Before the

FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	WC Docket No. 06-122
Universal Service Contribution Methodology	)	
	)	
A National Broadband Plan For Our Future	)	GN Docket No. 09-51

COMMENTS OF MICROSOFT CORPORATION

INTRODUCTION

Microsoft Corporation ("Microsoft") welcomes the Commission's initiative to reform and modernize the Universal Service Fund ("USF") contribution system. In its USF/ICC Transformation Order, the Commission recognized the fundamental importance of broadband to the nation's economy, and it realigned the USF distribution and intercarrier compensation systems to focus on the promotion of broadband deployment. [1] As a result of the Commission accomplishing those landmark reforms, the USF is now a critical component in the advancement of broadband deployment in the U.S. and thus the proliferation of applications and services that rely on broadband. However, the current contribution system has become economically unsustainable, misaligned with the focus on broadband deployment adopted by the Commission in the USF/ICC Transformation Order, and technologically discriminatory. As the Commission recognized in its Further Notice of Proposed Rulemaking ("FNPRM"), it also has proved to be overly complex and difficult to apply given the rapid changes in technology and

[1] *See* Connect America Fund et al., WC Docket No. 10-90 et al., *Report and Order and Further Notice of Proposed Rulemaking*, 26 FCC Rcd 17663 (2011) ("USF/ICC Transformation Order"), pets. for review pending, *Direct Commc'ns Cedar Valley, LLC v. FCC*, No. 11-9581 (10th Cir. filed Dec. 18, 2011) (and consolidated cases).

the introduction of new products to meet the evolving needs of end-users.[2] The absence of clear guidance on the application of the rules has led to divergent views on USF contribution obligations and a proliferation of long-running, unresolved proceedings over how the contribution regime applies to specific offerings. This has resulted in uncertainty and increased costs for communications providers and their customers. Consequently, just as the Commission reformed the intercarrier compensation system and USF distribution mechanisms, fundamental reform of the contribution system is now urgently needed.

Any efforts toward reform must remain true to the Commission's goals of creating a simpler, fairer and more sustainable USF contribution system. And it is precisely for this reason that the Commission should reject proposals to extend USF liability to one-way VoIP products. The Commission also should reject any proposed change that would make an "over-the-top" product that is capable of sending a text message from an Internet connection to a wireless user via short message service ("SMS") subject to USF liability. Such changes would not advance the Commission's objectives for reform. To the contrary, they would impose significant regulatory burdens on unregulated information services, exacerbate the complexities of today's contribution system, and fall short of the Commission's additional goals of a fair and sustainable system.[3] A USF contribution system that is efficient, fair and sustainable is one that does not attempt to impose USF obligations on products that merely operate over the top of network access services that end-users purchase separately. That approach is consistent with the Commission's long-standing policy of only requiring USF contributions with respect to

[2] In the Matter of Universal Service Contribution Methodology, *Further Notice of Proposed Rulemaking*, WC Docket No. 06-122 *et al.*, FCC 12-46 (rel. April 30, 2012) ("FNPRM"), at ¶ 23.
[3] *See* FNPRM at ¶¶ 22-25.

telecommunications services within the meaning of the Communications Act and similar services that are replacements for telecommunications services (i.e. “interconnected VoIP”).

DISCUSSION

During this period of rapid change, we caution the Commission against extending USF liability to new communications applications without carefully considering the effect of such changes on innovative products with communications features and the complexities of trying to apply USF contribution rules to such products. Individuals and organizations increasingly rely on communications features that are integrated into software products and online applications in order to be more productive and to keep in touch with co-workers and contacts in new and highly flexible ways. While these products make use of network access services that end-users purchase separately, the communications features of these products operate independent of any particular network or service platform. As adoption of these products increases, their impact on the wider economy will grow through the increased efficiencies and greater competitiveness that result from their communications-enabled features.

I. The Commission should not extend USF contribution obligations to communications products that are used independent of particular networks or platforms.

