.7 (arguing that carriers with good personnel training, audit trails, and adequate customer authentication procedures should enjoy a safe harbor).

[200]

See, e.g., CTIA Comments at 13 (supporting a safe harbor for carriers that disclose account information to any person who provides a correct password); Qwest Comments at 2-3 (urging the Commission to find that carriers are already subject to the right balance of CPNI regulatory oversight, or alternatively pronounce guidelines that would frame a safe harbor for a carrier incorporating those guidelines into its operating practices).

[201]

See, e.g., Centennial Reply at 4; CTIA Comments at 14 (stating that even in the case of pretexting, the customer service representatives' annotations would note that CPNI was given out at the customer's request).

[202]

See, e.g., Charter Comments at 36; Dobson Comments at 6; OPATSCO Comments at 4; TWTC Comments at 14; Verizon Comments at 13. We note that the Commission in the *1999 Reconsideration Order* previously weighed the costs and benefits of establishing audit trails and decided not to require audit trails. See *1999 Reconsideration Order*, 13 FCC Rcd at 8101-02, para. 126.

[203]

Commenters may request confidential treatment for the information that they submit in response to this Further Notice if they are concerned about compromising their physical safeguard measures. See 47 C.F.R. § 0.459.

[204]

See DOJ/DHS Comments at 3 (stating that CPNI is an invaluable investigative resource, the mandatory destruction of which would severely impact the DOJ/DHS's ability to protect national security and public safety).

[205]

See, e.g., 47 C.F.R. § 42.6 (requiring that carriers retain telephone toll records for 18 months), § 42.7 (establishing record retention requirements for documents on a carrier's master index of records, and for documents relevant to complaint proceedings and certain Commission inquiries and proceedings).

[206]

See Cingular Comments at 25-26 (reporting that Cingular's experience is that most data brokers are focusing on the last 100 calls made or calls within the last 90 days).

[207]

See, e.g., EPIC Petition at 11-12 (suggesting that carriers should "de-identify" records, that is, separate data that identify a particular caller from the general transaction records); *but see, e.g.*, Ohio PUC Comments at 17-18 (arguing that de-identifying records would frustrate customer's ability to dispute billing).

[208]

See Letter from Governor Rod R. Blagojevich, Governor of Illinois, to Deborah Platt Majoras, Chairperson, Federal Trade Commission, and Kevin J. Martin, Chairman, Federal Communications Commission (dated Sept. 5, 2006); *see also* Ted Brindis, *Secrets Linger on Old Cell Phones*, Houston Chronicle.com (Aug. 31, 2006) (reporting that someone was able to retrieve a company's plans regarding a multi-million dollar federal transportation contract, bank account information, and passwords from discarded mobile devices).

[209]

Cell phones may be refurbished and provided to a different customer as a replacement for a cell phone that has malfunctioned. The original customer's private information may remain on the cell phone. See Andrew Brandt, *Privacy Watch: Wipe Your Cell Phone's Memory Before Giving It Away*, PC WORLD, available at

<http://www.pcworld.com/printable/article/id,124157/printable.html> (Jan. 30, 2006).

[210]

47 C.F.R. §§ 1.200 *et seq.*

[211]

See 47 C.F.R. § 1.1206(b)(2).

[212]

47 C.F.R. § 1.1206(b).

[213]

47 C.F.R. §§ 1.415, 1.419.

[214]

See 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601-12, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[215]

See EPIC CPNI Notice, 21 FCC Rcd at 1794, para. 31 & Appendix B; *IP-Enabled Services Notice*, 19 FCC Rcd at 4917, para. 91 & Appendix A.

[216]

See EPIC CPNI Notice, 21 FCC Rcd at 1794, para. 31 & Appendix B; *IP-Enabled Services Notice*, 19 FCC Rcd at 4917, para. 91 & Appendix A.

[217]

See 5 U.S.C. § 604.

[218]

See Alexicon Comments at 1-9; NTCA Comments at 1-5; OPASTCO Comments at 1-9.

[219]

See Alexicon Comments at 7.

[220]

See Alexicon Comments at 2, n.6.

[221]

See, e.g., NTCA Comments at 3-4; OPASTCO Comments at 2-7.

[222]

See, e.g., NTCA Comments at 4.

[223]

See Order at paras. 13-22.

[224]

See, e.g., Alexicon Comments at 8; NTCA Comments at 3.

[225]

See Order at para. 61.

[226]

See SBA Comments; Menard Comments; Menard Reply.

[227]

See SBA Comments at 2, 4, 6; Menard Comments; Menard Reply at 4.

[228]

The *IP-Enabled Services Notice* specifically sought comment on whether the CPNI requirements should apply to any provider of interconnected VoIP service, and the Commission published a summary of that notice in the Federal Register. *See IP-Enabled Services Notice*, 19 FCC Rcd at 4910, para. 71; *Regulatory Requirements for IP-Enabled Services*, WC Docket No. 04-36, Notice of Proposed Rulemaking, 69 Fed. Reg. 16193-01 (Mar. 29, 2004). We note that a number of small entities submitted comments in this proceeding. *See supra* Appendix A.

[229]

See Order at para. 61.

[230]

5 U.S.C. §§ 603(b)(3), 604(a)(3).

[231]

5 U.S.C. § 601(6).

[232]

5 U.S.C. § 601(3) (incorporating by reference the definition of “small business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such terms which are appropriate to the activities of the agency and publishes such definitions(s) in the Federal Register.”

[233]

15 U.S.C. § 632.

[234]

See SBA, Programs and Services, SBA Pamphlet No. CO-0028, at page 40 (July 2002).

