

#### § 4.7

#### 47 CFR Ch. I (10–1–12 Edition)

and the outage lasts 30 minutes or more; or

(2) There is a loss of 911 call processing capabilities in one or more E-911 tandems/selective routers for at least 30 minutes duration; or

(3) One or more end-office or MSC switches or host/remote clusters is isolated from 911 service for at least 30 minutes and potentially affects at least 900,000 user-minutes; or

(4) There is a loss of ANI/ALI (associated name and location information) and/or a failure of location determination equipment, including Phase II equipment, for at least 30 minutes and potentially affecting at least 900,000 user-minutes (provided that the ANI/ALI or location determination equipment was then currently deployed and in use, and the failure is neither at the PSAP(s) or on the premises of the PSAP(s)).

#### § 4.7 Definitions of metrics used to determine the general outage-reporting threshold criteria.

(a) *Administrative numbers* are defined as the telephone numbers used by communications providers to perform internal administrative or operational functions necessary to maintain reasonable quality of service standards.

(b) *Assigned numbers* are defined as the telephone numbers working in the Public Switched Telephone Network under an agreement such as a contract or tariff at the request of specific end users or customers for their use. This excludes numbers that are not yet working but have a service order pending.

(c) *Assigned telephone number minutes* are defined as the mathematical result of multiplying the duration of an outage, expressed in minutes, by the sum of the number of assigned numbers (defined in paragraph (b) of this section) potentially affected by the outage and the number of administrative numbers (defined in paragraph (a) of this section) potentially affected by the outage. “Assigned telephone number minutes” can alternatively be calculated as the mathematical result of multiplying the duration of an outage, expressed in minutes, by the number of working telephone numbers potentially affected by the outage, where working

telephone numbers are defined as the telephone numbers, including DID numbers, working immediately prior to the outage.

(d) *DS3 minutes* are defined as the mathematical result of multiplying the duration of an outage, expressed in minutes, by the number of previously operating DS3 circuits that were affected by the outage.

(e) *User minutes* are defined as:

(1) Assigned telephone number minutes (as defined in paragraph (c) of this section), for telephony, including non-mobile interconnected VoIP telephony, and for those paging networks in which each individual user is assigned a telephone number;

(2) The mathematical result of multiplying the duration of an outage, expressed in minutes, by the number of end users potentially affected by the outage, for all other forms of communications. For wireless service providers and interconnected VoIP service providers to mobile users, the number of potentially affected users should be determined by multiplying the simultaneous call capacity of the affected equipment by a concentration ratio of 8.

(f) *Working telephone numbers* are defined to be the sum of all telephone numbers that can originate, or terminate telecommunications. This includes, for example, all working telephone numbers on the customer's side of a PBX, or Centrex, or similar arrangement.

[69 FR 70338, Dec. 3, 2004, as amended at 77 FR 25097, Apr. 27, 2012]

EFFECTIVE DATE NOTE: At 77 FR 25097, Apr. 27, 2012, § 4.7 was amended by revising paragraphs (e)(1) and (2). These paragraphs contain information collection and record-keeping requirements and will not become effective until approval has been given by the Office of Management and Budget.

#### § 4.9 Outage reporting requirements—threshold criteria.

(a) *Cable*. All cable communications providers shall submit electronically a Notification to the Commission within 120 minutes of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, an outage of at least 30 minutes duration that:

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(1) Potentially affects at least 900,000 user minutes of telephony service;

(2) Affects at least 1,350 DS3 minutes;

(3) Potentially affects any special offices and facilities (in accordance with paragraphs (a) through (d) of § 4.5); or

(4) Potentially affects a 911 special facility (as defined in paragraph (e) of § 4.5), in which case they also shall notify, as soon as possible by telephone or other electronic means, any official who has been designated by the management of the affected 911 facility as the provider's contact person for communications outages at that facility, and they shall convey to that person all available information that may be useful to the management of the affected facility in mitigating the effects of the outage on callers to that facility. (DS3 minutes and user minutes are defined in paragraphs (d) and (e) of § 4.7.) Not later than 72 hours after discovering the outage, the provider shall submit electronically an Initial Communications Outage Report to the Commission. Not later than thirty days after discovering the outage, the provider shall submit electronically a Final Communications Outage Report to the Commission. The Notification and the Initial and Final reports shall comply with all of the requirements of § 4.11.

