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

In the Matter of)	
Resilient Networks))	PS Docket No. 21-346
Amendments to Part 4 of the Commission's)	
Rules Concerning Disruptions to)	PS Docket No. 15-80
Communications)	
)	
New Part 4 of the Commission's Rules)	ET Docket No. 04-35
Concerning Disruptions to Communications)	

Comments of the Alliance for Telecommunications Industry Solutions

The Alliance for Telecommunications Industry Solutions (ATIS) hereby submits these comments in response to the *Notice of Proposed Rulemaking (NPRM)*, released October 1, 2021, in the above-referenced dockets. In the *NPRM*, the Federal Communications Commission (Commission) seeks comment on measures to improve the Wireless Network Resiliency Cooperative Framework (Framework), promote situational awareness through its Disaster Information Reporting System (DIRS) and Network Outage Reporting System (NORS), and address electric power outages. ATIS believes the voluntary Framework is effective and that additional or revised measures, such as mandating compliance with or requiring the submission of implementation reports associated with the Framework, are not needed. ATIS also opposes mandating participation in DIRS or requiring the reporting of broadband outages in NORS. ATIS supports efforts to ensure better and more effective coordination between power companies and the communications sector but believes that there is no reason for specific backup power requirements or for other Commission mandates that dictate how service providers build reliable networks and restore service. ATIS recommends that power companies, and their

regulator, be involved in any discussions of power-related service disruptions and potential hardening efforts being undertaken by the power companies. Finally, ATIS suggests that the Commission encourage public safety agencies and Public Safety Answering Points (PSAPs) to comply with relevant industry Best Practices and to participate in the development of voluntary industry solutions.

I. Background

ATIS is a global standards development and technical planning organization that develops and promotes worldwide technical and operations standards for information, entertainment, and communications technologies. ATIS' diverse membership includes key stakeholders from the Information and Communications Technologies (ICT) industry- wireless, wireline, and VoIP service providers, equipment manufacturers, broadband providers, software developers, consumer electronics companies, public safety agencies, and internet service providers. ATIS is also a founding partner and the North American Organizational Partner of the Third Generation Partnership Project (3GPP), the global collaborative effort that has developed the 4G Long-Term Evolution (LTE) and 5G New Radio (NR) wireless specifications. Nearly 600 industry subject matter experts work collaboratively in ATIS' open industry committees and incubator solutions programs.

ATIS' Network Reliability Steering Committee (NRSC) was formed in 1993 at the recommendation of the Commission's first Network Reliability and Interoperability Council. The NRSC strives to improve network reliability by providing timely consensus-based technical and operational expert guidance to all segments of the public communications industry. The NRSC addresses network reliability improvement opportunities in an open environment and advises the communications industry through the development of standards, technical

2

requirements, reports, bulletins, best practices, and annual reports. The NRSC is comprised of industry experts with primary responsibility for examining, responding to, and mitigating service disruptions for communications companies. The NRSC also collaborates with public safety associations and works with the Commission to provide input on NORS and DIRS. NRSC participants are the industry subject matter experts on communications network reliability and outage reporting.

II. Comments

A. Wireless Network Resiliency Cooperative Framework

The Commission seeks input in the *NPRM* on whether it should take steps to encourage voluntary participation beyond the Framework signatories.¹ ATIS NRSC supports broad voluntary participation in the Framework and notes that there are other forums that work to facilitate resiliency among the broader industry, including ATIS NRSC, which develops Best Practices directed at fostering network resiliency.

In the *NPRM*, input is also sought on what additional actions wireless providers and other stakeholders (e.g., backhaul service, wireline service providers) could take to ensure appropriate and effective coordination with local agencies to mitigate the impact of service disruptions.² ATIS NRSC notes that wireless providers and other stakeholders, such as municipalities and PSAPs, do work collaboratively on issues related to network resiliency, including through groups such as ATIS NRSC and Emergency Services Interconnection Forum (ESIF), which develops NG911 and location accuracy requirements and solutions and identifies and resolves technical

 $^{^1}$ NPRM at ¶16.

² NPRM at ¶20.

and operational issues to facilitate interconnection of emergency services networks with other networks.