[235]

Independent Sector, *The New Nonprofit Almanac & Desk Reference* (2002).

[236]

5 U.S.C. § 601(5).

[237]

U.S. Census Bureau, *Statistical Abstract of the United States: 2006*, Section 8, page 272, Table 415.

[238]

We assume that the villages, school districts, and special districts are small, and total 48,558. *See* U.S. Census Bureau, *Statistical Abstract of the United States: 2006*, section 8, page 273, Table 417. For 2002, Census Bureau data indicate that the total number of county, municipal, and township governments nationwide was 38,967, of which 35,819 were small. *Id.*

[239]

15 U.S.C. § 632.

[240]

Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, FCC (May 27, 1999). The Small Business Act contains a definition of “small-business concern,” which the RFA incorporates into its own definition of “small business.” *See* 15 U.S.C. § 632(a) (Small Business Act); 5 U.S.C. § 601(3) (RFA). SBA regulations interpret “small business concern” to include the concept of dominance on a national basis. *See* 13 C.F.R. § 121.102(b).

[241]

13 C.F.R. § 121.201, NAICS code 517110 (changed from 513310 in Oct. 2002).

[242]

FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, “Trends in Telephone Service” at Table 5.3, page 5-5 (April 2005) (“Trends in Telephone Service”). This source uses data that are current as of October 1, 2004.

[243]

13 C.F.R. § 121.201, NAICS code 517110 (changed from 513310 in Oct. 2002).

[244]

“Trends in Telephone Service” at Table 5.3.

[245]

13 C.F.R. § 121.201, NAICS code 517310 (changed from 513330 in Oct. 2002).

[246]

“Trends in Telephone Service” at Table 5.3.

[247]

13 C.F.R. § 121.201, NAICS code 517310 (changed from 513330 in Oct. 2002).

[248]

“Trends in Telephone Service” at Table 5.3.

[249]

13 C.F.R. § 121.201, NAICS code 517110 (changed from 513310 in Oct. 2002).

[250]

“Trends in Telephone Service” at Table 5.3.

[251]

13 C.F.R. § 121.201, NAICS code 517110 (changed from 513310 in Oct. 2002).

[252]

“Trends in Telephone Service” at Table 5.3.

[253]

13 C.F.R. § 121.201, NAICS code 517110 (changed from 513310 in Oct. 2002).

[254]

“Trends in Telephone Service” at Table 5.3.

[255]

13 C.F.R. § 121.201, NAICS code 517310 (changed from 513330 in Oct. 2002).

[256]

“Trends in Telephone Service” at Table 5.3.

[257]

We include all toll-free number subscribers in this category, including those for 888 numbers.

[258]

13 C.F.R. § 121.201, NAICS code 517310 (changed from 513330 in Oct. 2002).

[259]

See FCC, Common Carrier Bureau, Industry Analysis Division, *Study on Telephone Trends*, Tables 21.2, 21.3, and 21.4 (Feb. 1999).

[260]

13 C.F.R. § 121.201, NAICS codes 517410 and 517910.

[261]

U.S. Census Bureau, “2002 NAICS Definitions: 517410 Satellite Telecommunications” (www.census.gov, visited Feb. 2006).

[262]

U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 517410 (issued Nov. 2005).

[263]

Id. An additional 38 firms had annual receipts of \$25 million or more.

[264]

U.S. Census Bureau, “2002 NAICS Definitions: 517910 Other Telecommunications” (www.census.gov, visited Feb. 2006).

[265]

U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 517910 (issued Nov. 2005).

[266]

Id. An additional 14 firms had annual receipts of \$25 million or more.

[267]

13 C.F.R. § 121.201, NAICS code 513321 (changed to 517211 in October 2002).

[268]

13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[269]

U.S. Census Bureau, 2002 Economic Census, Subject Series: “Information,” Table 5, Employment Size of Firms for the United States: 2002, NAICS code 517211 (issued November 2005).

[270]

Id. The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is firms with “1000 employees or more.”

[271]

U.S. Census Bureau, 2002 Economic Census, Subject Series: “Information,” Table 5, Employment Size of Firms for the United States: 2002, NAICS code 517212 (issued November 2005).

[272]

Id. The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is firms with “1000 employees or more.”

[273]

13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[274]

U.S. Census Bureau, 2002 Economic Census, Subject Series: “Information,” Table 5, Employment Size of Firms for the United States: 2002, NAICS code 517212 (issued November 2005).

[275]

Id. The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is firms with “1000 employees or more.”

[276]

“Trends in Telephone Service” at Table 5.3.

[277]

Id.

[278]

13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[279]

U.S. Census Bureau, 2002 Economic Census, Subject Series: “Information,” Table 5, Employment Size of Firms for the United States: 2002, NAICS code 517211 (issued November 2005).

[280]

Id. The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is firms with “1000 employees or more.”

[281]

Amendment of Part 90 of the Commission’s Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service, PR Docket No. 89-552, Third Report and Order and Fifth Notice of Proposed Rulemaking, 12 FCC Rcd 10943, 11068-70, paras. 291-295, 62 FR 16004 (Apr. 3, 1997).

[282]

See Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from A. Alvarez, Administrator, SBA (Dec. 2, 1998) (SBA Dec. 2, 1998 Letter).

[283]

Revision of Part 22 and Part 90 of the Commission’s Rules to Facilitate Future Development of Paging Systems,

Memorandum Opinion and Order on Reconsideration and Third Report and Order, 14 FCC Rcd 10030, paras. 98-107 (1999).

