Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of
911 Governance and Accountability
Improving 911 Reliability
PS Docket No. 14-193
PS Docket No. 13-75

COMMENDS OF AIRBUS DS COMMUNICATIONS

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I. INTRODUCTION AND SUMMARY

Airbus DS Communications (“Airbus”) generally supports the Federal Communications Commission’s (“FCC” or “Commission”) policy statement and proposals to modify Section 12.4 of its rules to ensure reliability and accountability in the provision of 911 service. 1 Airbus acknowledges that in light of changes introduced within the NG911 environment, the scope of entities covered under the FCC’s 911 rules should be expanded, that any new elements of 911 architecture or service should have the necessary redundancy and reliability safeguards and governance mechanisms in place to ensure reliable 911 service, and that significant changes in 911 service should be coordinated in a transparent manner with the FCC and state and local authorities.

To ensure that these proposed changes have the desired impact, the FCC should incorporate safeguards to prevent entities covered by the rules from delegating their FCC-imposed responsibilities and/or shifting their associated compliance obligations, costs or risks onto others, including other covered 911 service providers. Failure to do so would allow covered

911 service providers with greater contractual bargaining power to circumvent the FCC’s rules and jeopardize attainment of the goals sought through this rulemaking.

Airbus supports the FCC’s proposal to establish a centralized 911 Network Operations Center (“NOC”) Provider, which would assume primary responsibility for situational awareness and information sharing. In most cases, the 911 NOC would be the entity with the direct contractual relationship with public safety answering point (“PSAP”) in a given area to provide 911 services. With respect to specific, additional network reliability or best practices, associated certification requirements, and the definition of a major change in a 911 network, Airbus believes that the Commission should establish an advisory committee comprised of public safety organizations and other stakeholders, such as the Communications Security, Reliability and Interoperability Council (“CSRIC”), the Task Force on Optimal Public Safety Answering Point Architecture (“TFOPA”), the National Emergency Number Association (“NENA”) and the Association of Public-Safety Communications Official International (“APCO”), and rely on that committee to collaboratively develop a comprehensive set of guidelines.

II. BACKGROUND

Airbus DS Communications. Airbus is a leading provider of call processing systems, notification solutions and P25 land mobile radio systems in the United States. More than 3,500 U.S. PSAPs and 63% of all call processing positions rely on Airbus technology to deliver essential 911 public safety services.

Airbus’ call processing systems protect 200 million citizens and process more than 60% of the 911 calls in the United States. For more than 40 years, they have served PSAPs of all shapes and sizes across the country, ranging from two-position PSAPs in the nation’s heartland to PSAPs with hundreds of positions in our largest cities and counties. Airbus’ call processing systems serve nine out of the ten most populous cities in the country, including New York,
Chicago, Los Angeles, Philadelphia and Washington D.C. Additionally, Airbus’ call processing systems protect citizens across the globe by providing public safety call processing services on more than 50 U.S. military installations.

In 2013, Airbus introduced its Next Generation 9-1-1 call processing system, VESTA 9-1-1.\(^2\) Truly innovative, VESTA 9-1-1 has at its core a third-generation NENA i3 standards based, multimedia, IP infrastructure. This design gives VESTA 9-1-1 superior configurability, providing a wide range of deployment options, from a traditional, on-customer premise single PSAP system to the most advanced Next Generation 9-1-1 multi-tenant, shared and hosted, enterprise-wide, ESInet call processing solution. Additional key features of VESTA 9-1-1 include highly available, redundant, geo-diverse implementation capabilities.

Airbus’ full suite of NG 9-1-1 ready products and solutions include:

- VESTA 9-1-1 (call processing solution);
- VESTA SMS (text-to-9-1-1 processing module);
- VESTA Locate (desktop mapping solution);
- VESTA Map (enterprise mapping solution);
- VESTA Analytics (advanced reporting system);
- VESTA Alert (notification system); and
- VESTA Radio (P25 land mobile radio system).

911 Policy Statement and NPRM. Section 12.4 of the Commission’s rules currently imposes the following requirements on “covered 911 service providers:”\(^3\)

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\(^2\) Additional information on the VESTA 9-1-1 system can be found online at [http://airbus-dscomm.com/solutions/ng911.php#](http://airbus-dscomm.com/solutions/ng911.php#).

\(^3\) 47 C.F.R. § 12.4(a)(4).
a substantive requirement that such providers take reasonable measures to provide reliable 911 service with respect to circuit diversity, central-office backup power, and diverse network monitoring; and

a reporting requirement that such providers certify annually whether they have implemented specified best practices or reasonable alternative measures in each of those substantive areas.

