

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

Comments –

Public Safety and Homeland Security Bureau
Seeks Comment on Whether the Commission's
Rules Concerning Disruptions to
communications Should Apply To Broadband
Internet Service Providers and Interconnected
Voice over Internet Protocol Service Providers

ET Docket No. 04-35

WC Docket No. 05-271

GN Docket Nos. 09-47

GN Docket No. 09-51

GN Docket No. 09-137

COMMENTS OF VONAGE HOLDINGS CORPORATION

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Vonage Holdings Corp. (“Vonage”) commends the Commission for its recognition that Americans are increasingly relying on IP-based technologies such as interconnected Voice over Internet Protocol (“VoIP”) services as substitutes for or complements to conventional communications technologies.¹ However, as a leading provider of over-the-top interconnected VoIP service, Vonage cautions that the Commission should not extend its existing outage reporting rules to over-the-top VoIP providers..

The existing outage reporting rules are designed for traditional services and for providers who largely have end-to-end control over their networks. Applying these requirements to over-the-top VoIP providers, which do not have similar control, would likely not produce meaningful information and would be duplicative of reporting by other providers. Over-the-top VoIP providers rely on third-party broadband Internet providers to transmit voice calls in IP format to and from their end users customers. When an end user customer’s broadband service is down, over-the-top VoIP will not work at all. Losing broadband Internet service is the primary reason that an over-the-top VoIP provider’s customer would experience a complete outage (i.e. not able to make or receive any calls). Thus, if the Commission seeks the best information about outages affecting services like Vonage’s it should look to underlying broadband providers, who will have more timely, complete, and accurate outage information.

Over-the-top VoIP providers also rely on third party telecommunications service providers to enable customers to receive inbound calls from the PSTN and to terminate calls to the PSTN. When there is a problem on a third party telecommunications carrier’s network, a

¹ See *Public Safety and Homeland Security Bureau Seeks Comment on Whether the Commission’s Rules Concerning Disruptions to communications Should Apply To Broadband Internet Service Providers and Interconnected Voice over Internet Protocol Service Providers*, Public Notice, ET Docket No. 04-35, WC Docket No. 05-271, GN Docket Nos. 09-47, 09-51 and 09-137, at 1 (July 2, 2010) (“*Outage Reporting PN*”).

Vonage customer would typically not experience a complete outage. For instance, the customer may not be able to receive inbound calls from the PSTN but could still receive inbound calls from other Vonage customers and place outbound calls to the PSTN or other Vonage customers. Again, the third party telecommunications provider would be in the best position to provide accurate and timely information about the extent of these problems.

Due to the flexible and redundant nature of the Vonage-controlled portions of its network, the vast majority of Vonage's call processing problems are caused either by a failure of the customer's broadband Internet service or problems on our third party telecommunications partners' networks. Even if Vonage had accurate and timely information on these problems, which it does not currently, Vonage's report on the customers impacted by these problems is not likely to be accurate. Due to the nomadic nature of its service, reporting an outage in a given geographic area is not likely to accurately reflect the number of impacted customers.

If the Commission were to nevertheless continue to proceed with applying outage reporting rules to over-the-top VoIP providers, it must also require outage reporting by broadband Internet providers. Further, it should only require over-the-top VoIP providers to report outages caused by network components controlled by the over-the-top VoIP provider, which do not duplicate reports provided by broadband Internet providers or the over-the-top VoIP provider's underlying telecommunications carriers.

I. The Commission's Existing Outage Reporting Requirements Will Not Generate Meaningful Data from Over-the-Top VoIP Providers.

Vonage strongly opposes the imposition of the Commission's Part 4 service outage reporting requirements to interconnected VoIP service providers. As a general matter, the Commission's rules governing common carriers and conventional telecommunications services are not necessarily appropriate for or applicable to services such as interconnected VoIP. The

Commission has recognized this fact in past proceedings,² and should not reflexively seek to harmonize regulatory regimes for very different services.

The Commission has explained that the purpose of its outage reporting rules is to “address communications systems vulnerabilities and help prevent further disruptions.”³ Imposing legacy outage reporting rules on interconnected VoIP providers would not advance these laudable goals. Unlike those traditional providers that typically have end-to-end control over their network, over-the-top interconnected VoIP service providers rely on both broadband Internet Service Providers (“ISPs”) for to transmit IP voice data to and from their customers and third party telecommunications carriers to receive calls from the PSTN and to transmit calls to the PSTN. When these providers experience service outages, Vonage customers experience outages as well.⁴ However, Vonage must rely on its underlying telecommunications service providers or unaffiliated ISPs to convey outage information to Vonage. These providers, in turn, prioritize responding to their outage and, for carriers, complying with their own outage reporting requirements. For these reasons, and because of their interest in protecting proprietary network information, these providers are often unwilling to provide Vonage with outage information that would be sufficiently timely or detailed for Vonage to fulfill Part 4 outage reporting requirements.