[284]

Id. at 10085, para. 98.

[285]

“Trends in Telephone Service” at Table 5.3.

[286]

Id.

[287]

SBA Dec. 2, 1998 letter.

[288]

13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[289]

Id.

[290]

“Trends in Telephone Service” at Table 5.3.

[291]

See Amendment of Parts 20 and 24 of the Commission’s Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap, WT Docket No. 96-59, Report and Order, 11 FCC Rcd 7824, 61 FR 33859 (July 1, 1996) (*PCS Order*); *see also* 47 C.F.R. § 24.720(b).

[292]

See PCS Order, 11 FCC Rcd 7824.

[293]

See, e.g., Implementation of Section 309(j) of the Communications Act – Competitive Bidding, PP Docket No. 93-253, Fifth Report and Order, 9 FCC Rcd 5332, 59 FR 37566 (July 22, 1994).

[294]

FCC News, Broadband PCS, D, E and F Block Auction Closes, No. 71744 (rel. Jan. 14, 1997); *see also Amendment of the Commission’s Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licenses*, WT Docket No. 97-82, Second Report and Order, 12 FCC Rcd 16436, 62 FR 55348 (Oct. 24, 1997).

[295]

Amendment of the Commission’s Rules to Establish New Personal Communications Services, Narrowband PCS, Docket No. ET 92-100, Docket No. PP 93-253, Second Report and Order and Second Further Notice of Proposed Rulemaking, 15 FCC Rcd 10456, 65 FR 35875 (June 6, 2000).

[296]

See SBA Dec. 2, 1998 Letter.

[297]

13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[298]

U.S. Census Bureau, 1997 Economic Census, Subject Series: “Information,” Table 5, Employment Size of Firms Subject to Federal Income Tax: 1997, NAICS code 513322 (issued October 2000).

[299]

Id. The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is “Firms with 1000 employees or more.”

[300]

See U.S. Census Bureau, 2002 Economic Census, Industry Series: “Information,” Table 2, Comparative Statistics for the United States (1997 NAICS Basis): 2002 and 1997, NAICS code 513322 (issued Nov. 2004). The

preliminary data indicate that the total number of “establishments” increased from 2,959 to 9,511. In this context, the number of establishments is a less helpful indicator of small business prevalence than is the number of “firms,” because the latter number takes into account the concept of common ownership or control. The more helpful 2002 census data on firms, including employment and receipts numbers, will be issued in late 2005.

[301]

220 MHz Third Report and Order, 12 FCC Rcd 10943, 11068-70, paras. 291-295 (1997).

[302]

Id. at 11068, para. 291.

[303]

See Letter to D. Phythyon, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from A. Alvarez, Administrator, Small Business Administration (Jan. 6, 1998).

[304]

See generally Public Notice, “220 MHz Service Auction Closes,” 14 FCC Rcd 605 (1998).

[305]

See, e.g., Public Notice, “FCC Announces It is Prepared to Grant 654 Phase II 220 MHz Licenses After Final Payment is Made,” 14 FCC Rcd 1085 (1999).

[306]

Public Notice, “Phase II 220 MHz Service Spectrum Auction Closes,” 14 FCC Rcd 11218 (1999).

[307]

47 C.F.R. § 90.814(b)(1).

[308]

See *Service Rules for the 746-764 MHz Bands, and Revisions to part 27 of the Commission’s Rules*, WT Docket No. 99-168, Second Report and Order, 65 FR 17599 (Apr. 4, 2000).

[309]

See generally Public Notice, “220 MHz Service Auction Closes,” Report No. WT 98-36 (Oct. 23, 1998).

[310]

Public Notice, “700 MHz Guard Band Auction Closes,” DA 01-478 (rel. Feb. 22, 2001).

[311]

The service is defined in section 22.99 of the Commission’s Rules, 47 C.F.R. § 22.99.

[312]

BETRS is defined in sections 22.757 and 22.759 of the Commission’s Rules, 47 C.F.R. §§ 22.757 and 22.759.

[313]

13 C.F.R. § 121.201, NAICS code 517212.

[314]

The service is defined in section 22.99 of the Commission’s Rules, 47 C.F.R. § 22.99.

[315]

13 C.F.R. § 121.201, NAICS codes 517212.

[316]

13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[317]

Amendment of the Commission’s Rules Concerning Maritime Communications, PR Docket No. 92-257, Third Report and Order and Memorandum Opinion and Order, 13 FCC Rcd 19853 (1998).

[318]

This service is governed by Subpart I of Part 22 of the Commission’s rules. See 47 C.F.R. §§ 22.1001-22.1037.

[319]

13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[320]

Id.

[321]

See Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands, ET Docket No. 95-183, Report and Order, 63 Fed. Reg. 6079 (Feb. 6, 1998).

[322]

Id.

[323]

See Letter to Kathleen O'Brien Ham, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from Aida Alvarez, Administrator, SBA (Feb. 4, 1998).

[324]

Amendment of Parts 21 and 74 of the Commission's Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act – Competitive Bidding, MM Docket No. 94-131 and PP Docket No. 93-253, Report and Order, 10 FCC Rcd 9589, 9593, para. 7 (1995).

[325]

47 C.F.R. § 21.961(b)(1).

[326]

13 C.F.R. § 121.201, NAICS code 513220 (changed to 517510 in October 2002).

[327]

U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)", Table 4, NAICS code 513220 (issued October 2000).

[328]

In addition, the term "small entity" within SBREFA applies to small organizations (nonprofits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6). We do not collect annual revenue data on ITFS licensees.