In the NPRM, the FCC proposes, *inter alia*, to:

- revise Section 12.4 by expanding the definition of the term “covered 911 service provider” to include all entities that provide 911, E911, or NG911 capabilities or the functional equivalent of these capabilities, regardless of whether there is direct contractual relationship with a PSAP;\(^4\)

- amend the substantive obligations of Section 12.4(b) to require that all covered 911 service providers “take reasonable measures to provide reliable 911 service;”\(^5\)

- establish a class of covered 911 service providers that would assume primary responsibility for situational awareness and information sharing;\(^6\) and

- require notification to the Commission and the public of major changes in any covered 911 service provider’s network architecture or scope of 911 services not otherwise covered by existing requirements.\(^7\)

### III. DISCUSSION

Airbus generally supports the FCC’s policy statement and proposals to modify Section 12.4 of its rules to ensure reliability and accountability in the provision of 911 service. Airbus acknowledges that in light of changes introduced within the NG911 environment, the scope of entities covered under the FCC’s 911 rules should be expanded, that any new elements of 911 architecture or service should have the necessary redundancy and reliability safeguards and governance mechanisms in place to ensure reliable 911 service, and that significant changes in 911 service should be coordinated in a transparent manner with the FCC and state and local

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\(^4\) *911 Policy Statement and NPRM* at ¶ 42.

\(^5\) *Id.* at ¶ 44.

\(^6\) *Id.* at ¶ 66.

\(^7\) *Id.* at ¶ 50.
authorities. However, to ensure that these proposed changes have the desired effect, the FCC should incorporate safeguards to prevent entities covered by the rules from delegating their FCC-imposed responsibilities and/or shifting the associated costs and risks onto other parties, including other covered 911 service providers. Failure to do so would allow a covered 911 service provider with greater contractual bargaining power to circumvent the FCC’s rules and avoid its share of the responsibility and accountability for the provision of 911 services, potentially jeopardizing the successful achievement of the Commission’s goals in this rulemaking.

A. Duties Imposed on Covered 911 Service Providers Should be Non-Delegable, and Contractual Provisions, Such as Indemnification Provisions, that Shift Compliance Obligations, Costs or Risks Onto Others Should be Prohibited

The Commission seeks to promulgate regulations that will encourage and motivate accountability of “covered 911 service providers.” To ensure that any adopted regulations support this goal, the FCC needs to consider that responsible parties may seek to shift the duties, costs, or risks imposed by the FCC onto others. Therefore, the FCC should incorporate safeguards to ensure that covered 911 service providers cannot delegate their duties or otherwise shift the risk of liability.

As a result of the FCC’s rules and associated enforcement activities, regulated entities may perceive an increased risk of (or be subject to) regulatory fines and/or penalties associated with the violation of those regulations. As an example, the FCC recently announced a $3.4 million settlement with a telecommunications carrier, resolving an FCC investigation of the company’s failure to meet its emergency call obligations during a multistate 911 service outage, and issued a $100,000 fine against another telecommunications carrier for failing to properly

8 See 911 Policy Statement and NPRM at ¶¶ 36-37.
route 911 calls. New regulations that have yet to be interpreted may also heighten concerns because of the inherent uncertainties. Regulatory fines and penalties are of particular concern because they pose an uninsurable risk and, therefore, businesses may be particularly motivated to shift such risk to others. Accordingly, regulated parties may seek to delegate their FCC-imposed duties and obligations to others in order to reduce their own administrative burdens or costs.

The delegation of FCC-imposed duties and the shifting of risk and accountability, including, specifically, indemnification provisions, should not be allowed. Allowing such contractual provisions to have effect would reduce the incentive of covered 911 service providers to independently ensure compliance with the FCC’s rules, effectively undermining the FCC’s goal of a more failsafe 911 system.

A common method for delegating duties and shifting risk is through a contractual provision. Contracts can serve as effective vehicles for allocating liability associated with any given risk scenario. In many instances, the contractual allocation of liability is a fair, commercial arrangement negotiated at arms-length by equal parties. In other instances, however, the risk allocation can be the result of unequal bargaining power and/or violate public policy.10

As the Commission is aware, in an industry characterized by evolving technologies, many vendors who will fall within the proposed new definition of covered 911 service provider are relatively new, small technology companies that contract with large system integrators or


10 Although the FCC generally does not involve itself in purely private contractual matters, it does so where there is a violation of the Communications laws, FCC rules or policies. See, e.g., In the Matter of Continental Airlines Petition for Declaratory Ruling Regarding the Over-The-Air Reception Devices (OTARD) Rules, Memorandum Opinion and Order, 21 FCC Rcd 13201 (2006) (declaring as invalid certain provisions of a private lease agreement prohibiting a leasee from installing and operating a Wi-Fi system in an airport lounge).
multi-billion dollar network providers, including incumbent local exchange carriers (“ILECs”). In such circumstances, there is likely to be unequal bargaining power between the contracting entities. For these reasons, any duties imposed by the FCC’s new regulations should be non-delegable, and cost-shifting efforts, including specifically any provision for indemnification of liabilities or costs arising out of the regulations, should be prohibited as against public policy.