The Commission also asks about the scope of the Framework obligations and the costs of any additional or revised measures to address gaps, such as provisions regarding the placement of backup systems or backhaul redundancy, or the prioritization of the restoration of text-to-911 capability.³ ATIS NRSC does not believe that additional or revised measures are needed to address gaps. Moreover, ATIS NRSC believes that there could be significant costs with measures that address the placement of backup systems. ATIS notes that the industry designs and deploys assets to optimize site capacity and is in the best position to make decisions regarding network deployment to ensure customer expectations are met. Moreover, the resiliency of wireless communications networks depends on the wireless service providers' network design and level of investment, and backhaul is just one part of that equation. The relationship between the wireless service provider and the backhaul provider is generally governed by contract. Those contracts contain terms governing service level agreements (SLAs) to ensure the backhaul service is reliable including restoration processes in the event of a service disruption. For example, these contracts contain communication protocols to ensure all parties have situational awareness in the event of an emergency, escalation protocols, and potential financial repercussions if SLA obligations are not met. Wireless providers have dedicated access to engage their wireless backhaul providers to obtain the particular level of service commitments and responsiveness they need – there is no need for the Commission to compel wireless backhaul providers to sign on to the Framework given the contractual arrangements currently in place. In light of the contractual arrangements governing provision of backhaul services and backhaul

³ NPRM at \P 24.

providers' participation in governmental disaster recovery efforts, it is unnecessary to mandate that backhaul providers participate in the Framework.

The *NPRM* also seeks comment on whether it should require wireless providers to submit reports to the Commission detailing implementation of the voluntary Framework in real time or in the aftermath of a disaster.⁴ ATIS NRSC does not support a regulatory requirement that providers participating in the Framework submit implementation reports. The voluntary Framework should remain voluntary, and the Commission should avoid imposing regulatory mandates that could incentivize providers to not participate in the Framework.

The Commission asks for input regarding whether it should mandate some or all existing or modified Framework.⁵ ATIS NRSC believes that the voluntary Framework is effective and that there is no need for a mandate. As ATIS has said many times, the reason that voluntary efforts have been very effective in addressing key issues is that these efforts are not mandated, which encourages stakeholders to participate and contribute their experience and expertise. Creating regulatory mandates can have a chilling effect on such efforts by making service providers reluctant to participate or contribute. Moreover, regulation may inadvertently stifle innovation as service providers must focus resources on complying with federal mandates rather than on the development and implementation of cutting edge advancements to enhance network performance and resiliency. ATIS NRSC also notes that mandates may also restrict the ability of providers to react to the specific circumstances of a particular disaster. Because no two disasters are identical, the industry must have the flexibility to adapt to the circumstances of that particular event.

⁴ NPRM at \P 25.

⁵ *NPRM* at ¶26.

B. Situational Awareness During Disasters

1. DIRS

The Commission asks whether it should require service providers to report their infrastructure status information in DIRS when the Commission activates DIRS in geographic areas in which they broadcast or otherwise provide service.⁶ ATIS NRSC understands the importance of DIRS reporting and is pleased to have aided the Commission in its development and deployment of DIRS on a voluntary basis and have provided significant input and suggestions for improvement. ATIS NRSC believes that DIRS has been successful and that this success is due to the voluntary nature of DIRS. The Commission's primary justification for creating a mandatory DIRS reporting obligation appears to stem from the fact that it lacks situational awareness from the smallest service providers who do not participate in DIRS. For the Commission to create a mandatory reporting requirement despite its success from collecting DIRS data from the largest carriers who serve all but a small percentage of customers is the very definition of the tail wagging the dog. If the Commission truly believes that there is meaningful situational awareness to be gained by having these small service providers participate in DIRS, it should consider imposing a similar obligation on these providers on a similar basis as it did with carriers that are receiving Uniendo a Puerto Rico or Connect USVI funding.

The Commission states that the voluntary nature of DIRS creates ambiguity about whether a provider's lack of DIRS filings means that its network infrastructure remains undamaged, it is choosing not to voluntarily participate in DIRS, or it is unable to file.⁷ ATIS NRSC disagrees that this situation creates ambiguity. Service providers that choose not to

⁶ NPRM at ¶29.