A. Communications features are being integrated into an increasingly diverse range of Internet-connected products.

Individuals and businesses can now use software applications and web-based services for many different forms of communications, whether email, instant messaging (“IM”) or voice, by utilizing the Internet connections that are available to them where they are. Microsoft’s Skype software, for example, is one of the world’s most popular applications for such Internet-based communications, enabling person-to-person audio and video calling, multi-party audio/video sessions and instant messaging between a range of different connected devices. The Skype application also allows users to make calls to telephone numbers from a computer or other Internet-connected device and to send text messages to a mobile operator's SMS service. In addition to Skype, Microsoft offers cloud-based applications and desktop software that allow users to contact family, friends and co-workers wherever they happen to be and on whatever device they happen to be using via the Internet. For example, Windows Live Messenger allows IMs to be sent to other Windows Live Messenger users, or emails to be sent to any other email address, as long as the user has an Internet connection. In addition, Microsoft's Lync products permit VoIP calls to be made via the Internet or a third-party data connection to computers, smartphones, tablets and any other Internet-connected device.

Features have also been added to Microsoft products to meet the market demand for "unified communications" – the ability to access and manage different types of communications through a single application and to send messages to whatever device is best for reaching someone at a given time.[4] For example, Microsoft's large enterprise customers want the efficiency of advanced "unified communications" solutions that integrate their voice, email and IM communications systems but can operate across an enterprise's internal data networks and the public switched telephone network, including in some cases across multiple international jurisdictions. Similarly, users of Microsoft's consumer and small business products need cost-effective solutions for organizing all of their communications and ensuring they can

[4] We note the 2012 TIA Market Review and Forecast (discussed in the FNPRM at ¶ 48) refers to "unified communications" in the context of providing an estimate of the size of the total marketplace for enterprise services. The TIA estimate includes a number of services that are not "transmission services," which should therefore remain outside the scope of USF-assessable services. These include unified communications, videoconferencing and web conferencing services.

receive a message on a variety of devices no matter where they happen to be or on what network they are using to access the Internet.[5]

These products meet the needs of individuals, businesses, public sector agencies, academic institutions and non-profit organizations for flexible, unified communications applications. They are products that reflect a world in which people are able to receive messages in a variety of ways across different connected devices. In addition to making individuals and organizations more productive, these new communications applications have a positive impact on economic growth through increased efficiency and greater competitiveness.

B. Network-independent communications applications should not be USF-assessable as if they were telecommunications services.

The products described above reflect the trend toward enabling communications across various platforms and networks through so-called "over-the-top" or "network-independent" applications. That trend is anticipated to continue to accelerate, leading to a vast array of applications which will all be used in different ways over different media for one broad purpose: to communicate with other users of the same or even different applications. Further, given the pace of technological evolution in the cloud, it is impossible to predict which of today's applications (indeed, whether any of them) will be the predominant means of communication in the near future, or whether new applications not even on the drawing board today will predominate. Thus, the Commission's proposal to continue along the path of identifying, on a *post facto* and *ad hoc* basis, specific products and services for USF assessment would result in creating artificial and unsustainable distinctions in a 21st Century broadband

[5] As described below, these over-the-top communications capabilities can be reasonably distinguished from "interconnected VoIP services" because, unlike "interconnected VoIP services," they are not intended to replace – and thus are not positioned to compete with – the telecommunications services that are subject to USF today.

cloud-based marketplace.[6] While these products – whether VoIP, email, IM or other applications still on the horizon – allow users to take full advantage of the network transmission services they have purchased from a third-party operator, they are not – as standalone applications – telecommunications services that should be subject to USF liability. They are not telecommunications services under the Communications Act, they are not intended or used as replacements for telecommunications services, and they are largely dissimilar to and fundamentally distinguishable from USF-assessable services.

They are also dissimilar in that it would be more difficult for providers of these products to operate within the existing USF contribution framework. For example, for such network-independent communications applications that often include a number of communication tools (e.g., email, IM and VoIP) for a flat fee, it may not be clear how to allocate revenues between assessable and non-assessable features, particularly if the provider has no business justification for separately tracking the costs or revenues associated with each specific feature. Moreover, many such over-the-top communications applications are offered for free, thus further complicating any revenues-based approach to USF assessment. Finally, as unregulated providers of information services, it is highly unlikely that any over-the-top communications provider today has the billing and operational backend to easily calculate, assess, remit (and, as appropriate, pass through) USF contributions, thus further exacerbating the cost of this proposed expansion of the USF system.[7]

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[6] *See* FNPRM at ¶ 40.

[7] To the extent the Commission nonetheless chooses to expand the USF obligation to over-the-top offerings, substantial lead-in time must be provided to give providers an opportunity to review their business models and potentially set up the necessary systems to bill their customers. In particular, an adequate transition period must be provided.