The 2014 multistate 911 outage provides context for why the Commission should prohibit indemnification clauses and other contractual provisions that allow one regulated party to delegate its duties or otherwise shift its risk of liability to others. As the Commission’s Public Safety and Homeland Security Bureau (“PSHSB”) explained, at the most basic level, the 2014 multistate outage occurred because of a software coding error in certain centralized equipment. That error was exacerbated, however, by poor communications between the vendor of the equipment and the parties that had contracted directly with the affected PSAPs to provide 911 service, and a faulty system design that consolidated critical, multistate 911 functions in only two...

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11 See, e.g., In the Matter of Implementation of the Local Competition Provisions of the 1996 Telecommunications Act of 1996, Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers, 11 FCC Rcd 15499 ¶ 1087 (1996) (imposing symmetrical reciprocal compensation rates between ILECS and Commercial Mobile Radio Service Providers (“CMRS”), inter alia, to address the concern that incumbent “LECs have used their unequal bargaining position to impose asymmetrical rates for CMRS providers and, in some instances, have charged CMRS providers origination as well as termination charges.”).

12 Allowing parties with greater bargaining power to shift duties, costs and risks associated with FCC-regulatory compliance also could have a chilling effect on new market entry and the introduction of new technologies and services.

locations without adequate safeguards in place.\textsuperscript{14} Thus, the FCC fairly and appropriately attributed the 2014 multistate 911 outage to the actions and inactions of a number of entities.

Assuming that the Commission ended up making similar findings regarding the culpability of multiple actors following another 911 outage after implementation of its new 911 rules, it would be grossly unfair for the agency to attribute that incident to the actions or inactions of a single entity. However, that would essentially be the result if a covered 911 service provider, whose actions exacerbated the outage, was able to obtain indemnification from other parties, including other covered 911 service providers. Such a contract provision effectively would allow that covered 911 service provider to avoid accountability under the FCC’s rules, regardless of any actions it took (or failed to take) that contributed to the 911 outage.

Moreover, prohibiting a covered 911 service provider from being able to contractually avoid FCC-imposed duties and accountability would facilitate better coordination and collaboration among all covered 911 service providers and more clearly defined statements of work and outage resolution plans.\textsuperscript{15} Airbus would expect to see a host of improvements result from such changes, including more structured outage responses, the minimization of outage durations, and improvements in the 911 system generally.

\textbf{B. Covered 911 Service Providers Should Provide Notices of Major Changes to the 911 NOC Provider}

Airbus generally supports the FCC’s proposed notification requirement for “major changes” in 911 network architecture and service and believes that such notification requirement should apply to all entities covered by the FCC’s expanded definition of “covered 911 service

\textsuperscript{\textit{14} Id.}

\textsuperscript{\textit{15} In contrast, a rule that would allow a covered 911 service provider to delegate its FCC-imposed duties or shift its liabilities to others would disincentivize cooperation or responsibility in outage mitigation, increasing outage durations and undermining the goals of this proceeding.}
provider.”\textsuperscript{16} For ease of administration and to prevent unnecessary public concern, however, Airbus recommends that covered 911 service providers be required to report major changes associated with their systems/components to the 911 NOC Provider only, rather than directly to the FCC or the public, as discussed in Section F below.

