

February 18, 2014

Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of)	
)	
Improving the Resiliency of Mobile Wireless Communications Networks)	PS Docket No. 13-239
)	
Reliability and Continuity of Communications Networks, Including Broadband Technologies)	PS Docket No. 11-60
)	
)	

REPLY COMMENTS OF CONSUMERS UNION AND PUBLIC KNOWLEDGE

Consumers Union, the public policy and advocacy division of Consumer Reports,¹ and Public Knowledge,² having reviewed and considered the comments submitted in the above-referenced Notice of Proposed Rulemaking, offer the following comments in reply. We remain convinced that public disclosure of wireless network performance and recovery during and after

¹ Consumers Union is the public policy and advocacy division of Consumer Reports. Consumers Union works for a fair, just, and safe marketplace for all consumers and to empower consumers to protect themselves, focusing on the areas of telecommunications, health care, food and product safety, and financial services, among others. Consumer Reports is the world's largest independent product-testing organization. Using its more than 50 labs, auto test center, and survey research center, the nonprofit organization rates thousands of products and services annually. Founded in 1936, Consumer Reports has over 8 million subscribers to its magazine, website, and other publications.

² Public Knowledge preserves the openness of the Internet and the public's access to knowledge; promotes creativity through balanced copyright; and upholds and protects the rights of consumers to use innovative communications technology reliably and lawfully.

major weather events and other disasters, using the proposed metric, would provide consumers with useful information. We remain convinced that it would also help promote important improvements in network strength and resiliency. And we continue to believe that the proposed rule appropriately furthers the Commission’s objective of “ensur[ing] that any disclosure rules adopted in this area are tailored to the needs of consumers, do not impose undue burdens on service providers, and provide incentives that are most likely to lead to improvements in network reliability during emergencies.”³

The comments do, however, help bring some of the issues raised by the Commission into sharper focus, warranting our reply. In particular, we wish to reiterate the following points:

- **Information regarding wireless network performance during and following a major weather event or other disaster is useful for consumers.**

A number of commenters question whether consumers are interested in knowing more about their wireless provider’s network performance during major weather events or other disasters compared to other providers available in their area. While most consumers may, as these commenters suggest, care more about how their provider’s network performs day-to-day, for some consumers, this is extremely important information when choosing a wireless provider.

For some consumers, it is essential that they have reliable access to medical or other services at all times, for themselves or for their loved ones. And those with actual experience of being cut off from needed emergency assistance during an outage are keenly aware of how important network reliability is during an emergency.

It is not essential to the merits of this proposal that all, or even most, consumers place a high priority on this feature – only that a significant number of consumers do.

³ NPRM, paragraph 9.

- **The proposed metric is useful as an objective, verifiable, and standardized touchstone on which to anchor consumer evaluations of their wireless provider's performance during and after a major weather event or other disaster.**

A number of commenters suggest that consumers already have all the information they need to evaluate their wireless provider's network performance during and after a major weather event or other disaster – in the form of their own first-hand experiences, and the experiences of their neighbors, friends, and loved ones – and therefore that the proposed additional information would not add anything useful.

While consumers who care about network performance could base their choice of wireless provider solely on these subjective, anecdotal impressions, we believe they will benefit greatly from also having objective, verifiable information.

In the letter sent to the Commission last May, Consumers Union suggested, as one possible approach, the metric of the percentage, and number, of cell sites operational, in each county affected by activation of the Commission's Disaster Information Reporting System (DIRS), on each day DIRS is activated. One advantage recommending this metric is that it is a subset of information already being disclosed by carriers to the Commission under DIRS.

The proposed metric will not be considered in isolation. Consumers would continue to have their own first-hand experiences, and stories shared by others, to factor into their assessments. In addition, providers would be free to furnish any additional information they believe helps explain the information conveyed under the metric. The Commission should consider adding information to the metric in what it publishes, if there is sufficient consensus on what additional information would be helpful to consumers and feasible to provide; for example, in the May 2013 letter, Consumers Union suggested publishing not only the percentage of

operational sites, but also the number of sites represented by that percentage. And finally, wireless providers could also choose to publish additional information on their own that they believe puts their own performance in fuller context. But under the proposed rule, whatever additional information is provided would be grounded in a simple, objective, standardized, verifiable metric as a shared point of reference.