[329]

See Local Multipoint Distribution Service, Second Report and Order, 12 FCC Rcd 12545 (1997).

[330]

Id.

[331]

See id.

[332]

See Letter to Dan Phythyon, Chief, Wireless Telecommunications Bureau, FCC, from Aida Alvarez, Administrator, SBA (Jan. 6, 1998).

[333]

Implementation of Section 309(j) of the Communications Act – Competitive Bidding, PP Docket No. 93-253, Fourth Report and Order, 59 Fed. Reg. 24947 (May 13, 1994).

[334]

Amendment of Part 95 of the Commission's Rules to Provide Regulatory Flexibility in the 218-219 MHz Service, WT Docket No. 98-169, Report and Order and Memorandum Opinion and Order, 64 Fed. Reg. 59656 (Nov. 3, 1999).

[335]

Amendment of Part 95 of the Commission's Rules to Provide Regulatory Flexibility in the 218-219 MHz Service, WT Docket No. 98-169, Report and Order and Memorandum Opinion and Order, 64 Fed. Reg. 59656 (Nov. 3, 1999).

[336]

13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[337]

U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, "Employment Size of Firms Subject to Federal Income Tax: 1997," Table 5, NAICS code 513322 (issued Oct. 2000).

[338]

Id. The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is "Firms with 1,000 employees or more."

[339]

Teligent acquired the DEMS licenses of FirstMark, the only licensee other than TRW in the 24 GHz band whose license has been modified to require relocation to the 24 GHz band.

[340]

Amendments to Parts 1,2, 87 and 101 of the Commission's Rules to License Fixed Services at 24 GHz, Report and Order, 15 FCC Rcd 16934, 16967 (2000); *see also* 47 C.F.R. § 101.538(a)(2).

[341]

Amendments to Parts 1,2, 87 and 101 of the Commission's Rules to License Fixed Services at 24 GHz, Report and Order, 15 FCC Rcd 16934, 16967 (2000); *see also* 47 C.F.R. § 101.538(a)(1).

[342]

See Letter to Margaret W. Wiener, Deputy Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from Gary M. Jackson, Assistant Administrator, SBA (July 28, 2000).

[343]

13 C.F.R. § 121.201, North American Industry Classification System (NAICS) code 513220 (changed to 517510 in October 2002).

[344]

U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, Table 4, Receipts Size of Firms for the United States: 2002, NAICS code 517510 (issued November 2005).

[345]

Id. An additional 61 firms had annual receipts of \$25 million or more.

[346]

47 C.F.R. § 76.901(e). The Commission determined that this size standard equates approximately to a size standard of \$100 million or less in annual revenues. *Implementation of Sections of the 1992 Cable Act: Rate Regulation*, Sixth Report and Order and Eleventh Order on Reconsideration, 10 FCC Rcd 7393, 7408 (1995).

[347]

47 C.F.R. § 76.901(c).

[348]

47 U.S.C. § 543(m)(2); *see* 47 C.F.R. § 76.901(f) & nn. 1-3.

[349]

See Public Notice, *FCC Announces New Subscriber Count for the Definition of Small Cable Operator*, DA 01-158 (Cable Services Bureau, Jan. 24, 2001).

[350]

47 C.F.R. § 76.901(f).

[351]

The Commission does receive such information on a case-by-case basis if a cable operator appeals a local franchise authority's finding that the operator does not qualify as a small cable operator pursuant to § 76.901(f) of the Commission's rules. *See* 47 C.F.R. § 76.909(b).

[352]

See 47 U.S.C. § 573.

[353]

13 C.F.R. § 121.201, NAICS code 513220 (changed to 517510 in October 2002).

[354]

See <<http://www.fcc.gov/csb/ovs/sovscer.html>> (current as of March 2002).

[355]

U.S. Census Bureau, “2002 NAICS Definitions: 518111 Internet Service Providers” (Feb. 2004) <www.census.gov>.

[356]

13 C.F.R. § 121.201, NAICS code 518111 (changed from previous code 514191, “On-Line Information Services,” in Oct. 2002).

[357]

U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, Table 4, Receipts Size of Firms for the United States: 2002, NAICS code 518111 (issued November 2005).

[358]

Id. An additional 45 firms had annual receipts of \$25 million or more.

[359]

U.S. Census Bureau, “2002 NAICS Definitions: 518112 Web Search Portals” (Feb. 2004) <www.census.gov>.

[360]

13 C.F.R. § 121.201, NAICS code 518112 (changed from 514199 in Oct. 2002).

[361]

U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 514199 (issued Oct. 2000). This category was created for the 2002 Economic Census by taking a portion of the superseded 1997 category, “All Other Information Services,” NAICS code 514199. The data cited in the text above are derived from the superseded category.

[362]

U.S. Census Bureau, “2002 NAICS Definitions: 518210 Data Processing, Hosting, and Related Services” (Feb. 2004) <www.census.gov>.

[363]

13 C.F.R. § 121.201, NAICS code 518210 (changed from 514210 in Oct. 2002).

[364]

U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 514210 (issued Oct. 2000).

[365]

U.S. Census Bureau, “2002 NAICS Definitions: 519190 All Other Information Services” (Feb. 2004) <www.census.gov>.

[366]

13 C.F.R. § 121.201, NAICS code 519190 (changed from 514199 in Oct. 2002).

[367]

U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 514199 (issued Oct. 2000). This category was created for the 2002 Economic Census by taking a portion of the superseded 1997 category, “All Other Information Services,” NAICS code 514199. The data cited in the text above are derived from the superseded category.