The Commission's proposal will also have a disproportionate impact on certain types of network-independent applications: those that fall within the definition of a specific assessable service because of a particular technical characteristic (for example, sending VoIP or IM packets to a PSTN number) will be subject to USF contributions while functionally similar messaging applications (such as PC-to-PC VoIP and instant messaging between two IP endpoints) will not be required to make USF contributions. Any attempt to enact consistent treatment of all similar communications applications, however, would extend far beyond the Commission's permissive authority by potentially applying USF assessments on all network-independent communications applications, including increasingly popular communications applications such as those integrated within social media platforms. Such an expansion cannot be justified within the Commission's permissive authority to impose USF obligations on providers of interstate telecommunications.

The Commission's proposal to assess certain over-the-top applications does not create an equitable, sustainable USF contribution system that reflects the realities and promotes the advancement of the broadband networks of today and tomorrow. A system for assessing USF contributions based on whether or not an application uses a particular type of network (e.g., the PSTN) to route a particular message in a particular medium or format at a given time fails to recognize the blending of different formats for communication – audio, video and text – with different means of communication – real-time vs. non-real-time – which are accessed on devices that are often connected to different types of networks at any given time, and does not take into account the realities of 21st Century communications. Such a system, as a result, will not be sustainable over the longer term and will become – like today's contribution system -- increasingly more difficult to administer.

C. In particular, the Commission should not impose USF contribution requirements on one-way VoIP services because they are not replacements for telecommunications services to which USF contribution applies today and the associated administrative complexity and compliance burdens would outweigh any potential benefits.

The Commission proposes to define a "one-way VoIP service" as any service that "permits users generally to receive calls that originate on the public switched telephone network or terminate calls to the public switched telephone network."[8] Skype's "Call Phones and Mobiles" and "Online Number" products are likely to be considered one-way VoIP services under this definition. However, because these products are not intended or used as replacements for a user's primary PSTN calling service, neither Skype nor other one-way VoIP products should be subject to USF contributions.

A USF system that extends the USF contribution obligation to one-way VoIP services fails to account for the marketplace realities of one-way PSTN VoIP and, moreover, does not meet the statutory requirement for extending USF contributions beyond telecommunications carriers. One-way PSTN VoIP services are clearly information services because they require a change in the format of communications in order for a message to be transmitted between IP and PSTN endpoints; therefore, the Commission has only permissive authority to assess USF if it can demonstrate a clear public interest.[9] One-way PSTN VoIP services do not "compete with" the services provided by common carriers; nor are they "being used by consumers in lieu of

[8] *See* FNPRM at ¶ 58.
[9] *See* 47 U.S.C. § 254(d).

traditional voice telephony."[10] Moreover, as described below, because the costs, burdens and disadvantages of extending USF obligations to these information services outweigh any possible advantages, there is insufficient justification for assessing USF contributions on such services.

First, the Commission's proposal to assess USF on one-way VoIP services is inconsistent with the Communications Act and the Commission's past decisions regarding USF-assessable services. Products with the kinds of one-way telephone calling capabilities described above have very little in common with the telecommunications services that were originally intended to be subject to USF assessment when the Communications Act was enacted. Given the intent behind the Communications Act, the Commission has taken a consistent approach in limiting the imposition of regulatory obligations to only those services that had similarities to, and competed with, traditional telecommunications services.[11] For example, a one-way VoIP service is much different from an "interconnected VoIP service," most notably because it is neither intended to be nor is used as a replacement for a consumer's traditional wireline or wireless service. One-way VoIP services could not be viewed as replacements or close substitutes for telecommunications services – and, in fact, in the case of Skype's calling products, are not viewed as replacements by consumers.[12] Assessing USF on one-way PSTN VoIP would be a significant departure from the Commission's current approach, and as described herein, such a departure offers no public interest justification.

Second, the Commission's proposed definition of one-way VoIP services casts an unreasonably broad net, capturing essentially anything that permits a telephone call to be

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[10] *See* FNPRM at ¶ 59.

[11] *See* FNPRM at ¶ 59.