(b) *IXC or LEC tandem facilities.* In the case of IXC or LEC tandem facilities, providers must, if technically possible, use real-time blocked calls to determine whether criteria for reporting an outage have been reached. Providers must report IXC and LEC tandem outages of at least 30 minutes duration in which at least 90,000 calls are blocked or at least 1,350 DS3-minutes are lost. For interoffice facilities which handle traffic in both directions and for which blocked call information is available in one direction only, the total number of blocked calls shall be estimated as twice the number of blocked calls determined for the available direction. Providers may use historic carried call load data for the same day(s) of the week and the same time(s) of day as the outage, and for a time interval not older than 90 days preceding the onset of the outage, to estimate blocked calls whenever it is not possible to obtain real-time blocked call counts. When

using historic data, providers must report incidents where at least 30,000 calls would have been carried during a time interval with the same duration of the outage. (DS3 minutes are defined in paragraph (d) of § 4.7.) In situations where, for whatever reason, real-time and historic carried call load data are unavailable to the provider, even after a detailed investigation, the provider must determine the carried call load based on data obtained in the time interval between the onset of the outage and the due date for the final report; this data must cover the same day of the week, the same time of day, and the same duration as the outage. Justification that such data accurately estimates the traffic that would have been carried at the time of the outage had the outage not occurred must be available on request. If carried call load data cannot be obtained through any of the methods described, for whatever reason, then the provider shall report the outage.

(c) *Satellite.* (1) All satellite operators shall submit electronically a Notification to the Commission within 120 minutes of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, of an outage of at least 30 minutes duration that manifests itself as a failure of any of the following key system elements: One or more satellite transponders, satellite beams, inter-satellite links, or entire satellites. In addition, all Mobile-Satellite Service ("MSS") satellite operators shall submit electronically a Notification to the Commission within 120 minutes of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, of an outage of at least 30 minutes duration that manifests itself as a failure of any gateway earth station, except in the case where other earth stations at the gateway location are used to continue gateway operations within 30 minutes of the onset of the failure.

(2) All satellite communications providers shall submit electronically a Notification to the Commission within 120 minutes of discovering that they have experienced on any facilities that they

own, operate, lease, or otherwise utilize, an outage of at least 30 minutes duration that manifests itself as:

(i) A loss of complete accessibility to at least one satellite or transponder;

(ii) A loss of a satellite communications link that potentially affects at least 900,000 user-minutes (as defined in §4.7(d)) of either telephony service or paging service;

(iii) Potentially affecting any special offices and facilities (in accordance with paragraphs (a) through (d) of §4.5) other than airports; or

(iv) Potentially affecting a 911 special facility (as defined in (e) of §4.5), in which case they also shall notify, as soon as possible by telephone or other electronic means, any official who has been designated by the management of the affected 911 facility as the provider's contact person for communications outages at that facility, and they shall convey to that person all available information that may be useful to the management of the affected facility in mitigating the effects of the outage on callers to that facility.

(3) Not later than 72 hours after discovering the outage, the operator and/or provider shall submit electronically an Initial Communications Outage Report to the Commission. Not later than thirty days after discovering the outage, the operator and/or provider shall submit electronically a Final Communications Outage Report to the Commission.

(4) The Notification and the Initial and Final reports shall comply with all of the requirements of §4.11.

(5) Excluded from these outage-reporting requirements are those satellites, satellite beams, inter-satellite links, MSS gateway earth stations, satellite networks, and transponders that are used exclusively for intra-corporate or intra-organizational private telecommunications networks, for the one-way distribution of video or audio programming, or for other non-covered services (that is, when they are never used to carry common carrier voice or paging communications).