[368]

U.S. Census Bureau, “2002 NAICS Definitions: 516110 Internet Publishing and Broadcasting” (Feb. 2004) <www.census.gov>.

[369]

13 C.F.R. § 121.201, NAICS code 516110 (derived from 514199 and other 1997 codes).

[370]

U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 514199 (issued Oct. 2000). This category was

created for the 2002 Economic Census by taking portions of numerous 1997 categories.

[\[371\]](#)

13 C.F.R. § 121.201, NAICS codes 511210, 541511, and 541519.

[\[372\]](#)

U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 511210 (issued Oct. 2000).

[\[373\]](#)

U.S. Census Bureau, 1997 Economic Census, Subject Series: Professional, Scientific, and Technical Services, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4a, NAICS code 541511 (issued Oct. 2000).

[\[374\]](#)

U.S. Census Bureau, 1997 Economic Census, Subject Series: Professional, Scientific, and Technical Services, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4a, NAICS code 541519 (issued Oct. 2000).

[\[375\]](#)

Office of Management and Budget, North American Industry Classification System 308-09 (1997) (NAICS code 334220).

[\[376\]](#)

13 C.F.R. § 121.201, NAICS code 334220.

[\[377\]](#)

The number of “establishments” is a less helpful indicator of small business prevalence in this context than would be the number of “firms” or “companies,” because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different establishment. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the numbers of small businesses. In this category, the Census breaks-out data for firms or companies only to give the total number of such entities for 1997, which were 1,089.

[\[378\]](#)

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Industry Statistics by Employment Size,” Table 4, NAICS code 334220 (issued Aug. 1999).

[\[379\]](#)

Id. at Table 5.

[\[380\]](#)

Office of Management and Budget, North American Industry Classification System 308 (1997) (NAICS code 334210).

[\[381\]](#)

Id.

[\[382\]](#)

13 C.F.R. § 121.201, NAICS code 334210.

[\[383\]](#)

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Telephone Apparatus Manufacturing,” Table 4, NAICS code 334210 (issued Sept. 1999).

[\[384\]](#)

Office of Management and Budget, North American Industry Classification System 306 (1997) (NAICS code 334111).

[\[385\]](#)

13 C.F.R. § 121.201, NAICS code 334111.

[\[386\]](#)

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Electronic Computer

Manufacturing,” Table 4, NAICS code 334111 (issued Aug. 1999).

[\[387\]](#)

Office of Management and Budget, North American Industry Classification System 307 (1997) (NAICS code 334113).

[\[388\]](#)

13 C.F.R. § 121.201, NAICS code 334113.

[\[389\]](#)

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Computer Terminal Manufacturing,” Table 4, NAICS code 334113 (issued Aug. 1999).

[\[390\]](#)

Office of Management and Budget, North American Industry Classification System 307-08 (1997) (NAICS code 334119).

[\[391\]](#)

13 C.F.R. § 121.201, NAICS code 334119.

[\[392\]](#)

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Other Computer Peripheral Equipment Manufacturing,” Table 4, NAICS code 334119 (issued Aug. 1999).

[\[393\]](#)

Office of Management and Budget, North American Industry Classification System 330 (1997) (NAICS code 335921).

[\[394\]](#)

13 C.F.R. § 121.201, NAICS code 335921.

[\[395\]](#)

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Fiber Optic Cable Manufacturing,” Table 4, NAICS code 335921 (issued Nov. 1999).

[\[396\]](#)

Office of Management and Budget, North American Industry Classification System 331 (1997) (NAICS code 335929).

[\[397\]](#)

13 C.F.R. § 121.201, NAICS code 335929.

[\[398\]](#)

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Other Communication and Energy Wire Manufacturing,” Table 4, NAICS code 335929 (issued Nov. 1999).

[\[399\]](#)

U.S. Census Bureau, “2002 NAICS Definitions: 334310 Audio and Video Equipment Manufacturing” (Feb. 2004) <www.census.gov>.

[\[400\]](#)

13 C.F.R. § 121.201, NAICS code 334310.

[\[401\]](#)

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Audio and Video Equipment Manufacturing,” Table 4, NAICS code 334310 (issued Aug. 1999).

[\[402\]](#)

U.S. Census Bureau, “2002 NAICS Definitions: 334411 Electron Tube Manufacturing” (Feb. 2004) <www.census.gov>.

[\[403\]](#)

13 C.F.R. § 121.201, NAICS code 334411.

[404]

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Electron Tube Manufacturing,” Table 4, NAICS code 334411 (issued July 1999).

[405]

U.S. Census Bureau, “2002 NAICS Definitions: 334412 Bare Printed Circuit Board Manufacturing” (Feb. 2004) <www.census.gov>.

[406]

13 C.F.R. § 121.201, NAICS code 334412.

[407]

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Bare Printed Circuit Board Manufacturing,” Table 4, NAICS code 334412 (issued Aug. 1999).

[408]

U.S. Census Bureau, “2002 NAICS Definitions: 334413 Semiconductor and Related Device Manufacturing” (Feb. 2004) <www.census.gov>.

[409]

13 C.F.R. § 121.201, NAICS code 334413.

[410]

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Semiconductor and Related Device Manufacturing,” Table 4, NAICS code 334413 (issued July 1999).

[411]

U.S. Census Bureau, “2002 NAICS Definitions: 334414 Electronic Capacitor Manufacturing” (Feb. 2004) <www.census.gov>.