Airbus supports the FCC’s proposal to establish an advisory committee to develop recommendations regarding the type of 911 network changes that will be deemed “major” for purposes of the notification requirement.\textsuperscript{17} The advisory committee should be comprised of public safety organizations, including CSRIC, TFOPA, NENA and APCO, and the covered 911 service provider community itself should be permitted to provide input. Major change notices should be provided 60 days in advance, as the FCC proposes.\textsuperscript{18} However, the FCC should create an exception to the notice requirement for changes that are necessary for safety-of-life or other exigent reasons.\textsuperscript{19}

The same notification process should be used for discontinuance or impairments of 911 service, rather than any FCC pre-approval process.\textsuperscript{20} A 60-day prior notification requirement would allow adequate transparency, and sufficient time for the FCC, affected PSAPs and/or relevant state authorities to address any concerns they might have about the discontinuances or

\textsuperscript{16} 911 Policy Statement and NPRM at ¶ 49-52.
\textsuperscript{17} Id. at ¶ 52.
\textsuperscript{18} Id. at ¶ 51.
\textsuperscript{19} See, e.g., 47 C.F.R. § 1.87(a) (permitting the FCC to require a license to be modified with less than 30-days notice, where safety of life or property is involved), § 1.1204(a)(3) (exempting ex parte presentations from the FCC’s rules, if they directly relate to an emergency involving safety of life or substantial loss of property).
\textsuperscript{20} 911 Policy Statement and NPRM at ¶ 53-56.
impairments, without the need for a potentially burdensome and unnecessary regulatory approval process.

C. The FCC Should Establish an Advisory Committee to Develop Guidelines for Network Reliability Practices

Airbus supports the FCC’s proposal to expand the range of network reliability practices covered by Section 12.4(b) and the corresponding annual certification.\textsuperscript{21} In addition to the three designated categories delineated in the current rule, covered 911 service providers should be required to take “all reasonable measures to provide reliable 911 service.”\textsuperscript{22} However, the Commission should turn to public safety organizations, such as CSRIC, TFOPA, NENA and APCO, and establish an advisory committee comprised of such entities to collaboratively develop the relevant guidelines.

Airbus supports establishing guideline best practices related to call processing equipment (“CPE”) operation and maintenance, both of which are vital links in the 911 call delivery chain. Similarly, the guidelines should describe redundancy, geo-diversity and reliability recommendations for CPE related to the design and implementation of shared, multi-jurisdictional call processing solutions.

D. The FCC Should Impose a Certification Requirement That Confirms Compliance with Guidelines for Operational Best Practices, Established by the Advisory Committee

Airbus generally supports the FCC’s proposal to require that the annual certification include compliance with operational best practices.\textsuperscript{23} Consistent with Airbus’ views regarding the substance of the FCC’s proposed major 911 system change reporting requirement, those best

\textsuperscript{21} Id. at ¶¶ 43-47.
\textsuperscript{22} Id. at ¶ 44.
\textsuperscript{23} Id. at ¶¶ 57-63.
practices should be developed collaboratively by an advisory committee comprised of public-safety organizations, including CSRIC, TFOPA, NENA, and APCO.

Nonetheless, Airbus offers the following suggestions to facilitate the FCC’s goal of ensuring reliability through certification. Covered 911 service providers should be required to self-certify that their IP-based 911 system is geographically distributed, load-balanced, and capable of automatic reroutes to backup equipment in the event of a hardware, network, software or database failure. Additionally, covered 911 service providers should be required to self-certify that cyber security has been implemented within their system and describe the level of protection provided. As part of its certification, the covered 911 service provider should be required to describe the process and automated systems that will be employed to satisfy the notification/reporting requirements.

Additionally, Airbus recommends that the FCC consider requiring covered 911 service providers that seek to offer new services that affect 911 call completion to self-certify to the Commission that they have the technical and operational capability to provide reliable 911 service. To the extent that a covered 911 service provider’s solution or service relies on IP-based networks, associated infrastructure such as servers and data centers, and/or associated software applications, such covered 911 service providers should have to certify they have conducted a reliability and security risk analysis of the network components, infrastructure, and/or software that they will use to support 911 call completion. The security and risk analysis required as part of the certification should be conducted by the covered 911 service providers themselves in accordance with the guidelines developed by the advisory committee discussed above. Airbus
believes that clearly defined and published guidelines will obviate the need for, and expense associated with, an independent third-party testing and certification requirement.\footnote{Id. at ¶ 47.}

E. The FCC Should Designate Covered 911 Service Providers That Have a Direct Contractual Relationship With PSAPs as 911 NOC Providers

Airbus supports the FCC’s proposal for the establishment of 911 NOC providers to assume primary responsibility for situational awareness and information sharing.\footnote{Id. at ¶¶ 64-75.} NOC providers would obtain information on outages from other covered 911 service providers, who would be required to provide information in response to reasonable NOC requests. NOC providers would be responsible for obtaining and disseminating outage information to the FCC, affected PSAPs and/or the relevant state authority, but not for any adverse consequences of outages or the remediation of outages.

