

provide communications services directly to end users.

(e) *Signaling System 7 (SS7)* is a signaling system used to control telecommunications networks. It is frequently used to “set up,” process, control, and terminate circuit-switched telecommunications, including but not limited to domestic and international telephone calls (irrespective of whether the call is wholly or in part wireless, wireline, local, long distance, or is carried over cable or satellite infrastructure), SMS text messaging services, 8XX number type services, local number portability, VoIP signaling gateway services, 555 number type services, and most paging services. For purposes of this rule part, SS7 refers to both the SS7 protocol and the packet networks through which signaling information is transported and switched or routed. It includes future modifications to the existing SS7 architecture that will provide the functional equivalency of the SS7 services and network elements that exist as of August 4, 2004. SS7 communications providers are subject to the provisions of this part 4 regardless of whether or not they provide service directly to end users. Also subject to part 4 of the Commission’s rules are affiliated and non-affiliated entities that maintain or provide communications networks or services used by the SS7 provider in offering SS7 communications.

(f) *Wireless service providers* include Commercial Mobile Radio Service communications providers that use cellular architecture and CMRS paging providers. See § 20.9 of this chapter for the definition of Commercial Mobile Radio Service. Also included are affiliated and non-affiliated entities that maintain or provide communications networks or services used by the provider in offering such communications.

(g) *Wireline communications providers* offer terrestrial communications through direct connectivity, predominantly by wire, coaxial cable, or optical fiber, between the serving central office (as defined in the appendix to part 36 of this chapter) and end user location(s). Also included are affiliated and non-affiliated entities that maintain or provide communications net-

works or services used by the provider in offering such communications.

(h) *Interconnected Voice over Internet Protocol (VoIP) providers* are providers of interconnected VoIP service. See § 9.3 of this chapter for the definition of interconnected VoIP service. Such providers may be facilities-based or non-facilities-based. Also included are affiliated and non-affiliated entities that maintain or provide communications networks or services used by the provider in offering such communications.

(i) *Exclusion of equipment manufacturers or vendors.* Excluded from the requirements of this part 4 are those equipment manufacturers or vendors that do not maintain or provide communications networks or services used by communications providers in offering communications.

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

#### § 4.5 Definitions of outage, special offices and facilities, and 911 special facilities.

(a) *Outage* is defined as a significant degradation in the ability of an end user to establish and maintain a channel of communications as a result of failure or degradation in the performance of a communications provider’s network.

(b) *Special offices and facilities* are defined as entities enrolled in the Telecommunications Service Priority (TSP) Program at priority Levels 1 and 2, which may include, but are not limited to, major military installations, key government facilities, nuclear power plants, and those airports that are listed as current primary (PR) airports in the FAA’s National Plan of Integrated Airports Systems (NPIAS) (as issued at least one calendar year prior to the outage).

(c) A critical communications outage that potentially affects an airport is defined as an outage that:

(1) Disrupts 50 percent or more of the air traffic control links or other FAA communications links to any airport;

(2) Has caused an Air Route Traffic Control Center (ARTCC) or airport to lose its radar;

(3) Causes a loss of both primary and backup facilities at any ARTCC or airport;

(4) Affects an ARTCC or airport that is deemed important by the FAA as indicated by FAA inquiry to the provider's management personnel; or

(5) Has affected any ARTCC or airport and that has received any media attention of which the communications provider's reporting personnel are aware.

(d) [Reserved]

(e) An outage that potentially affects a 911 special facility occurs whenever:

(1) There is a loss of communications to PSAP(s) potentially affecting at least 900,000 user-minutes and: The failure is neither at the PSAP(s) nor on the premises of the PSAP(s); no re-route for all end users was available; 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)).

[69 FR 70338, Dec. 3, 2004, as amended at 81 FR 45067, July 12, 2016]

EFFECTIVE DATE NOTE: At 81 FR 45067, July 12, 2016, Section 4.5 was amended by revising paragraphs (b) and (c). 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.

**§ 4.7 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) *Optical Carrier 3 (OC3) minutes* are defined as the mathematical result of multiplying the duration of an outage, expressed in minutes, by the number of previously operating OC3 circuits or their equivalents 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 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.