[412]

13 C.F.R. § 121.201, NAICS code 334414.

[413]

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Electronic Capacitor Manufacturing,” Table 4, NAICS code 334414 (issued July 1999).

[414]

U.S. Census Bureau, “2002 NAICS Definitions: 334415 Electronic Resistor Manufacturing” (Feb. 2004) <www.census.gov>.

[415]

13 C.F.R. § 121.201, NAICS code 334415.

[416]

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Electronic Resistor Manufacturing,” Table 4, NAICS code 334415 (issued Aug. 1999).

[417]

U.S. Census Bureau, “2002 NAICS Definitions: 334416 Electronic Coil, Transformer, and Other Inductor Manufacturing” (Feb. 2004) <www.census.gov>.

[418]

13 C.F.R. § 121.201, NAICS code 334416.

[419]

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Electronic Coil, Transformer, and Other Inductor Manufacturing,” Table 4, NAICS code 334416 (issued Aug. 1999).

[420]

U.S. Census Bureau, “2002 NAICS Definitions: 334417 Electronic Connector Manufacturing” (Feb. 2004) <www.census.gov>.

[421]

13 C.F.R. § 121.201, NAICS code 334417.

[422]

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Electronic Connector Manufacturing,” Table 4, NAICS code 334417 (issued July 1999).

[423]

U.S. Census Bureau, “2002 NAICS Definitions: 334418 Printed Circuit Assembly (Electronic Assembly) Manufacturing” (Feb. 2004) <www.census.gov>.

[424]

13 C.F.R. § 121.201, NAICS code 334418.

[425]

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Printed Circuit Assembly (Electronic Assembly) Manufacturing,” Table 4, NAICS code 334418 (issued Sept. 1999).

[426]

U.S. Census Bureau, “2002 NAICS Definitions: 334419 Other Electronic Component Manufacturing” (Feb. 2004) <www.census.gov>.

[427]

13 C.F.R. § 121.201, NAICS code 334419.

[428]

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Other Electronic Component Manufacturing,” Table 4, NAICS code 334419 (issued Aug. 1999).

[429]

U.S. Census Bureau, “2002 NAICS Definitions: 334112 Computer Storage Device Manufacturing” (Feb. 2004) <www.census.gov>.

[430]

13 C.F.R. § 121.201, NAICS code 334112.

[431]

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Computer Storage Device Manufacturing,” Table 4, NAICS code 334112 (issued July 1999).

[432]

See Order at paras. 51-53.

[433]

See id. at para. 51.

[434]

See id.

[435]

See id. at paras. 37-50.

[436]

See id. at paras. 26-32.

[437]

See id. at paras. 13-23.

[438]

See id. at paras. 20-22.

[439]

See id. at para. 61.

[440]

See id. at para. 24.

[441]

See id. at paras. 26-26.

[442]

5 U.S.C. § 603(c).

[443]

See Notice, 21 FCC Rcd at 1787-89, 1790-91, 1793, paras. 11, 12, 16, 18, 19, 23, 29, 30.

[444]

See id. at 1793, para. 30.

[445]

See id. at 1787-88, para. 11.

[446]

See id. at 1789, para. 16.

[447]

See id. at 1790, para. 18.

[448]

See id. at 1790, para. 19.

[449]

See id. at 1791, para. 23.

[450]

See id. at 1793, paras. 29-30.

[451]

See Order at para. 61.

[452]

See, e.g., id. at para. 5.

[453]

See 5 U.S.C. § 801(a)(1)(A).

[454]

See 5 U.S.C. § 604(b).

[455]

See 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601-12, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[456]

See 5 U.S.C. § 603(a).

[457]

See 5 U.S.C. § 603(a).

[458]

See Further Notice at paras. 68-70.

[459]

See id. at para.72.

[460]

See id.

[461]

See id. at paras. 68-72.

[462]

5 U.S.C. §§ 603(b)(3), 604(a)(3).

[463]

5 U.S.C. § 601(6).

[464]

5 U.S.C. § 601(3) (incorporating by reference the definition of “small business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such terms which are appropriate to the activities of the agency and publishes such definitions(s) in the Federal Register.”

[465]

15 U.S.C. § 632.

[466]

See SBA, Programs and Services, SBA Pamphlet No. CO-0028, at page 40 (July 2002).

[467]

Independent Sector, *The New Nonprofit Almanac & Desk Reference* (2002).

[468]

5 U.S.C. § 601(5).

[469]

U.S. Census Bureau, *Statistical Abstract of the United States: 2006*, Section 8, page 272, Table 415.

[470]

We assume that the villages, school districts, and special districts are small, and total 48,558. *See* U.S. Census Bureau, *Statistical Abstract of the United States: 2006*, section 8, page 273, Table 417. For 2002, Census Bureau data indicate that the total number of county, municipal, and township governments nationwide was 38,967, of which 35,819 were small. *Id.*

[471]

15 U.S.C. § 632.

[472]

Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, FCC (May 27, 1999). The Small Business Act contains a definition of “small-business concern,” which the RFA incorporates into its own definition of “small business.” *See* 15 U.S.C. § 632(a) (Small Business Act); 5 U.S.C. § 601(3) (RFA). SBA regulations interpret “small business concern” to include the concept of dominance on a national basis. *See* 13 C.F.R. § 121.102(b).

[473]

13 C.F.R. § 121.201, NAICS code 517110 (changed from 513310 in Oct. 2002).

[474]

FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, “Trends in Telephone Service” at Table 5.3, page 5-5 (April 2005) (“Trends in Telephone Service”). This source uses data that are current as of October 1, 2004.