(d) *Signaling system 7.* Signaling System 7 (SS7) providers shall submit electronically a Notification to the Commission within 120 minutes of discovering that they have experienced on

any facilities that they own, operate, lease, or otherwise utilize an outage of at least 30 minutes duration that is manifested as the generation of at least 90,000 blocked calls based on real-time traffic data or at least 30,000 lost calls based on historic carried loads. In cases where a third-party SS7 provider cannot directly estimate the number of blocked calls, the third-party SS7 provider shall use 500,000 real-time lost MTP messages as a surrogate for 90,000 real-time blocked calls, or 167,000 lost MTP messages on a historical basis as a surrogate for 30,000 lost calls based on historic carried loads. Historic carried load data or the number of lost MTP messages on a historical basis shall be for the same day(s) of the week and the same time(s) of day as the outage, and for a time interval not older than 90 days preceding the onset of the outage. In situations where, for whatever reason, real-time and historic data are unavailable to the provider, even after a detailed investigation, the provider must determine the carried load based on data obtained in the time interval between the onset of the outage and the due date for the final report; this data must cover the same day of the week and the same time of day as the outage. If this cannot be done, for whatever reason, the outage must be reported. Justification that such data accurately estimates the traffic that would have been carried at the time of the outage had the outage not occurred must be available on request. Finally, whenever a pair of STPs serving any communications provider becomes isolated from a pair of interconnected STPs that serve any other communications provider, for at least 30 minutes duration, each of these communications providers shall submit electronically a Notification to the Commission within 120 minutes of discovering such outage. Not later than 72 hours after discovering the outage, the provider(s) shall submit electronically an Initial Communications Outage Report to the Commission. Not later than thirty days after discovering the outage, the provider(s) shall submit electronically a Final Communications Outage Report to the Commission. The Notification and the Initial and Final reports

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shall comply with all of the requirements of § 4.11.

(e) *Wireless*. All wireless service providers shall submit electronically a Notification to the Commission within 120 minutes of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, an outage of at least 30 minutes duration:

(1) Of a Mobile Switching Center (MSC);

(2) That potentially affects at least 900,000 user minutes of either telephony and associated data (2nd generation or lower) service or paging service;

(3) That affects at least 1,350 DS3 minutes;

(4) That potentially affects any special offices and facilities (in accordance with paragraphs (a) through (d) of § 4.5) other than airports through direct service facility agreements; or

(5) That potentially affects a 911 special facility (as defined in (e) of § 4.5), in which case they also shall notify, as soon as possible by telephone or other electronic means, any official who has been designated by the management of the affected 911 facility as the provider's contact person for communications outages at that facility, and they shall convey to that person all available information that may be useful to the management of the affected facility in mitigating the effects of the outage on callers to that facility. (DS3 minutes and user minutes are defined in paragraphs (d) and (e) of § 4.7.) In determining the number of users potentially affected by a failure of a switch, a concentration ratio of 8 shall be applied. For providers of paging service solely, however, the following outage criteria shall apply instead of those in paragraphs (b)(1) through (b)(3) of this section. Notification must be submitted if the failure of a switch for at least 30 minutes duration potentially affects at least 900,000 user-minutes. Not later than 72 hours after discovering the outage, the provider shall submit electronically an Initial Communications Outage Report to the Commission. Not later than thirty days after discovering the outage, the provider shall submit electronically a Final Communications Outage Report to the Commission. The Notification

and the Initial and Final reports shall comply with all of the requirements of § 4.11.