[12] A 2011 survey of Skype users found that the overwhelming majority of Skype users consider Skype a *complement to* rather than a replacement for traditional telephone service. *See* Comments of Skype Communications S.a.r.l., WC Docket No. 05-196 *et al*, at 12 (filed Nov. 2, 2011).

made to or to be received from a computer, smartphone or tablet. Using such a broad trigger makes a wide variety of applications subject to USF assessment. Any software application or cloud-based service that includes a telephone calling feature would become subject to USF. This would potentially include "click-to-call" features included on a business' website to make it easier for Internet users to call the business or for customers to contact a business' customer service helpline. Although these services are intended for the sole purpose of enabling calls to one particular telephone number for one particular purpose, they are enabling a "one way" VoIP call to the PSTN and, therefore, likely would be subject to USF assessments. Moreover, the proposed definition would likely apply to interactive voice response and auto attendant services for businesses that are based on calling a telephone number. Similarly, it would also include information services that are primarily used for IP-based voice or video but that also enable outbound calls to telephone numbers as an ancillary feature. Wading into this minefield of varying one-way calling products and services – all of which are information services previously subject to no Commission regulation – ensures a USF system that will create complexity (some features are in; some are out); confusion (on a provider-by-provider basis, determining whether a particular application/product/service is in or out and then figuring out how to assess it); and, very likely, continued disparity in the treatment of functionally-similar products as a result of this complexity. None of these results serve the Commission's stated goals in the FNPRM.

Third, even for those providers that are clearly considered to be offering "one-way VoIP services", it will be difficult to allocate USF-assessable revenues properly. For example, because users can make a call from any Internet access point – wherever in the world the user may be at the moment – a one-way VoIP provider typically does not know where a user is located when a call is made. Therefore, it is impossible to determine with any certainty whether a PSTN call is intrastate, interstate or international. Difficult decisions about bundled service revenues will also need to be made as providers often offer a mix of assessable and non-assessable features together for a single fee. Finally, many one-way VoIP providers would be forced to incur significant costs to set up new billing and backend systems that are unnecessary to their businesses today in order to calculate, charge, remit and collect USF contributions from customers. This will result in potentially higher compliance costs for one-way VoIP providers than telecommunications carriers, introduce more uncertainty in the application of USF contribution methodology and increase the likelihood of complex audits in the future.

Given the costs that would be imposed on these providers of information services, the additional administrative complexities described above, and the fact that these types of over-the-top services are not similarly situated to the telecom services contributing to the USF today, there is no public interest justification for imposing USF contribution requirements on one-way VoIP services. This lack of a public interest justification is further demonstrated by the fact that there is no evidence that a one-way VoIP USF charge is likely to produce significant contributions to the Universal Service Fund, particularly given that some well-known one-way VoIP services do not charge users (e.g. Google Voice). Consequently, the administrative complexities and extra compliance burdens far outweigh any USF contributions collected from one-way VoIP service providers. Therefore, the Commission cannot demonstrate that it is in the public interest to impose USF contributions on such providers based on the Commission's permissive authority under section 254(d).

D. The use of Internet-based applications to send text messages should not be subject to USF liability.

The Commission has also sought comments as to whether it should assess USF contributions on "text messaging services".[13] For many of the same reasons noted above with regard to one-way VoIP services, it would be similarly inappropriate for the Commission to assess USF contributions on these information services. If the Commission nonetheless determines that the public interest requires the imposition of USF contributions with respect to "text messaging services", the relevant definition of text messaging must clearly exclude over-the-top Internet-based communications applications that enable a text message to be sent from the Internet to a mobile operator's SMS services. There is no question that the ability to send a text message from an over-the-top Internet-based communications application is an information service and not a telecommunications service. Such use of text messaging requires the storing and forwarding of information from the Internet to wireless carriers' SMS services as well as the processing and transforming of information through net protocol conversions.

It is now widely recognized that text messaging – particularly when used through Internet-based applications or other network-independent communications mechanisms – is effectively another form of email service. Like text messaging, email messages are stored and retrieved, as well as forwarded, during and after delivery. In contrast to voice services, which are synchronous, both email and text messaging are asynchronous forms of communications. Thus, to the extent that the Commission may be considering that consumers are substituting text messaging for traditional voice services, the more pertinent observation is that text messaging has become a substitute for traditional email. In fact, in many ways, the two have

[13] *See* FNPRM at ¶ 49.

become functionally indistinguishable from each other. And significantly, the Commission has itself rejected suggestions that email is a telecommunications service.[14]

Finally, there are important public policy reasons why text messages should not be deemed a regulated telecommunications service – even if only for the purposes of USF contributions. Text messaging has become increasingly popular as an inexpensive and flexible means of communication. Moreover, to impose a USF contribution obligation on Internet-based text messaging, but not functionally similar information services like email, would be inequitable to both service providers and consumers. It would also impose additional costs on service providers in determining what features are assessable and how any revenues should be allocated between assessable and non-assessable features. Any additional USF contributions would likely be small. For these reasons, it is not in the public interest to make text messaging subject to mandatory USF assessments.