- **The proposed metric can be refined to appropriately take into account variations in network architecture and in restoration efforts.**

Some commenters suggest that the proposed metric is too simplistic to provide an accurate picture of network performance. First, they suggest that the proposed metric would not properly take into account the variations in network facilities, such as small cell sites and overlapping facilities that enhance capacity beyond normal requirements. Counting all these additional facilities as cell sites in the metric, they say, could give a distorted picture of how the network is truly functioning. Second, they suggest that the proposed metric would not properly take into account the various robust and creative and dynamic responses a carrier or provider might undertake to restore network functioning, such as temporary facilities and roaming agreements; these might result in largely restoring network functioning, but would not be captured in a flat metric of the percentage of operational cell sites.

We believe these concerns can be readily addressed in how the metric is determined, if this can be done without complicating it, or in supplementary information published by the Commission – or, if providers cannot agree on what additional information should be included, then publicized by individual providers.

In any event, the focus should be on network functionality from the perspective of the consumer. For example, if a number of cell sites are inoperable but, due to redundant,

overlapping, and enriched facilities, no consumer finds service quality affected, that is certainly important information for consumers to have. If small cell sites are an important part of providing sufficient capacity to the network, they should be counted appropriately, though perhaps not in the same manner as macrocell sites.

But we believe this information can be appropriately incorporated readily enough into either what the Commission publishes or what the providers publicize. If it can be readily determined and verified, for example, that a temporary COW or COLT site has entirely replaced both the coverage and the capacity of an inoperative permanent cell site, that can be appropriately taken into account or explained. Likewise if a roaming arrangement among providers has entirely replaced both the coverage and the capacity of an inoperative permanent cell site.

In this regard, it is important not to overlook the importance of *capacity* as well as coverage. If a network is able to carry only a fraction of the calls it normally can, and consumers experience uncompleted or dropped calls as a result, then the network technically has not lost coverage, but it is certainly not fully operational. The term “operational” should be carefully defined, to ensure that it accurately indicates, from the consumer’s perspective, the extent to which the site is operating, in whatever manner, to provide functionally equivalent service at essentially full normal capacity, and that it accurately describes and measures sites that are partially but not fully operational.

In any event, whatever information is included in the standardized metric, and whatever information is made available in addition to the metric, consumers will benefit from having the metric as an objective, verifiable, standardized point of reference.

- **Disclosure of the proposed metric will not impose undue costs on wireless providers or divert resources from network restoration efforts.**

A number of commentators suggest that requiring disclosure of the proposed metric will impose undue costs on providers and divert their resources from more urgent network restoration efforts. We believe the costs and time involved are minimal and can be effectively managed. And we encourage the Commission to adjust the timing of the disclosure to even further remove any potential for it to impose undue costs or divert resources.

The fact that carriers are currently submitting this information, and more, to the Commission under DIRS strongly suggests that doing so does not impose significant costs or divert resources from network restoration. The aggregated metric information to be disclosed could be extracted by the Commission, based on the information submitted under DIRS. So there would be no new costs imposed on providers who already submit information under DIRS, and for those who do not already submit it, the costs would be no more than the nominal costs already easily managed by the carriers who do. The information on which the metric would be based is information that all carriers should already be compiling for their own network restoration purposes, and submitting a copy of that information to the Commission would entail minimal cost and time.

The Commission asked whether smaller providers should be included, and providers who do not have their own physical network facilities but use the networks of other providers. As we indicated in our comments, we believe it would be best to include all providers in the affected area, to give consumers the fullest picture of their choices. But we agree that how to include these other providers warrants the Commission's consideration.

It may be that most consumers for whom network reliability and resiliency during and following a major weather event or other disaster is important would opt for one of the larger carriers that is already reporting under DIRS. We believe that limiting the proposed disclosure to those larger carriers, however, could have the effect of reinforcing an impression among consumers that only those larger carriers are suitable options for them. We believe that other carriers and wireless providers would ultimately prefer to be included, as long as an appropriate way to include them is devised.

We recognize that providers who use others' networks could have difficulty obtaining immediately the precise information for the metric, as that information would have to come from the carrier who controls the network involved. Depending on how quickly the final rule determines that the metric is to be published, this difficulty may not arise in practice. But as Consumers Union suggests in its first-round comments, one possible alternative approach is for a provider who uses others' networks to simply disclose whose networks it uses. Consumers could then refer to the carriers who control those networks to assess their provider's reliability and resiliency in major weather events and other disasters. This approach might in fact give consumers a more accurate picture than ascribing those networks to the provider as if the provider controlled them. And for providers who control some network facilities of their own but also use others' networks, the two approaches could be combined.

As to timing of the disclosure, we recognize that in the midst of a major network outage, wireless providers will want to focus their energies and resources on the priority of restoring network functionality as quickly as possible. While we believe the suggestion that the reporting involved here would interfere with that priority is open to question, we also believe that immediate reporting is not necessary to achieve the benefits of the proposal. Other commenters

are probably correct in noting that relatively few consumers will be choosing a new wireless provider in the midst of an outage caused by a major weather event or other disaster – although some might need to.