⁷ NPRM at $\P27$.

participate in DIRS must report outages in mandated NORS outage reporting. The Commission would therefore have situational awareness, by company, into these outages via NORS.

ATIS NRSC therefore opposes mandating participation in DIRS, as it is unnecessary because the Commission already has broad participation from the service providers in both NORS and DIRS that serve the overwhelming majority of telecommunications customers. If the Commission nonetheless feels action needs to be taken in this area, ATIS NRSC would welcome the opportunity to help the Commission further educate service providers on the value of DIRS reporting, where/when applicable.

2. NORS

The Commission seeks input on the public interest benefits and costs of requiring the reporting of broadband service outages in NORS.⁸ ATIS NRSC opposes broadband reporting requirements. While ATIS NRSC recognizes the Commission's desire for visibility into events that could potentially impact homeland security and public safety, it urges such visibility should be achieved through voluntary, evolutionary, and reasonable efforts that are based on existing measurements used to internally monitor and/or track these events. ATIS NRSC believes that these efforts should be developed through a strong collaborative government-industry relationship that includes a role for the industry in evaluating and providing feedback and input on information collected and on information exchange mechanisms.

If broadband reporting requirements are established, ATIS NRSC believes there should be no reporting requirements for Commercial Mobile Radio Service (CMRS) providers. The reporting rules for CMRS providers already capture broadband outages via their reporting of cell

⁸ NPRM at ¶30.

site outages. Under these rules, a site is either up/on or its down/off based on the number of potentially affected user minutes.⁹

Additionally, if broadband reporting is required, this reporting should be based on a complete loss of service, rather than service degradation. ATIS NRSC strongly opposes the collection/use of performance data (such as packet loss, round-trip latency, or jitter) for outage reporting. ATIS NRSC does not believe that such data would necessarily provide a clear indication as to whether an event significantly degrades the ability of an end user to establish and maintain communications. In fact, these factors may vary throughout an event as IP networks self-heal routing around network impairment, to maintain service. Moreover, such data is not necessarily monitored or collected by all carriers in a similar manner that is suitable for consistent outage reporting.

The Commission asks whether it should codify, in its Part 4 rules, the Commission's practice of granting to providers a waiver of their NORS reporting requirements when they report the outage in DIRS.¹⁰ ATIS NRSC supports this proposal. Codifying that service providers reporting in DIRS would not be required to report in NORS would remove any uncertainty about this practice or its application to the industry.

Finally on this topic, ATIS NRSC notes that the Commission asks for input on any gaps in situational awareness stemming from a situation in which DIRS is deactivated before some providers fully restored service.¹¹ ATIS NRSC opposes any additional requirements for these lingering outages, which represent a very small percentage of the total impact of the disaster or

⁹ 47 CFR §4.9(e).

¹⁰ NPRM at $\P31$.

¹¹ *NPRM* at ¶32.

other event. In fact, the lingering outages can account for dwellings and structures that are no longer standing or inhabitable. ATIS NRSC also believes that the current requirements, which require carriers to either participate in DIRS and report voluntarily or in NORS and report as required by Part 4 of the Commission's rules, are effective in providing situational awareness during disasters. Moreover, the Commission's rules require providers of telecom service to report additional information if there is a discontinuance, reduction or impairment in service for over 65 days.¹² Such information would include: (1) the effective date of such discontinuance, reduction, or impairment, and the identification of the service area affected; (2) the nature and estimated duration of the conditions causing the discontinuance, reduction, or impairment; (3) the facts showing that such conditions could not reasonably have been foreseen by the carrier in sufficient time to prevent such discontinuance, reduction, or impairment; (4) a description of the service involved; (5) the nature of service which will be available or substituted; (6) the effect upon rates to any person in the community; and (7) the efforts made and to be made by applicant to restore the original service or establish comparable service as expeditiously as possible.

C. Power Outages

The Commission seeks comment on communications service provider coordination with power companies before, during, and after disasters, including efforts of the Cross-Sector Resiliency Forum.¹³ ATIS NRSC believes that the industry has done an effective job of coordinating but supports efforts to ensure better and more effective coordination between power companies and the communications sector. During Hurricane Ida, for instance, there was daily

¹² 47 CFR §63.63.