Situational awareness, information sharing and notice responsibility should lie with the prime contractor, \textit{i.e.}, the entity with the direct contractual relationship with the PSAP to provide 911 service, on any given project in order not to put subcontractors in a situation of potentially interfering with the prime contractor’s agreements with PSAPs. Many states recognize the torts of interference with contract, interference with prospective economic advantage, and inducing breach. No subcontractor wants to tread in areas where these tort actions could be invoked, nor do they want to be placed in a situation where information they share or a notice they are obligated to provide to the FCC, a PSAP or state authority is adverse to the prime contractor’s interest.

Maintaining harmonious relationships between the prime contractor and its subcontractors is key to encouraging open communications, dialog and, thereby, accountability.
When parties feel adverse to one another, they stop sharing information, potentially jeopardizing reliability. Accordingly, Airbus believes that the traditional model of the prime contractor being the first line of communication with the PSAP should remain, and the prime contractor should be assigned the responsibility of 911 NOC Provider. Where there is no clear prime contractor (e.g., where the NG911 service is implemented in an “unbundled” manner with multiple direct contracts between the PSAP and several covered 911 service providers), the 911 NOC Provider responsibility should be assigned to the covered 911 service provider responsible for transport of 911 traffic to the PSAP/PSAPs, as the FCC proposes.\(^{26}\)

**F. The 911 NOC Providers Should Serve as a Clearinghouse for Failure and Outage Reporting and Major Change Notifications**

Consistent with the role Airbus envisions for the 911 NOC Provider, covered 911 service providers should be required to report failures and outages associated with their systems to the 911 NOC Provider. Upon notification from a covered 911 service provider of a system failure or outage, the 911 NOC Provider should then be responsible for: notifying the FCC, affected PSAPs and/or the relevant state authority; ongoing reporting; maintaining situational awareness; and coordinating failure resolution. Responsibilities of 911 NOC Providers also should include cyber security attack mitigation coordination and reporting. This allocation of reporting responsibilities would increase situational awareness and operational efficiency, decrease duplicative reporting and allow covered 911 service providers to focus on timely failure resolution.

Upon receipt of notification from the covered 911 service provider of a major change, the 911 NOC Provider would then be responsible for coordinating and communicating the major

\(^{26}\) *Id.* at ¶ 66.
change reports to the FCC, the affected PSAP and/or the state authority, as applicable. Public
reporting should be solely at the discretion and the responsibility of the PSAP and/or the relevant
state authority and should not be a required part of the FCC’s notification process. Frequent
public reporting could introduce unnecessary public panic and/or security risks or, alternatively, desensitize the public to such notices.

As part of their coordination responsibility, 911 NOC Providers should be required to
develop and maintain a covered 911 service provider matrix on a project-by-project basis. Such
a matrix, which would comprehensively identify the roles and responsibilities of relevant parties
and required support and escalation measures, would help facilitate the timely resolution of
multi-system failures involving multiple covered 911 service providers. As part of this matrix
development, the 911 NOC Provider should be responsible for developing collaboratively with
involved covered 911 service providers a list of information and data points, which covered 911
service providers would share with the 911 NOC Provider and other covered 911 service
providers during failures or outages.

Airbus believes websites and electronic dashboards are powerful tools and should be
considered by the FCC for providing a real-time status of critical 911 systems. Airbus offers a
website and dashboard feature to its maintenance providers and end users utilizing Airbus’
Managed Services and has found them to be extremely valuable for providing a real-time
understanding of system status.

A similar comprehensive database of PSAPs and state emergency contacts would also be
helpful to both 911 NOC Providers and covered 911 service providers. Such a database would
facilitate accurate and timely outage, recovery and change notifications. Airbus believes that it

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\[27\] \textit{Id. at ¶¶ 49-52.}\]
would be best for the FCC to maintain such a database. In fact, the FCC’s PSAP Text-to-911 readiness database could serve as a good starting point for the collection of the necessary contact information.28

IV. CONCLUSION

Airbus generally supports the FCC’s proposals to ensure reliability and accountability in the provision of 911 service, including expanding the scope of covered 911 service providers. However, to ensure that these proposed changes have the desired impact on provider behavior, the FCC should incorporate safeguards to prevent entities covered by the rules from delegating their FCC-imposed responsibilities (and/or shifting the associated costs and risks) onto other parties, through contractual provisions. With respect to specific, additional network reliability or best practices, associated certification requirements, and the definition of a major change in a 911 network, the Commission should establish an advisory committee comprised of public safety organizations, such as CSRIC, TFOPA, NENA and APCO, and rely on that committee to develop a comprehensive set of guidelines collaboratively.

Respectfully submitted,

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