So we recognize the potential benefits of postponing the disclosure for a reasonable period of time. This would enable a more comprehensive picture to be developed of how the affected wireless networks have performed and recovered, and would give providers more time to compile whatever supplementary information they think will provide useful context.

The postponement should not be longer than is necessary to achieve these benefits, however. Any delay will affect some consumers whose need to choose a carrier is too urgent to wait, depriving them of the benefit of the information. We would recommend that the postponement be on the order of no more than a few days. If a fuller picture can be developed subsequently, the information can be updated and republished. And we would recommend that the information, when it is published, still be specific as to the evolution of the outage and restoration over time, in daily or more frequent intervals.

This should not affect when providers submit information to the Commission under DIRS, nor when the Commission may choose to share some or all of the DFIRS information with state and local governments to assist first responders.

- **The proposal is not intended to create competition where none exists, but rather to improve information available to consumers, and by doing so, to also engage competitive forces to help further spur improvements in network reliability and resiliency.**

Some commenters suggest that the proposal is misconceived, that the wireless industry is already highly competitive, and does not need the additional competitive spur that this proposal attempts to introduce. In our view, this misconstrues the purpose of the proposal. First and

foremost, the proposal is intended to provide useful information to consumers, information that they are not now getting in any simple, objective, verifiable, standardized form. That information helps empower consumers for whom wireless network performance in a major weather event or other disaster is of high importance to make a more informed choice regarding their wireless provider.

As a corollary to this first purpose, we believe providers will respond to the fact that consumers are now empowered with this information, by working to strengthen their networks. This is not an effort to create new competition, but to utilize competition that already exists – by allowing the realization among wireless providers, that consumers now have new information about how wireless networks are performing in these situations, to influence how providers consider how much of their energies and resources to devote to satisfying consumers for whom this information is important.

- **Publicly disclosing information based on the proposed metric will not confuse or mislead consumers.**

Some commenters suggest that the proposed metric will confuse or mislead consumers, that the metric has no bearing on how networks are actually functioning.

This suggestion is responded to above. Consumers are confused now. They have only anecdotal impressions, from their own immediate experience and from stories they happened to have heard from neighbors, which gives them an inherently incomplete and subjective picture. Having a simple, objective, verifiable, standardized point of reference enables them to place these anecdotal impressions, and the self-serving accounts from wireless providers, into context. It will provide a touchstone for evaluating all the anecdotal impressions and provider claims. And it may encourage providers to make even more information available in an effort to place

the proposed metric into appropriate context as they see it. In all these respects, consumers will be better informed.

- **Publicly disclosing information based on the proposed metric will not distort provider incentives by spurring them to improve their metric at the expense of restoring network functionality.**

Some commenters suggest that requiring disclosure under the proposed metric will artificially exaggerate the importance of getting a good metric score, to such an extent that wireless providers will prioritize that over more effective steps to restore network functionality.

We believe that the metric, appropriately determined, will increase incentives to improve network performance and resiliency. Providers will not stop working to restore network operation as fully and quickly as possible simply in order to improve their metric score. Even with the metric, consumers' starting point will be how their own service, and the service of their neighbors and loved ones, held up. No carrier will lose sight of that. What adding the metric will do is either tend to objectively ratify those first-hand experiences as representative of the wider area, or tend to objectively show that those experiences are not representative.

As explained above, the metric can be determined in ways that appropriately take into account the relative importance to network functioning of partially functioning cell sites, small cell sites, overlapping or redundant coverage to enhance capacity, temporary cell sites, roaming agreements, and other factors, in accordance with the Commission's determination of what gives the most accurate picture, from the consumer's perspective, of the quality of coverage and capacity.

Nor will the metric, even as appropriately determined, become the sole measure of network performance and resiliency. As explained above, providers will have full opportunity to

supplement the metric with additional information to place it into context, either through what is agreed to be included in the Commission's disclosure, or independently.

One less-than-stellar showing under the metric, if satisfactorily explained by circumstances showing the network outage and its duration were not reasonably within the carrier's control, will have only a limited effect on consumer perceptions and choices. But repeated poor showings that are not satisfactorily explained, alongside good showings by other available carriers, could – and should – have an effect on perceptions and choices among consumers for whom reliability and resiliency in these situations is important. We also believe carriers would take this prospect into appropriate account, and work to make sure they do not have repeated poor showings that cannot be satisfactorily explained – not to the exclusion of other efforts to strengthen their networks and, when outages occur, to restore network functioning as quickly as possible, but as part of those efforts.