[475]

13 C.F.R. § 121.201, NAICS code 517110 (changed from 513310 in Oct. 2002).

[476]

“Trends in Telephone Service” at Table 5.3.

[477]

13 C.F.R. § 121.201, NAICS code 517310 (changed from 513330 in Oct. 2002).

[478]

“Trends in Telephone Service” at Table 5.3.

[479]

13 C.F.R. § 121.201, NAICS code 517310 (changed from 513330 in Oct. 2002).

[480]

“Trends in Telephone Service” at Table 5.3.

[481]

13 C.F.R. § 121.201, NAICS code 517110 (changed from 513310 in Oct. 2002).

[482]

“Trends in Telephone Service” at Table 5.3.

[483]

13 C.F.R. § 121.201, NAICS code 517110 (changed from 513310 in Oct. 2002).

[484]

“Trends in Telephone Service” at Table 5.3.

[485]

13 C.F.R. § 121.201, NAICS code 517110 (changed from 513310 in Oct. 2002).

[486]

“Trends in Telephone Service” at Table 5.3.

[487]

13 C.F.R. § 121.201, NAICS code 517310 (changed from 513330 in Oct. 2002).

[488]

“Trends in Telephone Service” at Table 5.3.

[489]

We include all toll-free number subscribers in this category, including those for 888 numbers.

[490]

13 C.F.R. § 121.201, NAICS code 517310 (changed from 513330 in Oct. 2002).

[491]

See FCC, Common Carrier Bureau, Industry Analysis Division, *Study on Telephone Trends*, Tables 21.2, 21.3, and 21.4 (Feb. 1999).

[492]

13 C.F.R. § 121.201, NAICS codes 517410 and 517910.

[493]

U.S. Census Bureau, “2002 NAICS Definitions: 517410 Satellite Telecommunications” (www.census.gov), visited Feb. 2006).

[494]

U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 517410 (issued Nov. 2005).

[495]

Id. An additional 38 firms had annual receipts of \$25 million or more.

[496]

U.S. Census Bureau, “2002 NAICS Definitions: 517910 Other Telecommunications” (www.census.gov), visited Feb. 2006).

[497]

U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 517910 (issued Nov. 2005).

[498]

Id. An additional 14 firms had annual receipts of \$25 million or more.

[499]

13 C.F.R. § 121.201, NAICS code 513321 (changed to 517211 in October 2002).

[500]

13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[501]

U.S. Census Bureau, 2002 Economic Census, Subject Series: “Information,” Table 5, Employment Size of Firms for the United States: 2002, NAICS code 517211 (issued November 2005).

[502]

Id. The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is firms with “1000 employees or more.”

[503]

U.S. Census Bureau, 2002 Economic Census, Subject Series: “Information,” Table 5, Employment Size of Firms for the United States: 2002, NAICS code 517212 (issued November 2005).

[504]

Id. The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is firms with “1000 employees or more.”

[505]

13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[506]

U.S. Census Bureau, 2002 Economic Census, Subject Series: “Information,” Table 5, Employment Size of Firms for the United States: 2002, NAICS code 517212 (issued November 2005).

[507]

Id. The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is firms with “1000 employees or more.”

[508]

“Trends in Telephone Service” at Table 5.3.

[509]

Id.

[510]

13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[511]

U.S. Census Bureau, 2002 Economic Census, Subject Series: “Information,” Table 5, Employment Size of Firms for the United States: 2002, NAICS code 517211 (issued November 2005).

[512]

Id. The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is firms with “1000 employees or more.”

[513]

Amendment of Part 90 of the Commission’s Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service, PR Docket No. 89-552, Third Report and Order and Fifth Notice of Proposed Rulemaking, 12 FCC Rcd 10943, 11068-70, paras. 291-295, 62 FR 16004 (Apr. 3, 1997).

[514]

See Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from A. Alvarez, Administrator, SBA (Dec. 2, 1998) (SBA Dec. 2, 1998 Letter).

[515]

Revision of Part 22 and Part 90 of the Commission’s Rules to Facilitate Future Development of Paging Systems,

Memorandum Opinion and Order on Reconsideration and Third Report and Order, 14 FCC Rcd 10030, paras. 98-107 (1999).

[516]

Id. at 10085, para. 98.

[517]

“Trends in Telephone Service” at Table 5.3.

[518]

Id.

[519]

13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[520]

Id.

[521]

“Trends in Telephone Service” at Table 5.3.

[522]

See Amendment of Parts 20 and 24 of the Commission’s Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap, WT Docket No. 96-59, Report and Order, 11 FCC Rcd 7824, 61 FR 33859 (July 1, 1996) (*PCS Order*); *see also* 47 C.F.R. § 24.720(b).

[523]

See PCS Order, 11 FCC Rcd 7824.

[524]

See, e.g., Implementation of Section 309(j) of the Communications Act – Competitive Bidding, PP Docket No. 93-253, Fifth Report and Order, 9 FCC Rcd 5332, 59 FR 37566 (July 22, 1994).

[525]

FCC News, Broadband PCS, D, E and F Block Auction Closes, No. 71744 (rel. Jan. 14, 1997); *see also Amendment of the Commission’s Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licenses*, WT Docket No. 97-82, Second Report and Order, 12 FCC Rcd 16436, 62 FR 55348 (Oct. 24, 1997).

[526]

Amendment of the Commission’s Rules to Establish New Personal Communications Services, Narrowband PCS, Docket No. ET 92-100, Docket No. PP 93-253, Second Report and Order and Second Further Notice of Proposed Rulemaking, 15 FCC Rcd 10456, 65 FR 35875 (June 6, 2000).

