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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Emergency Disaster Relief Program	Rulemaking 18-03-011

EXTENET SYSTEMS (CALIFORNIA), LLC (U 6959 C) COMMENTS ON ASSIGNED COMMISSIONER'S RULING AND PROPOSAL

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ExteNet Systems (California) LLC (U 6959 C), ("ExteNet"), on behalf of itself and its parent, ExteNet Systems, Inc. (U 7367 U), hereby provides its Comments in response to the March 6, 2020 Assigned Commissioner Ruling and Proposal ("ACR").[1] The ACR requests comments from communications service providers regarding their resiliency planning. Pursuant to Administrative Law Judge Colin Rizzo's email ruling, the deadline for submitting comments was extended to April 3, 2020.

ExteNet builds, owns and operates wholesale, neutral-host distributed networks, "small cell wireless facilities," that improve the coverage and capacity of existing and new wireless telecommunications networks. ExteNet's small cell wireless facilities typically consist of small antennas, radio equipment, and associated fiber optic cable, which are attached to utility poles or other structures, such as municipal light poles, typically located in public rights-of-way. Because ExteNet does not provide service to residential end users, its network and services differ from many of the communications providers that are parties in this proceeding. Therefore, ExteNet will comment only on those questions that it believes are relevant to its operations.

1. **Applicability of Requirements:** The Proposal states that the requirements shall be applicable to all companies owning, operating, or otherwise responsible for infrastructure that provides or otherwise carries 9-1-1, voice, text messages, or data.

    (a) Is this definition of applicability reasonably tailored to ensure regulatory compliance over all communications service providers? Why or why not?

ExteNet Response: This definition is appropriately tailored because it focuses on those communications providers that own or control physical infrastructure that supports communications services that will be used by California residents and businesses in an

[1] ExteNet sought party status in a motion filed at the Commission on April 2, 2020.

emergency. It should be noted however, that in many cases the infrastructure providers do not own the actual radio, or in some cases do not control the radio card that is located in a small wireless facility, as that term is defined by the Federal Communications Commission ("FCC") at 47 C.F.R. § 1.6002(l). In those cases, while the small wireless facility is owned by an infrastructure provider, such as ExteNet, the actual infrastructure that provides or otherwise carries 9-1-1, voice, text messages, or data – namely the radio control card – is owned by the wireless provider licensed to use the spectrum.

(b) Which types of providers, if any, should be excluded from these requirements because their services are not essential to reliable access to 9-1-1 and the distribution of essential emergency information?

ExteNet Response: As noted above, infrastructure providers who are not licensed spectrum holders should be exempt from the requirements in the ACR Proposal.

4. **Backup Power Requirement**: The Proposal recommends that all Providers have on-site emergency backup power to support all essential communications equipment including but not limited to, switching centers, central offices, wire centers, head ends, network nodes, field cabinets, remote terminals, and cellular sites (or their functional equivalents) necessary to maintain service for a minimum of 72 hours immediately following a power outage. Service must be sufficient to maintain access for all customers to 9-1-1 service, to receive emergency notifications, and to access web browsing for emergency notices.

(a) Please provide comments on the proposed backup power requirement.

ExteNet Response: The ACR Proposal recognizes that communications providers' networks differ, and a "one size fits all" approach is not appropriate. To that end, the ACR Proposal notes that "there is not a need to adopt a backup power requirement for every single component of

communications networks and that circumstances may exist in which placing a generator is not possible or in the public interest."[2] ExteNet strongly agrees.

Unlike traditional wireless carriers, ExteNet provides dark and lit fiber services to enterprise end user customers and wholesale Point-To-Point Private Virtual Circuit ("PVC") Transport Service to wireless service providers ("WSPs") via small cell and Distributed Antenna System ("DAS") networks. In order to provide dark fiber, DAS and small cell services, ExteNet must place equipment, including fiber optic cable, wireless antennas and radios on utility poles located in the public rights-of-way.

ExteNet's small cell and DAS networks enable WSPs to improve their coverage by filling in "dead spots," and/or to increase their capacity to provide services in certain geographic areas. In order to accomplish this, ExteNet installs RF/optical conversion equipment in a housing near a utility pole, and antennas and associated radio equipment (referred to as a node) on the nearby utility pole. The equipment enables ExteNet to receive a WSP customer's RF signal, convert that RF signal into an optical signal, and then place the signal onto fiber optic facilities. The signals are transported via fiber to one or more remote locations and then ExteNet's equipment re-converts it back to an RF signal that is transmitted from an antenna at the remote location.

ExteNet has deployed thousands of wireless antennas and other network equipment on poles in California. ExteNet provides backup power through battery backup equipment installed on node poles or housed nearby. Based on its experience, ExteNet submits that backup power for 72 hours would be cost-prohibitive from a carrier perspective in most circumstances. As explained above, as an infrastructure provider, ExteNet does not own the small cell radios or

[2] ACR Proposal, at p. 2, §1.

radio control cards used to provide RF coverage. That equipment is not owned by ExteNet and never will be as ExteNet does not hold RF spectrum licenses.

Additionally, even though ExteNet does provide power and utility coordination to energize node poles, where battery backup units ("BBU's") are deployed, they are funded by the Mobile Network Operator and deployed at their request. The Commission should consider the fact that most small wireless facility deployments are part of a heterogeneous network configuration for the carrier and almost always a macro-site (tower) is in the same coverage area and is capable of providing basic coverage. The expectation is that all of the replacement, civil, engineering, and utility costs to provide BBU's will be the responsibility of the MNO as owner of the active radio equipment. BBU is considered part of the service offering and is the responsibility of the customer to pay for the services.