(f) *Wireline*. All wireline communications providers shall submit electronically a Notification to the Commission within 120 minutes of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, an outage of at least 30 minutes duration that:

(1) Potentially affects at least 900,000 user minutes of either telephony or paging;

(2) Affects at least 1,350 DS3 minutes;

(3) Potentially affects any special offices and facilities (in accordance with paragraphs (a) through (d) of § 4.5); or

(4) Potentially affects a 911 special facility (as defined in paragraph (e) of § 4.5), in which case they also shall notify, as soon as possible by telephone or other electronic means, any official who has been designated by the management of the affected 911 facility as the provider's contact person for communications outages at that facility, and the provider shall convey to that person all available information that may be useful to the management of the affected facility in mitigating the effects of the outage on efforts to communicate with that facility. (DS3 minutes and user minutes are defined in paragraphs (d) and (e) of § 4.7.) Not later than 72 hours after discovering the outage, the provider shall submit electronically an Initial Communications Outage Report to the Commission. Not later than thirty days after discovering the outage, the provider shall submit electronically a Final Communications Outage Report to the Commission. The Notification and the Initial and Final reports shall comply with all of the requirements of § 4.11.

(g) *Interconnected VoIP Service Providers*. (1) All interconnected VoIP service providers shall submit electronically a Notification to the Commission:

(i) Within 240 minutes of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, an outage of at least 30 minutes duration that potentially affects a 9-1-1 special facility (as defined in (e) of § 4.5), in which case

they also shall notify, as soon as possible by telephone or other electronic means, any official who has been designated by the management of the affected 9–1–1 facility as the provider's contact person for communications outages at that facility, and the provider shall convey to that person all available information that may be useful to the management of the affected facility in mitigating the effects of the outage on efforts to communicate with that facility; or

(ii) Within 24 hours of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, an outage of at least 30 minutes duration:

(A) That potentially affects at least 900,000 user minutes of interconnected VoIP service and results in complete loss of service; or

(B) That potentially affects any special offices and facilities (in accordance with paragraphs § 4.5(a) through (d)).

(2) Not later than thirty days after discovering the outage, the provider shall submit electronically a Final Communications Outage Report to the Commission. The Notification and Final reports shall comply with all of the requirements of § 4.11.

[69 FR 70338, Dec. 3, 2004, as amended at 77 FR 25097, Apr. 27, 2012]

EFFECTIVE DATE NOTE: At 77 FR 25097, Apr. 27, 2012, § 4.9 was amended by adding paragraph (g). This paragraph contains information collection and recordkeeping requirements and will not become effective until approval has been given by the Office of Management and Budget.

**§ 4.11 Notification and initial and final communications outage reports that must be filed by communications providers.**

Notification and Initial and Final Communications Outage Reports shall be submitted by a person authorized by the communications provider to submit such reports to the Commission. The person submitting the Final report to the Commission shall also be authorized by the provider to legally bind the provider to the truth, completeness, and accuracy of the information contained in the report. Each Final report shall be attested by the person submitting the report that he/she has

read the report prior to submitting it and on oath deposes and states that the information contained therein is true, correct, and accurate to the best of his/her knowledge and belief and that the communications provider on oath deposes and states that this information is true, complete, and accurate. The Notification shall provide: The name of the reporting entity; the date and time of onset of the outage; a brief description of the problem; service effects; the geographic area affected by the outage; and a contact name and contact telephone number by which the Commission's technical staff may contact the reporting entity. The Initial and Final Reports shall contain the information required in this part 4. The Initial report shall contain all pertinent information then available on the outage and shall be submitted in good faith. The Final report shall contain all pertinent information on the outage, including any information that was not contained in, or that has changed from that provided in, the Initial report. The Notification and the Initial and Final Communications Outage Reports are to be submitted electronically to the Commission. "Submitted electronically" refers to submission of the information using Commission-approved Web-based outage report templates. If there are technical impediments to using the Web-based system during the Notification stage, then a written Notification to the Commission by e-mail, FAX, or courier may be used; such Notification shall contain the information required. All hand-delivered Notifications and Initial and Final Communications Outage Reports, shall be addressed to the Federal Communications Commission, The Office of Secretary, Attention: Chief, Public Safety & Homeland Security Bureau. Electronic filing shall be effectuated in accordance with procedures that are specified by the Commission by public notice.

[71 FR 69037, Nov. 29, 2006]