[527]

See SBA Dec. 2, 1998 Letter.

[528]

The service is defined in section 22.99 of the Commission’s Rules, 47 C.F.R. § 22.99.

[529]

BETRS is defined in sections 22.757 and 22.759 of the Commission’s Rules, 47 C.F.R. §§ 22.757 and 22.759.

[530]

13 C.F.R. § 121.201, NAICS code 517212.

[531]

The service is defined in section 22.99 of the Commission’s Rules, 47 C.F.R. § 22.99.

[532]

13 C.F.R. § 121.201, NAICS codes 517212.

[533]

This service is governed by Subpart I of Part 22 of the Commission’s rules. *See* 47 C.F.R. §§ 22.1001-22.1037.

[534]

13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[535]

Id.

[536]

13 C.F.R. § 121.201, North American Industry Classification System (NAICS) code 513220 (changed to 517510 in October 2002).

[537]

U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, Table 4, Receipts Size of Firms for the United States: 2002, NAICS code 517510 (issued November 2005).

[538]

Id. An additional 61 firms had annual receipts of \$25 million or more.

[539]

47 C.F.R. § 76.901(e). The Commission determined that this size standard equates approximately to a size standard of \$100 million or less in annual revenues. *Implementation of Sections of the 1992 Cable Act: Rate Regulation*, Sixth Report and Order and Eleventh Order on Reconsideration, 10 FCC Rcd 7393, 7408 (1995).

[540]

47 C.F.R. § 76.901(c).

[541]

47 U.S.C. § 543(m)(2); *see* 47 C.F.R. § 76.901(f) & nn. 1-3.

[542]

See Public Notice, *FCC Announces New Subscriber Count for the Definition of Small Cable Operator*, DA 01-158 (Cable Services Bureau, Jan. 24, 2001).

[543]

47 C.F.R. § 76.901(f).

[544]

The Commission does receive such information on a case-by-case basis if a cable operator appeals a local franchise authority's finding that the operator does not qualify as a small cable operator pursuant to § 76.901(f) of the Commission's rules. *See* 47 C.F.R. § 76.909(b).

[545]

See 47 U.S.C. § 573.

[546]

13 C.F.R. § 121.201, NAICS code 513220 (changed to 517510 in October 2002).

[547]

See <<http://www.fcc.gov/csb/ovs/csovsceer.html>> (current as of March 2002).

[548]

U.S. Census Bureau, "2002 NAICS Definitions: 518111 Internet Service Providers" (Feb. 2004) <www.census.gov>.

[549]

13 C.F.R. § 121.201, NAICS code 518111 (changed from previous code 514191, "On-Line Information Services," in Oct. 2002).

[550]

U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, Table 4, Receipts Size of Firms for the United States: 2002, NAICS code 518111 (issued November 2005).

[551]

Id. An additional 45 firms had annual receipts of \$25 million or more.

[552]

U.S. Census Bureau, “2002 NAICS Definitions: 519190 All Other Information Services” (Feb. 2004) <www.census.gov>.

[553]

13 C.F.R. § 121.201, NAICS code 519190 (changed from 514199 in Oct. 2002).

[554]

U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 514199 (issued Oct. 2000). This category was created for the 2002 Economic Census by taking a portion of the superseded 1997 category, “All Other Information Services,” NAICS code 514199. The data cited in the text above are derived from the superseded category.

[555]

Office of Management and Budget, North American Industry Classification System 308-09 (1997) (NAICS code 334220).

[556]

13 C.F.R. § 121.201, NAICS code 334220.

[557]

The number of “establishments” is a less helpful indicator of small business prevalence in this context than would be the number of “firms” or “companies,” because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different establishment. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the numbers of small businesses. In this category, the Census breaks-out data for firms or companies only to give the total number of such entities for 1997, which were 1,089.

[558]

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Industry Statistics by Employment Size,” Table 4, NAICS code 334220 (issued Aug. 1999).

[559]

Id. Table 5.

[560]

Office of Management and Budget, North American Industry Classification System 308 (1997) (NAICS code 334210).

[561]

Id.

[562]

13 C.F.R. § 121.201, NAICS code 334210.

[563]

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Telephone Apparatus Manufacturing,” Table 4, NAICS code 334210 (issued Sept. 1999).

[564]

U.S. Census Bureau, “2002 NAICS Definitions: 334413 Semiconductor and Related Device Manufacturing” (Feb. 2004) <www.census.gov>.

[565]

13 C.F.R. § 121.201, NAICS code 334413.

[566]

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Semiconductor and Related Device Manufacturing,” Table 4, NAICS code 334413 (issued July 1999).

[567]

U.S. Census Bureau, “2002 NAICS Definitions: 334112 Computer Storage Device Manufacturing” (Feb. 2004) <www.census.gov>.

[\[568\]](#)

13 C.F.R. § 121.201, NAICS code 334112.

[\[569\]](#)

U.S. Census Bureau, 1997 Economic Census, Industry Series: Manufacturing, “Computer Storage Device Manufacturing,” Table 4, NAICS code 334112 (issued July 1999).

[\[570\]](#)

See Further Notice at para. 68.

[\[571\]](#)

See Further Notice at paras. 69, 71.

[\[572\]](#)

See Further Notice at para. 70.

[\[573\]](#)

See Further Notice at para. 72.

[\[574\]](#)

See Further Notice at paras. 68-72.

[\[575\]](#)

5 U.S.C. § 603(c).

[\[576\]](#)

See Further Notice at paras. 68-72.