It is difficult to calculate the cost impact of BBUs for small wireless facilities because every node pole, utility situation, and geographical terrain is different. In one case for which ExteNet examined BBUs for proposed small wireless facilities in California, it conducted a cost analysis, and concluded that the carrier would have had to invest an additional $8M for civil and utility works to provide 72-hour battery backup capabilities to every node pole. That cost exceeded the initial investment to deploy the nodes.

(b) How should "outage" be defined?

ExteNet Response: Outage should be defined as a complete interruption of service for more than 30 minutes.

(c) Should the length of the 72 hour backup power requirement be shorter, longer or indefinite? Please provide an analysis to support your recommendation.

ExteNet Response: According to the U.S. Energy Information Administration, the average commercial power outage in the U.S. is five hours or less.[3] Therefore, backup power requirements of 72 hours is more than sufficient to ensure continuity of service during the vast majority of outages.

(d) What other backup power requirements or components should the Commission consider? Please provide an analysis to support your discussion of any additional requirements or components.

ExteNet Response: ExteNet has no response to this question.

2. **Backup Power Plans**: The Proposal recommends that Providers file a Backup Power Plan with the Commission six months from the effective date of an adopted Commission decision with an array of requirements that illustrate the Provider's preparedness to ensure 9-1-1 access, ability to receive emergency notifications, and access web browsing for 100 percent of customers in the event of a commercial power outage. Please provide comments and analysis on this compliance requirement.

(a) Clean Energy Generation: The Proposal directs Providers to utilize clean energy backup power options (*e.g.*, solar, *etc.*) as reasonable before using diesel generators to meet the backup power requirement, among other provisions.

Please provide comments and analysis on this issue, and specifically address the following:

i. How should "clean energy backup" be defined?

ExteNet Response: ExteNet has no response to this question.

ii. Provide specific information on barriers to procuring specific types of clean energy backup power (*e.g.*, cost, permitting, *etc.*).

ExteNet Response: Use of renewable energy such as solar as backup power is not feasible for DAS or small cell installations. The size and deployment of solar panels needed to power a 72-

[3] Data available at https://www.eia.gov/todayinenergy/detail.php?id=35652.

hour BBU will likely lead to poles failing their wind and structural analysis requiring additional pole replacements. Further, solar technology is not available with sufficient capacity to power DAS and small cell equipment.

(b) Waivers: The Proposal directs Providers to submit waivers if they qualify for any of the exemptions enumerated in the Proposal. Please provide comments and analysis on this issue.

ExteNet Response: ExteNet has no position on this question.

(c) Critical Facility Location Information Sharing: The Proposal directs Providers to share critical facility location information to emergency responders to enhance the ability to defend vital facilities against wildfire damage and ensure facility redundancy. Please provide comments and analysis on this issue.

ExteNet Response: ExteNet strongly agrees that information on communications facilities, including backup power equipment, attached to utility poles or installed in conduit should be made available, not only for first responders, but for carriers themselves to do network planning and restoration after an emergency. Currently information about equipment attached to poles is maintained in a patchwork of electronic databases maintained by individual pole and conduit owners, while others have only paper records. Information access is slow, inconsistent and frequently unavailable outside of standard business hours.

Almost three years ago, the Commission opened proceeding I. 17-06-027 to investigate creation of a statewide database for pole and conduit data. Some limited progress has been made, but thus far industry participants have reached agreement only on providing access to ten data elements about utility poles (*e.g.* height, location, etc.) but not attached equipment. Some pole owners have agreed to make this pole data available through portals to their own databases. Other pole owners, however, have not presented a plan for a database, instead offering only to provide data in response to email requests within one business day. Clearly, this non-

mechanized approach is insufficient to meet the needs of first responders and communications providers during emergencies.

The Commission has not yet issued an order indicating whether these plans are sufficient. ExteNet urges the Commission to order, at a minimum, that all pole owners must make available all data on poles, attached equipment (including backup power devices) and conduit stored electronically in a database that is available 24 x 7. Given the unprecedented Covid-19 pandemic and upcoming wildfire season, ExteNet submits that pole owners should be ordered to make data available immediately if it is stored electronically and to begin compiling non-electronic data to be made available within six months.

(d) Critical Infrastructure Resiliency, Hardening and Location Information Sharing: The Proposal directs Providers to annually submit geographic information system (GIS) information with the specific location of network facilities and backhaul routes to the Commission. The Proposal directs Commission staff to analyze and process this information, so it is accessible to state and local emergency responders, subject to confidentiality requirements. Please provide comments and analysis on these proposed directives.

ExteNet Response: ExteNet supports the requirement to make available data on poles, attached equipment and conduit with GIS tags. Some pole owners do not provide GIS location information and instead provide only street addresses or latitude/longitude information. These types of information are less accurate than GIS data and could cause delays during emergencies.

6. Emergency Operations Plans: The Proposal directs Providers to file emergency operations plans with the Commission, discussing how their operations are prepared to respond to emergencies. Please provide comments and analysis on this issue.

(a) Additionally, the Proposal itemizes required content that the Providers must submit to the Commission. Please provide comments and analysis on this issue.

ExteNet Response: ExteNet supports an effort to ensure that emergency service providers in California have contact information for a designated carrier representative to ensure communication during an emergency. ExteNet respectfully submits, however, that it is not necessary to require carriers to have an annual emergency preparedness exercise. ExteNet maintains a 24x7 Network Operation Center ("NOC") and has in place measures for emergency response and escalation. Given that each carrier's NOC is unique, requiring a standardized emergency preparedness exercise may not increase carriers' ability to address emergency situations.

(b) Should the proposed rule for Emergency Operations Plans include any other information that the Proposal does not address? Please explain why any additional information is legitimate and necessary for adoption.

ExteNet Response: No other information is needed.

Signed and dated April 3, 2020 at Walnut Creek, CA.

Respectfully submitted,

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