¹³ *NPRM* at \P 37.

coordination between major and smaller power companies, state and federal emergency management agencies, and wireline, cable, and wireless service providers.

The *NPRM* asks about backup power, including how many hours of on-site backup power would be appropriate to significantly reduce the frequency of power-related service disruptions and whether backup power should be provisioned at certain critical points in communications infrastructure.¹⁴ ATIS NRSC believes that there is no reason for specific backup power requirements or for other Commission mandates that dictate how service providers build reliable networks and restore service. It is important to note that the communications networks ultimately rely on commercial power and were not designed to replace the long-term loss of commercial power. Sufficient backup power has always been designed for short-term power disruptions and requiring a specific backup power mandate will not benefit disaster situations that require weeks or months of restoration activity. Instead of establishing any such requirements, the Commission should recognize that many factors influence service providers' decisions regarding backup power. Among these factors are the geographic location of the site, site-specific space and weight constraints (which may be prescribed by landlord-tenant covenants and/or local and municipal regulations), access to the site, local municipal permitting restrictions and the technical needs of the network. ATIS NRSC believes that service providers, not the Commission, are in the best position to evaluate these factors and make decisions regarding backup power and the feasibility of implementing specific solutions. The providers prioritize efforts to restore service to critical operations first. Thus, whenever possible, efforts are undertaken to focus first on: Telecommunications Service Priority (TSP) customers; 911 facilities, police and fire; hospitals; and critical communications affecting other service

¹⁴ *NPRM* at ¶39.

providers' ability to provide essential services. However, it should be noted that the dynamics of an event and its impact to the network and/or to customer facilities must also be considered in making restoration decisions. Service providers also coordinate with public safety and emergency response personnel regarding service prioritization needs. These factors may impact decisions regarding which facilities can and should be restored first.¹⁵ Also, employee safety and access play key roles in the overall restoration plan.

ATIS NRSC believes that the issue of backup power cannot be addressed solely by the Commission because the Commission does not regulate power companies. ATIS NRSC recommends that power companies, and their regulator, should be involved in any discussions of power-related service disruptions and potential hardening efforts being undertaken by the power companies given the primary role that power companies have in these outages.

The Commission in the *NPRM* seeks input on what steps it could take, such as revisions to its Part 4 rules or encouraging of voluntary measures, to make it more likely that PSAPs will have the necessary resources to continue service during and after disasters.¹⁶ ATIS NRSC notes that there are existing state and local activities (e.g., Emergency Operations Center (EOC)) that provide for collaboration between power companies and local authorities regarding clearing and restoration efforts and recommends that this communication include the communications sector. ATIS NRSC also notes that there are a number of industry Best Practices that address power and backup power issues¹⁷ and suggests that the Commission encourage public safety agencies and

¹⁵ ATIS NRSC also notes that the availability and reliability of backup power would not have an impact on resiliency if other parts of the network are damaged by floods, tornadoes, fires or earthquakes. In those cases, the existence of backup power may be irrelevant or premature to restoration efforts as service providers must focus on rebuilding or replacing other infrastructure, such as damaged equipment, towers, and cables. ¹⁶ *NPRM* at 42.

¹⁷ A review of the industry Best Practice database reveals that 110 of the Industry Best Practices address "power." See Industry Best Practices website at <u>bp.atis.org</u>.

PSAPs to comply with these Best Practices. ATIS would also recommend that the Commission encourage public safety agencies and PSAPs to participate in the development of solutions through groups such as ATIS ESIF, which allows all stakeholders to collaborate in a voluntary open forum to identify and resolve technical and operational issues related to the interconnection of emergency services networks.

III. CONCLUSION

ATIS appreciates the opportunity to provide its input to the *NPRM* and urges the Commission to consider the recommendations above.

Respectfully submitted,

The bal

Thomas Goode General Counsel Alliance for Telecommunications Industry Solutions 1200 G Street, NW Suite 500 Washington, D.C. 20005 (202) 628-6380

December 16, 2021