II. The Commission should consider more comprehensive reforms, such as assessing contributions based on connections.

Rather than merely consider adding new services to the existing USF contribution mechanism, which the Commission has appropriately recognized is a complicated and complex system, the Commission should give careful consideration to broader proposals to change the way that USF is assessed. Certainly a move away from the current revenues-based contribution system seems likely to be more fair, far less complex and more sustainable over the long run. In particular, a system centered on connections has significant merit and should be thoroughly

[14] *See Federal-State Joint Board on Universal Service*, Report to Congress, 13 FCC Rcd. 11501, ¶ 78 (1998) (rejecting argument that email is a telecommunications service because it "utilizes data storage as a key feature of the service offering" and "continue[s] to store all or part of the original message, to rewrite it, to forward all or part of it to third parties, or otherwise to process its contents…").

evaluated.[15] Such a system not only would be fully consistent with the Commission's reform of the intercarrier compensation and USF distribution systems to promote broadband deployment, but also would be better suited to the ways in which communications networks are now used and to how providers deliver and charge their customers for communications services. Appropriately acknowledging the increasingly important distinction between the networks that transmit data and the end-user applications that operate over such networks would be an important outcome of the Commission's reform as it will lead to a more sustainable contribution model for the long term.

The Commission is right to consider more fundamental reforms, such as changing the basis on which contributions are assessed. In particular, while the various proposals for implementing a connections-based approach should be evaluated carefully, it is clear that such an approach has several advantages over imposing contributions on certain types of revenue:

- ***A potentially simpler system to administer***. It should be easier for providers to understand when they must pay and how their contributions are calculated. A more practical and predictable system is less likely to require lengthy audits or produce disputes, which would lower the costs of administration as well as compliance.
- ***Better fit with current business models***. A revenues-based approach is not a good fit with the increasingly favored charging model of grouping different kinds of features and services into price bundles. Introducing new USF liability on a portion of those groupings may have a disproportionate impact on certain business models and require changes in pricing or product features solely to satisfy USF requirements to the detriment of innovation and consumers.

[15] *See* FNPRM at ¶ 219 *et seq.*

- ***Layered nature of current networks and services***. A connections-based contribution system is also more consistent with the increasingly layered nature of communications, in which various communications applications and services are independent of the transmission networks over which they are used.
- ***More technologically-neutral***. The revenues-based approach makes only certain types of communications applications (e.g. POTS, VoIP with PSTN calling features) subject to assessment while leaving others (e.g. VoIP without PSTN calling, IP-based instant messaging, Internet data/file sharing) outside the contribution framework. A connections-based approach, on the other hand, is less likely to leave in place distinctions between different types of networks and various protocols for data transmission.
- ***Better alignment with the new USF focus on broadband***. A connections-based approach also brings the USF contribution system into closer alignment with the reforms that have recently been made to the USF distribution programs. The Commission's work in updating USF distribution programs is an important step in ensuring that broadband is widely available, which is vital to economic recovery and equal access to the cloud-based services that are transforming the use of information technology.

We urge the Commission to take this opportunity to examine reforms beyond simply trying to expand the number of contributors to the current flawed system and consider more fundamental changes in approach that would produce a more robust and stable system for USF contribution funding over the long term. More fundamental reform is more likely to produce a contribution framework that will achieve the Commission's stated goals and survive the continuation of ongoing trends in the relationship between communications networks and the applications that use them.

CONCLUSION

For the reasons stated here, Microsoft supports fundamental reform of the USF contribution system. However, if the Commission elects to pursue less fundamental reforms by merely broadening the base while working within the same basic structure of the current system, the FCC must consider the fairness, efficiency and sustainability of extending USF assessment beyond telecommunications services and those that are intended to replace and compete with them. There is no public interest justification for extending USF contribution obligations to information services such as one-way VoIP and Internet-based text messaging services that do not compete with, are not similarly situated to, and thus are not intended as replacements for those services that traditionally have contributed to the Universal Service Fund.

Respectfully submitted,

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