Similarly, Vonage’s estimates of customers affected by third-party outages are not likely to be accurate. By design, Vonage’s phone numbers and devices are portable, and permit customers to use their Vonage service from any broadband connection. When an underlying

² See, e.g., *IP-Enabled Services and E911 Requirements for IP-Enabled Services Providers*, First Report and Order and Notice of Proposed Rulemaking, WC Docket Nos. 04-36 and 05-196, 20 FCC Rcd 10245 (2005).

³ *Outage Reporting PN* at 1 n.1.

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provider or ISP reports an outage to Vonage, Vonage estimates how many accounts are active in the affected geographic area or NPA NXX. However, the actual impact of an outage in a geographic area would almost certainly not match the number of active accounts in the geographic area, due to the portability of Vonage's devices. Consequently, some customers with registered address in the relevant geographic area may not be using their service in the area and some customers with registered address outside the geographic area may be using their service in the relevant geographic area. Thus, any Vonage outage report would likely not accurately reflect the actual number of impacted customers. Moreover, accurate reporting will only become more difficult as consumers adopt mobile products and applications that enable them to use VoIP service from their smartphones and similar devices.

In addition, an outage on an underlying telecommunications carrier's network may affect only some of a Vonage customer's connectivity. For example, even when calls to or from a certain geographic area or NPA NXX fail over TDM, Vonage customers may be able to make or receive Vonage to Vonage or other IP-to-IP calls, and may retain their 911 connectivity. At minimum, if outage reporting rules are applied to providers like Vonage, the Commission should clarify what types of IP service loss constitute reportable outages. Taken together with the reporting challenges detailed above, these realities demonstrate that imposing existing outage reporting rules on providers like Vonage will not generate meaningful data for the Commission.

Notably, because it is capable of working over any broadband connection, Vonage's service is much less vulnerable to physical outages than most traditional wireline services. Unlike traditional DID services, for example, that depend on the continued function of a fixed central office switching node, Vonage's service will work wherever that customer has access to broadband and does not depend on the continued function of a dedicated physical node. Vonage

has designed its own network components with sufficient redundancy that an outage that is due to failure of Vonage-controlled network components is extremely unlikely. In order for Vonage-controlled network components to cause an outage, Vonage would have to suffer a simultaneous failure of all of its BSPs, which are located at four disparate sites.

For these reasons, if the Commission applies the Part 4 rules to over-the-top VoIP providers, it should take into account the differences between over-the-top VoIP service and traditional wireline and other communications services. Specifically, the Commission should require providers like Vonage to report outages only when those outages are entirely within the provider's control. If the Commission is concerned about receiving information about third-party outages that affect customers of over-the-top services, it should adopt rules that require third parties to share the information over-the-top providers need to make complete, accurate and timely outage reports.

II. Unnecessary Requirements Will Stifle Innovation and Prevent Deployment of Advanced Services.

Duplicative and unnecessary reporting requirements, if adopted, will discourage innovation and undermine the Commission's goals of ensuring that Americans enjoy full access to robust and reliable communications. Unnecessary regulation can serve as a barrier to entry to new services, and imposes compliance and other costs on existing providers. Providers like Vonage, who often would not have the information necessary to make timely and accurate reports, would bear the further risk and cost of enforcement action. These costs should be carefully weighed against the limited benefit of over-the-top VoIP outage reports that would largely document outages on third-party networks.

The Commission should use particular caution before adopting new rules given the important role emerging communications can play in times of emergency. Most notably, in the

aftermath of Hurricane Katrina New Orleans city leaders relied virtually entirely on VoIP services for five days after the failure of basic landline phone service.⁵ Today's innovators are continuing to advance the availability and flexibility of communications, and these innovators should be free to design their services without the burden of complying with potentially duplicative outage reporting requirements. This is particularly true as many new and existing services emerge that complement, rather than replace, more traditional communications. Complementary services – services that are not designed to serve as a subscriber's sole or primary source of telecommunications – should not be saddled with outage reporting requirements designed to measure subscribers' loss of their primary means of communication.

Finally, the Commission should recognize that the market already ensures that providers like Vonage respond quickly and effectively to customer outages. Vonage customers, and other customers of IP services, have long demonstrated their ability to share information about service outages using services like email and message boards. The widespread availability of this information ensures that Vonage has strong incentives to address outages and minimize customer disruption.

⁵ See *Nomadic VoIP: A Life-Saving Advantage in Katrina Emergency*, http://von.org/usr_files/Katrina%20%20--%20VoIP%20Response%20nomadic.pdf

Conclusion

Over-the-top interconnected VoIP service operates in a distinctly different fashion from conventional telecommunications services. The Commission therefore should not simply extend its existing outage reporting rules to services like Vonage. Instead, if the Commission decides to adopt outage reporting rules for services that ride on third-party broadband connections, those rules must require providers to report only that information that is entirely within their control and must require third-party providers to supply information within their control. Before acting, the Commission should also carefully consider whether the benefits of such requirements outweigh the costs of compliance and the potential harm to innovation.

Respectfully submitted,



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