- **Publicly disclosing information based on the proposed metric will not interfere with cooperation among wireless carriers and providers to restore network operation.**

Some commenters suggest that disclosing the metric will introduce competition where it doesn't belong, interfering with carrier incentives to help each other in restoring effective network functioning and in making substitute arrangements in the interim.

As stated in Consumers Union's May 2013 letter, and in its first-round comments, we believe the Commission should take cooperative efforts appropriately into account in what it publishes. Failure or refusal to cooperate can be made evident enough in what information is ultimately published by the Commission and publicized by providers. Given that, and also given that many wireless calls occur between networks belonging to different carriers, we are confident

that, as a practical matter, carriers will continue to find it strongly in their own self-interest to cooperate.

Similarly, required disclosure of the metric should not interfere with ongoing cooperative efforts in the Communications Security, Reliability, and Interoperability Council (CSRIC), and in the Technical Advisory Council (TAC). In fact, it is likely to further encourage those efforts.

- **Requiring public disclosure of information under the proposed metric will not create security risks or compromise proprietary business information or infringe wireless providers' First Amendment rights.**

A number of commenters suggest that the metric information is security-sensitive, or contains proprietary business or “trade secret” information, or that requiring that it be disclosed infringes on wireless providers’ free speech rights under the First Amendment.

In our view, the level of disclosure proposed – aggregations of percentages (and perhaps numbers) of sites operational (or not) during all or part of a given day in a given geographical area – is not sensitive from a security perspective, nor does it reveal any sensitive “trade secret” information. And required disclosures of the kind involved in the proposed rule are found throughout federal, state, and local law, and are a long-accepted way of helping ensure that consumers can make well-informed decisions in the marketplace. There is simply no well-founded security, business sensitivity, or legal concern in the proposed required disclosure.

- **Disclosure of broader information, while it would also be useful, is not necessary in order for disclosure of information based on the proposed metric during DIRS activation to be useful in and of itself.**

A number of commenters suggest that broader or more extensive information disclosures would be more useful for more consumers and others in more situations. For some commenters,

that is reason for rejecting the metric; for others, it is reason for building on the metric so that it can do even more good. And some commenters recommend going further, beyond mere disclosure, and setting performance standards for network reliability and resiliency.

We agree that more information could increase the benefits to consumers. But we also believe publication of the metric by itself would be very beneficial for its limited but important purpose.

As the Commission is aware, the impetus for Consumers Union's May 2013 letter grew out of the experiences of consumers during and in the aftermath Superstorm Sandy, and reports of markedly different performance among similarly situated wireless networks. That is what the Commission was urged to address. Consumers Union suggested the metric – percentage of operational cell sites, and the number of sites that percentage represents, measured for each county, for each day that county is under DIRS activation – because that information can be readily derived from information already provided to the Commission under DIRS. As stated above, we believe making this information available to consumers will be very beneficial.

We agree that disclosure of more comprehensive information, on this and other indicia of network reliability and resiliency, could expand the benefits of the disclosure for other uses. We would not be opposed to more comprehensive disclosures. But we also recognize that expanding on the proposed disclosures could raise other issues and require further study. We would not wish to see the benefits of the disclosure that was proposed in the May 2013 letter, and that is reflected in the proposed rule, be delayed in order to study the merits of developing possible broader disclosures.

As for size of area of measurement, we would not be opposed to reducing the area to something smaller than a county, such as a census tract or zip code, as some commenters

suggest. We agree that smaller areas – more granular measurements – would be particularly useful in more concentrated urban areas. If this can readily be achieved now, without raising additional issues causing further delay, we would support modifying the metric accordingly. But this should not be a reason for any significant delay in finalizing the proposed rule.

As for network performance standards, while we fully support the Commission’s disclosure approach, we continue to support development of appropriate performance and backup standards, over time, based on input from providers, consumers, and other knowledgeable sources. This might be achieved through CSRIC and TAC, and we encourage their consensus processes to continue. We would also urge the Commission to stand ready to develop appropriate performance standards if warranted in light of the results of the required disclosure and voluntary efforts.

Conclusion

As stated in Consumers Union’s first-round comments, the proposed rule sets forth a promising approach for promoting improved reliability and resiliency of wireless networks, in situations where reliable wireless service is of particular personal and public safety importance, at nominal cost, utilizing already available information, and harnessing the power of sunshine and competitive market forces. We urge the Commission to adopt it, with the further improvements recommended here and in Consumers Union’s first-round comments.

Respectfully submitted,

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